Edition 19 | Spring 2016

STENT FOR LIFE INITIATIVE NEWSLETTER

Welcome to the 19th edition of the Stent for Life Initiative Newsletter

PG 2: Christoph K. Naber Appointed Stent for Life Initiative Chairman

We are pleased to announce that Dr. Christoph K. Naber has been appointed Stent for Life Initiative Chairman for the years 2016 - 2018.

MORE...

PG 3: Stent for Life Health Economics Working Group 2015 update

Further SFL Economic Models built and presented for Portugal, Basque Country, and Kemerovo

MORE...

PG 4: South African Heart Association joins SFL

The Republic of South Africa, represented by the South African Heart Association, has become the 21st Stent for Life country. The article author, professor Rhena Delport, has signed the SFL declaration during the SFL Forum 2016 Declaration Ceremony.

MORE...

PG 11: SFL Forum 2016 Declaration ceremony: Stent for Life Initiative welcomes SFL Russia

At the SFL Forum 2016 Conference, Prof Bagrat G. Alekyan formally finished the transformation of SFL Siberia to SFL Russia by signing the SFL Declaration, giving Russia the full-fledged SFL member country status.

MORE...

PG 12: Results from the Third Gulf Registry, Gulf RACE-3Ps

Improving Red Crescent infrastructure, establishing integrated STEMI networks, and launching educational public campaigns are top health care system priorities.

MORE...

PG 13: SFL Call for Earliest Secondary Prevention at STEMI patients discharge from a hospital

SFL Initiative is calling for collaboration with the European Association of Cardiovascular Prevention and Rehabilitation (EACPR) and the Council of Cardiovascular Nursing and Allied Professions (CCNAP) to address the earliest secondary prevention after acute myocardial infarction.

MORE...

PG 15: The Implementation of a public awareness campaign is associated with a significant increase in the number of patients treated within a STEMI network.

A prospective study measures the impact of the ACT NOW. SAVE A LIFE public awareness campaign in Catalonia, Spain.

MORE...

This is an interactive newsletter designed to help you navigate through the content quickly and easily.

Click on MORE... to go directly to an article

Click on H to go back to the first page

Read more country updates in the upcoming editions and send your stories to: office@solutions4life.eu

Christoph K. Naber Appointed Stent for Life Initiative Chairman

Christoph Kurt Naber, Germany
Director, Department of Cardiology and Angiology, Contilia Heart and Vascular Center Elisabeth-Krankenhaus, Essen

During the seven years of Stent for Life Initiative's existence, the SFL Mission has remained the same:

Reduce the mortality and morbidity of patients suffering from acute coronary syndromes (ACS) by supporting the implementation of European Clinical Practice Guidelines on Myocardial Revascularization at national and regional levels.

We have accomplished a lot - today patients from 21 countries in Europe, Asia, Africa and South America benefit from SFL programs. In partnership with hospitals, payers, governments and industry partners, SFL helps to create healthcare models that can deliver more efficient and improved care to ACS patients while maintaining or reducing costs.

We are pleased to announce that Dr. Christoph K. Naber has been appointed Stent for Life Initiative Chairman for the years 2016 - 2018. Dr. Naber is an active member of the PCR family. He is the course-co-director of EuroPCR and PCR London Valves, and course-director of AsiaPCR. He has served as a member of the executive board of the European Association of Percutaneous Cardiovascular Interventions (EAPCI) of the European Society of Cardiology (ESC), and is a member of the editorial boards of EuroIntervention and AsiaIntervention. Dr. Christoph Naber is a past-chairman of the German Working Group of Interventional Cardiology (AGIK/DGK).

We are very proud that the SFL activities' impact on healthcare can be validated by clinical and economic evidence. To measure the SFL's impact on STEMI patients' access to PPCI, the third in a row Stent for Life ACS market survey will be initiated this year under the leadership of Christoph K. Naber. The ESC member and affiliate member countries will be invited to collect data on reperfusion treatment by using a self-administered questionnaire, and provide descriptive analysis of the type of reperfusion utilization, time delays, pharmacotherapy and medical device use at a national level.

Join us in wishing Christoph K. Naber all the best and much success in leading the Stent for Life Initiative!

Stephan Windecker
EAPCI President 2014 - 2016

Petr Kala
SFL Chairman 2012 - 2016

SFL HEWG 2015 update: further SFL Economic Models built and presented for Portugal, Basque Country, and Kemerovo

In 2014, the SFL Economic Model was done for Romania, which demonstrated that the increases of cost from additional primary PCI are offset by productivity savings due to a healthier workforce. After presenting the Romania model at the ISPOR 2015 Annual Meeting in Philadelphia, the SFL Health Economics Working Group (SFL HEWG) decided that additional areas should be analyzed in 2015. As such, models were built and presented for: Portugal, Basque Country (Spain Region), and Kemerovo (Russia Region). Consistent with the results from Romania, all three of these areas demonstrated economic savings from more primary PCI. The SFL HEWG intends to show these results to government officials, health care administrators, and providers to demonstrate the value of primary PCI for the treatment of STEMI.

The SFL Economic Model was developed to demonstrate the financial, economic, and clinical benefit of timely STEMI admissions and primary PCI treatment. The Excel-based model uses country or region specific data to evaluate the impact of the Stent for Life (SFL) Initiative based on increased treatment with primary PCI versus the alternative approaches of thrombolytics or no reperfusion. Outcomes from an increased primary PCI mix are then measured against a scenario which assumes the SFL Initiative never occurred and rates remain unchanged.

The economic model was done for the entire country of Portugal measuring data from 2010 to 2013. Primarily data was from the ACSS Database, Pordata Banco de Portugal, and the Portuguese Cardiology Society ACS Registry. STEMI primary PCI was 264 per M population in 2010 when the SFL Initiative began and increased to 340 per M population by 2013. On-time STEMI admissions also increased over this time-period. The net result of these improvements was a reduction of mortality of 414 lives and nearly 45.6M USD of variable cost savings. The burden of disease (STEMI) also decreased by almost 150M USD.

