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WEB PAPER

AIDER: A model for social accountability in medical education and practice

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Abstract

Background: Social accountability in healthcare requires physicians and medical institutions to direct their research, services and education activities to adequately address health inequities. The need for greater social accountability has been addressed in numerous national and international healthcare reviews of health disparities and medical education.

Aim: The aim of this work is to better understand how to identify underserved populations and address their specific needs and also to provide physicians and medical institutions with a means by which to cultivate social accountability.

Methods: The authors reviewed existing literature and prominent models focusing on social accountability, as well as medical education frameworks, and identified the need to engage underserved stakeholders and incorporate education that includes knowledge translation and reciprocity. The AIDER model was developed to satisfy the need in medical education and practice that is not explicitly addressed in previous models.

Results: The AIDER model (Assess, Inquire, Deliver, Educate, Respond) is a continuous monitoring process that explicitly incorporates reciprocal education and continuous collaboration with underserved stakeholders.

Conclusion: This model is an incremental step forward in helping physicians and medical institutions foster a culture of social accountability both in individual practice and throughout the continuum of medical education.

Introduction

The World Health Organization (WHO) describes social accountability as, 'the obligation [of physicians and medical institutions] to direct their education, research and service activities towards addressing the priority health concerns of the community, region, and/or nation they have a mandate to serve' (Boelen & Heck 1995; CSDH 2008). Social accountability is an approach to addressing inequities in healthcare. It is informed by the distribution of health and well-being in a population (CSDH 2008; The Marmot Review 2010). It is also about engaging medical institutions in creating more just and accountable systems. In other words, it is important for clinicians to understand the relationship between social hierarchies, good health and healthcare. This awareness directs physician learning, patient care and research that addresses the priority health needs of underserved stakeholders (Boelen & Heck 1995; CSDH 2008).

For the purpose of this article, underserved stakeholders will be used to refer to groups who are disadvantaged by social hierarchies, thus leading to less access to healthcare and poorer health. The term 'stakeholders' was selected purposefully to reflect how individuals have both agency and investment in their healthcare. There are numerous additional definitions and concepts in the social accountability literature that also address disadvantaged groups (Blumenthal et al. 1995; CSDH 2008; The Marmot Review 2010). Some of these terms include vulnerable populations, marginalized individuals and underserviced communities. Although these descriptions tend to be used interchangeably, underserved stakeholders were selected because it explicitly addresses the power differentials inherent in social hierarchies.

Looking closer at social hierarchies, these are social structures created by inequities of power. Power can be equated to differences in wealth, access and literacy to name a few. The specific aspects of power related to health are often referred to as the social determinants of health. Though not an exhaustive list, common examples of social determinants are: living conditions, ethnicity, socioeconomic status, sexual orientation, gender, age, geography, education and disability

Practice points

- The need for greater social accountability has been addressed in numerous national and international healthcare reviews of health disparities and medical education.
- The AIDER model (*Assess, Inquire, Deliver, Educate, Respond*) is a continuous monitoring process that explicitly incorporates education and continuous collaboration with underserved stakeholders.
- Community participation at every step empowers underserved stakeholders and challenges social hierarchies and power inequities.
- AIDER is informed by all of the roles in the CanMEDS competency framework.

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(giving the acronym *LESS GAGED*) (CSDH 2008; Public Health Agency of Canada 2011; The Marmot Review 2010). In addition, the WHO advances that 'the healthcare system is itself a social determinant of health, influenced by and influencing the effect of other social determinants' (CSDH 2008). The more an individual is disadvantaged by the impact of one or more of these determinants, the lower they are on the social hierarchy: 'There is a social gradient in health – the lower a person's social position, the worse his or her health' (The Marmot Review 2010). Social inequities result in greater health inequities. Improving the health of underserved populations leads to better health of the whole population. Prioritizing social accountability by actively partnering with underserved stakeholders is a necessary shift in medical education. This shift will allow physicians to view social accountability less as a tangential issue and more as a core part of their practice.

