

Building a Community-Centered Public Health Advocacy Training Program for Medical Students

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ABSTRACT

Context: Public health advocacy is increasingly acknowledged as an essential component of practice in medicine. Medical schools, residency programs, and professional organizations have begun developing curricula in an effort to teach advocacy. This article describes the structuring and evolution of the Dr Pete Dehnel Public Health Advocacy Fellowship, an innovative program prioritizing a community-centered approach to teaching physician advocacy to medical students.

Program: Created by the Twin Cities Medical Society (TCMS), the fellowship's curriculum adopts a cohort-based learning model organized around skills training, personalized physician-mentor pairing in a shared field of interest, and hands-on advocacy activities. The curriculum also centers insights and practical knowledge from community members who are outside of the health care sphere alongside those of experienced physician-advocates.

Implementation: TCMS partnered with an independent research organization to conduct an ongoing developmental evaluation (DE) of the fellowship. DE focuses on rapid-cycle feedback and utilization of findings to inform the development of program components. This enables TCMS to customize the fellowship's curricular components to the local context and in response to student and mentor feedback.

Evaluation: Early findings have allowed TCMS to refine curricular components while providing evidence of significant gains in 3 areas of growth among fellows: perceived knowledge and advocacy skills proficiency; perceived self-efficacy; and motivation for lifelong advocacy practice.

Discussion: Key fellowship components, including a flexible curricular structure with built-in adaptability and emphasis on long-term health advocacy engagement, are associated with student growth. These core elements along with a focus on community-centeredness can be integrated into curricula of other programs seeking to train medical learners and physicians to embrace a lifelong commitment to public health advocacy.

KEY WORDS: advocacy, curriculum, health policy, medical education, medical student, physician

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Context

Public health advocacy is increasingly recognized as an essential component of practice for physicians. There is growing awareness that the trust, status, and privilege enjoyed by physicians require reciprocal involvement in social and public health issues.¹ Across North America, physicians,² training programs,³ and professional medical societies⁴ have called for the

Human Participation Compliance Statement: All surveys and interviews were voluntary. Surveys were online and anonymous. If students opted to participate in interviews, they were read a brief statement about the purpose of the data collection and the voluntary and confidential nature of interviews.

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development of systems-level advocacy training for medical doctors and trainees.

Literature indicates that while most medical students, residents, and physicians recognize the need for physician advocacy, many report that they have neither the competency nor the training necessary to be effective advocates.^{5,6} In response, many medical schools,^{7,8} residency programs,^{9,10} and professional organizations¹¹ have developed curricula, workshops, and other creative learning opportunities to teach physician advocacy.

A review of published programs details a wide variety of components, including didactic teaching of the basics of health policy,¹² advocacy skills training such as effectively communicating with legislators¹³ and writing for a lay audience⁹ (eg, letters to the editor and opinion pieces), and experiential components such as in-person meetings with legislators.¹⁰ In addition, a growing number of programs are also training medical students and residents to foster long-term community partnerships^{8,14} and to prioritize working on advocacy issues identified by impacted communities.

The Twin Cities Medical Society (TCMS) is a local medical association in Minnesota with long-standing engagement in health policy and advocacy. Working alongside Minnesota's legislature and communities, TCMS has worked to promote standardized statewide advanced care planning and address health disparities created by menthol tobacco sales, among other public health issues.

The Dr Pete Dehnel Public Health Advocacy Fellowship, a 9-month advocacy training program offered annually, was created in 2018 following the recognition that TCMS's continued commitment to physician advocacy requires the intentional training of future physicians. In this article, we describe our fellowship's development, structure, and evolution, which can be used as a framework to develop or enhance medical student advocacy training programs. We also elaborate on our fellowship's unique non-hierarchical, cohort-based learning model that can adapt to real-time feedback. Per our review of the literature, ours is the only physician advocacy training program for medical students outside of the hierarchy of a medical school training program. In addition, we describe how our fellowship is grounded in a community-centered training approach that aims to train future physicians to pursue long-term, transformative change.

Program

Recruitment and roles

Since 2018, every spring, TCMS has invited medical students from the University of Minnesota (UMN)

Medical School (both the Twin Cities and Duluth campuses) to apply to the 9-month* Dr Pete Dehnel Public Health Advocacy Fellowship. All students, including incoming first-year medical students, are encouraged to apply. During the application process, students are asked to identify an area of advocacy interest through essay writing. Based on the interest(s) indicated, TCMS staff pair each accepted student with a local physician-advocate to provide personalized mentorship. Students do not receive academic credit for their participation, typically spend an estimated 3 to 6 hours per month on fellowship activities, and are expected to proactively manage medical school commitments in addition to fellowship activities.