For Spain, we looked just at the Basque Country region, as the data was the most consistent from this area; however the SFL team plans to extend the analysis to other regions for comparison purposes. For Basque Country, over the course of the SFL Initiative, the initial primary PCI per M population was estimated at 254 in 2012 and grew to 341 by 2015 while on-time admissions improved by 5 percentage points. Due to the relatively high GDP per Capita and low inflation rate, significant cost savings were achieved of approximately 2.9M USD in an area of less than 700,000 people.

For Russia, we focused on the Kemerovo region where most of the SFL gains have been achieved, measuring from 2011, the start of the SFL Initiative, to 2015. PCI as a % of on-time STEMI admissions, increased from 12% in 2011 to 39% in 2015 (which corresponds to 315 primary PCI per M population). During this time period, there was approximately 1.8M USD of investment in catheterization labs and interventional cardiologists. However, the productivity savings due to higher rates of PCI more than offset this amount, resulting in cost savings of 4.7M USD.

Next steps for 2016 are to work toward publication for the completed models: Portugal, Basque Country (Spain Region), and Kemerovo (Russia Region) as well has engage country and regional MOH and government officials. Also, for 2016 we would like to expand the Spain model to include multiple regions and consider new countries/regions to model.

Alex Au-Yeung and Adam Yoculan, SFL Health Economics Working Group

South African Heart Association joins SFL

The Republic of South Africa, represented by the South African Heart Association, has become the 21st Stent for Life country. The article author, professor Rhena Delport, has signed the SFL declaration during the SFL Forum 2016 Declaration Ceremony.

INTRODUCTION

International guidelines emphasize early appropriate treatment for ST elevation Myocardial Infarction (STEMI) where "Time is Muscle". In alignment with the Stent for Life initiative, of which South Africa is now an affiliated country, the SA Heart Association (SAHA) and the South African Society of Cardiovascular Intervention (SASCI) seek to improve the management of acute coronary syndrome (ACS) patients in South Africa, saving lives, and more importantly, ensuring a better outcome for all STEMI cases and less of a cardiovascular disease (CVD) burden to society as a whole.

Background information on the health care context in South Africa is provided, followed by research reports on STEMI management in the country, SAHA/SASCI STEMI Early Reperfusion Project achievements to date, and future objectives for SFL South Africa.

CURRENT SITUATION IN SOUTH AFRICA

To understand the barriers standing in the way of effective STEMI management in this country we need to be aware of the general country indicators, as monitored by the World Health Organization and reported in **Table 1**.

Table 1: Country indicators for South Africa and other facts

Population (000s)	52.776
Life expectancy at birth	59 years
World Bank income group	Upper-middle
Per capita total health expenditure (PPT Int $)	982
Cause of death: Non-communicable diseases % of population	43
Cause of death: Ischaemic heart disease % of population	24
Only 0.7 physicians and 1.1 nurses per 1000 population	

The WHO estimates that NCDs will exceed communicable diseases as the leading cause of death in Africa in 2030 [1]. Currently estimates for deaths attributable to NCD amount to 43% of total deaths, and from the age-standardized death rates for males and females we observe CVD to be the main cause of all NCDs for both sexes, despite the fact that 40% of the population live in rural areas, as illustrated in

Figure 1. Concern has been expressed by leading cardiologists in Africa about the lack of preparedness of health care services in this continent [2]. This may be attributable to paucity of surveillance data and registries, shortage of physicians and cardiologists, interventional measures not being in place, inadequate diagnostic capabilities and misguided opinions, as reported [3-5].

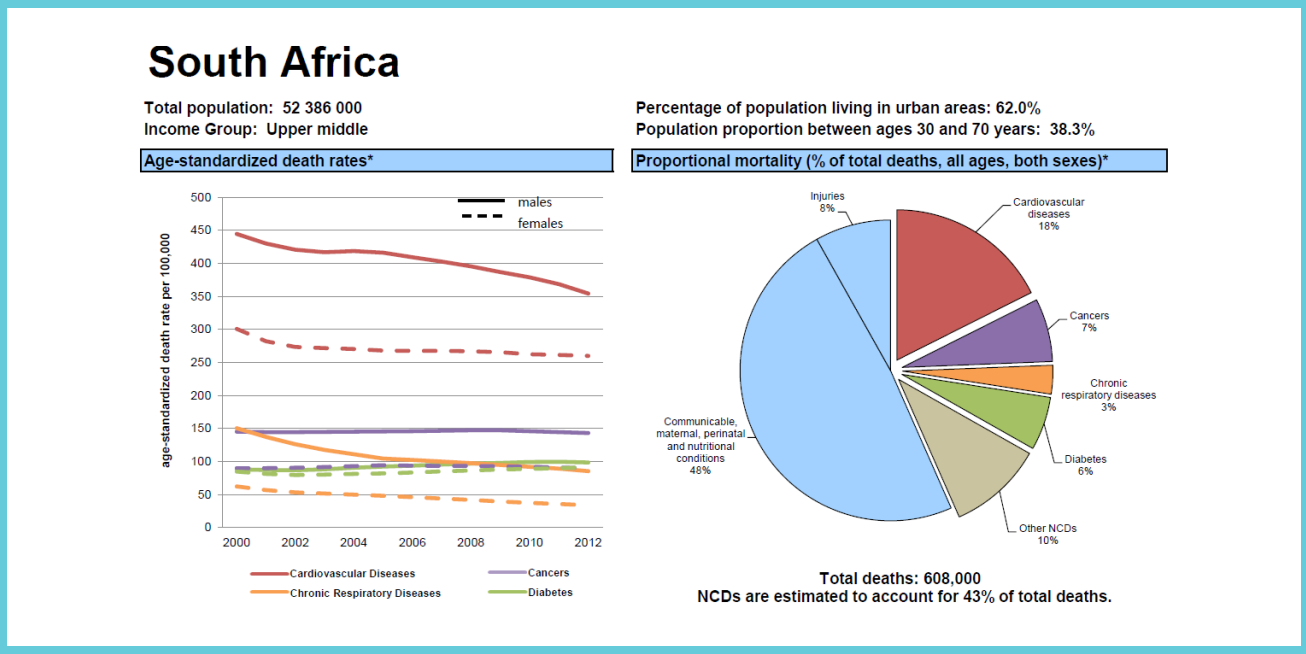


Figure 1: Non-communicable disease profiles for South Africa 2014

Dispersion of the population across South Africa, as well as the distribution of race groups, as illustrated in **Figure 2**, is of concern in prevention and timely management of ACS. Black Africans mostly live in remote areas, and a strategy needs to be developed timely to assure positive outcome for STEMI cases.