Models of social accountability

Implementing a social accountability framework requires a multifaceted approach that includes: knowledge about health inequities developed through medical education; awareness about social determinants of health; identifying partners in addressing health inequities; determining meaningful methods for measurement of problems and an evaluation of actions (CSDH 2008; GCSA 2010; The Marmot Review 2010). In order to improve the health of underserved stakeholders, social and health inequities must be addressed with diverse and evolving combinations of these approaches.

Three models were selected to illustrate different approaches for focusing on social accountability: CARE Model, Equity Gauge and THEnet Model. The CARE Model is a tool for identifying priority health concerns of underserved communities and bringing that information back to medical institutions in order to evoke cultural and curricular change (Meili et al. 2011). The Equity Gauge is developed in a social justice framework that seeks to emphasize advocacy, community empowerment and assessment of health inequities (GEGA 2003). THEnet Model is a process by which medical institutions can evaluate themselves on how well they are meeting the needs of the communities they serve (THEnet 2011). At the heart of all of these models is a call to redistribute power by effectively and fairly including and responding to the needs and interests of underserved stakeholders (CSDH 2008; The Marmot Review 2010).

Systems thinking

When looking at these models through a systems thinking lens, it is evident that each model focuses on a different set of relationships within the healthcare system as well as how the healthcare system interacts with other systems, such as politics and economics. As defined by WHO, a 'health system "consists of all organizations, people and actions whose primary intent is to restore or promote good health"' (WHO 2009). Systems thinking considers the agency or power of stakeholders, alignment of interests and embedded feedback loops (Boelen & Woollard 2011) among stakeholders in 'improving health and health equity' (WHO 2009). Rather than linear cause and effect, systems thinking reflects an interconnected process. Thus, targeting specific stakeholders will result in system-wide effects within the healthcare system. With this in mind, we reviewed each model and found that we wanted to place greater emphasis on the relationships that existed among physicians and underserved stakeholders. By placing underserved stakeholders at the centre of the model and incorporating education that includes knowledge translation and reciprocity, the AIDER model satisfies a need in medical education and practice which is not explicitly addressed in previous models.

Social accountability at Queen's University

Many of the documents addressing social accountability and health inequity identified health literacy and community participation as gaps in underserved stakeholder–physician relationships. (GEGA 2003; CSDH 2008; The Marmot Review 2010). These documents recommend medical education reform so that physicians partner more effectively with the community to fill these voids (GEGA 2003; Irby et al. 2010; Josiah Macy Jr Foundation 2011). Recent calls for medical education reform have also been echoed in the *Strategic Framework* (QSF) and *Strategic Plan* (QSP) of Queen's University Faculty of Health Sciences, School of Medicine (QSP 2012; QSF 2012). The vision of the Faculty of Health Sciences encourages faculty and learners to 'Ask Questions, Seek Answers, Advance Care, Inspire Change' (QSF 2012). Furthermore, there is a commitment to strategic opportunities that 'broaden partnerships to provide service to Canadian and international communities in need while creating learner opportunities for leadership in advocacy and global health issues' (QSP 2012). According to the *Strategic Plan*, the importance of 'strengthening the partnerships with community, institution and hospital partners will create the connectedness required to accelerate advances in patient care, teaching, and research' which should be made explicit in the curriculum (QSP 2012). This change will be a necessary step towards producing medical practitioners who seamlessly incorporate social accountability into their patient care, teaching and research.

In response, we developed a model which includes the following steps: *Assess*, *Inquire*, *Deliver*, *Educate* and *Respond* (giving the acronym AIDER). By placing community participation at the centre of this process, AIDER is a model that physicians and institutions can use to practice 'collaborative patient- and family-centered care' (QSP 2012) (Figure 1). By building on existing models, this feedback-driven process explicitly captures 'education' and 'community participation'.

