# Incorporating Health Policy and Advocacy Curricula Into Undergraduate Medical Education in the United States

# Sudarshan Krishnamurthy<sup>1,2</sup>, Kevin Alexander Soltany<sup>1</sup> and Kimberly Montez1,3,4

<sup>1</sup>Bowman Gray Center for Medical Education, Wake Forest University School of Medicine, Winston-Salem, NC, USA. <sup>2</sup>Department of Internal Medicine, Wake Forest University School of Medicine, Winston-Salem, NC, USA. <sup>3</sup>Department of Pediatrics, Wake Forest University School of Medicine, Winston-Salem, NC, USA. <sup>4</sup>Department of Social Sciences and Health Policy, Wake Forest University School of Medicine, Winston-Salem, NC, USA.

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ABSTRACT: Physicians serve as crucial advocates for their patients. Undergraduate medical education (UME) must move beyond the biomedical model, built upon the perception that health is defined purely in the absence of illness, to also incorporate population health through health policy, advocacy, and community engagement to account for structural and social determinants of health. Currently, the US guidelines for UME lack structured training in health policy or advocacy, leaving trainees ill-equipped to assume their role as physician-advocates or to engage with communities. There is an undeniable need to educate future physicians on legislative advocacy toward improving the social determinants of health through the creation of evidence-based health policy, in addition to training in effective techniques to engage in partnership with the communities in which physicians serve. The authors of this article also present curricular case studies around two programs at their institution that could be used to implement similar programs at other US medical schools.

KEYWORDS: medical education, health policy, advocacy, curriculum development, social determinants of health

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### Introduction

Physicians have long served as crucial advocates for their patients in healthcare settings. When patients do not have the ability to defend their personal interests or do not have access to decision-makers, it is considered a core competency for physicians to advocate on behalf of their patients' best interests and amplify their voices in spaces where decisions are made.<sup>1</sup> However, this individual advocacy only accounts for a single type of advocacy of which physicians are capable. Earnest et al comprehensively defined physician advocacy to encompass any and all "action by a physician to promote those social, economic, educational, and political changes that ameliorate the suffering and threats to human health and wellbeing that he or she identifies through his or her professional work and expertise."<sup>2</sup> On a large scale, physicians and other healthcare professionals are situated at a unique vantage point where they are privy to the patients' healthcare needs, social factors, networks of support, and financial burdens, while also possessing the social capital (the ability to effect change derived from social interactions between physicians and decision-makers) and political capital to influence changes in institutional policy that affect healthcare delivery and barriers to care.<sup>1</sup>

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CORRESPONDING AUTHOR: Kimberly Montez, Department of Pediatrics, Wake Forest University School of Medicine, One Medical Center Blvd, Winston-Salem, NC 27157, USA. Email: kmontez@wakehealth.edu

The position physicians assume in society is unique. To begin with, they are directly responsible for the health and wellbeing of both patients at an individual level and the greater communities in which they serve, making them acutely aware of not only the local disease burden but also the social drivers that affect population health. Along with significant research conducted around the role of physicians in social advocacy<sup>3</sup> and the results of policy interventions on underserved patients,<sup>4</sup> physicians also often conduct research on the health conditions that impact their communities, providing them with a more systemic vantage point. Physicians' roles in society place them in the ideal position to propose systemic solutions to combat the root causes to common problems encountered within clinical practice and research.<sup>2</sup> With the ability to participate in important discussions around the real-life implications of policy changes and insight into potential policy solutions to improve population health, physicians possess the capabilities to bridge the existing gaps between communities and policymakers by bringing insights from the bedside in the clinical setting to conversations with individuals influencing policy.

Even with a growing interest in the social determinants of health, or the conditions in which individuals "live, learn, work, play, worship, and age,"<sup>5</sup> in undergraduate medical education (UME) in the United States, the lack of standardized, formal curricular frameworks limit the dissemination of these curricula.<sup>6</sup> This aspect of physician advocacy is reliant on not only recognizing the biomedical model of health, where



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Sudarshan Krishnamurthy and Kevin Alexander Soltany contributed equally to this work.

health is defined merely as an absence of illness, but also moving beyond this model by incorporating the sociocultural, psychological, educational, and economic factors that influence patient health, and progressing from within the clinical setting to broader discussions where policy is developed to improve population health. Healthcare policy affecting access, quality, and cost is often formulated by policymakers with little experience in healthcare and with little to no input from those who actively provide healthcare, representing an opportunity for physicians to intervene as advocates. Importantly, physician advocacy also includes political activism and civic engagement in addition to the above forms.<sup>7</sup> Organizing, lobbying, and protesting for reform in healthcare policy are effective ways to tackle issues that are upstream from illnesses seen in the clinical setting.8 This civic advocacy extends beyond the walls of the clinic to effect lasting change not just for individual patients, but also for the larger community, creating a sense of legacy.<sup>7</sup> Numerous opportunities exist for physicians and other healthcare professionals to effectively advocate for their patients, further demonstrating a strong need for structured and formalized training in advocacy and health policy during UME.