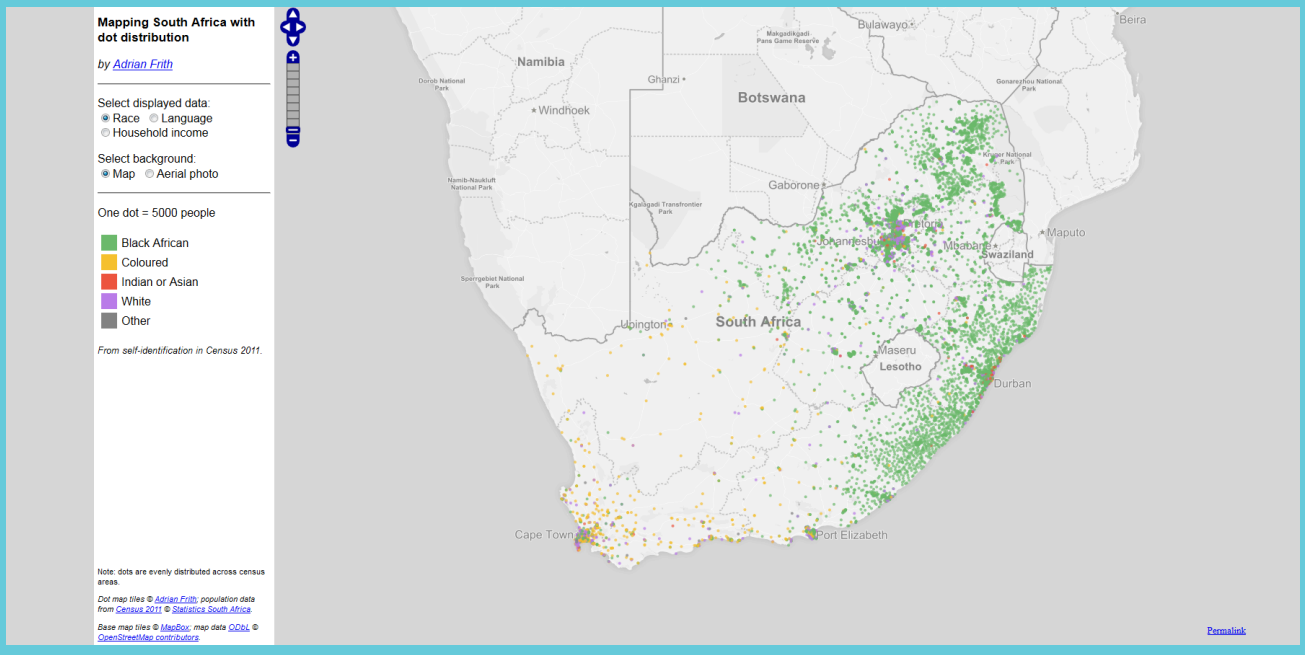


Figure 2: Distribution of race groups across South Africa (2011 Census data)

Household income compounds the problem of inadequate heath care provision and also lack of transport to facilities where optimal care can be provided timeously. The distribution of households in the different income categories is demonstrated in **Figure 3** relative to the location of PCI-capable facilities.

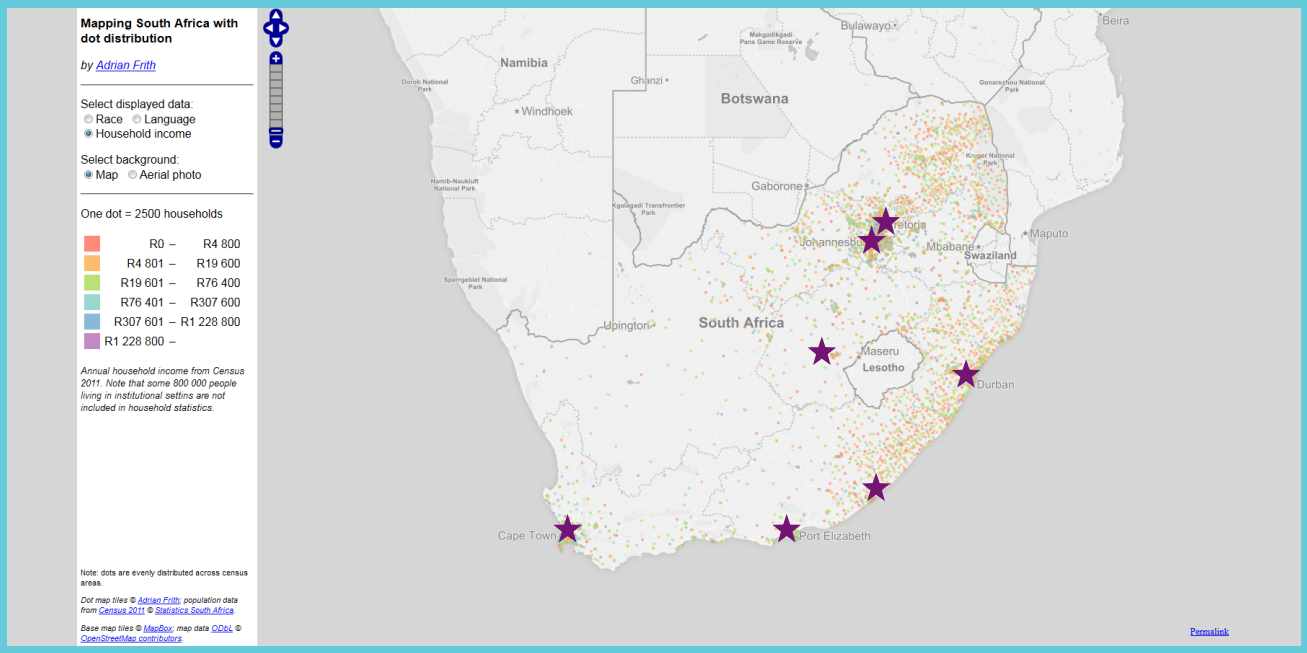


Figure 3: Distribution of household income groups across South Africa (2011 Census data)

Other relevant information sourced from Government statistics [6] pertains to utilization of health care facilities. Public sector clinics' services are utilized by 61.2% of households, public hospitals by 9.5% and private hospitals, private clinics and other services only by about 5% of the households. Additional information needed for the development of systems of care that facilitate timely management of STEMI, is depicted in the tables copied from this report and represents the utilization of health facilities by race groups **(Table 2)**, and also time taken to reach the facility normally used **(Table 3)**.

