

World Heart Federation Emerging Leaders Program

An Innovative Capacity Building Program to Facilitate the 25 × 25 Goal

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The vision of the World Heart Federation is to drive efforts to reduce premature cardiovascular disease-related death globally by at least 25% by 2025 [1]. This vision is aligned with the overall goal of the World Health Organization Global Action Plan for noncommunicable diseases (“25 × 25”) [2]. To achieve this vision, the World Heart Federation’s mission is “to unite its members and lead the global fight against heart disease and stroke.” To implement this mission, the World Heart Federation has initiated the Emerging Leaders program with substantial alignment with other priority activities [3]. The Emerging Leaders program aims to use expertise among leaders in implementation science, health systems, and health policy research and to work with at least 100 key, mid-level experts (emerging leaders) over the next decade to initiate and facilitate cardiovascular disease (CVD) prevention activities globally and in every region of the world. In this report, we describe the rationale for and characteristics of the Emerging Leaders program, including its training objectives, methods of training, and future directions of the program.

RATIONALE FOR AND DESCRIPTION OF EMERGING LEADERS

The vision of the Emerging Leaders program is to create a global cadre of individuals who will contribute to improving global cardiovascular health and to reducing the burden of cardiovascular diseases, with particular focus on the “25 × 25” goal. These individuals who are actively working in CVD prevention and control and related fields will strengthen their expertise in identification of barriers and facilitators for implementation of evidence-based prevention and treatments for CVD; evaluation of health systems; development of evidence-based policy research; and activism by influencing critical stakeholders including policymakers, legislators, and media. The World Heart Federation aims to leverage the skills, expertise, commitment, contextual opportunity, and ambitions of its member organizations, focusing on those individuals who have already demonstrated productivity in their area of expertise and are capable of actions that lead to changes in their own region or country.

Emerging leaders are not restricted only to clinical cardiologists or other physicians. Indeed, emerging leaders

are expected to come from a diverse set of backgrounds to help provide complementary perspectives, expertise, networks, and opportunities to address the goal of “25 × 25.” The emerging leaders are expected to come from public and private sector backgrounds. They could include, but are not restricted, to those working as academics and clinical cardiologists, primary care physicians, pharmacists, and public health nutrition experts. Emerging leaders should have demonstrated experience working with local, regional, or national governments and nongovernmental agencies, among others. Emerging leaders are also expected to exhibit creativity and disruptive innovation to spark change through their previous and future work.

The Emerging Leaders program, as will be explained, is directed by its Steering and Operations Committees. The Steering Committee is cochaired by the president-elect of the World Heart Federation (*ex officio*), 1 member of the World Heart Federation’s Scientific Policy and Advocacy Committee, and the senior program advisor of the Emerging Leaders program. Additional Steering Committee members include other members of the Scientific Policy and Advocacy Committee, the director of the International Ten Day Teaching Seminar on Cardiovascular Disease Epidemiology and Prevention, a World Heart Federation scientific officer, and 1 at-large emerging leader—level representative who has participated in planning activities for the Emerging Leaders program. The Operations Committee is chaired by the Emerging Leaders senior program advisor and includes members of the planning committee of the Emerging Leaders program. By design, the Operations Committee is charged with day-to-day activities of the program, including recruitment, review, and recommendations by a Selection Subcommittee for selection of participants. The Steering Committee provides final approval of the participants as well as approval for seed funding of emerging leaders’ research proposals.

Initial funding for the Emerging Leaders program has been provided by unrestricted educational grants from AstraZeneca and Boehringer Ingelheim to the World Heart Federation. Emerging leaders are asked to support their own travel (although a few travel awards are available for candidates who would otherwise not be able to participate in the program from low-income countries), but other

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programmatic costs are centrally supported and these include: program administrative costs; transportation, lodging, food, and seminar costs; online training module development and maintenance costs; and seed funding costs to support pilot studies. Additional funds are being actively sought to sustain the program for at least 5 years.

In January 2014, the first cadre of emerging leaders were competitively selected based on their leadership, communication, research productivity, creativity, career goals, collaboration(s) with current stakeholders (including in-country World Heart Federation member organizations), mentors, and local institutions (see Table 1 for list). Whereas the 2014 cadre of emerging leaders had demonstrated success in these domains and productivity in their respective fields and interest in making changes in their countries, many emerging leaders had limited expertise or experience in the target streams of implementation science/knowledge translation, health systems evaluation, and health policy research.

Training aim, objectives, and methods

The main aim of the Emerging Leaders program is to enhance the individual's capacity for implementation of evidence-based and locally relevant approaches to CVD prevention and evidence-based treatments to attain the "25 × 25" goal (Table 2). The specific training objectives

are to strengthen research capacity, professional development, mentorship, and networking of emerging leaders, all of which lead to the development and execution of global collaborative projects.