In this article, we review the current status of advocacy and policy curricula in UME, discuss the role of physicians in health advocacy, illustrate the pertinence of advocacy in medicine with relevance to social determinants of health and community engagement during the COVID-19 pandemic, and conclude with curricular case studies that illustrate potential pathways for advancing advocacy and health policy curricula into UME in the United States.

# Status of Advocacy and Policy Training Requirements in US UME

While elements of advocacy are directly embedded within the core program requirements of graduate medical education,<sup>9</sup> the Liaison Committee on Medical Education (LCME), which sets the guidelines for UME within the United States, does not mention advocacy or health policy training in its March 2022 accreditation standards.<sup>10</sup> Similarly, medical education at the UME level in the US fails to address gaps in providing education around medical law and healthcare policy. Some have suggested that medical-legal partnerships are key to training the next generation of healthcare leaders,<sup>11</sup> and incorporating medical-legal education may increase the likelihood of screening patients for social determinants of health in the future.<sup>12</sup> The absence of these competencies conveys a perceived insignificance of these topics, leaving medical schools to decide for themselves whether to incorporate courses in policy and community advocacy within their curricula. In alignment with the lack of curricular requirements in advocacy, policy, and medical law, one study found that, among the 103 of 134 medical schools with at least one advocacy course, only eight courses focused on inequities in health faced by racial

and ethnic minorities, and less than 25% of courses required a community-service component.<sup>13</sup> Additionally, the majority of advocacy-related courses taught in US medical schools are elective, rather than required, and due to the lack of guidance from governing bodies, the structure of existing courses varies substantially across medical schools in the United States<sup>-3</sup>

During late 2020, the Association of American Medical Colleges (AAMC) issued guiding principles for civic advocacy in light of national discussions around systemic racism.<sup>14</sup> This document was meant to provide guidance to learners regarding how to safely organize and protest as a medical trainee while balancing educational responsibilities with obligations for advocacy and activism.<sup>14</sup> In outlining its recommendations, the AAMC asserted that commitments to equity and advocacy were "important elements of professionalism" and described advocacy as "a key skill and responsibility for a healthcare professional." Although the statement demonstrates its support of civic advocacy and encourages students to "consider other actions [one] can take to further [one's] own development and understanding of the historical and current context of social injustices," its specific recommendations in the context of integrating community advocacy and health policy into learning environments remain poorly defined. In addition, LCME standards remain outdated with no mention of advocacy or health policy, when compared to the AAMC's assertion of the importance of civic advocacy.

Many trainees who progressed through their medical education have called for physician advocacy and activism in light of the structural oppression faced by their patients and have acknowledged that the practice of healing is closely linked with the social and political context in which it takes place.<sup>15</sup> When an attempt was threatened to increase health insurance coverage in the US for individuals earning less than 400% below the federal poverty level through the Patient Protection and Affordable Care Act, students called on their mentors for guidance and support on how they might more effectively serve as physician-advocates.<sup>16</sup> With social responsibility long recognized as an important quality in physicians, some have recommended innovative, collaborative, and transformative approaches to designing medical curricula that allow future physicians to work closely with their educators and other stakeholders to advance a practical sense of social responsibility among themselves and their peers.<sup>3</sup>

As the National Academy of Science, Engineering, and Medicine (NASEM) states, "community-engaged health professional education is a mechanism for learning how to work in and with communities while ideally producing health professionals who are responsive to the population, socially accountable, both person- and population-centered, and supportive of empowered and engaged communities."<sup>17</sup> The NASEM report found a lack of published literature on community engagement in health professional education, potentially indicating a lack of perceived importance of the topic in medical education.<sup>17</sup> However, it has become evident in light of the COVID-19 pandemic that community engagement is necessary to address the evolving health needs of populations and to promote health equity.

