ADVANCING TOWARDS THE NEXT LEVEL
A Future-Ready Primary Care Ecosystem
Annual Report FY2017
The origami imagery found on the cover as well as throughout this Annual Report, symbolises the National Healthcare Group Polyclinics’ (NHGP) journey in shaping and transforming the primary healthcare ecosystem in Singapore. Like the limitless forms possible with origami, NHGP is committed to continuously innovate and adapt to meet the evolving primary healthcare needs of the population.

On the cover, the flight of the lively cranes depicts NHGP’s energy and unified journey as the organisation forges ahead on its journey to co-create, shape and transform primary care with our healthcare partners and the community. At the heart of NHGP’s efforts, is a goal to create a world-class relationship-based primary care ecosystem that is future-ready.
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.
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Advancements in healthcare and medical technologies have proven to be a double-edged sword. While the advancements have significantly increased Singapore’s life expectancy, a longer life might also mean living longer with diseases. By 2030, 1 in 4 Singaporeans will be aged 65 and above compared to 1 in 8 today. This in itself poses challenges by way of an increased prevalence of chronic diseases in the population.

To meet these challenges, the Ministry of Health (MOH)’s Healthcare 2020 Masterplan sets out Singapore’s blueprint for a healthcare system that moves beyond healthcare to health, beyond hospital to community and beyond quality to value. These three key shifts mark the move towards ensuring that the healthcare system will be robust enough to cater to the needs of a growing and greying population, and be sustainable in the long term.

**FUTURE-PROOFING OUR HEALTHCARE SYSTEM**

With this goal of future-proofing our healthcare system in mind, MOH announced in 2017 that Singapore’s healthcare clusters were to be reorganised into three integrated clusters in the Central, Eastern and Western regions. For the primary healthcare arm of the National Healthcare Group (NHG), this meant welcoming Geylang Polyclinic and saying goodbye to the polyclinics in the west. NHG Polyclinics (NHGP) now comprises six polyclinics which serve the population in the Northern and Central regions with three more in the pipeline.

However, NHG cannot continue to build more and more polyclinics in order to meet the growing primary healthcare demands, and has been adopting a multi-faceted approach to expand its primary healthcare capacity. One such
Apart from expanding primary healthcare capacity, NHG also recognises the importance of relationship-based healthcare as the cornerstone of improved health outcomes for our patients. This drives us towards a more holistic approach to meeting the needs of the population across the care continuum; from living well, to living with illness, to crisis and complex care, to living with frailty and leaving well.

**RECOGNISING THE IMPORTANCE OF RELATIONSHIP-BASED HEALTHCARE**

Apart from expanding primary healthcare capacity, NHG also recognises the importance of relationship-based healthcare as the cornerstone of improved health outcomes for our patients. Such a model of healthcare drives us towards a more holistic approach to meeting the needs of the population across the care continuum; from living well, to living with illness, to crisis and complex care, to living with frailty and leaving well.

We also recognised that the past model of care of intervening only when patients were ill needed to be refocused to improve patient experience, offer more affordable and accessible healthcare, achieve better population health and ensure that our staff are happy and engaged. Within the pages of this year’s Annual Report, you will be able to see how NHG Polyclinics has achieved some of these.

**KEEPING OUR SIGHTS ON THE FUTURE**

While the primary care ecosystem is constantly evolving, NHG Polyclinics has and will continue to provide high standards of accessible, affordable and comprehensive care to patients. This has only been made possible with the vision, leadership and guidance of our Chairman, Mdm Kay Kuok as well as our Board of Directors whom I wish to thank. I wish to also thank MOH for the constant support in our various efforts.

My sincere thanks also to Associate Professor Chong Phui-Nah, CEO of NHGP & Primary Care, for her tireless efforts in leading NHGP. Thank you as well to all NHGP staff for their unrelenting dedication and commitment to always provide our patients with the best care possible.

PROFESSOR PHILIP CHOO
Group Chief Executive Officer
National Healthcare Group
With 1.5 million residents, 15% of which are over the age of 65, the Central and Northern Regions represent the fastest-growing ageing population in Singapore. This particular segment of the population also presents a higher prevalence of co-morbid chronic diseases. As the polyclinic cluster which serves this exact population segment, the National Healthcare Group Polyclinics (NHGP) has its work cut out for it. With this formidable challenge in mind and in line with the Primary Care 2025 vision, NHGP has made it our imperative to ensure that we deliver accessible, sustainable and integrated care to our patients.

One way we hope to achieve this is by establishing a sound and scalable care model. NHGP’s Patient Empanelment Teamlet Care Model is a relationship-focused and team-based model of care for chronic disease management, which provides patients and their family members with chronic conditions access to a dedicated team of healthcare professionals including family physicians, care managers and care coordinators. This fosters a strong patient-provider relationship over time, allowing the team to integrate a patient’s physical and mental health with social care issues, thereby offering comprehensive care to the patient.

As at FY2017, this care model has been implemented at all of our polyclinics and has shown encouraging results in terms of improved patient health outcomes.

In addition, we are committed to keeping people healthy and by promoting a healthy lifestyle and preventive care amongst our patients and staff members.

**ENHANCING PRIMARY CARE CAPACITY**

Apart from establishing a sustainable and effective model of care, NHGP also proactively looks into ways of enhancing our primary care capacity. These include innovations to better serve our patients and collaborations with other healthcare institutions to offer patients better access to care.

One such innovation is the Tele-DERM service, a collaboration between NHGP and the National Skin Centre, which enables patients to receive appropriate care for their skin conditions in the community. The service won the Beyond Hospital to Community Award at Ministry of Health’s (MOH) National Health IT Excellence Awards in May 2017.

To boost our primary care capacity, in April 2018, the National Healthcare Group launched the first Central-North Primary Care Network.
Apart from establishing a sustainable and effective model of care, NHGP also proactively looks into ways of enhancing our primary care capacity. These include innovations to better serve our patients and collaborations with other healthcare institutions to offer patients better access to care.

(PCN) for General Practitioners (GPs) with thirty GP Clinics. Together with Family Medicine Clinics, Central-North PCN will help boost the right-siting of patients and allow us to better balance our patient load across the public and private healthcare sector.

In January 2018, Ang Mo Kio Polyclinic reopened its doors at a new location to cater to the increasing healthcare needs of the Ang Mo Kio community. The redeveloped clinic, which is about three times larger than the previous one, has expanded our capacity and allowed us to provide a more comprehensive range of services to better serve the patients in the area.

ADVANCING SKILLS AND KNOWLEDGE
At NHGP, advancing Family Medicine is a priority and continuing medical education is key. In nurturing the next generation of doctors in Family Medicine, NHGP has been actively supporting its Family Medicine Residents to attain higher qualifications. NHGP’s 2017 batch of doctors achieved a pass rate of 100% in their Master of Medicine (Family Medicine) examinations to qualify as Family Physicians. Additionally, two NHGP Family Physicians were conferred fellowship to the Academy of Medicine, Singapore, boosting NHGP’s talent pool of Family Physicians.

Primary care research is critical in advancing Family Medicine. In March 2017, together with the Institute of Mental Health and the Lee Kong Chian School of Medicine, NHGP secured a $5 million research National Medical Research Council (NMRC) Centre grant to increase research capacity and capability for primary care in Singapore.

The grant application, titled ‘Primary Health Care Research in Multi-morbidity and Mental Health in a Multi-Ethnic Population (PRIME)’, sets to establish a primary healthcare research programme for policy-makers, practitioners and programme planners. With this research programme, NHGP hopes to help advance the standards of primary care research. NHGP continues to work with her partners to advance primary care through research.

LOOKING AHEAD
With our sights firmly focused on the road ahead, NHGP will continue its efforts to drive primary care transformation and advance Family Medicine to achieve a future-ready primary care ecosystem – one that is sustainable, accessible and effective in improving population health.

I would like to take this opportunity to thank our Board, NHGP’s senior management members and MOH for their guidance and leadership as well as community partners and NHG institutions for all their help and support. I would especially like to express my appreciation to all staff for their commitment and contributions to NHGP and for doing a commendable job of moving together towards becoming a future-ready organisation.

ASSOCIATE PROFESSOR CHONG PHUI-NAH
Chief Executive Officer
National Healthcare Group Polyclinics & Primary Care
NHGP SENIOR MANAGEMENT

FROM LEFT:

Ms Chen Yee Chui
Chief Nurse, Nursing Services

Mr David Kok
Director, Finance

Associate Professor Chong Phui-Nah
Chief Executive Officer, NHGP & Primary Care

Dr Simon Lee
Chief Operating Officer and
Chief Medical Informatics Officer

Dr Karen Ng
Director, Clinical Services

Mr Shawn Phua
Director, Human Resources

FROM LEFT:

Dr Jonathan Ting
Head, Geylang Polyclinic

Dr Christopher Chong
Head, Ang Mo Kio Polyclinic

Dr Kwan Pek Yee
Head, Yishun Polyclinic

Dr Kong Jing Wen
Head, Hougang Polyclinic

Dr Evan Sim
Head, Woodlands Polyclinic

Dr David Ng
Head, Toa Payoh Polyclinic
FROM LEFT:

Dr Tang Wern Ee
Head, Clinical Research Unit

Dr Lim Chee Kong
Deputy Director, Clinical Services (Manpower)

Dr Irwin Chung
Director, Primary Care Academy

Dr Kenneth Low
Director, Dental Division

Ms Chan Soo Chung
Executive Director, NHG Pharmacy

Dr Darren Seah
Director, Family Medicine Development

Ms Lim Soh Har
Executive Director, NHG Diagnostics

FROM LEFT:

Ms Noraisah Zainal Abidin
Deputy Director, Corporate Communications

Dr Tung Yew Cheong
Director, Quality and Patient Safety

Dr Gowri Doraisamy
Director, Care Integration

Ms Helen Tsai
Director, Clinic Operations

Dr Wee Wei Keong
Director, Health Promotion & Preventive Care

Ms Doris Liew
Director, Operational Support Services

Ms Jaclyn Fam
Deputy Director, Corporate Planning
In meeting the primary care needs of the population, the National Healthcare Group Polyclinics (NHGP) has been providing patient-centred, timely and accessible care to those with acute and chronic conditions. Care that is sustainable in the long term is key to meeting the growing healthcare demands of Singapore’s growing and greying population.

Since NHGP started its primary care transformation journey in 2015, several initiatives have been put in place to ensure that its care and treatment options are integrated and seamless. From refining its model of care to service innovations, NHGP has been taking bold steps to meet the challenges of the future.
PUTTING PATIENTS FIRST

NHGP continuously looks at ways to improve its patient-centric services to benefit patients. In FY2017, NHGP rolled out several initiatives to refine its model of care, maximise its resources and extend its range of services.

A PATIENT-CENTRED MODEL OF CARE

Since 2015, NHGP has in place a relationship-focused and team-based model of care for chronic disease management. This care model assigns patients and their family members with chronic conditions to a regular care team, called a Teamlet. A Teamlet comprises two Family Physicians, a Care Manager who is a nurse and a Care Coordinator who is a lay person trained in preventive health management.

Each Teamlet focuses on the patient’s medical and psycho-social needs to provide holistic and integrated care within the primary care setting.

The care model seeks to create a bond of trust between a patient and the healthcare team, with the patient and team taking co-ownership of the patient’s health.

Since it was first implemented, NHGP has developed 14 Teamlets and also enrolled more than 62,000 patients with chronic conditions as at March 2018.
HOSPITAL INTEGRATION

COMMUNITY PARTNERSHIP

PHARMACIST

Provides medication management and medication reconciliation support to the Teamlet.

FAMILY PHYSICIANS (TEAM LEADER)

Manages the chronic conditions of patients and guides multi-disciplinary team.

PATIENT & FAMILY

ALLIED HEALTH PROFESSIONAL

Supports patients in their relevant areas of expertise together with the Teamlet.

CARE MANAGER (NURSE)

Counsels and empowers patients with chronic conditions to better manage their health through nurse-led consultation and tele-consultation.

CARE COORDINATOR (LAY PERSON)

Schedules patient’s annual screening tests, vaccinations; keeps track of and follows up with patients on their appointments.

MEMBERS’ ROLES

NHGP AT A GLANCE: TEAMLET CARE MODEL (AS AT MARCH 2018)

First implemented in 2015 at Toa Payoh Polyclinic

14 Teamlets set up across five NHG Polyclinics

More than 62,000 patients with chronic conditions

*Information accurate as at 31 March 2018
BRINGING SPECIALIST CARE TO THE COMMUNITY

Tele-DERM
NHGP’s tele-collaboration service known as Tele-DERM won the IT Excellence: Beyond Hospital to Community Award at the National Health IT Excellence Awards 2017 on 30 May 2017.

First implemented in Hougang Polyclinic in December 2016, Tele-DERM has enabled patients with mild to moderate skin conditions to receive specialist care at NHG Polyclinics. A joint collaboration between NHGP and the National Skin Centre (NSC), Tele-DERM is aligned to Ministry of Health’s (MOH) move to bring care beyond hospitals into the community.

As of March 2018, nearly 2,800 dermatology cases had been reviewed under Tele-DERM, of which 30% were treated by NHGP doctors without having to be referred to NSC. Tele-DERM enables patients to receive appropriate care for their mild to moderate skin conditions in a more accessible manner, within the community.

Part of NHGP’s primary care transformation efforts to offer patients coordinated care by specialists in the community, NHGP’s family physicians trained in family practice dermatology use a secure web-based platform to discuss patients’ skin conditions and treatment options with NSC dermatologists.

As of March 2018, nearly 2,800 dermatology cases had been reviewed under Tele-DERM, of which 30% were treated by NHGP doctors without having to be referred to NSC. Tele-DERM enables patients to receive appropriate care for their mild to moderate skin conditions in a more accessible manner, within the community.

“Skin conditions are among the top 10 reasons for patient visits in primary care. Hence, easy access to our colleagues at NSC helps us effectively diagnose and treat them without having to refer them to a specialist unless absolutely necessary.

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

Dr Kong Jing Wen (right) reviewing a patient’s skin condition with NSC’s skin specialist via a secure web portal.
A nurse engaged in a tele-consult with a patient about his chronic condition.

BRINGING CARE CLOSER TO HOME

Tele-Wound Care Monitoring
The Tele-Wound Care Monitoring service, another NHGP innovation, has been established at all NHG Polyclinics since June 2017.

With Tele-Wound Care Monitoring, patients are taught how to perform wound dressing themselves and are encouraged to care for their wounds at home. To ensure that their healing is monitored, patients send images of their wounds by email to nurses for assessment and follow-up over the phone. As at 31 March 2018, about 700 patients who would otherwise have made around 1,200 physical visits to the polyclinics have benefited from the programme.

Tele-Care Programme
NHGP has also put in place the Tele-Care programme, a nurse-led home monitoring initiative for patients in all NHG Polyclinics since September 2013.

Patients monitor their blood pressure, blood glucose and/or weight, and submit their readings on HealthHub, a one-stop health portal. Care Managers who are nurses trained in chronic disease management, then follow up by assessing patients’ readings and advising them accordingly.

Not only can patients request medication refills to be delivered to their homes, NHGP can also hold Tele-Care consultations with those who require medication adjustment, review and assessment of how well they are managing and coping after insulin therapy, etc. This saves patients time and effort of having to make the trip to their polyclinics for such services.

In FY2017, a total of about 10,500 Tele-Care consultations were conducted for about 7,600 patients.
IMPROVING ACCESS TO MENTAL HEALTH

Mental Health Services in the Community
Early diagnosis and intervention are critical for people with mental health conditions. Hence, NHGP has been collaborating with the Institute of Mental Health and Khoo Teck Puat Hospital to offer mental health services in the community.

Since February 2018, the partnership has allowed more patients with common mental health conditions such as depression and anxiety to be managed closer to home. This care arrangement not only reduces stigmatisation by offering treatment in a community setting instead of a hospital, but it also encourages patients and caregivers to seek help early and be cared for holistically in one care setting.

Advantages of integrated mental healthcare

• With the more common mental health conditions managed in the primary care setting, Specialist Outpatient Clinics can cater to patients with more severe mental health conditions.

• Patients treated at NHG Polyclinics are supported by a multi-disciplinary team of Family Physicians, Care Managers, Psychologists and Medical Social Workers who ensure that patients’ care needs are managed holistically.

• Patients, especially those with chronic conditions, enjoy the convenience of being cared for at the polyclinic instead of in multiple care settings, thus receiving better continuity of care.

By enabling patients with chronic and mental health conditions to be cared for holistically in primary care instead of in multiple care settings, the patients can benefit from the holistic care that a primary care multi-disciplinary team provides. They can also build rapport and trust with their healthcare team which empowers them to manage their own health.