Physician-mentors are identified by TCMS staff through word of mouth in the community, referrals from medical students and peers, and advocacy work showcased in traditional and social media outlets. Physicians who partner with impacted communities to pursue advocacy are given strong preference and contacted by TCMS staff for recruitment every year. Physician-advocates can be part of any local health care system and are not exclusive to the UMN Medical School or TCMS membership. Mentors participate in the opening workshop at the start of each year and receive monthly e-mail updates from TCMS staff. No formal training is provided to mentors.

TCMS staff (who have experience with the legislature, nonprofits, and public health) facilitate program activities and provide ongoing personalized support* for fellows.[†] This support includes facilitating connections with community-advocates, troubleshooting problems (eg, navigating the legislative process), clarifying program elements, providing encouragement, and celebrating student growth.

While TCMS does draw on established relationships with community organizations to facilitate the program, the fellowship program has no formal partnerships with local academic programs, community nonprofits, or public health agencies.

Approach

TCMS's approach to advocacy is grounded in emerging research¹⁵ that posits systemic change is best

*The fellowship is 9-months long. For simplicity, we will use the term "year" instead in this paper. "Year 1" refers to the 2018-2019 fellowship year, "Year 2" refers to the 2019-2020 fellowship year, and "Year 3" refers to the 2020-2021 fellowship year.

[†]We use the terms "fellow" and "fellowship" in this paper to refer to medical students who are part of the TCMS Dr Pete Dehnel Public Health Advocacy Fellowship only. We do not reference post-graduate medical education fellowships in this paper. The terms "student(s)" and "fellow(s)" are used interchangeably. The terms "fellowship" and "program" are also used interchangeably.

accomplished when advocacy is undertaken in partnership with communities most impacted by the issues at hand. Thus, the fellowship was created with the understanding that an effective physician advocacy training program must be community-centered. TCMS defines community-centeredness as an approach to advocacy where (1) advocacy issues and solutions are sourced from the community, (2) physicians and nonmedical partners share equal power, and (3) physician-advocates focus on upholding equity not only in outcomes but also in the advocacy process. This approach is central to both the fellowship's curriculum and its working environment.

The curriculum intentionally centers insights and experiences from community-advocates outside of the health care sphere alongside those of experienced physician-advocates. Particularly foundational to the program's understanding of community-centered advocacy is the work of Ricardo Levins Morales, a local Minnesota artist and organizer. Morales' expertise, which lies in creating political and cultural narratives that support social change, teaches that community engagement and coalition building are just as critical to health advocacy as is the utilization of legislative approaches.

Community-centeredness is reinforced by the fellowship's nonhierarchical structure. While some physician-mentors may hold teaching or leadership positions within the UMN Medical School or other local organizations, there is a strong emphasis on bypassing the traditional top-down communication structures often seen in medical training programs. Mentors are asked to share their advocacy experiences and personal development as a physician-advocate (eg, tackling imposter syndrome). By intentionally fostering an equal partnership between TCMS staff, advocacy fellows, physician-mentors, and community-advocates, a nonhierarchical standard in communication and culture is normalized at the beginning of every fellowship year. This (1) allows TCMS staff to provide personalized support to fellows, (2) encourages authentic peer-to-peer relationships between fellows and physician-mentors, and (3) reframes traditional ideas of health expertise from a pyramidal to a reciprocal model between students, physicians, and community members.

Curricular components

The fellowship adopts a cohort-based learning model in which students progress through the fellowship as a group to promote peer-to-peer learning. The 3 key curricular components of the fellowship are as follows: (1) informational and skills training in public health advocacy; (2) personalized mentoring by a physician-advocate in a shared field of interest;

and (3) participation in hands-on advocacy activities. Table 1 outlines the timeline and program elements of the curriculum for year 3.

Informational and skills training (eg, legislative process overview and communication training) is taught through workshops led by TCMS staff and local community-advocates throughout the year. All fellows are asked to commit to attending 3 in-person activities: the September opening workshop, January legislative workshop, and the May closing ceremony. All other training sessions are scheduled to accommodate as many students' schedules as possible, with one-half to two-thirds of students in attendance on average. These sessions are either held online or as hybrid online/in-person events, allowing absent fellows to access recordings and materials at their convenience.

The program's curriculum builds upon well-established teaching pedagogy, especially cohort-based¹⁶ and experiential learning models.¹⁷ Thus, a series of online activities and exercises have been developed over the years to help fellows practice advocacy skills while receiving feedback from peers. These include writing and practicing a short "elevator pitch," or writing and reviewing an op-ed related to their advocacy topic, among others (Table 1). Many of these are optional activities, useful for students who seek further development of their skills.

