

The background is a solid dark blue. On the left, there is a large, light blue circular graphic that is partially cut off by the right edge. Inside this circle is a smaller, dark blue circle. The text 'ANNUAL REPORT' is written in white, bold, sans-serif capital letters inside the dark blue circle. Below it, a thin white horizontal line separates the title from the subtitle 'SPORTS MEDICINE', which is also in white, bold, sans-serif capital letters. To the right of the dark blue circle, the number '17' is written in a large, dark blue, sans-serif font, with the top of the number overlapping the light blue circle.

ANNUAL REPORT

SPORTS MEDICINE

17

CONTENTS

- 01 MESSAGE FROM THE CHIEF
- 02 CGH SPORTS MEDICINE – AT A GLANCE
- 04 A CENTRE OF LEARNING
- 05 SUPPORTING OUR ATHLETES & THE SPORTS ECO-SYSTEM
- 06 MILESTONES
- 08 A YEAR IN REVIEW
- 18 PATIENT EXPERIENCE

CHANGI SPORTS
MEDICINE CENTRE



**Adjunct Associate Professor
Benedict Tan
Chief, CGH Sports Medicine**

MESSAGE FROM THE CHIEF

MOVING BEYOND HEALTHCARE TO HEALTH

As part of the Ministry of Health's Beyond Healthcare 2020 Masterplan, the Ministry recognises the need to move beyond delivering healthcare, and to focus on nurturing a healthy nation. CGH Sports Medicine is well-positioned to address this challenge by promoting physical activity to combat Singapore's growing chronic disease burden.

In our 2017 Sports Medicine Annual Report, we share the department's efforts to meet the changing healthcare needs and challenges. The report also provides a glimpse into the team's achievements over the past year.

SHAPING THE HEALTHCARE LANDSCAPE OF TOMORROW

2018 marks a major milestone in Singapore's healthcare landscape, with the official integration of Eastern Health Alliance and Changi General Hospital (CGH) with the SingHealth Duke-NUS Academic Medical Centre family.

This year will also see the launch of the SingHealth Duke-NUS Sport & Exercise Medicine Centre (SDSC). The SDSC brings together SingHealth institutions to leverage the collective expertise in the area of Sport and Exercise Medicine. This enables us to be in an even better position to provide quality and holistic care to patients, and to advance Sport and Exercise Medicine in Singapore.

As part of the SingHealth family, we look forward to strengthening our existing partnerships and collaborating with new partners. I would like to acknowledge our partners for their support, and the team's contribution for the past year.



CGH SPORTS MEDICINE - AT A GLANCE

SINGAPORE'S LARGEST SPORTS MEDICINE CENTRE

Changi General Hospital (CGH)'s Sports Medicine department runs Changi Sports Medicine Centre (CSMC) and Singapore Sports Medicine Centre (SSMC).

CSMC is the largest Sports Medicine centre in Singapore, and SSMC is the largest Sports Medicine centre in the private healthcare sector. Both centres have a combined footprint of more than 13,000 sqft. CSMC also has access to a hydrotherapy pool.

In 2017, CSMC and SSMC saw around:

