

A **healthy  
heart** For Everyone



ANNUAL REPORT 2017

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## VISION



To be a leading heart health movement and a household name in Singapore through educating and motivating the public, assisting those affected and supporting community-based research to better understand the landscape of heart disease in Singapore

## MISSION



To promote heart health, prevent and reduce disability and death due to cardiovascular diseases and stroke

## CORE VALUES



Honesty and Integrity  
 Enthusiasm and Passion  
 Accountability and Transparency  
 Research and Innovation  
 Teamwork and Collaboration  
 Sharing and Caring

## OUR COUNCIL & 47<sup>TH</sup> BOARD OF DIRECTORS

### PATRON

- ESM Goh Chok Tong

### HONORARY ADVISORS

- Prof Koh Tian Hai
- Mr Liak Teng Lit
- Mr Lim Soon Hock
- A/Prof Lim Yean Teng
- Dr Lily Neo
- Mr Tan Kin Lian
- Mr Wong Yew Meng



**Chairman Emeritus**  
Dr Low Lip Ping



**Chairman**  
Prof Terrance Chua



**Vice Chairman**  
Dr Tan Yong Seng



**Vice Chairman**  
Ms Tan Lee-Chew



**Honorary Secretary**  
Prof Tan Huay Cheem



**Assistant Honorary Secretary**  
Mr Goh Chiew Seng



**Honorary Treasurer**  
Mrs Elsie Foh



**Member**  
Dr Chee Tek Siong



**Member**  
Mr Chong Chou Yuen



**Member**  
Dr Goh Ping Ping



**Member**  
Mdm Koh Teck Siew



**Member**  
Dr Bernard Kwok



**Member**  
Mrs Regina Lee



**Member**  
Prof May Lwin



**Member**  
Dr Mak Koon Hou



**Member**  
Mr Peter Sim



**Member**  
Adj Asst Prof Jack Tan



**Member**  
Dr C Sivathanan

## CHAIRMAN'S MESSAGE

Heart disease and stroke (cardiovascular disease) is responsible for a third of all deaths in Singapore, and the world's number one killer, responsible for 17.3 million premature deaths. At the Singapore Heart Foundation, we have been fighting the war against heart disease at multiple fronts, from educating and influencing our young in schools, to addressing the public through health education, to assisting those who have been afflicted by heart disease and advocating for public access defibrillation.

We know that the risk of heart disease rises as a person's blood cholesterol levels increase. Cholesterol levels can often be reduced by combining a healthy diet and lifestyle, with use of medications as needed. However, this may be insufficient and especially challenging for individuals with certain genetic variations, causing a condition known as Familial Hypercholesterolemia (FH). FH affects 1 in 300 people, where the body is unable to effectively remove LDL (low-density lipoprotein) cholesterol or "bad" cholesterol from the bloodstream. If you have FH, your risk of getting early heart disease is 20 times more and each of your children will also have a 50% chance of inheriting the condition. Hence, for individuals with a family history of FH, cardiovascular disease at an early age (before 50 and 60 years old in male and female relatives,

respectively) or other risk factors for coronary artery disease such as smoking, diabetes and hypertension - we strongly recommend screening of cholesterol levels. SHF will also be supporting a pilot programme to screen relatives of FH patients in Singapore.

For many years, SHF has been a strong advocate of public access defibrillation. Following the installation of automated external defibrillators (AED) in public housing estates, SHF took a further step of installing the first 5 AEDs at Bukit Gombak Landed Estates in March 2018 (read more on P19).

On the rehabilitation front, we successfully organised our 2<sup>nd</sup> Singapore Prevention and Cardiac Rehabilitation Symposium (SPCRS) in October 2017, with the theme "Advances in Cardiac Rehabilitation for Improved Health: Special Focus on E-Health". The symposium was well attended by over 300 healthcare and allied health professionals (read more on P24). Besides strong support from our local community, we were also pleased to welcome overseas delegates from Australia, India, Malaysia, Sri Lanka, Thailand, Philippines, Russia and the United Kingdom.

To promote the awareness of cardiovascular disease, 6 iconic landmarks and structures in the

Marina Bay district were illuminated in red during the World Heart Day weekend last year, turning the scenic skyline into an eye-catching spectacle (read more on P27).

Since the Foundation started in 1970, the success of our work would not be possible without the passion and generosity of all our supporters and donors. Looking ahead, the Foundation has introduced another way for donors to give by leaving a legacy. Contributions to the SHF may be carried out via one's Will, Central Provident Fund (CPF) or insurance policies. A gift of any size, after you have provided for your loved ones, will enable us to continue our important life-saving work to reduce premature death and suffering from heart disease and stroke. If you would like to find out more on how to make a lasting impact, please email [legacy@heart.org.sg](mailto:legacy@heart.org.sg) or call 6354 9340.

We would like to express our deepest thanks and appreciation to everyone for helping us fight the battle against heart disease. We hope that you will continue journeying on with us, as we continue to touch hearts and impact lives for many more years to come.

**Professor Terrance Chua**  
Chairman, Board of Directors

## 主席寄语

心脏病和中风(心血管疾病)占新加坡各种死因的三分之一。它也是全球居首的死因,造成1.730万人过早死亡。我们新加坡心脏基金会一直致力于从方方面面与心脏病斗争,包括教育和影响在学青少年,向公众宣传健康教育,向心脏病患者提供援助,以及推动在公共场所安置心脏除颤器(AED)。

我们知道,血液中胆固醇水平的增加会导致心脏病风险的相应增加。通过健康饮食和生活方式可降低胆固醇水平,并在须要时使用药物。但是,这些手段对于因基因变异,而有家族性高胆固醇血症(Familial Hypercholesterolemia, FH)的个体来说,却显不足与困难。每三百人中就有一人有FH状况,即不能将低密度脂蛋白(low-density lipoprotein, LDL)胆固醇或者“不良”胆固醇从血液中有效去除。这些人患早期心脏病的风险是普通人的20倍,而且他的孩子也有百份之五十的几率受此遗传。因此,我们强烈建议你接受胆固醇水平检查,假如你有早发性心血管疾病(男性50岁以前,女性60岁以前),有FH家族遗传可能性,或有其他冠心病风险因素,如抽烟、糖尿病、高血压等。新加坡心脏基金会将会支持患者亲属参加一项新加坡FH家族筛查的试点计划。

多年来,新加坡心脏基金会一直是在公共场所安置AED的强力倡导者。在2018年3月,我们更进一步在武吉吉巴安置了五台AED,开创在私人有地住宅区安装AED的先河(详见第19页内容)。

在康复治疗方面,我们在2017年10月成功地举办了第二届新加坡预防和心脏康复研讨会,主题为“心脏康复研究的进展:聚焦电子科技”。300多名卫生保健从业人员和相关专业人士出席了此研讨会(详见第24页内容)。除了新加坡社区的大力支持,我们也接待了来自澳大利亚、印度、马来西亚、斯里兰卡、泰国、菲律宾、俄罗斯和英国的代表。为了提高人们对心血管疾病的认知,我们在去年世界心脏日的周末点亮了滨海湾地区的六大地标建筑物的红色照射灯,把风景天际线变成一幅引人注目的景象(详见第27页内容)。

自1970年基金会成立以来,如果没有支持者的热忱帮助和捐助者的慷慨解囊,我们的工作就不可能取得成功。展



望未来,基金会将启动另一种捐助方式,即捐赠遗产,通过个人遗嘱、中央公积金(CPF)存额或者保险保单实行。捐赠不拘金额大小,在承载了您的爱意之后,都将使我们能够继续进行济世救人的工作,减少人们过早死亡和罹患心脏病、中风的痛苦。若想了解更多详情,请发电邮至 [legacy@heart.org.sg](mailto:legacy@heart.org.sg) 或者致电6354 9340。

我们谨向帮助我们与心脏病作斗争的每一个人表示由衷的感谢和赞赏。希望你们能与我们携手,在未来继续感触心灵、拯救生命!

**蔡翔仁教授**  
董事会主席

# ORGANISATION CHART

## DEPARTMENTS & COMMITTEES



### Community Education

- National Heart Week/ World Heart Day
- Go Red For Women



### Fundraising

- Charity Cup



### Cardiac Rehabilitation/ Heart Wellness Centre/ Heart Health Hub

- Professional & Research
- Heart Support Fund



### PR & Communications

- Editorial
- PR & Media



### Heart Safe

- Training
- R-AEDi Initiative
- Restart A Heart



### Finance/ Investment

- Finance
- Investment
- Governance & Audit



### School Programmes

- Community Outreach
- Fitness & Nutrition



### Human Resource

- Human Resource

## COMMITTEE MEMBERS

### Community Education

**Chairperson**  
Dr Chee Tek Siong

**Vice Chairperson**  
Dr Tan Yong Seng

**Ex-Officio**  
Prof Terrance Chua  
Dr Low Lip Ping

**Members**  
Ms Tan Lee-Chew  
Mr Goh Chiew Seng  
Ms Joanne Yap

**National Heart Week/ World Heart Day**

**Chairperson**  
Dr Chee Tek Siong

**Members**  
Prof Terrance Chua  
Dr Low Lip Ping  
Mr Goh Chiew Seng  
Mrs Regina Lee  
Dr Mak Koon Hou  
Dr Tan Yong Seng

**Go Red For Women**

**Chairperson & Spokesperson**  
Dr Goh Ping Ping

### Fundraising

**Chairperson**  
Mr Goh Chiew Seng

**Charity Cup**  
**Chairperson**  
Mr Peter Sim

**Co-Chairperson**  
Dr Low Lip Ping

**Members**  
Mr Joe Chan  
Mr Chong Chou Yuen  
Mr Goh Chiew Seng  
Mr Jimmy Goh  
Mrs Lam Lian Suan  
Mr Eric Teoh  
Mr Melvin Yap

