

# Overviews of Asian Games Hong Kong Team Support

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# Hong Kong Sports Institute



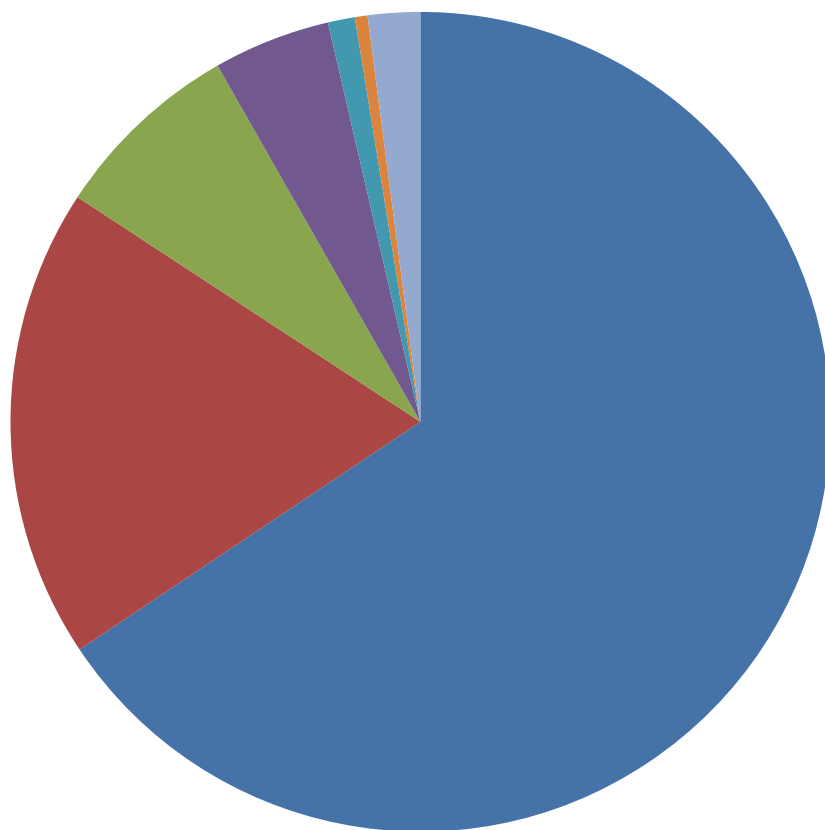
# Roles of Elite Training Science & Technology Division (ETSTD) in Asian Games Support

- Different centres in the Elite Training Science & Technology Division play different roles in Asian Games support
  - Sports Medicine Centre
  - Scientific Conditioning Centre
  - Sport Biomechanics & Technology Centre
  - Sport Psychology Centre
  - Sport Nutrition & Monitoring Centre

# Sports Medicine Centre

- Sports Medicine Centre assigned 15 therapists (physiotherapy, Chinese manual therapy and sports massage therapy) to Jakarta and Palembang to support athletes at both athletes' village and competition venue