19,000
Doctor
consultations

500
Ultrasound-
guided focal
ESWT

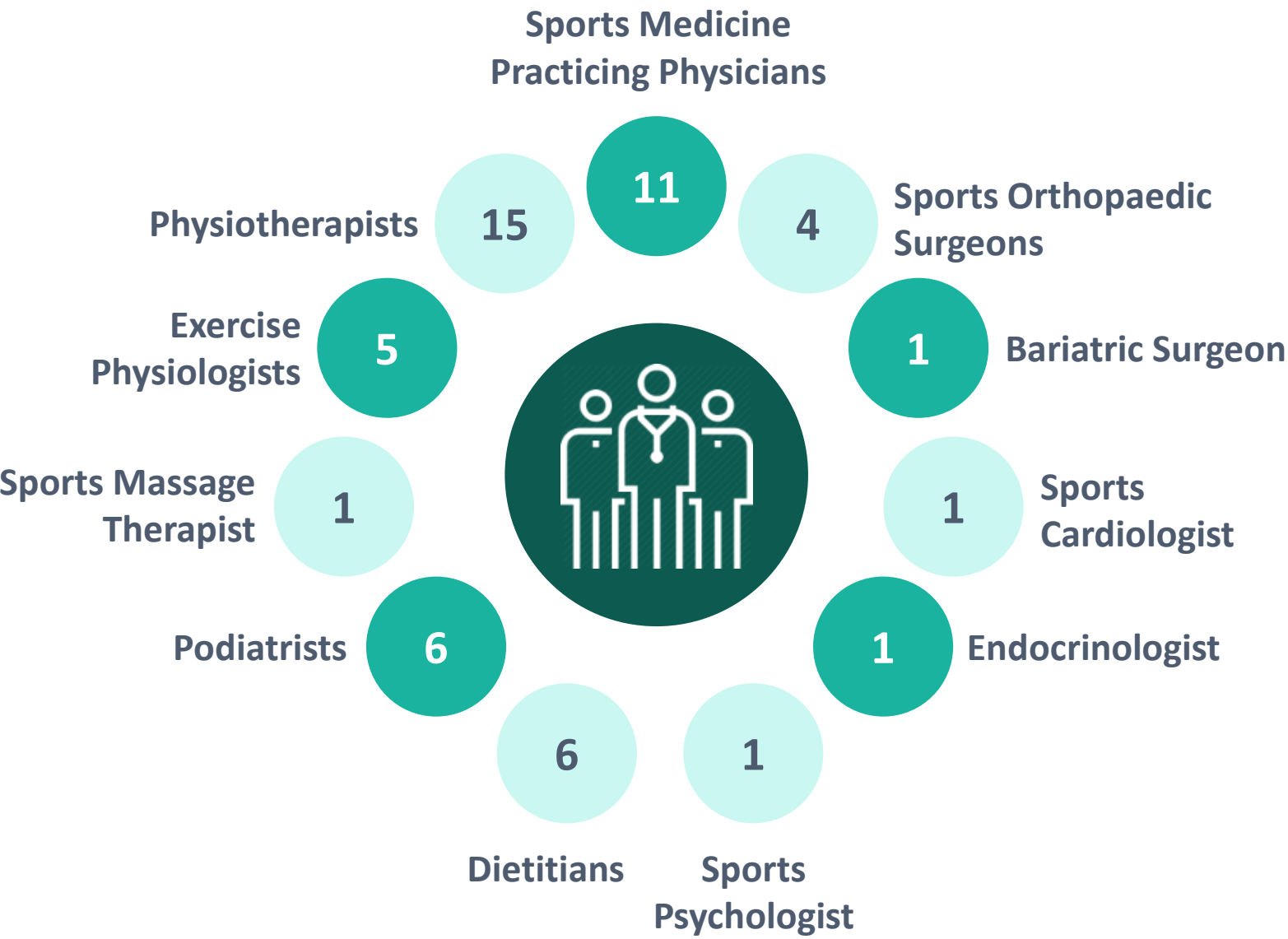
700
Athlete pre-
participation
screenings

25,000
Rehabilitative
sessions

A MULTIDISCIPLINARY SPORTS MEDICINE TEAM

CGH Sports Medicine has the largest headcount among Sports Medicine providers in Singapore, with 11 full-time physicians practicing Sports Medicine.

Both centres have a multidisciplinary team under one roof, providing patients an integrated, seamless Sports Medicine care.



A CENTRE OF LEARNING

1 CSMC is the first accredited centre for Sports Medicine Advanced Specialist Training in Singapore.

4 CSMC has the largest number of accredited supervisors and training positions for Advanced Specialist Training in Sports Medicine.

30 Since 2012, CSMC has trained around 30 medical officers.

300 CSMC has provided over 300 attachments and observerships.

1,400 CGH physicians have trained over 1,400 local and international physicians, allied healthcare and fitness professionals in exercise prescription.



The department's physicians serve as lecturers or supervisors to medical students from institutes such as Duke-NUS Medical School, Lee Kong Chian School of Medicine, SingHealth (Family Medicine Residency Programme), Yong Loo Lin School of Medicine, Nanyang Polytechnic and others.

