

## **B. Proposal**

### 1. Overall Aim & Objectives:

The project aims to build World Heart Federation (WHF) member capacity to reduce CVD mortality by improving attention to tobacco use and second hand smoke (SHS) exposure in cardiology training and clinical practice.

Objectives are to:

- 1. Increase at least 5 cardiology societies' commitment and capacity to train members in clinical interventions for tobacco use and SHS exposure** within their own events. By piloting a cessation curriculum and training cardiologists as trainers, the project will increase cardiology societies' capacity to help their members reduce the impact of tobacco use both on smoking and non-smoking patients.
- 2. Establish a network of at least 20 trainers and tobacco control champions (in 5 countries)** who are committed to maintaining and building that capacity. This will provide a means to sustain the dialogue, build on research and disseminate information on tobacco.
- 3. Engage leaders of 10 national and regional cardiology networks** in giving more attention to tobacco in cardiology training events or other activities. This will encourage use of the curriculum, and identify how global and regional cardiology networks, publications or activities can be used to motivate cardiologists to increase attention to tobacco use and SHS exposure.
- 4. Identify barriers to addressing tobacco use and smoke exposure in clinical practice for CVD** in China and the Middle East. This will be the basis for ongoing, evidence-based dialogue between champions/trainers and leaders on how to overcome these barriers.
- 5. Keep tobacco control and cessation high on the agenda of global non-communicable disease NCD advocacy** conducted by member organizations. This will help integrate tobacco control into the broader activities of member organizations, and use these activities to foster deeper commitment to tobacco control.

Desired outcomes:

- 1. At least 6 Cardiology Societies and Heart Foundations put tobacco higher on their agenda** and feature it more prominently in congresses, journals, research projects, training events, and advocacy campaigns.

Grant ID: 044096- World Heart Federation- Change from within: increasing cardiologists' engagement in tobacco cessation and control

**2. At least 15 cardiologists integrate evidence-based interventions on tobacco use and SHS into clinical practice and work to train their peers.**

3. At least 1 Middle-Eastern medical faculty adopts a cessation training curriculum.

4. Networks of at least 10 champions in each region continue activities in training on cessation and SHS within cardiology events.

## 2. Current Assessment of Need in Target Area:

Globally, tobacco use is the largest preventable cause of death and accounts for 10% of CVD deaths worldwide. A Canadian Cardiovascular Society Position Paper points to tobacco addiction as the most significant of the “modifiable” cardiovascular risk factors.<sup>1</sup> Smoking cessation for patients with established coronary artery disease substantially reduces disease progression, recurrent events, and death.<sup>2</sup> A retrospective, cohort analysis of a population-based clinical acute myocardial infarction (AMI) database involving 9041 inpatients discharged from Canadian hospitals, demonstrated that smokers present with AMI at a much younger average age than those who have quit, or than nonsmokers. While those who had been counseled about smoking had a 37% reduction in risk of 1-year mortality than those who had not, barely over half of smokers discharged after AMI had received smoking cessation counseling at all. Patients admitted by cardiologists or internists had lower rates of counseling than those admitted by family physicians.<sup>3</sup>

In 2011 Judith Prochaska et al reported that tobacco cessation curricula had not yet targeted cardiology training. By developing and piloting a training adapted for cardiology fellows, they found that the course had little impact on participants’ practice 3 months post intervention: barriers reported were insufficient time, difficulty organizing follow-up and lack of insurance coverage.<sup>4</sup>

In key informant interviews with over 20 cardiologists interested in tobacco cessation and control, the WHF found consensus that tobacco does not get the attention it deserves in cardiology events around the world. They confirmed that in some countries it remains common and acceptable for cardiologists to smoke even at cardiology events, and few respondents could recall a plenary session on tobacco in a cardiology event.