Fellows are encouraged to meet with their physician-mentors once a month and are given autonomy to customize the relationship. Mentors can facilitate connections with community-advocates in the fellow's field of interest, guide the fellow's work, or have informal conversations regarding the practice of physician advocacy. Joint meetings between physician-mentors, community-advocates, and fellows occur as needed to support hands-on advocacy activities.

Hands-on advocacy activities are identified by fellows during the early months of the fellowship based on either their own interests or discussion with physician-mentors. These activities are diverse and can be pursued independently or in collaboration with TCMS staff, physician-mentors, and community-advocates.

Some examples from previous years include submitting timely letters to the editor, organizing grassroots petition campaigns, engaging in nonpartisan voter registration with community organizations, and participating in a creative science communication "teach-in" on climate health impacts with elected officials, forming a campus chapter of "Health Students for a Healthy Climate" focused on environmental justice, providing a summary of the impact of douglas on racial health inequities to a federal advisory committee, and designing a process to increase the use of Psychiatric

TABLE 1**Timeline and Program Elements of Curricular Activities Undertaken in Year 3 (2020-2021) of the Fellowship****Timeline of Program Activities****August**

- Program overview and introductions

September

- Opening Workshop
 - Training on the importance of cultural narratives from Ricardo Levins Morales
 - Question and answer time with experienced physician-advocates
- Coffee with small group of program participants to get to know each other
- Initial meeting with physician-mentor
- Begin meeting with community organizations working in area of interest

October

- Virtual Dinner Groups
 - Overview of several pathways that can be used for creating public health change, ranging from community-based change to legislative change
 - Reflection and sharing on personal strengths, areas of growth, and goals
 - Set personal goal for advocacy/leadership development during the program
- Meet with mentor (personalized meeting frequency)
- Continued relationship building and collaboration with community organizations (personalized meeting frequency)

November and December

- Communications training using “Now, Wow, How” issue framing tool from Eleonore Wesslerle
- Record elevator pitch using lessons learned from the communications training and provide feedback for peers
- Set up meeting with local or statewide elected officials (optional)
- Meet with mentor (personalized meeting frequency)
- Continued relationship building and collaboration with community organizations (personalized meeting frequency)

January

- Legislative Workshop
 - Overview of state-level legislative processes
 - Question and answer with lobbyist about how advocates can best impact legislative change
 - Discussion with nurse and elected official, Minnesota State Representative Erin Murphy
- Meet with mentor (personalized meeting frequency)
- Continued relationship building and collaboration with community organizations (personalized meeting frequency)

February

- Discussion on the intersection of advocacy, medical practice, and wellness with experienced physician-advocates
- Coffee with small group of program participants to discuss strategies to create a sustainable advocacy practice
- Learning module on crafting and submitting a letter to the editor or op-ed (optional)
- Write a letter to the editor, swap for peer feedback, and submit for publication (optional)
- Meet with mentor (personalized meeting frequency)
- Continued relationship building and collaboration with community organizations (personalized meeting frequency)

March

- Meet and greet with lawmakers and staff at the Minnesota State Capitol
- Meet with mentor (personalized meeting frequency)
- Continued relationship building and collaboration with community organizations (personalized meeting frequency)

April

- Coffee with small group of program participants to reflect on lessons learned and what comes next
- Closing session to reflect upon, and celebrate participants’ growth and learning over the course of the program
- If applicable, plan for ongoing engagement with community organizations working in area of interest

Advance Directives at the state’s largest psychiatric hospital. These activities provide an opportunity for students to gain concrete policy and political knowledge and a chance to further build advocacy skills through practice. While participation in hands-on activities is encouraged, it is not required for successful completion of the fellowship.

In addition to the 3 broad components of training, mentorship, and hands-on activities described earlier, the program has built-in adaptability. This adaptability is made possible through a specific program development approach called developmental evalu-

ation (DE), which allows real-time feedback from students and mentors, and changing local advocacy needs to be incorporated to modify the curriculum during the fellowship year. Thus, Table 1 is unique for year 3 while also representing the core components of the curriculum. DE is explored in detail in the “Evaluation” section.

Funding

Funding for the program provided by the Physicians Foundation has grown from approximately \$20 000

in year 1 to approximately \$60 000 in year 3. The largest expenses are staff time, event costs, and contract evaluation services. Grant funding supports 12 hours per week of staff time, though TCMS staff provide additional time required at TCMS's expense (estimated 5-15 hours per week).