SUPPORTING OUR ATHLETES & THE SPORTS ECO-SYSTEM



1

The department works with sports institutions such as Football Association of Singapore, Singapore Sports School and Sport Singapore, to provide athletes quality-assured and prompt Sports Medicine care, at CSMC, SSMC and Singapore Sports Institute.

2

CGH physicians supports Team Singapore as Chief Medical Officers or as part of the medical team for major games, including the ASEAN Para Games, Commonwealth Games, Olympic Games, Paralympic Games, SEA Games, Special Olympics World Games, and Youth Olympic Games.

3

Both CSMC and SSMC provide medical coverage for major competitions and events such as the FORMULA 1™ Singapore Grand Prix and ONE Fighting Championship.

4

CGH physicians sit in committees of National Sports Associations and other organisations such as the Football Association of Singapore, National Sports Safety, Singapore Bowling Federation, Singapore Disability Sports Council, Singapore Ice Skating Association, Singapore National Paralympic Council, Singapore Rugby Union, Singapore Sailing and more.

5

CGH physicians are appointed as members of international medical commissions, including the Federation Internationale de L'Automobile, Fencing Confederation of Asia, and World Sailing.

MILESTONES

2000

CGH ran a sports clinic once a week.

2004

CSMC introduced the Extracorporeal Shockwave Therapy for muscle-tendon pathologies – a first in the public healthcare system.

2007

CSMC became the first accredited centre for Sports Medicine Advanced Specialist Training in Singapore.

2003

CGH officially launched Changi Sports Medicine Centre (CSMC).

2006

Singapore Sports Medicine Centre (SSMC) was established at Novena Medical Centre.

2008

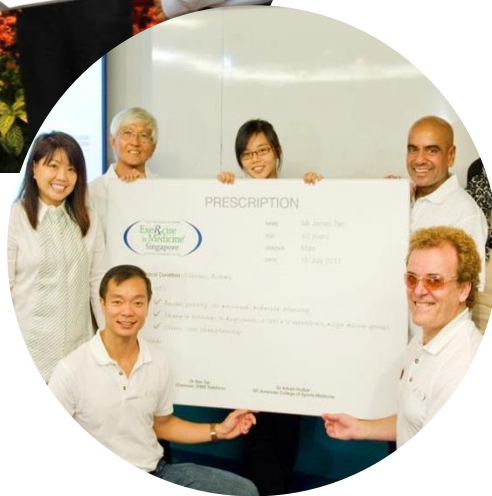
CGH Sports Medicine developed a training programme and career track for Resident Physicians (Sports Medicine) in CGH.





2011

CGH inked a Memorandum of Understanding (MOU) with the Singapore Armed Forces (SAF) to collaborate in military Sports Medicine.



CSMC launched 'Exercise is Medicine Singapore' (EIMS) with the American College of Sports Medicine.



2016

CGH and SAF renewed the MOU to collaborate in military Sports Medicine.

The department's research on sailing injuries and illnesses was published in the British Journal of Sports Medicine.

2012

CGH partnered with Singapore Sports Institute to provide Sports Medicine care for the national athletes under the Singapore Sports Medicine Network.

2014

CGH Sports Medicine and National Parks Board co-developed the first Exercise is Medicine compliant fitness corner at Simei Park Connector.



2015

CGH Sports Medicine started training all SAF medical officers and SingHealth Family Medicine Residents in exercise prescription.





2017

A YEAR IN REVIEW

JANUARY – MARCH 2017

WAR ON DIABETES - HEALTH PEERS PROGRAMME

Diabetes is a serious challenge to Singapore. It is estimated that nearly one million Singaporeans could be affected by diabetes by 2050.

In line with MOH's nationwide effort in the War on Diabetes, Eastern Health Alliance, South East Community Development Council and Exercise is Medicine Singapore (EIMS) jointly launched the Health Peers Programme on 7 January 2017. The programme trains Health Peers in diabetes prevention and management, so that they can support residents at risk or diagnosed with diabetes in making lifestyle modifications.