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<sup>1</sup> Pipe, A et al. Society Position Statement: Smoking Cessation and the Cardiovascular Specialist: Canadian Cardiovascular Society Position Paper. *Canadian Journal of Cardiology* 27 (2011) 132-137

<sup>2</sup> Tonsted S, Andrew Johnson J, Cardiovascular risks associated with smoking: a review for clinicians. *Eur. J. Cardiovascular Prev. Rehabil.* 2006; 13:507-14;

<sup>3</sup> Van Spall HG, et al. Inpatient smoking-cessation counseling and all-cause mortality in patients with acute myocardial infarction. *American Heart Journal*

<sup>4</sup> J.J. Prochaska et al : Cardiology Rx for change, *Clinical Cardiology* 34. 12, 738-743

Grant ID: 044096- World Heart Federation- Change from within: increasing cardiologists’ engagement in tobacco cessation and control

A mapping of tobacco control activity within the global “heart health” network led by WHF revealed that while there are some individual cardiologists and heart foundations who have made outstanding contributions to tobacco control advocacy, research on tobacco, and cessation therapy, most have not been recognized widely for these contributions within CV health circles, or found much support for their work there. There is strong agreement that there is much untapped potential within the global heart health community for supporting both tobacco cessation and control.

The region where there is the most activity around tobacco control in cardiology networks is Latin America, where Eduardo Bianco has been a pioneering cardiologist working to get his peers involved in tobacco control. The two countries where cardiology societies are taking leading roles promoting smoking cessation are China and Canada.

The WHF/WHO/ITC report based on data from the Global Adult Tobacco Survey and International Tobacco Control Evaluation Project examines data from ITC and from the Global Adult Tobacco Survey and finds that people know less about tobacco and CVD than they do about tobacco and cancer or lung disease. In China, where stroke risk is very high, over 70% of smokers surveyed were unaware of links between smoking and stroke and between 45% (ITC data and 62% were unaware that smoking causes heart disease. Over half of Chinese smokers are not aware of links between secondhand smoke exposure and heart disease and more than twice as many are unaware that secondhand smoke causes cancer. Even in countries like Australia, the UK and the US, where awareness of links between tobacco use and CVD is high, over 40% of smokers surveyed did not know about links between CVD and secondhand smoke.<sup>5</sup>

Key informant interviews with cardiology leaders, conducted as part of the WHF mapping, mentioned the following barriers to cardiologists being more involved in tobacco cessation and control: lack of time; tobacco is associated with epidemiology, prevention and public health, which are peripheral to a clinician’s daily practice; cardiologists are attracted to new science and they perceive no new science around tobacco use; they found that cessation therapy is not effective; they lack confidence in their skills and lack of knowledge about latest science.

Recommendations for engaging cardiologists included:

- Get support of key opinion leaders and use top tier journals, congresses
- Use research
- Organize it so it does not take much time

These findings have informed proposal plans.

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<sup>5</sup> WHF/WHO/ITC. Cardiovascular harms from tobacco use and secondhand smoke exposure: Global gaps in awareness and implications for action. Pp 6-10.

### 3. Technical Approach, Intervention Design and Methods:

Through the network of tobacco control champions developed within its network and within the framework of a broader strategy to develop advocacy to reduce premature cardiovascular disease mortality by 25% by the year 2025, the WHF proposes to increase cardiologists' buy-in for and capacity to provide cessation support by:

- Rolling out training in gold-standard treatment of tobacco dependence, adapted to cardiologists and regional/international audiences (focusing on Asia and the Middle East).
- Emphasizing the importance of advice to nonsmokers on secondhand smoke, exploring how to embed it in standards of good CVD care through existing professional quality assurance processes/ journals/events.
- Working within cardiology circles to raise the priority accorded to tobacco control and cessation in health policy (including integrating it into NCD plans to be established by 2013, and national CVD plans).

