

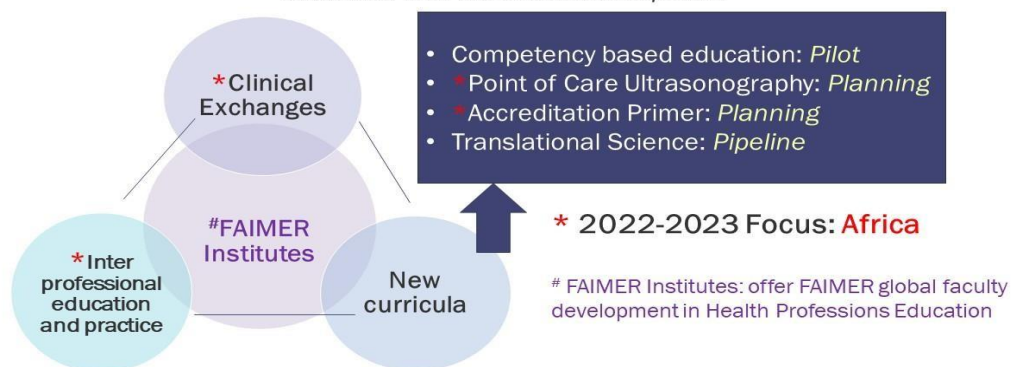
# Innovations in Health Professions Education (HPE) for the new normal: experiences from FAIMER

This article summarizes the Foundation for Advancement of International Medical Education and Research (FAIMER®) global programs, describes the FAIMER Institutes that offer global Faculty Development Programs (FDPs) in HPE; the pivots made in response to the COVID-19 pandemic; and the implications for HPE and FDPs with a special focus on Africa. “Please visit FAIMER, a member of Intealth at [www.faimer.org](http://www.faimer.org)”

**Figure 1: FAIMER Global Programs illustrating the range of the programs, highlighting those focused-on Africa for 2022-2023**

FAIMER: *Foundation for Advancement of International Medical Education and Research*

*FAIMER Global Programs integrate our international partnership to advance health care education and workforce development*



While online learning has been gaining momentum over time, (1) the onset of the COVID-19 pandemic in 2020 can be considered a tipping point that resulted in a rapid transition to this mode (1,2).

Globally, education institutions adapted to the “new normal”, whilst facing challenges such as limited resources and training of faculty (1,3). Faculty development programs (FDPs) have been considered critical for transformational reform in health professions education (HPE) (4). While it became imperative for FDPs in HPE to innovate to remain relevant during this time of crisis, this has also resulted in increasing changes in practice.

## FAIMER Global Programs

FAIMER Global Programs integrate FAIMER’s international partnerships to advance HPE and workforce development. Figure 1 illustrates the range of these programs, highlighting those focused-on Africa for 2022-2023. FAIMER Institutes, offering global FDPs in HPE, were the earliest programs; these form the core of FAIMER global programs and are described in the next section. The Interprofessional Education and Practice (IPE) student exchange

program for the health professionals is offered in Africa in partnership with the African Forum for Research and Education in Health (AFREhealth). A program to increase physician workforce through post graduate exchanges is being developed. Finally, FAIMER new curricula are evolving to meet current needs. Professional development in competency-based education was piloted in 2021-2022 as a virtual program and will be offered as full program for global faculty in 2023. FDPs in point of care ultrasonography (POCUS) and a training program in accreditation are in planning stages, and FDPs in translational science are in the pipeline. This article focuses on the pivots made in response to the COVID-19 pandemic by the FAIMER Institutes, the earliest and oldest FAIMER Global program.

## FAIMER Institutes

For two decades FAIMER has offered global FDPs in HPE, leadership, and community building for health professions educators through its International FAIMER Institute (IFI) based in the USA and FAIMER Regional Institutes (FRIs) globally.