Dr Fadzil Hamzah (Staff Registrar and EIMS Director of Community Programmes) co-developed the curriculum with CGH dietitian and clinical psychologist. The team also conducts regular training sessions for the Health Peers.

Since the launch, the programme has trained more than 100 grassroots leaders, volunteers and ITE College East nursing students, to become Health Peers. Following its success, the programme will be expanded to reach out to areas such as Bedok, Changi-Simei and Kampong Chai Chee.

The Health Peers Programme was awarded the Prime Minister's Community Initiative Award 2017.



Dr Fadzil Hamzah (pictured above in blue), co-developed the Health Peers training curriculum, and is part of the teaching faculty. The programme is supported by Dr Maliki Osman, Mayor of South East District.





NEW TAIPEI CITY EXERCISE INITIATIVE - FIT FOR AGE

In August 2016, New Taipei City launched its 'Fit for Age' initiative, which focuses on the concept of Exercise is Medicine (EIM) to promote healthy aging. Changi Sports Medicine Centre, which is the EIM Regional Centre for South East Asia, supports New Taipei City's efforts.

In March 2017, CGH Sports Physicians and Exercise Physiologist were invited to New Taipei City to conduct exercise prescription training. Over 300 physicians and allied healthcare professionals were trained and certified.



◀ **[FRONT, FROM THE LEFT]** Adj Assoc Prof Ben Tan, CGH Chief Sports Medicine; Adj Asst Prof Ivy Lim, Consultant; Vicky Chung, Section Head, Department of Health, New Taipei City; Shayne Hu, Exercise Physiologist; Benjamin Cheam, Director, Strategic Services

[BACK, FROM THE LEFT] Mark Stoutenberg, EIM Program Officer, American College of Sports Medicine; Dr Lim Ang Tee, Associate Consultant

YOUTH SPORTS INJURY MANAGEMENT ►

CGH Sports Medicine and the Ministry of Education's (MOE) Physical Education and Sports Teacher Academy co-developed an online learning module and workshop in youth sports injury management.

Since March 2017, CGH Sports Medicine has been conducting a series of workshops to train all Physical Education teachers. To date, more than 1,500 teachers have attended the workshop.

SPECIAL OLYMPICS WORLD WINTER GAMES

Dr Darren Leong (Senior Staff Registrar) served as the Chief Medical Officer for the 2017 Special Olympics World Winter Games.

INTERNATIONAL OLYMPIC COMMITTEE (IOC) WORLD CONFERENCE

Dr Darren Leong presented the study 'Injury and illness surveillance at the International Sailing Federation Sailing World Championships 2014' at the 2017 International Olympic Committee (IOC) World Conference on Prevention of Injury and Illness in Sport.

The study was published in the British Journal of Sports Medicine. Commissioned by World Sailing, it is the biggest study conducted on elite sailors.

Adj Assoc Prof Roger Tian (*pictured below*), SSMC Director and Senior Consultant, led the development of the online learning module and workshop curriculum for the Youth Sports Injury Management training programme.





CORPORATE TALKS

Since May 2017, Singapore Sports Medicine Centre gave a series of talks to Procter & Gamble Singapore. The talks were conducted by Dr Lim Ang Tee; Huma Kathiwala, Principal Physiotherapist; Dorcas Sholanke, Sports Podiatrist; and Dr Jay-Lee Longbottom, Sports Psychologist.

FIRST LARGEST ECG STUDY ON SOUTH-EAST ASIAN ATHLETES

CGH Cardiology, Sports Medicine and Clinical Trials & Research Unit, collaborated on the study 'Comparison of 3 electrocardiographic criteria for the detection of cardiac abnormalities in South-East Asian athletes'.

A registry of 1,515 athletes seen for pre-participation screening was reviewed. The study was presented at EuroPrevent 2017, the annual congress of the European Association of Preventive Cardiology.

SPECIAL OLYMPICS SINGAPORE

Special Olympics Singapore offers programmes that contribute to the overall development of special athletes. One such initiative is the Healthy Athletes Screening, which is supported by physicians from CGH Sports Medicine.