To achieve this, the World Heart Federation proposes to:

- Work with the *Rx for Change* team to adapt its training curriculum for cardiologists for audiences in Asia and the Middle East and develop trainer packages.
- Organize training-of-trainers courses on tobacco cessation/secondhand smoke exposure for heart health specialists, in connection with cardiology or tobacco control events in Asia and the Middle East.
- Convene small meetings with key cardiology leaders (US/Asia, Europe/Middle East) to discuss how to increase professional engagement in tobacco from within cardiology circles through integration into their standard activities, e.g., development of position papers, courses, sessions in congresses, editorial guidelines, registries of practice, input into broader national action plans on NCDs and CVD.
- Pilot regional training webinars with cardiologists in Asia and the Middle East to share the curriculum and findings of pilots.
- Maintain the network of tobacco cessation/control experts from the heart health community by developing a database and using it for email news promoting resources, activities, events and best practices around tobacco control.
- Integrate information on new science on tobacco or member activities/achievement in tobacco control into WHF communications (e.g., CVD News Brief (<http://www.world-heart-federation.org/publications/cvd-news-brief/>), the World Congress of Cardiology, member WHF's online newsletter, global heart health campaigns).
- Maintain a web page on tobacco cessation/control resources within the WHF website and promote it to members.

### *Training intervention*

The training intervention will be based on the *Rx for Change* curriculum for cardiology, an evidence-based model curriculum for improving attention to tobacco use and SHS exposure in cardiology training and clinical practice. Developed at the UCSF as part of the broader *Rx for Change* curricula and adapted from an earlier curriculum developed for pharmacists, this one-hour tobacco treatment curriculum was designed for use in cardiology fellowship and medical residency training programs. Available online, it is, to our knowledge, the first freely disseminated curriculum for addressing tobacco use and SHS exposure among patients of cardiology providers. The curriculum includes a fully referenced curriculum slide deck that integrated didactic and interactive learning strategies, and a trainee resource pack. Key topics include epidemiology and CVD risk of tobacco use and SHS exposure, nicotine addiction and withdrawal, clinical practice guidelines and the role of cardiology, pharmacological tobacco treatments, motivational and behavioral counseling, and review of the cessation treatment literature in CVD patients. Recommended treatments range from comprehensive care integrated into cardiology practice to brief cessation advice and referral to quitlines.

When the curriculum was evaluated in the U.S., there were significant gains in knowledge from pre- to post-training, but most were not sustained at 3 month follow-up. The barriers encountered in China and the Middle East are likely to be even greater, and it is not expected that the intervention will change practice within the timeframe of the project. The point is to use the curriculum and its evaluation to engage leaders and champions in an ongoing, evidence-based dialogue to find out how to increase effective clinical intervention for tobacco use and exposure for CVD patients, and to set up sustainable networks committed both strengthening clinical practice and advocating for stronger policy.

### *Curriculum development*

The intervention will be adapted first into a generic international version which substitutes international data for American data and considers other ways to frame the material that would attract cardiologists. Dr. Prochaska will oversee development of the first “generic draft”. The curriculum will then be adapted to each region concerned by the implementing partners (LSC and CSC), taking into account practical, logistical and cultural aspects of cardiology training events, differences in didactic method, supplementary references to be included in the training pack, what forms of treatment are commonly available and affordable, and language. Partners will work together to develop a plan for evaluation that is feasible within the time and resources available, modeled on the evaluation design of the original *Rx for Change* evaluation.

### *Pilot of intervention*

The intervention will be piloted with at least 20 cardiologists in each region. The most motivated will be trained as trainers. Trainer training will involve in-depth discussion of barriers to cessation practice and solutions.

### *Building buy-in at the top*

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To identify how to fill in the “blind spot” that many cardiology circles have about tobacco use and SHS exposure, the project will bring together cardiology leaders from the U.S. and China and from Europe and the Middle East in small meetings to identify how to address the attention gaps that underlie the practice gap. Meetings with cardiologists who are influential globally are expected to raise interest levels of regional cardiology leaders. The curriculum and pilot findings will be shared with regional cardiology leaders/champions in a regional webinar in each region.

#### *Building regional networks*

Pilot of the curriculum and trainer training will establish two regional networks of champions to sustain interest in increasing attention to tobacco use and SHS exposure in clinical practice and health advocacy and to carry on a dialogue with cardiology leaders about how to raise the priority of tobacco in CVD events.

