The transformation of primary healthcare over the years has been catalysed by the ever-changing healthcare ecosystem, spurred in part by technology and innovation.

In line with these changes, the National Healthcare Group Polyclinics (NHGP) continues to reinvent itself by keeping pace and leading the transformation of the primary healthcare sector.

The cover of NHGP’s FY2018 Annual Report, hence, depicts cogwheels transforming into electronic circuits, representing NHGP’s passion to deliver patient-centred quality primary healthcare through the adoption of intelligent technologies and innovative solutions.

The cogwheels and electronic circuits form a powerful symbol of healthcare — the heart, which is both a vital organ and where care and empathy reside.
Our Vision
To be the leading health promoting institution that helps advance Family Medicine and transform primary healthcare in Singapore.

Our Mission
We will improve health and reduce illness through patient-centred quality primary healthcare that is accessible, seamless, comprehensive, appropriate and cost-effective in an environment of continuous learning and relevant research.

Our Values

Integrity
We are committed to the highest standards of ethical conduct.

Compassion
Our paramount concern is the welfare and well-being of our fellow human beings. We sympathise with those struck with illness and suffering and will do our best to help alleviate their condition.

Professionalism
We are committed to being the best in what we do and achieving the best possible outcome for our patients.

Respect
We treat everyone with honesty, decency and fairness.

Collegiality
We nurture success by promoting collaboration, participation and trust between individuals and other healthcare organisations, within an environment of sharing and mutual respect.

Social Responsibility
We contribute positively to the well-being of the community.
Much has been said about Singapore’s rapidly ageing population and its accompanying challenges, such as the ever-growing demand for healthcare services, escalating costs, and an acute manpower shortage. In the face of these challenges, the National Healthcare Group (NHG) has identified ‘Three Waves’ as the main drivers of healthcare costs and utilisation, namely Frailty, Chronic Diseases, and Poor Lifestyle Habits. These ‘Three Waves’ have been an impetus for our care transformation, as we recognise that healthcare can no longer afford to remain fragmented, facility-centric, doctor-based and illness-centred. Instead, a systemic reform was key to shift the way we deliver care to become integrated, patient-centric, relationship-based and wellness-centred. It was with this in mind that NHG established the ‘River of Life’ framework, which focuses on preventive care and helping everyone live well at every stage of life.

At the Committee of Supply Debate in March 2019, Minister for Health Mr Gan Kim Yong commended the success of NHGP’s teamlet care model, and noted that the other polyclinic clusters will also be rolling out team-based care models.

Supporting the Transformation of Primary Care
At the heart of NHG’s transformative efforts is primary care. It anchors care in the community, and brings care closer to patients’ homes through greater integration and coordination with tertiary, community, mental and social care. With the aim of improving the health of the population in the Central region, the National Healthcare Group Polyclinics (NHGP) has seen breakthroughs in the following areas in the past year, which you will be able to read within the pages of this Annual Report.

Living Well — As part of moving care upstream, NHGP has been actively integrating health promotion and patient activation into its model of care. For example, NHGP systematically stratifies patients’ health risks, and guides them towards suitable health screenings or fitness programmes in the community to help prevent or delay the onset of chronic diseases.

Living with Illness — As the first point of contact for managing individuals with chronic diseases, NHGP’s teamlet care model is another transformative effort, which had led to greater continuity of care, and improved health outcomes for patients. At the Committee of Supply Debate in March 2019, Minister for Health Mr Gan Kim Yong commended the success of NHGP’s teamlet care model, and noted that the other polyclinic clusters will also be rolling out team-based care models. Also, with the introduction of the Primary Care Network (PCN) scheme by NHG in 2017, NHGP and our hospitals have engaged private General Practitioner (GP) clinics to form the Central-North PCN to deliver holistic care through multidisciplinary teams.

Leaving Well — In order to address patients’ end-of-life care needs, NHGP has also begun initiating conversations on Advance Care Planning. This brings greater accessibility and convenience for patients and their family members, allowing them to discuss and complete their end-of-life plans at an early stage, in the community.

The Future Ahead
It is clear that the primary care ecosystem has been underpinned by a strong spirit of cooperation and knowledge-sharing in the past year. In the coming years, I look forward to NHGP continuing to work closely with and leveraging key enablers within and beyond NHG to improve the population health of the Central region of Singapore.

The achievements for the year as well as the road ahead would not have been possible without the invaluable guidance and support extended to us. I would hence like to thank our Chairman, Madam Kay Kuok, and the Board of Directors for their astute leadership and support throughout the years. I also wish to thank the Ministry of Health for its direction as we navigate the dynamic healthcare landscape. Lastly, my heartfelt thanks to Associate Professor Chong Phui-Nah, CEO of NHGP & Primary Care, the management team, and all staff for their vision, hard work and dedication in bringing NHGP to greater heights.
In response to the increasing prevalence of chronic diseases and Singapore’s ageing population, and in line with the National Healthcare Group’s (NHG) ‘River of Life’ framework, the National Healthcare Group Polyclinics (NHGP) continues to pursue innovative and scalable ways to improve the accessibility, comprehensiveness and coordination of care it provides. To this end, NHGP’s primary care transformation has seen various infrastructure developments and technological enhancements.

EXPANDING PRIMARY CARE CAPACITY
To cater to the growing demand for healthcare services, NHGP has redeveloped its existing polyclinics and will be managing new polyclinics to better serve the population. In June and November 2018, NHGP celebrated the official openings of the redeveloped Ang Mo Kio and Yishun Polyclinics. Looking ahead, four more polyclinics will be developed by NHGP in Sembawang, Kallang, Khatib and Serangoon.

To boost our primary care capacity, NHGP has collaborated with General Practitioners (GPs) to bring care closer to patients’ homes. Since April 2018, NHGP has been growing its Central-North Primary Care Network, and now has more than 40 GPs in this network who are supported by nurses and care facilitators, allowing patients to receive holistic and coordinated care for their chronic conditions.

EMBRACING TECHNOLOGY IN PRIMARY CARE
Technology and digitalisation have played an increasingly important role in NHGP’s journey towards shaping the future of primary care. In the past year, enhancements to our systems were made to ensure patients enjoy hassle-free visits to our polyclinics. For instance, our self-checkout kiosks have been enhanced to enable booking of future appointments. This one-stop convenience of making payment and concurrently booking follow-up appointments saves time and improves patients’ overall experience.

In addition, patients now have the flexibility to update their particulars at the self-registration kiosks, which will be updated concurrently in the patient management system. These improvements are more than just mere process automations. While they may save time for patients, these improvements underpin NHGP’s commitment to create the best possible experience for patients, increase productivity, and achieve sustainability in the long run.

CELEBRATING EXCELLENCE
FY2018 also saw NHGP celebrating many milestones and achievements. For example, our efforts of embarking on and sustaining job redesign to improve service delivery saw us winning the Excellence Award in the Talent Development Category at the Asian Hospital Management Awards (AHMA) in September 2018. Additionally, the Nephrology Evaluation Management and Optimisation (NEMO) programme, a collaboration between NHGP and the National University Health System, was awarded the ExCEl Innovation Project Award under the Public Sector Transformation Awards (PST) in July 2018.

Apart from our clinical duties, NHGP is proud to have played a part in training the next generation of doctors. Some of our Family Physicians who have mentored the next generation of family physicians were recognised for their contributions by the College of Family Physicians Singapore (CFPS) in May 2019.

LOOKING AHEAD
Our journey to shape the future of primary care is far from over. In the year ahead, NHGP will continue its transformative journey and advance Family Medicine to achieve a world-class relationship-based primary care ecosystem.

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NHGP SENIOR MANAGEMENT

From left:
- Dr Simon Lee
  Chief Operating Officer and
  Chief Clinical Informatics Officer
- Ms Chen Yee Chui
  Chief Nurse, Nursing Services
- Dr Karen Ng
  Director, Clinical Services
- Mr David Kok
  Director, Finance
- Associate Professor Chong Phui-Nah
  Chief Executive Officer, NHGP and Primary Care
- Mr Shawn Phua
  Director, Human Resources

From left:
- Dr Tung Yew Cheong
  Director, Quality and Patient Safety
- Dr Gowri Doraisamy
  Director, Care Integration
- Dr Wee Wei Keong
  Director, Health Promotion and Preventive Care
- Mr Donald Wai
  Director, Facility Development and Planning Office
- Ms Noraizah Zainal Abidin
  Deputy Director, Corporate Communications
- Ms Jaclyn Fam
  Deputy Director, Corporate Planning

From left:
- Dr David Ng
  Head, Toa Payoh Polyclinic
- Dr Christopher Chong
  Head, Ang Mo Kio Polyclinic
- Dr Kong Jing Wen
  Head, Hougang Polyclinic
- Dr Evan Sim
  Head, Woodlands Polyclinic
- Dr Kwan Pek Yee
  Head, Yishun Polyclinic
- Dr Jonathan Ting
  Head, Geylang Polyclinic

From left:
- Dr Lim Chee Kong
  Deputy Director, Clinical Services (Manpower)
- Ms Chan Soo Chung
  Executive Director, NHG Pharmacy
- Dr Irwin Chung
  Director, Primary Care Academy
- Dr Tang Wern Ee
  Head, Clinical Research Unit
- Ms Lim Soh Har
  Executive Director, NHG Diagnostics
- Mr Kenneth Low
  Director, Dental Services
- Dr Darren Seah
  Director, Family Medicine Development
Strengthening Primary Care Capacity

As the first line of care in the community, Primary Care is becoming even more crucial as Singapore’s population ages, and the prevalence of chronic disease rises. To this end, the National Healthcare Group Polyclinics is not just shoring up physical capacity to meet future demands, but also building partnerships and networks to shape the future of primary care.
CHAPTER 1
Strengthening Primary Care Capacity

BOOSTING CAPACITY

Capacity enhancements enable NHGP to broaden and improve its services to meet growing primary care needs.

REDEVELOPMENT OF ANG MO KIO POLYCLINIC

Ang Mo Kio Polyclinic relocated to a newer and bigger building on 29 January 2018. The move to a larger premises would better serve the needs of a growing and greying population in Ang Mo Kio and its neighbouring estates. Standing six storeys tall, the polyclinic added new services such as physiotherapy and podiatry to provide holistic care to its patients.

On 30 June 2018, redeveloped Ang Mo Kio Polyclinic celebrated its official opening. Guest-of-Honour Prime Minister Lee Hsien Loong and Senior Minister of State for Health Dr Lam Pin Min graced the event. To mark the redeveloped clinic’s official opening, a colourful quilt, jointly created by patients, partners and staff of Ang Mo Kio Polyclinic titled ‘The Tree of Life’, was unveiled by Prime Minister Lee and Dr Lam, together with Madam Kay Kuok, Chairman of National Healthcare Group (NHG), and Professor Philip Choo, Group CEO of NHG. The quilt is on permanent display at the community plaza at Ang Mo Kio Polyclinic.

In conjunction with the official opening of redeveloped Ang Mo Kio Polyclinic, NHGP also opened the Gallery of Memories. The Gallery displays healthcare artefacts dating as far back as the 1940s, and captures the 200-year history of primary care in Singapore. It also showcases NHGP’s efforts to innovate over the years, including the digitisation of patients’ medical records, the deployment of tele-health services in primary care, and the transformation of its care delivery model.

“Ang Mo Kio Polyclinic has played an integral part in the healthcare landscape of the community since it opened in 1981. We will continue to look at innovative ways to deliver patient-centred care to the community in Ang Mo Kio through the provision of comprehensive services as well as technological improvements to provide a holistic and seamless patient experience.”

— Dr Christopher Chong, Family Physician, Associate Consultant and Head of Ang Mo Kio Polyclinic
REDEVELOPMENT OF YISHUN POLYCLINIC

NHGP opened the doors of its redeveloped seven-storey Yishun Polyclinic on 2 July 2018 with an expanded Women’s & Children’s Clinic and newly introduced physiotherapy service. Yishun Polyclinic was the second NHG Polyclinic after Ang Mo Kio Polyclinic to be redeveloped and officially opened in 2018.

On 3 November 2018, Yishun Polyclinic celebrated its 20th anniversary in conjunction with its official opening. The event was graced by Guest-of-Honour Mr K Shanmugam, Minister for Home Affairs and Law, and Member of Parliament for Nee Soon GRC.

A mosaic art piece, titled ‘Seasons of Life’, was unveiled by Minister Shanmugam, advisers of Nee Soon GRC, and senior management representatives from NHG and NHGP.

The collaborative piece was put together by NHGP staff, patients and community partners using stained glass and commonly used medical items, such as vaccination bottle caps and medicine spoons.

This art piece celebrates the vibrancy and adaptability of our healthcare ecosystem to support our patients and the community in their different seasons of life.