CGH physicians also volunteered and provided medical support for the 9th Special Olympics Singapore National Games. Held from 19 to 21 May 2017, the Games hosted 650 local and foreign Special Olympics athletes.



[FROM THE LEFT] Dr Darren Leong and Dr Mandy Zhang (Registrar) provided medical support for the 9th Special Olympics Singapore National Games.



ONE FIGHTING CHAMPIONSHIP

Since the inaugural ONE Fighting Championship, CSMC has been providing medical cover for the twice-yearly event from 2011 to 2017.

Dr Lim Baoying (Senior Staff Registrar) and Dr Mandy Zhang served as Chief Medical Officers for the Championship held on 26 May 2017.



JULY – SEPTEMBER 2017

PHYSICAL & SPORTS EDUCATION CONFERENCE BY MOE

As part of the conference, CSMC hosted one of its learning journey for teachers. Sports Physicians, Physiotherapists and Exercise Physiologist shared with the participants on CSMC's multidisciplinary approach to Sports Medicine.

WORLD SAILING EXPERT PANEL

World Sailing set up an expert panel to design and validate a sailing-specific conditioning exercise programme, aimed at reducing sailing injuries. Adj Assoc Prof Ben Tan has been appointed to chair the expert panel, which includes Sports Physicians, Physiotherapist, Sports Scientist, Strength & Conditioning Coaches, from Australia, Portugal, UK, and USA.

SEA GAMES & ASEAN PARA GAMES

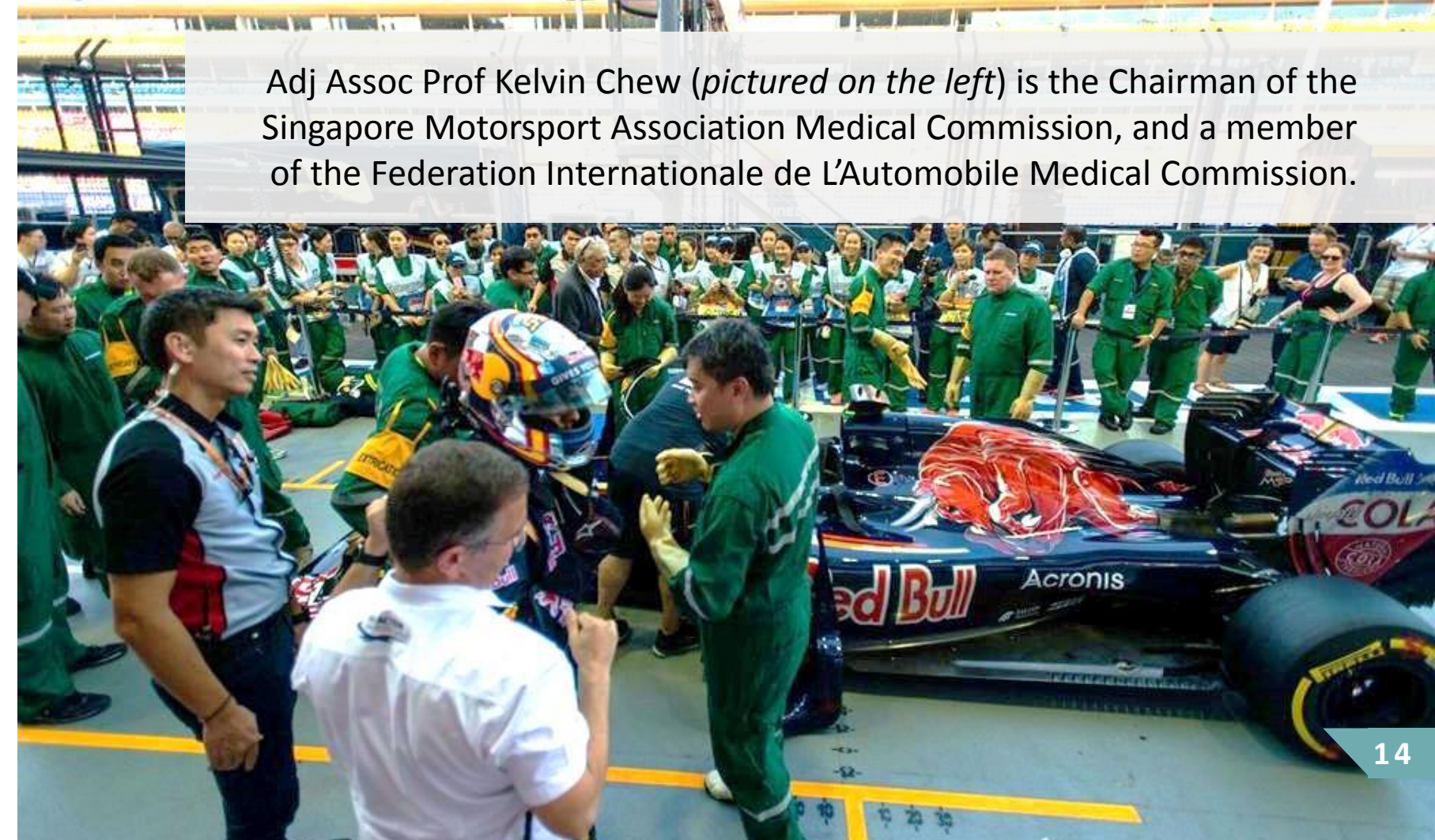
Dr Lim Ang Tee was part of the medical team supporting Team Singapore during the SEA Games. Dr Lim Baoying was appointed as the Chief Medical Doctor for the Singapore Contingent at the ASEAN Para Games.