#### *Expanding and sustaining the global network*

To sustain the global network of “heart” tobacco control champions and support their activities at national level, the project proposes to develop a database to send regular updates of tobacco control news to a targeted audience of tobacco control champions, giving visibility to their activities through the WHF website and online newsletter. The curriculum, when developed, will be made available online and promoted in this network, and cardiologists trained in the cessation curriculum will be integrated into the network.

#### *Public/professional awareness*

The project will be featured in a session or workshop at the World Congress of Cardiology (WCC) in 2014 in Melbourne, Australia, and press activities there will give visibility to the intervention and to broader issues in tobacco control to reach both medical audiences and the general public.

#### *Partners and roles*

The World Heart Federation has identified project partners and strategies. It will manage donor relations and reporting, project finances, monitoring and coordination of the project, coordinate communications (media, web, email), and provide a platform at the World Congress of Cardiology for disseminating results and promoting the curriculum. Oversight of the project lies with its working group on advocacy, led by Eduardo Bianco, under its Scientific Policy and Advocacy Committee, led by Ann Bolger.

Dr. Judith Prochaska, working as a consultant to WHF, will develop generic training pack in consultation with international advisory group, organize project meeting and demonstrate training, design evaluation of pilots (with implementing partners), monitor process of evaluation, and participate in final workshop/session at WCC 2014 in Melbourne.

Dr. Dayi Hu and Ding Rong Jing of the Chinese Cardiology Society will review and give input in generic international curriculum, adapt curriculum to Chinese audience, conduct pilots of

Grant ID: 044096- World Heart Federation- Change from within: increasing cardiologists' engagement in tobacco cessation and control

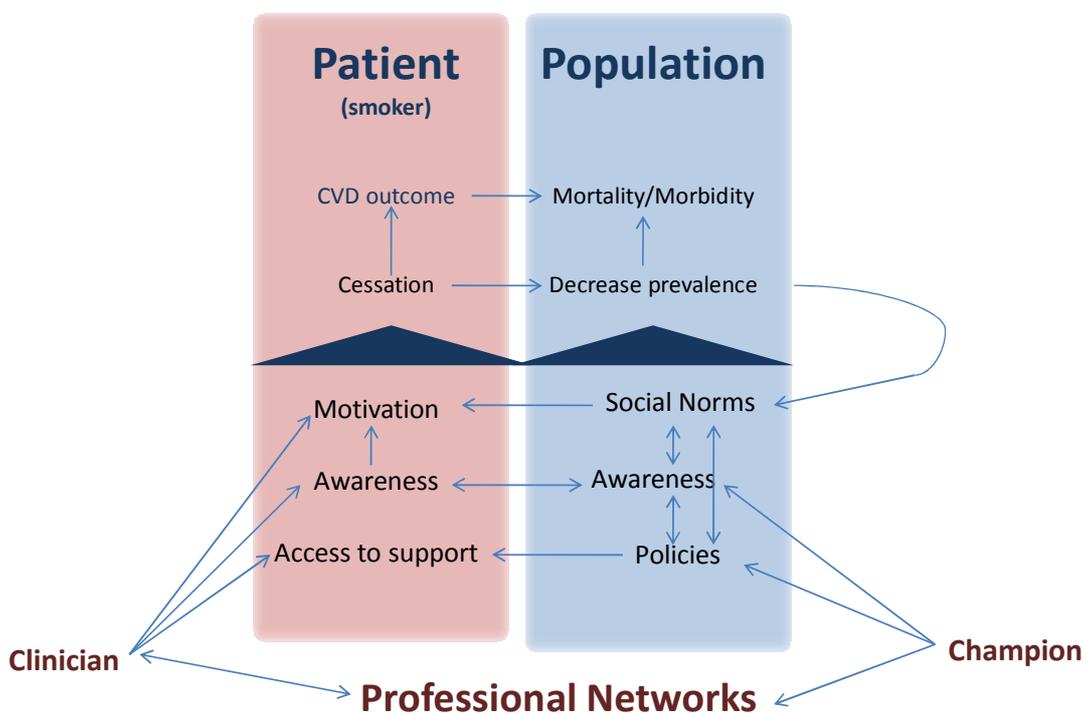
training, trainer training and evaluate them. They will also participate in the final workshop/session at WCC 2014 in Melbourne.