Evaluation

Early in the program's development, TCMS partnered with Rise Research, an independent Minneapolis-based research and evaluation organization, to conduct DE of the fellowship. DE is an approach to evaluation that focuses on rapid-cycle feedback and ongoing utilization of findings to inform the development of program components. The adaptability awarded by DE enables TCMS to respond effectively to changing needs as identified by advocacy fellows. Data collected as part of DE has allowed TCMS to make changes to the curriculum both during the course of each fellowship year and at the beginning of subsequent years.

Figure 1 depicts the types of data collected as part of DE. Data collection was completed through a series of online surveys taken by fellows about program activities during the program year, semi-structured interviews between fellows and staff, and a brief survey with mentors at the end of the program year. Online surveys about program activities were distributed to fellows via Qualtrics and analyzed in rapid cycles to permit ongoing refinement of curricular components. Simple descriptive statistics were created to measure students' responses. Interview data from the end of each year were transcribed and analyzed in NVivo Qualitative Software. Both the online survey data collected multiple times during the year and the interview data collected at the end of the year were used to inform changes in the curriculum. These curricular

changes are outlined in Table 2 and explained in detail in the "Early Findings" section.

Qualitative analysis of interview data collected as part of DE at the end of year 1 and year 2 also helped identify 3 areas in which to measure students' growth: (1) knowledge; (2) proficiency in advocacy skills; and (3) ability to sustain advocacy over the course of one's career. Furthermore, specific indicators were identified in each category, including (1) knowledge of Minnesota's legislative process, types of advocacy, advocating as a physician, advocacy communities, (2) skills proficiency related to engaging in advocacy, practicing wellness as a physician-advocate, and (3) indicators related to self-efficacy and motivation.

These specific indicators were used to develop a retrospective pre-post survey that was distributed to all fellowship participants (years 1-3) at the end of year 3. The goal of this survey was to assess the potential role of the program in the 3 above-identified areas of student growth. Fellows were asked to rank their perceived knowledge and skills, as well as their perceived interest, sense of self-efficacy, and motivation before and after participation in the program. In this analysis, 2-tailed *t* tests were used to test for the statistical significance of changes in students' perceptions before and after participating in the fellowship. While mentors were asked to answer a series of questions about the fellowship, no mentor outcomes were assessed quantitatively.

Early Findings

Curriculum

In the past 3 years (2018-2021), TCMS has tripled the size of the cohort from 10 to 31 advocacy fellow-mentor pairs. Common themes in areas of advocacy pursued by fellows include environmental

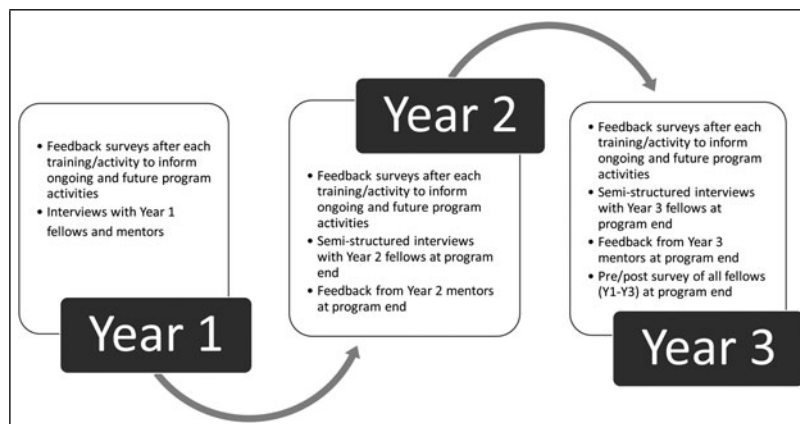


FIGURE 1 Data Categories Collected Across Fellowship Years 1-3 as Part of Developmental Evaluation

TABLE 2**Samples of Changes in Curricula From Year 1 (2018-2019) to Year 3 (2020-2021) With Rationale for Change Generated via Developmental Evaluation**