# Sports Medicine Centre

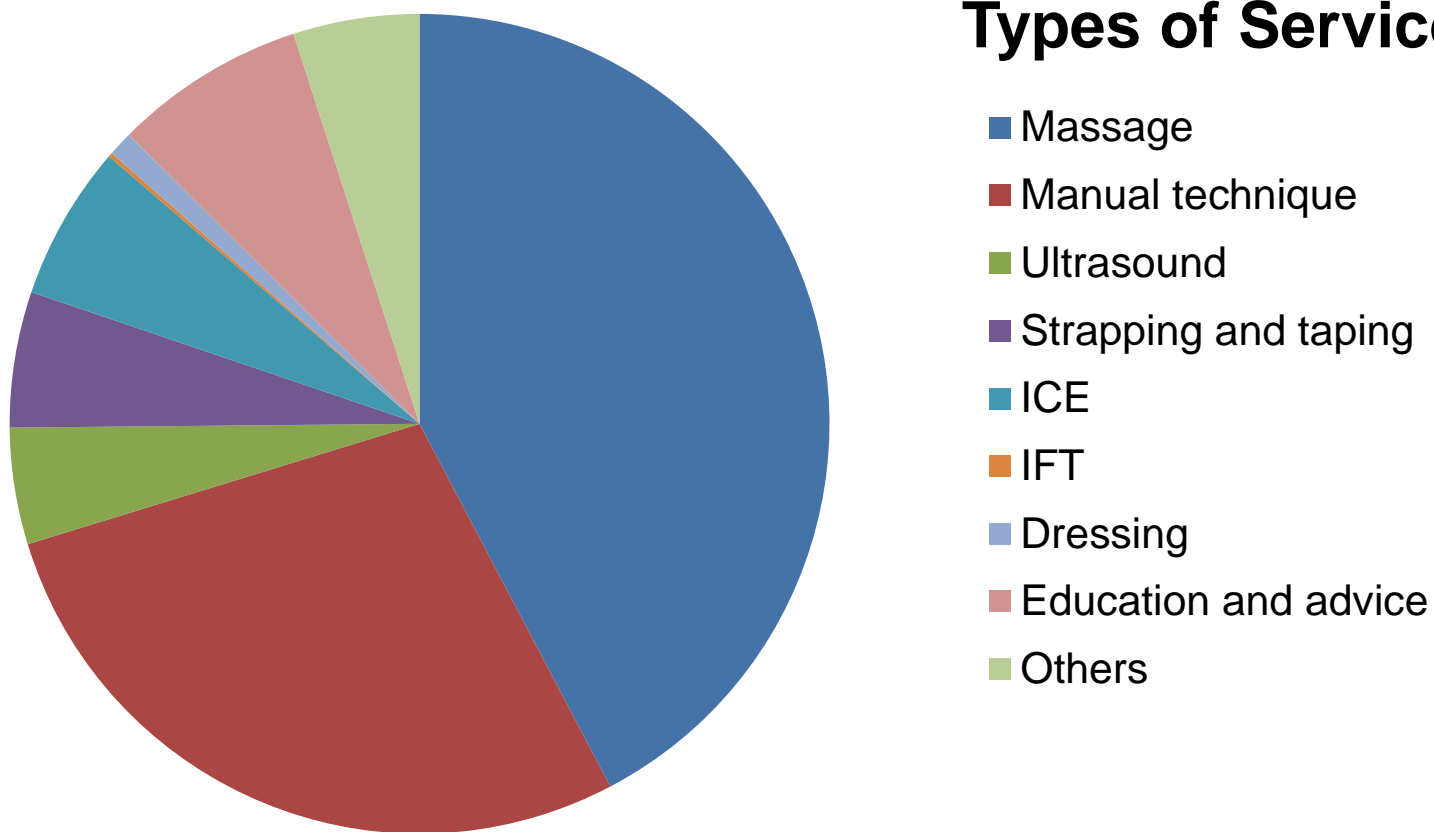


## Types of injury

- Muscle soreness/strain
- Joint/disc problems
- Tendinopathy
- Ligamentous sprain
- Contusion
- Laceration
- Others

# Sports Medicine Centre

## Types of Services



# Sports Medicine Centre

- Challenges
  - No enough ice provided in the hostel
    - Go to Athletes' dining hall to get extra ice
  - Too many furniture make difficult to set up the treatment room
    - Spend a lot of time to relocate the furniture to set up the treatment room

# Scientific Conditioning Centre

- In the preparatory phase of Asian Games, scientific conditioning centre closely worked with different coaches and centres within the ETSTD to develop and implement science-based strength and conditioning programmes designed to optimise athletes' performance
- In addition, due to extreme heat condition, scientific conditioning centre looked for different cooling strategies



# Scientific Conditioning Centre

- Cooling vest/garment
  - A reduction in core body temperature achieved through lowering skin temperature, effecting heat loss from core to skin