"Themes and streams" of training

Each cycle of training has an overall *theme* based on World Heart Federation priority areas: secondary CVD prevention; hypertension control; or tobacco control. Within each theme, ~3 *streams* are developed from a variety of different but related perspectives, namely: implementation studies; health systems evaluation; and development of evidence-based policies. These themes include topic areas related to targets/indicators that are part of the World Health Organization Global Action Plan [2] and the World Heart Federation's Prevention Roadmap, a linked initiative under active development to provide concrete steps to scale up priority interventions to achieve "25 × 25."

Training components

The training program consists of 3 components: 1) 10 interactive, online modules; 2) 5-day think tank seminar; and 3) development of collaborative multicountry 1-year pilot projects with the provision of seed grant funding by the World Heart Federation. This combination of training components, coupled with seed funding to accelerate

TABLE 1. 2014 World Heart Federation emerging leaders

Name	Country	Selected Areas of Expertise
Alvaro Avezum	Brazil	Cardiology; national research networks
Rong Bai	China	Cardiology; electrophysiology
Amitava Banerjee	United Kingdom	Cardiology; epidemiology
Jose Rocha Faria Neto	Brazil	Cardiology; epidemiology
Ann Gates	United Kingdom	Pharmacology; physical activity
Nicholas Girerd	France	Cardiology; biostatistics
Khalid Habib	Saudi Arabia	Cardiology; disease registries
Zhi Cheng Jing	China	Cardiology; venous thromboembolism
Kamilu Karaye	Nigeria	Cardiology; disease registries
Dhruv Kazi	United States	Cardiology; health economics
Shusmita Khan	Bangladesh	Public health nutrition; qualitative methods
Shweta Khandelwal	India	Public health nutrition; public health training
Rasha Khatib	Palestine/Canada	Epidemiology; health economics
Gene Kwan	United States	Cardiology; implementation science
Darryl Leong	Australia/Canada	Cardiology; clinical trials
Moniruzzaman	Bangladesh	Epidemiology; surveillance
Robby Nieuwlaat	Netherlands/Canada	Cardiology; health systems research
Dike Ojji	Nigeria	Cardiology; disease registries
Francesco Orso	Italy	Cardiology; cardiac rehabilitation
Katherine Quinto	Chile	Epidemiology; adolescent/child health
Andrew Smyth	Ireland/Canada	Cardiology; epidemiology
J-D Schwalm	Canada	Cardiology; implementation science
Rajesh Vedanthan	United States	Cardiology; implementation science
Pablo Werba	Italy	Cardiology; geriatrics; tobacco control
Lijing Yan	China	Demography; large, pragmatic trials

TABLE 2. Specific training objectives

1. Identify emerging leaders and assist in their professional development through a series of online and face-to-face seminars.
2. Build collaborations between researchers and implementers across disciplines in the realm of cardiovascular disease prevention and control.
3. Promote awareness of multiple disciplines within cardiovascular disease research.
4. Develop mentor (established researchers) and mentee (emerging leader) relationships to promote capacity building.
5. Use the training curriculum/think tank seminars as vehicles to develop tangible projects and protocols for seed funding for larger collaborative projects that will help achieve the “25 × 25” goal.

collaboration and “learning-by-doing” among individuals with previous demonstration of productivity within their area of expertise, highlights an emphasis on collaborative action toward specific targets/goals within a specific time frame, which likely differentiates this training program from many others.

Online training

All emerging leaders participate in a set of 10 online modules that address fundamental issues in CVD epidemiology and methodology, health system and policy research, and implementation science/knowledge translation (see the [Online Appendix](#) for learning guides). These modules include learning objectives, pre-module reading, an interactive online infrastructure (approximately 15 to 20 min for each module), and post-module work to enhance engagement. As research projects within streams mature following the think tank seminar, the focus of online training shifts toward project-specific training and problem-solving.

Think tank seminar

Online training activities are complemented by an interactive, face-to-face think tank seminar to develop tangible projects to be implemented with the stated goal of contributing to “25 × 25.” The inaugural Emerging Leaders Think Tank Seminar was held on March 23 to 28, 2014, at the Population Health Research Institute at McMaster University in Hamilton, Ontario, Canada. The seminar was hosted by Dr. Salim Yusuf and included 25 emerging leaders from 16 countries (Australia, Bangladesh, Brazil, Canada, Chile, China, France, India, Ireland, Italy, Netherlands, Nigeria, Palestine, Saudi Arabia, the United Kingdom, the United States) and 15 faculty from 6 countries (Brazil, Canada, India, Switzerland, the United Kingdom, the United States). The 2014 seminar’s overarching theme was secondary cardiovascular disease prevention.