Rashmi Vyas, MD, MHPE, Senior Associate and Director FAIMER Global Programs <sup>1</sup>[rvyas@faimer.org](mailto:rvyas@faimer.org); Page S. Morahan, PhD, Professor Emerita, Drexel University College of Medicine, and Founding Co-Director <sup>1,2</sup>; Shiyao Yuan, MS, MEd, Technical Associate/Data Scientist <sup>1</sup>; Francois Cilliers MBChB, MPhil, PhD, IFI Global Faculty, Professor of Health Sciences Education <sup>1,3</sup>; Wagdy Talaat, MD, PhD, IFI Global Faculty, WHO Senior Consultant, Founding Chairman, Medical Education Department, <sup>1,4</sup>; Jeanette Mladenovic, MD, MBA, President<sup>1</sup>. FAIMER, Philadelphia, Pennsylvania <sup>1</sup>, Drexel University College of Medicine, Philadelphia, Pennsylvania<sup>2</sup>, University of Cape Town, South Africa.<sup>3</sup>, Suez Canal University, Egypt <sup>4</sup>.

## International FAIMER Institute (IFI)

The IFI had its origins as the FAIMER Institute. Launched in 2001 in Philadelphia, this part time 2-year FDP consisted of two annual 2-3 week-long intense immersion experiences onsite surrounded by online components. The program used interactive, transformative learning experiences across four curricular themes: program management and evaluation, education methods and assessment, leadership and management, and education research and scholarship. Education innovation projects by fellows at their home institution provide experiential learning and formed the central focus of the program. Cultural humility and collaboration were values intertwined throughout. In 2020, with the pandemic, IFI became a totally online program (described below).

## FAIMER Regional Institutes (FRIs)

FAIMER utilized an adapted Hub-and-Spoke model for the development of FRIs (Figure 2), fostering mutual partnership and collaboration. FRIs were modeled on the IFI curriculum with local adaptation. Over 20 years, 11 FRIs were developed, centered in Brazil (2007-2017), Chile (serving the Latin American region), China (2 FRIs), Egypt (serving the Middle East and North African region), India (4 FRIs), Indonesia, and South Africa (serving the Sub Sahara African region; 2008-2021). The IFI and the FRIs have resulted in almost 2000 Fellows forming a global network of health professions educators from 55 countries.

Figure 2: FAIMER mutual partnership model for development of FAIMER Regional Institutes (FRIs)

FAIMER: Foundation for Advancement of International Medical Education and Research

- FAIMER used an adapted hub-and-spokes organizational design to develop FRIs
- Fostering mutual partnership and collaboration
- FRIs were modeled on the International FAIMER Institute (IFI) curriculum with adaptation to the local context

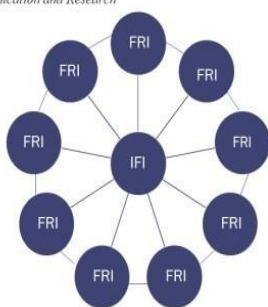


Figure 3. Location of FAIMER Institutes and number of FAIMER Fellows in each Institute

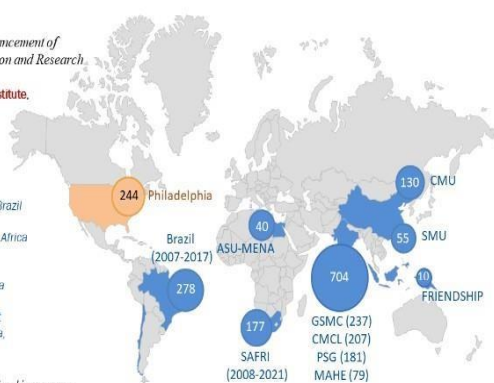
FAIMER: Foundation for Advancement of International Medical Education and Research