Table 2: Percentage distribution of households by type of health facility used classified by population group

Characteristics	Type of health facility			
	Public sector	Private sector	Other	Total
South Africa	**70,6**	**27,9**	**1,5**	**100,0**
Population group				
Black African	81,3	17,2	1,5	100,0
Coloured	63,1	35,5	1,4	100,0
Indian/Asian	35,6	64,1	0,3	100,0
White	10,5	88,0	1,5	100,0

A disparity is clearly evident between the health facility used and the population group. The Government report explains the preference for private health institutions by long waiting times and unavailability of drugs needed.

Table 3: Percentage distribution of households by the time taken to reach the health facility normally used, when using their usual means of transport, classified by population group

Characteristics	Time taken					
	Less than 15 minutes	16 - 29 minutes	30 - 89 minutes	90 minutes and more	Do not know	Total
South Africa	**39,3**	**41,5**	**17,0**	**2,1**	**0,1**	**100,0**
Population group						
Black African	33,6	43,7	20,1	2,5	0,1	100,0
Coloured	56,0	35,1	7,8	1,2	0,0	100,0
Indian/Asian	60,5	35,0	4,5	0,0	0,0	100,0
White	61,9	32,4	4,9	0,5	0,2	100,0

A disparity is also observed amongst population groups concerning coverage by medical aid or medical benefit scheme or other private health insurance, as depicted in **Figure 4**. National Health Insurance (NHI) is proposed as a solution for South Africa and envisages ensuring universal health coverage for all South Africans and improving the quality of health care services irrespective of socio-economic status of the user, amongst other objectives [11]. The implementation of NHI needs serious consideration in the development of systems of care for South Africa.

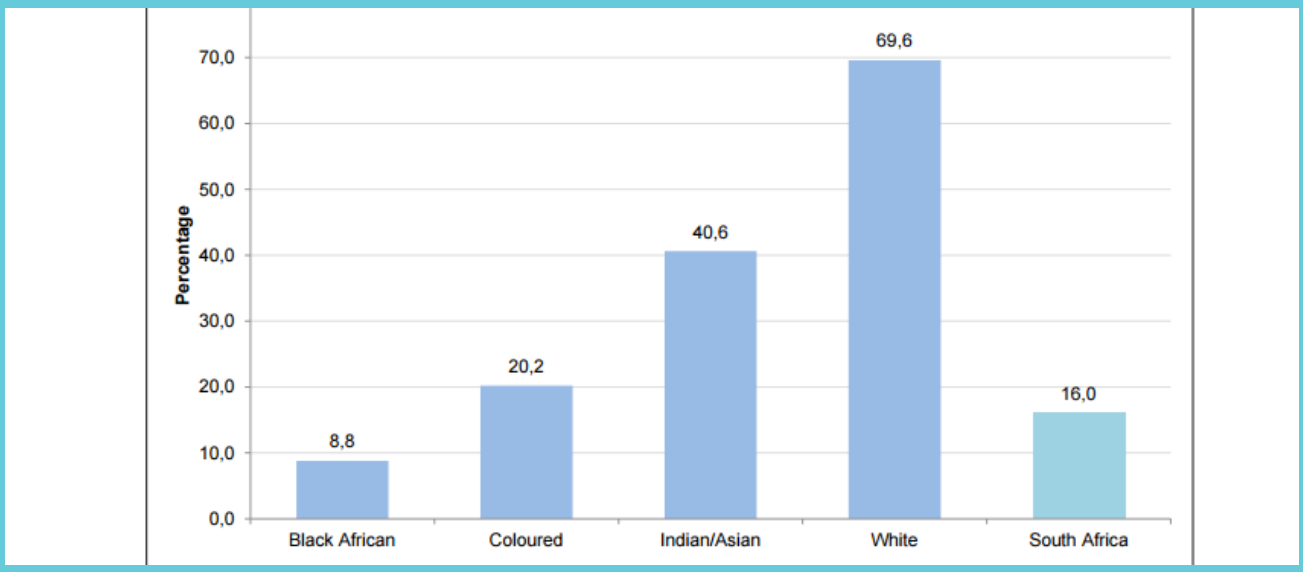


Figure 4: Percentage distribution of the population covered by medical aid or medical benefit scheme or other private health insurance, classified by population group

Treatment goals of having diagnosis of STEMI established by ECG within 10 minutes of the first medical contact (FMC) and having fibrinolytics administered within 30 min of FMC could potentially be adhered to for approximately 80% of the population if appropriate systems of care are in place and treatment guidelines are adhered to. The most recent report from a study performed at a public academic hospital in Pretoria [7] in 2015 states that "Only 37% of patients received fibrinolytic therapy and only 3% received the medication within 1 hour" [7]. Similarly 44,7% STEMI cases reportedly received fibinolytic therapy at the Grootte Schuur Hospital in Cape Town (2012) [8] and 36% of South African STEMI cases captured in the ACCESS registry (2007-2008) received fibrinolytic therapy [9].

Analysis of SA Heart ACS Registry data for 2004-2012 (unpublished findings) with the aim of improving management of STEMI in South Africa shows that:

- Family history of heart disease and diabetes highest in Indian males (59% and 39%), and hypertension in African ancestry males (72%).
- More patients were diagnosed with STEMI in public versus private centres (15 vs. 7%) 2010-2012.

The frequency distribution of the 5747 patients across ACS-diagnosis types for the different race groups is reported in **Table 4**.