The AIDER model

AIDER is a continuous monitoring process requiring community participation at every level. Community participation in this model is understood as the active involvement of all underserved stakeholders in providing consultation, qualitative data and feedback. This engagement informs

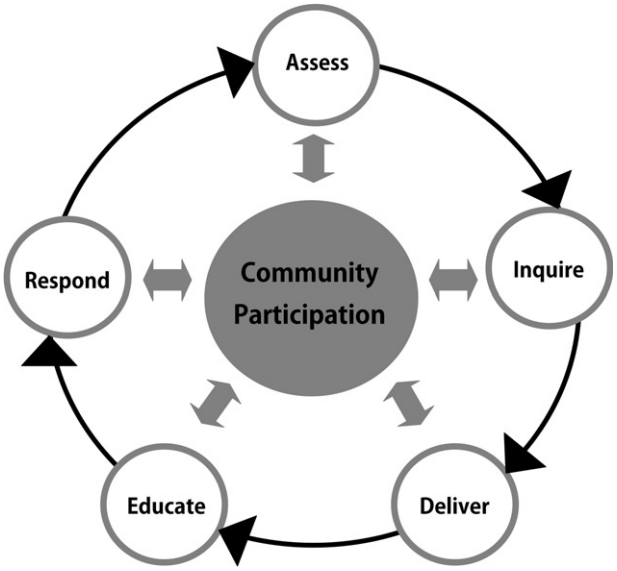

Figure 1. The AIDER model. The five steps: Assess, Inquire, Deliver, Educate and Respond form a continuous monitoring process which physicians and medical institutions can use for education and socially accountable practices.

the monitoring process and results in community empowerment (GEGA 2003; CSDH 2008; THEnet 2011). Consistent with systems thinking, empowering underserved stakeholders will redistribute power in the relationship with healthcare practitioners. This will evoke system-wide change (WHO 2009).

Implementation of AIDER will help foster a culture of social accountability both in individual practice and throughout the continuum of medical education. Irrespective of experience in practice or familiarity with social accountability, AIDER is an accessible way for physicians at all levels to take up social accountability. The five steps, *Assess, Inquire, Deliver, Educate* and *Respond*, form an iterative process where each step is informed by the previous step.

Assess – A healthcare concern is raised by a physician, patient, or community members. In collaboration with underserved stakeholders, physicians assess the needs of the community around this concern. Examples of community partners are Friendship Centres, support and social workers, and women's shelters. Members of these organizations also identify individuals they serve that could be community participants. This assessment helps identify barriers to access and how they are influenced by social determinants of health. *LESS GAGED* (Figure 2) is an acronym that can be used to consider common social determinants of health throughout the assessment step. During this step, the research focus is narrowed and a research question is formulated collaboratively.

Inquire – Physicians and underserved stakeholders develop a process for research inquiry. Specific research methods are advanced in one of two ways, action research or design-based research. In the context of AIDER, action research is inquiry that includes collaboration with underserved populations to address everyday concerns and evoke immediate change. Design-based research is a blend of empirical research and

L - Living Conditions
E - Ethnicity
S - Socioeconomic Status
S - Sexual Orientation

G - Gender
A - Age
G - Geography
E - Education
D - Disability

Figure 2. The acronym LESS GAGED represents nine social determinants of health that can be used in the Assessment step of AIDER to better understand existing barriers to accessing adequate healthcare.

theory-driven design. In this model, this research method includes interprofessional and community collaboration in order to influence change in a complex system.

Deliver – Physicians help implement systematic changes to the delivery system (THEnet 2011) after consultation with underserved communities about these findings (CSDH 2008; The Marmot Review 2010). Physicians develop a plan for disseminating research findings to public, policy makers and underserved stakeholders to create scientific momentum. Scientific momentum is a unified advocacy movement informed by scientific and social scientific research by clinician-investigators leading to greater social accountability.