2001: International FAIMER Institute, Philadelphia, USA

11 FAIMER Regional Institutes

2005 GSMC - Mumbai, India  
 2006 CMCL - Luthiana, India  
 2007-2017: Brazil - Fortaleza, Brazil  
 2007: PSG - Coimbatore, India  
 2008-2021: Cape Town, South Africa  
 2013: CMU - Shenyang, China  
 2015: MAHE - Manipal, India  
 2016: SMU - Guangzhou, China  
 2018: FRILA - Santiago, Chile  
 2019: ASUMENA - Cairo, Egypt  
 2019: FRIENDSHIP - Yogyakarta, Indonesia

Data valid through 2021  
 Five Fellows completed 2 FAIMER fellowship programs



## Program Evaluation

Systematic program evaluation has been underway since the first institute began. Fellows reported an increase in knowledge, skills, and competence in HPE (5). Similar results were found across all programs, indicating the curriculum was effective globally.

Fellows reported that their education innovation projects were institutionalized, replicated, or expanded, resulting in institutional outcomes (6,7). Moreover, Fellows became leaders in HPE in their regions, influencing national policies (8).

## 10 Africa Health

## Pivots made in response to the COVID-19 pandemic

In 2020, with the COVID-19 pandemic, the FAIMER Institute became the IFI, reflecting the pivot from a hybrid residency model to a fully online Fellowship. The IFI uses Moodle™ as the Learning Management System (LMS) and the Zoom platform for synchronous learning.

## Three pivots by IFI

The major impact has been in curriculum delivery, with less change in curriculum content. Our first pivot in 2020 was prompted by a series of interrelated challenges. Fellows are located around the world, encompassing a 14-hour time difference between China and Mexico, with tremendous variability in internet connectivity. They are also busy health professionals who were facing unforeseen clinical challenges during the pandemic. We designed an extended curriculum spread over 10 months each year, with 80% asynchronous work (planned to be completed in 6-8 hours per week) and 20% synchronous learning. The IFI team of global faculty redesigned the teaching-learning materials over a 4-month period and began the online IFI in July 2020.

Feedback from Fellows indicated they wanted more synchronous sessions, despite some Fellows having to be present at 7am, many attending during working hours, and others at 9pm. Thus, for our second pivot in 2021, we redesigned the IFI curriculum as an 8-month program with almost 60% synchronous sessions. In reality, many Fellows could not consistently attend the synchronous sessions because of changing clinical responsibilities; others were unable to attend because they were ill with COVID and got behind in the work; and 3 of 20 eventually dropped out as they were not able to participate due to their clinical responsibilities.

In 2022, the third pivot started as IFI faculty team undertook a major curriculum revision to ensure content relevance and learning opportunities that successfully engage fellows online. In June 2022, the revised IFI curriculum was deployed, designed to be an effective and feasible online program. A major change was to create a two-week Intensive Instruction Phase with virtual synchronous sessions from 7-11am UTC-4 Monday through Friday, making it more feasible for fellows to block off a short, concentrated time, and incorporating active small-group online activities for community building. Fellows and their Deans were notified of this requirement. This Intensive Instruction Phase is followed by the Implementation Phase in which the synchronous sessions once or twice a month are interspersed with asynchronous activities.

## Pivots by FAIMER Regional Institutes

Similarly, FRIs pivoted to different forms of curriculum delivery. This has varied from completely online for the FRI in Mumbai, India, a mix of online and onsite participants during the residential component for the two FRIs in China, among other variations. FRIs have used different platforms - Google classroom, their university LMS, Microsoft Teams, or other platforms for program delivery.

As the FRIs pivoted we partnered with our FRI leaders to have virtual monthly meetings of the Directors and Faculty of the FAIMER Regional Institutes (DAFFRI). Program leaders shared curriculum delivery experiences, learned from each other, shared resources and faculty and formed a network of support to enhance the experience of the Fellows in these changed times. Many spinoffs from DAFFRI have resulted, such as FRIs collaborating in projects for teaching specific new teaching/learning strategies during DAFFRI meetings and developing a systematic system for sharing materials across programs.