The seminar included a 1:1 mix of interactive lectures ([Table 3](#)) and small group activities (see [Online Appendix](#) for full agenda from 2014). The small group activities built on one another from research priority setting (pre-seminar work) to developing a shared research question culminating in 3 research proposals (in both written and oral form) related to secondary CVD prevention. Groups

provided written and oral feedback to one another as a form of peer review/education throughout the seminar, and each written proposal was submitted to the Emerging Leaders Review Committee on the final day for peer review.

Peer reviewers provided feedback within 2 weeks of the think tank seminar completion, and emerging leaders’ teams were required to respond to reviewers’ comments 2 weeks thereafter. Final funding decisions were recommended by the Emerging Leaders senior program advisor, which were reviewed and accepted by the Emerging Leaders Steering Committee. Additional activities during the seminar included the following: social activities including a visit to Niagara Falls and group dinners to facilitate and promote interaction, team-building, and engagement among emerging leaders; faculty interviews for development of online training modules across the 3 streams; and video capture of faculty interviews for the development of online training modules.

Seed funding for collaborative research

Seed funding for 3 proposed, 12-month research projects has been provided to emerging leaders to initiate projects in the theme of secondary prevention with the explicit expectation that teams will submit their proposals for additional external funding from local, regional, national, and international sources for larger, collaborative projects targeting “25 × 25” within 12 months. The link between seminar activities, grant development, and seed funding (approximately US\$5,000 per emerging leader; or ~\$40,000 per project) increases the likelihood of success in developing sustainable, global collaborative research projects to help achieve “25 × 25” beyond typical one-time seminars. Each cadre will pursue its own stream of research related to World Heart Federation priority areas with a focus on research toward “25 × 25.” The 2014 Emerging Leaders program projects are as follows.

Implementation science/knowledge translation: TAKEdeds Study: The Adherence and Knowledge Exchange Heart and Stroke Medicines Study. These researchers aim to iteratively develop, test, implement, and evaluate a multifaceted, text messaging-based information-technology intervention for patients and providers to improve adherence for secondary CVD prevention.

TABLE 3. Faculty and topic titles for the 2014 World Heart Federation Inaugural Emerging Leaders Think Tank Seminar

Faculty	Topic Title(s)
Dorairaj Prabhakaran Centre for Chronic Disease Control New Delhi, India	Asking an answerable research question to contribute to “25 × 25” Cardiovascular research needs to achieve “25 × 25” in India
Sharon Straus University of Toronto Toronto, Ontario, Canada	Competencies for knowledge translation research for “25 × 25” Developing, evaluating, and comparing complex interventions for “25 × 25”
Dina Balabanova London School of Hygiene and Tropical Medicine London, UK	Good health at low cost: how some countries will achieve “25 × 25” Methods to evaluate the effect of health systems on “25 × 25” targets and indicators
Vasanthi Srinivasan Ontario Strategic Patient-Oriented Research SUPPORT Unit Ottawa, Canada	Health system strategy development Health policy development: turning evidence into intersectoral action in Ontario for “25 × 25”
Clara Chow George Institute for Global Health Sydney, Australia	Standards, strategies, and evaluation of CVD secondary prevention programs for “25 × 25” Methods to evaluate a community’s cardiovascular health for “25 × 25”
John Lavis McMaster University Hamilton, Ontario, Canada	Guidance for evidence-informed policies about health systems to achieve “25 × 25”
Amir Attaran University of Ottawa Ottawa, Ontario, Canada	Laws and regulations to improve access to safe, essential medicines to achieve “25 × 25”
Donald Lloyd-Jones Northwestern University Chicago, IL, USA	Development, implementation and comparison of US and European/UK cardiovascular clinical practice guidelines Managing, pooling, and evaluating large datasets
David Wood Imperial College London London, UK	Development, implementation and comparison of US and European/UK cardiovascular clinical practice guidelines
Salim Yusuf McMaster University Hamilton, Ontario, Canada	EUROACTION: a model for secondary preventive care to achieve “25 × 25” Fixed-dose combination therapy: past, present, and future for “25 × 25”
Darwin Labarthe Northwestern University Chicago, IL, USA	Cardiovascular health: a quiet revolution
Alvaro Avezum Dante Pazzanese Institute of Cardiology São Paulo, Brazil	How to scale up CVD prevention and control for “25 × 25”: a national Emerging Leaders program in Brazil
Prabhat Jha University of Toronto Toronto, Ontario, Canada	Global effects of smoking, of quitting, and of taxing tobacco
Johanna Ralston, Pablo Perel World Heart Federation Geneva, Switzerland	World Heart Federation’s strategies and programs to help achieve “25 × 25”

CVD, cardiovascular disease.