Dr Winnie Soon
Family Physician, Consultant
Ang Mo Kio Polyclinic

HELPING PATIENTS WITH MENTAL HEALTH CONDITIONS

A biochemistry analyser capable of processing 22 different types of tests and performing up to 300 tests per hour was also added. With the new services, about 95% of tests could be processed on-site; improving the result-turnaround time significantly.

National Healthcare Group Diagnostics introduced the first conveyor system to be used in primary care. The innovative system automates the entire patient sample collection, from the urine drop-off point and blood-taking stations to the main processing laboratory. The conveyor system complements the pneumatic tubes system already in use at Hougang Polyclinic for floor-to-floor transfers for greater efficiency.

Without the need for staff to physically collate samples, staff could focus on their core tasks of blood-taking and running the laboratory equipment, analysing and validating results. The automation has led to time-savings of about 180 hours.

IMPROVING EFFICIENCY

Hougang Laboratory Conveyor System
To maximise resources and improve efficiency, National Healthcare Group Diagnostics expanded the laboratory services at Hougang Polyclinic to include on-site ultrasound services.
New Digital Radiography Systems

In FY2017, National Healthcare Group Diagnostics introduced Digital Radiography (DR) systems to its satellite imaging centres at the polyclinics.

Before the use of the DR systems, radiographers had to manually transfer X-ray images using the Computed Radiography system. Now with the DR systems, X-ray images can be viewed on the visual display unit within six seconds for evaluation by the radiographer before transmission to National Healthcare Group Diagnostics’ reading centres for reporting.

The DR system also provides better image quality and reduces radiographers’ strain as they no longer had to carry the heavy cassettes from the X-ray room to the processor after each examination.

New Laboratory Analysers

National Healthcare Group Diagnostics also introduced other improvements to its laboratories to achieve greater efficiency and ensure better patient care.

HbA1c Analyser

In diabetes care for patients, HbA1c is used as a monitoring tool to test patients’ blood sugar levels.

The new HbA1c analyser allows samples to be processed at a rate that is 75% faster than before, resulting in an estimated savings of 5,500 hours. Without the need for manual handling of samples, laboratory staff can focus on other tests instead. In this way, National Healthcare Group Diagnostics is able to manage higher HbA1c test volumes without having to increase laboratory headcount.

Automated Pregnancy Test Analyser

National Healthcare Group Diagnostics has also replaced the manual pregnancy test kits with automated reader analysers. With its connectivity to National Healthcare Group Diagnostics’ laboratory information system, the automated reader analysers are able to transmit results online, hence doing away with human subjectivity in manual result interpretation or biasness of manual reading while minimising transcription errors. The new analyser has also brought about time savings as the two-staff verification process can be eliminated.
INNOVATING FOR PATIENT-CENTRED CARE

NHGP’s transformation journey has seen it adopting various innovative solutions to improve efficiency and provide patients with greater convenience in FY2017.

Since FY2017, eligible patients can collect their packed medication at any time of the day from more than 30 7-Eleven stores in Singapore.

GREATER CONVENIENCE FOR PATIENTS

Self-Collection of Medication from Lockers
To enhance its primary healthcare services, NHGP and the National Healthcare Group Pharmacy launched a locker service for medication collection. Since FY2017, eligible patients can collect their packed medication at their convenience at any time of the day from more than thirty 7-Eleven stores in Singapore.

Eligible patients are those with chronic conditions and a valid NHGP doctor’s prescription.

The first-of-its kind locker service for medication collection complements National Healthcare Group Pharmacy’s home delivery service and provides more options to patients and their caregivers.

Enhanced Self-Registration Kiosks
By January 2018, NHGP had implemented the enhanced self-registration kiosk at all its six polyclinics.

The enhanced kiosk allows walk-in patients to book same-day appointments, thus removing the need to queue up at the counters for help with appointment-booking. Instead, patients can proceed straight to the consultation waiting area after self-registration, or come back nearer to the appointment time. The initiative has reduced patients’ waiting time for registration by about 20 minutes.

Patient Arrival Kiosk at Pharmacy
The patient arrival kiosk was deployed at Ang Mo Kio Polyclinic’s Pharmacy in January 2018. Patients can now self-register their arrival at the kiosk and skip the queue at the Pharmacy reception counter. Besides offering patients more convenience, the automated service has resulted in manpower savings by reducing the number of NHGP staff required for the routine registration. Staff can instead offer more value-added assistance to patients.

We are glad to hear from patients who have used the locker service for medication collection that they are pleased with the option to pick up their medication at their convenience, without any compromise of their privacy.

Ms Chan Soo Chung
Executive Director, National Healthcare Group Pharmacy
Self-Payment Kiosks
Self-payment kiosks at the polyclinics have been providing patients the convenience to make payments quickly and effectively instead of having to pay manually at the payment counters.

One-Queue System
Patients used to have to take multiple queue numbers when visiting the polyclinic (e.g. a number for consultation and another number for medication collection at the pharmacy). With the one-queue system first implemented at the redeveloped Ang Mo Kio Polyclinic in February 2018, this process has been made simpler for patients. As of July 2018, patients now use the same queue number throughout their visit at all NHG Polyclinics.

MEDICATION CLINIC
To improve transition of care for patients discharged from hospitals to primary care, NHGP collaborated with National Healthcare Group Pharmacy to set up the Medication Clinic in FY2017.

The pharmacist-led Medication Clinic includes services to review patients’ medication, especially if they have been prescribed various medication across multiple healthcare institutions. Using a system known as Patient’s Medication List, pharmacists help to increase patient awareness and adherence to their medication. This is particularly important for patients who may have had their chronic medication changed and hence experience difficulties adhering to their prescribed regimen after discharge.

At the same time, as patients’ primary care physicians may not be aware of changes made by other healthcare providers, the Medication Clinic is helpful in reducing medication errors and preventable adverse drug events during the transition of care.

Other benefits of the Medication Clinic include:
- Identification of patient’s medication-related problems
- Reduced patient waiting time
- Support for prescribers to make better prescribing decisions
- Better patient health and safety

NHGP’s digital transformation efforts are in line with the government’s Smart Nation vision to provide citizen-centred services to improve work efficiency and enhance service standards.

Professor Philip Choo
Group Chief Executive Officer
National Healthcare Group

MULTILINGUAL MEDICATION LABELS
Another service innovation by National Healthcare Group Pharmacy is the multilingual medication labels, rolled out to all National Healthcare Group Pharmacy branches in October 2017.

Besides the multiple languages used, the medication labels use pictogram icons for patients’ easy reference on the dose and frequency of their medication. This is especially useful for patients who are less literate or have poor vision. In addition, important notes such as drug indications, meal instructions and cautionary instructions are provided in the patient’s preferred language upon request.

The introduction of the pictogram medication labels has helped to improve patient medication understanding and reduce errors caused by handwritten instructions.
In FY2017, the National Healthcare Group Polyclinics (NHGP) continued to expand its primary healthcare infrastructure capacity to cater to Singaporeans’ long-term healthcare needs and to promote better population health for all.

On top of redeveloping existing polyclinics to provide more comprehensive services and facilities, NHGP is also planning to develop new polyclinics. In line with the government’s vision of ensuring sustainable healthcare for Singapore, residents in the Central and Northern regions can look forward to purpose-built polyclinics designed to accommodate a patient-centred model of care.
**INCREASING OUR PRIMARY CARE CAPACITY**

Two polyclinics under the National Healthcare Group underwent redevelopment in FY2017, while three new polyclinics will be launched by 2023.

*An aerial view of the redeveloped Ang Mo Kio Polyclinic, which is three times larger than the previous polyclinic.*

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**RELOCATION OF ANG MO KIO POLYCLINIC**

After more than 30 years at Ang Mo Kio Avenue 8, the redeveloped polyclinic moved to its new premises at Ang Mo Kio Central 2 which is larger and co-located with an elder-care centre. The redeveloped Ang Mo Kio Polyclinic opened its doors on 29 January 2018 to serve the community in Ang Mo Kio, Bishan and Serangoon. During its first week of operations, NHGP staff members from other Polyclinics and Headquarters came together to serve as way-finders to guide patients around the clinic.

To thank nearby residents for their patience while the new Ang Mo Kio Polyclinic was being redeveloped, Ang Mo Kio Polyclinic team visited about 80 households in the area during Lunar New Year.

Improvements for patients introduced by NHGP included two Allied Health Services and enhanced dental capacity at the polyclinic.

**New Allied Health Services**

NHGP introduced Podiatry and Physiotherapy services to Ang Mo Kio Polyclinic to better serve the needs of residents.

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The new premises offer both staff and patients more integrated spaces for team-based care by our medical and dental staff. We are pleased to have received much positive feedback from patients for our improved clinic.

**Dr Christopher Chong**

Family Physician, Associate Consultant and Head, Ang Mo Kio Polyclinic
Enhanced Dental Clinic
With the move to the new clinic building, the expanded dental services offer more comfort and convenience to patients. At the new premises, with the dental treatment rooms, registration area and dental X-ray rooms all located on the same floor, the Dental Clinic offers patients more convenience and greater efficiency. Previously, with the Dental Clinic spread over two floors in the Annex wing, staff had to move between the first and second floors to access different treatment rooms.

Ang Mo Kio Polyclinic is also the first polyclinic in Singapore to have a wheelchair tilter in its Dental Clinic. With the tilter, patients can now receive treatment directly from their wheelchairs, and no longer need to be transferred to a dental chair.

FEATURING OF THE REDEVELOPED ANG MO KIO POLYCLINIC

About 8,800m² integrated clinic, laboratory and admin spaces

Fully automated self-help kiosks

New Podiatry and Physiotherapy services

Elderly-friendly features such as more spacious passages and wider consult rooms

REDEVELOPMENT OF YISHUN POLYCLINIC

Designed to be future-ready and to support NHGP’s teamlet model of care, the redeveloped Yishun Polyclinic is on track for its official opening at the end of 2018. The polyclinic was also designed to have sky terraces and lush greenery to provide patients with a healing environment.

WELCOMING GEYLANG POLYCLINIC

On 1 October 2017, NHGP officially welcomed Geylang Polyclinic into its family. The handover of Geylang Polyclinic was part of the Ministry of Health’s (MOH) plan to reorganise the public healthcare system into three clusters, in the Western, Central/Northern and Eastern regions.

NEW AND UPCOMING POLYCLINICS

To further strengthen primary healthcare for Singapore’s Central and Northern regions, MOH announced the building of new polyclinics in Sembawang, Kallang and Nee Soon Central.

Sembawang Polyclinic
As the first NHG Polyclinic to be sited within a hub of family-friendly sports and recreational facilities, Sembawang Polyclinic will offer a range of medical services to cater to the healthcare needs of residents in Sembawang. NHGP is also collaborating with other agencies to develop and support programmes in the community to promote health and fitness, and prevent disease.

Plans for Sembawang Polyclinic also include purpose-built integrated Family Medicine and medical undergraduate training facilities to support the growth and development of doctors undergoing their residency training in Family Medicine.

Polyclinic in Nee Soon Central
To be ready by 2023, the new polyclinic in Nee Soon Central will expand Singapore’s public primary care network to a total of 30 to 32 polyclinics.
Yishun Polyclinic
- Opened its doors on 2 July 2018 to serve the Yishun community.
- Designed to be future-ready and to support NHGP’s teamlet model of care.

Ang Mo Kio Polyclinic
- Opened its doors on 29 January 2018 to serve the community in Ang Mo Kio, Bishan and Serangoon.
- Improvements introduced include two Allied Health Services, enhanced dental capacity, a wheelchair tilter, and purpose-built design to facilitate the teamlet model of care at the polyclinic.

Geylang Polyclinic
- The handover of Geylang Polyclinic to NHGP was part of MOH’s plan to reorganise the public healthcare system.

Sembawang and Kallang Polyclinics
- Sembawang and Kallang Polyclinics are scheduled to open by 2020.
- Sembawang Polyclinic will be the first NHG Polyclinic to be sited within an integrated hub.

Polyclinic in Nee Soon Central
- The new polyclinic in Nee Soon Central will expand Singapore’s public primary care network to a total of 30 to 32 polyclinics by 2030.
PARTNERING OUR STAKEHOLDERS

Apart from expanding primary care capacity, partnering our stakeholders, both public and private, is also a critical component in catering to Singapore's long-term healthcare needs.

LAUNCH OF THE PRIMARY CARE NETWORK

The National Healthcare Group (NHG) started the first Primary Care Network (PCN), known as the Central North PCN (CN-PCN), on 2 January 2018. Since then, 30 General Practitioners (GPs) in the Northern and Central regions of Singapore have formed a virtual network.

The PCN model is a strategic collaboration that builds on the GPs' existing infrastructure and established doctor-patient relationships. With NHG helping to provide both leadership and clinical governance, the collaboration will allow for better integration of patient care.

On 10 February 2018, NHGP, together with members of the CN-PCN, welcomed the Lunar New Year with a Lo Hei or traditional tossing of fish salad.

NHGP also organised a diabetes-themed sharing session in the first event organised for GPs in the CN-PCN. Three specialists were invited by NHGP’s Primary Care Academy to share their expertise on the management of diabetes including diabetic eye complications and renal complications.

PARTNERSHIP TO IMPROVE DIABETES CARE

Under the PCN partnership, National Healthcare Group Diagnostics was able to offer patients with diabetes more convenient on-site retinal eye-checks and foot-screening through its Mobile Community Health Centre.

The proximity of the services to the homes of patients led to an improved uptake of screening for early detection to prevent diabetes-related blindness and amputations. FY2017 saw a 50% increase in screening uptake compared to the previous year.

A lunchtime Continuing Medical Education programme hosted by Professor Philip Choo (third from right), Group Chief Executive Officer (CEO), NHG and Associate Professor (A/Prof) Chong Phui-Nah (second from right), CEO, NHGP & Primary Care.
HANDOVER OF UNITY FMC

Unity Family Medicine Clinic (FMC) was set up as part of MOH’s Primary Care Master Plan to explore new models of chronic disease management in primary care. Unity FMC was set up in collaboration with NTUC Health, to deliver comprehensive team-based care to the community in Serangoon.

On 5 September 2017, Unity FMC was officially handed over by NHG to NTUC Health, marking a milestone in the partnership. Unity FMC is the second FMC that NHG has handed over to the private sector following an initial collaboration to develop the necessary infrastructure and medical capabilities. The first FMC set up by NHG, Ang Mo Kio FMC, was handed over to Parkway Shenton on 1 March 2016.

The FMC tie-up facilitates seamless care and follow-up treatment in the community for patients from secondary institutions such as Tan Tock Seng Hospital’s Specialist Outpatient Clinics and Accident & Emergency Department, and the Institute of Mental Health.

With MOH’s support, these patients continue to receive affordable and accessible care in the community.

UNITY FAMILY MEDICINE CLINIC

Number of patient visits managed by Unity FMC since 2015:
More than 12,000

Number of patient referrals by NHGP to Unity FMC for follow-up care on chronic conditions:
More than 2,000

With 1.4 million people in the Central region, 15% of which are over the age of 65, this region has the fastest-growing ageing population in Singapore accompanied by a higher prevalence of co-morbid chronic diseases.

Correspondingly, the demand for healthcare services has increased. This thus makes the shift from episodic treatments to sustainable and integrated healthcare all the more critical.

Mdm Kay Kuok
Chairman, National Healthcare Group
SIGNING OF MOU BETWEEN SPORTSG AND NHGP

On 28 July 2017, NHGP was one of the signatories who signed a Memorandum of Understanding (MOU) with Sport Singapore (‘SportSG’).

Part of the Active Health Framework initiated by SportSG to motivate the community to form positive habits towards wellness, the MOU will see NHGP and SportSG develop an Active Health Lab together. The Active Health Lab is to be located where the future Sembawang Polyclinic will be sited.

NHGP’s healthcare team at Sembawang Polyclinic will be involved in the design and layout of the new Active Health Lab. In addition, Sembawang Polyclinic will work with SportSG on future areas of collaborations to promote health and wellness.

PROMOTING EARLY DETECTION OF BREAST CANCER

On 1 February 2018, National Healthcare Group Diagnostics, together with the Singapore Cancer Society (‘SCS’) and Breast Cancer Foundation (‘BCF’), launched the ‘Community Mammobus Programme’ to encourage more women in workplaces and communities to go for affordable mammogram screening. Under the collaboration, National Healthcare Group Diagnostics subsidised $10 for all first-time screeners, while SCS and BCF each subsidised up to $20 per screener.

All mammogram screenings under the programme were done on-board National Healthcare Group Diagnostics’ Mammobus. Since the start of the programme, nearly 400 women have been screened. The mammogram take-up rate in FY2017 was more than 40% higher than the same period in FY2016, underscoring the successful deployment of the Mammobus at workplaces and community locations island-wide.