### Cardiac Rehabilitation/ Heart Wellness Centre/ Heart Health Hub

**Chairperson**  
Prof Tan Huay Cheem

**Members**  
Ms Chan Siok Tian  
A/Prof David Foo Chee Guan  
Dr Peter Ting  
Dr Raymond Wong  
Dr Yeo Tee Joo

**Professional & Research**

**Chairperson**  
A/Prof Tai E Shyong

**Member**  
Prof Terrance Chua

**Heart Support Fund**

**Chairperson**  
Dr Goh Ping Ping

**Members**  
A/Prof Wong Keng Yean  
Dr Lim Chong Hee  
Dr Tan Ju Le  
Mrs Lee Lay Beng  
Ms Genevieve Wong

### PR & Communications

**Editorial**  
**Editor**  
Mr Patrick Deroose

**Members**  
Prof Terrance Chua  
Dr Chee Tek Siong  
Dr C Sivathanan

**PR & Media**  
**Chairperson**  
Mr Chong Chou Yuen

**Member**  
Mr Goh Chiew Seng

### Heart Safe

**Chairperson**  
A/Prof Lim Swee Han

**Co-Chairperson**  
Dr Chee Tek Siong

**Honorary Advisor**  
Dr Fatimah Lateef

**Ex-Officio**  
Prof Terrance Chua

### Finance/Investment

**Chairperson**  
Mrs Elsie Foh

**Members**  
Prof Terrance Chua  
Ms Tan Lee-Chew  
Mr Chong Chou Yuen  
Ms Alicia Foo

**Governance & Audit**

**Chairperson**  
Mr Chong Chou Yuen

**Members**  
Prof Terrance Chua  
Mrs Elsie Foh  
Mr Richard Tan

### School Programmes

**Chairperson**  
Mrs Regina Lee

**Member**  
Mr Goh Chiew Seng

**Community Outreach**

**Chairperson**  
Mr Goh Chiew Seng

**Members**  
Dr Chee Tek Siong  
Mdm Koh Teck Siew  
Prof May Lwin  
Ms Shelly Malik  
Dr Mak Koon Hou  
Mrs Jaswant Sroya  
Dr Tan Yong Seng  
Mrs Nur Fatimah Frauder

### Human Resource

**Chairperson**  
Prof Tan Huay Cheem

**Ex-Officio**  
Prof Terrance Chua

**Members**  
Mr Goh Chiew Seng  
Mdm Koh Teck Siew  
Mr Peter Sim



# MANAGEMENT & STAFF

## 1<sup>st</sup> row (Left to right)

1. **Mr Tay Hung Yong**, Principal Physiotherapist & Manager, HWC
2. **Ms Amy Leong**, Deputy Manager, Finance
3. **Ms Jeslin Sin**, Director, Programmes
4. **Mr Vernon Kang**, Chief Executive Officer
5. **Ms Stephanie Ho**, Senior Manager, PR & Communications
6. **Ms Jacqueline Leong**, Manager, HWC
7. **Mr Lim Kiat**, Deputy Manager, Programmes

## 2<sup>nd</sup> row (Left to right)

1. **Ms Karen Tan**, Senior Executive, Finance, HR & Admin
2. **Ms Grace Chen**, Assistant Manager, Schools Programme
3. **Ms Kelly Goh**, Senior Executive, Finance & Admin
4. **Ms Joanne Low**, Executive, HWC
5. **Ms Patricia Phua**, Executive, Fundraising & Volunteer Management
6. **Ms Carine Yew**, Executive, Restart A Heart Programme
7. **Ms Hazel Yeong**, Assistant Manager, Finance
8. **Ms Denise Ng**, Assistant Manager, Heart Safe
9. **Ms Ann Loh**, Assistant Manager, HWC
10. **Ms Mabel Tang**, Senior Executive, PR & Communications
11. **Ms Tan Li Hao**, Executive, Fundraising
12. **Ms Eileen Lee**, Nurse Educator, HWC

## 3<sup>rd</sup> row (Left to right)

1. **Mr Kenneth See**, Assistant Manager, R-AEDi Marketing
2. **Ms Natalie Tang**, Executive, Administration & HR
3. **Ms Cassandra Lim**, Assistant Manager, Restart A Heart Programme
4. **Ms Cindy Lim**, Senior Physiotherapist, HWC
5. **Ms May Lee**, Senior Executive, Finance
6. **Ms Toh Yun Xuan**, Senior Nutritionist
7. **Ms Joanne Su**, Executive, R-AEDi Marketing
8. **Ms Jesamine Ling**, Executive, HWC
9. **Ms Charlotte Ong**, Assistant Manager, Community Education
10. **Ms Linda Wee**, Assistant Manager, Community Education
11. **Mr Wong Ghee Wei**, Senior Executive, Finance

## 4<sup>th</sup> row (Left to right)

1. **Mr Loo Hoe Ann**, Therapy Assistant, HWC
2. **Mr Jerry Song**, Senior Executive, Heart Safe
3. **Mr Ong Wee Teck**, Executive, Heart Safe
4. **Mr Ray Lee**, Senior Executive, R-AEDi Audit
5. **Mr Bob Goh**, Therapy Assistant, HWC
6. **Mr Seet Dong Jin**, Executive, R-AEDi Operations
7. **Mr Tan Ter Soon**, Executive, Schools Programme
8. **Mr Muhammad Khairil**, Executive, R-AEDi Operations
9. **Mr Fendi Ahmad**, Physiotherapist, HWC
10. **Mr Philip Tay**, Therapy Assistant, HWC
11. **Mr Lin Zi Cheng**, Executive, R-AEDi Operations
12. **Mr Desmond San**, Senior Manager, Finance, Procurement, HR & Admin



## BP INITIATIVE @ SCHOOLS

The BP Initiative @ Schools programme is specially tailored for Primary 5 students, to raise their awareness on the importance of having good blood pressure (BP) readings in their lives, as well as to promote healthier living to the families.

Students undergo a 1-hour workshop that consists of an awareness talk and a practical session to learn how to use a BP monitor. They then bring home the BP monitor for a day, to take the BP measurements of their adult family members and share their newly acquired knowledge.

As a pilot project, family members who were found to have high BP readings were invited to Juying Primary School on 28<sup>th</sup> October 2017, to get their BP checked and were also given advice by professional nurses.

In FY2017, we conducted 174 training sessions (1 hour per session), reaching out to more than 9,100 primary five students, 174 teachers, 204 parent volunteers and 23,205 family members in 34 primary schools (Table 1). Each session is documented by pre- and post-programme survey questionnaires, to gauge the effectiveness of the programme. Overall, more than 83.8% of students were able to show that they had the right knowledge about high BP (Table 2). The programme was also well received, with 86.8% of positive feedback gathered from the students' families (Table 3).

In addition, a new BP educational handbook was created for students in the programme. Designed with visuals, contents and activities that are kid-friendly, the handbook aims to enhance the students' learning experience and empower them with a tool to refresh their BP knowledge.



Table 1: Overall Participant Profile for FY2017

	<b>34</b> Primary Schools
	<b>174</b> Teachers
	<b>9,100</b> Primary 5 Students
	<b>204</b> Parent Volunteers
	<b>23,205</b> Family Members Involved
Multiplier effect: 1 student = 2.55 family members	
	<b>174</b> Training Sessions (1 hour per session)

Table 2: Students' Knowledge About High Blood Pressure

Questions	Percentage (%) of students who answered true	
	Pre-programme	Post-programme
The normal blood pressure level is less than 130/80 mmHg	55.9%	83.8%
High salt intake can contribute to high blood pressure	61.3%	88.1%
Heart attack and stroke are complications of high blood pressure	59.7%	84.8%

Table 3: Survey Questionnaire Results: Family Members' Responses

Questions	Percentage (%) of family members who agreed
Family members' response towards having their blood pressure checked and recorded has increased their awareness of healthy BP levels.	78.7%
Family members' response towards the usefulness of this programme.	86.8%

"The BP Initiative @ Schools programme heightens heart health awareness in the school community and offers opportunities for students to lead their peers."

- Mr Raymond Koh, HOD of PE/CCA in Meridian Primary School



### Social Robots for Enhanced Interactivity

During the BP Initiative @ Schools Carnival 2017, SHF signed a research collaboration agreement with Nanyang Technological University, Singapore (NTU), to explore the use of social robots to enhance the interactivity of the BP Initiative @ Schools programme. Since then, various applications have been developed for the robot to interact with students during the 1-hour workshop. They include:

- Two-way conversation between the robot and the instructor to introduce key facts about blood pressure.
- Salt intake game - Robot is able to recognise different food pictures and identify the one with the lowest salt intake.
- Understanding your BP numbers game - Robot is able to recognise QR codes embedded with various BP numbers, and identify them as correct or incorrect answers.
- Reading out BP measurement results from the BP monitor.
- A step-by-step guide on how to perform BP measurement.

The first pilot testing of the robot was conducted on 24<sup>th</sup> to 28<sup>th</sup> July 2017 at Pioneer Primary School.

### Annual Community BP Awareness Day 2017 @ Anchorvale

As part of an annual event in collaboration with Anchor Green Primary School, 16 students who completed the BP Initiative @ Schools programme were selected as SHF's Junior BP Ambassadors. With the knowledge and skills acquired from the programme, our ambassadors were tasked to reach out to their community at Sengkang Sports and Recreation Centre on 24<sup>th</sup> August 2017. A total of 157 residents were taught by our ambassadors on how to operate a BP monitor properly and what constitutes as good BP readings, for the prevention of cardiovascular disease.