Table 4: Distribution of race groups across ACS-subtypes

Ethnicity	(n)	STEMI	Stable Angina	Unstable Angina / Non-STEMI
African ancestry	334	18%	50%	32%
Caucasian	4378	7%	59%	34%
Mixed Ancestry	320	12%	46%	42%
Indian	715	11%	56%	3%

Results from the small pilot study undertaken to establish the current time intervals present in the referral pathways to PCI facilities in the Tshwane Metropole (May - October 2012)[10] serve as base-line data for the SAHA/SASCI STEMI Early Reperfusion Project. System delays were evident with inter-facility transport (IFT) compared with direct access (DA) to a PCI facility (median 3.7 vs. 30.4 hours; $p<0.001$). Door-to-balloon times of ≤90 minutes were achieved in a mere 22% DA and 33% IFT patients. Fibrinolysis within ≤30 minutes was only achieved in 50% DA and 20% IFT patients. A research project: 'Delays in early reperfusion for ST-segment-elevation myocardial infarction – an observational study in South African hospitals', has been launched late in 2015 to measure and monitor the effect of education and other strategic interventions that are to follow.

OBJECTIVES FOR SFL SOUTH AFRICA

With the guidance of SFL Europe, SFL South Africa proposes to improve the management of STEMI cases in accordance with the defined objectives and through the implementing of action plans listed in **Table 5**. Achievements to date are represented in **Table 6**.

Table 5: SFL South Africa Objectives and action plans

Country Objectives
Recruitment of cardiologist in regions across South-Africa • to organize education meetings for HCP on the management of STEMI, ACS and other chest pain syndromes across all provinces; • to drive the educational project, to develop regional networks and solutions; and • to contribute towards registries for measurement and monitoring of the impact of education initiatives and other strategic interventions. Collaboration with countries with similar needs to learn from them and share our experiences with them. Establishment of a network amongst STEMI care providers (public and private), central and local government, medical insurance companies and private sector funders; Deployment of central and regional public awareness programs and establishment of institutional / other patient education strategies with the aid of other existing organizations (Heart and Stroke Foundation).
Country key plans
• Establish a representative steering committee – preferably at national level - with Government support; • Set up task groups for each objective and define action plans with key account holders and quality indicators; • Education workshops to be presented in all provinces; • Improve partnerships with other bodies that educate at-risk patients / run campaigns; • Source information on STEMI prevalence and patient outcome in all regions; • Map facilities' capabilities to diagnose and treat STEMI (Clinics / Hospitals, HCW, etc) and identify needs in remote areas; • Delays in early reperfusion for STEMI' project to be operationalized in at least one region per province; • Evaluate software solutions for data collection and IT supported patient management; • Revise STEMI workbook and distributed nationally; • Develop SA SFL Web-page and regularly update SA Heart STEMI webpage; and • Invite industry partners and medical funders to contribute to planning and development.

Table 6: SFL South Africa achievements to date

- Education workshops for Health care providers since 2011
- Establishment of a core team to drive and manage the project
- Commencement of the 'Delays in early reperfusion for STEMI – an observational study in South African hospitals' project – 30 patients enrolled to date
- Collaboration electronic data capturing and IT supported patient management
- Regional (Pretoria) implementation of the Hub-and-spokes model
- Contact established with EMS
- Preliminary contact established with National Government
- Scientific outputs to increase awareness of STEMI management and report base-line data on systems of care for patient management.

We would like to express our sincere appreciation to SFL Europe and The European Association of Percutaneous Cardiovascular Interventions for their support and guidance. Contributions and support from other SFL countries and from our industry partners and friends are gracefully acknowledged.

Compiled by Rhena Delport
National Scientific Committee Chair, SFL South Africa

REFERENCES

1. WHO. Health statistics and health information systems – Global Health Estimates (GHE), 2013. http://www.who.int/healthinfo/global_burden_disease/en/ (accessed March 11, 2016).
2. Kengne AP, Mayosi BM. Readiness of the primary care system for non-communicable diseases in sub-Saharan Africa. www.thelancet.com/lancetgh Lancet Glob Health. 2014 May;2(5):e247-8. doi: 10.1016/S2214-109X(14)70212-8. Epub 2014 Apr 14.
3. Gaziano TA, Bitton A, Anand S, Abrahams-Gessel S, Murphy A. Growing epidemic of coronary heart disease in low- and middle-income countries. Curr Probl Cardiol 2010; 35(2): 72–115. doi: 10.1016/j.cpcardiol. 2009.10.002.
4. Onen CK. Epidemiology of ischaemic heart disease in sub-Saharan Africa. Cardiovasc J Afr 2013; 24: 34–42. doi: 10.5830/CVJA-2012-071.
5. Hertz JT, Reardon JM, Rodrigues CG, de Andrade L, Limkakeng AT, Bloomfield GS, Lynch CA. Acute myocardial infarction in sub-Saharan Africa: the need for data. PLoS One 2014; 9(5): e96688. doi: 10.1371/ journal.pone.0096688. eCollection 2014. PMID: 24816222.
6. Use of health facilities and levels of selected health conditions in South Africa: Findings from the General Household Survey, 2011. Statistics South Africa. Report no. 03-00-05 (2011). http://www.statssa.gov.za/publications/Report-03-00-05/ Report-03-00-052011.pdf.
7. Meel R, Gonçalves R. Time to fibrinolytics for acute myocardial infarction: Reasons for delays at Steve Biko Academic Hospital, Pretoria, South Africa. S Afr Med J. 2015 Nov 23;106(1):92-6. doi: 10.7196/SAMJ.2016.v106i1.9801.
8. Maharaj RC, Geduld H, Wallis LA. Door-to-needle time for administration of fibrinolytics in acute myocardial infarction in Cape Town. S Afr Med J 2012;102(4):241-4.
9. Schamroth C and ACCESS South Africa investigators. Management of acute coronary syndrome in South Africa: insights from the ACCESS (Acute Coronary Events - a Multinational Survey of Current Management Strategies) registry. Cardiovasc J Afr 2012;7:365-70.
10. Snyders A, Delport R. The SA Heart STEMI Early Intervention Project. Referral pathways for reperfusion of STEMI - developing strategies for appropriate intervention. SA Heart J 2015;12:72-80.
11. NATIONAL HEALTH INSURANCE FOR SOUTH AFRICA. TOWARDS UNIVERSAL HEALTH COVERAGE. Version 4. http://www.health-e.org.za/wp-content/uploads/2015/12/National-Health-Insurance-for-South-Africa-White-Paper.pdf