# Scientific Conditioning Centre



Cooling garment



Cooling neck wrap



Cooling Vest



Cooling headband



Cooling sheet

# Scientific Conditioning Centre



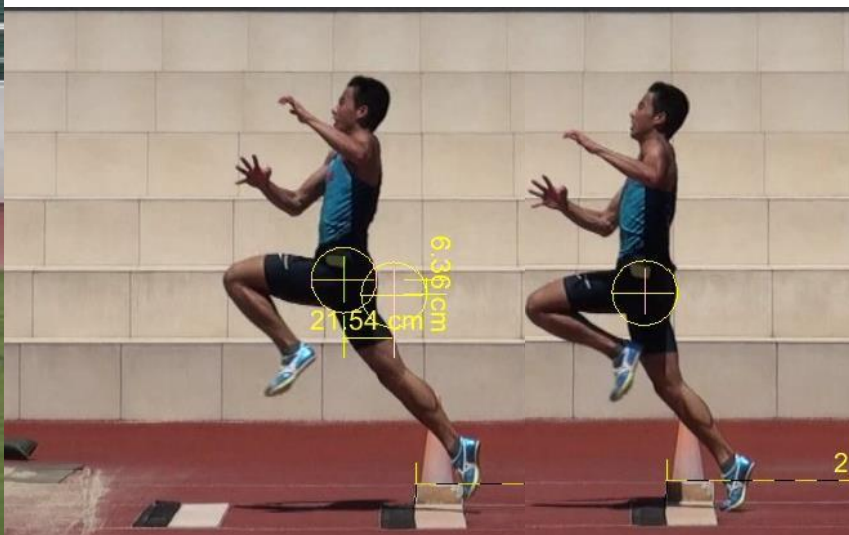
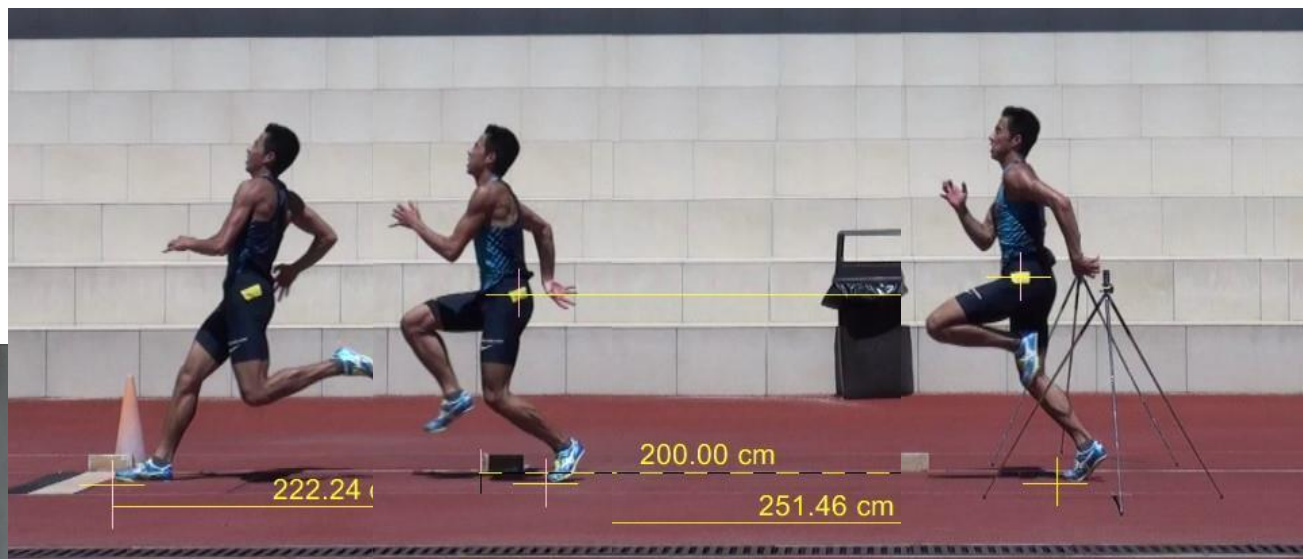
# Scientific Conditioning Centre

- There were 2 strength and conditioning coaches to provide on-field support to badminton and table tennis teams during Asian Games
- Athlete's village: strength and conditioning training in the gym for preparing the games
- Competition venue: look after their warm up sequences to ensure all athletes are well-prepared for the competition and also recovery support such as active recovery or passive stretching with athletes after competition

# Sport Biomechanics & Technology Centre

- Three sport biomechanists to provide on field support to cycling and athletics during Asian Games