— Dr Kwan Pek Yee, Family Physician, Principal Staff and Head of Yishun Polyclinic
To further strengthen primary care for Singapore’s Central region so that patients can be managed in the community and closer to home, the Ministry of Health (MOH) announced the building of new polyclinics.

The new polyclinics to be managed by NHGP will be located in Sembawang, Kallang, Khatib and Serangoon.

Sembawang Polyclinic will be co-located within Bukit Canberra, an upcoming integrated sport and community hub. This will be NHG’s first polyclinic sited within a hub. When ready, Bukit Canberra will be jointly managed by Sport Singapore (SportSG), the National Environment Agency (NEA), the National Parks Board (NParks), and MOH.

On 1 July 2018, at a family carnival organised by SportSG, Mr Ong Ye Kung, Minister for Education and Adviser to Sembawang GRC Grassroots Organisations, officiated the groundbreaking ceremony of Bukit Canberra with advisers of Sembawang GRC.
FORGING PARTNERSHIPS

With the goal of raising the level of holistic care for better health outcomes, NHGP works closely with General Practitioners and Family Medicine Clinics to bring care closer to home.

NHGP’s primary care ecosystem operates as a ‘Hub-and-Spoke’ model. NHGP acts as the Primary Care Hub, and the GP Networks (also termed Primary Care Network or PCN) and Family Medicine Clinics (FMCs) are the various spokes. This model increases the overall primary care capacity in the Central region of Singapore, and supports the nation’s long-term healthcare needs.

The aim of the CN-PCN is to drive better chronic disease management, support earlier intervention and reduce complications.

— Dr Gowri Doraissamy, Family Physician, Senior Consultant, and Director of Care Integration at NHGP

CENTRAL-NORTH PRIMARY CARE NETWORK

Since April 2018, NHGP has been growing its CN-PCN. The network has 30 GPs as at 31 March 2019. As part of this CN-PCN, GPs are supported by ancillary services such as nurse counselling, and diabetic eye and foot screenings, which may not be readily available in their current clinic setting. Suitable NHGP patients with stable hypertension, lipid disorders, diabetes or asthma, and who are also Community Health Assist Scheme (CHAS) holders, can be transferred to CN-PCN GPs so that they can manage their conditions closer to their homes.

The CN-PCN builds on the GPs’ existing infrastructure and established doctor-patient relationships. This strategic collaboration leverages the skill sets and patient engagement of GPs with leadership and clinical governance provided by NHGP.

Beyond offering shared support services to GPs, one of the CN-PCN’s vital roles is to ensure that GPs remain connected to the larger healthcare landscape.

Partner GPs are kept informed of the latest evidence-based clinical guidelines through quarterly Continuing Medical Education (CME) talks, and are eligible to attend courses at NHGP’s Primary Care Academy.

On 17 November 2018, 24 GPs attended a CME talk covering the management of heart failure in primary care and the latest guidelines on hypertension. The GPs also did a visioning exercise on how they envisioned CN-PCN would be in three to five years’ time, and the roles they hope to play.

A GP retreat was also held on 2 March 2019 to look at ways to overcome the key challenges identified during the visioning exercise.

The CN-PCN’s first visionary exercise with its GP members discussing their vision for CN-PCN.
These efforts to engage GPs in the CN-PCN will go a long way towards improving the way healthcare is delivered. With primary care as the foundation of Singapore’s healthcare system, the CN-PCN will serve as a key pillar in NHGP’s efforts to bring patient-focused care closer to home.

Since its launch, several programmes have been added to further enhance the reach and impact of the CN-PCN. One of these is to improve diabetes care by making diabetic retinal photography and diabetic foot screening more accessible to patients.

CN-PCN’s GP members in a discussion on how the vision for CN-PCN could be fine-tuned.

One of the activities held for CN-PCN’s GPs was a Lunar New Year Lo Hei Luncheon and CME Talk on 16 February 2019.

Under CN-PCN, NHG extends shared services and resources to GPs to support them in delivering appropriate levels of right-sited care to patients.
The National Healthcare Group Polyclinics (NHGP) is committed to creating and catalysing a health-promoting ecosystem for patients and the community. With the goal of preventing or delaying the onset of chronic diseases, NHGP has designed health promotion into healthcare delivery, to promote self-empowerment of our patients and better population health in the future.
EMPOWERING AND ACTIVATING PATIENTS

With the goal of empowering and activating patients, NHGP has various initiatives to equip patients with the knowledge, skills and confidence to take ownership of their health outcomes.

TEAMLET CARE MODEL

NHGP’s teamlet care model is anchored on relationship-based healthcare. Dedicated teams known as teamlets — each comprising two family physicians, a care manager, and a care coordinator — are supported by allied health professionals to provide customised and holistic care based on a patient’s medical conditions. This model of care allows patients to receive comprehensive, coordinated and continuous care from the same healthcare team so that risks and complications can be identified early and prevented or managed.

First piloted in Toa Payoh Polyclinic in 2015, this care model has now been implemented in all NHG Polyclinics. As at 31 March 2019, NHGP has a total of about 120,000 patients being cared for by its teamlets.

To assess the effectiveness of the care model, a study was conducted from 1 July 2015 to 31 December 2016 involving about 20,000 patients from Ang Mo Kio Polyclinic, Toa Payoh Polyclinic, Woodlands Polyclinic and Yishun Polyclinic. The results of the study, released on 17 August 2018, showed that teamlet patients with diabetes had significantly better diabetes control, and a higher proportion went for diabetic foot and eye screenings, as well as cancer screenings. Also, fewer patients made visits to the Emergency Department for diabetes- and hypertension-related problems. The study also showed that the teamlet care model resulted in improved care for patients with diabetes that could lead to reduced healthcare resource use.

Apart from managing patients with chronic conditions, the teamlets at Yishun Polyclinic also started seeing patients with dementia from July 2018. Patients with dementia receive care from a dedicated multi-disciplinary team and receive regular assessments, counselling services, and coordinated access to dementia services in the community. Apart from allowing for continuity of care, such an arrangement enables the management of patients with dementia to be anchored within primary care, and minimises the need for the elderly to visit hospital specialist outpatient clinics.

CHRONIC CARE PLAN

Designed to empower and incentivise patients with chronic diseases to better manage their conditions, NHGP’s Chronic Care Plan (CCP) was first piloted in Yishun Polyclinic in April 2017. In January 2019, the programme was extended to Ang Mo Kio Polyclinic.

NHGP’s CCP offers patients with chronic diseases listed under the Chronic Disease Management Programme (CDMP) an annual treatment plan and a payment option for a year’s worth of chronic disease treatment. CCP covers consultations with doctors, nurses and allied health professionals, laboratory tests, diabetic foot screenings as well as diabetic retinopathy screenings.

Patients who meet the care plan targets set by their healthcare team are rewarded with rebates, which can be used to offset the cost of the following year’s plan. As of 31 March 2019, 90 per cent of CCP patients at Yishun Polyclinic received rebates for meeting their care plan targets.

Such targets include good blood sugar control, optimal management of blood pressure or cholesterol levels, and completing annual diabetic foot and retinopathy screenings.

In the past, there were no designated doctors or nurses to look after my health. Now, with the teamlet care model, the clinical team is able to better understand my medical history, monitor my health progress closely, and provide the best care plan for me. This gives me the opportunity to work on improving my health together with my healthcare team.

— Mr Leon Chester Stewart, patient from Ang Mo Kio Polyclinic

Patients on the Chronic Care Plan are able to:

- Achieve health goals with customised care plan
- Receive rebates for meeting health goals
- Enjoy 5% savings on chronic care services
- Skip the payment queue
DM FOOT STEP

NHGP strongly encourages all patients with diabetes to go for annual foot screening at any NHG Polyclinic. With the goal of further reducing the risk of foot ulcers and lower extremity amputation, NHGP piloted the Diabetes Mellitus (DM) Foot Screening & Surveillance, Treatment & Escalation Protocol (STEP) at Yishun Polyclinic in May 2017. As of March 2019, nearly 800 patients have benefited from closer surveillance and prompt management.

The enhanced screening and foot care protocol will be progressively introduced to all NHG Polyclinics by the end of 2020. The DM Foot STEP team comprises family physicians, diabetic foot screening and foot surveillance nurses, wound care nurses, and podiatrists, all of whom work in close collaboration with hospital specialists from regional hospitals. They teach self-help skills so that patients can prevent and manage their own foot problems through regular foot checks.

To further raise awareness of the importance of ACP, NHGP partnered final-year students from Nanyang Technological University’s (NTU) Wee Kim Wee School of Communication and Information to set up roadshows at Ang Mo Kio Polyclinic in January 2019 and Geylang Polyclinic in February 2019.

TRIM

NHGP launched the Tiered-Risk Interventions for Managing Weight (TRIM) at Ang Mo Kio Polyclinic in June 2018. TRIM enables NHGP’s care team to activate patients by systematically identifying those with health risks, and then starting contextualised conversations with them as part of their care. These patients are then referred to NHGP’s health promoters in the clinic for health coaching and connected to intervention programmes in NHGP and the community.

A total of 2,020 patients from Ang Mo Kio Polyclinic have been identified and flagged for weight management since the implementation of TRIM.

LIGHTER LIFE

NHGP first launched the six-month risk-stratified weight management programme, Lighter Life, at Ang Mo Kio Polyclinic in October 2018. This programme aims to help eligible NHGP patients with chronic conditions such as diabetes and hypertension to achieve weight loss in a healthy way. The programme equips them to confidently self-manage their conditions with strong peer and community support. Throughout the programme, patients are monitored and coached on areas such as exercise and lifestyle habits by a multi-disciplinary primary care team comprising a family physician, nurse, dietitian, physiotherapist, clinical psychologist, and health experts.

One such initiative is the Medication Clinic, a pre-consult medication reconciliation service aimed at reducing medication discrepancies during transitions of care. The medication reconciliation service was made available at all NHG Polyclinics in August 2018. At the Medication Clinic, the pharmacist checks and prepares the medication list, which the patient may share with other doctors and pharmacists during medical consults. The pharmacist can also resolve any issue the patient may have regarding medication.

To promote the use of the medication list, NHG Pharmacy launched the ‘Know Your Medicines, Get It Right’ campaign during National Pharmacy Week 2018 in October. The goal was to create awareness among patients and caregivers about the benefits of keeping an updated medication list.
RIGHT CARE, RIGHT PLACE, RIGHT TIME

In FY2018, NHGP continued its efforts to help patients receive appropriate care in the community and closer to home.

**TELE-DERM**

An initiative jointly launched by NHGP and the National Skin Centre (NSC) in December 2016, Tele-DERM brings specialist care closer to patients’ homes. Through a secure web portal, NHGP Family Physicians discuss skin care cases and treatment options with NSC dermatologists, allowing patients with mild to moderate skin issues to be cared for appropriately in the community. In FY2018, the number of NHGP attendances for dermatology-related conditions averaged nearly 10,000 a month. About 45 per cent of patients who underwent Tele-DERM were treated at NHGP without having to be referred to the NSC.

**TELE-ECG**

A collaboration between NHGP and Tan Tock Seng Hospital’s Cardiology Department, Tele-ECG has helped to improve patient-centred care by right-siting avoidable referrals to the cardiology specialist outpatient clinics (SOCs). As of 31 March 2019, almost 80 per cent of the Tele-ECG cases seen were treated at NHGP without having to be referred to SOCs.

**TELE-WOUND MONITORING**

Piloted in June 2016 and established at all NHG Polyclinics since June 2017, Tele-Wound Monitoring is a service that allows self-management and remote wound monitoring. It enables patients to perform wound dressing changes at home while their healing progress is monitored remotely by nurses. Patients send digital wound images to nurses for assessment, and follow-up care is conducted over the phone. In FY2018, there were more than 1,900 Tele-Wound consultations done.

**TELE-CONSULTATIONS**

The Tele-Consultations Home Monitoring initiative led by NHGP’s Nursing Services allows patients to consult Care Managers (nurses trained in chronic disease management) over the phone. These consultations involve helping patients monitor their conditions, advising them on post-insulin titration, assisting on medication refills, and more. Such a service avoids the need for patients to make trips to the polyclinics. In FY2018, more than 1,100 Tele-Consultations were conducted.

**HOUGANG FMC HANDOVER**

Family Medicine Clinic (FMC) brings together the strengths and experiences of public healthcare providers and the capacity and capabilities of private healthcare. Such collaborations have helped the FMC to provide comprehensive team-based care to manage chronic diseases within the community.

On 13 September 2018, NHG successfully marked the transfer of ownership of Hougang FMC to Silverhope Clinic Pte Ltd. Hougang FMC was the third and last FMC — after Ang Mo Kio FMC and Unity FMC — that NHG has handed over to private General Practitioner partners after successful collaborations.

