

Global Leadership Model for Health Professions Education – A Case Study of the FAIMER program

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Abstract

The health workforce of the 21st century has enormous challenges; health professionals need to be both experts in their field and equipped with leadership and managerial skills. These skills are not part of the regular curriculum, so specific programs bridging this gap are required. Since 2001, FAIMER®, with eight centers across the globe, has worked to create health professions education leaders through transformational learning experiences, developing a global community of practice encompassing over 40 countries. We describe the design, implementation, evaluation, and evolution of the leadership and management curriculum component of the global Institute over 15 years. The curriculum is developed and updated through practices that keep faculty and fellows connected, aligned, and learning together. The article highlights the unique features, challenges faced, and sustainability issues. With a robust mixed methods evaluation, there are substantial reasons to believe that the model works, is adaptable and replicable to meet local needs. The program is playing an important role of answering the call for training positive, strengths-based, collaborative leaders who are socially accountable and embrace the challenges for high quality equitable health care around the globe.

Background

Academic health universities across the globe are dealing with a tsunami of change. Demands for equity and excellence in healthcare highlight wide gaps in access and service (Frenk et al., 2010; Larkins et al., 2013). There are numerous calls for increased accountability, faster cycles for training a larger healthcare workforce, and translation of healthcare discoveries into use (Halal, 2013; World Health Organization, 2011). All this is occurring amidst increased healthcare costs, resource limitations, increased demographic diversity, globalization, and technological advances in healthcare and education.

To meet these demands, increasing health professions provider expertise will not suffice. Effective *health care leadership* “requires developing leadership competencies that differ from the usual criteria of clinical and scientific excellence” (Stoller, 2013). Health professionals must develop a “dual identity” and embrace both aspects (Gabel, 2014; Gilmore, 2010). Conflict between the two can lead physicians to undermine their managerial role in an attempt to maintain their clinical identity (Burford, 2012; Gilmore, 2010).

Health professions educators with leadership expertise are critical to lead educational programs in the vastly expanding numbers of schools in developing countries (Tekian, Boker, & Norcini, 2014). Reform No. 6 of the Lancet Commissions on Health Professionals for a New Century emphasizes the need “for preparation of a new generation of professionals to complement their learning of specialties of expertise with their roles as accountable change agents, competent managers of resources, and promoters of evidence-based policies” (Frenk et al., 2010). Such change agents need leadership and management competencies to change and evaluate curricula to meet current societal needs. Recent studies have identified a set of core leadership skills, beyond specific health care disciplinary expertise (Angus et al., 2014; Bragar, 2014; Browning, Torain, & Patterson, 2011; Gentry, Logan, & Tonidandel, 2014; Lee et al., 2013; MacPhee, Chang, Lee, & Spirl, 2013; Patterson et al., 2014; Pfeiffer et al., 2013; Wiseman, Bradwejn, & Westbroek, 2014). Our analysis indicates that the recommended

leadership competencies across the globe tend to cluster into three domains – understanding self, leading and managing, and understanding healthcare systems (Table 1).

Table 1. *Synthesis of leadership competencies recommended for health professions educators and healthcare providers*

Leadership Domain	Typical competencies
Understanding self	Professionalism; Communication; Interpersonal relational skills; Knowing when to ask for assistance; Good team behavior; Straightforwardness and composure; Engagement and well-being
Leading and managing	Inspiring, leading and developing others; Guiding change; Participative management; Developing managerial effectiveness; Resource stewardship; Resourcefulness; Monitoring and evaluating; Organization; Time management; Prioritization
Understanding health systems	Capacity for complexity, innovation and change; Collaborative patient care team; Leading a team and exhibiting effective patient-centered team membership; Capacity for boundary spanning; Managing comprehensive care; Interprofessionalism; Empowering community partnerships; Understanding social determinants of health; Epidemiological skills; Architecture and levels of health systems/ delivery; Policy analysis and development

Another challenge is to design effective systems for developing these leadership competencies and evaluating their impact (Friedman, Cilliers, Tekian, & Norcini, 2014; MacPhee et al., 2013). Over the past two decades, a multitude of postgraduate or continuing education leadership development options have evolved for health provider managers and leaders (American College of Physician Executives, 2015; American Dental Education Association, 2015; California HealthCare Foundation: Center for the Health Professions, 2014; Curtin University, 2015; Harvard University T.H. Chan School of Public Health, 2015; Leadership Victoria, 2011; Robert Wood Johnson Foundation, 2012; University of Pennsylvania Wharton School, 2015). Postgraduate degree programs have also started for health professionals (e.g., Masters in Public Health, Masters in Business Administration, Masters in Health Administration, and Masters in Clinical Leadership).

Several programs have begun for health professions educators, but most have focused on education expertise or general career development skills (Association of American Medical Colleges, 2015; Association of Medical Education in Europe, n.d.; Helitzer et al., 2014; Steinert, Naismith, & Mann, 2012). An increasing number of masters-level programs (MSHPE) specifically for health professions education (HPE) have focused in developing education research knowledge and expertise (FAIMER, 2014; Tekian & Harris, 2012).