Dr. Georges Saade of the Lebanese Society of Cardiology will review and give input in generic international curriculum, adapt curriculum to a Middle Eastern audience, conduct pilots of training and trainer training and evaluate them. He will participate in the final workshop/session at WCC 2014 in Melbourne.

Dr. Dongbo Fu of the World Health Organization will advise on curriculum development, as will Eduardo Bianco, Georges Saade and others.

*Playing on synergies between clinical practice and health advocacy*

The project takes a “macro” approach to tobacco cessation, embedding a cessation training intervention into broader efforts to influence professional norms, habits and perceptions among health professionals specializing in CVD. Growing out of efforts to engage heart foundations and cardiology societies in tobacco control advocacy, it aims to give tobacco equal footing with other CVD risk factors and frame it firmly as treatment and science, at the same time as it exploits crossovers between clinical practice and health advocacy to maintain the momentum and solidarity needed for change. See figure below to show linkages between advocacy and clinical practice and clarify the roles of clinicians and champions.



Outcomes for smoking patient: crossovers between impact of clinician and champion

The World Heart Federation's overarching goal, aligned with the global target on NCDs agreed by member states at the 2012 World Health Assembly, is to reduce premature CVD mortality 25% by 2025. This goal cannot be met without reducing CVD deaths caused by tobacco, so the WHF is committed to building member capacity to reduce tobacco use and smoke exposure. Smoking cessation falls under two of the targets that have grown out of the Political Declaration from the UN High-level Meeting on NCDs in September 2011: to reduce smoking prevalence and to ensure access to drug therapy for NCDs.

Through earlier activities, WHF has developed regional (Middle East and Asia) networks of champions who work within CVD professional networks to increase their attention to tobacco use and SHS exposure. These champions work to change both policies and public awareness on tobacco, and to build the perception of tobacco as part of the "professional turf" of cardiologists. The goal is to make CVD events into a sustainable platform for clinical research and teaching, working out from a core of champions to engage both peers and top opinion leaders.

Aiming to influence professional culture from within, this approach focuses on the synergies between public health policy and clinical practice and rides the energy, commitment and solidarity developed through advocacy activities. Taking a broad approach to the professional role of the heart health expert (including clinical practice, medical training, leadership in health facilities and academic institutions, and role as public reference on heart disease and advisor on health policy), the WHF has presented heart health leaders with a broad menu of entry-points for getting their peers involved in tobacco control. This project builds on this foundation by focusing on one of these entry points: treatment for cessation and advice on secondhand smoke. This is the one most relevant to the clinical practice that is the basis for cardiology. It is expected that the "pipelines" to members developed through networks expanded in this project will continue to serve to develop and disseminate materials, best practice and research collaboration both in clinical practice and advocacy.

#### 4. Evaluation Design:

##### *Primary audience*

The primary audience for the training is cardiologists attending congresses or other events for continuing education. The project activities will be conducted by cardiology societies within their own events; these are self funding and ongoing, so activities within them can be sustained long-term.

The desired outcomes of the project are all around engagement of cardiologists.

Metrics used to evaluate project outcomes:

- Number of cardiologists and cardiology societies engaged in project activities (with countries)
- Number of cardiologists trained
- Number of cardiologists trainers trained
- Increase in number of champions identified and maintained in global network
- Meetings, training activities or advocacy activities conducted by the networks
- Quality of content and participation in training and other tobacco-related events organized by WHF member organizations in Asia and the Middle East

These will be collected by the World Heart Federation through project monitoring.

#### *Evaluation of the intervention*

The *Rx for Change* curriculum has been evaluated using a quasi experimental design to estimate impact on participants' tobacco-related knowledge, attitudes, and behaviors through anonymous online surveys administered at pre- and post-training and at a 3-month follow-up. Measures of knowledge, confidence and attitudes were included at all three time points.