Figure 1 taken from: http://www.who.int/nmh/countries/en/
Figure 2 and 3 taken from Dot map tiles © Adrian Frith; population data from Census 2011 © Statistics South Africa. http://dotmap.adrianfrith.com/
Figure 4 taken from: http://www.statssa.gov.za/publications/Report-03-00-05/Report-03-00-052011.pdf
Table 1 taken from http://data.worldbank.org/data-catalog/world-development-report-2014

SFL Forum 2016 Declaration ceremony: Stent for Life Initiative welcomes SFL Russia

At the SFL Forum 2016 Conference, Prof Bagrat G. Alekyan formally finished the transformation of SFL Siberia to SFL Russia by signing the SFL Declaration to fully comply with the aims and objectives of the SFL Initiative, giving Russia the full-fledged SFL member country status. Prof Bagrat G. Alekyan, President of the Russian Scientific Society of Endovascular Therapies, will lead the SFL Russia initiative as a Country Champion, collaborating closely together with Prof E.V. Shlyakhto, President of the Russian Society of Cardiology.

The Siberian Association of Interventional Cardiologists (NPSAIK) joined Stent for Life Initiative at the ESC congress 2012, as an affiliated SFL member association, under the leadership of Dr Vladimir I. Ganyukov. The NPSAIK has received approval and support from the Russian Society of Cardiology for implementing the SFL principles in the regions of Siberia at first, and, when successful, implement the initiative in the Russian Federation.

„In 2015, SFL Siberia activities covered five Russian regions containing 11 million people. In these regions, SFL Siberia was leading the effort to implement the regional p-PCI networks offering 24/7 service for p-PCI procedures which led to an almost three-fold increase in the rate of primary PCI in STEMI patients (up to 49% in Krasnoyarsk region and up to 30% in Kemerovo region), a significant decrease in system delay (196 minutes in 2008 to 46 minutes in 2014 in Kemerovo region) and a decrease in the proportion of STEMI patients who die in hospital after receiving primary PCI (down to 6.2%).“

Access the full article on SFL Siberia in our SFL country news archives: bit.ly/SFLsiberia

THE KEY SUCCESS STORIES FROM THE REGIONS CAN BE USED AS BEST-PRACTICE EXAMPLES FOR THE INITIATIVE TO BE IMPLEMENTED ON A NATIONAL LEVEL.

The experience gained from the Siberian regions presents strong evidence that first, it is imperative to address key regional opinion leaders and government officials; to join forces in order to create functional regional Stent for Life Steering Committees.

To involve the majority of Russian regions into SFL process at the national level, establishing a constructive dialog with the health departments of national and regional governments is crucial to improving access to healthcare.

In cooperation with Russian Federal Ministry of Health, a functional National SFL Steering Committee will be created to develop a uniform system approach to implement the regional STEMI network principles of the European Stent for Life initiative on a full-country level.

To engage national and regional governments, it is important to gather and provide more persuasive data on disease burden in the country. Therefore, under the endorsement of the Russian Ministry of Health, SFL Russia will be launching a National ACS/STEMI Registry. All regions will be invited to provide a data. This will provide the rationale for establishing regional networks for the treatment of acute coronary syndromes, notably ST-segment elevation myocardial infarction (STEMI).

Long distances and a non-uniform territory make it extremely challenging to provide on-time delivery and access to the life-saving indication of primary percutaneous coronary intervention (PCI) for patients suffering from acute coronary syndromes. This is why strategic mapping considering distances and population in the diverse Russian regions is a prerequisite for sucessful building of regional 24/7 cath lab networks accross the country is critical.

Results from the Third Gulf Registry, Gulf RACE-3Ps

Improving Red Crescent infrastructure, establishing integrated STEMI networks, and launching educational public campaigns are top health care system priorities.

Since joining the SFL Initiative in 2013, Saudi Arabia has made progress in a number of areas. A SFL Steering Committee was established by Dr Khalid AlHabib, Stent for Life Saudi Arabia Country Champion, in collaboration with the Saudi Arabian Cardiac Interventional Society (SACIS) of the Saudi Heart Association. One of the first objectives of the Task Force was to collect data on the current situation:

The third phase of the Gulf Registry of Acute Coronary Events (Gulf RACE-3Ps, www.gulfrace3.org) has been launched in May 2013 (the pilot phase) with Dr Khalid AlHabib as the main investigator. Gulf RACE-3Ps was created as Quality Improvement initiative which the aim to establish timely acute reperfusion therapies for STEMI patients in the Gulf region.

As a result, this multi-national registry now includes data of 2,928 acute STEMI patients collected from January 2014 to January 2015 in Saudi Arabia, Oman, United Arab Emirates, Kuwait, Qatar, and Bahrain.

Low heart attack symptoms awareness, together with the wide distances involved, and poor or crowded transportation systems in some cities were identified as main barriers which result in the long time spent from symptom onset to hospital arrival of AMI patients in the Gulf region and, notably, in the Saudi Arabia. Unfortunately, little was known about Emergency Medical Services (EMS) use and pre-hospital triage of patients with acute ST-elevation myocardial infarction (STEMI) in Arabian Gulf countries. As such, the main objectives of the Gulf RACE-3Ps were set to identify the current status of EMS services in STEMI care, as well as to monitor the mode of transportation and processes of care in the ED and the mode of transportation and processes of care in the Hospital.

Patient and System-Related Delays of Emergency Medical Services Use in Acute ST-Elevation Myocardial Infarction: Results from the Third Gulf Registry of Acute Coronary Events (Gulf RACE-3Ps) observational study by Khalid AlHabib et al, addressing the acute STEMI patient and system delays in the six participating Arabian Gulf countries, was published in January 2016:

„The present report of the Gulf RACE-3Ps study was the first in our region to provide results from a systematic exploration of EMS care for patients with acute STEMI. Our results confirmed our previous findings that, among patients with STEMI in our region, most were relatively young males, and two-thirds were non-Gulf citizens; moreover, these patients had a high prevalence of coronary artery disease risk factors [17]. The current report also showed that most of these patients had relatively low SES and educational levels. This finding was most likely related to the fact that large sectors of the population that live in the Arabian Gulf countries (30% in Saudi Arabia, 60% in Kuwait, 80% in UAE and Qatar) are foreign "blue-collar" workers, with limited access to health care. This observation was supported by our finding that half of the patients with acute STEMI that did not receive acute reperfusion therapies had been subject to "hospital eligibility issues" and limited access to hospital admission and treatment. This highlights the urgent need for major changes in health care policy, including adoption of universal (foreign workers included) health care insurance coverage. In particular, health insurance should cover life-saving procedures, such as reperfusion therapy for patients with acute STEMI."