# COMMUNITY EDUCATION

## Go Red for Women

### Wear Red @ Asia Square Roadshow – Wear Red, Pledge Red, Go Red

To commemorate International Women’s Day, the Go Red for Women roadshow was held at The Cube @ Asia square on 8<sup>th</sup> March 2017, from 8am to 6pm to raise awareness for cardiovascular disease among women in Singapore. Themed ‘Wear Red, Pledge Red, Go Red’, close to 700 working professionals turned up at the event, with more than 300 of them supporting the campaign by donning a touch of red.

To promote healthy eating, SHF collaborated with Gardenia Foods (S) Ptd Ltd and Ayam Brand™ to give away 250 sets of wholemeal sandwiches for the ‘early birds’. Apples were distributed to the lunchtime crowd as well. Others activities included a CPR skit, complimentary finger prick cholesterol test (sponsored by Marigold) and heart health quizzes with attractive prizes to be won.



### Healthy Mummy, Healthy Family Symposium 2017

In celebration of Mother’s Day, SHF organised the ‘Healthy Mummy, Healthy Family Symposium’ at the Marina Mandarin Singapore, Taurus Ballroom on 6<sup>th</sup> May 2017. We were privileged to have Madam Halimah Yacob, President of Singapore, as our Guest of Honour and she also supported the campaign by dressing up in red.



More than 200 participants attended the symposium which featured two informative talks by guest speakers - Dr Goh Ping Ping (Cardiologist and Official Spokesperson for the Go Red for Women campaign) and Ms Valerie Teong (Dietitian from the Women’s Heart Health Clinic, National University Heart Centre). They spoke about women’s risk for heart disease as well as nutrition for the heart and benefits for the family.

The special highlight was a Hearty Bento Workshop conducted by Singapore’s top bento artist, Ms Shirley Wong, better known as ‘Little Miss Bento’. Her interactive workshop provided participants with basic step-by-step techniques on how to create a healthy yet adorable looking lunch box.

### Edward Lifesciences’ Go Red for Women Celebration

For the sixth year running, Edward Lifesciences (Singapore) Pte Ltd supported the Go Red for Women campaign through the sale of merchandise in their office compound to raise funds among their employees, as well as to promote heart health awareness. A total of \$5,765 was collected from this effort.



## Woof-a-thon 2017

More than just being man’s best friend, dogs are also one of our heart’s best allies! To raise greater awareness of the cardiovascular benefits associated with walking - a low impact physical activity, hundreds of dog-lovers along with their furry friends participated in SHF’s second Woof-a-thon event, held on 8<sup>th</sup> July 2017 at Bishan-Ang Mo Kio Park, Ficus Green.

The event, graced by Mr Louis Ng, Member of Parliament for Nee Soon GRC had a sign up of 400 dogs for the 2km ‘Buddy Walk’ (double the number in 2015). Participants both young and old and those without dogs, also joined in the walk with their family and friends, lending their support to the battle against heart diseases. By doing so, the **Singapore Heart Foundation entered into the Singapore Book of Records for the “Longest Dog Walk Line” with 352 dogs.**

Studies have shown that dog owners engage in more walking and physical activity than non-dog owners, and are 54% more likely to get the recommended level of physical activity. In addition, pet owners over the age of 65, make 30% fewer visits to their doctors than those without pets.

Other highlights at the event included basic health screenings for pets, Meet & Greet with Cesar’s Recruit: Asia S1 Semi-finalist, Stephanie Keong, educational talks and CPR+AED demonstrations for both dogs and humans. There was also a Fashionista Parade, where dogs were encouraged to come dressed with a touch of red.



Scan here to view Woof-a-thon 2017 event highlights

“It is heartening to see so many families, dog owners and their pets at Woof-a-thon 2017. Dog owners often say the best thing about dogs is their unconditional love. But the health benefits that can be reaped from simple activities such as walking are numerous, and I encourage everyone to step out and make small changes part of their daily routine, towards a healthier heart.”

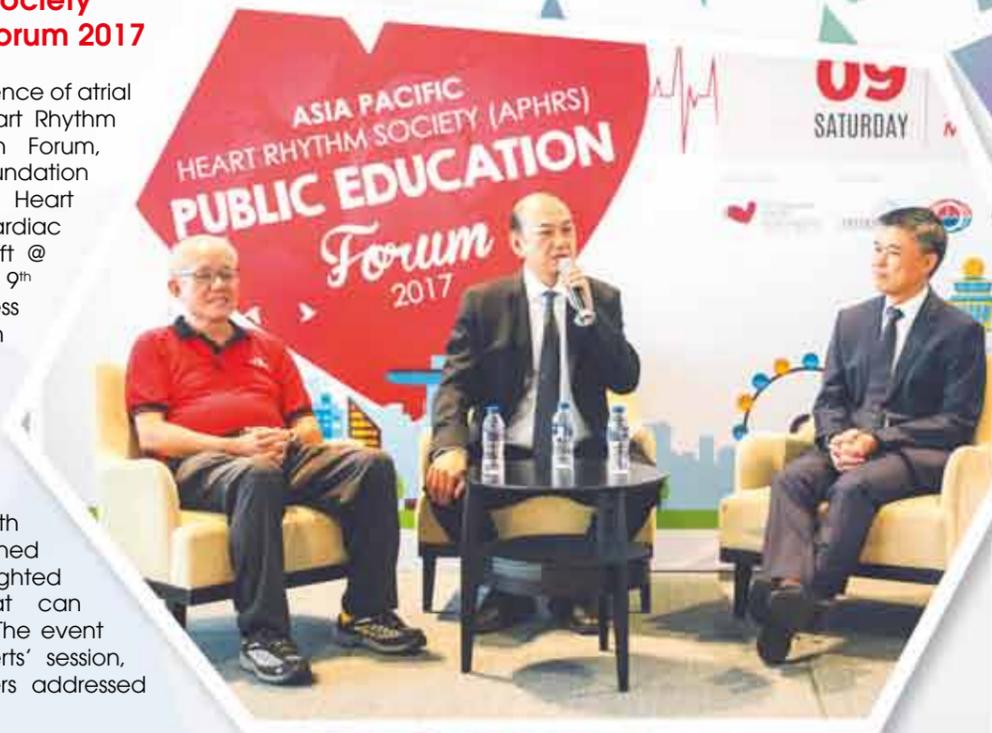
- Mr Louis Ng, Member of Parliament for Nee Soon GRC



### Asia Pacific Heart Rhythm Society (APHRS) Public Education Forum 2017

In recognition of the increased incidence of atrial fibrillation (AF), the Asia Pacific Heart Rhythm Society (APHRS) Public Education Forum, organised by the Singapore Heart Foundation and initiated by the Asia Pacific Heart Rhythm Society and Singapore Cardiac Society, took place at The Star Loft @ The Star Performing Arts Centre on 9<sup>th</sup> September 2017, to raise awareness on AF with a special focus on sudden cardiac death (SCD).

Guest of Honour Ms Joan Pereira, Member of Parliament for Tanjong Pagar GRC graced the event with more than 250 participants in attendance. Conducted in both English and Mandarin, experts weighed in on the conditions and also highlighted the precautionary measures that can prevent the onset of AF and SCD. The event concluded with the 'Ask the Experts' session, where the panel of guest speakers addressed questions from the floor.



### National Heart Week/World Heart Day 2017

In commemoration of National Heart Week/World Heart Day (WHD), SHF organised an engaging and fun-filled event at Bedok Town Square on 30<sup>th</sup> September 2017. Themed 'Share the Power', the event aimed to bring together and educate Singaporeans on cardiovascular diseases and showed them how small lifestyle changes can make a powerful difference to one's heart health. Mr Lee Yi Shyan, Grassroots Adviser to East Coast GRC Grassroots Organisations, graced the event as Guest of Honour.

During the session, Mr Lee launched SHF's 'Power to Save A Life' game, the first game in Singapore which allows participants to perform hands-only CPR to the beat of pop classics such as *Stayin' Alive* by the Bee Gees and *Can't Stop The Feeling* by Justin Timberlake (read more on P17).

At the event, 2,200 participants were treated to a series of educational and family-friendly activities. Pre-registered participants underwent basic cardiac risk assessment screenings to understand their health status better and took part in the *Build Your Poké Bowl* workshop to whip up a healthy *Poké Bowl* and fruit salad. A CPR+AED certification course was also conducted to impart the essential life-saving skills to laypersons. To reinforce the importance of regular exercise, participants also got their heart rates pumping while doing the complimentary chair aerobics and Zumba workouts.



Other highlights at the event included heart health educational games, the Save-A-Life roadshow, quizzes and interactive stage programmes, as well as interactive live cooking demonstrations by Celebrity Chefs Martin Yeo and Melyvn Lee, where they whipped up easy-to-make heart healthy dishes with Captain Oats and NutriSoy products respectively.



"Even small changes can make a powerful difference. This World Heart Day, share how you power your heart and inspire all the people around you to be heart healthy too!"

- Dr Chee Tek Siong, Organising Chairman of National Heart Week/World Heart Day 2017

### Down with High Blood Pressure Public Forum 2017

In conjunction with the 13<sup>th</sup> Asian-Pacific Congress of Hypertension (APCH) 2017, SHF organised the 'Down with High Blood Pressure Public Forum' on 8<sup>th</sup> October 2017 at the Suntec Singapore Convention & Exhibition Centre, to raise awareness on hypertension and how to manage it.

Known as a silent killer, high blood pressure (hypertension) is a major risk factor for cardiovascular diseases and it is a common problem in Singapore, affecting 1 in 4 adults aged 30 to 69 years old. Individuals with this condition may not exhibit any symptoms, even when their condition is severe. In some cases, hypertension is only discovered when complications such as stroke or a heart attack occurs.

Expert speakers Dr Low Lip Ping and Dr Bernard Kwok, focused on identifying and managing high blood pressure. Over 130 participants were in attendance and they actively participated in the 'Ask the Experts' session at the end of the forum.