That is the model. It will need to be adapted to take into account changes in the curriculum, partner opinion and feasibility in the different settings proposed and within the time limits of the project. These factors will be discussed in several group teleconferences and then evaluation design will be finalized in the full day face-to-face meeting scheduled for March 2013. The focus will be on using the project to evaluate barriers to change in practice and to engage leaders and champions in dialogue on how to address them.

### C. Detailed Work Plan and Deliverables Schedule

The workplan has the following elements:

**Curriculum development.** This involves adapting the *Rx for Change* curriculum into a generic international version that can then be adapted for regional use. The curriculum authors (Dr. Judith Prochaska and colleagues), in consultation with WHF and an international advisory group of cardiologists, will broaden the curriculum content and use international data and then develop a training pack for it. The curriculum will be finalized in a face-to-face meeting with partners in March 2013, just prior to the American College of Cardiology annual scientific sessions, and a plan for evaluation of pilots will be developed at the meeting and if necessary, through subsequent telephone calls.

**Curriculum adaptation, pilot and trainer training.** The Chinese Society of Cardiology (CSC) and Lebanese Society of Cardiology (LSC) will then adapt the curriculum for local use, in consultation (Skype/phone/email) with regional advisory groups of cardiologists/experts from at least two other countries. The curriculum will be piloted by the CSC at the annual CVD prevention and rehabilitation conference in June 2013, with at least 20 cardiologists; the LSC will pilot the curriculum in Lebanon; both will evaluate the pilots prior to finalizing the trainer training pack. The CSC will organize a trainer training pilot in connection with an existing event in October 2013. In the Middle East, Georges Saade will travel to two to four countries (Egypt, UAE, Saudi Arabia and/or Qatar) to conduct small trainer training classes with cardiologists. Trainers will be provided with training packs to use, and the most motivated in each country will be identified as a focal point for ongoing work within the network. Because he must travel to different countries, it is unlikely that Dr. Saade will always be able to combine training with other events, so he will organize standalone meetings in collaboration with national cardiology societies.

**Key opinion leader meetings.** Two small meetings of 6-12 key cardiology opinion leaders will be held at top cardiology congresses. WHF will organize a meeting for American and Chinese leaders at the American College of Cardiology scientific sessions in San Francisco in March 2013, and Dr. Saade will organize one for European and Middle Eastern leaders at the European Society of Cardiology congress in August 2013. These meetings will explore how leading journals, events and quality control measures could influence cardiology clinical practice to better integrate interventions on tobacco use and exposure to cardiology clinical practice around the world, and will aim to motivate regional leaders to engage in use of the project.

Grant ID: 044096- World Heart Federation- Change from within: increasing cardiologists' engagement in tobacco cessation and control

**Monitoring and communication.** WHF will conduct monthly calls with partners to follow and coordinate progress. To maintain the network it will send tobacco control news emails every two months, and sustain and continually update its web page on tobacco resources and highlight best practice examples of heart foundations and cardiologists around the world. WHF will organize a webinar for each region for project partners to demonstrate the course and discuss pilot findings with leaders or potential trainer/champions. It will organize a session on the project at the World Congress of Cardiology in Melbourne, issue a press release and organize a press event there.

Project deliverables	Date
<b>Curriculum development</b>	
Planning meeting	08.03.2013
Generic international training pack draft	15.04.2013
Regional curricula drafts	30.04.2013
<b>Curriculum pilot and trainer training</b>	
40 people trained (China and Middle East)	30.07.2013
Evaluation of pilot results	15.09.2013
Revised training packs	01.10.2013
20 people trained (China and Middle East)	30.10.2013
Evaluation of pilot	30.12.2013

<b>KOL meetings</b>	
ACC San Francisco	12.03.2013
ESC Amsterdam	05.09.2013
WCC Melbourne	08.05.2013
<b>Monitoring and Communication</b>	
Network email updates, q2 months	Ongoing
Press release	08.05.2013
Session/workshop	08.05.2013
Press event	08.05.2013
2 Webinars on training packet	30.12.2013