Well-recognized, in-depth *leadership development programs in academic health centers* include the UnitedStates based Executive Leadership in Academic Medicine (ELAM®) for senior women faculty (ELAM, n.d.) and Harvard Macy programs (Harvard Macy Institute, 2015). There are few models, however, for leadership development and leading change in HPE

that have a full international perspective and/or are being adapted to different countries and cultures (Burdick, Amaral, Campos, & Norcini, 2011; Doherty, Couper, Campbell, & Walker, 2013; MacPhee et al., 2013).

This paper describes the design, implementation, evaluation and evolution of the leadership and management component of the global FAIMER® Institute over 15 years (Burdick et al., 2010; Friedman et al., 2014). FAIMER is a private United States-based organization whose mission is to improve world health through improving HPE and research (FAIMER, 2012). The onsite sessions of the FAIMER Institute occur in Philadelphia, PA, USA for midcareer faculty from health professions schools globally. There are also seven FAIMER Regional Institutes (FRIs), adapted to local needs in India (with four FRIs), and one each in China, Brazil and Sub-Saharan Africa countries (Amaral et al., 2012; Frantz et al., 2015). A major goal is developing a global community of practice (COP) of health professions educators with an ethos of collaboration, life-long learning, and critical reflection (Burdick, 2014; Morahan, Gleason, Richman, Dannels, & McDade, 2010; Wenger, McDermott, & Snyder, 2002).

In this paper we address two areas: What are the unique features of the leadership curriculum? What are the factors involved in curriculum implementation and the extant problems for sustainability? We also share examples of the effect of the FAIMER Institute effects on the field of HPE, and policies and practices in FAIMER Fellows' countries.

FAIMER Institute Curriculum and Transformational Learning Principles

FAIMER has designed a curriculum based on the criticality of the dual roles, with the following overall goals for health professions faculty educators:

- Act as both HPE scholars/researchers and change agents.
- Identify the need for and lead positive, potentially transformative change.
- Understand, respect and successfully interact with those whose world views, values, behaviors, communication styles, customs and practices are different from one's own.
- Develop and defend clear rationale for education projects and priorities that respond to societal health needs and challenges.
- Develop a community of practice with health professions educators from across the globe and offer an international perspective on HPE.
- Identify pathways to access HPE resources: knowledge, people, publications and networks.
- Collaboratively design educational programs with rich teaching/learning environments for students, faculty and community members in their home institutions, countries and regions.
- Contribute to the field of HPE via education research and scholarship.
- Teach and practice collection and use of information in order to support assessment, evaluation, feedback, reflection, learning and improvement.
- Develop a career path in HPE.
- Prepare health professions practitioners who embrace social accountability and community partnerships for their schools.

The curriculum is organized around four overlapping themes (Fig. 1). The knowledge and skills learned within each theme are applied to a two-year curriculum innovation project designed by the FAIMER Fellows – a ‘central learning laboratory’ to apply learning and skills from all four curriculum themes.

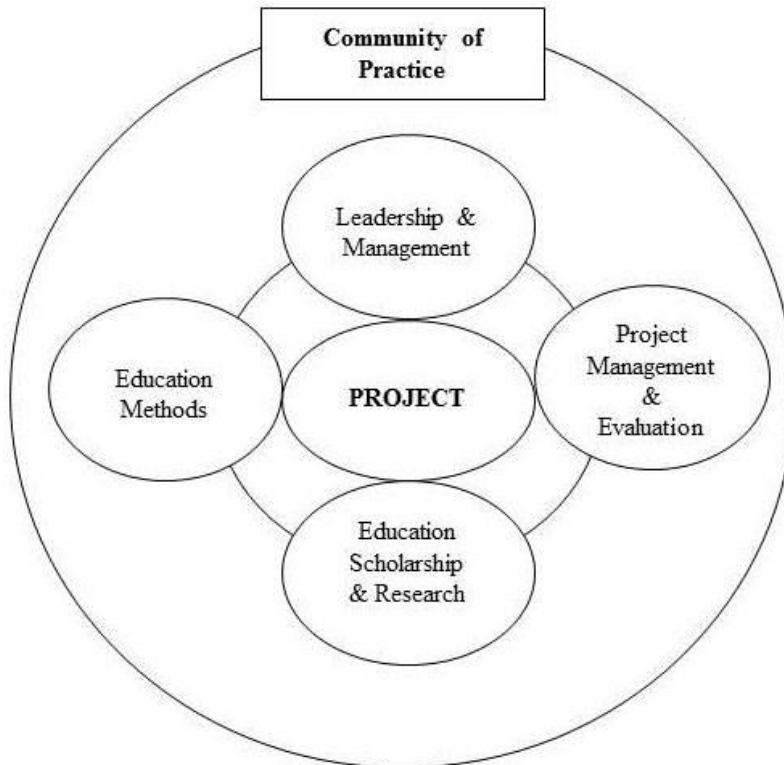


Figure 1. Overall design of FAIMER Institute curriculum

The curriculum design uses humanistic, cognitivist, and social cognitivist principles to create experiences for transformational learning. Fellows are exposed with both a high challenge and high support climate for learning (Cranton, 2002; S. Lamb, 2003; Merriam, Caffarella, & Baumgartner, 2012) that integrates transformational principles:

- Appreciation for the inherent diversity and differences within and among others;
- Viewing the larger world through an appreciative, positive, strengths-based lens;
- Developing an understanding of dialogue by using experiential methods;
- Reflection on learning experiences, to integrate lessons learned into one’s own thought patterns;
- Increasing self-efficacy through completion of action projects;
- Enhancing self-awareness and sensitivity towards ethically appropriate practices and decisions;
- Developing a COP;

- Integration within the curriculum of both Western (independent) and Eastern (interdependent) perspectives on learning (Javidan, Dorfman, Sully de Luque, & House, 2006; Markus & Conner, 2013).

Leadership and Management Curriculum Model and Pedagogical Processes

An overarching principle of the FAIMER Institutes is that, when one assumes an educational leadership role, educational and leadership expertise cannot be separated (Table 2). When an educator/leader is changing a curriculum, in addition to educational research expertise, that individual must have the skills of a change agent if the educational reform is to be successful. Moreover, a change agent needs a broad perspective and methods to address issues like community needs, social accountability, and diversity (Larkins et al., 2013; Markus & Conner, 2013; van Heerden, 2013).

Table 2. *Relationship between educational scholar/researcher and leader/change agent roles*

	Educational scholar/ researcher	Leader/ change agent
Seek	Answer questions	Achieve change goals
Focus	Study what is or has been	Plan what will be or could be
Data/evidence	Produce and share	Use to inform plans and decisions
Methods	Analysis	Strategy and action
Goals	Produce findings with utility for team & others	Energize team & others to move together towards a desired future

The objectives for the leadership and management curriculum theme are:

- Understand and apply leadership and management concepts in six contexts: (a) understanding self, (b) leading others, (c) leading teams and effective teamwork within a virtual and face-to-face environment, (d) leading within the organization, (e) building regional/national communities of practice), and (f) participating in a global COP for improving health.
- Value and respect similarities and differences of assumptions and cultural norms across groups.
- Effectively communicate in a multicultural learning environment.
- View the larger world through an appreciative, positive, strengths-based lens.
- Understand advocacy, inquiry and dialogue and their importance.

FAIMER Leadership Curriculum Model. The theories and approaches integrated into this model include:

- Basic leadership (seeing: scanning, focusing, aligning and mobilizing, inspiring) and management (doing: planning, organizing, implementing, monitoring and evaluating) (Dwyer, Paskavitz, Vriesendorp, & Johnson, 2006; Hesselbein & Shinseki, 2004; Kotter, 1990; Senge, Kleiner, Roberts, Ross, & Smith, 1994)

- Positive leadership theories - positive organizational scholarship (Cameron, 2008), positive deviance (Marsh, Schroeder, Dearden, Sternin, & Sternin, 2004) and positivity research (Fredrickson, 2013; Seligman, 2002)
- Strengths-based and assets-based leadership (Kretzmann & McKnight, 1993; Peterson & Seligman, 2004; Rath & Conchie, 2009)
- Appreciative inquiry, scholarship, leadership, and coaching (Bushe & Kassam, 2005; Carter et al., 2007; Cooperrider & Whitney, 2005; Orem, Binkert, & Clancy, 2007)
- Collaborative leadership (Browning et al., 2011; Ibarra & Hansen, 2011; Wheatley & Frieze, 2011) and related theories including relational (Weiss, Tilin, & Morgan, 2014), multiplier (Wiseman et al., 2014), servant (Greenleaf & Spears, 2002), and complex adaptive systems leadership (Mennin, 2010).

Integration of Leadership and Management Curriculum Components with Pedagogical Approaches. The FAIMER leadership model assumes multi-level learning at five concentric circles, moving from understanding self (inmost circle), to leading others, teams, within organizations, and building and leading regional/national COP. This multi-level model asserts “leadership education must have three main components: opportunity to reflect inward, look outward to learn from others, and provide an opportunity to serve others in order to create a balanced environment for the future” (Buschlen & Guthrie, 2014).

The units during the 2-3 week residential and 11-month virtual mentoring-learning sessions for Years 1 and 2 are listed in Table 3. Appendix A provides details so that leadership educators can replicate and adapt the curriculum, including its purpose and objectives, two-year curriculum sequence, focus within the five circles of learning, and the specific pedagogical processes (Jenkins, 2013). Fellows challenge their previous assumptions, build leadership capacity, envision their desired future, practice skills in a safe environment, apply practical knowledge with supportive consultation, and create a collaborative culture and COP to expand their skills to larger institutional, national, regional, and international realms (Andenoro et al., 2013; Burdick, 2014; Rosch & Anthony, 2012; Wenger et al., 2002). The curriculum and pedagogical processes have spread throughout the FRIs located on three continents (Africa, Asia, South America), maintaining most core elements, with adaptations depending on local needs (Table 3). The Brazil and Sub-Saharan Africa FRIs, with longer on-site sessions, include additional components.