FORMULA 1™ SINGAPORE GRAND PRIX

Adj Assoc Prof Kelvin Chew (CSMC Director and Senior Consultant) was the Chief Medical Officer for the 2017 FORMULA 1™ Singapore Grand Prix. He has been appointed as the Chief Medical Officer since the event's inauguration in 2008.



Adj Assoc Prof Kelvin Chew (*pictured on the left*) is the Chairman of the Singapore Motorsport Association Medical Commission, and a member of the Federation Internationale de L'Automobile Medical Commission.





ACTIVE HEALTH COLLABORATION WITH SPORT SINGAPORE

Active Health is a Sport Singapore (SportSG) initiative aimed at building a nation of active citizens. On 28 July 2017, SingHealth, CGH, Exercise is Medicine Singapore (EIMS) and SportSG signed a Memorandum of Understanding (MOU) to collaborate in the Active Health initiative.

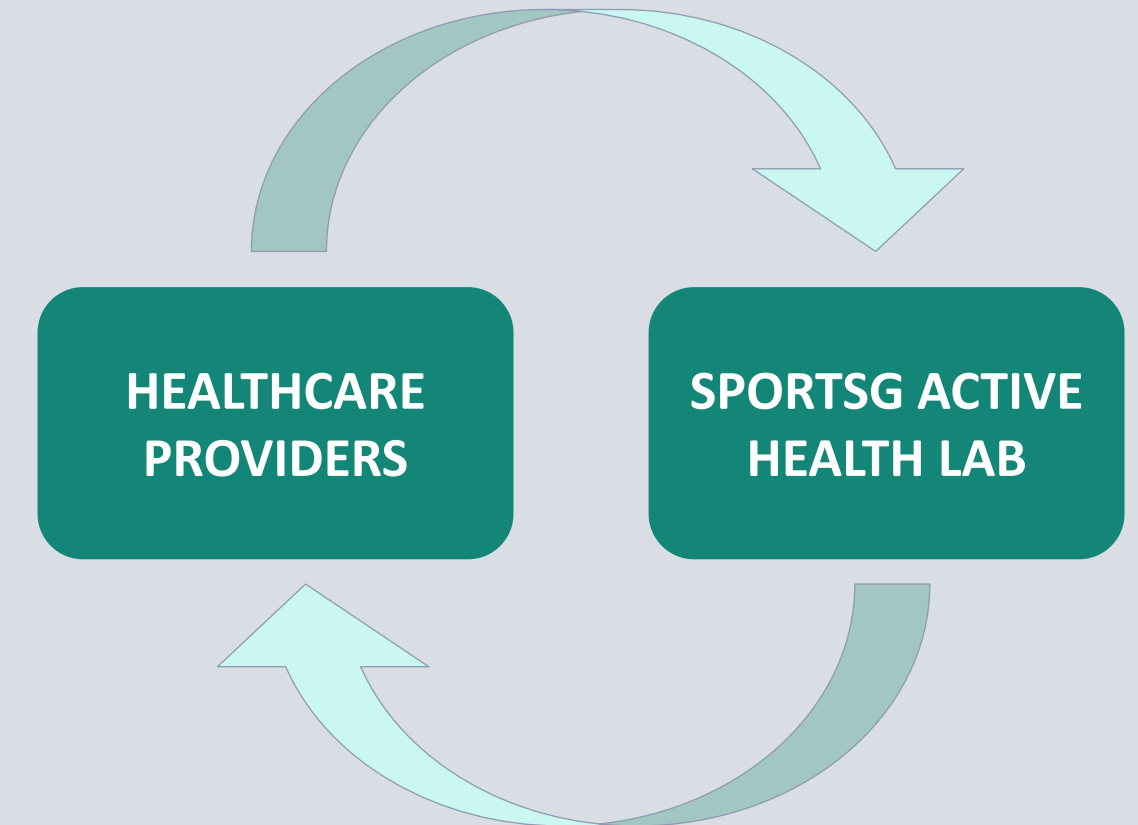
Under the MOU, the parties have been working closely to develop and pilot a structured fitness pathway between healthcare providers and SportSG's first Active Health Lab at Our Tampines Hub. In addition, CGH physicians trained the lab's Active Health experts in exercise prescription.