NEW SCOLIOSIS EXAMINATION

As early detection of scoliosis in children is important, National Healthcare Group Diagnostics worked with the Health Promotion Board (‘HPB’) Student Health Centre to provide on-site scoliosis screening for primary and secondary students.

This partnership between NHGP and SportSG will further synergise patient engagement efforts by tapping on our respective expertise to make it easier for people to choose and adopt active and healthy lifestyles.

A/Prof Chong Phui-Nah
CEO, National Healthcare Group Polyclinics & Primary Care

When detected early, children with scoliosis can be treated with bracing to avoid the need for surgery.

Held at the HPB Building and on-board the National Healthcare Group Diagnostics’ Mobile X-ray bus, the on-site service provided one-stop convenience for the students and their parents. Without the mobile service, they would have to travel to the hospital for screening after being seen by doctors at the HPB Student Health Centre.
To improve healthcare delivery to the population, the National Healthcare Group Polyclinics (NHGP) has been strengthening our community engagement to build a culture of health. From educational programmes to outreach events, NHGP aims to educate the public on the importance of healthy lifestyle choices, and develop a better understanding of common diseases.
SUPPORTING GOOD HEALTH IN THE COMMUNITY

In a bid to improve population health, NHGP collaborated with its community partners for various health promotion efforts to prevent or manage diseases and health conditions in the community.

COMBATING DIABETES

Talks and Workshops on Diabetes

In FY2017, NHGP continued its drive to combat diabetes in support of the Ministry of Health’s ‘War on Diabetes’. With diabetes becoming increasingly prevalent in Singapore, NHGP was involved in various efforts to combat the disease.

- Senior citizens from the Asian Women’s Welfare Association (AWWA) Community Home participated in workshops conducted by NHGP’s Clinical Services in April and May 2017. They learnt how to better manage diabetes through understanding normal and diabetic blood sugar levels, and learning about carbohydrate-counting.

- Residents of Toa Payoh West participated in a series of weight and mental health management in diabetes care workshops conducted by NHGP’s Primary Care Academy (PCA) from April to June 2017. At the workshops, participants learnt the importance of doing regular exercises and eating healthy. They also received tips on managing stress while dealing with chronic conditions such as diabetes.
Patients trying out the interactive boards to learn about the rainbow colour concept to manage food portions.

Woodlands Polyclinic staff at the ‘Living Well with Diabetes’ event held to provide health screening to residents.

“Patients trying out the interactive boards to learn about the rainbow colour concept to manage food portions. My spouse and I took the opportunity to go for the health screening at the ‘Living Well with Diabetes’ event as it was held right in our neighbourhood. I am glad we did it. We also learned about the importance of making healthy lifestyle choices to maintain our health.

Mdm Lee Yee Loi
Patient of Woodlands Polyclinic and resident of Kampung Admiralty

\begin{itemize}
\item Participants from the Whampoa Diabetes Support Group of Whampoa Community Club attended a talk on ‘Eating Well with Diabetes’ conducted by Toa Payoh Polyclinic in July 2017.

\item A community diabetic support group at the Central Sikh Temple participated in an NHGP workshop conducted by NHGP's PCA in August 2017. The workshop taught participants about healthy eating habits to minimise their risks of complications.

\item Residents of Whampoa attended a talk conducted by NHG Pharmacy on the ‘Myths and Facts of Diabetes Medication and Insulin’ in September 2017.
\end{itemize}

\textbf{World Diabetes Day}
In support of World Diabetes Day on 14 November 2017, Woodlands and Yishun Polyclinics took part in community events on 12 November 2017 to educate residents in the north about diabetes.

Talks were held on:
\begin{itemize}
\item ‘Why the War on Diabetes’
\item Diabetes and Healthy Eating
\item Tips on Footwear Selection
\end{itemize}

Booths on the use of the rainbow colour concept to manage food portions were also set up. A total of about 200 residents attended the talks. In addition, on 14 November 2017, Yishun Polyclinic set up a booth on its premises to educate patients on diabetes, its complications, and to share tips on how patients can manage their condition.

\textbf{Living Well With Diabetes}
Woodlands Polyclinic, in collaboration with Khoo Teck Puat Hospital, provided health screening services at the ‘Living Well with Diabetes’ event held at Kampung Admiralty on 18 November 2017. Organised by the Admiralty Medical Centre Diabetes Centre, Woodlands Grassroots Organisations (GRO) and People’s Association, the event was officiated by Mr Amrin Amin, Grassroots Adviser to Woodlands GRO and Senior Parliamentary Secretary, Ministry of Health and Home Affairs.
PRACTISING HAND HYGIENE

Maintaining good hand hygiene can potentially reduce the spread of infectious diseases. In FY2017, NHGP held various activities to encourage good hand hygiene habits among patients and the community.

Hand Hygiene Day 2017 and Roadshows
To mark Hand Hygiene Day and raise public awareness of how hand hygiene can help prevent the spread of infectious diseases, NHGP set up information and game booths for patients and their caregivers at all NHG Polyclinics in May 2017. Patients were invited to take part in games and talks to learn how they could keep their hands clean. The event included a ‘glow light’ activity where patients placed their hands under fluorescent light to see if spores that could cause infection were detected on their hands.

School Talk on Hand Hygiene
On 27 September 2017, Ang Mo Kio Polyclinic staff comprising doctors, nurses and operations staff conducted a health education session for over 70 Primary 1 students from Pathlight School. Students were taught through talks and activities the importance of hand hygiene and proper hand-washing techniques to prevent the spread of disease. Together with the nurses and operations staff, the students practised hand-washing techniques and used an ultraviolet light box to assess if they were competent in ensuring hand hygiene.
EATING RIGHT

To promote healthy eating in the community and to empower them to maintain and improve their overall health, NHGP organised a series of outreach activities during the year.

Nutrition Talk
NHGP’s Dietetic Services delivered a public nutrition talk at the Health Fiesta event organised by Sphere Exhibits Pte Ltd in June 2017. The talk introduced participants to the Dietary Approaches to Stop Hypertension (DASH) diet and the Health Promotion Board’s ‘Healthy Plate’ concept for a balanced diet.

Smart Food Shopping
In conjunction with Dietitians’ Day 2018, NHGP’s Dietetic Services collaborated with dietitians from Yishun Health Campus to reach out to the community in the Northern region. Held on 10 March 2018 at the Admiralty Medical Centre, patients from NHGP and Yishun Health campus, and 40 members of the public attended the ‘Be a Smart Shopper’ event. Not only did participants learn about healthier food shopping and eating habits, they were also brought on supermarket tours at NTUC in Kampung Admiralty conducted by dietitians from the two institutions.

Participants went on a supermarket tour with NHGP’s dietitian to learn tips on nutrition label reading.
ENGAGING PATIENTS AND THE COMMUNITY

In order to reach a wider group of audience in promoting an active lifestyle and spreading the message of preventive care, NHGP works closely with community healthcare partners to organise various outreach activities.

**World Podiatry Day 2017**

NHGP’s Podiatry team celebrated Podiatry Day 2017 with a scenic walk along the Sentosa Boardwalk on 29 April 2017. The walk, organised by the Diabetic Society of Singapore, provided participants with the opportunity to increase their awareness of diabetic foot complications. At the event, NHGP podiatrists conducted a group stretching exercise for participants at the halfway point of the walk. Participants were given shoe bags with brochures on proper footwear and diabetic foot care at the end of the walk.

**World Heart Day 2017**

World Heart Day roadshows were conducted at five NHG Polyclinics to promote awareness of heart diseases to about 400 patients in the month of September 2017. The month-long roadshow was a collaboration with the Singapore Heart Foundation. To further spread the heart-health message, NHGP also partnered the National Library Board to conduct a talk at the Ang Mo Kio Library that was attended by about 50 participants.
World Physiotherapy Day 2017

On 3 September 2017, in conjunction with World Physiotherapy Day, NHGP’s Physiotherapy team, together with the People’s Association, organised the ‘Mr & Ms Muscle’ event at the Woodlands Community Club.

Attended by Senior Parliamentary Secretary, Ministry of Health and Home Affairs, Mr Amrin Amin, the event sought to raise awareness among its 200 brisk-walking participants of the importance of building and maintaining strong muscles for better health. NHGP Physiotherapists demonstrated simple exercises using resistance bands that participants could include in their daily exercise routines.

Participants who attended our community outreach events shared that our face-to-face interaction with them was very helpful. Learning to take charge of their health together with friends and family made it more fun for them. Through such events, we are able to spread our health promotion messages more effectively.

Ms Cindy Soh
Principal Physiotherapist, Toa Payoh Polyclinic
World Mental Health Day 2017
NHGP’s Psychology Services organised several activities in conjunction with World Mental Health Day 2017. The aim of the events was to raise awareness among healthcare practitioners and the public on managing mental health in primary care.

• Managing Mental Health in Primary Care
  On 9 September 2017, Dr Winnie Soon, Family Physician and Consultant, gave a talk titled ‘An Integrated Approach – Mental Health in Primary Care,’ at the Singapore Mental Health Conference on NHGP’s management of patients.

• Managing Insomnia
  NHGP’s Psychology Services and Corporate Communications Department collaborated with the Ang Mo Kio-Hougang Active Ageing Committee to organise a talk at Ci Yuan Community Club.

Mr Mah Siew Chung, Clinical Psychologist, Clinical Services, spoke on the use of sleep medication, and non-drug methods to manage poor sleep. The 1 October 2017 talk, ‘Kiss Insomnia Goodnight’, was attended by about 250 Hougang residents.

• Managing Stress and Anxiety
  NHGP’s Psychology Services and Ang Mo Kio Polyclinic co-organised several talks with TOUCH Home Care for Ang Mo Kio residents. The talk titled ‘Manage Your Mind: Fight the Fear’ raised awareness of the effect of stress and anxiety on chronic disease and vice versa and offered practical management tips. Another talk titled ‘Good Stress, Bad Stress: Is Stress Good for Your Health?’ highlighted the benefit of physical activities on physical and mental health.

World Kidney Day 2017
NHGP’s Clinical Services organised an educational talk for Geylang Polyclinic patients as well as patient education sessions in the month of March 2018.

In conjunction with World Kidney Day, patients were also given educational materials on the risk factors of chronic kidney disease, and tips on how to keep one’s kidneys in good health.

Falls Prevention Education
15 NHGP staff from Yishun Polyclinic participated in the ‘Health for All Ages Carnival’ organised by Nee Soon South GRC on 10 September 2017. The health carnival promoted healthy, active living and building a dementia-friendly community. Some 300 participants visited the NHGP booth to receive tips on fall prevention, exercises and how to eat a high-calcium diet.

Infection Control
NHGP’s Nursing Services conducted a talk on infection control at the St Luke’s ElderCare (SLEC) in April 2017. The talk, which was attended by SLEC nurses and allied health professionals, covered the principles of infection control and provided tips for conducting audits and managing multidrug-resistant organisms.
Medication Management
National Healthcare Group Pharmacy participated in the Pharmaceutical Society of Singapore Public Education Workgroup’s ‘Live Healthy, Stay Happy’ event in April 2017. The workshop aimed to educate the public on medication adherence, proper storage and safe reliable sources to purchase medicine and supplements.

SPREADING THE HEALTH MESSAGE
To ensure that its health messages reached an even wider audience beyond its patients and the community it serves, NHGP leveraged various media platforms in FY2017:

- Capital 95.8FM interviewed Ms Tan Poh Ching, Senior Pharmacist, Toa Payoh Polyclinic on 13 June 2017. Ms Tan shared about the safe use of common medications and health supplements.
- Berita Harian interviewed Mr Mah Siew Chung, Clinical Psychologist, on 2 July 2017. Mr Mah helped readers understand what festive stress is, its possible causes and how it can be managed effectively during the Hari Raya season.
- Vasantham Tamil Seithi featured Dr Gowri Doraisamy, Family Physician, Senior Consultant, Director, Care Integration on 16 August 2017. Dr Gowri provided viewers with insights on the management of hypertension and highlighted the importance of having a balanced diet and doing regular exercise. She also shared tips on how keeping stress under control can aid in managing hypertension.
- Vasantham Tamil Seithi featured Ms Pradha Rajoo, Senior Physiotherapist, on 26 December 2017. Ms Pradha shared the benefits of strengthening exercises and demonstrated exercises that viewers could incorporate into daily activities.
- 938Now Body & Soul programme interviewed Dr Richard Lee, Family Physician, Consultant, Assistant Director, Family Medicine Development, on a live radio show on 16 January 2018. Dr Lee shared with listeners the differences between the common cold and influenza and how to manage body aches during cold weather.
- Channel 8 Morning Express interviewed Dr Angelia Chua, Family Physician, Consultant, Yishun Polyclinic, and Ms Du Na, Assistant Nurse Clinician, Woodlands Polyclinic, on 16 January 2018. Dr Chua and Ms Du explained to viewers how a child’s development is assessed and how early detection of any delays or problems allow for effective intervention.
As a primary healthcare provider, the National Healthcare Group Polyclinics (NHGP) believes in the importance of advancing Family Medicine and continuing medical education. Not only are these critical to strengthen staff capabilities, they will also help ensure that healthcare professionals are future-ready.

NHGP’s primary care research is another step in advancing Family Medicine. At the heart of NHGP’s research and education efforts lies the goal of meeting Singapore’s long-term needs for healthcare and wellness.
LEARNING FROM HEALTHCARE EXPERTS

NHGP continued its efforts to advance Family Medicine and further education through several activities in FY2017. These included learning from visiting healthcare experts and going overseas to learn about best practices and new ideas.

To learn from the international community, NHGP hosted several visiting experts in areas ranging from diabetes management to patient care and communication.

**PROF CALVIN CHOU**
**January / February 2018**

As part of the Ministry of Health’s (MOH) Health Manpower Development Plan (HMDP) Visiting Expert Scheme, NHGP’s Family Medicine Development (FMD) Division and Khoo Teck Puat Hospital co-hosted a visit by Professor (Prof) Calvin Chou from 29 January to 2 February 2018.

Prof Chou, a Practicing Physician at Veteran Affairs, the University of California San Francisco, board member and the Faculty of Academy on communication, facilitated communications workshops over two days attended by healthcare professionals from NHGP and other healthcare institutions.

Participants learned that developing skills in relationship-based communication was akin to acquiring a multi-step skill requiring practice to achieve mastery. Participants also learned that a personable approach to communication could address the needs of patients including those with poor health literacy. Such effective communication could help save consult time, and enhance the development of mutual trust between the patient and the healthcare provider.

**DR KATHARINA KOVACS BURNS**
**February / March 2018**

Together with the National University Health System’s (NUHS) Department of Medical Social Work, NHGP’s Medical Social Services hosted Dr Katharina Kovacs Burns from 26 February to 2 March 2018 to share her expertise on diabetes management. The visit was part of MOH’s HMDP Visiting Expert Scheme.

Dr Burns is a Senior Consultant, Manager of Clinical Quality Metrics and Quality and Healthcare Improvement at Alberta Health Services, Canada. She is also an Adjunct Professor at the School of Public Health, University of Alberta, Canada.

As the Co-Investigator of the Diabetes Attitudes Wishes and Needs (DAWN2™) Study, Dr Burns conducted workshops on DAWN2™ Person-Centred Dialogue Tools that could be used to engage patients and family members in conversations about adjusting and coping with the disease. The DAWN2™ study is the largest global study to explore the unmet needs of people with diabetes.

To learn from visiting experts, NHGP co-hosted visits by Professor Calvin Chou and Dr Katharina Kovacs Burns.
LEARNING FROM OVERSEAS EXPERTS AND EXPERIENCES

NHGP also hosted two overseas experts, Prof Martin Fortin, Professor and Researcher at the Department of Family Medicine and Emergency Medicine, Université de Sherbrooke, and Dr Paul Grundy, Global Director, Healthcare Transformation, IBM, from 9 to 11 October and 11 to 17 October 2017 respectively.

PROF MARTIN FORTIN
October 2017

Prof Fortin met with NHGP staff and Senior Management members to share his expertise on the Quebec health system and multi-morbidity in team-based care and primary care. Through a multi-morbidity research session held at Woodlands Polyclinic on 11 October 2017, participants learned to apply research methodology to complex case scenarios including the use of critical appraisal skills.