In his recent publication, Landry offers practical steps that programs could take to advance health equity within medical education, and in doing so, promotes health policy's inextricable tie to health equity.<sup>18</sup> There is also a growing body of literature demonstrating the benefits of integrating health equity curricula into medical education: one such study determined that a longitudinal health equity curriculum significantly increases self-reported student knowledge of social determinants of health and student confidence in working with underserved populations.<sup>19</sup> The topics of equity, policy, and advocacy are all intertwined, and physicians must leave their UME with an understanding of how each of these impacts the other. As health equity education continues to gain prominence, it is critical to embed advocacy and policy training within this education so that future physicians have the proper skillset to effectively provide and advocate for equitable care.

## The Role of Physicians in Advocacy

The case for physician advocacy has consistently grown stronger over the years. Some have argued that physicians do not have a commitment to advocacy as it would involve incorporating civic behavior into professional imperatives.<sup>20</sup> However, without direct action from those who work with patients regularly, there is no voice from within healthcare who understands the intricacies of patient care and needs of different patient populations, while also being able to advocate for systemic solutions. In the face of persistent health inequities, physicians have the opportunity to play a crucial role in improving systems that currently permit harm to our underserved patients at the margins of care.<sup>21</sup> Having a systemic impact through physician involvement in advocacy, as opposed to individual-level impact in the clinical setting, is a significant benefit to engaging in advocacy.

Community engagement and advocacy have been considered a professional responsibility by most medical students and physicians for over the last decade.<sup>22,23</sup> When physicians were asked about their priorities in addressing health-related problems that extended beyond direct patient care, they considered community participation, political involvement, and collective advocacy important to their roles as physicians.<sup>24</sup> However, the lack of training in advocacy and health policy from an early career stage may prevent most from being involved in efforts. Early exposure during UME may encourage trainees to participate in community advocacy more frequently.<sup>25</sup> For example, physician engagement in reproductive health advocacy suggests that confidence in advocacy-related skills facilitates physician advocacy, and insufficient time is a barrier to physician advocacy.<sup>26</sup> The burden of clinical demands, along with the work-life imbalance experienced by women physicians and physicians from underrepresented

backgrounds further reduces the time available for advocacy efforts. From an early stage, trainees must be better informed about their potential impact as physician-advocates and equipped with the skills to enable them to assume such a role as physicians.<sup>27</sup> Creating new curricula or repurposing existing frameworks to implement training in policy and advocacy is an urgent need that would best prepare future physicians to holistically address patients' needs.

# **Pertinence of Advocacy in Medicine** Social Determinants of Health

The social determinants of health, including one's physical environment and socioeconomic factors, are seen to influence an estimated 50% of a population's health, while the quality of care and access to the healthcare system is estimated to affect only 20%.<sup>28</sup> Closely intertwined with poverty, the social determinants of health disproportionately impact Black, Hispanic, and Indigenous communities given longstanding racial, ethnic, and socioeconomic inequities, which are systematic differences in opportunities that are unjust and avoidable, such as racism, bias and discrimination.<sup>28</sup> These inequities then generate health disparities, or differences in health outcomes among various populations.<sup>29</sup> Increasingly, academic institutions in the US recognize the role social determinants of health play on individual health and are beginning to incorporate them into UME, both in the classroom and clinically.<sup>30,31</sup> Some have suggested that the incorporation of the social determinants of health into medical curricula has been rather ineffective in reducing health inequities; however, experiential learning in the social determinants of equity allows for a transformational reorientation of medical education.<sup>32</sup> Numerous efforts around experiential learning, such as student-run free clinics, demonstrate the far-reaching effects on fostering social responsibility and encourage trainees to incorporate leadership in service throughout their future careers.<sup>33</sup> This reorientation helps place medicine within a historical, social, political, and cultural context with an ability to appreciate societal matters and generate innovative interventions to combat them to achieve health equity.<sup>34</sup> Importantly, this reframing as the social determinants of equity begins to address the structural role that medical schools and academic institutions play in maintaining and perpetuating societal inequities and moves further to encourage critical reflection on the overall ethos of medical education.<sup>32</sup> The designation of most hospitals where physicians work as not-for-profit institutions adds a layer of legal and financial consequences to providing experiential training in advocacy that should be taken into consideration.