During the three years of close collaboration, Hougang Polyclinic has referred about 4,000 patients with chronic diseases to Hougang FMC. The handover ceremony was graced by Madam Kay Kuok, Chairman of NHG. Also present were Professor Philip Chow, Group CEO of NHG, Associate Professor Chong Phui-Nah, CEO of NHGP and Primary Care, Dr Michael Yee, Director of Silverhope Clinic Pte Ltd, and Dr Victor Teo and Ms Ong Yipin, former directors of Silverhope Clinic Pte Ltd.

**MOBILE BMD**

To support and promote the importance of bone health, the National Healthcare Group Diagnostics (NHGD) procured and deployed a second Mobile Bone Mineral Densitometry (BMD) in March 2019. The first BMD was introduced in 2012.

The two Mobile BMDs are available at Ang Mo Kio Polyclinic, Geylang Polyclinic, Woodlands Polyclinic and Yishun Polyclinic. This service has brought greater convenience to patients and residents in the community.

**NEW HBA1C ANALYSER AND TEST**

In diabetes care for patients, HbA1c is used to monitor patients’ blood sugar level.

In June 2018, NHGD rolled out new HbA1c analysers at all NHG Polyclinics. Each allows samples to be processed at a rate that is 88 per cent faster than before, thus reducing patients’ wait times.

NHGD also introduced the HbA1c variant Point-of-Care-Testing (POCT) at all NHG Polyclinics in October 2018. The test has reduced the turnaround time for results from one week to an hour, bringing about more convenience to patients.
CHAPTER 2
Enhancing Population Health

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Transformation

WORLD DIABETES DAY 2018
As a lead-up to World Diabetes Day 2018, NHGP organised a series of activities to educate patients on the importance of managing diabetes through eating well and staying physically active.

The Ang Mo Kio Polyclinic Diabetes Support Group held a session on 6 October 2018. The session included talks on how to tackle insomnia, its relationship with stress and diabetes, and how sleep problems can have an impact on diabetes management. The session also included a talk on how to meet diabetes control targets.

On 8 November 2018, a healthy lifestyle event was conducted at Geylang Polyclinic and Yishun Polyclinic. Titled ‘Get Up! Get Shoes! Get Fit!’, NHGP’s podiatrists put up exhibits to educate patients on foot care. NHGP’s physiotherapists also conducted an exercise session to combat the negative impact of inactivity on diabetes.

On 10 November 2018, a talk and practical session, titled ‘Get Fit, Be Fit and Stay Fit’ was conducted at Toa Payoh Polyclinic. Besides sharing the importance of various aspects of fitness in relation to managing diabetes, the event also cleared doubts that the audience had on medications and laboratory results.

WORLD PODIATRY DAY 2018
To celebrate World Podiatry Day 2018, a fun and interactive booth was set up for patients and staff on 12 April 2018 at Woodlands Polyclinic and Ang Mo Kio Polyclinic. The goal of the celebration was to create awareness of good foot health among patients and staff.

Footcare brochures, posters, foot models and different types of footwear were on display. Participants observed first-hand knowledge of how to take care of their feet.

WORLD MENTAL HEALTH DAY 2018
In conjunction with World Mental Health Day 2018, NHGP worked with TOUCH Community Services and the Singapore Kindness Movement to deliver talks on mental and physical well-being, with a focus on mental health and diabetes.

Conducted by NHGP Psychologists, the ‘Does Kindness Matter? Love Yourself for Better Diabetes Health’ mental health talks were delivered to residents of TOUCH Home Care @ Ang Mo Kio and residents of Ang Mo Kio on 12 and 20 October 2018 respectively. The informative sessions covered the impact of stress and mental health on diabetes, and steps to improve mental and physical well-being through adhering to self-management strategies for depression and diabetes.

WORLD DIETITIANS’ DAY 2019
On 16 March 2019, an event titled ‘Diabetes Self-management: Because it Matters!’ was conducted at Yishun Polyclinic for 50 patients to celebrate World Dietitians’ Day 2019. The session covered self-management skills for those with diabetes and pre-diabetes. A patient also shared how she overcame her personal challenges to gain good diabetes control.

FROM HEALTHCARE TO HEALTH
To encourage patients to lead healthier lives, NHGP organised many activities to engage and educate the community in FY2018.
CHAPTER 2
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Patients and caregivers exercising together at the community plaza at Ang Mo Kio Polyclinic.

Patients getting tips on eating healthily when dining out.

HEALTH FAIR FOR ANG MO KIO RESIDENTS
NHGP and National Skin Centre co-organised a fundraising health fair on 21 April 2018 to support the Ang Mo Kio Family Service Centre. At the event, NHGP doctors and psychologists gave health talks, and NHGP dietitians hosted a cooking demonstration.

WORLD HAND HYGIENE DAY 2018
In conjunction with World Hand Hygiene Day 2018, NHGP organised hand hygiene roadshows at all six polyclinics from 8 to 15 May 2018. An activity booth at each clinic was also set up for patients and caregivers to learn the six steps of handwashing.

WORLD KIDNEY DAY 2019
In conjunction with World Kidney Day 2019, NHGP organised a talk titled ‘Understanding Chronic Kidney Disease’ on 7 March 2019 at Geylang Polyclinic. The talk highlighted the risk factors of kidney disease, tips on kidney protection, and the importance of regular screening and follow-up. Booklets on kidney protection and healthy eating were also distributed to patients.

IN THE MEDIA
In FY2018, NHGP leveraged mainstream media to spread messages to the population, covering topics such as chronic disease management and adopting healthier lifestyles.

Media coverage in FY2018 included the following:

- Various media interviewed Dr Karen Ng, Director, Clinical Services, on 17 August 2018. Dr Ng shared how NHGP’s teamlet care approach offers patients access to a dedicated team of healthcare professionals.
- Vasantham News interviewed Dr Jaganmohan Raja, Deputy Head of Woodlands Polyclinic, on 18 and 19 June 2018. Dr Raja shared how a heart attack comes about, and how to identify its early symptoms.
- Channel 8 News interviewed Dr Kong Jing Wen, Head of Hougang Polyclinic, on 31 May 2018 on common vaccines, during which Dr Kong reminded viewers to go for influenza vaccination.

HEALTH PROMOTION AND PREVENTIVE CARE
In FY2018, various roadshows to raise awareness of specific diseases, such as cardiovascular diseases, Diabetes Mellitus, and colorectal cancer, were conducted. Through these roadshows, more than 1,200 patients and their family members have learnt to better manage their health.

World Heart Day 2018
In September 2018, NHGP partnered the Singapore Heart Foundation and Singapore Polytechnic (SP) to organise a series of roadshows on heart disease prevention. Held at all six NHG Polyclinics, the interactive awareness roadshow comprised a board game developed by interns from SP, which was used to teach patients and family members how to eat healthily while dining out.

Colorectal Cancer Awareness Month 2019
Roadshows were conducted at all six polyclinics to raise awareness of colorectal cancer in March 2019. Through posters and interactive activities, patients were educated on lifestyle practices to reduce the risk of colorectal cancer, and learnt skills to identify food products with high dietary fibre.

Health Promotion Efforts
In addition, healthy cooking demonstrations were conducted at the Eat Well cart in Ang Mo Kio Polyclinic and Yishun Polyclinic with the aim of educating patients on the benefits of a healthy diet. In collaboration with the Health Promotion Board, group exercises were also held regularly at Ang Mo Kio Polyclinic’s community plaza for patients and their caregivers. NHGP also partnered the National Library Board to launch the Read@NHGP at Ang Mo Kio Polyclinic and Yishun Polyclinic in October and November 2018 respectively. Patients are now able to read curated health-related ebooks on the NLB mobile app while waiting to see the doctor.

A nurse guiding children on proper hand hygiene.

Guest-of-Honour Dr Koh Poh Koon, Member of Parliament for Ang Mo Kio GRC, preparing Rainbow Brown Rice Salad with Senior Dietitian Ms Wong Yuefen.

Dr Karen Ng sharing how NHGP’s teamlet care model empowers patients to look after their health better during a media interview on 17 August 2018.

Patients receiving tips on eating healthily when dining out.
CHAPTER 3
INVESTING IN RESEARCH & EDUCATION

Building research capacity and capability is key to driving innovation and improvement in primary care. Equipping healthcare professionals with the skills and knowledge strengthens the ability to deliver care, and better prepares the National Healthcare Group Polyclinics to meet long-term needs and future challenges.
BUILDING RESEARCH CAPACITY AND CAPABILITY

NHGP recognises the need to cultivate talent in research to contribute to effective clinical practices. Through primary care research, staff have the opportunity to drive innovation and improve care for patients.

PRIMARY CARE FORUM 2018

NHGP held its 11th annual Primary Care Forum on 26 and 27 October 2018. Titled ‘Primary Care: Integration & Innovation for the Future’, it focused on innovations and improvements that will transform primary care. The 2018 Forum was held in conjunction with the Singapore Health and Biomedical Congress (SHBC).

Guest-of-Honour Mr Amrin Amin, Senior Parliamentary Secretary, Ministry of Home Affairs and Ministry of Health, delivered the opening address.

Thought leaders present at the event included Professor Martin Marshall, Professor of Healthcare Improvement from University College London, as well as Professor James Dunbar, Honorary Professor at the Centre for Population Health Research, Deakin University, and Research Advisor to the Australian Health Policy Collaboration, Victoria University.

A General Practitioners (GPs) symposium was held on the second day of the event, during which GPs from across Singapore shared how they managed patients effectively in a primary care setting.

The session on adult vaccinations in the tropics during the Primary Care Forum was given by Dr Barnaby Edward Young, Consultant, National Centre for Infectious Diseases, Tan Tock Seng Hospital.

SINGAPORE PRIMARY CARE SCIENTIFIC RESEARCH COMPETITION

The Singapore Primary Care Scientific Research Competition 2018 was organised in collaboration with the Singapore Health and Biomedical Congress (SHBC) 2018 to provide a platform to showcase as well as to foster a culture of research in primary care. The competition also provided recognition for the research efforts of healthcare professionals working in primary care. For the list of abstracts accepted for the SHBC Scientific Competition 2018, please refer to Appendix A.

The following NHGP winners were announced at the opening ceremony of SHBC 2018 on 25 October 2018.

ORAL CATEGORY

Gold Award
Dietary behaviour among polyclinic patients with pre-diabetes
Dr Wee Wei Keong
Director, Health Promotion & Preventive Care

Silver Award
Effectiveness of nurse-led wound clinic on clinical outcomes for patient with chronic leg ulcer in primary healthcare: a quasi-experimental study
Ms Julia Zhu
Nurse Clinician II, Nursing Services

Bronze Award
Concordance between clinical diagnoses for selected chronic conditions in clinical notes and patient-reported conditions
Dr Lee Eng Sing
Family Physician, Senior Consultant and Deputy Head, Clinical Research Unit

POSTER CATEGORY

Gold Award
The association between illness perceptions, medication beliefs and adherence to inhaled asthma controller among older adults: a cross-sectional study in primary care
Dr Liu Changwei
Family Physician, Associate Consultant, Geylang Polyclinic

Silver Award
The effect of parity and breastfeeding experience on breastfeeding self-efficacy, perception of milk supply and exclusive breastfeeding
Ms Jacqueline Giovanna De Roza
Nurse Clinician I, Geylang Polyclinic

Bronze Award
Exploring illness perception and symptoms severity as possible correlates of anxiety change expectancy in primary care
Ms Soon Jiaying
Senior Clinical Psychologist, Clinical Services
CHAPTER 3
Sustaining Innovation in Research & Education

POSTER PRESENTATIONS

International Forum on Quality and Safety in Healthcare
Ms Blessy Kootiapal Mathew, Nurse Clinician II, Toa Payoh Polyclinic, Ms Wong Yuefen, Senior Dietitian, Ang Mo Kio Polyclinic, and Ms Tan Hue Min, Oral Health Therapist, Toa Payoh Polyclinic, presented their quality and safety improvement projects at the International Forum on Quality and Safety in Healthcare in Amsterdam from 2 to 4 May 2018.

SingHealth Nursing Conference 2018
Another quality improvement project, ‘Diabetic Foot Screening Course – A Blended Learning Approach to Reduce Out-of-Clinic Time for Healthcare Professionals in Primary Care’, led by Ms Yeh Hui Ling, Trainer, Primary Care Academy, was put together to allow nurses and trainers to spend more time on patient care. This project won the third prize in the SingHealth Nursing Conference 2018 Poster Category held on 5 April 2018.

IPRAMHO 2019

HOMER GRANT FY2018
The NHG-HOMER (Health Outcomes and Medical Education Research) Grant FY2018 is a competitive grant that supports health professions education research. Dr Darren Seah, Family Physician, Consultant and Director of Family Medicine Development, was awarded a grant for his research on the impact of tele-dermatology as a learning tool for Family Medicine Residents to diagnose and manage dermatological problems in primary care.