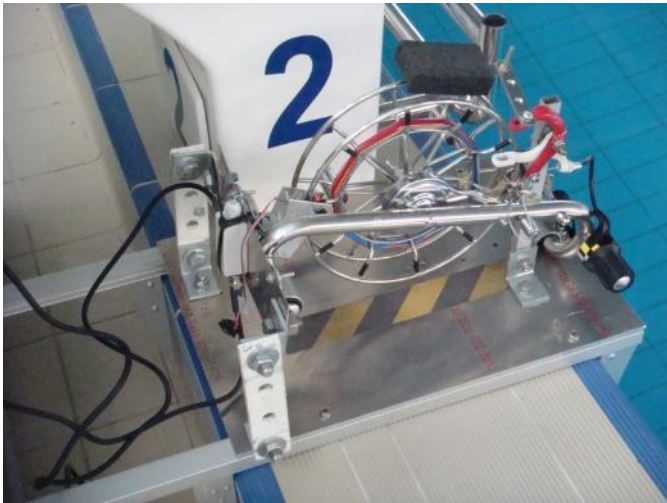






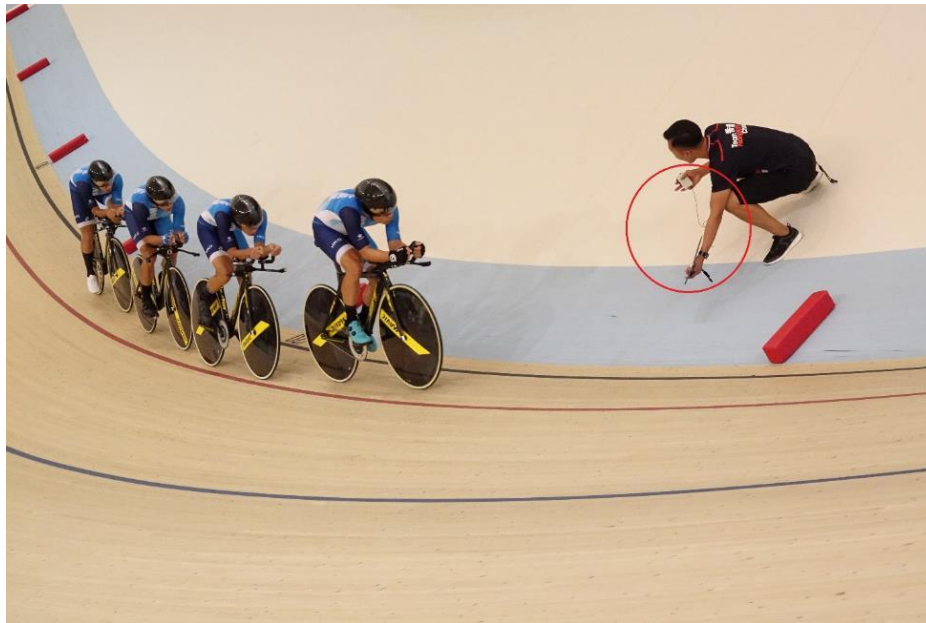


# Swim Speed Measurement





# Timing Device in Track Cycling



(Source: Sportsroad)

# Sport Biomechanics & Technology Centre

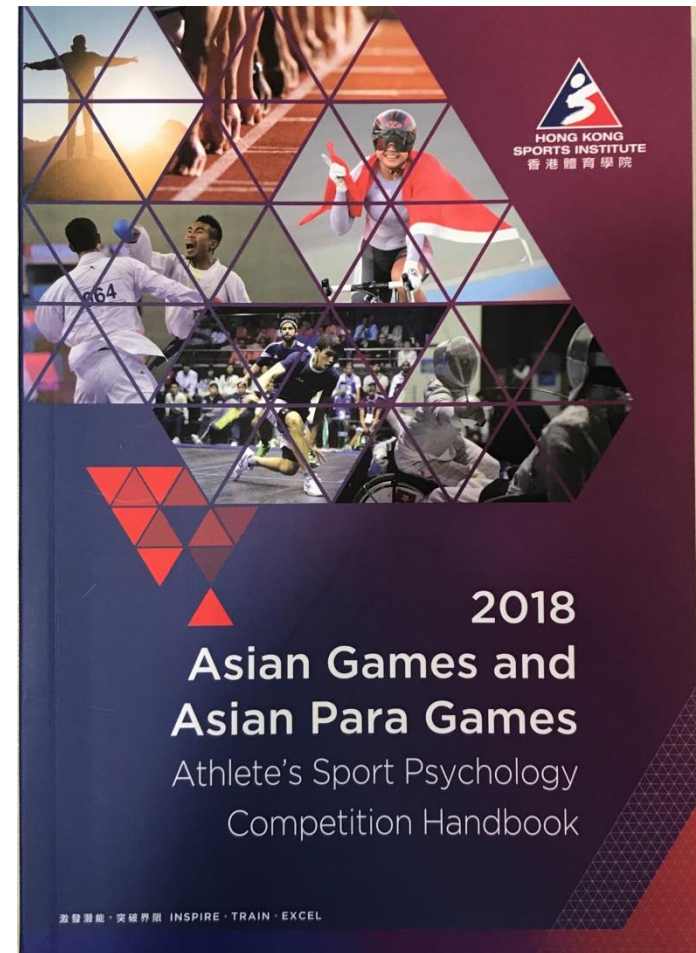
- Challenges
  - Poor signal at the competition venue that made difficult to send the video to coaches
    - Save in USB and pass it to coaches