Given the relatively small role that access to and quality of clinical care plays on individual health, strategies outside of the healthcare system to improve the social determinants of health will likely have a larger impact on patient health.<sup>28</sup> Recent studies have found reductions in cost associated with

addressing social determinants, such as transportation, housing, and food insecurity.<sup>35</sup> For instance, when interventions addressing social determinants of health were implemented with cancer screening, improved health outcomes were paired with increased cost-effectiveness, demonstrating the ability to work toward health equity while also decreasing healthcare expenditures.<sup>36</sup> These strategies involve health policy and advocacy, which move beyond addressing the needs of individual patients to implementing long-term, upstream solutions at the population level. Legislative advocacy is necessary to enact evidencebased policies that improve health outcomes and reduce disparities, such as Medicaid expansion. For example, professional medical societies comprised of physicians and trainees, such as the American College of Physicians (ACP), effectively advocate for such policies.<sup>37</sup> Similarly, the Society of General Internal Medicine (SGIM) advocates for "...addressing the broader structures and living conditions that influence health," and calls for the integration of training in social determinants of health across the medical education continuum.<sup>38</sup> The lack of robust relationships between academic institutions and professional medical societies might be one reason for the gap between recommendations made by physicians at ACP and SGIM and the status of UME educational curricula. Therefore, educating future physicians about the social determinants of health must also encompass actionable solutions outside of healthcare through advocacy and health policy.

# Health Equity, COVID-19, and Community Engagement

The COVID-19 pandemic exposed and exacerbated the persistent health and socioeconomic inequities facing historically disadvantaged populations within the US. In addition, COVID-19 has highlighted the need for physician advocacy to promote health equity, with efforts from physicians in the American Medical Association voicing recommendations in legislation toward expanding telehealth coverage at the state and federal levels to improve access to care, securing personal protective equipment, passing historic federal relief programs to address COVID-19's financial impacts, and introducing legislation to address hate crimes against Asian American and Pacific Islander communities to improve the overall health and well-being of these populations.<sup>39</sup> However, amidst widespread misinformation and distrust in the healthcare system, legislative advocacy is not enough. Physicians must continue to actively engage with society through public education, advocacy campaigns, and media promotion of accurate, evidencebased health information. Reports of self-identified physicians on social media platforms, such as Twitter, demonstrate significant potential to improve population health through effective dissemination of health information to the public.<sup>40</sup> With rapid advances in the use of social media as a tool to engage with the public, especially during the COVID-19 pandemic, medical education must also include guidance on how trainees

might effectively leverage social media platforms to improve public health.<sup>41</sup> For instance, community engagement efforts through social media campaigns, vaccine ambassador programs, and leveraging relationships held by community-based organizations on behalf of physicians during COVID-19 had a positive impact on vaccination uptake within underserved communities.<sup>42</sup> Community engagement or sustained partnership in health promotion, policymaking, or research, particularly within low-resourced settings, is an essential physician advocacy skill that differs from community service or volunteerism in that it serves as a change catalyst.<sup>43</sup>

# Health Justice Advocacy and Health Equity Curricular Case Studies

Recognizing the importance of incorporating advocacy skills into UME, medical students and faculty founded the Health Justice Advocacy Certificate Program at our institution, now in its fourth year.<sup>44</sup> The voluntary certificate open to medical and law students incorporates didactic lectures from faculty educators regarding physician advocacy and the social determinants of health, legislative advocacy, social media advocacy, medical-legal partnerships, and intersectionality. Learners are encouraged to apply lessons learned from didactic lectures on how to serve as effective advocates. Students in the certificate program have authored letters to the editor and opinion editorials in local news outlets as well as perspective pieces in peerreviewed journals, met with state senators and representatives to discuss proposed legislation on healthcare topics in North Carolina, and facilitated journal clubs to educate their peers on other topics pertaining to advocacy and health justice. Additional activities include elective activities, such as lectures provided by other student organizations on topics pertaining to advocacy, participating in hands-on community advocacy opportunities and health policy interest group activities, and a capstone project, such as authoring an aforementioned advocacy article, attending a meeting with a legislator, or conducting a community-based advocacy project. As part of the certificate, there is a close collaboration with the medical-legal partnership between the medical and law schools in which students receive interprofessional education. Students in both schools are encouraged to sustain relationships and participate in conversations around the intersection of the medical and legal systems in effective healthcare policy interventions, while discussing future opportunities for leadership and collaboration. Completion of the certificate is assessed through attendance of five didactic educational modules, two peer-conducted journal clubs, six elective activities, and completion of a capstone project in the field of advocacy or health justice. Feedback on the certificate has been largely positive, which provides one of the few structured educational opportunities for advocacy and health policy in UME at our institution.