Table 3 *Leadership curriculum sessions across FAIMER Institute and FRIs*

Leadership and Management Curriculum Sessions	Global	Regional Institutes			
	Philadelphia	India	Brazil	Sub-Saharan Africa	China
Understanding Your Leadership Style	√	-	√	√	-
Managing Small Group Collaboration & Teamwork	√	√	√	√	√
Learning Circles/ Community of Practice	√	√	√	-	-
Difficult Conversations/ Managing Conflict	√	√	√	√	√
Skills for Change Agents	√	√	√	√	√
FAIMER Learning & Leadership Model	√	-	-	-	-
Leadership for the 21st Century	√	-	√	√	-
Reflective Practice	√	√	√	√	√
National/ International Medical Education Day	√	-	√	-	-
Sustaining Change	√	√	√	√	√
Strengths-based Leadership	√	-	-	-	-
Managerial Leadership	√	√	√	√	√

Process for Keeping Leadership and Management Curriculum Updated and Globally Relevant

A three-pronged process – expanding global perspective, incorporating leading edge information and concepts, fostering cross-exchange among Institutes – ensures the leadership and management curriculum remains cutting edge and is globally relevant.

Expansion of Global Perspective. In 2001, all 32 FAIMER core and guest faculty were United States-based, although several had extensive global experience. By 2014, about one-third of the 48 faculty had origins and/or careers beyond the U.S. Since 2004, alumni have been invited faculty, receiving travel expenses and honoraria to co-teach during the Institute, provide global perspective, and facilitate on-line curricula. Since 2012, FRI alumni faculty without the FAIMER global experience have been invited, receiving travel funds to participate on-site and on-line. The bilateral impact has been increased global perspective for both United States-based faculty and international Fellows.

Incorporation of Leading Edge Information and Theories about Leadership and Education Methods. Cross-Institute curriculum work groups tackle specific areas, bringing unique perspectives to build a state-of-art globally-relevant curriculum, and enabling alumni to

deepen knowledge. Also, we have intentionally increased integration throughout the four curriculum themes and applied knowledge and skills to the individual innovation projects as a laboratory for practical use. Finally, the curriculum is continually updated through multiple feedback lines (e.g., daily surveys, retro-pre surveys, focus groups and annual Fellow portfolio reports), and information gathering (e.g., phone calls with Fellows' Dean).

Intentional Cross-exchange among Institutes. We foster collaborative presentations at international meetings, workshops, and publications; faculty exchanges between Institutes; meetings at international HPE conferences; and annual global faculty development sessions for core Institute faculty. Infrastructure (e.g., Skype, Dropbox) facilitates regular communication and faculty development, collaboration and literature interchange, and video-streaming and chat meetings around the globe.

Methods for Evaluation of the Leadership and Management Curriculum

From the beginning, the Institute has conducted robust mixed methods evaluation (Burdick et al., 2010; Campos, Friedman, Morahan, De Campos, & Haddad, 2013; Friedman et al., 2014; Mennin et al., 2013). The evaluation was designed to provide useful information for program planning and improvement. This paper focuses on one aspect of this larger program evaluation: Whether the fellows perceived the leadership curriculum as contributing to an increase in their leadership knowledge and skills. Program leadership over time has collaborated with both of external and internal evaluators to select and refine the measures described here (Conley-Tyler, 2005; Christie et al., 2004). A retrospective pre-post questionnaire was chosen to provide quantitative data on knowledge-skills change while addressing response shift bias (Lamb & Tschillard, 2005). Focus groups were selected to provide qualitative data to allow a deeper understanding of how the curriculum has facilitated change, how it can be improved, and unexpected and emergent findings. The evaluation has undergone IRB review.

Retrospective Pre/Post Survey. Fellows complete a retrospective-pre/post questionnaire (Lamb & Tschillard, 2005) at the second residential session (Session 3). Respondents rate their skills, knowledge or competence to address curriculum topics on a scale from 1 (none or no skill) to 7 (expert, teach others), for before FAIMER (retrospective pre-test) and today (post-test). The 2010 updated survey has items covering six curriculum areas: Assessment, Professional Development, HPE, Project Management and Evaluation, Research and Scholarship, and Leadership and Management. The analysis here includes responses to the four items related to Leadership: appreciative leadership, change management, conflict management, and group dynamics and team building. The data include responses from 41 Fellows (89%) from class years 2010 (N=13), 2011 (N=14), and 2012 (N=14) who consented to participate.

Focus Groups. Fellows are invited at the second residential session to participate in a focus group conducted by an external consultant who interviews about their projects, how they have used knowledge and skills gained in the Fellowship, and the impact of their Fellowship on their home institutions and professional networks. The results reported include a summary and synthesis of findings regarding leadership from 60 Fellows from the most recent four classes : 2010 (N=14), 2011 (N=16), 2012 (N=16) and 2013 (N=14).