### Heart Failure Public Awareness Forum 2017

According to statistics, Asians suffer from heart failure approximately 10 years earlier than our Western counterparts, at an average age of 60 years old. Hence, to address this condition, the Heart Failure Society Singapore and Novartis initiated the first Heart Failure Public Awareness Forum on 14<sup>th</sup> October 2017 at One Farrer Hotel & Spa. At the forum which was organised by SHF, expert speakers shared and provided insights of what heart failure is, its signs and symptoms and how to prevent/live with the condition.

# NUTRITION EDUCATION

At SHF, we constantly deliver healthy eating and active living messages to the public, with the hope of encouraging them to make positive modifications and healthy lifestyle habits. Talks and workshops are conducted nationwide at our Heart Wellness Centre @ Bishan Junction 8 and the Heart Health Hub @ Fortune Centre. We also go to schools, community centres, senior activity centres and corporate companies such as Manulife (Singapore) Pte Ltd, National Institute of Education and Gardenia Foods (S) Pte Ltd.

Some popular topics include "Supermarket-Smart: Understanding Food Labels", "Sugar - Sweet with a Bitter Aftertaste" and "Healthy Habits, Healthier Weight". SHF's in-house senior nutritionists also conduct cooking demonstrations and hands-on workshops. These interactive sessions teach participants how to prepare heart healthy meals in a convenient and fast way with simple ingredients.

This year, we delivered 28 talks with well-received feedback and an average of 90% for overall satisfaction. In addition, the Foundation provides nutrition counselling for SHF clients and members of the public. Such personalised counselling sessions allow individuals to understand their dietary habits better and will assist them in achieving a healthier wellbeing. In FY17/18, a total of 112 clients attended the nutrition counselling sessions.



## The Great Supermarket Search

The Great Supermarket Search (GSS) focuses on promoting proper nutrition consumption through choosing healthier food products. In this programme, students from Nanyang Polytechnic (Diploma in Food Science and Nutrition) were trained to conduct and lead supermarket tours. To further reinforce learning, each participant was also given a Heart Smart Grocery Shopping Guide Cardholder and participated in the Supermarket Tic-Tac-Toe game.

On 29<sup>th</sup> July 2017, a total of 104 participants took part in the GSS at FairPrice Xtra @ Changi Business Park. A post-programme survey was conducted to evaluate the effectiveness of the programme and the results were as follows:



## How Singaporeans Eat

An educational video "How Singaporeans Eat" was developed to create an awareness of eating habits that could increase salt intake, which is one of the risk factors for hypertension. To achieve its aim, the video focused on characterising different eating habits (e.g. a person that finishes his soup when dining out, is categorised as a slurper). The video was posted on Facebook and YouTube on 17<sup>th</sup> March 2018 and has garnered over 30,000 views, 303 likes and 208 shares thus far.



Scan here to view the "How Singaporeans Eat" video



## Nutrition and Fitness Seminar 2017

For the second consecutive year, SHF held the Nutrition and Fitness Seminar on 20<sup>th</sup> May 2017 at North Vista Secondary School, with the aim of tackling childhood obesity in secondary school students. Former Minister of State for Manpower, Mr Teo Ser Luck was our Guest of Honour and parents were also invited to learn about the importance of keeping childhood obesity at bay, in support of their overweight/severely overweight children.

Childhood obesity has been rising at an alarming rate and is being identified as a global epidemic. Hence, SHF launched the Nutrition and Fitness Toolkit, which is designed to encourage overweight children to cultivate healthy habits and stay active. In addition, there were nutrition and motivational talks, a walkabout around the school, jump rope sessions and a hands-on hearty cooking workshop.



# POWER TO SAVE A LIFE

The R-AEDi (Registry for Automated External Defibrillator Integration) initiative is a collaborative project between the Singapore Heart Foundation and the Singapore Civil Defence Force. The initiative is now in its third and most productive year to date, in its aim to raise Singapore's Out-of-Hospital Cardiac Arrest (OHCA) survival rate.

The national survival rate for shockable witnessed cardiac arrest is reported to have risen from 13.8% to 21.3%. This statistic coincides with a reported increase in bystander CPR intervention in Singapore, according to the Straits Times ("More bystanders performing CPR during emergencies: Study", 2017).

Meanwhile, the number of Automated External Defibrillators (AEDs) made accessible to the public has doubled since FY2016. Similarly, the number of registered first responders via the myResponder mobile app, has almost increased by 1.5 times from last year's reported figures.

These statistics serve as an encouragement for our efforts. By expanding the national registry of publicly accessible AEDs and promoting public awareness of CPR+AED, the Foundation has sought to empower the Singapore community with the right information to take action and help to save a life during sudden cardiac arrest.



### Evaluation of Programme



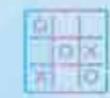
**90%** overall satisfaction with the programme



**88%** agreed that the Heart Smart Grocery Shopping Guide Cardholder is useful



**23%** improvement in the knowledge of label reading



**88%** agreed that the Supermarket Tic-Tac-Toe game is useful to reinforce learning

### Survey Questionnaire Results

Questions	Percentage (%) of participants who agreed	
	Pre-programme	Post-programme
I know a lot about label reading	21%	75%
I am able to share with my friends and family members on how to choose healthier food products	34%	82%



The initiative has 3 components:



Creating awareness and recruiting volunteers for the SCDF myResponder app



Building a robust National Registry of publicly accessible AEDs



Promoting public awareness of the importance of CPR and AED

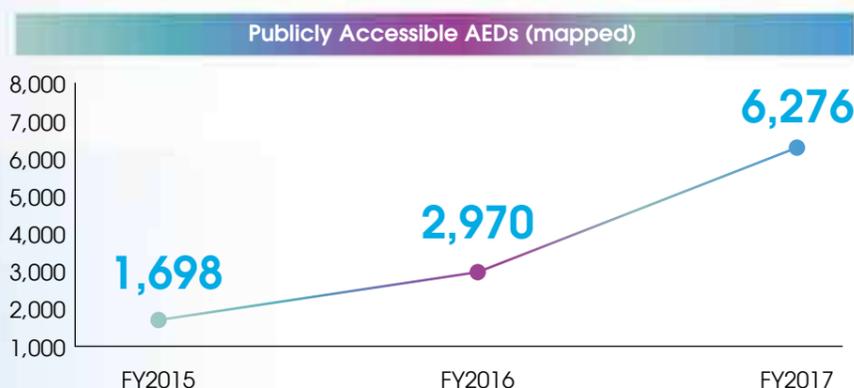


### A Powerful Registry

As of FY2017, SHF's operations team has expanded the size of the national AED registry by mapping a total of 6,276 AEDs. This represents an almost 4-fold increase in registered AEDs, since the start of the R-AEDI initiative.

This national registry can be accessed by anyone through the myResponder mobile app, which provides the nearest AED location information relative to one's current location.

The accuracy of all registry data is maintained by SHF staff by means of annual verification site visits. This ensures that all AEDs in Singapore are truly rescue-ready, when the time comes for a life to be saved.



### The Power of Technology

The myResponder mobile app has been recognised as an innovative technology that empowers the medical and lay community to intervene swiftly with CPR+AED, to raise the chances of survival for cardiac arrest victims.

At the OneMap IdeaWorks! event in October 2017, Mr K Shanmugam, Minister for Home Affairs & Minister for Law, praised the myResponder app for successfully tapping on OneMap's geospatial technology to meet the needs of others in the community, especially in a cardiac arrest emergency.



### Power to the People

This year's series of community awareness roadshows introduced a new and exciting roadshow concept to the public. Visitors would collect stamps at game stations after completing various activities, such as learning how to recognise a sudden cardiac arrest and how to respond during a cardiac emergency.

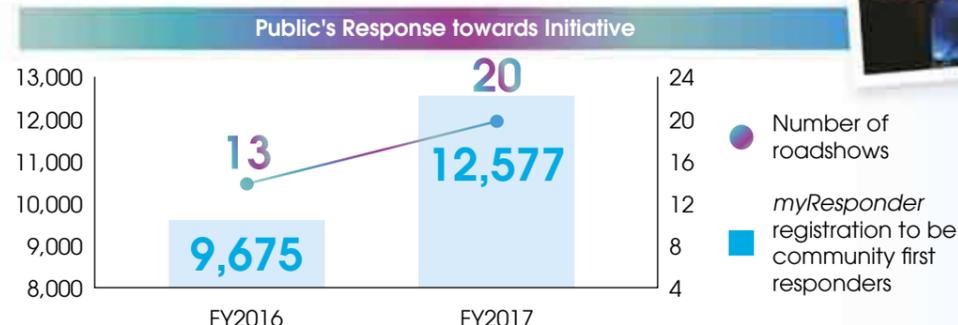
A highlight and crowd pleaser at our islandwide roadshows is the 'Power to Save A Life' game. Designed and conceptualised by SHF, 'Power to Save A Life' is Southeast Asia's first life-sized multiplayer CPR game that uses musical rhythm to teach players the correct rate of chest compressions needed during CPR. By gamifying the learning process, the game helps players to realise that chest compressions are not difficult to do, so bystander CPR becomes less daunting altogether.

The game also succeeds in drawing in a younger demographic of roadshow visitors, who were previously difficult to engage because of their perception that the topics of CPR and lifesaving are dry and dull. In addition, to reach out to online audiences, the game was featured on YouTube and Facebook by popular online TV network channel, *clicknetwork.tv*.

From our efforts, the number of downloads of the myResponder app and the registration of new community first responders have shot up significantly. We look forward to a more empowered nation of lifesavers, in the fight for higher survival rates from sudden cardiac arrest - with the help of technological tools, such as the myResponder app.