DR PAUL GRUNDY
October 2017

Known as the ‘Godfather’ of the Patient-Centred Medical Home (PCMH) movement, Dr Grundy discussed the international movement towards PCMH with NHGP staff and Senior Management members. He also talked about the transformation of care using data and horizontal collaboration and the vertical integration of the healthcare system.
From 29 May to 9 June 2017, a team of NHGP staff visited Finland as part of a HMDP learning trip. Associate Professor (A/Prof) Chong Phui-Nah, CEO of NHGP & Primary Care, was part of the NHGP delegation visiting Helsinki from 29 May to 2 June 2017. The team had the opportunity to learn about how the National Institute for Health and Welfare in Helsinki used data from research towards evidence-based application in programmes. This included Stop Dia!, a diabetes management programme. The HMDP delegation learned much from the sharing sessions with its Finnish counterparts on health policy planning and implementation by the municipality or local government. This provided the team with insights into the development of successful health education, engagement and activation campaigns to improve patients’ health in the community.

The HMDP team also visited the North Karelia Centre for Public Health in Joensuu. The team learnt from its hosts how they engage and activate patients, work with volunteers, the community and mass media, and how they leveraged information technology to implement innovative models of care.

The North Karelia Project
- Set up in the 1970s.
- Helps the community lower cardiovascular risks through the management of obesity, BMI and diabetes.
- Collaborates with the Martha Association which has 118 years of history in galvanising volunteers and the community to learn about and adopt healthier eating and cooking habits.

The Joenssu Service Centre
- Housed inside a public library.
- Primary care facilities are in separate clusters for consultation while self-help services and IT tools are available all over the library for patients’ use.
- Patient queue system integrated within library electronic screens, offering convenience for patients on appointment information.

The Iso Omena Service Centre
- Staffed by public health nurses who provide the first level of care for patients.
- Each nurse's room is strategically co-located between two primary care physicians’ rooms for easy discussion and conference.

During the HMDP learning trip, our Finnish hosts shared many interesting ideas with us. One example is the North Karelia Project that is renowned for its successful public health approach to heart disease prevention. We can learn from their success and galvanise our Singapore communities in our war against diabetes.

Dr Wee Wei Keong
Director, Health Promotion & Preventive Care
HOSTING INTERNATIONAL DELEGATES

In FY2017, NHGP hosted several groups of visitors to exchange ideas and best practices.

On 24 May 2017, NHGP hosted healthcare leaders who were part of the Temasek Foundation International Healthcare Executives in Asia Leadership Programme (TFI HEAL). The TFI HEAL programme is a healthcare governance and leadership executive programme for senior leaders and key appointment holders in healthcare organisations across Asia.

The participants, from countries such as Indonesia, Thailand, Japan and Seychelles, visited Woodlands Polyclinic to better understand Singapore’s primary healthcare system and the services provided at Woodlands Polyclinic. A/Prof Chong also shared with the delegates the initiatives undertaken by NHGP to deliver quality patient-centred care for Singapore’s population.

This was part of a collaborative arrangement with Ngee Ann Polytechnic to provide overseas students with training opportunities to understand primary care nursing in Singapore.

The TFI HEAL delegates were hosted by A/Prof Chong, Dr Evan Sim, Head of Woodlands Polyclinic, and NHGP Senior Management members.

NURSING STUDENTS FROM FUDAN UNIVERSITY

On 7 July 2017, NHGP’s Nursing Services hosted 12 nursing students from Fudan University, People’s Republic of China at Woodlands Polyclinic.

NURSING LEADERS FROM SHAOXING PEOPLE’S HOSPITAL

Toa Payoh Polyclinic hosted 25 nursing leaders from Shaoxing People’s Hospital, Zhejiang, People’s Republic of China, on 2 August 2017. The delegation learned about the history and transformation of primary care in Singapore. The visit ended with an interactive discussion and clinic tour.
TRAINING OPPORTUNITIES

NHGPS Primary Care Academy (PCA) conducted several workshops in FY2017, including the following two workshops for doctors and nurses. For the full list of workshops conducted by PCA in FY2017, please refer to Appendix A.

Developmental Paediatrics: Childhood Development and Breastfeeding Updates
Held on 5 August 2017, the workshop saw Dr Wong Chui Mae, Senior Consultant, KK Women’s and Children’s Hospital (KKH), and Dr Yvonne Ng, Senior Consultant, National University Hospital, share their expertise on childhood developments and breastfeeding issues respectively. Yishun Polyclinic’s Dr Angelia Chua, Family Physician, Consultant, coordinated the workshop attended by 110 staff members.

Management of Joint and Soft Tissue Conditions in Primary Care
On 12 August 2017, Dr Jaganmohan Raja, Family Physician, Associate Consultant and Deputy Head, Woodlands Polyclinic, shared updates on common procedures conducted at polyclinics at a workshop. It was also facilitated by Dr Jeremy Foo, Family Physician, Associate Consultant, Yishun Polyclinic. Ms Cindy Soh, Principal Physiotherapist, Clinical Services and Ms Pauline Ang, Principal Podiatrist, Clinical Services, shared other non-interventional management options with the 25 NHGP doctors who attended the workshop.

WORKSHOPS CONDUCTED BY NHGP’S PRIMARY CARE ACADEMY IN FY2017

47 courses conducted for 1,300 participants
ACHIEVING PROFESSIONAL STANDARDS

NHGP continues to advance the standards of Family Medicine, through promoting the professional development, education and training of staff.

INAUGURAL NHGP INTER-PROFESSIONAL FACULTY DEVELOPMENT SESSION

The inaugural NHGP Inter-Professional Faculty Development Session, organised by NHG Education Office, was held on 20 January 2018.

A total of 52 educators, comprising NHGP doctors, nurses and Allied Health Professionals attended the session aimed at fostering inter-professional collaboration and learning by professional groups of the same polyclinic. Singapore Institute of Management International Academy’s Deputy Principal, Mr John Yeo, conducted the session, ‘Applied Creativity in Teaching: Making New Connections’.

The NHGP educators not only shared their teaching methods, but they also learned through hands-on, interactive and collaborative settings to question and challenge themselves when teaching different types of learners.

MASTER OF MEDICINE (FM)

In supporting staff development, NHGP has been helping its healthcare professionals enhance their skills and knowledge by attaining higher professional qualifications.

In November 2017, 15 NHGP doctors took their Master of Medicine [Family Medicine] examinations after undergoing a year’s training in the Family Medicine Residency or through the College Programme. NHGP doctors achieved a 100% pass-rate and all 15 doctors qualified as Family Physicians.

MASTER OF HEALTH PROFESSIONS EDUCATION

On 21 July 2017, an NHGP family doctor received from Dr Tony Tan Keng Yam, then President of the Republic of Singapore and Patron of the Academy of Medicine, the Master of Science Degree in Health Professions Education by the University of Maastricht in collaboration with the Academy of Medicine.

Achieving Professional Standards

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**FELLOWSHIP CONFERMENT**

FY2017 saw a number of NHGP’s doctors conferred Fellowships, thus enabling them to take on consultant roles in the practice of Family Medicine and in the areas of teaching and research.

**FELLOWSHIP OF ACADEMY OF MEDICINE, SINGAPORE**

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

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

**FELLOWSHIP OF THE COLLEGE OF FAMILY PHYSICIANS OF SINGAPORE**

Dr Lim Ziliang  
Family Physician,  
Associate Consultant,  
Deputy Head, Yishun Polyclinic

Dr Koh Li Jia  
Family Physician,  
Hougang Polyclinic

**GRADUATE DIPLOMA IN FAMILY MEDICINE**

The Graduate Diploma in Family Medicine (GDFM) is a post-graduate training programme that equips family doctors in Singapore with skills to enhance their level of care to patients. The trainees sat for the GDFM examinations at the end of the programme.

11 doctors passed the Graduate Diploma in Family Medicine (GDFM) examinations in July 2017.

**GRADUATE DIPLOMA IN FAMILY MEDICINE**

Dr Jonathan Tan  
MOPEX,  
Ang Mo Kio Polyclinic

Dr Diane Lee  
MOPEX,  
Toa Payoh Polyclinic

Dr Tan Lye Yoong  
Resident Physician,  
Toa Payoh Polyclinic

Dr Tay Hu-Lin  
Resident Physician,  
Toa Payoh Polyclinic

Dr Kee Sor Hann  
Resident Physician,  
Woodlands Polyclinic

Dr Umakant Nagar  
Resident Physician,  
Woodlands Polyclinic

Dr Goh Bing Xing  
MOPEX,  
Yishun Polyclinic

Dr Lawrence Ngi  
MOPEX,  
Yishun Polyclinic

Dr Andrew Lee  
MOPEX,  
Yishun Polyclinic

Dr Jonathan Foo  
MOPEX,  
Hougang Polyclinic

Dr Janice Wong  
MOPEX,  
Hougang Polyclinic

**NUSMEDICINE DEAN’S AWARDS 2017**

The NUSMedicine Dean’s Award for Junior Doctor Teaching Award AY16/17 was given out during the Appreciation for NUSMedicine Clinical Teachers event held on 4 December 2017. This event was organised by NUSMedicine to recognise the hard work that clinical teachers put in for the academic year. An NHGP doctor received the teaching award at the event.

**JUNIOR DOCTOR TEACHING AWARD**

Dr Sim Sai Zhen  
Family Physician,  
Hougang Polyclinic

**LKCMEDICINE DEAN’S AWARD FOR EXCELLENCEx IN TEACHING 2017**

The LKCMedicine Dean’s Award for Excellence in Teaching was established in February 2017 to give recognition to faculty (both full-time and clinician educator adjunct faculty) and non-faculty educators who have contributed significantly to medical education at the Lee Kong Chian School of Medicine (LKCMedicine). Towards the end of each academic year, the School’s award committee, chaired by Dean, Prof James Best, aims to recognise and reward deserving educators for this award. One of our doctors received the excellence in teaching award.

**EXCELLENCE IN TEACHING AWARD**

Dr Tang Wern Ee  
Family Physician, Senior Consultant  
Education Director, Family Medicine  
Development and Head, Clinical Research Unit
NHGP BEST FAMILY MEDICINE TRAINERS’ AWARD 2017

The NHGP Best Family Medicine Trainers’ Award recognises the significant contribution by Family Medicine Trainers for their initiative, passion, and dedication in teaching. Two doctors were awarded the best trainer award in FY2017.

Dr Valerie Teo  
Family Physician,  
Associate Consultant,  
Deputy Head, Ang Mo Kio Polyclinic

Dr Nor Izuan Bin Rashid  
Family Physician,  
Woodlands Polyclinic

NHGP NURSING BEST CLINICAL INSTRUCTOR AWARD 2017

The NHGP Nursing Best Clinical Instructor Award recognises outstanding contribution by nurses in providing effective clinical teaching to students and newly recruited nurses and to help them achieve desired learning goals. An NHGP nurse received the award at the event.

Ms Faridah Akhbar  
Senior Staff Nurse,  
Woodlands Polyclinic

MOH IN-SERVICE SCHOLARSHIP AND NHGP SCHOLARSHIP

Several NHGP nurses and Allied Health Professionals received the MOH In-Service Scholarship and NHGP Scholarship in FY2017. These scholarships aim to enhance staff qualifications and leadership capabilities.

MOH IN-SERVICE SCHOLARSHIP AND NHGP SCHOLARSHIP

Ms Jayabal Muthulakshmi  
Staff Nurse,  
Ang Mo Kio Polyclinic

Ms Quilon Karen Adlao  
Staff Nurse,  
Ang Mo Kio Polyclinic

Ms Lena Chan  
Staff Nurse,  
Ang Mo Kio Polyclinic

Ms Xie Shuqin  
Assistant Nurse Clinician,  
Ang Mo Kio Polyclinic

Ms Manimekalai  
Senior Assistant Nurse,  
Hougang Polyclinic

Ms Chen Guan Ling  
Senior Staff Nurse,  
Hougang Polyclinic

Ms Ye Ruijing  
Senior Staff Nurse,  
Hougang Polyclinic

Ms Siok Lai Fong  
Principal Assistant Nurse,  
Toa Payoh Polyclinic

Ms Rajwant Kaur d/o Gurdev Singh Khakh  
Staff Nurse,  
Toa Payoh Polyclinic

Ms Chen Yan  
Senior Staff Nurse,  
Woodlands Polyclinic

Ms Koh Xin Ru  
Staff Nurse,  
Woodlands Polyclinic

Ms Piloppina d/o Savurimuthoo  
Senior Assistant Nurse,  
Woodlands Polyclinic

Ms Jayasudha d/o Arumugam  
Senior Staff Nurse,  
Yishun Polyclinic

FY2017 STRATEGIC NURSING DEVELOPMENT PROGRAMME

Seven NHGP nursing staff members received awards under the Strategic Nursing Development Programme (SNDP). The SNDP awards aim to develop nursing talent to:

• Meet the healthcare needs of an ageing population.
• Implement new healthcare strategies, including early intervention, integrated care, and long-term care for the elderly.
• Build nursing capability in strategic areas of training.

FY2017 STRATEGIC NURSING DEVELOPMENT PROGRAMME

Ms Zel Soh  
Senior Staff Nurse,  
Woodlands Polyclinic

Ms Nirmala Nair  
Senior Nurse Manager,  
Head Nurse,  
Ang Mo Kio Polyclinic

Ms Ervina Lee  
Senior Staff Nurse,  
Ang Mo Kio Polyclinic

Ms June Lim  
Assistant Nurse Clinician,  
Hougang Polyclinic

Ms Elane Zhang  
Nurse Manager,  
Yishun Polyclinic

Ms Lim Voon Hooi  
Senior Nurse Manager,  
Nursing Services

Ms Julia Zhu  
Assistant Nurse Clinician,  
Nursing Services
Creating a Culture of Research and Inquiry

To effectively partner patients on their healthcare and health journeys, NHGP’s healthcare professionals participated in primary care research in FY2017 that further developed their understanding, knowledge and skills.

NHG-LKCMedicine CSPP FY2017

In fostering a strong research culture, NHGP continued to groom potential staff for research. The NHG-LKCMedicine Clinician-Scientist Preparatory Programme (CSPP) is a joint programme between NHG and LKCMedicine comprising project funding, sponsored research training, and mentorship.

The programme aims to expose clinicians to research opportunities early in their career through research training and project experience.

The NHGP recipient for FY2017 CSPP was Dr Sim Sai Zhen, Family Physician, Hougang Polyclinic. Dr Sim’s research project aims to study multi-morbidity and healthcare utilisation in middle-aged patients in primary care.

HOMER Grant FY2017

NHGP was a recipient of the NHG-HOMER (Health Outcomes and Medical Education Research) Grant in FY2017. The short-term grant is designed to encourage clinicians, nurses, Allied Health Professionals, and education researchers to embark on health professions education research.

Toa Payoh Polyclinic’s Dr Kee Kok Wai, Family Physician, Associate Consultant, received a grant for his study in the research area of work-based learning. Dr Kee’s study looked at enhancing family medicine physicians’ learning experience.

SEEDCORN FUNDING

The Seedcorn Funding by the Centre for Primary Health Care Research and Innovation, a joint initiative between NHG and LKCMedicine, supports researchers in conducting quality interdisciplinary research. Ms Julia Zhu, Assistant Nurse Clinician, collaborated with LKCMedicine and was successful in obtaining this funding to study patients’ perceptions and coping strategies of diabetic lower extremity amputation.

NATIONAL MEDICAL RESEARCH COUNCIL CENTRE GRANT

In FY2017, NHGP’s research focus was in the areas of multi-morbidity, understanding and improving treatment-related behaviours in patients with chronic conditions. This work has been supported by funding from the National Medical Research Council (NMRC) Centre Grant.
PRIMARY CARE FORUM 2017

NHGP held its 10th Primary Care Forum (PCF) on 13 and 14 October 2017 in conjunction with the Singapore Health & Biomedical Congress (SHBC) 2017. Themed ‘Primary Care: The Cornerstone of Sustainable High Performing Health Systems’, the forum focused on the key role played by primary care in supporting health systems through chronic illness prevention measures.

NHGP and National Skin Centre (NSC) also held their first collaborative-interactive symposium which involved dermatologists from NSC discussing dermatology issues faced by primary care physicians.

SINGAPORE PRIMARY CARE SCIENTIFIC RESEARCH COMPETITION

The Singapore Primary Care Scientific Research Competition 2017 was held to foster a culture of research in primary care and recognise the research efforts of healthcare professionals. For the list of abstracts accepted for the SHBC Scientific Competition 2017, please refer to Appendix B.

The following NHGP and National Healthcare Group Pharmacy winners were announced at the opening ceremony of the SHBC 2017 on 12 October 2017.