## Building a global online community of practice

Building a community of practice has been core to the FAIMER Fellowship and crucial for the success of the programs over 2 decades (9,11). The challenge now is to build a close, tight knit, trust-based community when the fellows are not meeting in person. Figure 4 shows our nested approach to building an online community of practice.

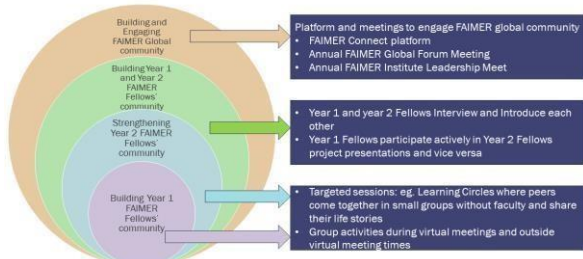
The first two levels are individual cohorts - building a community of year 1 Fellows, and then strengthening that community for year 2 fellows. This is achieved by several strategies, including: learning circles in which the peers come together in small groups without faculty and share their life stories (11); small group activities during synchronous sessions; and group activities outside the virtual meetings. The third level builds community across the two cohorts, which previously could be achieved efficiently when Fellows met in person onsite. Online, we designed activities for fellows to interact such as year 1 and year 2 fellows interviewing and introducing each other; and year 1 participating in year 2 project presentations and giving feedback and vice versa. Pre-recorded project presentations were used to overcome unstable internet connectivity in some areas to ensure a smooth experience.

The biggest challenge we have faced is building an online global community of ALL FAIMER fellows, work that is still in progress. In 2021, we launched the annual FAIMER Global Forum meeting for the global community to come together, showcase their work in HPE and engage in discussions in relevant areas in HPE and workforce development. We also started the annual virtual FAIMER Institute Leadership Meet that brings together the institutional leaders from schools and universities where FRIs are located to engage in strategic thinking and planning for the growth, development, and expansion of the programs. In 2022 we launched FAIMER Connect, a virtual platform to engage global community. This is the first time FAIMER has had the technology to connect the entire FAIMER community of about 2000 individuals from over 55 countries. Teams from DAFFRI are strategizing various activities for engagement using this platform.

## Figure 4: Nested approach to building an online FAIMER community of practice within and between classes and across the globe

Figure 5: Nested approach to building an online FAIMER community of practice within and between classes and across the globe

FAIMER: Foundation for Advancement of International Medical Education and Research



## Evaluation of online programs

Program evaluation is ongoing and initial evaluation findings suggest there is no difference in gains in knowledge, skills, and competencies between the onsite and online format, which is encouraging. It is too early to measure the outcomes of the online format at institutional and national levels, although Fellows demonstrated leadership in pivoting to online learning during the COVID-19 pandemic and teaching other faculty in their institutions and nationally (12).

## Implications

The changes made in response to the COVID-19 pandemic hold many implications. The online program is cost-effective and feasible for participants, and it appears that the online format is here to stay. The format enables FAIMER to enhance its contribution globally.

The FRIs continue to offer programs either in an online-only format or hybrid, depending on the current status of COVID-19 in their respective regions, and draw on experiences with the online IFI. We have successfully piloted FDP in competency-based education as a one-year virtual program and are planning to offer this program through FAIMER to serve the global needs and through FRI in Indiato serve the local needs.

We applied our experiences with the online FAIMER Fellowship to design our new curricula which are either fully online or will have considerable online components. We are expanding our reach through exploring partnerships to start new FRIs. In partnership with Makerere University School of Medicine, Kampala, as host university and Mbarara University of Science and Technology Faculty of Medicine, Mbarara, as regional partner, we are starting a new FRI in Uganda in 2023 to serve the Eastern Africa region. Maintaining FAIMER's commitment to Africa, we aim to expand regional access to HPE expertise and pilot a multiple partnership model for FAIMER to use in future partnerships. Our partners in Africa are crucial for the success of the programs to enhance HPE and workforce development in this region.