Scan here to view the 'Power to Save A Life' game



## HEART SAFE

### AED On Wheels

Since November 2015, the AED on Wheels initiative equips and dispatches 100 SMRT taxis with AEDs, in the event of a cardiac emergency. These drivers are equipped with the skills of CPR+AED. Upon arrival, the drivers act as first responders to administer CPR+AED until the paramedics take over, thus improving survival rates. On average, there are 5 successful responder cases per month.

### AED Loan Programme

Started in February 2015, our AED loan programme is a free initiative where companies/schools/members of the public can borrow an AED unit(s) for any event on a temporary basis from SHF, at zero cost. To date, we have loaned out an AED 35 times.

### Sale Of AEDs

An AED is a simple and portable electrical device that comes with instructional voice prompts, designed for the layman. It is used to treat irregular heart rhythms and works best during the initial few minutes after the onset of a cardiac arrest. A victim's survival rate drops by up to 10%, for every minute delay in receiving CPR and AED.

The Foundation sells AEDs at affordable prices. With every purchase of an AED, SHF will conduct a product demonstration and provide complimentary CPR+AED certification for two staff. This is to ensure that the device is administered safely and correctly. Since 2012, we have sold 478 units of AEDs.



### CPR+AED Certification Course



The Cardiopulmonary Resuscitation + Automated External Defibrillator (CPR+AED) certification course aims to train participants to determine unresponsiveness, activate emergency medical services, as well as how to perform CPR and use an AED on adult casualties. In FY2017, there were a total of 207 classes conducted, with 3,495 participants.

### CPR+AED/BCLS Instructor Courses

This course aims to train CPR+AED/BCLS (Basic Cardiac Life Support) certified individuals to undertake the role of an instructor, which will enable them to teach effectively and impart the essential life-saving skills to others. The course syllabus includes class preparation, methods of instruction, and equipment management. Upon successful completion of the course, all instructor trainees are required to undergo two compulsory attachments, before becoming a full-fledged instructor (validity of two years).

FY2017	No. of Classes	No. of Participants
CPR+AED Instructor Course	19	224
BCLS Instructor Course	10	124

### BCLS Provider/ Re-certification Course

The Basic Cardiac Life Support (BCLS) provider/re-certification course, aims to equip participants with basic cardiac life support skills such as performing effective CPR and relieving foreign body airway obstruction in conscious/unconscious adult and infant casualties. There were a total of 58 classes conducted, with 1,095 participants.



### Project Heart 2017

In its 6<sup>th</sup> year and running, SHF's annual Project Heart initiative certified 1,000 members of the public for free in CPR+AED. Held on 4<sup>th</sup> November 2017 at the Singapore EXPO Convention & Exhibition Centre, the event was graced by Ms Low Yen Ling, Senior Parliamentary Secretary, Ministry of Trade and Industry & Ministry of Education, Mayor, South West CDC.

With the theme "Kampong Spirit", the event hall was decorated to represent the four different ethnic groups in Singapore. FLY Entertainment artistes Irene Ang, Jaime Teo and Benjamin Kheng, took part in the training as well.

Project Heart 2017 is the first mass event that uses CPR feedback devices to train and certify at least 1,000 participants. The CPR feedback device provides immediate 'live' readings and measurements for participants to achieve quality CPR, thereby improving their competency and confidence.

All participants received a complimentary Mini Anne CPR & AED kit, which we hope they will use to practise their newly acquired lifesaving skills, and train their family members at the same time. Participants that passed the assessment were also awarded with a CPR+AED certification, which is valid for 2 years.



## HEART SAFE CERTIFICATION COURSES

All certification courses conducted by the Foundation include a theory and practical test, in accordance with the guidelines provided by the Singapore Resuscitation and First Aid Council (SRFAC). Participants will also receive a certificate valid for 2 years, upon successful completion of the course.

(NEW)



### BCLS+AED Instructor Course

This course is designed for both BCLS and AED certified individuals who are keen to undertake the role of an instructor to coach, organise and facilitate BCLS and CPR+AED provider courses. Upon successful completion of the course, all BCLS+AED instructor trainees are required to undergo two compulsory attachments, before becoming a full-fledged instructor. In FY2017, 1 class was conducted, with 22 participants.

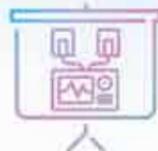
(NEW)

### Standard First Aid + AED Certification Course

The Standard First Aid + AED certification course aims to equip participants with not only the knowledge and skills to perform effective CPR and use an AED safely, but also first aid skills such as bandaging and immobilisation techniques for fractures. There were a total of 6 classes conducted, with 76 participants.



(NEW)



### BCLS+AED Certification Course

This improved course structure teaches participants how to perform effective CPR for adult and infant casualties, relief foreign body airway obstruction in conscious/unconscious adult & infant casualties, and how to use an AED correctly, safely and swiftly. There were a total of 12 classes conducted, with 141 participants.



### AED Installation Initiative at Bukit Gombak Landed Estates

The launch of the initiative to install AEDs in Bukit Gombak landed estates, was spearheaded by the Bukit Gombak Citizens' Consultative Committee (CCC) and supported by SHF. Guest of Honour Ms Low Yen Ling, officiated the launch ceremony of an installed AED at Chu Yen Playground on 3<sup>rd</sup> March 2018.

A total of 5 AEDs have been installed in Bukit Gombak's landed estates which includes Chu Yen Playground, Lorong Kemunchup Park, Pavilion Playground II, Phoenix Park and Hillview Villas.

In addition, 105 residents participated in a 3-hour CPR+AED certification training. At the end of the session, all participants were successfully certified as CPR+AED providers and given a complimentary Mini Anne CPR & AED kit.

### CPR+AED Certification Course on International Women's Day

In celebration of International Women's Day, a complimentary CPR+AED certification course was conducted on 8<sup>th</sup> March 2018 at Junction 8 (Roof Garden) for 75 ladies dressed in red. All of them completed the assessment successfully and were certified as CPR+AED providers.





# RESTART A

The Temasek Foundation Cares - Restart A Heart programme is a collaboration with the Singapore Heart Foundation and is part of the 'Stay Prepared' initiative funded by the Temasek Emergency Preparedness Fund.

## Public Education Campaign

The 4-week Restart A Heart campaign was launched to educate the public about cardiac arrest and encourage them to sign up for the Restart A Heart programme with SHF, to learn CPR+AED. Awareness efforts were also carried out via the Singapore Press Holdings' (SPH) print, digital, radio and outdoor media channels.

The campaign was a collaboration between Temasek Foundation Cares together with Tribal Worldwide and SPH, and supported by the Singapore Heart Foundation.

Since the campaign's launch, visits to SHF's website increased by more than 11 times and we received over 100 enquiries on the Restart A Heart programme. To date, SHF has conducted a total of four classes over two Saturdays, to teach members of the public simplified CPR+AED skills.



Scan here to watch the 'Be A Hero' film



## TV Commercial

A light hearted 'Be A Hero' video was produced in July 2017, to encourage the public to sign up to learn life-saving skills. The short film was also loop-screened during the National Day Parade (NDP) national education shows, NDP preview shows and on the actual National Day Parade itself.

## DARE PROGRAMME

The Dispatcher-Assisted first REsponder (DARE) programme is a one hour abridged non-certification session, which focuses on chest-compression-only CPR and the use of an AED. This programme aims to help the public gain knowledge and confidence to save a heart and save a life. Since its launch in 2014, SHF has been a training partner by conducting the DARE programme in-house and at various institutions and organisations. In FY2017, 43 DARE sessions were conducted, with 1,587 participants.



On 14<sup>th</sup> February 2018, SHF was invited to Princess Elizabeth Primary School to be part of the commemorative event for Total Defence Day. A hands-only CPR station was set up to raise awareness on life-saving skills and for the students to gain practical experience on performing chest compressions, while being guided by the instructors. During recess time, a total of 211 students (Primary 1 to Primary 6) tried their hands at achieving 10 compressions on a manikin.

"With this programme, our lecturers, staff and students learnt how to be DARE-ing in saving lives and stepping forward to provide basic CPR to those in need. The trainers and facilitators were very professional, knowledgeable, helpful and engaging. Thank you for this inspiring, enriching and awesome learning experience!"

- Ms Melly Lai, Human Resource Executive at Singapore Bible College

# HEART WELLNESS CENTRE & HEART HEALTH HUB (HWC & HHH)

Overall Client Profile	HWC & HHH		Increase 
	FY2016	FY2017	
Cardiac Clients (Includes clients at risk of cardiovascular disease)	1,586	1,784	12.5%
Down Syndrome Clients (DSA)	41	43	4.9%
<b>Total</b>	<b>1,627</b>	<b>1,827</b>	<b>12.3%</b>



## Outcome Measures

One of the key objectives of the Heart Wellness Programme is to improve the morbidity and mortality rates of our clients. Since 2017, we have started to monitor their surrogate markers such as blood pressure and lipids, against the national clinical guideline benchmark.

We also compared our clients' performance (intervention group) with patients who did not continue with maintenance rehabilitation after their cardiac rehabilitation stint in the hospitals (control group). Results showed an improvement of certain surrogate markers, after one year of maintenance rehabilitation at our centres.

## Home-based Cardiac Rehabilitation

In order to ensure that all cardiac patients in Singapore have an equal opportunity and access to receive affordable therapy (especially those who are mostly home-bound due to mobility issues or poor exercise tolerance), SHF has started a new home rehabilitation service.

This programme provides a safe and comfortable exercise experience for frail and elderly patients, in the comfort of their own homes. Each home visit by our physiotherapist lasts one hour and it includes a customised exercise regime, so as to guide and assist the patient to be independent in performing simple exercises at home.

The 12-session pilot programme was launched in February 2017 at \$10 per session and we had ten patients for FY2017.