<table>
<thead>
<tr>
<th>ORAL CATEGORY</th>
<th>POSTER CATEGORY</th>
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<tbody>
<tr>
<td><strong>SILVER</strong></td>
<td><strong>GOLD</strong></td>
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<tr>
<td>Outcomes of using CATCH (Comprehensive Assessment Tool for Coordinated and Holistic Care) in the assessment of patients with poor diabetes control</td>
<td>Prevalence of frailty and its epidemiologic risk factors in a panel of older Singaporean adults</td>
</tr>
<tr>
<td>Dr Sabrina Wong</td>
<td>Dr Ian Koh</td>
</tr>
<tr>
<td>Family Physician, Consultant Assistant Director, Clinical Services</td>
<td>Family Physician, Toa Payoh Polyclinic</td>
</tr>
<tr>
<td><strong>BRONZE</strong></td>
<td><strong>SILVER</strong></td>
</tr>
<tr>
<td>Independent predictors for HbA1c decline with sitagliptin as a third line oral hypoglycemic agent in poorly controlled Type 2 diabetes patients in a Singapore primary care setting</td>
<td>Difficulties that patients with chronic conditions face in accessing care in the primary care setting in Singapore: A cross-sectional study</td>
</tr>
<tr>
<td>Ms Tan Poh Ching</td>
<td>Ms Koh Li Jia</td>
</tr>
<tr>
<td>Senior Pharmacist, Toa Payoh Polyclinic</td>
<td>Family Physician, Hougang Polyclinic</td>
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<tr>
<td><strong>BRONZE</strong></td>
<td><strong>BRONZE</strong></td>
</tr>
<tr>
<td>Ms Sandra Xu</td>
<td>Ms Sandra Xu</td>
</tr>
<tr>
<td>Senior Pharmacist, Hougang Polyclinic</td>
<td>Senior Pharmacist, Hougang Polyclinic</td>
</tr>
</tbody>
</table>
NURSING RESEARCH INITIATIVE

In October 2017, the Nursing Research Community of Practice (CoP) was set up. Under the CoP ‘learning by doing’ philosophy, NHGP nurses could proactively participate in research to acquire research knowledge and skills. CoP brings together nurses with a passion for research to learn with and from each other through research project work.

The Nursing Research CoP comprises 15 members who were on 12 project teams as at 31 March 2018. The Nursing Research CoP also conducted a series of roadshows from September to December 2017 to interest nurses in supporting and conducting research.

The Nursing Research and Evidence-Based Practice (EBP) CoP also organised a Nursing Research and CoP Forum on 17 March 2018 to share knowledge and skills in research and EBP. This forum also serves as a platform for primary care nurses to share their research findings.

CONTRIBUTIONS TO NEW HEALTHCARE KNOWLEDGE

In FY2017, NHGP staff continued their efforts to actively contribute to new healthcare knowledge. NHGP’s Nursing research efforts translated into first-author journal publications while a Pharmacy team’s poster submission won the top prize at a competition.

Nursing and Patient Care Research

NHGP’s Ms Goh Ling Jia, Senior Staff Nurse, and Ms Julia Zhu, Nurse Clinician, had their research on patient care published in the International Archives of Nursing and Health Care on 22 May 2017 and 14 July 2017, respectively.

Ms Goh’s research paper, ‘Effectiveness of Telemedicine for Distant Wound Care Advice towards Patient Outcomes: Systematic Review and Meta-Analysis’, assessed the effectiveness of telemedicine in wound care management. Ms Zhu’s contribution, ‘When Can I be Free from My Miserable Leg?’ A Qualitative Study of Patients’ Experiences of Chronic Leg Ulceration in Primary Healthcare’, proposed a bio-psycho-social model of care to meet the needs of patients with chronic leg ulceration.

Pharmacy Operations Research

At the Singapore Healthcare Management Congress 2017 held from 15 to 17 August 2017, National Healthcare Group Pharmacy’s Ms Ainolmardziah Yusof and her team won the first prize in the poster competition, under the Supply Chain Management category. The title of National Healthcare Group Pharmacy’s poster submission was ‘Improving and Sustaining Picking and Packing with Increasing Workload at Central Warehouse’. The annual congress is held to recognise exemplary operations ideas and solutions that enhance patient care.
<table>
<thead>
<tr>
<th><strong>ETIOLOGY:</strong> CLINICAL AND EXPERIMENTAL</th>
</tr>
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<tbody>
<tr>
<td><strong>Date:</strong> July 2017</td>
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<tr>
<td>Association of apolipoprotein-CIII (apoC-III), endothelium-dependent vasodilation and peripheral neuropathy in a multi-ethnic population with Type 2 diabetes.</td>
</tr>
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<table>
<thead>
<tr>
<th><strong>JOURNAL OF DIABETES AND ITS COMPLICATIONS</strong></th>
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<tbody>
<tr>
<td><strong>Date:</strong> July 2017</td>
</tr>
<tr>
<td>Association of the anti-angiogenic factor secreted protein and rich in cysteine (SPARC) with vascular complications among Chinese Type 2 diabetic patients in Singapore.</td>
</tr>
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<table>
<thead>
<tr>
<th><strong>PROCEEDINGS OF SINGAPORE HEALTHCARE</strong></th>
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<tbody>
<tr>
<td><strong>Date:</strong> September 2017</td>
</tr>
<tr>
<td>Do primary care physicians use the 5As in counselling obese patients? A qualitative study.</td>
</tr>
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<table>
<thead>
<tr>
<th><strong>NEPHROLOGY DIALYSIS TRANSPLANTATION</strong></th>
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<tbody>
<tr>
<td><strong>Date:</strong> October 2017</td>
</tr>
<tr>
<td>Genetic variants in the receptor for advanced glycation end products (RAGE) gene were associated with circulating soluble RAGE level but not with renal function among Asians with Type 2 diabetes: A genome-wide association study.</td>
</tr>
</tbody>
</table>
IMPARTING KNOWLEDGE

NHGP conducted several training programmes, talks and workshops in FY2017 to share medical knowledge. Several of NHGP’s training contributions were recognised at the NHG Teaching Awards.

NHGP MEDICAL TEACHING

In FY2017, NHGP’s Family Physicians continued their efforts to impart knowledge to the next generation of practitioners.

Nurturing the Next Generation

In grooming the next generation of doctors, NHGP believes in the importance of starting with an introduction of Family Medicine principles and skills to medical students in the formative years of medical school.

In FY2017, NHGP Family Physicians taught medical undergraduates from NUS Yong Loo Lin School of Medicine (NUSMedicine) and LKCMedical. NHGP was also the training site for LKCMedical’s newly-launched Student Assistantship Programme (SAP) in Family Medicine, the first such programme in Singapore.

In this experiential learning programme aimed at improving the transition of medical students to doctors, Year 5 students who had passed their final clinical and written examinations were placed in clinic teams to be closely supervised by their clinical teachers. Upon graduation and completion of their Postgraduate Year 1 internship, medical graduates can apply for the NHG Family Medicine Residency Programme. The programme will see them undergo a three-year structured, competency-based training to gain a comprehensive foundation in clinical knowledge and skills essential for the practice of Family Medicine.

Under the NHG Family Medicine Residency Programme, medical graduates run full-day continuity clinics at NHGP with fellow residents to see patients under the supervision of Family Physicians.

Professional Development Opportunities

To ensure its healthcare professionals are kept up-to-date and upskilled, NHGP holds regular in-house continuous medical education learning activities.

In FY2017, NHGP conducted six talks and workshops in areas ranging from dementia to legal matters. For the list of medical forums conducted, please refer to Appendix C. In addition, its Family Physicians continued to lead inter-professional teams in quality improvement projects, research projects within NHGP, with community partners and other healthcare institutions.

Through such diverse professional development opportunities, NHGP aims to equip its staff with the skills to meet current and future primary care needs.
**NHG TEACHING AWARDS**

NHG Teachers’ Day 2017 was held on 15 September 2017. Graced by Professor Philip Choo, Group CEO, NHG, the award presentation was held to recognise the outstanding efforts of nominated teachers in NHG, including NHGP.

The awards recognise educators who have contributed significantly to medical education at LKCMedicine. More than 10 NHGP staff members were honoured with awards at the event.

- **NHG TEACHING AWARD FOR JUNIOR DOCTORS**
  - Dr Kee Kok Wai
    - Family Physician, Associate Consultant
    - Toa Payoh Polyclinic
  - Dr Sim Sai Zhen
    - Family Physician, Hougang Polyclinic
  - Dr Teh Kailin
    - Family Physician, Ang Mo Kio Polyclinic

- **NHG YOUNG ACHIEVER AWARD**
  - Ms N Nirmala
    - Senior Nurse Manager, Ang Mo Kio Polyclinic
  - Ms Zaiton Binte Osman
    - Senior Assistant Nurse, Yishun Polyclinic
  - Ms Zel Soh
    - Senior Staff Nurse, Woodlands Polyclinic

- **NHG OUTSTANDING EDUCATION PARTNERS AWARD**
  - Dr Lee Oh Chong Leng
    - Locum

- **NHG OUTSTANDING NURSE TEACHERS**
  - Ms Gao Hua
    - Senior Staff Nurse, Yishun Polyclinic
  - Ms Kang Yimin
    - Senior Staff Nurse, Woodlands Polyclinic

- **NHG OUTSTANDING CITIZENSHIP AWARD**
  - Ms Chan Soo Chung
    - Executive Director, NHG Pharmacy

- **NHG TEACHING AWARD FOR NURSING PRECEPTORS**
  - Ms Nirmala
    - Senior Nurse Manager, Ang Mo Kio Polyclinic
  - Ms Zaiton Binte Osman
    - Senior Assistant Nurse, Yishun Polyclinic
  - Ms Zel Soh
    - Senior Staff Nurse, Woodlands Polyclinic

- **NHG INTER-PROFESSIONAL TEACHING AWARD**
  - Ms Yeoh Hui Ling
    - Senior Executive, Primary Care Academy

- **NHG EDUCATION LEADERS AWARD**
  - Ms Chong Jiun Yih
    - Assistant Director, Pharmacy Services Centre

- **NHG TEACHING AWARD FOR PHARMACY SENIOR PRECEPTORS**
  - Ms Sandra Xu
    - Senior Pharmacist, Ang Mo Kio Polyclinic
  - Mr Gary Wiratama Chandra
    - Senior Pharmacist, Toa Payoh Polyclinic
  - Ms Jen Pei-Hsuan
    - Senior Pharmacist, Ang Mo Kio Polyclinic

- **NHG TEACHING AWARD FOR PHARMACY PRECEPTORS**
  - Ms Zel Soh
    - Senior Staff Nurse, Woodlands Polyclinic
Recognising that staff are its pillars of strength, the National Healthcare Group Polyclinics (NHGP) has in place staff development, appreciation and recognition programmes to motivate and inspire employees.

At the same time, NHGP ensures that its staff are supported through efficient work processes and a strong service and safety culture so that they can give their best. NHGP management also regularly engages its healthcare professionals and support staff to instil in them a sense of pride in their achievements.

Together, NHGP is confident that it can excel in its role in primary care.
DOING NHGP PROUD

Beyond the provision of patient-centered care, FY2017 saw NHGP being recognised for its various efforts in innovation and service excellence. This bears testimony to NHGP’s on-going efforts to transform primary care and improve population health.

Leveraging technology for the more routine services allows staff to proactively offer help and support to patients and their caregivers. This, in turn, contributes to a more patient-centric experience for everyone.

Dr Simon Lee
Family Physician, Consultant Chief Operating Officer and Chief Medical Informatics Officer

Selected from 418 entries submitted from 17 countries, NHGP was recognised for its automation and innovation efforts to enhance patient care while saving more than $2.3 million a year in manpower cost avoidance. Titled ‘Overall Reduction in System Cost — Using Automation & Innovation as Levers for Improved Productivity and Quality of Patient Care’, NHGP’s entry showed how NHGP’s ancillary staff have taken on higher-value work focusing on patient care through the automation of routine duties.

PS21 STAR SERVICE AWARD 2017

Mr Edward Lee, Patient Service Associate, who is also an ICARE Service Leader at Woodlands Polyclinic, was given the PS21 Star Service Award on 19 May 2017 in recognition of his commendable efforts to provide exemplary service to patients.

The PS21 Star Service Award recognises officers who consistently demonstrate high standards of service excellence and is among several award categories under the Excellence in Public Service Awards given out annually by the Public Service.

NATIONAL DAY AWARDS

On 5 November 2017, six NHGP and National Healthcare Group Pharmacy staff received the National Day Awards.

GOLD AWARD AT ASIAN HOSPITAL MANAGEMENT AWARDS 2017

For its digital innovation efforts, NHGP was conferred the Gold Award in the ‘Cost Reduction’ category of the Asian Hospital Management Awards (AHMA) 2017 on 24 August 2017.

Mr Edward Lee (left), Patient Service Associate, Woodlands Polyclinic, receiving the PS21 Star Service Award from Mr Peter Ong, Head of Civil Service.
HEALTHCARE HUMANITY AWARDS 2017

Also doing NHGP proud were two staff members who were conferred the Healthcare Humanity Awards 2017 to honour healthcare professionals who have gone beyond the call of duty to help others.

Dr Kwan Pek Yee, Family Physician, Principal Staff, and Head of Yishun Polyclinic, and Dr Kee Kok Wai, Family Physician, Associate Consultant, Toa Payoh Polyclinic were among the 43 recipients to receive the Open Category Award.

NURSES’ MERIT AWARD 2017

On 7 July 2017, Mr Richard Low, Senior Nurse Manager, Woodlands Polyclinic, received his award from Mr Gan Kim Yong, Minister for Health, at the Nurses’ Merit Award 2017 presentation ceremony for his significant contributions to the nursing profession.

This is an annual event held by the Ministry of Health (MOH) in recognition of outstanding performance and contribution to the nursing profession.

Nurses are nominated by their healthcare institutions and selected by a panel set up by MOH. These nominations can come from public healthcare institutions, the intermediate and long-term care sector, and private hospitals.

SINGAPORE HEALTH AWARD 2017

NHGP’s efforts to promote health at the workplace were honoured with the Corporate Merit Award at the Singapore HEALTH Award 2017 held on 10 October 2017. NHGP’s diverse workplace-health promotion activities organised by its Health Promotion and Preventive Care Department have helped to cultivate a healthy environment for staff.

The biennial Singapore HEALTH Award 2017 is organised by the Health Promotion Board. Four aspects of workplace health promotion such as ‘Strategic Positioning and Management’, ‘Holistic Needs Assessment and Programme Planning’, ‘Comprehensive Coverage’, and ‘Monitoring and Evaluation’ were considered for the 2017 awards.

NATIONAL HEALTH IT EXCELLENCE AWARDS 2017

Organised by MOH to honour organisations and individuals who have delivered excellence in healthcare services through the strategic application of information technology in their operations, the National Health IT Excellence Awards was held on 30 May 2017.

The National Healthcare Group Pharmacy’s submission, the ‘Enhanced Convidose System with Medication Packing Engine’, won an IT Excellence Award in the ‘Beyond Quality to Value’ category. This award category recognises IT initiatives that deliver value to patients through appropriate care and efficient use of clinical resources and manpower.

National Healthcare Group Pharmacy developed the system together with the Institute of Mental Health (IMH) and Integrated Health Information Systems. The system enables automatic transcribing of medication orders from IMH to the National Healthcare Group Pharmacy Services Centre, and automatic transmission of drug items dispensed by National Healthcare Group Pharmacy back to IMH’s billing system. This system has helped to reduce the risk of medication errors and billing errors, and also improved medication safety and staff productivity.

SINGAPORE HEALTHCARE MANAGEMENT POSTER COMPETITION

At the annual Singapore Healthcare Management Congress (SHMC) 2017 held from 15 to 17 August 2017, National Healthcare Group Pharmacy’s Ms Ainolmardziah Yusof and her team won the first prize in the poster competition, in the Supply Chain Management category. The title of National Healthcare Group Pharmacy’s poster submission was “Improving and Sustaining Picking and Packing with Increasing Workload at Central Warehouse”. The congress is held to recognise exemplary solutions that enhance patient care.
NHG AWARDS 2017

On 12 July 2017, three NHGP staff members were recognised for their significant contributions to public healthcare at the NHG Awards Ceremony.

NHGP teams who helped raise the quality standards of patient care through projects and initiatives were also honoured with team awards.

Several NHGP staff members also received the Health Manpower Development Plan (HMDP) awards.

NHG OUTSTANDING CITIZENSHIP AWARD

Dr Gowri Doraisamy
Family Physician, Senior Consultant Director, Care Integration

NHG TEAM RECOGNITION AWARD

GOLD Tele-ECG Collaboration
The Tele-ECG collaboration between NHGP and TTSH Cardiology has helped to reduce avoidable referrals to the cardiology outpatient clinic by right-siting patients.

GOLD Tele-DERM
The secure web-based platform has allowed NHGP family doctors with training in family practice dermatology to discuss skin care cases and treatment options with National Skin Centre (NSC) dermatologists in a convenient and prompt manner, reducing the need for referrals to NSC.