# Sport Psychology Centre

- Four sport psychologists to provide on-field psychological service to athletes during Asian Games
- Individual and group consultation
  - Mental skills training and revision
  - Adversity coping strategy planning

# Sport Psychology Centre

- Prior to Asian Games, SPC wrote and published an Athlete's Sport Psychology Competition Handbook and disseminated it to athletes and coaches who attended the Asian Games
- Consists of two parts
  - To illustrate competition psychology knowledge and theories through simple words
  - To guide athletes through quizzes and tasks to understand, think about and extract inspiration from these items and relate them to their own situations, so that athletes can integrate them into their preparation and adjustment



# Sport Psychology Centre

- Challenges
  - Since 2018 Asian Games was held in 2 different cities, it's difficult to allocate sport psychologist to look after different teams at the same time
    - Use whatsapp or other communication app to communicate with athletes

# Sport Nutrition Monitoring Centre

- Composed of 2 different units
  - Sport biochemistry unit
  - Sport nutrition unit
- Sport biochemistry unit
  - Collect blood and urine samples to monitor athletes' training response and health status
- Sport nutrition unit
  - Based on the body composition, laboratory results, current diet habits and training program, sports dietitians provide individualized diet plan to athletes

# Sport Nutrition Monitoring Centre

- Prior to Asian Games, athletes come to SNM regularly to do body composition assessment (Inbody and DXA) and blood test to monitor their training responses and body composition
- Due to extreme heat in Indonesia, SNM did hydration test to athletes (particularly outdoor sports) to assess their sweat rate and provide individualized hydration strategies

### Importance of Optimal Hydration

- Optimal hydration plays an important role in exercise performance because dehydration
  - Decreases concentration
  - Decreases muscle strength and endurance
  - Decreases skill levels
  - Increases perceived exertion

### 尿液顏色測定表 URINE CHART

1	水分補充良好
2	HYDRATED
3	
4	脱水
5	DEHYDRATED
6	
7	嚴重脱水
8	SEVERELY DEHYDRATED

每天攝取足夠水分確保尿液顏色1, 2 或3相似  
For optimal hydration aim for colours 1, 2 or 3!

### 今天補充了多少水分? How Much Fluid Did You Drink Today?

	星期一 Monday	星期二 Tuesday	星期三 Wednesday	星期四 Thursday	星期五 Friday	星期六 Saturday	星期日 Sunday
訓練 Training							
早餐 Breakfast							
訓練 Training							
午餐 Lunch							
訓練 Training							
晚餐 Dinner							
訓練 Training							
宵夜 Night snack							
合計 Total							

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以上資料由精英訓練科技發展中心的運動營養中心提供，只供參考。歡迎轉載以上資料，惟事先須得本院許可。轉載時亦須鳴謝本院。

The above information is provided by the Sport Nutrition and Monitoring Centre of the Elite Training Science and Technology Division. All information is for reference only. Reproduction of materials is welcome with prior permission. Acknowledgement are required. For enquiry, please contact Sport Nutrition and Monitoring Centre. Tel: 26816367

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# Sport Nutrition Monitoring Centre

- SNM also conducted different nutrition workshops to Asian Games athletes about nutrition concerns (food safety, competition and recovery nutrition, hydration, healthy snacks options nutritional supplements...) during Asian Games
- Food safety is one of the concerns in Asian Games
  - SNM purchased probiotics supplement and disseminated it to athletes and recommended to take at least 2 weeks before Asian Games in order to strengthen their gut health and immune system



# Sport Nutrition Monitoring Centre

- One sport dietitian travelled to Jakarta to provide on field support to fencing team
  - To ensure all fencers are well-hydrated and energy before and during competition



# Foods Provided at the Asian Games 2018



Provided dietary advice (via whatsapp or messenger or one-one consultation at competition venue or at Athletes' Village)

# Sport Nutrition Monitoring Centre

- Challenges
  - Even though the organizer provided meals and snack at competition venue, the food that provided may not be suitable for athletes to consume during competition
    - Prior to Asian Games, a series of nutrition education was given to athletes (travel nutrition, healthy snack options for competition and recovery)
    - Prepared some suitable snacks and provided to athletes during competition



# Asian Games Achievement

- At the 2018 Asian Games, the Hong Kong team won a record-breaking 46 medals
  - 8 Gold medals
  - 18 Silver medals
  - 20 Bronze medals



**HONG KONG  
SPORTS INSTITUTE**  
香港體育學院