Educate – Education, advocacy and promotion of health literacy is a critical step that helps inform underserved stakeholders about changes made to the delivery system. Social empowerment strategies can increase social awareness of health and healthcare systems. Social empowerment strategies can increase social awareness of health and healthcare systems, strengthening health literacy and mobilizing health actions (CSDH 2008). Health literacy involves empowering underserved stakeholders with language and skills to enhance individual and community health (CSDH 2008). Information should be applicable, available and accessible to achieve health literacy. Underserved community members educate physicians about their experiences and understanding of healthcare service changes. Physicians facilitate knowledge translation to support social momentum. Social momentum is a unified advocacy movement initiated by community action that shapes public discourse and strengthens social accountability.

Respond – Responding to changes and community concerns involves eliciting feedback from the community and estimating the effectiveness of changes made to the delivery system (THEnet 2011). A collaborative effort would include an interprofessional commitment to respond to the needs of the community as well as receive feedback from stakeholders to strengthen the social accountability of the academic institution and its healthcare partners. Understanding the nature of scientific and social momentum allows physicians to appropriately analyse implemented changes. Once this is determined, programs can be adapted with flexibility.

Feedback during this step lends itself to new assessments and additional iterations of the AIDER process.

Social accountability and the future of medical education

In response to 'society's evolving healthcare needs', numerous calls have been made for changes to medical education so that it will better prepare physicians to engage and work effectively with the communities they serve (Josiah Macy Jr Foundation 2011). Canadian documents such as *The Future of Medical Education – A Collective Vision for MD Education* (FMEC 2010); *The Future of Medical Education in Canada – A Collective Vision for Postgraduate Medical Education in Canada* (FMEC 2012) and *Social Accountability: A Vision for Canadian Medical Schools* (The Association of Faculties of Medicine in Canada 2001), as well as a number of international evaluations of medical education, recommend that medical students and residents have opportunities to work and learn with underserved communities in diverse environments. In addition, learning about social determinants of health enables physicians to expand their understanding of health and health equity. Actively embedding these experiences into medical education helps physicians cultivate social accountability into their practices (FMEC 2012). Thus, social accountability is deemed a priority throughout the continuum of medical education. The AIDER model, by emphasizing community involvement at every step, provides a process by which medical students, residents and experienced physicians can uphold more socially accountable contact with changing Canadian society.

Another aspect of social accountability in medical education that is receiving attention is community education and health literacy (CSDH 2008). A physician's ability to deliver accessible knowledge to underserved communities and provide language and skills to support increased access to healthcare complements the call for medical education to embody greater social accountability in the patient–physician relationship (The Association of Faculties of Medicine in Canada. 2001; The Association of Faculties of Medicine of Canada (FMEC) 2010, 2012; The Marmot Review 2010). Medical institutions and physicians can integrate this change at both the microlevel, in underserved communities and interactions with their patients, and at the macrolevel, changes in curriculum and directing their research to the needs of these communities (CSDH 2008). In order to directly address this recommendation, AIDER purposefully has a step devoted to education of underserved communities. Supporting health literacy through education has the potential to expose and shift power relationships within the healthcare system. AIDER serves as a model in medical education that helps physicians tease apart the different layers of the system in which they work and develop a deeper understanding of how these levels (including their own power and biases) affect their patients.

In addition to medical education, AIDER is a model that can be integrated into a physician's practice. AIDER outlines a process by which practitioners can pursue small scale, immediate inquiries into healthcare gaps and/or health inequities that they notice among their patients. AIDER is also a process that can be applied to various scales of research, from individual action research all the way to extensive community and interprofessional collaboration.