Results: Evaluation and Impact of the FAIMER Institute Leadership and Management Curriculum

Almost 200 Fellows have used this curriculum and processes, with over 1000 fellows and alumni across the FAIMER Institute plus FRIs. Evaluation results and examples of the ripple effects of the leadership and management curriculum on HPE in Fellows' countries are shown below.

Evaluation of Leadership and Management Curriculum of Global FAIMER Institute. The results of the retrospective pre-post survey revealed that Fellows perceived significant increases in skills and knowledge in leadership objectives after completing the first year of the Fellowship (Figure 2). The increases were greater than in other curriculum areas (Burdick et al., 2010), related to Fellows' low self-assessment of their pre-Institute leadership capabilities as well as increases by post-Institute. The percent respondents with ratings above 4 (above "average" on scale) by item and class year increased from a range of zero to 31 percent at "pre", to 69 to 93 percent at post. There were statistical differences between "retrospective pre" and "post" ratings for all items by each class year ($p < .002$, nonparametric Wilcoxon signed-rank test for ordinal scale data).

The results of the focus groups support the retro-pre results. Particular leadership skills mentioned as useful included negotiation and conflict management skills, expanded self-awareness of their leadership style, strengths-based approaches, appreciative inquiry, and team-building and team leadership. One respondent noted: "Another great skill we've learned is teambuilding... My approach to a team has drastically changed. We weren't aware of MBTI and personality type and we had this wonderful session the other day on strengths-based leadership and how you need to look at people differently. I think that's a fantastic skill." (Respondent 11, 2011 class).

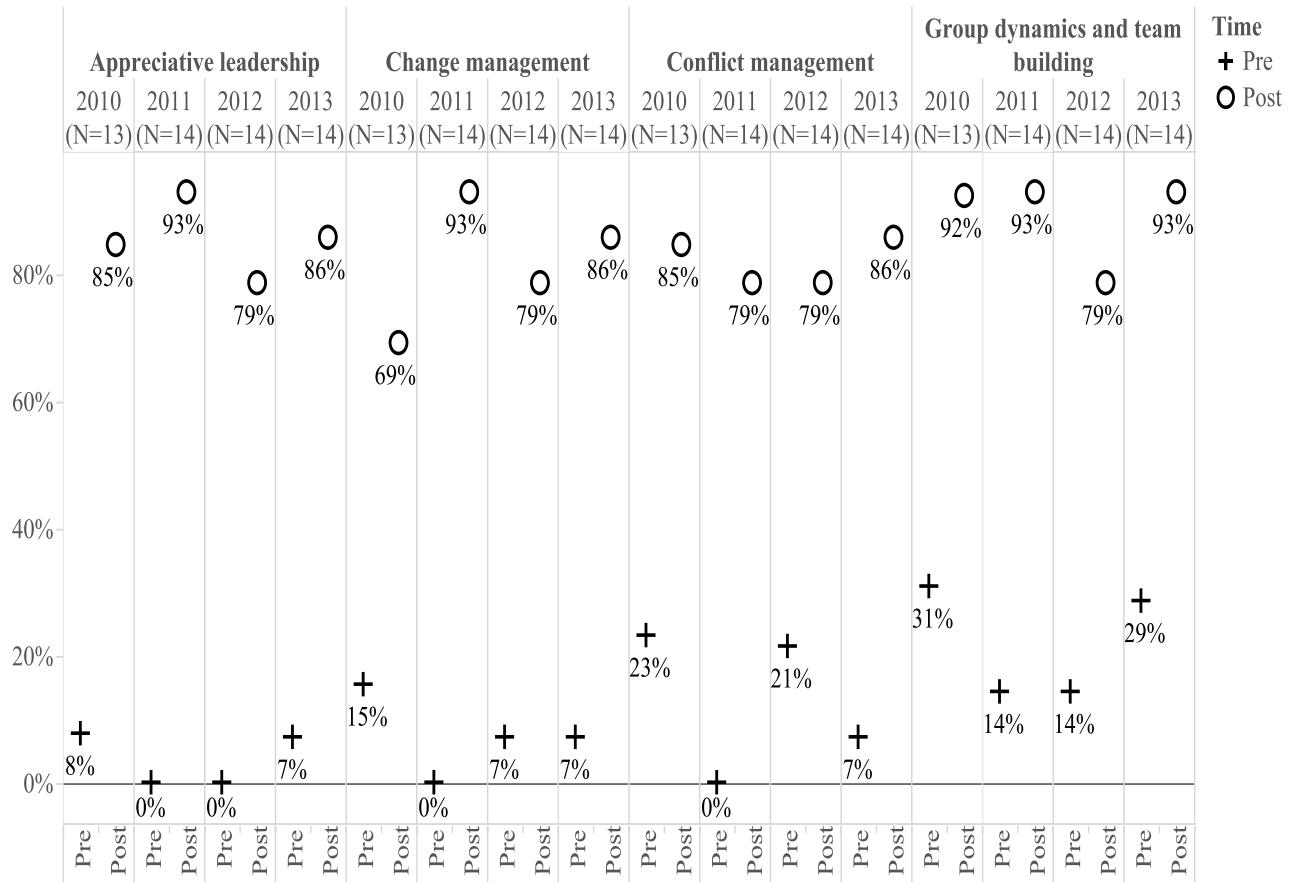


Figure 2 FAIMER Institute retrospective pre-post leadership curriculum items: percent of respondents with ratings above 4 (above average on 7-point scale of skills, knowledge and competence)