SportSG also signed MOUs with Health Promotion Board, National Healthcare Group Polyclinics, and National University Health System to collaborate in this initiative.

FITNESS PATHWAY BETWEEN HEALTHCARE PROVIDERS & ACTIVE HEALTH LAB

Physicians will recommend suitable clients to the lab for activity assessment

Active Health experts will design exercise programmes for the clients



Active Health experts will refer clients for exercise prescription and health screening

SITE REACCREDITATION FOR SPORTS MEDICINE SPECIALIST TRAINING

The Joint Committee on Specialist Training (JCST) conducted a site accreditation exercise on 3 October 2017. CSMC has been reaccredited as a site for advanced Sports Medicine Specialist Training for another five years.

LECTURE ON MANAGING SACROILIAC JOINT DYSFUNCTION

CSMC invited Dr Jeni Saunders, a Sports Physician with extensive experience working with elite athletes and national teams, to give a lecture on managing sacroiliac joint dysfunction at CGH on 20 October 2017.

CSMC RESEARCH SEMINAR

CSMC organised a research seminar on 3 November 2017. Professor Peter Brukner, renowned Sport & Exercise Medicine Physician and Professor of Sports Medicine at La Trobe University, Australia, was invited as a keynote speaker.

The seminar included other speakers and panelists – Adj Asst Prof Tham Kwang Wei (SGH Endocrinologist), Ms Ong Li Jiue (CGH Dietitian), Dr Fadzil Hamzah and Dr Ng Chung Sien (Senior Staff Registrar).



[FROM THE LEFT] Adj Asst Prof Ivy Lim, Dr Jeni Saunders, Adj Assoc Prof Ben Tan, Dr Lim Ang Tee



The CGH Sports Medicine department with Prof Peter Brukner, Adj Asst Prof Tham Kwang Wei, and Ms Ong Li Jiue.

**WEIGHT MANAGEMENT TALK AT SAF
FAMILY VISITING DAY**

SAF invited Dr Darren Leong and Dr Fadzil Hamzah to give a talk to the recruits and their family members during the Family Visiting Day on 16 December 2017. The doctors spoke on the topic of ‘Losing weight during National Service and beyond’.



Dr Darren Leong and Dr Fadzil Hamzah speaking on the topic of ‘Losing weight during National Service and beyond’.

**FENCING SINGAPORE NATIONAL
SQUADS WORKSHOPS**

Adj Assoc Prof Ben Tan, Adj Asst Prof Ivy Lim and SSMC Principal Podiatrist, Dorcas Sholanke, were invited to speak at the 3-day Fencing Singapore National Squads workshops, from 19 to 21 December 2017.