Shortlink to gain acces to the full study article and data: bit.ly/gulfrace

Patient and System-Related Delays of Emergency Medical Services Use in Acute ST-Elevation Myocardial Infarction: Results from the Third Gulf Registry of Acute Coronary Events (Gulf RACE-3Ps): Khalid F. AlHabib, Kadhim Sulaiman, Jassim Al Suwaidi, Wael Almahmeed, Alawi A. Alsheikh-Ali, Haitham Amin, Mohammed Al Jarallah, Hussam F. Alfaleh, Prashanth Panduranga, Ahmad Hersi, Tarek Kashour, Zohair Al Aseri, Anhar Ullah, Hani B. Altaradi, Kazi Nur Asfina, Robert C. Welsh, Salim Yusuf
http://dx.doi.org/10.1371/journal.pone.0147385

SFL Call for Earliest Secondary Prevention at STEMI patients discharge from a hospital

SFL Initiative is calling for collaboration with the European Association of Cardiovascular Prevention and Rehabilitation (EACPR) and the Council of Cardiovascular Nursing and Allied Professions (CCNAP) to address the earliest secondary prevention after acute myocardial infarction.

In the present era of primary PCI, the proportion of STEMI patients who survive to hospital discharge has improved dramatically. These patients are at risk of early post discharge hospital readmission. Predictors of 30-day readmission for STEMI patients have not been well studied. However, research has shown that readmissions are heterogeneous in nature and some issues can be resolved, not with more medical procedures, but with patient integrated education. Patients who have a clear understanding of their after-hospital care instructions including how to take their medication, recognition of signs and symptoms of the disease, and benefit of a diet and lifestyle changes requirements are 30% less likely to be readmitted or visit the emergency department than those who lack this information.

CONTRACT4LIFE|AFTER A HEART ATTACK

To improve STEMI patient adherence to a secondary prevention therapy, Contract4Life|After Heart Attack, a structured nurse assisted education program, was initiated in May 2015, and is implemented in Greece, Portugal, Romania, Spain, and the Czech Republic. 26 primary-PCI hospitals in total participate in the programme, which is focused on the individual STEMI patient's risk factor identification and setting individual objectives related to their lifestyle change.

KEY BARRIERS TO IMPLEMENT EARLY SECONDARY PREVENTION PROGRAMMES AT PRIMARY- PCI HOSPITAL

Huge differences exist among countries, regions and hospitals related to STEMI patients' access to the earliest secondary prevention intervention programmes, reports Stent for Life (SFL) based on preliminary results from situation mapping in SFL pilot countries participating in the recent SFL survey.

Health Care System Barriers at primary-PCI hospital	Patient Barriers
Lack of structured discharge processes	Old age and multiple co-morbidities
Absence of a dedicated education specialist at primary PCI hospital heart team	Lack of motivation to change a current behavior
Early discharge from a primary PCI hospital to a referral center	Low socioeconomic status and level of education
Lack of patients' CVD risk stratification at discharge from a primary PCI hospital	Low or no support from family and relatives
Non-existing reimbursement for nurse assisted patient education	Financial limitations

Multidisciplinary approach is required at national as well as at European levels to support the ESC treatment guidelines implementation related to an early secondary prevention after myocardial infarction.

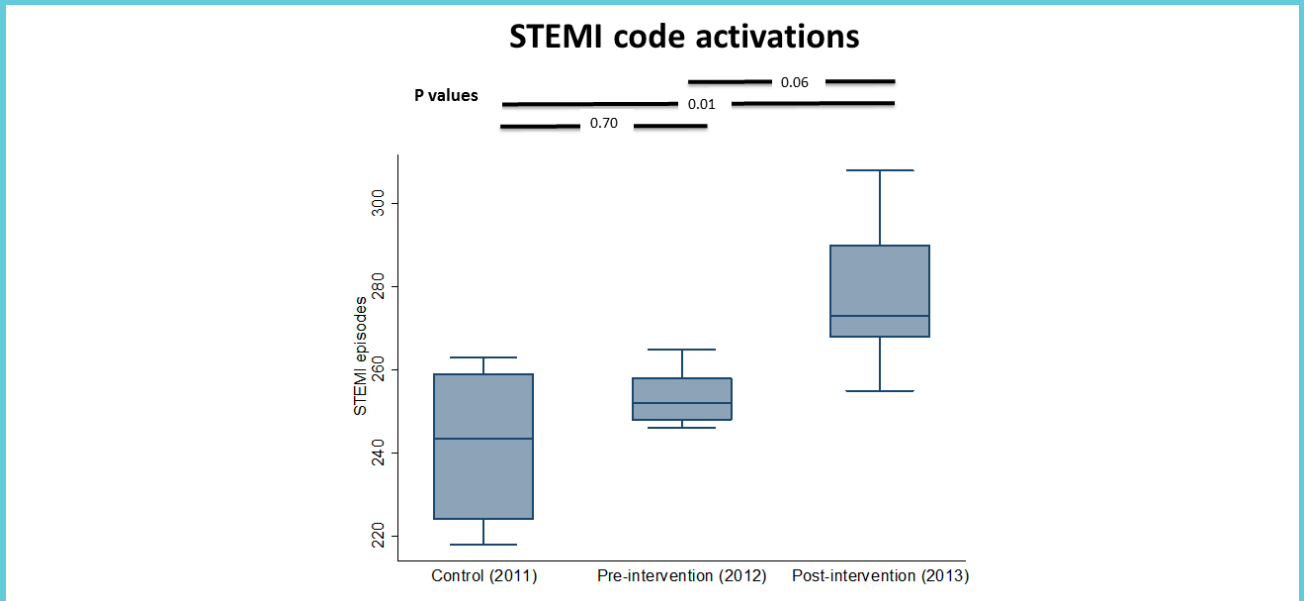
The Implementation of a public awareness campaign is associated with a significant increase in the number of patients treated within a STEMI network

In ST-segment elevation myocardial infarction (STEMI) patients, primary PCI is the treatment of choice when it can be performed in an expedited time. The reduction of mortality observed after primary PCI is time-dependent. Therefore, patients should recognize the symptoms and know how to activate the emergency medical services (EMS) by quickly calling their local emergency number (i.e. 112).