Another commented: “At many of our ages, we’ve got some educational skills as well as some leadership skills, but I think as any very good workshop, which FAIMER is absolutely, it taught us why we were doing things in the way we were doing things -- as I mentioned, the personality styles and the leadership styles. So it really helps to put things in perspective of why we do certain things the same way, each of us. And then how do we build on those strengths and skills that we already have and use the new skills also... it reinforces the fact that the skills that we use and the way we are doing it can be used in more effective ways” (Respondent 8, 2012 class).

Fellows emphasized the importance of the curriculum design with a project as a central laboratory for applying knowledge and skills. They valued the opportunity to apply leadership skills they gained through designing and implementing their education innovation projects, as shown by this comment: “So through the project, we have learned teaching methods, scholarship, leadership, not just to learn them as knowledge or factual information, they give us the chance to apply what we have learned. Giving us the chance to apply these things tailored and modified

according to our current situation in our country. So this, a major issue of learning is to get the information, to set things in your mind, to make changes wanted to suit the situation applied..." (Respondent 13, 2012 class).

Fellows also emphasized the importance of combining education and leadership competencies as a FAIMER core principle. They noted the leadership curriculum was new even for those with a significant background or degree in HPE: "I have done a medical education program, but they don't cover the leadership aspect. So all these things are new concepts. How to find strengths in your team members and how to put them together. I think these are the things that stands out compared to the medical education programs. I think these are the skills which are important." (Respondent 9, 2010 class).

Another commented: "For me, this was more of a learning experience even though I was in medical education because it introduced me to new areas, new domains, new horizons like change management, conflict management. Not that I was not aware about these things, but it was a practical experience to work out these things with the experienced faculty here. So in terms of benefits, I see that my knowledge is improved, my skills, especially generic skills of team building, collaborating skills have improved a lot. The benefit was two-fold because it was for my organization, also." (Respondent 2, 2010 class).

A third noted: "I come from a background where I have already done two masters in medical education, and leading to my doctorate in medical education. So knowledge about medical education, educational research, I had it. But the uniqueness I see is that FAIMER gave me the ability to look at my strengths, identify my personality profile, my MBTI, leadership strengths and gave me much self-awareness about myself, which enables me to connect accurately with others, to collaborate and to make an impact. And that insight, I did not gain from any of the other course. And I think it's really, really valuable." (Respondent 2, 2012 class).

Fellows also noted they applied their Fellowship leadership skills to bring about institutional change, serving as change agents to improve educational and health care in their geographic regions, as shown by these comments: "In fact, the concept of the project – not only does it teach you or help you learn the aspects of leadership or project management. What it also achieves, maybe in a subtle manner, is that it's helping you bring about a change." (Respondent 11, 2011 class).

"By the time you leave here, and you set foot back in your native country, the realization that there are challenges, will certainly dawn on you. If they don't dawn on you immediately, they will dawn on you after awhile of getting back home. But the skills and the scientific knowledge you acquire here will help you move ahead and effect the change of your project. And I think that is a worthwhile experience." (Respondent 8, 2011 class).

"For me, it was a very important experience and made a change in my institution...my project is about changing the model, and I'm lucky that I came to do this. And I came to make change in my institution about this topic. And it was very important for my institution and for my country." (Respondent 16, 2011 class).

Fellows also noted the positive transformative impacts of newfound appreciative inquiry skills: “I know now that using my Appreciative eye, I can see the whole picture and I can improve and be responsible for my work in a positive way. That makes a lot of impact in my life, not only the professional but the family, personal life. That has really transformed me.” (Respondent 13, 2013 class).

“Because I work in the field of public health, I receive a lot of leadership management training, but these issues present something different from the other training I have received. In looking at the positive things, it’s really a different approach. We used to read in these books how to do that, but we have started here to practice. That’s really new for me, not new, but a new horizon.” (Respondent 12, 2013 class).

“Appreciative inquiry changes the way you do things. It comes into teaching classes, it comes into the faculty board meetings and the department meetings and so all over, people recognize you as someone who asks an appreciative question.” (Respondent 1, 2013 class).

While some Fellows noted they have not yet achieved systemic change, they felt ready to do so, including achieving readiness for change among their colleagues: “What I would say that even though I have not brought about any change, yet I think that what has happened here has equipped me to be able to initiate where a need is, initiate a change and manage to bring in those who will be necessary to effect that change.” (Respondent 11, 2012 class).