Year 1 Program Activities	Rationale for Change	Year 3 Program Activities
No specific focus on relationship building among fellows and mentors	Fellow feedback suggested that participants viewed relationship building with mentors, communities, and each other as a key benefit of the program	Incorporated new community-building activities, including 3 “Coffee Groups” between fellows, mentors, and staff that served as “check-in” opportunities for fellows throughout the program year
Required completion of a tangible advocacy project within the duration of the fellowship	Fellow feedback suggested that requiring a project completion unintentionally framed advocacy as a short-term achievement-driven practice, rather than a long-term practice with focus on equitable processes and transformative change	Encouraged engagement in hands-on advocacy activities meaningful to the advocacy fellows’ individual learning and development based on personalized goal-setting
No specific focus on personal wellness as a component of successful long-term advocacy skill set	Recognition that engagement in public health advocacy has been identified as one method of combating increasing burnout physicians experience in their clinical work. However, burnout is also highly prevalent in communities of color and those involved in social justice work/activism. It is important for physicians engaged in advocacy to be aware of this phenomenon in themselves and in those they serve	Added a session to examine how physician-advocates integrate advocacy into their life in a way that enhances wellness rather than increasing burnout
Held an open house–style closing celebration where physician-mentors and other guest physician-advocates were invited to talk with advocacy fellows about their projects	Feedback and recognition that the original open house celebration format framed advocacy as outcomes-based and encouraged students to focus on what they accomplished rather than what they learned	Held a private closing celebration attended only by fellows, with a guided discussion targeted to prompt deep reflection on participant growth and learning
No formal opportunities to continue relationship building or learning beyond the initial program year	Fellow feedback indicated that they would like the opportunity to meet participants from previous years. In addition, staff identified an opportunity to enhance the cohort model by providing opportunities for the fellows to stay connected following the conclusion of the program year	Added a virtual “Alumni Night” where all current and past participants were invited to join a learning session addressing a timely topic not typically covered in the curricula (eg, virtual advocacy)

justice, racial health inequities, and mental health disparities.

From year 1 to year 3, the foundational programmatic elements, ie, informational and advocacy skills training (implemented via cohort-based learning), personalized student-mentor pairings, and hands-on advocacy experience have remained consistent. The built-in adaptability of the program allowed data collected as part of DE (described in Figure 1) to implement changes in the curriculum over this period. Table 2 shows curricular components that were eliminated, new components that were introduced, and the rationale for these changes. The rationale, as noted in the “Evaluation” section, was generated through online surveys and semistructured interviews. In addition to findings from the DE, program staff used informal feedback from students to refine curricular components.

In addition to changes in specific curricular components, feedback from students has prompted alterations to our program’s approach to advocacy. In year

1, TCMS adopted a short-term goal-oriented model, requiring fellows to focus on completing an advocacy project. However, feedback from our fellows (Table 2) suggested that this achievement-driven advocacy approach led them to focus on short-term individual accomplishments. Instead, they proposed that TCMS adopt an approach that fosters skills that enable fellows to be lifelong physician-advocates. TCMS thus refocused the program on areas of student growth such as self-efficacy and motivation to engage in long-term advocacy.

Fellows

Three areas of student growth—knowledge, advocacy skills proficiency, and self-efficacy and motivation to pursue advocacy in the long term (or throughout one’s career), were assessed in a retrospective pre-post survey for the first time (in the fellowship’s operation) in spring 2021. Figure 2 shows survey data collected from 22 of 51 fellows from years 1 to 3. In this