Additionally, in direct response to learners' requests for additional training around the social determinants of health and

community engagement, a diverse faculty group representing various departments, including family medicine, internal medicine, orthopedic surgery, pediatrics, and the Maya Angelou Center for Health Equity (MACHE) at our institution, developed and implemented the Health Equity Certificate Program (HECP).45 The HECP involves attendance in educational modules and the completion of a capstone project. The program is voluntary and open to medical students, physician assistant students, graduate students, nursing students, residents, and fellows across the learning health system. Eleven educational modules are utilized to achieve the intended learning outcomes of the HECP that include: (1) improving knowledge regarding health disparities, advocacy, health policy, and the care of historically marginalized populations; (2) addressing health equities presented in the curriculum through the creation and implementation of community-engaged capstone projects in conjunction with community partners; and (3) equipping trainees with the knowledge and tools to integrate an understanding of the social, cultural, and other non-medical factors that influence health outcomes into their professional work. These learning outcomes align with identified areas of focus for medical schools outside of the US seeking to address health inequities within their UME curricula.<sup>46</sup> Learners apply the knowledge from educational modules to develop effective community-centered solutions and help to sustain MACHE's relationships with community partners beyond their time as learners. Preliminary data from the first two cohorts have demonstrated improvement in knowledge around health equity and an increased desire to participate in future community engagement opportunities upon completion of the program. Capstone projects have engaged with 15 community organizations over two years.

Although these two certificate programs are optional at our institution, they represent examples of curricula that could be implemented within US medical schools. A formal evaluation of these programs is underway with forthcoming studies on the effectiveness of these programs in increasing knowledge and skills around advocacy, policy, and health equity, along with the desire to participate in future community engagement efforts, but further research is needed to develop evidence-based training programs. Given the anecdotal success of these certificates, the implementation of structured educational advocacy, health policy, and community-engagement programming for early-stage medical trainees has the opportunity to promote health equity. In the future, this programming could be adapted to suit learners at different levels of medical training.

#### Conclusion

The many forms of physician advocacy are powerful tools to achieve a healthier, more equitable society for all. Advocacy and health policy skill-building must begin in US medical schools through a formalized, longitudinal curriculum rather than optional extracurricular activities. Core competencies in advocacy and health policy must be developed, adopted, implemented, and evaluated. Structured curricula and opportunities for direct involvement in community engagement must also be included in US medical schools. The future health of society depends on the next generation of physician advocates.

#### **Authors' Contributions**

Conceptualization: Sudarshan Krishnamurthy, Kevin Alexander Soltany, Kimberly Montez. Writing–original draft preparation: Sudarshan Krishnamurthy, Kevin Alexander Soltany, Kimberly Montez. Writing–review and editing: Sudarshan Krishnamurthy, Kevin Alexander Soltany, Kimberly Montez. Supervision: Kimberly Montez.