Building Critical Mass. The 1000 mid-career faculty participants, from over 40 countries, come from various health disciplines. For the 580 Fellows (2010 through 2014 classes) at all FAIMER fellowship programs, 71.4% had medicine as their discipline, while 28.6% reported other health professions, including dentistry, nursing, physical therapy, phonoaudiology, public health and nutrition.

Examples of Effect of FAIMER Institute and FRIs on HPE Recognition, Policies and Practices in Fellows’ Countries. In addition to continued faculty and leadership involvement in the FAIMER Institute and FRIs, many Fellows now influence local, national and international health education policies. Table 4 provides some examples; a comprehensive study remains to be performed.

Table 4 Examples of alumni from FAIMER Institute or Regional Institutes building the field of HPE

Category of Impact	Examples (years = awards or initiative start dates)
Membership in policy making and regulatory HPE bodies	<p>Brazil: developing, implementing, and evaluating national health education policies, e.g., developing preceptors for residency programs, supervising student tutorial programs in different disciplines, expanding medical schools to rural and remote areas (2012); accreditation and evaluation of new medical schools (2012); implementing and coordinating national exam for validation of foreign medical graduate degrees (2007)</p> <p>India: members of Advisory Committee for Medical Council of India (MCI) (2014); MCI curriculum vision document and its implementation (2012); MCI advanced course in medical education (2014)</p> <p>South Africa: appointment to South African Medical and Dental Professions Board of the Health Professions Council of South Africa (2010), leading Undergraduate Education and Training subcommittee, working on Standards Generating Committee, Education and Registration Committee, and Medical Postgraduate Education and Training Committee</p>
Changing national policies in HPE	<p>India: development of MCI-mandated medical education core competencies for all faculty in India (2012); FRIs included in nationally mandated faculty development programs (2006)</p> <p>Brazil: contract for Brazil FRI in health system reform (2006)</p> <p>South Africa: alumnus involved in Minister of Health development of Scope of Practice for Clinical Associates (Physician Assistants), adoption of national core competency framework, adoption of revised accreditation self-assessment questionnaire for national and international imperatives in HPE, and accreditation of a new, ninth medical school (2014)</p> <p>Brazil and South Africa: alumni serving on panel of Academy of Science of South Africa for consensus study on Reconceptualization of Training of Health Professionals in South Africa (2014-2015)</p>
Leadership in National HPE organizations	<p>Brazil: leadership positions in Brazilian health professions associations (medical, dental, nursing, physiotherapy, and pharmacy)</p> <p>India: initiated national Medical Education Unit listserv (2008); initiated Indian Academy of Health Professions Educators (2013)</p> <p>South Africa: leadership in South African Association of Health Educationalists (SAAHE); members of South African Committee of Medical School Deans Curriculum Subcommittee (2010)</p>
National or international recognition of HPE expertise	<p>India: alumnus received national award for best teacher (2012)</p> <p>Egypt: alumnus received award for advancing HPE by</p>

	<p>Management Science for Health (Boston, USA) (2010)</p> <p>South Africa: national teaching awards for two alumni (2009, 2010)</p> <p>Brazil, South Africa: hosting international meetings, e.g., The Network: TUFH (2014, 2015)</p>
Leadership positions in health professions schools	Brazil, Colombia, Egypt, India, South Africa: various roles (rector, vice chancellor, deans, vice deans, director of education programs and units)
Organizing diploma or graduate programs for HPE	<p>Brazil: diploma for Brazil FRI (2007); alumni awarded Ministry of Education competitive graduate programs (MS and PhD) for HPE (2012)</p> <p>Egypt: national HPE diploma (taught in English) (2007); Eastern Mediterranean Regional HPE diploma (taught in Arabic) (2010)</p> <p>India: U.S. grant to develop MSHPE curriculum at one university (2012)</p> <p>South Africa: established one HPE MS (2008) and PhD (2011) and two postgraduate diploma programs</p>
Establishing peer reviewed journals in HPE	<p>India: editorial board of Southeast Asia Journal of Medical Education (2007); managing editorial office for Education for Health journal (2012)</p> <p>South Africa: African Journal of Health Professions Education (2009); editorial board; alumna is editor-in-chief</p>
Movement towards inclusion of HPE activities and research for career advancement	<p>Brazil: criteria revised for academic promotion at individual schools; national recognition of HPE as scholarship for career advancement</p> <p>India: inclusion of training in medical education required for promotion and scholarship in medical education</p> <p>South Africa: criteria revised for academic promotion at individual schools</p>
Increasing the awareness of the role of health professions schools in social accountability	<p>Brazil: publication of projects in community-based education, translated by PAHO to Spanish and English (2014)</p> <p>Brazil, Egypt, Pakistan, South Africa: editors and contributors to WHO volume on community-based education (2013)</p> <p>South Africa: national workshops by Medical and Dental Professions Board on social accountability (2012); revision of accreditation process (2014)</p>

Discussion, Extant Challenges and Conclusion

Fifteen years ago FAIMER began the ambitious project of improving health by improving HPE. One strategy was to develop leadership qualities in educators; now, almost 1000 Fellows and seven FRIs around the globe are spreading this leadership model. Though the main principles, philosophy and curriculum are constant, each FRI has adapted the design based on local needs and cultural perspectives.