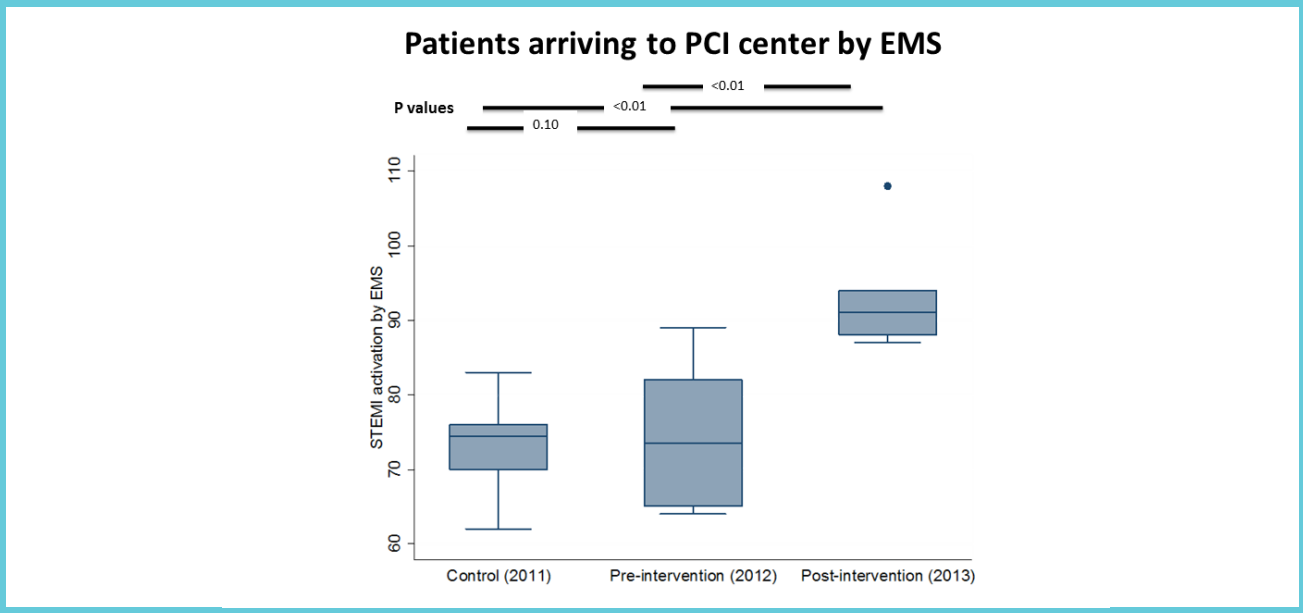
In June 2012, the ACT NOW. SAVE A LIFE public education campaign was introduced by the Stent for Life Initiative in Catalonia, Spain. The campaign is based in four key messages (1) know the symptoms, (2) act quickly, (3) call EMS, and (4) receive treatment. In order to plan, execute, and evaluate the campaign, a multidisciplinary working group was developed. This group involved representatives for the Stent for Life Initiative, the Spanish Society of Cardiology, EMS, and the Department of Health of Catalonia. Leaflets, posters, magnets, and videos (supplementary material) with information on acute coronary syndrome symptoms and treatment, and EMS telephone number (112) were delivered through the regional health network and exposed in all major hospitals and primary care centers and city halls in Catalonia.

A press conference with government authorities and health care professionals was held at the beginning of the campaign and widely reported in local newspapers. Local radio stations broadcast interviews with specialists in cardiovascular disease that were prepared to deliver key messages of the campaign.

In order to determine if the campaign could increase the number of STEMI code activations, EMS activations for chest pain, reduce patient related time-delay, and increase patient awareness of myocardial infarction signs, a community level study was performed. For the purpose of our study, three periods of six months were evaluated. (1) Pre-intervention (March 2012-August 2012), (2) Post-intervention (March 2013-August 2013), and (3) Control period (March 2010-August 2010). Data were obtained from the Catalonian STEMI registry, EMS registry and the Continuous Catalan Health Survey.



A total of 1521 (253.4 per month) STEMI episodes were treated by the Catalonian STEMI network during the pre-intervention period, and increased to 1667 (277.8 per month) STEMI episodes during the post-intervention period. During the pre-intervention period, 13,164 (2194 per month) calls were received at the EMS with a chief complain of chest pain and increased to 14,580 (2430 per month) calls during the post-intervention period. EMS personnel diagnosed 229 (38.1 per month) episodes of STEMI out-of-hospital in the pre-intervention period, while 341 (56.8 per month) STEMI episodes were diagnosed by the EMS during the post-intervention period. During the pre-intervention period 449 (74.5 per month) patients were directly transferred to the PCI center by EMS and increased to 559 (93.2 per month) during the post-intervention period. There were no significant changes regarding time delay from symptoms to first medical contact (FMC), and from FMC to balloon during the 3 periods of analyses. Regarding the question "If you think you might have a heart attack, what you would do?" the percentage of answers "Call 112" increased from 826 (42.1%) and 751 (41.2%) in the control and pre-intervention periods respectively to 892 (44.6%) after the campaign (pre-intervention vs. post-intervention; p = 0.04).



ANDER REGUEIRO, STUDY LEAD AUTHOR; PAST PROJECT MANAGER, SFL SPAIN

Shortlink to gain acces to the full study article: bit.ly/SFLcatalonia

Impact of the "ACT NOW. SAVE A LIFE" public awareness campaign on the performance of a European STEMI network: Ander Regueiro, Alba Rosas, Zuzana Kaifoszova, Maria Teresa Faixedas, Antoni Curos, Ricard Tresserras, Manel Sabaté http://dx.doi.org/10.1016/j.ijcard.2015.06.040