AIDER and the CanMEDS framework

Finally, since CanMEDS is in keeping with recommendations in Canadian documents on the future of medical education, the process of developing AIDER and the resulting model were informed by the CanMEDS framework (CanMEDS 2005). Although an obvious connection between AIDER and CanMEDS would be with the role of Health Advocate, we found that social accountability was a competency reinforced through every CanMEDS role. The following competencies and objectives are a few examples that illustrate this point:

- Professional – 'Professionalism is the basis of medicine's social contract with society' (Cruess et al. 2009),
- Collaborator – 'Work with others to assess, plan, provide and integrate care for individual patients (or groups of patients)' (CanMEDS 2005),
- Scholar – 'To identify uncertainty and gaps in knowledge' (CanMEDS 2005).

Understanding social accountability as salient to physician identity reinforces the need for physicians to learn about and take up models like AIDER throughout the continuum of medical education and practice.

AIDER through two cases

AIDER can be applied to many real-life scenarios, where healthcare professionals can work with key stakeholders in a community to Assess and Inquire into barriers to healthcare and develop a plan to work towards a solution. It is important that the information is Delivered in an accessible way and used to Educate the community about the findings. Finally, a Response is implemented to address any barriers and adapt programs accordingly. Applying AIDER to the following cases allows the reader to appreciate how this model can be put into action.

Queen's University partnering with a Cree community and Weeneebayko General Hospital

Queen's University is partnered with Weeneebayko General Hospital in Moose Factory, Ontario, which provides care to a First Nations Cree community. Health practitioners and Cree community members assessed that this community faces several barriers to healthcare because it is geographically remote and can be difficult to access during most of the seasons due to availability of ice roads, train and helicopter service to cross the Moose River (Assess). Inquiry into occupational and living conditions can help illuminate how employment and education opportunities are limited in the immediate area, which can then place residents at a disadvantage financially compared to urban dwellers (Inquire). Using this model, healthcare professionals can recognize that all Canadians have the right to equitable

access to healthcare and that certain provisions and programs must be created and maintained in order to serve remote and marginalized populations. This information is explicitly taught to medical students at Queen's University (Deliver). AIDER can be used to help physicians partner with First Nations community members to empower individuals with knowledge to access healthcare in a way that best meets their needs (Educate). A response can then be developed within the community ensuring the action plan is practical, sustainable and culturally appropriate (Respond).

Using AIDER to empower patients in a physician–patient relationship

In Kingston, Ontario, a group of medical students partnered with a transition house for individuals transitioning from being underhoused and staying at shelters to living independently. Typically, this population does not have regular access to a family doctor and uses Urgent Care Centres for all their healthcare needs (Assess). Through action research, students conducted small-scale inquiries about how to best address this need (Inquire). The students met and spoke with the residents and explained how the healthcare system works with regard to different levels of care, where in Kingston they can seek those services, and when (Deliver). Residents were given pamphlets outlining this information and the group discussed how the residents can attend a doctor's appointment or hospital visit prepared with their background medical information and current medications to make the point-of-care interaction more efficient. In this exchange, students also learned from the residents that it can be difficult to navigate the healthcare system as an individual in an underserved population. An extension of this educational step would be for the students to bring what they learned back to the institution and inform peers (Educate). This initiative helped bridge the communication gap between a disadvantaged population and medical professionals and empowered the residents to take control of their health and healthcare (Respond). AIDER can be used to model social accountability in this example through the students responding to the needs of a marginalized group by helping the transition house residents improve their health literacy and potentially their overall health.

Social accountability as an institutional and physician value

By explicitly incorporating education and community participation, AIDER serves as an incremental step forward in instilling social accountability within medical education and physician practice. The flexibility of this model gives it universal applicability, but the underlying principle, of empowering underserved communities through participation and education, remains intact. At Queen's University, the incorporation of this process into curricula, along the education continuum, will reflect the evolution of 'our academic mission to fully address the needs of the healthcare system' (QSP 2012). Embracing social accountability as a core institutional value means mobilizing philosophy into action. It also means preparing socially accountable physicians who are equipped to address health inequities, ultimately leading to better health of the whole population.

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