The impact on Fellows' personal and professional lives is captured in a robust evaluation; the comments and examples reveal transformational changes (Frenk et al., 2010). They are empowered to use their leadership knowledge and skills to innovate and lead educational changes. Many honors and leadership appointments have come their way, as well as evidence that HPE is developing as a field (Mouradian & Huebner, 2007).

While the FAIMER program has similarities with other health professions leadership programs (Armstrong & Barsion, 2006; Morahan et al., 2010; Steinert et al., 2012), it has several unique features. First, the objectives emphasize developing Fellows as *both change agents and scholars/researchers*, in contrast to the HPE research focus of MSHPE programs and education courses (Tekian & Harris, 2012). Second is the *integration of appreciative, positive, strengths-based and collaborative leadership theories with more traditional leadership and management paradigms*. This emphasizes today's global leaders being skilled and versatile with both independent and interdependent approaches (Markus & Conner, 2013).

Vibrancy, relevance, and global inclusiveness are ensured through faculty collaboration for integration of curriculum themes, focus on projects and continual updating. This integration and practice-based emphasis (informed by theory), together with the process of upgrading the curriculum and deepening the knowledge base of faculty has involved collaborative efforts between United States-based and global faculty. The four curriculum themes are woven together and focused on the project as the 'real life laboratory' for practice of knowledge and skills in each competency area. Fellows practice during on-site sessions and receive coaching and encouragement from faculty, project advisers and peer Fellows during implementation (Mennin et al., 2013). Faculty are present for at least one week and often the entire four weeks on site, as well as being involved in the distance learning. This enables reinforcement and integration of learning, both formally and informally, from one theme to the other.

Finally, there has been a well-developed longitudinal, mixed methods evaluation plan. Independent soundness has come from external team involvement during the first five years (Burdick et al., 2010; Mennin et al., 2013), and external facilitators for focus groups. Future plans include a study gathering perspectives from deans of Fellows' schools to incorporate another viewpoint.

Sustainability of learning is always a challenge for educators. Because project work during training, continuous professional development support and approval of the innovation by institutional leadership are reported to be important (Gusic et al., 2010; Owston, 2007), we have ingrained these factors in pedagogy and processes throughout the fellowship period and beyond. Continual expansion of FRIs to other regions and the increasing faculty taking forward the FAIMER model provide additional avenues to sustain learning in human minds and endeavors.

There are extant challenges with sustainability of our leadership education programs with a distributed organizational structure; these include developing and retaining volunteer faculty, quality control and power dynamics between Institute and FRIs, especially as they mature. Four FRIs are now about ten years old. In response, we are discussing how best to keep all programs at cutting edge, ensure quality and access for FRI faculty development, manage the inevitable tensions between central and distributed leadership, and whether to differentiate curriculum

among FRIs and develop a new role for the global institute.

Another challenge is sustainability of engagement of the entire FAIMER COP, and ensuing obligations of the small central staff. While exploring reasons for faculty involvement, several possibilities have emerged to inform future strategies: provision of professional and social support and opportunities for learning within the COP; access to professional development opportunities, e.g., scholarships for MSHPE degrees, attendance at international meetings, and co-authorship; recognition of expertise as global faculty and project advisers; and emphasis on the social accountability mission. One response has been development of a close partnership with an international organization focused on community-based HPE and social accountability (The Network – Towards Unity for Health, 2014).

A major extant challenge is sustainability of the entire FAIMER model. One issue is greater demand than resources (e.g., continuing support for current FRIs; new regions desiring FRIs; continuing advising and coaching for alumni). In response, we have decreased operational expenses, require Fellows or institutions to cost share (although substantial scholarships still exist), and are changing our financial commitment for FRIs.

The second issue is the evolving field of HPE, and distance education competition. This challenge is inherent in any successful educational program with longevity, as alumni become experts themselves and advance the field to a new level of professional need (Tekian & Harris, 2012). In response, we have developed a formal distance learning certificate (FAIMER, 2014). The development of the field of HPE has also resulted in greater variability in knowledge and expertise of FAIMER Fellows, leading to dialogue about possible program or curriculum tiers.

While this report provides strong evidence of positive results, namely our description and evaluation showing 15 years of successful implementation and adaption to four international settings and examples of impact, the results are derived from a single case study. We cannot be certain how generalizable the success factors would be for leadership programs in other disciplines and regions. Moreover, additional evaluation is needed to obtain the perspective from the Fellows' schools, and to measure institutional, regional, national and international impact.

In conclusion, the FAIMER leadership curriculum has created a successful, adaptable, dynamic and inclusive model for inculcating leadership and management qualities in health professions faculty across the globe. The impact has created ripples, including fostering the field of HPE (Table 4). As FAIMER trains faculty to be competent change agents, it answers the call for reform from the Lancet Commissions on Health Professionals for a New Century (Frenk et al., 2010) and paves the way for achieving the goal of transforming HPE to embrace social accountability and commitment to improving the health of communities.

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