Health systems: WikiMeds: Increasing transparency to promote use of medicines for secondary prevention of cardiovascular disease. These researchers aim to create WikiMeds, an online platform that uses crowd sourcing for collecting and disseminating information about the costs and quality

of secondary CVD preventive drug therapy in 1 high-, 1 middle-, and 1 low-income country. The long-term goal of this project is to empower patients with information about the cost and quality of drugs for secondary CVD prevention to improve adherence and outcomes.

Health policy: CARdiovascular Disease: Identification of Obstacles and Facilitators to Maximize Secondary Prevention Policy and Strategies (CARDIOMAPPS). These researchers will perform a systematic review on facilitators and barriers to secondary CVD prevention; will perform and analyze key informant interviews in New Delhi, India, and Hamilton, Ontario, to identify facilitators and barriers to secondary CVD prevention; and will create a model policy brief to inform local policy-makers of options for improving secondary CVD prevention.

Seminar feedback

Based on anonymous feedback from 2014 emerging leaders ($n = 25$) through an online survey conducted immediately after the think tank seminar, 88% rated the overall seminar experience as “excellent,” whereas the remaining 12% rated the seminar as “good.” Nearly all (94%) rated the seminar’s relevance as “excellent,” and at least 3 of every 4 emerging leaders reported the usefulness (75%) and quality (81%) of information presented as “excellent.” Most emerging leaders (69%) reported that the balance of lectures and small groups was “just right” with a nearly even balance between those who reported wanting more small group (19%) or more lecture (13%) time. The emerging leaders reported that they would have liked more advance notice of the application process and materials for the seminar, which are areas that we will readily address for the next 2015 seminar. Based on this initial 1-year experience, from planning phases to date, we are confident that the Emerging Leaders program has the potential to link emerging leaders from World Heart Federation member organizations to the larger, global platform provided by the World Heart Federation and its activities in a substantive, and potentially sustainable, manner.

FUTURE DIRECTIONS

The Emerging Leaders program leadership team, Drs. Mark Huffman (senior program advisor), Darwin Labarthe (senior consultant), and Salim Yusuf (World Heart Federation president-elect) are in active discussions with the 2015 Emerging Leaders Think Tank Seminar host, Dr. Jaime Miranda from the CRONICAS Centre of Excellence in Chronic Diseases at Universidad Peruana Cayetano Heredia in Lima, Peru. The 2015 Emerging Leaders Think Tank Seminar will focus on hypertension control for achieving “25 × 25” and will be held March 22 to 28, 2015, in Lima. On the basis of the knowledge and experience gained to date, the application timeline was accelerated for recruiting and selecting for the second cadre of emerging leaders (recruitment period: September to October 2014; selection period: November 2014). The Emerging Leaders program team has also received suggestions from Emerging Leaders regarding additional methodology foci, including systems engineering, qualitative methods, among others to cover for future seminars, which will be incorporated where feasible.

The Emerging Leaders program leadership team has produced a promotional video, released at the 2014 World

Cardiology Congress meeting in Melbourne, to attract more applicants and more funding support (<https://www.youtube.com/watch?v=uRB29Ja4-do&feature=youtu.be>). The team has also developed emerging leaders—specific online training modules adapted from faculty interviews and linking these interviews with pre-reading and post-module activities to help put learning of key principles into action. These online training modules are available to the 2014 emerging leaders through a secure server and will be used as pre-seminar work for the 2015 emerging leaders, who will be required to complete the modules prior to the 2015 Think Tank Seminar. The Emerging Leaders program leadership team has recruited local, regional, and international faculty to participate in the 2015 Think Tank Seminar in consultation with the Emerging Leaders Operations Committee and the 2015 host.

The Emerging Leaders program leadership team will also continue to seek funds to support local costs of the first cohort of emerging leaders to participate in the 2015 seminar to facilitate continuity. We will also host opportunistic meetings at major cardiovascular society and other meetings, including the 2016 World Congress of Cardiology & Cardiovascular Health in Mexico City, to serve as investigators’ meetings for each of the streams. It is hoped that at future World Congress of Cardiology & Cardiovascular Health meetings, there will be sessions lead by the emerging leaders to fast-track continuous engagement and knowledge translation, including featuring their work, to incentivize participation of future leaders coupled with dissemination activities. Current teams will be required to complete their projects by June 30, 2015, with reporting to the World Heart Federation at the mid-point and end of their projects. Final reports will include updated knowledge translation plans and specific funding sources that will be sought to further develop these projects.

SUMMARY

The Emerging Leaders program represents major opportunities for the World Heart Federation, its member organizations, and the emerging leaders themselves to leverage their collective strengths toward achieving the ambitious, yet achievable, “25 × 25” goal through an innovative global collaborative leadership-enhancing experience. The program reflects the long-term vision of the World Heart Federation by investing in individuals, but not isolation, who are working collaboratively toward a common goal. This will contribute, in turn, to “25 × 25” at large, but also importantly, provides a sustainable venue/platform for long-term global health capacity building.

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