## Home Rehab Process



**Step 1** Measure weight, blood pressure and blood glucose levels before the exercise



**Step 2** Warm-up



**Step 4** Cool down + measure weight, blood pressure and blood glucose levels



**Step 3** Exercise\*

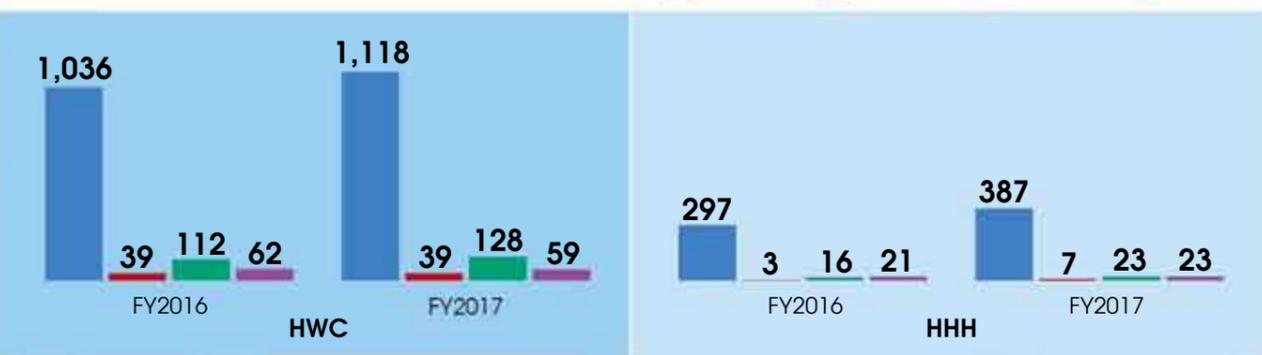
\*The exercise routine is on a case-by-case basis and suited to the patient's profile. Please do not try these exercises at home without supervision.



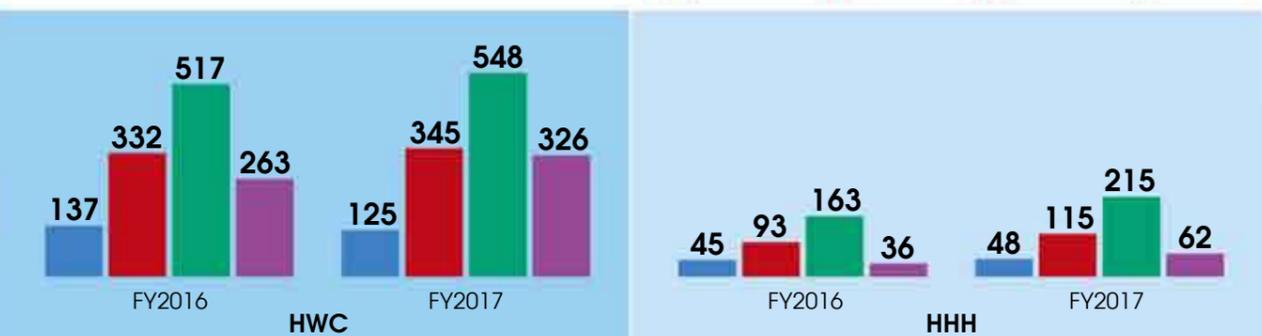
### Client Profile by Gender



### Client Profile by Race



### Client Profile by Age Range





### Mobile Cardiac Rehabilitation

In August 2017, SHF launched our Heart Wellness Programme at Bukit Gombak Sports Complex ActiveSG gym. Classes are run every Thursday morning and we currently have 8 cardiac patients in the programme.

### Singapore Prevention and Cardiac Rehabilitation Symposium 2017

The 2<sup>nd</sup> installment of the Singapore Prevention and Cardiac Rehabilitation Symposium (SPCRS) was successfully held from 20<sup>th</sup> to 21<sup>st</sup> October 2017. SPCRS 2017 centered around the theme "Advances in Cardiac Rehabilitation for Improved Health: Special Focus on E-Health" and saw more than 300 local and regional delegates from the healthcare and allied health sectors, congregating at Novotel Clarke Quay Singapore.

Besides having 4 pre-symposium clinical workshops spanning e-health, policy/strategy, nursing & allied health and exercise prescription, we also injected a fun-filled hands-on healthy cooking workshop which was led by a celebrity chef.

Our Guest of Honour was Dr Lam Pin Min, Senior Minister of State for Ministry of Health and Transport, and keynote speaker Professor Hugo Saner from Switzerland, kick-started the symposium with his keynote address on "E-Health and Telemedicine: Chances and Challenges".



### World Heart Federation 2<sup>nd</sup> Global Summit on Circulatory Health

The World Heart Federation's (WHF) 2<sup>nd</sup> Global Summit on Circulatory Health was held on 12<sup>th</sup> to 13<sup>th</sup> July 2017 at the Suntec City Convention Centre. The objective of the summit was to unite all stakeholders in circulatory health to advocate for the strengthening of National Action Plans on circulatory diseases, including support for the implementation of the WHO Global Hearts initiative in middle and low income countries.

SHF's Principal Physiotherapist & HWC Manager, Mr Tay Hung Yong shared his viewpoints at one of the panel discussions on "Building a civil society movement including the patient voice". In addition, President of WHF, Professor David Wood and fellow board members paid a visit to the Singapore Heart Foundation's Heart Wellness Centre on 14<sup>th</sup> July 2017.



### Health Screenings, Talks & Healthy Cooking Demonstrations

Health screenings, talks and healthy cooking demonstrations by celebrity chefs are conducted regularly at both centres for our clients and members of the public. Our aim is to educate them on the importance of heart health and preventive measures which they can undertake. Some topics include "Lifestyle Management of Diabetes", "Food Safety @ Home", "Resistance Band Exercise" and "Anatomy of a Will".



### Heart Support Group

The Heart Support Group (HSG) provides a common platform for cardiac clients to share their personal experiences, and allows them to be a source of strength for one another through many bonding activities. In 2017, HSG members and their families and friends embarked on a 2-day trip to Sabak Awor in Muar and a 4-day trip to Penang/Ipoh. Creative activities such as decoupage and Chinese New Year ornament workshops were also organised for the members.



### Outreach to the Young

HWC spends time teaching the younger generation about the importance of heart health and showing empathy to those afflicted with heart diseases. We have hosted students from Paya Lebar Methodist Girls' School, Duke-NUS Medical School, Nanyang Polytechnic, Institute of Technical Education and Singapore Institute of Technology, as well as adults from the Rotary Club of Singapore.

### Professional and Research

The Foundation has been actively engaged in research work and studies to improve its programmes and activities. In January 2018, SHF published a paper titled "Patient preferences for types of community-based cardiac rehabilitation programme".

This is the first study to explore patients' preferences for different types of community cardiac rehabilitation. Majority of the patients (85.2%) preferred cardiac rehabilitation programmes with new group activities, support group, cash rewards, deposit and out-of-pocket cost. These patients also valued the presence of the physiotherapist more than having additional exercise equipment or monitoring equipment.

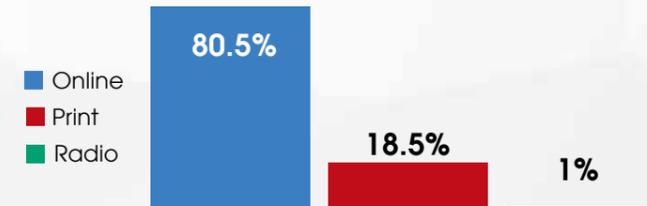
Collaborating Partners	Title	Authors	Publication
NUS, Singapore General Hospital, Duke-NUS Medical School & Singapore General Hospital	Patient preferences for types of community-based cardiac rehabilitation programme	Chia Shermain, Wong Xin Yi, Toon Min Li Toon, Seah Yi, Yap Angela Frances, Lim Cindy, Tay Hung Yong, Fong Warren, Low Lian Leng, Kwan Yu Heng	Published in Heart Asia online (Jan 2018)

## SPREADING THE MESSAGE

### Generating Heart Health Awareness via Mass Media

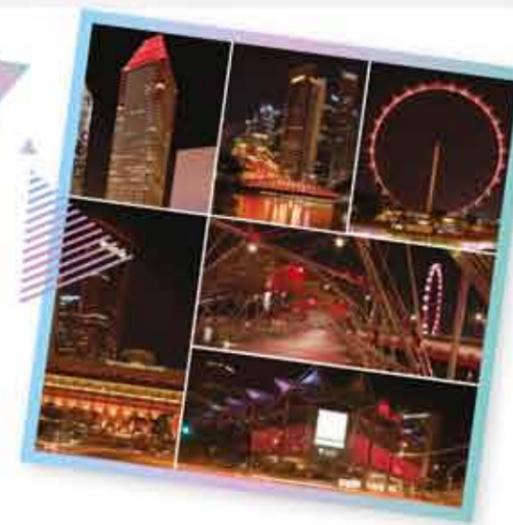
SHF was featured 195 times across broadcast, print and online media platforms this year, with coverage secured across all key media. We garnered the most mileage from online media, which accounted for 157 of all media stories. For print, there were 36 published print articles and for broadcast, 2 radio stories. The total public relations (PR) value for the coverage secured was estimated to have an economic value of \$2,010,147.

#### Media Coverage



### Creating Powerful Visual Symbols in the Fight Against CVD

In commemoration of National Heart Week/World Heart Day 2017, 6 iconic buildings and landmarks in Singapore were illuminated in red from 29<sup>th</sup> September to 1<sup>st</sup> October. The light-up locations included the Helix Bridge, Singapore Flyer, The Fullerton Hotel Singapore, Maybank Tower, Millenia Tower, Suntec Singapore Convention & Exhibition Centre and Suntec City.



Members of the public were also encouraged to take a picture with any of the red lit up structures/buildings at night (with the hashtag #worldheartday), post it on social media and share how they power their hearts, to inspire others to be heart healthy too!