NHG-LKC MEDICINE CSPP FY2018
A joint programme between NHG and LKCMedicine, the NHG-LKCMedicine Clinician-Scientist Preparatory Programme (CSPP) exposes clinicians to research opportunities early in their career through research training and project experience. In FY2018, there were two selected programme participants — Dr Vivek Bansal, Family Physician, Woodlands Polyclinic, and Dr Quek Jing Sheng, NHG Family Medicine Resident. Dr Vivek’s research project studied the uptake and practice of secondary prevention of patients with a previous stroke episode in Singapore’s primary care setting. Dr Quek’s research project looked at understanding the journeys of patients with asthma who present for nebuliser therapy at a polyclinic.

NMRC CS/CISSP
In FY2018, Dr Lee Eng Sing, Family Physician, Senior Consultant, and Deputy Head of Clinical Research Unit, was awarded the Clinician Scientist/Clinician Investigator Salary Support Programme (CS/CISSP) by the National Medical Research Council (NMRC).

In this research collaboration, Dr Lee works with researchers from the Institute of Mental Health to validate the World Health Organization Disability Assessment Schedule 2.0 among those with mental and physical illness in Singapore.

CONTRIBUTIONS BY NHGP STAFF TO NEW MEDICAL KNOWLEDGE

The following pages highlight the various research programmes undertaken by NHGP staff that have been published in journals and presented at local and international conferences in FY2018.

Oral and Poster Presentations by NHGP Staff at Local and International Conferences

23RD WORLD ORGANISATION OF NATIONAL COLLEGES, ACADEMIES AND ACADEMIC ASSOCIATIONS OF GENERAL PRACTITIONERS FAMILY PHYSICIANS (WONCA) EUROPE CONFERENCE

May 2018
Adult learners: what every trainer should know about learning styles
Dr Angela Chua Hwee Ling Family Physician, Consultant, Yishun Polyclinic

7TH ASIAN CONGRESS OF DIETITICS 2018, HONG KONG

July 2018
Can nutrition booths change perception, readiness to change and knowledge on fruit and vegetables consumption? – Experience from the Polyclinics
Ms Chan Sau Ling Dietitian, Yishun Polyclinic

PRIMARY HEALTH CARE RESEARCH CONFERENCE, MELBOURNE, AUSTRALIA

August 2018
Impact of advanced practice nurse-led intervention on knowledge and safe practices for Muslim patients with Diabetes Mellitus during Ramadan in the primary care setting
Ms Michelle Lee Cai Feng Assistant Nurse Clinician, Ang Mo Kio Polyclinic

22ND WONCA WORLD CONFERENCE 2018, SEOUL, SOUTH KOREA

October 2018
Patients’ Preferences for Dry Powder Inhalers
Dr Tang Wern Ee Family Physician, Senior Consultant, Education Director, Family Medicine Development and Head, Clinical Research Unit

A Challenge in Managing Difficult Dermatology Case in Primary Care: Scabies Crustosa
Dr Chia Liang Yoong Resident Physician, Ang Mo Kio Polyclinic

22ND EAST ASIAN FORUM OF NURSING SCHOLARS (EAFONS) 2019, SINGAPORE

January 2019
Nurses’ perception of individual professional development plan in a primary healthcare setting in Singapore: a qualitative study
Ms Keely Lim Xue Qi Staff Nurse I, Yishun Polyclinic

ASIA PACIFIC MEDICAL EDUCATION CONFERENCE (APMEC) 2019, SINGAPORE

January 2019
Rolling out the CARPET: preparing a health-literate ready workforce
Dr Predeeksha Kannan Deputy Director, Primary Care Academy and Family Medicine Development

Inter-professional education in action: from design to delivery
Dr Dong Lijuan Assistant Director, Nursing Services

2ND ASIA PACIFIC DIABETES IN PREGNANCY (APMEC) INTERNATIONAL MEETING 2019, SINGAPORE

January 2019
Dietary Risk Assessment of the Singapore Child [Best Poster Award]
Ms Goh Ling Jia Assistant Nurse Clinician, Hougang Polyclinic

Postpartum dietary and physical activity-related beliefs and behaviours among women with recent gestational Diabetes Mellitus: a qualitative study
Dr Teh Kailin Family Physician, Associate Consultant, Ang Mo Kio Polyclinic

Dr Amy Khor (in blue jacket), Senior Minister of State, Ministry of Health, listening to Ms Goh Ling Jia explaining her poster at the IPRAMHO International Meeting.
Publications with Contributions by NHGP Staff in Peer-Reviewed Journals

**ENDOCRINE RESEARCH**

April 2018
Excess visceral adiposity is associated with diabetic retinopathy in a multi-ethnic Asian cohort with longstanding Type 2 diabetes.

Co-authors
- Dr Simon Lee
  Family Physician, Consultant
  Chief Operating Officer and
  Chief Clinical Informatics Officer
- Dr Tang Wern Ee
  Family Physician, Senior Consultant
  Education Director,
  Family Medicine Development and
  Education Director,
  Family Physician, Senior Consultant
  Nurse Clinician II,
  Head, Clinical Research Unit

**JOURNAL OF MEDICAL INTERNET RESEARCH MEDICAL INFORMATICS**

June 2018
Validation of a natural language processing algorithm for detecting infectious disease symptoms in primary care Electronic Medical Records in Singapore.

Co-author
- Ms Tea Sok Huang
  Research Fellow,
  Clinical Research Unit

**DIABETES AND VASCULAR DISEASE RESEARCH**

May 2018
Long-term prospective observation suggests that glomerular hyperfiltration is associated with rapid decline in renal filtration function: a multi-ethnic study.

Co-authors
- Dr Tang Wern Ee
  Family Physician, Senior Consultant
  Education Director,
  Family Medicine Development and
  Head, Clinical Research Unit
- Dr Kwan Pek Yee
  Family Physician, Principal Staff
  Head, Yishun Polyclinic

**ADVANCED SKIN WOUND CARE**

July 2018
Exploring patient and caregiver perceptions of primary healthcare sector home care for simple acute wounds.

First author
- Ms Goi Ling Jia
  Assistant Nurse Clinician,
  Nursing Services

Co-author
- Ms Julia Zhu
  Nurse Clinician II,
  Nursing Services

**INTERNATIONAL JOURNAL OF NEPHROLOGY**

July 2018
The association of serum creatinine and estimated glomerular filtration rate variability with diabetic retinopathy in Asians with Type 2 diabetes: a nested case-control study.

Co-authors
- Dr Tang Wern Ee
  Family Physician, Senior Consultant
  Education Director,
  Family Medicine Development and
  Head, Clinical Research Unit
- Dr Kwan Pek Yee
  Family Physician, Principal Staff
  Head, Yishun Polyclinic

**NEPHROLOGY DIALYSIS TRANSPLANT**

July 2018

Co-author
- Dr Tang Wern Ee
  Family Physician, Senior Consultant
  Education Director,
  Family Medicine Development and
  Head, Clinical Research Unit

**JOURNAL OF FAMILY MEDICINE AND PRIMARY CARE**

July 2018
A review on interventions to reduce medication discrepancies or errors in primary or ambulatory care setting during care transition from hospital to primary care.

First author
- Dr Kee Kok Wai
  Family Physician, Associate Consultant
  Toa Payoh Polyclinic

**JOURNAL OF DIABETES**

September 2018
Gain in adiposity over three years is associated with progressive renal decline in multi-ethnic South-East Asians with Type 2 diabetes.

Co-authors
- Dr Simon Lee
  Family Physician, Consultant
  Chief Operating Officer and
  Chief Clinical Informatics Officer
- Dr Tang Wern Ee
  Family Physician, Senior Consultant
  Education Director,
  Family Medicine Development and
  Head, Clinical Research Unit

**JOURNAL OF FAMILY MEDICINE AND PRIMARY CARE**

September 2018
Transforming Primary Care – the way forward with the TEAMS2 approach.

First author
- A/Prof Chong Phui-Nah
  Family Physician, Senior Consultant
  Chief Executive Officer
  National Healthcare Group Polyclinics &
  Primary Care

Co-author
- Dr Tang Wern Ee
  Family Physician, Senior Consultant
  Education Director,
  Family Medicine Development and
  Head, Clinical Research Unit

**FAMILY PRACTICE**

September 2018
Transforming Primary Care – the way forward with the TEAMS2 approach.

First author
- Dr Tan Mei Yin
  Principal Clinical Psychologist
  Clinical Services

**DIABETES METABOLISM RESEARCH AND REVIEWS**

January 2019
Association of diabetes treatment with long-term glycemic patterns in patients with Type 2 Diabetes Mellitus: a prospective cohort study.

Co-author
- Dr Tang Wern Ee
  Family Physician, Senior Consultant
  Education Director,
  Family Medicine Development and
  Head, Clinical Research Unit

**GAMES FOR HEALTH JOURNAL**

January 2019
Play and learn with patients — designing and evaluating a serious game to enhance nurses’ inhaler teaching techniques: a randomised controlled trial.

Co-author
- Ms Cindy Lee
  Nurse Educator I,
  Nursing Services

**BIOMED CENTRAL PUBLIC HEALTH**

January 2019
Screen viewing behaviour and sleep duration among children aged two and below.

Co-author
- Dr Angelia Chua
  Family Physician, Consultant
  Yishun Polyclinic

**INDIAN JOURNAL OF PSYCHOLOGICAL MEDICINE**

January 2019
Illness perception of anxiety patients in primary care in Singapore.

First author
- Dr Wong Mei Yin
  Principal Clinical Psychologist
  Clinical Services
LEARNING SESSIONS

In its continuous journey to learn from others and share experiences, NHGP organised and took part in various learning activities both locally and overseas.

OVERSEAS EXPERTS WORKSHOPS

NHGP hosted two overseas experts, Professor Martin Marshall and Professor James Dunbar, from 22 to 24 October 2018. During the sessions, Prof Marshall talked about the healthcare system in the United Kingdom, and implementation research, clinical service redesign and quality improvement in primary care.

Prof Dunbar, on the other hand, shared his expertise in diabetes prevention, and the MAGDA (‘Mothers After Gestational Diabetes in Australia’) trial and its implications on how to manage gestational diabetes in primary care.

NHGP hosted Prof Marshall (seated, with tie), who shared about the importance and evolution of general practice in the United Kingdom.

NHGP hosted Prof Dunbar (back row, seventh from right), who shared insights on population-based quality-improvement initiatives in diabetes care.

NHGP team with Dr Baker (left) during their visit to the Mountain View Consulting Group.

HEALTH MANPOWER DEVELOPMENT PLAN VISITS

Canada

Dr Lim Chee Kong, Family Physician, Senior Consultant, and Deputy Director, Clinical Services, visited St Paul’s Hospital, Providence HealthCare from 28 May to 8 June 2018, to learn more about its Kidney Care Clinic (KCC), the longest-running programme of its kind in Canada. KCC’s interdisciplinary clinics care for more than 1,200 patients in varying stages of chronic kidney disease. The multi-disciplinary team there supports and educates individuals and families living with kidney disease to delay disease progression.

Australia

Together with NHG, four NHGP staff visited the Australian Capital Territory Health in Canberra, and the Austin Hospital and Frankston Hospital in Melbourne from 9 to 20 July 2018 to learn about Australia’s Advance Care Planning (ACP) system. The visit offered insights into the Australian team’s efforts to support ACP in hospitals, primary care and the community, and lessons about palliative care services and the residential aged care facilities in Australia.

Dr Low Kang Yih, Family Physician, Associate Consultant, Ang Mo Kio Polyclinic, also visited the Austin Health Hospital in Melbourne and Royal Prince Alfred Hospital in Sydney to learn about their care programmes for obesity and Diabetes Mellitus.

United States of America

In September 2018, a team from NHGP and the National Healthcare Group Pharmacy visited the Mountain View Consulting Group in Seattle, Washington. There, they learnt about interventions that healthcare providers can use to help patients with chronic conditions improve compliance with their disease management regimes and change unhealthy behaviours. One such programme is Real Behaviour Change in Primary Care, which offers 10-minute interventions to help empower patients to manage their chronic health conditions better.

During the visit, the team also had the opportunity to shadow clinic sessions conducted by a group of behavioural health consultants led by Dr Melissa Baker, Behavioural Health Education Program Director.

The team also designed a pre-consult assessment form incorporating behavioural health techniques for primary healthcare providers to facilitate conversations with their patients.

Netherlands and London

Dr Tricia Chang, Family Physician, Associate Consultant, Ang Mo Kio Polyclinic, went on a six-week learning trip to the Netherlands and London from October to November 2018.

In the first half of the trip, Dr Chang visited the University of Maastricht to learn about the health systems and research culture in General Practice in the Netherlands. During the second half of the trip, she was attached to the department of Primary Care and Population Health at the University College London, where she was exposed to the division of eHealth, and saw how they used new information and communication technologies to improve health. Dr Chang also attended a women’s health module for medical students and visited General Practitioners to learn about their Quality and Outcomes framework.