#### **ORCID** iD

Kevin Alexander Soltany D https://orcid.org/0000-0002-9161-0335

#### REFERENCES

- Luft LM. The essential role of physician as advocate: how and why we pass it on. Can Med Educ J. 2017;8(3):e109-e116.
- Earnest MA, Wong SL, Federico SG. Perspective: physician advocacy: what is it and how do we do it? *Acad Med.* 2010;85(1):63-67. doi:10.1097/ACM. 0b013e3181c40d40
- Dharamsi S, Ho A, Spadafora SM, Woollard R. The physician as health advocate: translating the quest for social responsibility into medical education and practice. *Acad Med.* 2011;86(9):1108-1113. doi:10.1097/ACM.0b013e318226b43b
- McGeehan M, DeMaria R, Charney P, Batavia AS. Insurance enrollment at a student-run free clinic after the patient protection and affordable care act. J Community Health. 2017;42(4):785-790. doi:10.1007/s10900-017-0318-7
- Healthy People 2030. U.S. Department of Health and Human Services, Office of Disease Prevention and Health Promotion. Retrieved 8/27/2022.
- Doobay-Persaud A, Adler MD, Bartell TR, et al. Teaching the social determinants of health in undergraduate medical education: a scoping review. J Gen Intern Med. 2019;34(5):720-730. doi:10.1007/s11606-019-04876-0
- Dobson S, Voyer S, Regehr G. Perspective: agency and activism: rethinking health advocacy in the medical profession. *Acad Med.* 2012;87(9):1161-1164. doi:10.1097/ ACM.0b013e3182621c25
- Freeman J. Advocacy by physicians for patients and for social change. *Virtual Mentor*. 2014;16(9):722-725. doi:10.1001/virtualmentor.2014.16.09.jdsc1-1409
- ACGME. Common program requirements (Residency). Accreditation Council for Graduate Medical Education; 2022.
- LCME. Functions and structures of a medical school. Liaison Committee for Medical Education; 2022.
- Healton EB, Treanor WM, DeGioia JJ, Girard VW. Training future health justice leaders - a role for medical-legal partnerships. N Engl J Med. 2021;384(20):1879-1881. doi:10.1056/NEJMp2100530
- Pettignano R, Bliss L, McLaren S, Caley S. Interprofessional medical-legal education of medical students: assessing the benefits for addressing social determinants of health. *Acad Med.* 2017;92(9):1254-1258. doi:10.1097/ACM.00000000001581
- Brender TD, Plinke W, Arora VM, Zhu JM. Prevalence and characteristics of advocacy curricula in U.S. Medical Schools. *Acad Med.* 2021;96(11):1586-1591. doi:10. 1097/acm.000000000004173
- AAMC. Guiding principles for civic advocacy by medical students and prospective applicants. Group on Student Affairs. Association of American Medical Colleges; 2020.
- Paul DW. Medical training in the maelstrom: the call to physician advocacy and activism in turbulent times. *Acad Med.* 2019;94(8):1071-1073. doi:10.1097/ACM. 000000000002765
- Levinsohn E, Weisenthal K, Wang P, et al. No time for silence: an urgent need for political activism among the medical community. *Acad Med.* 2017;92(9):1231-1233. doi:10.1097/ACM.000000000001724
- Talib Z, Palsdottir B, Briggs M, et al. Defining community-engaged health professional education: A step toward building the evidence. *NAM Perspect Natl Acad Med.* 2017;7(1):1-4. doi:https://doi.org/10.31478/201701a
- Landry AM. Integrating health equity content into health professions education. *AMA J Ethics*. 2021;23(3):E229-E234. doi:10.1001/amajethics.2021.229

- Denizard-Thompson N, Palakshappa D, Vallevand A, et al. Association of a health equity curriculum with medical students' knowledge of social determinants of health and confidence in working with underserved populations. *JAMA Network Open*. 2021;4(3):e210297. doi:10.1001/jamanetworkopen.2021.0297
- Huddle TS. Perspective: medical professionalism and medical education should not involve commitments to political advocacy. *Acad Med.* 2011;86(3):378-383. doi:10. 1097/ACM.0b013e3182086efe
- Sandroni S. Regarding physician advocacy. Acad Med. 2012;87(2):132. doi:10.1097/ ACM.0b013e31823f0fd3
- Campbell EG, Regan S, Gruen RL, et al. Professionalism in medicine: results of a national survey of physicians. *Ann Intern Med.* 2007;147(11):795-802. doi:10.7326/ 0003-4819-147-11-200712040-00012
- Chimonas S, Mamoor M, Kaltenboeck A, Korenstein D. The future of physician advocacy: a survey of U.S. medical students. *BMC Med Educ.* 2021;21(1):399. doi:10.1186/s12909-021-02830-5
- Gruen RL, Campbell EG, Blumenthal D. Public roles of US physicianscommunity participation, political involvement, and collective advocacy. *JAMA*. 2006;296(20):2467-2475. doi:10.1001/jama.296.20.2467
- Law M, Leung P, Veinot P, Miller D, Mylopoulos M. A qualitative study of the experiences and factors that led physicians to be lifelong health advocates. *Acad Med.* 2016;91(10):1392. doi:10.1097/ACM.00000000001316
- Jones H, Manze M, Brakman A, Kwan A, Davies M, Romero D. Barriers and facilitators to physician engagement in reproductive health advocacy and the role of a community of colleagues. *The Annals of Family Medicine*. 2023;21(Supplement 1):3598. doi:10.1370/afm.21.s1.3598
- Hubinette M, Dobson S, Scott I, Sherbino J. Health advocacy. *Med Teach*. 2017;39(2):128-135. doi:10.1080/0142159X.2017.1245853
- RWJF. Going beyond clinical walls: Solving complex problems. Institute for Clinical Systems Improvement; 2014.
- National Academies of Sciences, Engineering, and Medicine, Health and Medicine Division, Board on Population Health and Public Health Practice, Committee on Community-Based Solutions to Promote Health Equity in the United States. *Communities in action: Pathways to health equity.* (Baciu A, Negussie Y, Geller A, Weinstein JN, eds.). National Academies Press (US); 2017. Accessed April 28, 2023. http://www.ncbi.nlm.nih.gov/books/NBK425848/
- Eder M, Henninger M, Durbin S, et al. Screening and interventions for social risk factors: technical brief to support the US preventive services task force. JAMA. 2021;326(14):1416-1428. doi:10.1001/jama.2021.12825
- Lewis JH, Lage OG, Grant BK, et al. Addressing the social determinants of health in undergraduate medical education curricula: a survey report. *Adv Med Educ Pract*. 2020;11:369-377. doi:10.2147/AMEP.S243827
- Sharma M, Pinto AD, Kumagai AK. Teaching the social determinants of health: a path to equity or a road to nowhere? *Acad Med.* 2018;93(1):25-30. doi:10.1097/ ACM.000000000001689