Scan here to view the red illumination

### Enhancing Heart Health Messaging in Cyberspace

With the advent of the Information Age and technology, the Foundation manages to reach out to a wider audience, especially the young, via three main channels – Facebook, Twitter & Instagram. Our social media platforms are regularly updated with interesting heart health facts and lifestyle-related articles, to cultivate more interest among our targeted audience.

These platforms helped drive traffic to the SHF website, attracting 121,812 unique visitors of which 47% accessed myheart.org.sg from a desktop, while 48.7% had mobile access and 4.3% browsed via a tablet. Over 80% of visitors were from Singapore, with the rest coming from countries such as United States, Malaysia, India, Australia and the United Kingdom.



### Engaging Readers with Heart Health Developments and Practical Health Tips

heartline is SHF's quarterly heart health publication. It features articles written by cardiologists, consultants, physicians, dietitians, nutritionists, physiotherapists and other healthcare professionals. Articles range from the basic functions of the heart to the prevention, management and treatment of heart diseases. We also provide the latest updates on SHF's events and activities aimed at raising public awareness about heart diseases.

With a print circulation of 11,000, heartline reaches out to the hospitals, clinics, community centres, schools, libraries, other Voluntary Welfare Organisations, as well as SHF's corporate partners, donors and supporters.



# FUNDRAISING

## Hearty Flag Day

A total of 1,900 volunteers from all walks of life, took part in SHF's 14<sup>th</sup> Flag Day on 20<sup>th</sup> January 2018. Through the street collection and outright donations from individuals and corporations, a total of \$115,884 was raised. These funds will help to sustain SHF's life-saving programmes, and allow us to carry on our mission of promoting heart health in Singapore.

A big thank you to all who helped to make Flag Day 2018 a great success! SHF would also like to convey our sincere thanks to Tote Board and Singapore Turf Club for their continued support.

## Charity Cup Golf Tournament

In its 16<sup>th</sup> year running, SHF's annual Charity Cup Golf Tournament was held at the Singapore Island Country Club (Island Course) on 21<sup>st</sup> July 2017. Guest of Honour, Emeritus Senior Minister Goh Chok Tong, graced the event and together with 128 donors from the corporate and private sectors, a total of \$228,132 was raised for SHF.

These donations will be used to support cardiac patients and their families through difficult times, as well as to fund the Foundation's on-going rehabilitation and community programmes.

As the tournament fell on Racial Harmony Day, SHF also celebrated Singapore's success as a racially harmonious nation and culturally rich society. Four volunteers dressed in different ethnic costumes, mingled with invited guests and celebrities present included Zheng Geping, Chen Tianwen and Huang Shinan.

We were privileged to receive the generous support of our Platinum Sponsors: Tote Board and Singapore Turf Club and Gold Sponsor: Lee Foundation. Our deepest appreciation also goes out to all our other sponsors, Organising Committee and SHF staff for making the Charity Cup Golf Tournament yet another great success.



## Direct Debit Donor Programme

The Direct Donor Debit Programme (DDDP) is designed to encourage individuals to make small donations to SHF on a regular or one-time basis, while promoting the Foundation's various programmes. This is to ensure a constant stream of funding, as SHF is a non-profit organisation. The funds raised will help SHF with its capacity building and reserves, so that we will have the financial capability to embark on appropriate and necessary programmes, when the opportunity arises.

We have engaged APPCO Pte Ltd - a third party fundraiser, to promote and help us raise much needed funds through the DDDP at pre-approved venues in Singapore.

In FY2017, a total of \$8,346,273 was raised in public donations. We would like to thank our generous donors who have supported the work of SHF all these years, which allows us to continue to play an increasingly important role in saving lives and working towards a heart healthier nation.



## Heart Support Fund

As part of our continuous efforts to benefit heart patients, SHF has been providing financial assistance to needy heart patients via the Heart Support Fund. The Heart Support Fund offers financial aid of up to \$20,000 to defray the cost of a mechanical heart device or heart transplant/surgery and monthly relief of \$300-\$800 for up to six months, to help patients who are unable to return to work immediately due to their heart condition or surgical procedure.

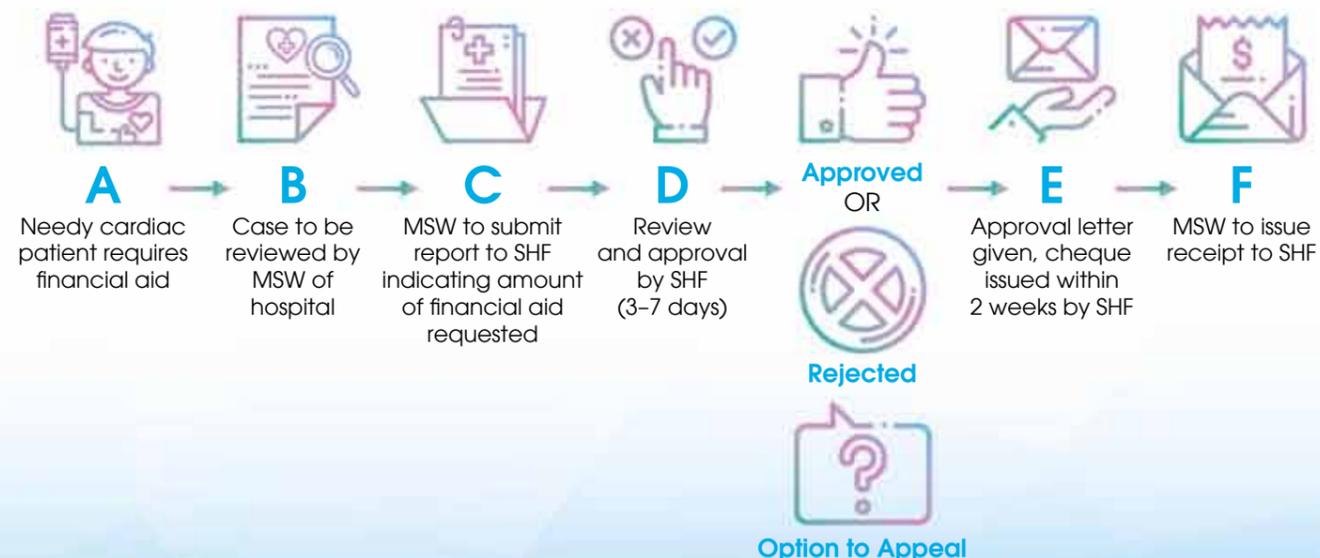
Needy heart patients may approach their hospital medical social workers (MSW), who will facilitate the application for funds by writing in to the Foundation. The application is then reviewed and decided upon by the Heart Support Fund Committee.

In FY2017, a total of \$288,604 was disbursed to needy heart patients. Some of the beneficiaries included Mr Norsani Bin Mohamed Yuni and Mr See Kwee Lin. All of them are truly appreciative of the timely aid given by the Foundation.

Other areas of assistance provided by SHF include medical devices, transportation subsidy and Cabcharge card issuance to heart patients (who have to return to the hospital frequently for follow-up visits or for medication/rehabilitation purposes), which amounted to a sum of \$64,221.



### Heart Support Fund Application Procedure



## STATEMENT OF FINANCIAL ACTIVITIES

	1 APRIL 2017-31 MARCH 2018		1 APRIL 2016-31 MARCH 2017	
		%		%
<b>INCOME</b>				
Fundraising activities	10,439,425	77	8,464,075	73
Charitable activities	2,411,446	18	2,402,662	21
Governance and operating activities	22,821	-	1,165	-
Investment & Others	653,611	5	752,674	6
<b>Total</b>	<b>13,527,303</b>	<b>100</b>	<b>11,620,576</b>	<b>100</b>
<b>EXPENDITURE</b>				
Fundraising activities	1,935,711	22	1,602,593	21
Charitable activities	5,350,153	61	4,510,112	59
Governance & Operating costs	1,527,350	17	1,514,560	20
<b>Total</b>	<b>8,813,214</b>	<b>100</b>	<b>7,627,265</b>	<b>100</b>
<b>Net surplus before gain / (loss) from investment</b>	<b>4,714,089</b>		<b>3,993,311</b>	
<b>Gain / (Loss) on disposal of investment</b>	<b>87,562</b>		<b>(152,033)</b>	
<b>Impairment loss on investment</b>	<b>(231,875)</b>		<b>-</b>	
<b>Net surplus for the year</b>	<b>4,569,776</b>		<b>3,841,278</b>	
<b>Fundraising Efficiency</b> (Fundraising Expenses/Fundraising Income)	<b>19%</b>		<b>19%</b>	

SHF's Fundraising Efficiency of 19% (FY2018) and 19% (FY2017) are well within the Commissioner of Charities guideline of not exceeding 30%.

### ANNUAL SALARY BANDS OF KEY MANAGEMENT PERSONNEL

\$200,001 to \$300,000	2	1
\$100,001 to \$200,000	2	2
\$0 to \$100,000	-	1

## STATEMENT OF FINANCIAL POSITION

	31 MARCH 2018	31 MARCH 2017
<b>ASSETS</b>		
Property, plant & equipment	4,869,679	4,979,580
Investments	20,929,673	17,965,203
Inventories	111,966	83,757
Trade and other receivables	1,159,987	329,993
Other assets	119,257	126,799
Term deposits	15,588,259	10,707,324
Cash and bank balances	1,180,397	3,601,867
<b>TOTAL ASSETS</b>	<b>43,959,218</b>	<b>37,794,523</b>
<b>FUNDS AND LIABILITIES</b>		
<b>Unrestricted Fund</b>		
General fund	31,711,868	27,182,107
Infrastructure development fund	7,000,000	7,000,000
<b>Restricted Fund</b>		
Asia-Pacific Heart Network Fund	-	6,927
Care & Share Matching Grant	1,503,840	1,365,461
Edwards Lifesciences Foundation	106,496	111,157
Heart Health Hub Fund	-	3,958
Obesity Management Fund	-	23,211
Temasek Cares Fund	252,475	312,082
<b>Other Reserves</b>	<b>2,148,676</b>	<b>989,625</b>
<b>TOTAL FUNDS</b>	<b>42,723,355</b>	<b>36,994,528</b>
<b>TOTAL LIABILITIES</b>	<b>1,235,863</b>	<b>799,995</b>
<b>TOTAL FUNDS AND LIABILITIES</b>	<b>43,959,218</b>	<b>37,794,523</b>

The Foundation's reserve policy is to maintain a reserve sufficient for at least three years of operating expenses in cash, term deposits and available-for-sale investments.