NHG YOUNG ACHIEVER AWARD

Dr David Ng
Family Physician, Consultant Head, Toa Payoh Polyclinic

Ms Serene Kho
Manager, National Healthcare Group Diagnostics
**NHG TEAM RECOGNITION AWARD**

**SILVER**

**Right-Siting of Chronic Disease Patients from Ang Mo Kio Polyclinic to Raffles Medical Group**
The right-siting of chronic disease patients from Ang Mo Kio Polyclinic to the Raffles Medical Group was made possible by the strong collaborative ties of the two organisations working together to provide seamless care for patients.

**SILVER**

**Coronary Risk Screening (CRS) Team**
NHGP's CRS team worked with Nanyang Polytechnic to develop an application software to identify risk profiles of patients for major chronic conditions and provide them with early intervention to better manage population health.

**BRONZE**

**Nursing Training Review Committee (NTRC)**
The NTRC has fostered a culture of learning by developing and supporting the training of nurses as part of NHG’s journey in the Regional Health System.

**NHG DEVELOPMENTAL AWARD**

**HMDP ALLIED HEALTH**

**Dr Wong Mei Yin**
Principal Clinical Psychologist, Clinical Services

**HMDP TEAM-BASED**

**Mr Mah Siew Chung**
Clinical Psychologist, Clinical Services

**Ms Ester Zhang**
Assistant Nurse Clinician, Ang Mo Kio Polyclinic

**Ms Cindy Soh**
Principal Physiotherapist, Clinical Services

**Dr Wee Wei Keong**
Director, Health Promotion & Preventive Care

**Ms Donna Tan**
Family Physician, Associate Consultant Assistant Director, Clinical Services

**Ms Soh Ying Hua**
Executive, Health Promotion & Preventive Care

**Ms Ng Jia Jia**
Executive, Health Promotion & Preventive Care

**Ms Nanda Kumari**
Nurse Clinician, Toa Payoh Polyclinic

**Ms Cindy Chew**
Manager, Corporate Communications

**Ms Chong Hui Jia**
Manager, Clinical Operations Ang Mo Kio Polyclinic

**Ms Chia Kai Li**
Senior Staff Nurse, Ang Mo Kio Polyclinic

**Ms Ng Sze Ern**
Senior Staff Nurse, Toa Payoh Polyclinic

**Ms Cindy Chew**
Senior Staff Nurse, Woodlands Polyclinic

**HMDP MEDICAL - CONSULTANTS & ABOVE**

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

**Dr Darren Seah**
Family Physician, Consultant Director, Family Medicine Development

**HMDP MEDICAL - REGISTRAR & ASSOCIATE CONSULTANT**

**Dr Manojkumar Amarial Kharbanda**
Family Physician, Associate Consultant Ang Mo Kio Polyclinic, Deputy Chief Medical Informatics Officer, Office of Clinical Informatics

**Dr Lim Ziliang**
Family Physician, Associate Consultant Deputy Head, Yishun Polyclinic

**Dr Valerie Teo**
Family Physician, Associate Consultant Deputy Head, Ang Mo Kio Polyclinic

**Dr Tan Khai Wei**
Family Physician, Associate Consultant Deputy Head, Toa Payoh Polyclinic
ENSURING QUALITY STANDARDS

NHGP regularly organises activities to recognise service excellence and quality standards of care. NHGP also looks at initiatives and innovations that enhance productivity and improve the quality of care.

NHG QUALITY DAY

Themed ‘Collaborative Relationships: Co-creating Value in Communities’, the NHG Quality Day 2017 focused on the importance of driving quality improvements. Held on 6 October 2017, Guest-of-Honour, Dr Mary Ann Tsao, founding Director of the Tsao Foundation, gave a keynote address on ‘Developing Collaborative Relationships in the Community’ to about 400 awardees and guests.

Quality improvement and service-related awards were presented to staff. 11 NHGP staff members were conferred the Excellence in Action Award and a caregiver and a patient each received the Exemplary Patient and Caregiver Awards in recognition of their inspiring efforts towards improving quality of care.

Awards were also presented to 13 NHGP staff members who had successfully completed the Clinical Practice Improvement Programme. Two NHGP projects were shortlisted for poster exhibition during the event. The two posters, ‘Improvement in Diabetic Foot screening (DFS) and Diabetic Retinopathy (DRP) Screening Rates among Empanelled Patients’ and ‘To Reduce Dental Prescribing Errors’ were presented by Dr Tricia Chang, Family Physician, Ang Mo Kio Polyclinic and Dr Tan Sze Lin, Senior Dental Surgeon, Toa Payoh Polyclinic.
NHGP QUALITY DAY

The NHGP Quality Day 2017, previously known as the Culture DNA Day, was celebrated on 4 October 2017 with the theme ‘Our Quality Culture – Sustainability and Spread’. The aim of the event was to spread improvement initiatives and projects to polyclinics that might benefit from transformation in their areas of primary care. NHGP also held a quality improvement workshop on ‘Sustainability and Spread’ for about 70 staff members.

Seven team and 15 individual awards were given out in six award categories at the event. For the list of quality improvement projects completed in FY2018, please refer to Appendix D.

MOH PATIENT EXPERIENCE SURVEY 2017

NHGP achieved a composite patient satisfaction score of 92% in MOH’s Patient Experience Survey 2017. The composite score was 0.9 point higher than the national score for polyclinics in Singapore with Toa Payoh Polyclinic attaining the highest score of 94.5% amongst all of NHG Polyclinics. Held in the month of November 2017, the survey assessed patients’ experience at public healthcare institutions and helped identify areas for improvement.

iCARE EXPERIENCE CAMPAIGN

In FY2017, NHGP’s Service Leadership & Patient Relations Department planned and developed a host of initiatives including the iCARE Experience Campaign to engage and energise staff. Service education tools were provided for continuous learning and more importantly, for the clinic management team to continue its drive to strengthen service culture.
HEALTH AND SAFETY INITIATIVES

In FY2017, NHGP continued to highlight the importance of a strong awareness of safety and quality via a range of activities such as roadshows and exercises.

Patient Safety Roadshows

NHGP held its Patient Safety Awareness Campaign for the third consecutive year to promote patient safety awareness among staff with the theme, ‘Effective Communication Saves Lives’. Held in March 2018 at eight locations including all six NHG Polyclinics, NHGP Headquarters and Contact Centre, the campaign focused on the importance of effective communication at work using a scenario-based video and interactive game stations.

NHGP also presented its Patient Safety Star Awards to outstanding staff for advocating a strong safety culture.

Workplace Safety and Health (WSH) Roadshows

To support and enhance the WSH culture at NHGP, the WSH committee organised roadshows across six NHG Polyclinics and NHGP Headquarters from 17 January to 14 February 2018. Maintaining workplace safety and health is an essential aspect of the daily work routine to ensure a safer environment for staff and patients. Topics covered during the roadshows included risk management, handling of sharps, types of infectious diseases and health promotion.
Air Crash Exercise
To support the Singapore Airshow 2018, NHGP formed a Field Medical Team comprising two doctors and four nurses who participated in an air crash exercise known as Exercise Vulcan 2018. The exercise was part of the contingency planning by the Singapore Civil Defence Force and was conducted on 19 January 2018.

Pre-Pandemic Vaccination Exercise
As a primary care provider, NHGP plays an important role in ensuring population health.

On 27 January 2018, Woodlands Polyclinic conducted a pre-pandemic vaccination exercise for an H5N1 scenario. Volunteers from NHGP helped by testing out the workflow for a Mass Vaccination Centre (MVC) by role-playing patients based on MOH’s clinical guidelines.

The MVC exercise provided good learning points for observers from MOH and NHGP as well as the exercise participants. At the same time, the exercise illustrated NHGP’s integral role in supporting MOH during a pandemic outbreak.
**Infection Control Orientation for Geylang Polyclinic staff**

In order to familiarise Geylang Polyclinic staff with NHGP’s Infection Control practices, the Infection Control team from NHGP Headquarters conducted an orientation on 28 February 2018 at the Geylang Polyclinic. Dr Christopher Chong, Family Physician, Associate Consultant, Head of Ang Mo Kio Polyclinic and Chairperson of the Prevention and Control of Infection Committee (PCIC), together with Dr Jonathan Ting, Family Physician, Associate Consultant, and Head of Geylang Polyclinic, conducted the training for more than 100 staff members.

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**FIRST SONOGRAPHER HANDBOOK**

In May 2017, National Healthcare Group Diagnostics published its first Sonographer handbook as a reference guide. Developed by the radiography team, the handbook aims to help sonographers obtain quality ultrasound images to ensure quality of care for patients. The handbook is available at all National Healthcare Group Diagnostics imaging centres.

**Features of the Sonographer Handbook:**

- 60-pages of ultrasound images and information about ultrasound examinations, useful techniques and protocols.
- Glossary of terms in Mandarin and Malay to aid in communication with patients.
- Useful reference for standards of care and audit purposes.
- Invaluable resource for both new users and experienced sonographers.

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**REDESIGNING JOBS**

In FY2017, National Healthcare Group Diagnostics embarked on job redesigns across its clinical and ancillary teams. The aim of the job redesign initiative was to facilitate manpower deployment to support capacity expansion and meet the greater demand on primary care resources. At the same time, the job redesign has helped create more value-added jobs for staff.

Upskilling measures were implemented after careful planning. General radiographers were trained to perform ultrasonography and mammography while Patient Service Associates learned to perform phlebotomy. Drivers were given training to provide basic counter services.

Training was in progress in FY2017 to upskill National Healthcare Group Diagnostics Clinical Support Assistants to perform Diabetic Retinal Photography and Diabetic Foot Screening for chronic patients with diabetes.
STRENGTHENING THE NHGP SPIRIT

In a bid to build a strong NHGP culture, several activities were held during the year to engage staff and strengthen the NHGP spirit.

CEO TOWNHALL

The CEO Townhall sessions were held for all NHG Polyclinics and NHGP Headquarters staff from 19 October 2017 to early November 2017. At the Townhall, A/Prof Chong shared NHGP’s achievements and projects by the Strategic Workgroups to continue NHGP’s Primary Care Transformation Journey. A/Prof Chong also updated staff on the progress of the Central North Primary Care Network, the successful handover of Unity Family Medicine Clinic, and progress of the redeveloped Ang Mo Kio and Yishun Polyclinics.

Stemming from NHGP’s win at the Asian Hospital Management Award (Gold) for its innovation and automation efforts, A/Prof Chong urged staff to continue leveraging innovative technology to automate labour-intensive activities.

NHG FAMILY APPRECIATION DAY 2017

On 27 November 2017, NHGP held its fourth Family Appreciation Day at its headquarters. A/Prof Chong presented 16 book prizes to children of NHGP’s staff and six Stand By Me awards to family members of staff.

The Stand By Me Award was given to appreciate family members for their unwavering care and support to NHGP staff members so that they could have peace of mind at work.

The afternoon saw both staff and their families spending time together at the game booths set up for the day. Staff also shared heartwarming stories on the support they received from their family members.

NHGP continues to enhance the way we deliver holistic primary healthcare to our patients. By leveraging technology, we are able to drive our transformation efforts in an ever-changing healthcare landscape.

A/Prof Chong Phui-Nah
CEO, National Healthcare Group
Polyclinics & Primary Care

A/Prof Chong Phui-Nah, CEO of NHGP & Primary Care, addressing NHGP HQ staff at the Townhall session.
**NHGP ACTIVE DAY FY2017**

Close to 600 NHGP, National Healthcare Group Diagnostics and National Healthcare Group Pharmacy staff came together to attend the annual NHGP Active Day at the Woodlands Sports Hall and Stadium on 3 March 2018. The event which promotes an active and healthy lifestyle was packed with a series of activities and staff were led on a mass Zumba workout to kick-start the event. Various aerobic sessions such as Yoga and Taichi were also conducted. There was also the Inter-polyclinics friendly telematches where Polyclinics competed for the CEO Challenge Trophy. The event saw Woodlands Polyclinic walking away with the CEO Challenge Trophy while Ang Mo Kio Polyclinic and NHGP Headquarters won First and Second Runners-Up respectively.

**NHGP DINNER & DANCE 2017**

Over 800 staff from NHGP, National Healthcare Group Diagnostics and National Healthcare Group Pharmacy gathered at Marina Bay Sands to celebrate NHGP’s annual Dinner & Dance on 11 November 2017. Graced by Guest-of-Honour Professor (Prof) Philip Choo, GCEO, NHG, the night opened with a rousing Samba Dance performance by NHGP Senior Management members. The event’s ‘illumination’ theme saw staff dressed in bright colours as they enjoyed and cheered for colleagues participating in the performance competition. The event concluded with a mass dance led by Senior Management members and a projection dance performance by the Dinner & Dance Organising Committee. The night ended on a high note as lucky draw winners walked away with attractive prizes.
CELEBRATING STAFF SKILLS AND TALENTS

Recognising that its staff are the pillars of the organisation, NHGP commemorated the respective professionals’ days in FY2017 through various ways.

WORLD FAMILY DOCTOR DAY 2017

NHGP celebrated the World Family Doctor Day on 19 May 2017 with its doctors at all its polyclinics. Each NHGP doctor was presented with two movie tickets as a token of appreciation.

NHGP Senior Management members also celebrated World Family Doctor Day with a commemorative cake-cutting ceremony during a Family Medicine Board meeting on 5 May 2017.

NURSES DAY 2017

Celebrations were held across all NHG Polyclinics to commemorate Nurses’ Day on 31 July and 1 August 2017. Both evenings were filled with fun and laughter as nurses and healthcare teams bonded over good food. NHGP Senior Management members also visited the polyclinics to share their appreciation of the invaluable contributions of nurses.

WORLD RADIOGRAPHY DAY, WORLD LABORATORY DAY AND PATIENT SERVICE DAY

National Healthcare Group Diagnostics celebrated World Radiography Day, Patient Service Day and World Radiography Day in April, July and November 2017 respectively. In recognition of the invaluable professional contributions of Diagnostics staff to patient care, National Healthcare Group Diagnostics management team made surprise visits to the polyclinics to personally deliver gifts to show appreciation to staff.

WORLD PHARMACISTS DAY 2017

National Healthcare Group Pharmacy celebrated World Pharmacists Day on 25 September 2017 at The Colonial @ Scotts. It was organised by National Healthcare Group Pharmacy for staff stationed at the polyclinics as well as at Headquarters.
WORLD ORAL HEALTH DAY 2018

In celebration of World Oral Health Day 2018 on 20 March 2018, NHGP Dental Services organised lunch get-togethers for its staff at the polyclinics.

Prizes and gifts were also presented to staff as a gesture of appreciation for their dedicated service.

WORLD SOCIAL WORKERS’ DAY 2018

On 23 March 2018, close to 200 medical social workers and social work assistants got together for an evening of celebration to mark World Social Workers’ Day which fell on 20 March 2018.

The theme of the event was ‘Working Together as an NHG Family – Collaboration, Integration, and Synergy’.

Graced by A/Prof Chua Hong Choon, Deputy Group Chief Executive Officer (Clinical), NHG, the event celebrated the hard work of the medical social workers. It also included a sharing session of the psycho-social care achievements of each NHG institution. Ms Lilian Mak, Chief of Medical Social Work Department, Institute of Mental Health also spoke at the event.
NHGP VOLUNTEERS’ APPRECIATION DAY

On 18 November 2017, NHGP held its annual Volunteers’ Appreciation Day at Hougang Polyclinic in conjunction with International Volunteer Day on 5 December 2017. The theme ‘Our Shining Stars’ was chosen in honour of the volunteers’ contributions and achievements in the past year. Besides thanking the volunteers, A/Prof Chong presented the inaugural iCARE Volunteer Award 2017 to outstanding volunteers who had contributed significantly to their causes. 10 volunteers were also recognised with a Certificate of Appreciation. Specially designed EZ-link cards were presented to all volunteers as appreciation gifts.

The event also saw guest speaker, A/Prof Albert Teo from the National University of Singapore, sharing his 17-year journey of volunteering as well as starting and leading the Touch Therapy Programme at the Communicable Disease Centre at Tan Tock Seng Hospital.