- Rupert DD, Alvarez GV, Burdge EJ, Nahvi RJ, Schell SM, Faustino FL. Student-Run free clinics stand at a critical junction between undergraduate medical education, clinical care, and advocacy. *Acad Med.* 2022;97(6):824-831. doi:10.1097/ACM.000000000004542
- Kumagai AK, Lypson ML. Beyond cultural competence: critical consciousness, social justice, and multicultural education. *Acad Med.* 2009;84(6):782-787. doi:10. 1097/ACM.0b013e3181a42398
- Pruitt Z, Emechebe N, Quast T, Taylor P, Bryant K. Expenditure reductions associated with a social service referral program. *Popul Health Manag.* 2018;21(6):469-476. doi:10.1089/pop.2017.0199
- Mohan G, Chattopadhyay S. Cost-effectiveness of leveraging social determinants of health to improve breast, cervical, and colorectal cancer screening: a systematic review. JAMA Oncol. 2020;6(9):1434-1444. doi:10.1001/jamaoncol.2020. 1460
- 37. ACP advocacy | Where we stand | Medicaid reform. 2023. Accessed April 28, 2023. https://www.acponline.org/advocacy/where-we-stand/medicaid-reform
- Byhoff E, Kangovi S, Berkowitz SA, et al. A society of general internal medicine position statement on the Internists' role in social determinants of health. J Gen Intern Med. 2020;35(9):2721-2727. doi:10.1007/s11606-020-05934-8
- AMA. COVID-19: AMA's recent and ongoing advocacy efforts. 2022. Accessed August 27, 2022. https://www.ama-assn.org/delivering-care/public-health/covid-19-amas-recent-and-ongoing-advocacy-efforts
- Chretien KC, Azar J, Kind T. Physicians on twitter. JAMA. 2011;305(6):566-568. doi:10.1001/jama.2011.68
- Katz M, Nandi N. Social media and medical education in the context of the COVID-19 pandemic: scoping review. *JMIR Med Educ.* 2021;7(2):e25892. doi:10.2196/25892
- Diaz D, Chacko S, Sperling A, et al. Assessment of digital and community-based outreach interventions to encourage COVID-19 vaccination uptake in an underserved community. *JAMA Network Open.* 2022;5(6):e2217875. doi:10.1001/ jamanetworkopen.2022.17875
- 43. ATSDR. What is community engagement? Accessed September 14, 2022. https:// www.atsdr.cdc.gov/communityengagement/pce\_what.html
- Health Justice Advocacy Certificate. Wake Forest University School of Medicine. Accessed September 14, 2022. https://school.wakehealth.edu/education-andtraining/certificate-programs/health-justice-advocacy-certificate
- 45. Health Equity Certificate Program. Wake Forest University School of Medicine. Accessed September 14, 2022. https://school.wakehealth.edu/research/institutesand-centers/clinical-and-translational-science-institute/maya-angelou-center-forhealth-equity/health-equity-education-and-training/health-equity-certificateprogram
- Williamson AE, Ayres R, Allen J, Macleod U. Core intended learning outcomes for tackling health inequalities in undergraduate medicine. *BMC Med Educ.* 2015;15:66. doi: 10.1186/s12909-015-0342-1