All board members and staff are prohibited to engage in any activities that directly or indirectly compete or conflict with SHF's interest. At the start of each financial year, all board members and staff are required to make a Personal / Vested Interest Declaration.

The above is a summary of the audited accounts by RSM Chio Lim LLP (FY2018) and S.H. Ong LLP (FY2017).

## CORPORATE GOVERNANCE

The Singapore Heart Foundation is in compliance with the Code of Governance for Charities and IPCs. SHF's Governance Evaluation Checklist for the period of 1<sup>st</sup> April 2017 to 31<sup>st</sup> March 2018 can be viewed via the Charity Portal at [www.charities.gov.sg](http://www.charities.gov.sg).

### Board Governance

The Board of Directors acts in the best interests of SHF and its donors to fulfil its mission of promoting heart health, preventing and reducing disability and death due to cardiovascular disease and stroke.

No Board member holds a staff appointment and staff do not chair the Board. The SHF sets a maximum term limit of four consecutive years for the Treasurer. Board members who have served on the Board for over ten years, remain because they contribute in areas of their expertise actively. Regular self-evaluation is conducted to assess the Board's performances. In FY2017, there were four Board meetings, with an average attendance rate of 68%. All such meetings were chaired by a director, not an employee.

The Board strives to ensure that Board members as a group have core competencies in areas such as medicine, accounting & finance, law & management and that it incorporates a degree of diversity. All Board members must be independent and do not have any family, employment, business and other relationship with SHF, any related companies or their officers that could interfere, or be reasonably perceived to interfere, with the exercise of the Board member's independent judgement made in the best interests of SHF and its donors. The SHF has committees with clearly documented terms of reference. These committees provide oversight in the following areas - Community Education, Fundraising, Cardiac Rehabilitation, Research, Heart Support Fund for needy patients and their families, Finance, Governance & Audit, PR & Communications, Human Resource, School Programmes and Heart Safe Programme. The committees report to the Board regularly.

SHF has various committees to assist the Board in covering key areas of management and improve oversight of management and accountability to stakeholders.



### Number of Committee Meetings Held in FY2017

 <b>Community Education</b>	
• National Heart Week/World Heart Day	2
• Go Red For Women	1
 <b>Fundraising</b>	
• Charity Cup	3
 <b>Cardiac Rehabilitation/Heart Wellness Centre/Heart Health Hub</b>	
• Heart Wellness Centre	5
 <b>PR &amp; Communications</b>	
• Editorial	1
 <b>Finance/Investment</b>	
• Finance	4
• Investment	5
• Governance and Audit	3
 <b>School Programmes</b>	
• Community Outreach	1
 <b>Human Resource</b>	
• Human Resource	1

### Conflict of Interest

There are documented procedures for Board members and staff to declare actual or potential conflicts of interest. Board members and staff are expected to avoid actual and perceived conflicts of interest, where they have personal interest in business transactions or contracts that SHF may enter into, or have vested interest in other organisations that SHF has dealings with. They are expected to declare such interests as soon as possible, abstain from decision-making and not vote or participate on matters where they have a conflict of interest.

### Strategic Planning

The Board reviews and approves the vision and mission of SHF. They are documented and communicated to its members and the public. Annual strategic planning meetings are conducted to review the strategic plans for SHF, to ensure that the programmes and activities are in line with its objectives.

## Human Resource Management

The Board approves the documented human resource policy of SHF. The Human Resource Committee exercises policy oversight of the human resource matters in SHF and ensure that there are systems for regular supervision, appraisal, professional development of staff and also procedures to address grievances and resolve conflicts.

## Financial Management and Controls

The Board ensures that adequate internal controls for financial matters are in place and reviews its financial & procurement policies, procedures, processes, key programmes and events to ensure that there are adequate resources for the operations and programmes of SHF and that such resources are effectively and efficiently managed. There are also processes in place to ensure that SHF complies with all applicable laws, rules and regulations.

The Finance Committee reviews the Financial Policies and Procedures of SHF and makes recommendations to the Board for its approval. It also reviews the Foundation's financial performance and annual budget of operating & capital expenditure for the Board's approval. The committee ensures that SHF is in compliance with requirements in Financial Reporting Standards (FRS), the Recommended Accounting Practices for Charities (RAP6) and the Code of Governance for Charities and Institution of a Public Character (IPCs).

The Governance and Audit Committee's primary function is to assist the Board in fulfilling oversight and fiduciary responsibilities to act in the interest of SHF's donors and stakeholders. The committee reviews the efficiency and effectiveness of SHF's material internal controls, including operational and compliance control, risk management and adherence evaluation, ascertaining the adequacy of SHF's corporate governance, policy and procedures and the extent of adherence thereto.

The SHF has a Whistleblowing Policy that provides employees with accessible channels to the Chairperson of the Governance and Audit Committee for reporting suspected fraud, dishonest practices or other similar matters.

Day-to-day management of SHF is delegated by the Board to the management team headed by the Chief Executive Officer (CEO).

The SHF has a Reserve Policy to provide clarity in the Foundation's management of our reserves. SHF discloses its reserves policy in the annual report.

The SHF invests its reserves and the Investment Committee makes recommendations for approval by the Board. To meet the investment objectives of SHF, qualified external fund managers are engaged to implement the investment policy. The committee also monitors and assesses the performance of the appointed external fund managers,

reports to the Board on the investment performance of funds and advises on matters relating to investment administration.

## Fundraising Practices

The SHF has in place processes and practices to ensure that all fundraising activities are honest, ethical and uphold the public's confidence in fundraising and charities. The Board ensures that all materials used for fundraising contain relevant and accurate information and do not contain any misrepresentation or material omission. SHF ensures that funds and donations are used in accordance with donors' intentions and the specific purpose as communicated when soliciting for donations. Processes are in place to ensure that donors' confidentiality is respected. Any information or records of donors are kept strictly confidential at all times.

## Disclosure and Transparency

The SHF makes available to its stakeholders an annual report that includes information on its programmes, activities, audited financial statements, Board members and executive management.

All Board members serve on a voluntary basis and are not remunerated for their services.

No staff is involved in setting his or her own remuneration. The Human Resource Committee reviews and approves employee compensation and benefit packages, including the performance bonus recommended by the management.

The Foundation discloses in its annual report the annual remuneration of its key management staff, who receive remuneration in bands of \$100,000.

## Public Image

The SHF is committed to lawful and ethical behaviour in all its activities and requires that Board members and employees conduct themselves in a manner that complies with all applicable laws, regulations & internal policies, upholds the core values of SHF and accurately portrays its images to the Foundation's members, donors and the public.

## Personal Data Protection Act

In compliance with the Personal Data Protection Act 2012, SHF will not share any personal details with a third party without one's consent, and all personal data is kept strictly confidential.

Scan here to read  
more about our  
Privacy Policy



# THANK YOU

On behalf of our beneficiaries, SHF would like to thank all donors, sponsors and supporters for their unwavering support and generous donations!

### \$200,000 and Above

Direct Donor Debit Programme Donors  
Ministry of Social & Family Development  
(Care & Share Matching Grant)

### \$50,000 - \$199,999

Cortina Watch Pte Ltd  
Edwards Lifesciences Foundation  
Nestlé Singapore (Pte) Ltd  
Omron Healthcare Singapore Pte Ltd  
Singapore Totalisator Board  
Temasek Foundation Cares CLG Limited

### \$10,000 - \$49,999

Chew How Teck Foundation  
F&N Foods Pte Ltd  
Federal Oats Mills Sdn Bhd  
Gynecology Consultants Clinic & Surgery Pte Ltd  
Lee Foundation  
Malaysia Dairy Industries Pte Ltd  
Mount Elizabeth Hospital  
Mount Elizabeth Novena Hospital  
Philips Electronics Singapore Pte Ltd  
Singex Venues Pte Ltd  
SymAsia Singapore Fund  
Thong Teck Sian Tong Lian Sin Sia

### \$5,000 - \$9,999

Arie Darma Enterprises (S) Pte Ltd  
First State Investments  
Heart Failure Society (Singapore)  
Hong Leong Foundation  
HTM Medico Pte Ltd  
Kah Motor Co Sdn Bhd  
Kwan Im Thong Hood Cho Temple  
Lian Soon Construction Pte Ltd  
Mitsubishi Electric Asia Pte Ltd  
Novartis (Singapore) Pte Ltd  
Paya Lebar Methodist Girls' School (Pri)  
Pei Hwa Foundation Limited  
Singapore Hypertension Society  
Sun Holdings Ltd  
Tian Teck Investment Holding Co Pte Ltd

Note: Due to the Personal Data Protection Act 2012 (PDPA), individual donors have not been named.





Singapore  
Heart  
Foundation  
**Your Heart We Care**

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**Website:** [www.myheart.org.sg](http://www.myheart.org.sg) **Email:** [info@heart.org.sg](mailto:info@heart.org.sg)  
**Whistleblowing Email:** [auditchairman@heart.org.sg](mailto:auditchairman@heart.org.sg)



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