NHGP and NHG staff at the Claire Holland House during the visit on ACP.
Visits to NHGP

Visit to Woodlands Polyclinic
On 30 August 2018, Woodlands Polyclinic hosted Thailand’s Ministry of Health, comprising personnel from the Health Workforce Development, College of Public Health and Nursing, and Primary Health Care Centres. The delegates toured Woodlands Polyclinic and discussed Singapore’s healthcare and primary care system.

Visits to Hougang Polyclinic
On 16 August 2018, Hougang Polyclinic hosted a group of 35 senior officers from Vietnam who were on a study trip to learn about the primary healthcare system in Singapore. Hougang Polyclinic also hosted Professor Keith Harding and Associate Professor Steven Thng on 22 March 2019. They discussed NHGP’s wound management framework, on-going training for staff on wound management, and methods employed to care for patients with wounds, especially chronic wounds.

Visits to Yishun Polyclinic
Between September 2018 and March 2019, Yishun Polyclinic hosted several visits. These included Tan Tock Seng Hospital, SingHealth Polyclinics, National Skin Centre, and Singapore Armed Forces (Regional Medical Centre Project Team). During these visits, the Yishun team shared the operational workflows as well as learning points from the setting up of the new clinic. On 29 November 2018, Minister Khaw Boon Wan, Coordinating Minister for Infrastructure and Minister for Transport, toured the new Yishun Polyclinic to learn about NHGP’s use of innovative technology to improve productivity.

Visits to Ang Mo Kio Polyclinic
The newly redeveloped Ang Mo Kio Polyclinic hosted a number of visits by healthcare partners and ministers. On 5 June 2018, NHGP hosted the Singapore Healthcare Improvement Network (SHINe) learning series at Ang Mo Kio Polyclinic for participants from various healthcare institutions. SHINe is an umbrella group comprising members of healthcare organisations. SHINe members are committed to delivering better care and lower healthcare cost to patients.
PCA TRAINING ACCREDITATION AND OUTREACH

In July 2018, NHGP’s PCA was re-accredited as a recognised training provider under the Agency for Integrated Care (AIC) Caregivers Training Grant. One of the courses approved and funded by AIC is the quarterly Care of the Elderly course, which equips caregivers with the skills and knowledge of caring for the elderly in the community.

In September 2018, NHGP’s PCA was also re-accredited as a life support training centre. PCA was also accredited as a Basic Cardiac Life Support (BCLS) and Automated External Defibrillator (AED) instructor training centre in September 2018. These new accreditations enable PCA to build internal capability, develop a pool of qualified life support instructors, and run training courses and workshops.

TRAINING OPPORTUNITIES

NHGP’s Primary Care Academy (PCA) conducted several workshops in FY2018, including the following workshop for NHGP’s clinicians. For the full list of workshops conducted, please refer to Appendix B.

Child Development Masterclass

On 18 August 2018, PCA conducted a Masterclass in Child Development for NHGP’s clinicians. The course covered topics such as the use of strategies and therapies to address a child’s unique needs; use of techniques to assess a child’s growth development, including communication milestones; and recommendations to parents to promote healthy development in infants and young children.

PCA also partnered the National Silver Academy (NSA) to offer courses for seniors (Singaporeans and Singapore Permanent Residents aged 50 and above), who can enjoy NSA subsidies for eligible courses. PCA participated in NSA roadshows to showcase the Academy’s public courses and workshops, providing opportunities for lifelong learning.

NKF SYMPOSIUM

At the National Kidney Foundation Symposium, held on 24 October 2018, Dr Irwin Chung, Director, PCA, presented the topic ‘Tapestry of Care for the Chronically Ill in the Community’. He touched on the full spectrum of healthcare services and healthcare offered by NHGP, including initiatives on population and community health. A PCA booth was also set up to share information on numerous community-related training programmes with participants from various community services, healthcare institutions, and voluntary welfare and social service organisations.
NURTURING THE NEXT GENERATION

NHGP runs comprehensive teaching and learning programmes to develop the next generation of medical professionals to ensure holistic, patient-centred care.

STUDENT ASSISTANTSHIP PROGRAMME

Fifty-one students from LKCMedicine’s first Student Assistantship Programme (SAP) in Family Medicine were posted to Ang Mo Kio Polyclinic, Hougang Polyclinic, Toa Payoh Polyclinic, Woodlands Polyclinic and Yishun Polyclinic for three weeks between February and April 2018.

Under the SAP, these final-year LKCMedicine students worked with clinic teams and were closely supervised by their clinical teachers. Mini-projects that looked at various aspects of care delivery at the polyclinics were conducted. These included patient’s perceptions of their illnesses, knowledge and satisfaction of services to improve patient experiences and clinical care.

PROFESSIONAL DEVELOPMENT OPPORTUNITIES

To ensure its healthcare professionals are kept up to date and upskilled, NHGP organises medical forums every two months. These research forums also provide a platform for research presentations and discussions. For the list of medical forums conducted in FY2018, please refer to Appendix C.

FAMILY MEDICINE CONVOCATION

Organised by the College of Family Physicians (Singapore) [CFPS], the Family Medicine Convocation Ceremony was held on 17 November 2018, during which 41 NHGP doctors were recognised. Five of them attained Fellowships from CFPS, 18 were conferred a Masters of Medicine (MMed) in Family Medicine (FM), and 20 doctors received their Graduate Diploma in FM.

Fellowship College of Family Physicians (Singapore)

Five NHGP doctors completed the 24-month Advanced Training Programme in Family Medicine and passed the summative exit examinations in 2018.

Master of Medicine in Family Medicine

Eighteen NHGP doctors passed the Master of Medicine (MMed) in Family Medicine (FM) examinations in November 2018, undergoing either a three-year NHG FM Residency Programme or NHGP Programme B. The respective programmes prepare the doctors for the breadth of exposure to acquire the competencies required to practise as Family Physicians.

Graduate Diploma in Family Medicine

Twenty NHGP doctors passed the Graduate Diploma in Family Medicine (GDFM) examinations in July 2018. The GDFM is a postgraduate training programme that equips family doctors in Singapore with skills to enhance their level of patient care.

To keep pace with the increasingly complex healthcare landscape, NHGP embraces lifelong learning as a way to continue to deliver the best evidence-based care for patients, and to support staff in their professional learning and growth.

ACHIEVING PROFESSIONAL STANDARDS

Nhkmedicine students posing for a group photo with their NHGP educators.
Both awards were given out during the Appreciation for NUS Medicine Clinical Teachers event held on 20 November 2018. These awards were given based on evaluation by NUS Medicine students throughout the postings in AY 2017/2018. This event was organised by NUS Medicine to appreciate the hard work that their clinical teachers put in for the academic year.

**NHG BEST FAMILY MEDICINE TRAINERS’ AWARD**
Dr Kee Kok Wai, Family Physician, Associate Consultant, Toa Payoh Polyclinic, and Dr. Jeremy Foo Fung Yee, Family Physician, Associate Consultant, Yishun Polyclinic, became the proud recipients of the NHG Best Family Medicine (FM) Trainers’ Award 2018.

The annual award recognises the significant contribution made by these FM Trainers for their initiative, passion and dedication in teaching. The trainers were evaluated by medical undergraduates and FM residents on their presentation content, teaching style, approachability and creativity. Generous with their time and effort in facilitating continuous learning, both doctors are role models in the field of undergraduate and post-graduate medical training.

**NHG NURSING BEST CLINICAL INSTRUCTOR AWARD**
Ms Tan Lizin, Senior Staff Nurse, Ang Mo Kio Polyclinic, bagged the NHG Nursing Best Clinical Instructor Award 2018. This award recognises her outstanding contribution in providing effective clinical teaching to students and newly recruited nurses to help them achieve the desired learning goals.

**NHS MEDICINE DEAN’S AWARDS 2018**
Dr Steven Chao Chien Chih, Family Physician, Toa Payoh Polyclinic, received the NUS Medicine Dean’s Award for Teaching Excellence, and Dr Teo Yi Lyn, Family Physician, Yishun Polyclinic, clinched the Junior Doctor Award.

Both awards were given out during the Appreciation for NUS Medicine Clinical Teachers event held on 20 November 2018. These awards were given based on evaluation by NUS Medicine students throughout the postings in AY 2017/2018. This event was organised by NUS Medicine to appreciate the hard work that their clinical teachers put in for the academic year.

**NHG TEACHING AWARD FOR JUNIOR DOCTORS 2018**
Dr Gabriel Ding
Family Physician
Yishun Polyclinic

Dr Steven Chao
Family Physician
Toa Payoh Polyclinic

Dr Chu Chun Hong
Family Physician
Toa Payoh Polyclinic

Dr Norizuan Rashid
Family Physician
Woodlands Polyclinic

**NHG TEACHING AWARD FOR SENIOR DOCTORS 2018**
Dr Richard Lee
Family Physician, Consultant
Woodlands Polyclinic

Ms Chan Sau Ling
Senior Assistant Nurse

**NHG INTER-PROFESSIONAL TEACHING AWARD 2018**
Dr Lim Pui San
Family Physician, Principal Staff
Toa Payoh Polyclinic

**NHG TEACHING AWARD FOR NURSING PRECEPTORS 2018**
Ms Tan Peck Hoong
Senior Staff Nurse I
Ang Mo Kio Polyclinic

Ms Jessica Zhu
Senior Staff Nurse II
Toa Payoh Polyclinic

Ms Chen Yan
Senior Staff Nurse I
Woodlands Polyclinic

Ms Wan Lili
Senior Staff Nurse I
Yishun Polyclinic

**NHG OUTSTANDING NURSE TEACHERS 2018**
Ms Nurhabibah Samirah
Senior Staff Nurse I
Ang Mo Kio Polyclinic

Ms Rina Foo
Senior Staff Nurse II
Toa Payoh Polyclinic

Ms Cuadra Christine Simon
Senior Staff Nurse I
Yishun Polyclinic

**MOH IN-SERVICE SCHOLARSHIP AND NHGP SCHOLARSHIP**
Several NHGP staff received the MOH In-Service Scholarship and NHGP Scholarship in FY2018. These scholarships equip staff with essential competencies and leadership capabilities to meet future healthcare needs.

Ms Hasnah Samad
Staff Nurse
Ang Mo Kio Polyclinic

Ms Magdalene Lee
Senior Staff Nurse
Ang Mo Kio Polyclinic

Ms Nurhabibah Samirah
Senior Staff Nurse
Yishun Polyclinic
Innovation is critical in the pursuit of better care. In the face of challenges, the National Healthcare Group Polyclinics (NHGP) is constantly looking at ways to innovate, optimise care and resources, and leverage technology and science. NHGP’s efforts go towards not just improving the care delivery model for today, but also advances its mission to create a world-class and future-ready relationship-based primary care ecosystem.
**INNOVATING FOR A FUTURE-READY PRIMARY CARE**

In FY2018, NHGP was recognised for its various initiatives to leverage innovation to provide the best care possible for its patients.

**AWARDS**

**AHMA 2018**
At the 2018 Asian Hospital Management Awards (AHMA), NHGP’s Operations team was conferred the Excellence Award in the Talent Development category. The entry, titled ‘Ancillary Staff Talent Management — Job Redesign Initiatives and Core Training Frameworks for Improved Service Delivery of Patient Care’, was selected from 451 entries submitted by 123 healthcare institutions throughout Asia.

With the job redesign, ancillary staff gained the capabilities to undertake duties traditionally managed by professionals, including assisting patients to complete the Asthma Control Test and Coronary Risk Screening questionnaires.

**PST Awards 2018**
Ms Chong Hui Jia, Operations Manager at Ang Mo Kio Polyclinic, was presented the Star Manager Award at the Public Sector Transformation (PST) Awards 2018 ceremony on 4 July 2018. Her selflessness in driving and implementing improvements for better patient care has made Ms Chong well known to all staff at Ang Mo Kio Polyclinic.

In addition to the Star Manager Award, the Nephrology Evaluation, Management and Optimisation (NEMO) Programme, a collaboration between NHGP and the National University Health System, was also awarded the ExCEL Innovation Project Award.

**MOH Appreciation & Awards Ceremony 2018**
Dr Susan Lim Pui San, Family Physician, Principal Staff, and a member of the Collaborative Prescribing (CP) Standing Committee, was presented the Minister for Health Award 2018 at the Ministry of Health (MOH) Appreciation and Awards Ceremony on 7 November 2018. This award is the highest accolade conferred by MOH.

Dr Lim’s work in the committee has been critical in developing practice standards, competencies and educational frameworks for CP. This, in turn, plays a vital role in facilitating care transformation for community and hospital care, and will enable service innovation and continuity through team-based care.

**INNOVATIONS**

**Self-Help Blood Pressure Monitoring Machine**
In March 2019, NHGP installed self-help blood pressure monitoring machines at Ang Mo Kio Polyclinic. Such machines allow patients to take their own blood pressure readings easily.