## Conclusion

FAIMER has developed a successful model for advancing HPE globally; mutual partnerships and collaborations have been and will continue to be a cornerstone for programs for the HPE community. The sustainability, growth, connectivity, and impact continue in the online format; this is encouraging because online education in all spheres, including global FD is the new reality. A major challenge remaining is to design teaching/learning activities that maintain human interactions; these will be crucial for impactful online programs. Sharing the experiences of IFI and FRIs will be useful to meet these needs as we continue to build global capacity in HPE.

## References

- Jiang Z, Wu H, Cheng H, Wang W, Xie A, Fitzgerald SR. Twelve tips for teaching medical students online under COVID-19. *Med Educ Online*. 2021;26(1):1854066-1854066.
  - Elshami W, Taha MH, Abdalla ME, Abuzaid M, Saravanan C, Al Kawas S. Factors that affect student engagement in online learning in health professions education. *Nurse Educ Today*. 2022; 110:105261-105261.
  - Namboodiri S. Zoom-ing Past "the New Normal"? Understanding Students' Engagement with Online Learning in Higher Education during the COVID-19 Pandemic. In: Mogaji E, Jain V, Maringe F, Hinson RE, editors. *Re-imagining Educational Futures in Developing Countries: Lessons from Global Health Crises* [Internet]. Cham: Springer International Publishing; 2022 [cited 2022 Sep 9]. p. 139-58. Available from: [https://doi.org/10.1007/978-3-030-88234-1\\_8](https://doi.org/10.1007/978-3-030-88234-1_8)
  - Frenk J, Chen L, Bhutta ZA, Cohen J, Crisp N, Evans T, et al. Health professionals for a new century: transforming education to strengthen health systems in an interdependent world. *The Lancet*. 2010 Dec;376(9756):1923-58.
  - Burdick WP, Diserens D, Friedman SR, Morahan PS, Kalishman S, Eklund MA, et al. Measuring the effects of an international health professions faculty development fellowship: the FAIMER Institute. *Med Teach*. 2010 Jan 1;32(5):414-21.
  - Burdick WP, Friedman SR, Diserens D. Faculty development projects for international health professions educators: Vehicles for institutional change? *Med Teach*. 2012 Jan 1;34(1):38-44.
  - Diploma of Health Professions Education - Taking Egyptian medical education to new heights [Internet]. [cited 2022 Sep 19]. Available from: <https://dhpescu.com/>
  - Hasnain M, Wendell L, Yuan S. 15-year impact study report and recommendations. Foundation for Advancement of International Medical Education and Research (FAIMER), Philadelphia, USA; 2017.
  - Silverstein A, Benson A, Gates C, Nguyen D. Global community of practice: A means for capacity and community strengthening for health professionals in low- and middle-income countries. *J Glob Health*. 2022; 12:04034-04034.
  - Ramani S, McKimm J, Findyartini A, Nadarajah VD, Hays R, Chisolm MS, et al. Twelve tips for developing a global community of scholars in health professions education. *Med Teach*. 2021 Aug 3;43(8):966-71.
  - Ahmed S, Morahan P, Wells R, Magrane D, Carvalho P, Shah H. Creating a Community of Practice Using Learning Circles: A Unique Design. *MedEdPORTAL* [Internet]. 2014 Sep 16 [cited 2021 Mar 20];10. Available from: [https://www.mededportal.org/doi/10.15766/mep\\_2374-8265.9896](https://www.mededportal.org/doi/10.15766/mep_2374-8265.9896)
  - Academy of Health Professions Educators - The Official Website of AHPE (India) [Internet]. [cited 2020 Nov 27]. Available from: <https://ahpe.in/>
- Acknowledgement  
We thank the FAIMER team, FRI directors and team, FAIMER partners and global community.