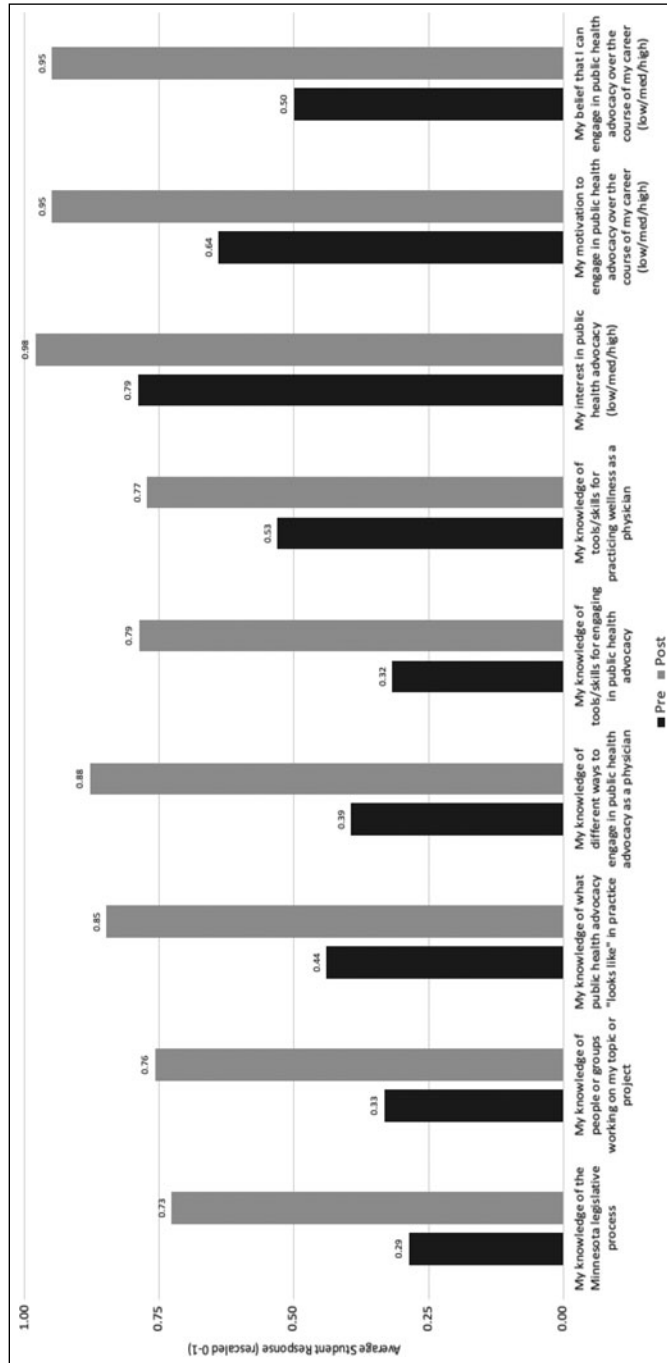


FIGURE 2 Student Growth in 3 Areas—Knowledge, Advocacy Skills, and Long-term Advocacy Outlook, After Participation in the Fellowship Program (N = 22)^a
^aQuantitative data from retrospective pre-post survey of all fellowship participants (years 1-3) at the end of year 3. Response categories for knowledge statements (column sets 1-6) include no knowledge, very little knowledge, basic knowledge but more to learn, and very knowledgeable. Response categories for interest and motivation statements (column sets 7-9) include low, medium, and high. Two-tailed t-tests show that all differences are statistically significant at .05.

TABLE 3**Qualitative Data From End-of-Year Semistructured Interviews With Fellows Encompassing 3 Areas of Student Growth—Knowledge, Advocacy Skills, and Long-term Advocacy Outlook, and Community-Centered Approach of the Fellowship**

Knowledge, Learning, and Skills Building for Students and Mentors

"I hadn't done any of these activities. . . . I hadn't done anything like this before. I didn't really know what public health advocacy was until spring semester of med school." (Year 3 fellow)

"If I see an opportunity to intervene in a problem and advocate, I think I'm better equipped to do it." (Year 3 fellow)

"I enjoyed getting an inside view of what it's like to be a med student today. Things have changed dramatically since I went to med school. So, this opportunity helped form my new reality. . . . I gained an appreciation of the talent and dedication of current medical students which increased my optimism about the future of medical care and health care overall." (Year 2 mentor)

Sense of Self-efficacy and Motivation

"I think part of participating in the fellowship is that it makes me feel empowered going forward, in that it gave me the confidence to feel like I can be a part of the projects that I want to be a part of—that I can get involved and that I have a place in this space. So that's really huge." (Year 2 fellow)

"Understanding the long game—just because you're not ever going to get some things done in one month, 10 months. What can you do to change the environment, the climate surrounding this? And even if it is just you know, a contact here and there and making sure you're still on the streets, you can help change that narrative to help change And you just need to know that your victory may not come tomorrow and it may come in a decade or a different lifetime, but that it's worth keeping, trying to make sure you can do whatever you can to get it." (Year 2 fellow)

Leading From Community

"A key takeaway is knowing steps to advocate for a community or cause. We think we may know what is going on, but it is important to actually meet with that community or the people involved, to know what their needs are and make sure you're on the same page." (Year 2 fellow)

"Be an active and intentional voice for your community but in particular those who have a limited voice, from a variety of disadvantages and disparities. And then also becoming empowered by your role as a physician in the community and how that carries a tremendous amount of value and weight and be utilized in ways that serve others not only within the clinic or the hospital but certainly outside of those settings in the community, within government." (Year 3 fellow)

figure, response values related to perceived knowledge and skills proficiency were rescaled from 0 to 1 on a 4-point scale, where 1 indicates high knowledge. Response values related to perceived self-efficacy and motivation to engage in advocacy over the long-term were rescaled to 0 to 1 on a 3-point scale.

Figure 2 shows that on a 0- to 1-point scale (1 = high), fellows reported gains in perceived knowledge about the Minnesota legislative process (from 0.29 to 0.73), people or groups working on related advocacy topics (from 0.33 to 0.76), what advocacy "looks like" in practice (from 0.44 to 0.85), and how to advocate as a physician (from 0.39 to 0.88). Fellows reported gains in perceived proficiency in advocacy skills (from 0.32 to 0.79) and skills for practicing wellness as a physician-advocate (from 0.53 to 0.77) (all changes statistically significant at $P < .01$).