Patients can do so by donning a cuff and pressing a button. With these machines, staff previously deployed to man the blood pressure counter can now assist patients who may have more urgent needs. More importantly, it empowers patients with the know-how to take and self-monitor their readings at home. The self-help blood pressure machines will be progressively rolled out to all NHG Polyclinics in FY2019.

**Enhanced Self-Registration Kiosks**
Since April 2018, patients have been able to use self-registration kiosks to update their own particulars during or prior to registration for a same-day appointment. The new feature gives patients the convenience of updating their particulars at any time. The information entered by patients is updated concurrently and seamlessly into the patient management system for more accurate patient records.

**Enhanced Payment Management**
In April 2018, the Electronic Polyclinic Outpatient System (ePOS) at NHGP was enhanced to allow for the automated closing of patients’ unpaid bills. This includes auto-deduction from applicable schemes, such as the Medical Claims Pro-ration System and MediSave. The enhancement, together with the introduction of automation and centralisation of the process, has significantly reduced the man hours spent on managing these outstanding bills for greater productivity.
IMPROVING CARE

To ensure a safe environment for staff and patients in the delivery of high-quality care, NHGP places an emphasis on workplace safety and quality.

NHGP QUALITY DAY

NHGP held its NHGP Quality Day 2018 on 21 September 2018. Themed ‘Cultivate. Ideate. Innovate’, the event aimed to highlight the importance of innovation and encouraged staff to continue the good work of quality improvement. The event also included two insightful sharing sessions by keynote speakers: Mr Peter Ho, CEO of HOPE Technik, and Ms Lim Choon Heong, Head, Agile and Operational Excellence at DBS Bank.

A total of 22 awards were given out during the event. For the list of quality improvement projects completed in FY2018, please refer to Appendix D.

NHG QUALITY DAY

On 19 September 2018, the National Healthcare Group (NHG) celebrated its Quality Day 2018, themed ‘Empowering Staff, Celebrating Joy in Improvement’. Eight NHGP staff were awarded the Excellence in Action Award for their service excellence and contribution to improve work practices, while three NHGP patients and caregivers received the Exemplary Patient and Caregiver Award for their inspirational efforts in improving quality of care.

CSISG 2018

NHGP scored 71.7 points in 2018, an increase from 70.4 points in 2017, in the Customer Satisfaction Index of Singapore (CSISG). The survey, done by the Singapore Management University’s Institute of Service Excellence, studies the customer satisfaction level of consumers in Singapore.

MOH PES FY2018

NHGP achieved a composite patient satisfaction score of 89 per cent in MOH’s Patient Experience Survey (PES) 2018 with Woodlands Polyclinic attaining the highest score of 93.5 per cent amongst all NHG Polyclinics. Held from July to December 2018, the survey assessed patients’ experience at public healthcare institutions and helped identify areas for improvement.

SECURITY PREPAREDNESS

As part of NHGP’s efforts for security preparedness, a security exercise was conducted on 1 December 2018 to simulate a state of heightened security at Woodlands Polyclinic. Staff took on roles as security personnel, patients and visitors, and used hand-held detectors and undercarriage mirrors to screen in-bound visitors and vehicles.

WSH ROADSHOWS

To promote Workplace Safety and Health (WSH) awareness among staff, the WSH committee organised roadshows across the six polyclinics and Headquarters from 5 to 22 March 2019. Themed ‘Take 5’, the roadshows taught staff the five-step approach to examine risks and employ risk-reduction strategies in the work environment.

CSGC EXERCISE

Toa Payoh Polyclinic led in the Casualty Station & Civilian Clinic (CSCC) on 9 March 2019 as part of MOH’s Emergency Preparedness Exercise. Through this exercise, NHGP was able to experience a potential National Emergency situation and learn how to effectively set up the polyclinic to provide medical or psychological support.
The National Healthcare Group Polyclinics' (NHGP's) journey towards care transformation begins with its people. Recognising the role that staff play in propelling the organisation forward in its shared mission, NHGP has in place staff development, appreciation and recognition programmes to motivate and inspire its employees.
CELEBRATING EXCELLENCE

Staff achievements, including the various efforts in innovation and service excellence, are celebrated within NHGP to inspire everyone to greater heights.

At a celebratory dinner organised by the College of Family Physicians Singapore (CFPS), Associate Professor (A/Prof) Chong Phui-Nah, CEO of NHGP and Primary Care, received the FCFPSI Appreciation Plaque (Cluster) in appreciation of her continued support of CFPS’ training activities in NHGP.

Dr Evan Sim, Family Physician, Principal Staff and Head of Woodlands Polyclinic, received the FCFPSI Appreciation Plaque (Polyclinic) on behalf of Woodlands Polyclinic. Dr Richard Lee, Family Physician, Consultant, received the FCFPSI Appreciation Certificate (Organiser) for being the key organiser who helped arrange for the FCFPSI Clinical Assessments at Woodlands Polyclinic.

Lastly, Dr Winnie Soon, Family Physician, Consultant, was given the College Teachers’ Award in recognition of her commitment to CFPS for teaching Family Medicine.

NURSES’ MERIT AWARD 2018

Two nurses from NHGP, Ms Julia Zhu, Nurse Clinician, and Ms Christine Chern, Assistant Nurse Clinician, were among 100 nurses who received the Nurses’ Merit Award on 18 July 2018. Ms Zhu, who specialises in wound management, and Ms Chern, who provides direct care to patients with chronic diseases, have a combined nursing experience of more than 40 years.

NATIONAL DAY AWARDS 2018

On 21 November 2018, eight NHGP staff received the National Day Awards.

COMMEMRATION MEDAL

Ms Lim Yoon Hoi
Assistant Director, Nursing Services

LORD SERVICE MEDAL

A/Prof Chong Phui-Nah
CEO, NHGP and Primary Care

EFFICIENCY MEDAL

Ms Cynthia Wong
Senior Manager, Human Resource

Ms Jeryynn Goh
Senior Executive, Human Resource

Ms Fadzilah Hasnabasi
Senior Dental Assistant, Ang Mo Kio Polyclinic

Ms Rosidah Basri
Patient Care Assistant, Woodlands Polyclinic

NATIONAL STEPS CHALLENGE 2018

NHGP emerged as winners in the Health and Social Services category, and was ranked sixth nationally in the National Steps Challenge™ Season 3 Corporate Challenge, organised by the Health Promotion Board.

This challenge was part of NHGP’s efforts to encourage staff to lead by example. NHGP also held its own ‘Walk To Win!’ to encourage staff to lead by example.

NHG AWARDS 2018

On 11 May 2018, five NHGP staff members and three NHGP teams were recognised for their contributions to public healthcare at the National Healthcare Group (NHG) Awards Ceremony. Several NHGP staff members also received the MOH Health Manpower Development Plan (HMDP) and Strategic Nursing Development Plan (SNDP) awards.

NHG OUTSTANDING CITIZENSHIP AWARD

Dr Tung Yew Cheong
Family Physician,
Senior Consultant
Director, Quality and Patient Safety

NHG YOUNG ACHIEVER AWARD

Dr Christopher Chong
Family Physician,
Associate Consultant
Head of Ang Mo Kio Polyclinic

Dr Kong Jing Wen
Family Physician,
Associate Consultant
Head of Hougang Polyclinic

Dr Kee Kok Wai
Family Physician,
Associate Consultant
Toa Payoh Polyclinic

NHG DEVELOPMENTAL AWARD

HMDP ADMIN
Ms Sharon Chen
Deputy Director, Operations

HMDP MEDICAL
Dr Lim Chee Kong
Family Physician,
Senior Consultant
Clinical Services

Dr Tricia Chang
Family Physician,
Associate Consultant
Ang Mo Kio Polyclinic

Dr Low Kang Yih
Family Physician,
Associate Consultant
Ang Mo Kio Polyclinic

Dr Marvin Chan
Family Physician,
Associate Consultant
Hougang Polyclinic

Dr Kee Kok Wai
Family Physician,
Associate Consultant
Toa Payoh Polyclinic

HMDP TEAM-BASED
Dr Winnie Soon
Family Physician,
Consultant
Ang Mo Kio Polyclinic

Ms Sheena Ng
Executive
Clinical Services

Ms Chua Kai Li
Senior Nurse
Ang Mo Kio Polyclinic

Ms Mohammad D/O Sundaravelu
Senior Nurse
Hougang Polyclinic

Ms Anita Tan
Senior Nurse Manager
Toa Payoh Polyclinic

Ms Rajwant Kaur D/O Gurdev Singh Khakh
Senior Nurse
Toa Payoh Polyclinic

SNDP TEAM-BASED
Ms Xie Shuqin
Assistant Nurse Clinician
Ang Mo Kio Polyclinic

Ms Hanemen Mohamed Hamzah
Assistant Nurse Clinician
Hougang Polyclinic

Ms Polaniammal Vellalam
Nurse Manager
Toa Payoh Polyclinic

Ms Chua Gui Kow
Assistant Nurse Clinician
Woodlands Polyclinic

Ms Quek Imm Pn
Senior Nurse Clinician
Yishun Polyclinic

To be credible to our patients, we need to be their role models, walk the talk, and show them that lifestyle change is possible.

— Dr Wee Wei Keong, Director of Health Promotion and Prevention Care Department
CHAPTER 5
Developing Our People

ANNUAL REPORT FY2018
Transformation

NHG TEAM RECOGNITION AWARD

SILVER
The Digital Transformation of Primary Care
The study showed that better data quality and a positive patient experience is derived through the introduction of self-help services and automation. With proper planning and incorporation of proven processes, the proliferation of new technology promises even greater benefits for patients, healthcare staff, and healthcare organisations.

The team behind the ‘The Digital Transformation of Primary Care’ project, who won the Silver Award at NHG Team Recognition Award.

SILVER
DM Foot STEP UP
(Foot Screening & Surveillance, Treatment and Escalation Protocol for Ulcer Prevention)
Diabetes Mellitus (DM) Foot STEP promotes proactive self-checks through targeted patient education, sustained foot surveillance, and seamless preventive and early treatment by a multi-disciplinary team. Through regular foot surveillance, the multi-disciplinary team can promptly detect foot problems and provide early treatment.

The team behind the ‘DM Foot STEP UP’ project, who won the Silver Award at NHG Team Recognition Award.

BRONZE
Streamlining of patient journey:
AMK THK Hospital Discharge to Primary Care Follow-up at AMK Polyclinic
The modified discharge process looked at initiating arrangement for patients of AMK Thye Hua Kwan (THK) Hospital to have their consultation done in Ang Mo Kio (AMK) Polyclinic and lab investigations done prior to doctor’s visit. This way, patient waiting times and clinic visits were reduced. A Pharmacy-led medication reconciliation was also done prior to consult to minimise medication transcription error.

The team behind the ‘Streamlining of patient journey: AMK THK Hospital Discharge to Primary Care Follow-up at AMK Polyclinic’ who clinched the Bronze Award at NHS Team Recognition Award.

CULTIVATING THE NHGP SPIRIT
With the goal of ensuring that NHGP is future-ready, NHGP regularly engages staff to ensure that they are up-to-date on the latest developments and to strengthen bonds.

TOWNHALL SESSIONS
During FY2018 CEO Townhall sessions, A/Prof Chong Phui-Nah, CEO of NHGP and Primary Care, shared NHGP’s progress in its primary care transformation journey with staff.

During such sessions, she gave an overview of the improvements achieved following teamlet empanelment, the successful redevelopment of Ang Mo Kio Polyclinic and Yishun Polyclinic, and right-siting efforts under the Central-North Primary Care Network.

NHGP ACTIVE DAY FY2018
Six hundred staff from NHGP, the National Healthcare Group Diagnostics (NHGD), and the National Healthcare Group Pharmacy (NHGPPh) turned up at the OCBC Arena for NHGP’s annual Active Day on 23 February 2019.

Activities such as mass Zumba workout, Captain’s Ball and Telematches fostered inter-polyclinic team bonding and built a culture of active living.

The event saw Woodlands Polyclinic claiming the CEO Challenge Trophy for the second year in a row, while Ang Mo Kio Polyclinic came in second and Headquarters and Geylang Polyclinic tied for third spot.

A/Prof Chong, CEO of NHGP and Primary Care, addressing Woodlands Polyclinic staff at one of the Townhall sessions conducted.

Woodlands Polyclinic team posing with their CEO Challenge Trophy.
CHAPTER 5
Developing Our People

ANNUAL REPORT FY2018
Transformation

CORPORATE RUN 2018
On 20 October 2018, a total of 190 NHGP staff took part in the Civil Service Club (CSC) Run 2018 at Gardens by the Bay. The run is part of NHGP’s annual Corporate Run activity to encourage staff to be physically active.