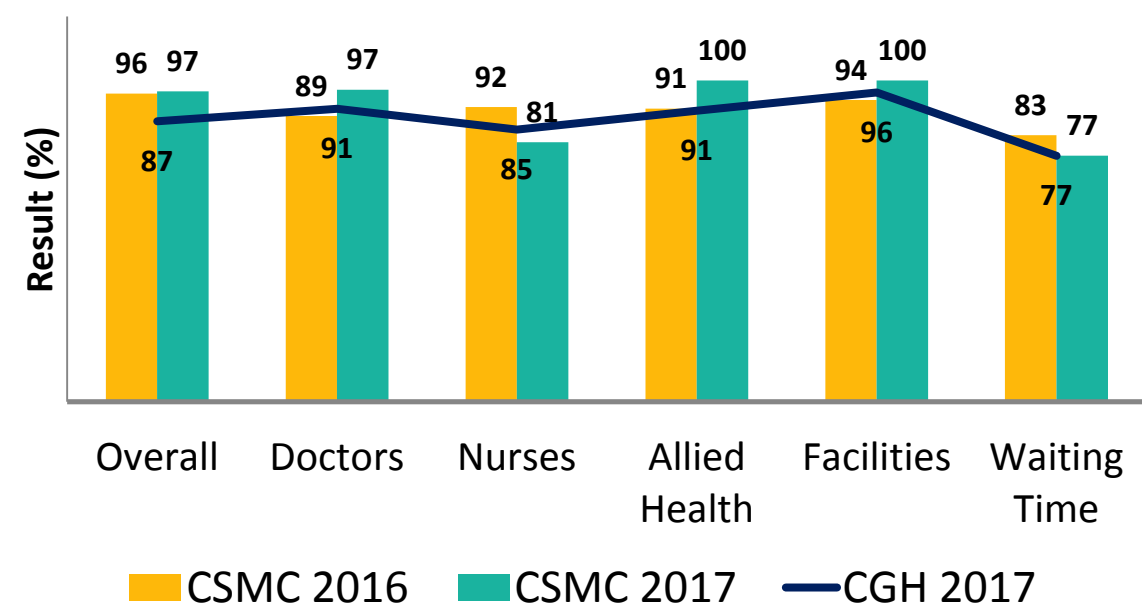


Adj Asst Prof Ivy Lim (*left*) speaking on fencing injuries prevention and management. She is a member of the Fencing Confederation of Asia. Adj Assoc Prof Ben Tan (*right*) sharing his experience and journey as a former competitive sailor.

PATIENT EXPERIENCE

CGH regularly conducts patient experience surveys to gather feedback and identify opportunities to improve delivery of patient care.

CGH PATIENT EXPERIENCE SURVEY



Overall, CSMC achieved higher patient satisfaction in 2017 compared to 2016. There are marked improvements in patient experience with doctors, allied health professionals and facilities.

Except for experiences with nurses, CSMC's scores are higher than or similar to the average scores of all the other CGH specialist outpatient clinics.

AWARDS

Congratulations to the team for achieving the following recognition:

CGH Specialist Outpatient Clinic Team Award (Excellence)

For Changi Sports Medicine Centre
From July to September 2017

CGH 2017 Service Excellence Award (Commendation)

For Singapore Sports Medicine Centre
For the category 'Operations Division – Patient Facing'



Copyright 2018 by Changi General Hospital

2 Simei Street 3
Singapore 529889

www.cgh.com.sg

All rights reserved. No part of this publication may be reproduced, stored in a retrieval system, or transmitted, in any form or by any means, electronic, mechanical, photocopying, recording or otherwise, without the prior written permission of the copyright owner.

While all care has been taken by the publisher to ensure accurate representation of all existing events and services at the time of publication, they are not a representation of what may be available currently or in the future.

The publisher, authors and contributors assume no responsibility for errors or omissions.
All material and information are provided as is and to be used at user's risk entirely.



www.cgh.com.sg



www.csmc.com.sg

Singapore Sports Medicine Centre

www.ssmc.sg