Figure 2 also shows that students reported gains in interest, perceived motivation to engage in advocacy throughout their careers, and perceived sense of self-efficacy. On a 0- to 1-point scale (1 = high), student interest in advocacy increased from 0.78 to 0.98, motivation to engage in career-long advocacy activities increased from 0.64 to 0.95, and their belief in their ability to engage in career-long advocacy

increased from 0.50 to 0.95 (all changes statistically significant at $P < .01$).

Qualitative data shown in Table 3 further reflect gains in the 3 areas of student growth. In addition, Table 3 offers insight into students' understanding of community-centered advocacy.

Discussion

Analysis of data from the first 3 years of the TCMS Dr Pete Dehnel Public Health Advocacy Fellowship shows that students overwhelmingly perceive participation in the fellowship to have a positive effect on their training as physician-advocates. Programmatic elements central to this positive effect can be integrated into curricula of programs seeking to train medical students and physicians to embrace a lifelong commitment to public health advocacy.

Flexible curricular structure with a built-in iterative process

Our experience demonstrates the value of creating a program with built-in flexibility while retaining core training elements. In the short-term, this flexibility allows training programs to accommodate the changing needs of learners and the communities with whom

we partner. In the long-term, it allows us to change our training and practice as our collective understanding of advocacy and equity grows. In the TCMS fellowship, DE (Figure 1) allowed us to identify several areas for improvement and to modify existing curricular elements or implement new ones. For example, in addition to the switch to long-term advocacy approach, we identified that students wanted more opportunities to build relationships. As such, we incorporated events such as “Alumni Night” and “Coffee Groups” (Table 2).

Advocacy programs seeking to incorporate elements of DE into existing curricula, but lacking DE implementation expertise, could begin incorporating an iterative feedback process with simple surveys to gauge satisfaction with existing curricular components. It is important to note that successfully integrating DE into curricula requires program staff to be open to hearing feedback that might challenge their assumptions. In addition, integrating feedback in real time is likely more time-consuming for staff than implementing a rigid curriculum with end-of-the-year feedback.

Measuring success: Long-term advocacy outlook model

TCMS initially implemented a goal-driven program for advocacy fellows in year 1. Fellows were encouraged to choose an advocacy project with a concrete goal, such as creating an advocacy brief by the end of the year. In addition, students were encouraged to view advocacy activities, such as meeting with legislators or publishing a letter to the editor, as discrete achievements. However, feedback from fellows revealed that this approach unintentionally focused the training on short-term individual accomplishments. Therefore, priority was refocused on training elements that could help sustain career-long advocacy. So we emphasize the long-term nature of systemic change in our informational training sessions and reframe activities such as meeting with legislators or publishing a letter to the editor as growth opportunities that are part of the larger practice of advocacy. We also integrated community-building activities, introspective curricular elements of personal reflection, practicing wellness as a physician-advocate, and practice activities that emphasized peer-to-peer interactions within each cohort model. Similarly, while each student is encouraged to set a personal advocacy or leadership development goal for the program (October, Table 1), the fellowship does not track or evaluate the outcome. Rather, this goal serves as an anchor around which students center their learning, conversations, and activities. In addition, qualitative

feedback from our fellows (Table 3) indicates their recognition of advocacy as a career-long pursuit. Quantitative analysis also shows that students perceive increased motivation and self-efficacy to pursue lifelong advocacy (Figure 2) at the completion of the fellowship.

While these gains are encouraging, it is unclear how these measures predict our students' continued long-term involvement in advocacy work. We intend to continue longitudinal data collection from program alumna for ongoing evaluation. In addition, the absence of a control group limits our ability to isolate the program's impact.

Community-centeredness

During the creation of the TCMS fellowship, it was acknowledged that many models of physician leadership center the voices of physicians without equally centering the needs and knowledge of communities most impacted by public health issues. Intrinsic to our program's approach is the importance of spotlighting the often unearned societal privilege and power that physicians are granted (“historical capital”) and the need for reciprocal involvement of physicians in systemic issues (ie, social, political, and environmental determinants of health) in a manner that respects the lived expertise of community-advocates. Feedback from students shows the crucial recognition of community leadership in physician advocacy pursuits (Table 3). It is possible that this approach allows students to be more receptive to learning skills such as community organizing, advocacy communication, and movement building, which are not part of traditional medical curricula but essential for a physician-advocate.