NHGP DINNER & DANCE 2018
Close to 1,000 staff from NHGP, NHGD, and NHGPh gathered for NHGP’s annual Dinner and Dance event on 24 November 2018. The event’s ‘Groovy 60s’ theme saw staff dressed in colourful retro outfits. Staff and guests enjoyed dynamic performances by NHGP Senior Management members and polyclinic teams. The night ended on a high note for the winning performance teams, and staff who walked away with lucky draw prizes.

NHGP staff at the CSC Run 2018 event.

NHGP ADMIN DAY 2018
On 2 May 2018, NHGP celebrated its inaugural Admin Day to celebrate its administrative staff, who are mostly based at Headquarters. NHGP CEO A/Prof Chong thanked administrative staff for their hard work and dedication.

NHGP HQ staff gathered to celebrate the inaugural NHGP Admin Day.

WORLD FAMILY DOCTOR DAY 2018
NHGP celebrated World Family Doctor Day 2018 at various locations on 19 May 2018 to appreciate doctors for their professionalism and commitment in delivering quality primary healthcare.


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NHGP Admin Day

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OPERATIONS DAY 2018
On 14 July 2018, NHGP’s Operations staff gathered to celebrate Operations Day. The event recognises operations staff for their tireless effort in improving patient experience and patient care. In line with the drive towards innovation, the day’s programme was powered by electronic gadgets such as mobile registration, live-streaming, mobile games, e-learning, and a mobile lucky draw.

Staf taking part in games using their mobile phones.
NURSES’ DAY CELEBRATION 2018
NHGP CEO A/Prof Chong, clinic heads, and nurses of NHGP came together to celebrate Nurses’ Day on 4 August 2018. Themed ‘A Fairy Tale’, the event was filled with fun and laughter.

Nurses from Woodlands Polyclinic dressed as angels. Their outfits won them the Best Dressed Award.

NURSES’ DAY CELEBRATION 2018
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Staff from Tishun Polyclinic celebrated Nurses Day to recognize the contributions that nurses make to improve the health of patients.

NHGP FAMILY APPRECIATION DAY 2018
NHGP held its Family Appreciation Day on 4 December 2018. NHGP CEO A/Prof Chong graced the occasion and presented seven Book Prizes to children of NHGP staff. To recognize the dedication and contributions of family members who made it possible for NHGP staff to focus on their work, seven family members received the ‘Stand By Me’ Award.

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Volunteer Appreciation Day FY2018
On 16 February 2019, some 60 volunteers and staff came together to celebrate the annual Volunteer Appreciation Day organized by NHGP. Held in conjunction with the Lunar New Year festivities, the event was themed ‘Our Sunshine’ and honored the selfless contributions and achievements of NHGP’s Guiding Hands Volunteers over the past year.

Dr Simon Lee, Chief Operating Officer of NHGP, graced the occasion and presented the iCARE Volunteer Awards 2018 to outstanding volunteers who demonstrated NHGP’s CARE attributes of Confidence, Attentiveness, Respect and Empathy. The ‘Guiding Hands Long Service’ awards were presented to Mr Joseph Ong Ah Yee and Mr Sunny Soo Siong Guan, who have been NHGP volunteers for 12 years. Certificates of Appreciation were also presented to those who had volunteered more than 72 hours in 2018.

I volunteer in NHGP because I enjoy serving the community at large. Also, it is an avenue where I can learn valuable lessons about how passion, willingness to try, eagerness to learn, and commitment to contribute to society can help each of us excel despite the challenges we may face.

— Mr Sunny Soo, Guiding Hands Volunteer
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<td>43</td>
<td>Positive Predictive Value and Negative Predictive Value of Abbreviated Mental Test Towards the Diagnosis of Dementia in a Primary Care Setting in Singapore.</td>
<td>Dr Yong Yan Zhen, Dr Marvin Chan, Dr Kong Jing Wen, Ms Irene Kong, Ms Sundaravelu Mohanambal, Mr Sharon Foo, Ms Yvonne Deborah Tan, Dr Tan Ze Jia &amp; Dr Yao Feng Yuan</td>
</tr>
<tr>
<td>44</td>
<td>Caregiver Burden Amongst Caregivers of Patients with Dementia: What are the Associated Factors?</td>
<td>Dr Lim Ziliang, Ms Tan Bee Yan, Ms Jiang Yiling &amp; Dr Sarbina Wong</td>
</tr>
<tr>
<td>45</td>
<td>Effectiveness of Nurse-Led Wound Clinic on Clinical Outcomes for Patient with Chronic Leg Ulcer in Primary Healthcare: A Quasi-Experimental Study.</td>
<td>Ms Julia Zhu, Ms Ooh Ling Jia &amp; Ms Lim Voon Hooi</td>
</tr>
</tbody>
</table>

**APPENDIX B**

**LIST OF PRIMARY CARE ACADEMY WORKSHOPS CONDUCTED IN FY2018**

**MEDICAL KNOWLEDGE**
- M.Med OSCE Exam Preparation
- M.Med Slides Exam Preparation
- GDM OSCE Exam Preparation

**INTERPERSONAL COMMUNICATION**
- Facilitation for Effective Clinic Communication
- Enhancing Critical Communication Skills that Matter
- Consultation Skills for Primary Care Physicians
- Standardised Patient Training
- Engaging Patient on Lifestyle Behavioural Change *

**PRACTICE-BASED LEARNING**
- Teaching 101 for Busy Healthcare Professionals
- Mentoring — A Guide by the Side
- Advancing Ethics and Professionalism in Primary Care
- Team-Based Care Training
- Care Coordinator’s Training
- Masterclass on Tackling Antibiotic Prescription Dilammas in Primary Care *
- Masterclass in Child Development
- Paediatric Dermatology Workshop
- Mindfulness Basics for Primary Healthcare Professionals *
- Introduction to Research
- Introduction to Qualitative Research in Primary Care
- Generating and Making Sense of Qualitative Data: A Step-by-Step Guide *

**COURSES FOR THE PUBLIC AND COMMUNITY**
- General Practitioner’s Assistant Courses — Basic & Advance
- Basic First Aid Workshop
- Care for the Elderly
- CPR + AED
- Falls Prevention & Use of Ambulatory Aids for Diagnostics Staff
- Public Health Talks

**SUPPORT FOR CLINICAL DELIVERY**
- Use of Medical Terminology in Work Activities (WSQ)
- Basic Health Parameters for Clinical Ancillary Staff
- Urgent Care Awareness & Fall Prevention Workshop
- English-Chinese Medical Translation Course
- Know the Elderly: Workshop for Frontliners
- Understanding Diabetes, Hypertension and Lipid Disorders: Workshop for Frontliners
- Geriatric Primer in Community Care
- Simplified Use of Medical Terminology
- Writing in Plain Language for Patient Education Materials
- Train the Trainer for Essential Skills for Clinical Ancillary Staff
- Train the Trainer (Annual Skill Competency ) *
- Service Communications Foundation Course for Frontline Clinic Staff
- Healthcare Language — Navigating Healthcare *
- Discovering Self & Engaging Others for Effective Facilitative Learning *

**PATIENT CARE / CLINICAL & PROCEDURAL SKILLS**
- Surgical Procedures for the Primary Healthcare Physician
- Management of Joint & Soft-Tissue Conditions in Primary Care
- Common Eye Conditions Update and Eye Examination Techniques for Family Physicians
- Interpretation of Spirometry Results
- Diabetic Foot Screening
- Advanced Wound Management Workshop for Registered Nurses & Doctors
- Early Childhood Nutrition Workshop
- Foundation Chronic Disease Management
- BCLS & AED Full Certification
- BCLS & AED Re-Certification
- BCLS + AED Instructor Course *
- Advanced Course on Wound Management for Registered Nurses *
- Developmental Assessment *
- Foundation Course in Women’s Health *
- Advanced Course in Women’s Health *
- Diabetic Retinophotography (DRP) for New Nurses *
- Family Planning Workshop

**ANNUAL REPORT FY2018**

Transformation
APPENDIX C
MEDICAL FORUMS AND WORKSHOPS CONDUCTED BY NH6P IN FY2018

<table>
<thead>
<tr>
<th>DATES</th>
<th>TOPICS</th>
<th>SPEAKERS / TRAINERS</th>
</tr>
</thead>
<tbody>
<tr>
<td>17 May 2018</td>
<td>De-prescribing in the Elderly</td>
<td>Dr Tan Huei Nuo (Senior Consultant; Deputy Head of Department, Centre for Geriatric Medicine, Tan Tock Seng Hospital) and Ms Tan Keng Teng (Principal Pharmacist, Clinical, Tan Tock Seng Hospital)</td>
</tr>
<tr>
<td>19 July 2018</td>
<td>Rethinking So-Called ‘Difficult’ Patients — Tips on Managing Patients and Ourselves</td>
<td>Dr Lim Wen Phei (Consultant, Psychological Medicine Department, Tan Tock Seng Hospital) and Ms Tan Keng Teng (Principal Pharmacist, Clinical, Tan Tock Seng Hospital)</td>
</tr>
<tr>
<td>20 September 2018</td>
<td>ACP De-Mystified: Initiating End-of-Life Conversation in Primary Care</td>
<td>Dr Wu Huei Yaw (Senior Consultant, Department of Palliative Medicine, Tan Tock Seng Hospital) and Ms Josephine Goh Min Lee (Medical Social Worker, National Healthcare Group Polyclinics)</td>
</tr>
<tr>
<td>15 November 2018</td>
<td>Are You Unbreakable?</td>
<td>Dr Faith Chia (Consultant, Department of Rheumatology and Immunology, Tan Tock Seng Hospital)</td>
</tr>
<tr>
<td>31 January 2019</td>
<td>Have You Taken Your Dose of Exercise Today?</td>
<td>Dr Wang Ming Chang (Associate Consultant, Sports &amp; Family Physician, National University Hospital Sports Centre)</td>
</tr>
<tr>
<td>28 March 2019</td>
<td>Effective Communication Strategies: What Works in a Consult?</td>
<td>Dr Jeremy Foo (Family Physician, Associate Consultant, Yishun Polyclinic, National Healthcare Group Polyclinics) and Dr Teo Yi Lyn (Family Physician, Yishun Polyclinic, National Healthcare Group Polyclinics)</td>
</tr>
</tbody>
</table>

APPENDIX D
QUALITY IMPROVEMENT PROJECTS COMPLETED IN FY2018

<table>
<thead>
<tr>
<th>NO.</th>
<th>PROJECT TITLE</th>
<th>CLINIC</th>
<th>PROJECT LEADER/S</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>To Increase Influenza Vaccination Uptake in Children Aged 6 Months to Less Than 3 Years. (35 Months) from 2% to 20% in a Period of 6 Months at Ang Mo Kio Dental Clinic.</td>
<td>AMK</td>
<td>Ms Li Shen</td>
</tr>
<tr>
<td>2</td>
<td>To Reduce Consumable Spending of Masks by 50% for Ang Mo Kio Dental Clinic in 7 Months.</td>
<td>AMK</td>
<td>Ms Suisyati Mohd Isa</td>
</tr>
<tr>
<td>3</td>
<td>To Improve the De-centralised Storage of Spacers and Masks in Ang Mo Kio Polyclinic.</td>
<td>AMK</td>
<td>Ms Lezmi Sanggaradas</td>
</tr>
<tr>
<td>4</td>
<td>To Increase the Productivity of ATOIPS at Pharmacy Services Centre (PSC) by 20% (Part 2).</td>
<td>AMK</td>
<td>Ms Fanny Tan, Ms Goh Chern En &amp; Ms Toh Li Lu</td>
</tr>
<tr>
<td>5</td>
<td>To Reduce the Number of Ad Hoc Trips Offsite to Replenish Medication Supply by 50%.</td>
<td>AMK</td>
<td>Mr Matthew Lin &amp; Ms Pang Xin Xian</td>
</tr>
<tr>
<td>6</td>
<td>To Increase the Percentage of Active Patients Getting Diabetic Foot Screening Within the Preceding 1 Year from 70% to 100% in Dayang Polyclinic. Within a Period of 6 Months.</td>
<td>GL</td>
<td>Dr Wang Lilin &amp; Ms Jiang Cullang</td>
</tr>
<tr>
<td>7</td>
<td>To Improve the Uptake of Group Education for Patients in Dayang Polyclinic.</td>
<td>GL</td>
<td>Ms Ko Ying Si</td>
</tr>
<tr>
<td>8</td>
<td>To Reduce the Waiting Time to Less Than 25 Minutes for at Least 95% of the Patients Collecting Medication in Dayang Polyclinic Pharmacy.</td>
<td>GL</td>
<td>Ms Huang Fuyang &amp; Ms Tan Sui Ping</td>
</tr>
<tr>
<td>9</td>
<td>To Decrease Nebulisation Rate in Patients With Asthma.</td>
<td>HOU</td>
<td>Ms Elizabeth Chan</td>
</tr>
<tr>
<td>10</td>
<td>To Increase the Influenza Vaccine Uptake Rate in Those Aged 65 and Above.</td>
<td>HOU</td>
<td>Dr Lydia Chee</td>
</tr>
<tr>
<td>11</td>
<td>To Optimise the Uptake of Pap Smears Among Patients With Chronic Conditions at Hougang Polyclinic.</td>
<td>HOU</td>
<td>Dr Valerie Chiang</td>
</tr>
<tr>
<td>12</td>
<td>To Improve the Percentage of Low-Risk Patients Referred to Open Access Gastroscopy (Endoscopy) (OGD).</td>
<td>HOU</td>
<td>Dr Ding Si Yan</td>
</tr>
<tr>
<td>13</td>
<td>To Increase Efficiency and Accuracy of the Billing Processes Related to St. Andrew’s Nursing Home by 50% at Hougang NHG Diagnostics Laboratory.</td>
<td>HOU</td>
<td>Ms Janet Tang</td>
</tr>
<tr>
<td>14</td>
<td>To Reduce Sunove Nursing Home’s Residents Visit to Hougang Polyclinic by Doing In-House Blood Taking in 6 Months’ Time (in Collaboration With Sunove Nursing Home).</td>
<td>HOU</td>
<td>Ms Janet Tang</td>
</tr>
<tr>
<td>15</td>
<td>To Reduce Time Taken to Complete Administrative Duties in the Repackaging Process by 70% at Bukit Batok and Hougang Polyclinic Pharmacies — Adopting Best Practices &amp; Innovating.</td>
<td>HOU</td>
<td>Ms Evelyn Soh &amp; Ms Suzanne Leong</td>
</tr>
<tr>
<td>16</td>
<td>To Optimise Time Spent in Patient’s Education on Stool Occult Blood Kit Testing in NHG Diagnostics.</td>
<td>HQ</td>
<td>Ms Eileen Lim</td>
</tr>
<tr>
<td>17</td>
<td>To Increase Uptake of Cancer Screening (Mammogram, Pap Smear, F1 Tests) in Hougang Polyclinic.</td>
<td>HQ</td>
<td>Ms Jayalakshmy Aarthi</td>
</tr>
<tr>
<td>18</td>
<td>To Reduce the Time Between Registration and Laboratory Test for Patients Coming to Toa Payoh Polyclinic With a Memo for Blood Test(s).</td>
<td>TPY</td>
<td>Dr Nasir Jameel Isqal</td>
</tr>
<tr>
<td>19</td>
<td>To Increase the Influenza Vaccine Uptake Rate Among Staff in Toa Payoh Polyclinic.</td>
<td>TPY</td>
<td>Dr Gan Wei Chun</td>
</tr>
</tbody>
</table>
### Appendices