OPERATIONS DAY 2017

NHGP sets aside a day annually to acknowledge the tireless contributions of its Operations staff. Operations staff, usually the first to arrive at the clinics and the last to leave, ensure a caring and conducive environment for both staff and patients. To thank them for their unwavering dedication, more than 400 Operations staff were treated to a scrumptious buffet dinner and movie screening of ‘Guardians of the Galaxy Vol. 2’ on 4 May 2017 at Golden Village Vivo City. Lucky draw prizes were presented to 125 staff members while 12 Operations staff received the Outrageously Passionate Staff Awards in recognition of their strong work ethic.
# APPENDIX A
## LIST OF PRIMARY CARE ACADEMY WORKSHOPS CONDUCTED IN FY2017

### MEDICAL KNOWLEDGE
- M.Med OSCE Exam Preparation
- M.Med Slide Exam Preparation
- GDFM OSCE Exam Preparation
- Introduction to Research
- Research Qualitative Workshop

### INTERPERSONAL COMMUNICATION
- Facilitation for Effective Clinic Communication
- Enhancing Critical Communication Skills that Matter
- Basic Communication Skills

### PRACTICE-BASED LEARNING
- Evidence-Based Medicine – Guide to Critical Appraisal
- Teaching 101 for Busy Healthcare Professionals
- Mentoring – A Guide by the Side
- Advancing Ethics and Professionalism in Primary Care
- Healthy Literacy Workshop
- Team-Based Care Training
- Care Coordinator’s Training

### COURSES FOR THE PUBLIC AND COMMUNITY
- General Practitioner’s Assistant Courses – Foundation, Intermediate & Advance
- Basic First Aid Workshop
- Care for the Elderly
- CPR + AED
- Falls Prevention & Use of Ambulatory Aids for Diagnostics Staff

### PATIENT CARE / CLINICAL & PROCEDURAL SKILLS
- Management of Joint & Soft Tissues Conditions in Primary Care
- Common Eye Conditions Update and Eye Examination Techniques for Family Physicians
- Interpretation of Spirometry Results
- Foundation Chronic Disease Management
- Diabetic Foot Screening
- Dermatology Workshop
- Advance Wound Management Workshop
- Early Childhood Nutrition Workshop
- Vaccination Workshop
- Infection Control Seminar
- Common Issues in Developmental Paediatrics
- BCLS & AED Full Certification
- BCLS & AED Re-Certification

### SUPPORT FOR CLINICAL DELIVERY
- Train the Trainer for Essential Skills for Clinical Ancillary Staff
- Service Communications Foundation Course for Frontline Clinic Staff
- Use of Medical Terminology in Work Activities (WSQ)
- Basic Health Parameters for Clinical Ancillary Staff
- Assist in Collection of Pap Smear Specimens for Health Attendants
- Essential Skills for Clinical Ancillary Staff
- Simplified Use of Medical Terminology
- English-Chinese Medical Translation Course
- Know the Elderly: Workshop for Frontliners
- Understanding Diabetes, Hypertension and Lipid Disorders: Workshop for Frontliners
- Caring of Older Adults in Primary Care
<table>
<thead>
<tr>
<th>NO.</th>
<th>ABSTRACT TITLE</th>
<th>AUTHORS</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Outcomes of Using CATCH (Comprehensive Assessment Tool for Coordinated and Holistic Care) in the Assessment of Patients with Poor Diabetes Control.</td>
<td>Sabrina Wong Kay Wye, Clare Teo Tuan Neng, Tan Sing Ying &amp; Yeo Loo See</td>
</tr>
<tr>
<td>2</td>
<td>Prevalence and Pattern of Complementary and Alternative Medicine Use Among Type 2 Diabetes Mellitus Patients in a Primary Care Setting in Singapore: A Cross-Sectional Study.</td>
<td>Richard Hui Jor Yeong, Lee Eng Sing, Tang Wern Ee &amp; Jiang Yilin</td>
</tr>
<tr>
<td>3</td>
<td>Evaluating Weight Management Programme: The Answer to Diabesity?</td>
<td>Soh Ying Hua, Jayalakshmy Aarthi Ananthanarayananan &amp; Xie Ying</td>
</tr>
<tr>
<td>4</td>
<td>Independent Predictors for HbA1c Decline with Sitagliptin as a Third Line Oral Hypoglycemic Agent in Poorly Controlled Type 2 Diabetes Patients in a Singapore Primary Care Setting.</td>
<td>Tan Poh Ching, David Ng Wei Liang, Tan Khai Wei, Gareth Yeo Yong Tai &amp; Jiang Yilin</td>
</tr>
<tr>
<td>5</td>
<td>Is Perceived Continuity of Care Correlated with Hassles Experienced by Patients?</td>
<td>Lee Eng Sing &amp; Jiang Yilin</td>
</tr>
<tr>
<td>8</td>
<td>An Update of Pharmacist-Managed Anticoagulation Clinics in Primary Care: Evaluation of a Collaborative Care Model.</td>
<td>Sandra Xu Jialun</td>
</tr>
<tr>
<td>9</td>
<td>Difficulties that Patients with Chronic Conditions Face in Accessing Care in the Primary Care Setting in Singapore: A Cross-Sectional Study.</td>
<td>Koh Li Jia</td>
</tr>
<tr>
<td>10</td>
<td>Prevalence of Frailty and its Epidemiologic Risk Factors In a Panel of Older Singaporean Adults.</td>
<td>Ian Koh Jan Ming, Jessica Koh &amp; David Ng Wei Liang</td>
</tr>
<tr>
<td>11</td>
<td>Your Perception Predicts Your Anxiety Level: A Preliminary Study in Primary Care in Singapore.</td>
<td>Ooi Say Leong, Mah Siew Chung, Jerlyn Ang Wen Jia, Lim Kok Kwang, Yap Chee Khong &amp; Wong Mei Yin</td>
</tr>
<tr>
<td>12</td>
<td>Patient-Defined Recovery from Depression in Primary Care in Singapore.</td>
<td>Soon Jiaying, Benjamin Low, Lim Kok Kwang, Yap Chee Khong &amp; Wong Mei Yin</td>
</tr>
<tr>
<td>13</td>
<td>Effectiveness of Pre-Consultation Medication Reconciliation Service (MRS) in Reducing Unintentional Medication Discrepancies during Transition of Care from Hospital Discharge to Primary Care Setting in Singapore – A Randomised Controlled Trial.</td>
<td>Kee Kok Wai, Cheryl Char Wai Teng, Anthony Yip Yew Fei, Angelia Chua Hwee Ling &amp; Lee Eng Sing</td>
</tr>
<tr>
<td>14</td>
<td>Knowledge and Confidence in Falls Prevention Education Amongst Visitors to the Ageing-in-Place Studio.</td>
<td>Kee Kok Wai, Soh Ying Hua, Sim Mong Kheng &amp; David Ng Wei Liang</td>
</tr>
<tr>
<td>15</td>
<td>Patient Perceived Continuity of Care Among Patients with Chronic Diseases in Singapore.</td>
<td>Lee Eng Sing, Joel Hwang Ern Huei &amp; Koh Li Jia</td>
</tr>
<tr>
<td>NO.</td>
<td>ABSTRACT TITLE</td>
<td>AUTHORS</td>
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<tr>
<td>16</td>
<td>A Review on Interventions to Reduce Medication Discrepancies or Errors in Primary or Ambulatory Care Setting During Care Transition from Hospital to Primary Care.</td>
<td>Kee Kok Wai, Cheryl Char Wai Teng &amp; Anthony Yip Yew Fei</td>
</tr>
<tr>
<td>17</td>
<td>Evaluation of the Effectiveness of Reduction of Percutaneous Injury in Dental Clinics from 2013 to 2016.</td>
<td>Vivian Wong Yung Yee, Lily Lang Ren Lee, Pearline Lim Su Ching &amp; Kenneth Low Meng Tze</td>
</tr>
<tr>
<td>18</td>
<td>Predictors of Motivation for Type-2 Diabetes Mellitus Management for Patients in Primary Care in Singapore.</td>
<td>Soon Jiaying, Joy Chen Jiaoyu, Janice Quek Yan Qi, Grace Tan Xian Shuan, Lim Kok Kwang, Yap Chee Khong &amp; Wong Mei Yin</td>
</tr>
<tr>
<td>19</td>
<td>What is the Impact of Seeing a Dedicated Primary Care Team on the Care of Patients with Poorly Controlled Type 2 Diabetes Mellitus?</td>
<td>Kwek Sing Cheer</td>
</tr>
<tr>
<td>20</td>
<td>Knowledge on Diabetes Mellitus and Management when Fasting during Ramadan Among Muslim Patients in Primary Care.</td>
<td>Carolyn Chan Mei Fong, Michelle Lee Cai Feng, Winnie Poh Siew Huay, Chan Cheuk Ying &amp; Goh Ling Jia</td>
</tr>
<tr>
<td>21</td>
<td>Emerging Nurse Leaders’ Perceptions on Their Leadership Roles: Am I a Leader Now?</td>
<td>Christie Anna Money Samuel &amp; Dong Lijuan</td>
</tr>
<tr>
<td>22</td>
<td>Telewound Monitoring, a New Wound Care Model for Managing Acute Non-infected Wounds in Primary Healthcare: Current Status and Future Potential.</td>
<td>Zhu Xiaoli, Goh Ling Jia, Lim Voon Hooi, Wan Lili &amp; Chen Yan</td>
</tr>
<tr>
<td>23</td>
<td>The Role of the Pharmacist in Telemedicine in Primary Care: A Scoping Review.</td>
<td>Kong Jing Wen</td>
</tr>
<tr>
<td>24</td>
<td>Descriptive Study on Trend Analysis of Nebulisation Rates and Prescribing Habits Involving Asthma Patients and Primary Care Physicians in a Polyclinic Setting in Singapore.</td>
<td>Vivek Bansal, Tan En Yu &amp; Wong Theng Theng</td>
</tr>
<tr>
<td>25</td>
<td>2-Year Review of the Interventions in Reducing the Number of Dislodged Fillings in Dental Clinics.</td>
<td>Vivian Wong Yung Yee, Chiam Siew Cheng, Pearline Lim Su Ching, Kenneth Low Meng Tze, Tan Sze Lin, Serene Wu Shilin, Patricia Wong Ren Jie, Holy Koh Jr &amp; Serene Zhang Ruping</td>
</tr>
<tr>
<td>26</td>
<td>Multimodal Drug and Clinical Habit Adjustment: Effective Tools in Improving Low Density Lipoprotein Cholesterol Levels in a Primary Care Type 2 Diabetes Mellitus Population?</td>
<td>Esther Tan Sein Yong &amp; Wang Li</td>
</tr>
<tr>
<td>27</td>
<td>The Impact of Advanced Practice Nurse Led Asthma Clinic in the Follow-Up of Patients After an Acute Exacerbation in Primary Care Setting.</td>
<td>Blessy Koottappal Mathew &amp; Carolyn Chan Mei Fong</td>
</tr>
<tr>
<td>28</td>
<td>The Role of the Family Doctor in Telemedicine for the Geriatric population: A Scoping Review.</td>
<td>Kong Jing Wen &amp; Tan Wee Hian</td>
</tr>
<tr>
<td>29</td>
<td>Are We Fair in our Teaching Methods? To Compare the Learning Styles of Learners and Trainers Using the VARK Questionaire.</td>
<td>Angelia Chua Hwee Ling</td>
</tr>
</tbody>
</table>
## APPENDIX C

### MEDICAL FORUMS AND WORKSHOPS CONDUCTED IN FY2017

<table>
<thead>
<tr>
<th>DATES</th>
<th>TOPICS</th>
<th>SPEAKERS</th>
</tr>
</thead>
</table>
| 18 May 2017      | Dementia in Primary Care and the Memory Clinic                         | **Dr Lai Shan Hui**  
Family Physician, Choa Chu Kang Polyclinic, National University Polyclinics  
**Dr Chris Tsoi**  
Consultant, Department of Psychological Medicine, University Medical Cluster, National University Hospital |
| 20 July 2017     | ‘I Can’t Fight This Feeling Anymore’ – Getting Our Patients Out of Addictions | **Dr Lambert Low**  
Associate Consultant, National Addiction Management Service, Institute of Mental Health  
**Mr Lawrence Tan**  
Senior Psychologist, National Addiction Management Service, Institute of Mental Health  
**Ms Nio Yin Ying**  
Senior Assistant Director, Prevention Drug Education Unit, Central Narcotics Bureau |
| 21 September 2017| Altered Medicinal Products with Undeclared Ingredients & Cushing’s Syndrome | **Ms Patricia Ng**  
Regulatory Specialist, Adverse Event Management Unit, Health Sciences Authority  
**Ms Valerie Wee**  
Regulatory Consultant, Adverse Event Management Unit, Health Sciences Authority  
**Dr Kathleen Sek**  
Associate Consultant, Division of Endocrinology, National University Hospital |
| 16 November 2017 | Let’s Talk About Legal Matters!                                        | **Mr Haryadi Hadi**  
Lawyer, Sim Mong Teck & Partners  
**Dr Lai Siang Hui**  
President, Medico-Legal Society, Singapore  
Board Member, Centre for Medical Ethics and Professionalism, Singapore Medical Association |
| 1 February 2018  | How Does Healthcare Professionals’ Awareness of Health Literacy Impact Patients and Healthcare Outcomes in Primary Care | **Prof Calvin Chou**  
MD, PhD, FACH; Professor of Clinical Medicine, University of California, San Francisco |
| 22 March 2018    | ‘Doctor, I Always Feel Giddy.’ An Approach to Chronic Giddiness         | **Dr Ho Eu Chin**  
Consultant, Multi-Disciplinary Balance Clinic  
Department of Otorhinolaryngology  
Director, Clinical Research, Clinical Research & Innovation Office, Tan Tock Seng Hospital |
# APPENDIX D
## QUALITY IMPROVEMENT PROJECTS COMPLETED IN FY2017