Despite the emphasis on community-centeredness, TCMS has chosen to not formally partner with local community organizations at this time. TCMS believes that independently seeking and building relationships with organizations are essential aspects of a fellow's growth and acknowledges that community needs change every year. In addition, tracking the number of partner organizations as a metric of success may inadvertently cause the program to focus on growing the number of partners at the expense of fostering equitable relationships. TCMS has not yet identified quantifiable metrics or outcomes that would measure our fellowship's community-centeredness and plans to work with Rise Research to assess how we can measure our role as an advocacy organization in our community. We also have yet to identify specific student achievements or other metrics that can quantitatively measure competence in knowledge and practice of community-centeredness.

Implications for Policy & Practice

- Adopting an iterative approach to program development can allow advocacy training programs to adapt curricula to local contexts and respond to student feedback in a relatively short period.
- The addition of intentional curricular elements that focus on teaching relationship building, motivation, and confidence, in addition to specific skills training, has the potential to enhance career-long interest in advocacy.
- Programs that approach physician advocacy training similar to traditional medical education risk adopting an “ivory tower” approach that replicates existing power hierarchies and inadvertently focuses on physician accomplishments instead of community needs.
- Community-centered models of advocacy training offer a compelling way to enable physician advocacy to center community needs, elevate voices of those impacted by inequities, and foster innovative system change driven by community wisdom.

In addition, future changes to the program include formalizing mentor training and exploring the involvement of community members in the structure and implementation of the fellowship in a mutually beneficial manner.

References

1. Croft D, Jay SJ, Meslin EM, Gaffney MM, Odell JD. Perspective: is it time for advocacy training in medical education? *Acad Med*. 2012; 87(9):1165-1170.
2. Bhate TD, Loh TD, LC. Building a generation of physician advocates: the case for including mandatory training in advocacy in Canadian medical school curricula. *Acad Med*. 2015;90(12):1602-1606.
3. Abuzinadah AR, Cooke L. Neurology health advocacy curriculum: needs assessment, curricular content and underlying components. *Can J Neurol Sci*. 2017;44(2):170-176.
4. Huntoon KM, McCluney CJ, Scannell CA, et al. Self-reported evaluation of competencies and attitudes by physicians-in-training before and after a single day legislative advocacy experience. *BMC Med Educ*. 2012;12(1):47.
5. Leveridge M, Beiko D, Wilson JW, Siemens DR. Health advocacy training in urology: a Canadian survey on attitudes and experience in residency. *Can Urol Assoc J*. 2007;1(4):363-369.
6. Stafford S, Sedlak T, Fok MC, Wong RY. Evaluation of resident attitudes and self-reported competencies in health advocacy. *BMC Med Educ*. 2010;10:82.
7. Chamberlain LJ, Wang NE, Ho ET, Banchoff AW, Braddock CH 3rd, Gesundheit N. Integrating collaborative population health projects into a medical student curriculum at Stanford. *Acad Med*. 2008; 83(4):338-344.
8. Long JA, Lee RS, Federico S, Battaglia C, Wong S, Earnest M. Developing leadership and advocacy skills in medical students through service learning. *J Public Health Manag Pract*. 2011;17(4):369-372.
9. Andrews J, Jones C, Tetrault J, Coontz K. Advocacy training for residents: insights from Tulane's Internal Medicine Residency Program. *Acad Med*. 2019;94(2):204-207.
10. Greysen SR, Wassermann T, Payne P, Mullan F. Teaching health policy to residents—three-year experience with a multi-specialty curriculum. *J Gen Intern Med*. 2009;24(12):1322-1326.
11. Landrigan PJ, Braun JM, Crain EF, Forman J, et al. Building capacity in pediatric environmental health: the Academic Pediatric Association's professional development program. *Acad Pediatr*. 2019;19(4): 421-427.
12. Martin D, Hum S, Han M, Whitehead C. Laying the foundation: teaching policy and advocacy to medical trainees. *Med Teach*. 2013; 35(5):352-358.
13. Girard VW, Moore ES, Kessler LP, Perry D, Cannon Y. An inter-professional approach to teaching advocacy skills: lessons from an academic medical-legal partnership. *J Leg Med*. 2020;40(2):265-278.
14. Goss E, Iyer S, Arnsten J, Wang L, Smith CL. Liberation medicine: a community partnership and health advocacy curriculum for internal medicine residents. *J Gen Intern Med*. 2020;35(10):3102-3104.
15. Han H, McKenna E, Oyakawa M. *Prisms of the People: Power & Organizing in Twenty-First-Century America*. Chicago, IL: University of Chicago Press; 2021.
16. Boud D, Cohen R, Sampson J. *Peer Learning in Higher Education: Learning From & With Each Other*. London, England: Stylus Publishing Inc; 2001.
17. Bradberry LA, Maio JD. Experiential learning section: learning by doing: the long-term impact of experiential learning programs on student success. *J Polit Sci Educ*. 2019;15:94-111.