#### Transformation

#### Annual Report FY2018

<table>
<thead>
<tr>
<th>No.</th>
<th>Project Title</th>
<th>Clinic</th>
<th>Project Leader/S</th>
</tr>
</thead>
<tbody>
<tr>
<td>20</td>
<td>To Improve Ways on Nurses Handling Routine Assignments in the Dressing Room.</td>
<td>TPY</td>
<td>Ms Wang Xuhong &amp; Ms Amy Han</td>
</tr>
<tr>
<td>21</td>
<td>To Update the Written Asthma Action Plan in Asthma Patients Who Have Been Started on or Had a Change in Dose of Preventers in Toa Payoh Polyclinic.</td>
<td>TPY</td>
<td>Dr Gregory Kang &amp; Dr Vittal Sunil Pawar</td>
</tr>
<tr>
<td>22</td>
<td>To Increase the Percentage of Adult Dental Patients (Aged 16 and Above) Discharged With a Set of Bitewings (Taken within 3 Years) to 100% in 9 Months.</td>
<td>WDL</td>
<td>Ms Serene Zhang</td>
</tr>
<tr>
<td>23</td>
<td>To Increase the Actualisation Rate of Diabetic Retinopathy Photography in Type 2 Diabetes.</td>
<td>WDL</td>
<td>Ms Cassandra Kwek</td>
</tr>
<tr>
<td>24</td>
<td>To Increase the Uptake of Screening Mammogram in Women Aged 50-69 Years in Woodlands Polyclinic Over 6 Months.</td>
<td>WDL</td>
<td>Dr Moses Tan</td>
</tr>
<tr>
<td>25</td>
<td>To Increase Diabetic Foot Screening Rate in Woodlands Polyclinic.</td>
<td>WDL</td>
<td>Ms Renganathan Tharsan</td>
</tr>
<tr>
<td>26</td>
<td>To Reduce the Number of Repackaging Near Misses by 50%.</td>
<td>WDL</td>
<td>Mr Al Matrano</td>
</tr>
<tr>
<td>27</td>
<td>To Reduce Missed Prescription-Related Interventions at Capturing Counters by 50% from May 2018 to February 2019 in Woodlands Pharmacy.</td>
<td>WDL</td>
<td>Ms June Koh</td>
</tr>
<tr>
<td>28</td>
<td>To Reduce the Time From Triage to Bronchodilator Nebulisation for Patients With Mild to Moderate Exacerbation of Asthma Or COPD From 23 Minutes to 10 Minutes Within 6 Months at Woodlands Polyclinic.</td>
<td>WDL</td>
<td>Dr Kung Jian Ming &amp; Ms Jia Shuli</td>
</tr>
<tr>
<td>29</td>
<td>To Increase the Percentage of Patients With One Glycaemic Test Ordered Within 6 Months for Patients Newly Diagnosed With Pre-Diabetes in Yishun Teamlets from 58% to 100%.</td>
<td>YIS</td>
<td>Ms Ng Sze Ern &amp; Mr Patrick Ee</td>
</tr>
<tr>
<td>30</td>
<td>To Increase the Uptake of the Zarit Burden Interview to Screen for Caregiver Stress in Carers of Patients With Dementia.</td>
<td>YIS</td>
<td>Dr Michelle Ee</td>
</tr>
<tr>
<td>31</td>
<td>To Improve the Percentage of Screening for Post-Stroke Depression Among Patients With Diabetes at Yishun Polyclinic.</td>
<td>YIS</td>
<td>Dr Jobina Soh</td>
</tr>
<tr>
<td>32</td>
<td>To Improve the Uptake Rate of Influenza Vaccine Among Patient With Diabetes at Yishun Polyclinic.</td>
<td>YIS</td>
<td>Dr Gan Hui Shuang</td>
</tr>
<tr>
<td>33</td>
<td>To Improve the Percentage of Pneumococcal Vaccination Uptake in COPD Patients at Yishun Polyclinic.</td>
<td>YIS</td>
<td>Dr Sharlene Sext</td>
</tr>
</tbody>
</table>

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#### Snapshots of Patients

**Total Number of Patients**

- **587,000**
  - **Indian**: 56,000 (10%)
  - **Malay**: 88,000 (15%)
  - **Chinese**: 409,000 (70%)
  - **Others**: 34,000 (5%)

**Gender Ratio of Patients**

- **Male**: 288,000 (49%)
- **Female**: 299,000 (51%)

**Patients by Different Age Groups**

0-5: **9%**

6-12: **8%**

13-59: **23%**

60-64: **37%**

65 & above: **23%**

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**Note**

As numbers are rounded up for greater clarity, small rounding differences may arise.
Snapshots of Patients Attendance and Workload in FY2018

### Top 10 Primary Diagnoses

<table>
<thead>
<tr>
<th>Diagnosis</th>
<th>Number of Visits</th>
</tr>
</thead>
<tbody>
<tr>
<td>J06.9 Acute upper respiratory infection, unspecified</td>
<td>243,464</td>
</tr>
<tr>
<td>E11.9 Type 2 Diabetes Mellitus without complication</td>
<td>235,344</td>
</tr>
<tr>
<td>I10 Essential (primary) hypertension</td>
<td>172,475</td>
</tr>
<tr>
<td>E78.5 Hyperlipidaemia, unspecified</td>
<td>61,899</td>
</tr>
<tr>
<td>R68 Other general symptoms and signs</td>
<td>52,996</td>
</tr>
<tr>
<td>A09.9 Other specified non-infective gastroenteritis and colitis</td>
<td>47,242</td>
</tr>
<tr>
<td>L98.9 Disorder of skin and subcutaneous tissue, unspecified</td>
<td>45,971</td>
</tr>
<tr>
<td>T14.3 Dislocation, sprain and strain of unspecified body region</td>
<td>36,615</td>
</tr>
<tr>
<td>Z00.1 Routine child health examination</td>
<td>32,142</td>
</tr>
<tr>
<td>P59.9 Neonatal jaundice, unspecified</td>
<td>29,169</td>
</tr>
</tbody>
</table>

**NOTE**
As numbers are rounded up for greater clarity, small rounding differences may arise.

### Types of Visits by Different Age Groups

<table>
<thead>
<tr>
<th>Age Groups (Years)</th>
<th>Acute</th>
<th>Chronic</th>
<th>Well &amp; Other Services</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>0-5</td>
<td>2.6</td>
<td>1.3</td>
<td>2.6</td>
<td>3.7</td>
</tr>
<tr>
<td>6-18</td>
<td>2.1</td>
<td>1.5</td>
<td>1.2</td>
<td>2.3</td>
</tr>
<tr>
<td>19-39</td>
<td>2.1</td>
<td>2.2</td>
<td>1.5</td>
<td>2.7</td>
</tr>
<tr>
<td>40-64</td>
<td>1.8</td>
<td>3.1</td>
<td>2.0</td>
<td>4.2</td>
</tr>
<tr>
<td>65 &amp; above</td>
<td>1.9</td>
<td>3.6</td>
<td>2.2</td>
<td>5.5</td>
</tr>
</tbody>
</table>

### Average Number of Visits per Patient

**ACUTE** Cases with short onset of symptoms, such as upper respiratory tract infections and sprains.

**CHRONIC** Conditions that require long-term follow-up and, in general, regular medications and management of risk factors. For example, hypertension, asthma, lipid disorders, chronic obstructive lung disease and diabetes.

**WELL & OTHER SERVICES** Includes non-doctor consultations, developmental assessment, investigative visits and other administrative procedures.

### Chronic Patients by Age Group and Complexity

- **SIMPLE CHRONIC**
  1 chronic Primary Diagnosis (PD) or Secondary Diagnosis (SD).

- **MODERATE CHRONIC**
  2–3 chronic diagnoses (PD & SD).

- **COMPLEX CHRONIC**
  4 or more chronic diagnoses (PD & SD).

**NOTE**
As numbers are rounded up for greater clarity, small rounding differences may arise.

### Attendance Figures

- **Total Attendance**: 2,326,000
- **Daily Average**: 8,300
**CONSULT WAITING TIME**

<table>
<thead>
<tr>
<th>VISIT TYPE</th>
<th>50th</th>
<th>95th</th>
</tr>
</thead>
<tbody>
<tr>
<td>Walk-in</td>
<td>10 mins</td>
<td>53 mins</td>
</tr>
<tr>
<td>Appointment</td>
<td>7 mins</td>
<td>47 mins</td>
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</tbody>
</table>

**HEADCOUNT**

<table>
<thead>
<tr>
<th>JOB CATEGORY</th>
<th>FY2018</th>
</tr>
</thead>
<tbody>
<tr>
<td>Administrative</td>
<td>167</td>
</tr>
<tr>
<td>Allied Health</td>
<td>48</td>
</tr>
<tr>
<td>Ancillary</td>
<td>448</td>
</tr>
<tr>
<td>Dental</td>
<td>99</td>
</tr>
<tr>
<td>Medical</td>
<td>232</td>
</tr>
<tr>
<td>Nursing</td>
<td>284</td>
</tr>
<tr>
<td>NHG Diagnostics</td>
<td>305</td>
</tr>
<tr>
<td>NHG Pharmacy</td>
<td>208</td>
</tr>
<tr>
<td>TOTAL</td>
<td>1,791</td>
</tr>
</tbody>
</table>

**NOTE**

1. Allied Health category excludes all Pharmacy staff. Pharmacists, pharmacy technicians, pharmacy assistants, pharmacy store keepers, and retail pharmacy staff are subsumed under NHG Pharmacy.

2. Medical and Dental categories include Medical Officers and Dental Officers from the Ministry of Health Holdings.

**SNAPSHOTS OF PATIENTS ATTENDANCE AND WORKLOAD IN FY2018**

**NUMBER OF DENTAL VISITS IN FY2018**

- **Total:** 136,000

**NUMBER OF DENTAL PROCEDURES IN FY2018**

- **Fillings and Extractions:** 66,000
- **Dental Check-ups, Scaling and Polishing:** 135,800
- **Total:** 201,800

**BASIC DENTAL PROCEDURES BY NUMBER OF VISITS (DAILY AVERAGE) IN FY2018**

- **Fillings and Extractions:** 236
- **Dental Check-ups, Scaling and Polishing:** 485

**NOTE**

As numbers are rounded up for greater clarity, small rounding differences may arise.