<table>
<thead>
<tr>
<th>NO.</th>
<th>TITLE</th>
<th>INITIATED BY</th>
<th>LEADERS</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>To decrease the number of potentially inappropriate medication (PIM) prescribed to patients ( \geq 65 ) years old in Ang Mo Kio Polyclinic Teamlet A by 50% from a baseline of 360 PIM prescribed per month, over a period of 6 months.</td>
<td>AMK</td>
<td>Dr Tricia Chang</td>
</tr>
<tr>
<td>2</td>
<td>To improve Advanced Practice Nurse appointment uptake rates in Ang Mo Kio Polyclinic.</td>
<td>AMK</td>
<td>Dr Tricia Chang</td>
</tr>
<tr>
<td>3</td>
<td>To increase the documentation rate of prescription interventions and near-misses in Ang Mo Kio Pharmacy.</td>
<td>AMK</td>
<td>Ms Thet Htar Sint</td>
</tr>
<tr>
<td>4</td>
<td>To improve way-finding experience in Geylang Polyclinic.</td>
<td>GL</td>
<td>Mr Ooi Chai Wah</td>
</tr>
<tr>
<td>5</td>
<td>To reduce the proportion of patients seen at Geylang Polyclinic with HbA1c &gt; 9.5% from 10% to 8.5% over 4 months.</td>
<td>GL</td>
<td>Dr Gabriel Ding</td>
</tr>
<tr>
<td>6</td>
<td>To ensure that 70% of Type 2 Diabetes Mellitus patients in Hougang Polyclinic, with prior FBG &gt; 7mmol/L, achieve target FBG &lt; 7mmol/L within 3 months of starting basal insulin.</td>
<td>HOU</td>
<td>Dr Sim Sai Zhen &amp; Ms Irene Kong</td>
</tr>
<tr>
<td>7</td>
<td>To eliminate the incidence of falls for all wheelchair-bound patients in the dressing room at Hougang Polyclinic.</td>
<td>HOU</td>
<td>Ms Sandra Chew</td>
</tr>
<tr>
<td>8</td>
<td>To increase the compliance rate to verification of patient’s identity by doctors during consultation from 11% to 100% at Hougang Polyclinic in 6 months.</td>
<td>HOU</td>
<td>Ms Wang Qingli</td>
</tr>
<tr>
<td>9</td>
<td>To improve dietitian referral rate for newly diagnosed Type 2 Diabetes Mellitus patients in Hougang Polyclinic.</td>
<td>HOU</td>
<td>Ms Sim Shin Yueh &amp; Ms Tan Pei Fen</td>
</tr>
<tr>
<td>10</td>
<td>To improve accessibility of fall-risk patients from dental waiting area to treatment room.</td>
<td>HOU</td>
<td>Ms Tan Kali</td>
</tr>
<tr>
<td>11</td>
<td>To reduce time when retrieving oral surgery instruments by Health Attendant at Hougang Dental Sterilisation Room by 50% within 6 months.</td>
<td>HOU</td>
<td>Ms Destinee Yeo</td>
</tr>
<tr>
<td>12</td>
<td>To increase off-site medication collection rates at Hougang Pharmacy from 1% to 50 per month within 6 months.</td>
<td>HOU</td>
<td>Ms Valerie Tan</td>
</tr>
<tr>
<td>13</td>
<td>To increase Diabetic Retinal Photography screening rate* from 59.9% to 75% at Hougang Polyclinic in 6 months. (*screening done within past 12 months)</td>
<td>HOU</td>
<td>Ms Hamha Binte Mohamed Hamzah</td>
</tr>
<tr>
<td>14</td>
<td>To increase the annual Diabetic Foot Screening rate at Hougang Polyclinic from 55.7% to 85% within 6 months.</td>
<td>HOU</td>
<td>Ms Santhi d/o Govindan</td>
</tr>
<tr>
<td>15</td>
<td>To enhance drug expiry monitoring to reduce wastage in 3 months.</td>
<td>HOU</td>
<td>Ms Jannie Mae</td>
</tr>
<tr>
<td>16</td>
<td>To improve the delivery of urinalysis test information to patients prior to their laboratory appointment at Hougang Polyclinic in 6 months.</td>
<td>HOU</td>
<td>Ms Janet Teng</td>
</tr>
<tr>
<td>17</td>
<td>To reduce the number of home patients rejected for blood taking due to lack of valid photo identification at Hougang Polyclinic in 6 months.</td>
<td>HOU</td>
<td>Ms Janet Teng</td>
</tr>
<tr>
<td>18</td>
<td>To eliminate infection control lapses and to implement equal distribution of work load in immunization room by introducing a daily checklist.</td>
<td>TPY</td>
<td>Ms Jeena Varghese</td>
</tr>
<tr>
<td>19</td>
<td>To achieve zero discrepancy in instruments from dressing room.</td>
<td>TPY</td>
<td>Ms Durga Devi d/o Kurusamy</td>
</tr>
<tr>
<td>NO.</td>
<td>TITLE</td>
<td>INITIATED BY</td>
<td>LEADERS</td>
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<tr>
<td>20</td>
<td>To reduce clinic turnaround time for walk-in patients obtaining Same Day Appointment slots over a 1-year period.</td>
<td>TPY</td>
<td>Dr Tan Khai Wei</td>
</tr>
<tr>
<td>21</td>
<td>To increase the prescriptions of patients with Chronic Kidney Disease stage 4 and 5 checked for renal dose appropriateness during each chronic visits from 4.9% to 100% in Toa Payoh Polyclinic within 6 months.</td>
<td>TPY</td>
<td>Mr Gary Wiratama Chandra</td>
</tr>
<tr>
<td>22</td>
<td>To reduce number of sharps injuries caused by matrix bands amongst Woodlands Dental Officers to zero in 6 months.</td>
<td>WDL</td>
<td>Dr Melissa Guay</td>
</tr>
<tr>
<td>23</td>
<td>To improve the rate of smoking cessation counselling by healthcare staff given to smokers aged 18 years and above who attend Woodlands Polyclinic from August, 2016 – January 2017 to 100%.</td>
<td>WDL</td>
<td>Dr Kung Jian Ming</td>
</tr>
<tr>
<td>24</td>
<td>To improve Care Manager’s workload in Woodlands Polyclinic.</td>
<td>WDL</td>
<td>Dr Neesha Maganlal</td>
</tr>
<tr>
<td>25</td>
<td>To improve the accuracy of stocks received by the retail team.</td>
<td>WDL</td>
<td>Mr Ang Siang Yong</td>
</tr>
<tr>
<td>26</td>
<td>To bridge clinical knowledge gaps amongst staff at Woodlands Pharmacy.</td>
<td>WDL</td>
<td>Mr Choong Ying Wen</td>
</tr>
<tr>
<td>27</td>
<td>To target poorly controlled diabetics and improve their HbA1c control.</td>
<td>WDL</td>
<td>Dr Chan Hiu Yeung Olivia</td>
</tr>
<tr>
<td>28</td>
<td>To increase the actualisation rate of Diabetic Retinal Photography service consumed in Woodlands Polyclinic.</td>
<td>WDL</td>
<td>Dr Nurul Azyan</td>
</tr>
<tr>
<td>29</td>
<td>To increase the utilisation of Diabetic Foot Screening appointments amongst Diabetic patients in Woodlands Polyclinic.</td>
<td>WDL</td>
<td>Dr Shauna Sim</td>
</tr>
<tr>
<td>30</td>
<td>To increase the percentage of babies weighed from 31.7% to 100% for all neonatal jaundice visits in the first 14 days of life at Yishun Polyclinic in 6 months.</td>
<td>YIS</td>
<td>Dr Rajagopal Ramaswami</td>
</tr>
<tr>
<td>31</td>
<td>To reduce time taken to pick and pack loose tablets by 50% in Yishun Pharmacy.</td>
<td>YIS</td>
<td>Ms Eunice Lim</td>
</tr>
<tr>
<td>32</td>
<td>To improve patient’s adherence to change in medication dose by at least 70%.</td>
<td>YIS</td>
<td>Ms Joyceanne Bagtas</td>
</tr>
<tr>
<td>33</td>
<td>To screen for frailty in elderly patients in Yishun Polyclinic.</td>
<td>YIS</td>
<td>Dr Lim Wei Khoon</td>
</tr>
<tr>
<td>34</td>
<td>To increase the rate of breast feeding among mothers visiting Yishun Polyclinic.</td>
<td>YIS</td>
<td>Dr Rasminder Kaur</td>
</tr>
<tr>
<td>35</td>
<td>To improve medication safety in treatment room.</td>
<td>HQ</td>
<td>Ms Lim Voon Hooi</td>
</tr>
<tr>
<td>36</td>
<td>To reduce the waitlist of NHGP’s Weight Management Programme (WNMP).</td>
<td>HQ</td>
<td>Ms Jayalakshmy Aarthi Ananthanarayanan &amp; Ms Soh Ying Hua</td>
</tr>
<tr>
<td>37</td>
<td>To improve clinical documentation time for Diabetic Foot Screening.</td>
<td>HQ</td>
<td>Ms Lee Ching Lian</td>
</tr>
<tr>
<td>38</td>
<td>To reduce out-of-clinic time for healthcare professionals in primary care.</td>
<td>HQ</td>
<td>Ms Yeoh Hui Ling</td>
</tr>
<tr>
<td>39</td>
<td>To leverage technology for patients’ preventive health needs.</td>
<td>HQ</td>
<td>Ms Aini Alena Kadis</td>
</tr>
<tr>
<td>40</td>
<td>To increase the efficiency of PSC Quality Control Process by 30%.</td>
<td>HQ</td>
<td>Ms Selvia Zhang</td>
</tr>
</tbody>
</table>
SNAPSHOTS OF PATIENTS
ATTENDANCE AND WORKLOAD IN FY2017

GENDER RATIO OF PATIENTS

<table>
<thead>
<tr>
<th>NUMBER OF PATIENTS</th>
</tr>
</thead>
<tbody>
<tr>
<td>MALE 409,000</td>
</tr>
<tr>
<td>FEMALE 428,000</td>
</tr>
</tbody>
</table>

ETHNIC COMPOSITION OF PATIENTS

<table>
<thead>
<tr>
<th>TOTAL NUMBER OF PATIENTS</th>
</tr>
</thead>
<tbody>
<tr>
<td>837,000</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>ETHNIC GROUP</th>
</tr>
</thead>
<tbody>
<tr>
<td>CHINESE 579,000 69%</td>
</tr>
<tr>
<td>MALAY 133,000 16%</td>
</tr>
<tr>
<td>INDIAN 79,000 9%</td>
</tr>
<tr>
<td>OTHERS 46,000 6%</td>
</tr>
</tbody>
</table>

PATIENTS BY DIFFERENT AGE GROUPS

<table>
<thead>
<tr>
<th>NUMBER OF PATIENTS ('000)</th>
<th>Diff (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Age Groups (Years)</td>
<td>FY2017</td>
</tr>
<tr>
<td>0-4</td>
<td>67</td>
</tr>
<tr>
<td>5-19</td>
<td>91</td>
</tr>
<tr>
<td>20-39</td>
<td>182</td>
</tr>
<tr>
<td>40-64</td>
<td>313</td>
</tr>
<tr>
<td>65 &amp; Above</td>
<td>193</td>
</tr>
</tbody>
</table>

Notes:
- Geylang Polyclinic joined NHG on 1 October 2017 so its data has been included for the period of 1 October 2017 to 31 March 2018 unless otherwise stated.
- Pioneer Polyclinic joined National University Polyclinics on 15 July 2017. Its data has been included for the period of 1 April 2017 to 15 July 2017 unless otherwise stated.
- Bukit Batok, Choa Chu Kang, Clementi and Jurong Polyclinics joined National University Polyclinics on 1 October 2017. Its data has been included for the period of 1 April to 30 September 2017 unless otherwise stated.
- As numbers are rounded up for greater clarity, small rounding differences may arise.
### CHRONIC PATIENTS BY AGE GROUP AND COMPLEXITY

<table>
<thead>
<tr>
<th>AGE GROUPS (YEARS)</th>
<th>0-4</th>
<th>5-19</th>
<th>20-39</th>
<th>40-64</th>
<th>65 &amp; Above</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Simple Chronic</td>
<td>90%</td>
<td>83%</td>
<td>76%</td>
<td>34%</td>
<td>16%</td>
<td>38%</td>
</tr>
<tr>
<td>Moderate Chronic</td>
<td>10%</td>
<td>16%</td>
<td>21%</td>
<td>41%</td>
<td>38%</td>
<td>35%</td>
</tr>
<tr>
<td>Complex Chronic</td>
<td>0.1%</td>
<td>1%</td>
<td>3%</td>
<td>25%</td>
<td>46%</td>
<td>27%</td>
</tr>
</tbody>
</table>

**Note:**
- Data from Geylang Polyclinic has not been included in this table.
### DAILY AVERAGE

<table>
<thead>
<tr>
<th></th>
<th>FY2013</th>
<th>FY2014</th>
<th>FY2015</th>
<th>FY2016</th>
<th>FY2017 (Q1 &amp; Q2)</th>
<th>FY2017 (Q3 &amp; Q4)</th>
</tr>
</thead>
<tbody>
<tr>
<td>TOTAL</td>
<td>10,459</td>
<td>10,833</td>
<td>11,719</td>
<td>11,998</td>
<td>12,367</td>
<td>7,994</td>
</tr>
<tr>
<td>DOCTOR VISITS</td>
<td>7,222</td>
<td>7,411</td>
<td>8,061</td>
<td>8,213</td>
<td>8,456</td>
<td>5,370</td>
</tr>
<tr>
<td>NON-DOCTOR VISITS</td>
<td>3,236</td>
<td>3,422</td>
<td>3,658</td>
<td>3,784</td>
<td>3,911</td>
<td>2,624</td>
</tr>
</tbody>
</table>

**Note:**
- The decrease in total attendance from FY2016 to FY2017 is due to the public healthcare restructuring in FY2017. NHGP had six polyclinics at the end of FY2017 as compared to nine polyclinics at the end of FY2016.
### TOP 10 PRIMARY DIAGNOSES SEEN IN FY2017

<table>
<thead>
<tr>
<th>ICD 10</th>
<th>Diagnosis</th>
<th>No. of Visits</th>
<th>% Total Consult Visits</th>
</tr>
</thead>
<tbody>
<tr>
<td>J06.9</td>
<td>Acute Upper Respiratory Infection, Unspecified</td>
<td>347,136</td>
<td>18%</td>
</tr>
<tr>
<td>E11.9</td>
<td>Type 2 Diabetes Mellitus Without Complication</td>
<td>282,297</td>
<td>15%</td>
</tr>
<tr>
<td>I10</td>
<td>Essential (Primary) Hypertension</td>
<td>225,565</td>
<td>12%</td>
</tr>
<tr>
<td>E78.5</td>
<td>Hyperlipidaemia, Unspecified</td>
<td>112,973</td>
<td>6%</td>
</tr>
<tr>
<td>R68</td>
<td>Other General Symptoms and Signs</td>
<td>76,859</td>
<td>4%</td>
</tr>
<tr>
<td>A09.9</td>
<td>Other Specified Noninfective Gastroenteritis and Colitis</td>
<td>62,508</td>
<td>3%</td>
</tr>
<tr>
<td>L98.9</td>
<td>Disorder of Skin and Subcutaneous Tissue, Unspecified</td>
<td>56,227</td>
<td>3%</td>
</tr>
<tr>
<td>T14.3</td>
<td>Dislocation, Sprain and Strain of Unspecified Body Region</td>
<td>46,089</td>
<td>2%</td>
</tr>
<tr>
<td>Z00.1</td>
<td>Routine Child Health Examination</td>
<td>43,544</td>
<td>2%</td>
</tr>
<tr>
<td>R51</td>
<td>Headache</td>
<td>36,553</td>
<td>2%</td>
</tr>
</tbody>
</table>

### CONSULT WAITING TIME IN FY2017 (MINUTES)

#### VISIT TYPE
- **Walk-in**
  - 50th PERCENTILE: 12 minutes
  - 95th PERCENTILE: 57 minutes
- **Appointment**
  - 50th PERCENTILE: 7 minutes
  - 95th PERCENTILE: 49 minutes

**Note:**
- Data from Geylang Polyclinic has not been included in this table.

### HEADCOUNT

<table>
<thead>
<tr>
<th>JOB CATEGORY</th>
<th>FY2016</th>
<th>FY2017</th>
<th>% CHANGE</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ancillary</td>
<td>632</td>
<td>443</td>
<td>-29.9%</td>
</tr>
<tr>
<td>Nursing</td>
<td>380</td>
<td>279</td>
<td>-26.6%</td>
</tr>
<tr>
<td>NHG Pharmacy</td>
<td>320</td>
<td>320</td>
<td>0%</td>
</tr>
<tr>
<td>Medical 1</td>
<td>296</td>
<td>225</td>
<td>-24.0%</td>
</tr>
<tr>
<td>Administrative</td>
<td>186</td>
<td>178</td>
<td>-4.3%</td>
</tr>
<tr>
<td>NHG Diagnostics</td>
<td>194</td>
<td>191</td>
<td>-1.5%</td>
</tr>
<tr>
<td>Allied Health 1</td>
<td>58</td>
<td>49</td>
<td>-15.5%</td>
</tr>
<tr>
<td>Dental 2</td>
<td>51</td>
<td>50</td>
<td>-1.96%</td>
</tr>
<tr>
<td><strong>TOTAL</strong></td>
<td>2,117</td>
<td>1,735</td>
<td>-18.0%</td>
</tr>
</tbody>
</table>

**Notes:**
1. Allied Health category excludes all Pharmacy staff. Pharmacists, pharmacy technicians, pharmacy assistants, pharmacy store keepers, 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 DENTAL PATIENTS IN FY2017

ANNUAL ATTENDANCE

<table>
<thead>
<tr>
<th>FY</th>
<th>TOTAL</th>
</tr>
</thead>
<tbody>
<tr>
<td>2013</td>
<td>119</td>
</tr>
<tr>
<td>2014</td>
<td>125</td>
</tr>
<tr>
<td>2015</td>
<td>129</td>
</tr>
<tr>
<td>2016</td>
<td>136</td>
</tr>
<tr>
<td>2017</td>
<td>135</td>
</tr>
</tbody>
</table>

TYPES OF DENTAL PROCEDURES

<table>
<thead>
<tr>
<th>FY2013</th>
<th>FY2014</th>
<th>FY2015</th>
<th>FY2016</th>
<th>FY2017</th>
</tr>
</thead>
<tbody>
<tr>
<td>99.7</td>
<td>107.4</td>
<td>116.7</td>
<td>126.7</td>
<td>116.2</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>FY2013</th>
<th>FY2014</th>
<th>FY2015</th>
<th>FY2016</th>
<th>FY2017</th>
</tr>
</thead>
<tbody>
<tr>
<td>63.0</td>
<td>64.5</td>
<td>57.9</td>
<td>59.4</td>
<td>55.1</td>
</tr>
</tbody>
</table>

BASIC DENTAL PROCEDURES BY NUMBER OF VISITS

DAILY AVERAGE

Dental Checkups, Scaling and Polishing

<table>
<thead>
<tr>
<th>FY2013</th>
<th>FY2014</th>
<th>FY2015</th>
<th>FY2016</th>
<th>FY2017</th>
</tr>
</thead>
<tbody>
<tr>
<td>358</td>
<td>391</td>
<td>427</td>
<td>448</td>
<td>415</td>
</tr>
</tbody>
</table>

Fillings and Extractions

<table>
<thead>
<tr>
<th>FY2013</th>
<th>FY2014</th>
<th>FY2015</th>
<th>FY2016</th>
<th>FY2017</th>
</tr>
</thead>
<tbody>
<tr>
<td>226</td>
<td>235</td>
<td>211</td>
<td>210</td>
<td>197</td>
</tr>
</tbody>
</table>

Note:
- The decrease in total attendance from FY2016 to FY2017 is due to the public healthcare restructuring in FY2017.