BUILDING TODAY FOR TOMORROW

ANNUAL REPORT FY2016
The image of the tree found on the cover and throughout this report symbolises the National Healthcare Group Polyclinics’ (NHGP) deep-rooted connection to primary care. The sturdy nature of the tree represents NHGP’s commitment to stakeholders to leverage its core competencies in strengthening the primary care landscape for the future. The leaves’ kaleidoscope of colours signify NHGP’s dynamism in harnessing the diverse capabilities and strengths of its staff to fulfil its multi-faceted role in primary care.
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.

Respect
We treat everyone with honesty, decency and fairness.

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.

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

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

Social Responsibility
We contribute positively to the well-being of the community.
An efficient and responsive primary care is the bedrock of a sustainable healthcare system. As the first point of contact in the community, Singapore's primary care network needs to provide a wide range of healthcare services to manage patients with both acute and chronic conditions while championing healthier lifestyles.

The changing demographics of Singapore will see an increasingly ageing population, combined with a growing chronic disease burden which will continue to pose challenges to Singapore's healthcare landscape. We therefore need to scale up our primary care capacity to address these challenges, as well as empower and activate the community to reduce the incidence of chronic diseases. It is with these objectives in mind that the National Healthcare Group Polyclinics (NHGP), as a part of National Healthcare Group’s (NHG) Central Regional Health System, has been working to transform the primary care landscape by developing innovative care models and increasing patient and community engagement to add years of healthy life to the population.

DEVELOPING RELATIONSHIP-BASED CARE

In managing patients with chronic diseases, it is essential to develop a comprehensive care plan to help them. This includes providing the right medical and lifestyle advice and monitoring complications that may arise on a regular basis. In the primary care setting, NHGP has been proactive in developing a comprehensive relationship-based model of care to ensure these patients' needs are met in the community. Within the polyclinics, NHGP's Patient Empanelment Care Model has been a key transformational innovation that has enabled patients to receive holistic care from a dedicated team of healthcare professionals to help them manage their conditions. NHGP has also been proactive in the community by building relationships with General Practitioners and Family Medicine Centres to build up their capacity to provide holistic and quality care. This has enabled the right-siting of patients in appropriate care settings nearer to the patients' homes.

INTEGRATING CARE WITH OTHER HEALTHCARE INSTITUTIONS

To further expand its capabilities, NHGP has built strong partnerships with NHG Institutions such as Tan Tock Seng Hospital (TTSH) and the National Skin Centre to leverage technology to bring specialist care closer to the community. These initiatives, which enable NHGP doctors to interact real-time with specialists via online platforms, have allowed more efficient care for patients in the primary care setting. NHGP works closely with hospitals in NHG's Central Region, such as TTSH, Khoo Teck Puat Hospital, as well as national centres and hospitals outside the central region to provide patients with clearly defined care pathways, as they transit from tertiary care to primary care. This ensures that our patients receive seamless and continuous care for their recovery.

MOVING FROM HEALTHCARE TO HEALTH

In line with NHG's shift in approach from illness care to wellness care, NHGP has been tireless in its efforts to activate everyone in the community – at every stage of their lives – to be ambassadors of healthy living. These efforts have focused on the importance of a healthy lifestyle to prevent the onset of chronic diseases and provide those with chronic conditions practical solutions to manage their conditions. NHGP's team of doctors, nurses and allied health professionals have each brought their respective areas of clinical expertise to the community to offer comprehensive information on how to prevent or manage these conditions. In order for staff to be effective ambassadors in the community, NHGP conducts regular exercise sessions at the workplace as part of its Work Health Promotion initiative. By adopting healthier lifestyles themselves, NHGP staff are indeed well-positioned to be health champions to the population.

LOOKING AHEAD

Thus far, NHGP's efforts to transform the primary care landscape has brought about better quality care for our patients that is sustainable, affordable and accessible to the community. As a leader in the primary care landscape, I am proud to say that our polyclinics have done sterling work over the years.

As we look to the future, the Ministry of Health's (MOH) announcement on the reorganisation of the healthcare clusters from six to three in January 2017 will ensure greater integration within each cluster as we develop a seamless model of care that will optimise the health of our population.

NHGP, as the primary care arm of the restructured NHG cluster, will also further develop its capabilities by reviewing its staff development roadmaps. It will increase its capacity to train more Family Physicians to continue providing comprehensive and holistic care to people of all ages in the Central and Northern regions.

I wish to thank our Chairman, Madam Kay Kuok, and our Board of Directors for their visionary leadership and direction in guiding us on developing a better healthcare system for our population. I am also grateful for the support and encouragement of MOH in all our efforts.

Most of all, my sincere appreciation to NHGP Chief Executive Officer, Associate Professor Chong Phui-Nah, for her able leadership and all staff for their continued dedication and commitment to providing our patients with the best care, always.
“As we forge ahead to meet the evolving challenges of the primary care landscape, we must fundamentally challenge our current paradigms to achieve a person-centred approach to care.”
Our healthcare teams have also been proactive in the community. Working with the Health Promotion Board and grassroots organisations, our focus is to motivate the population to achieve better health outcomes through targeted workshops, seminars and exercise demonstrations. Such events not only meet the needs of different age groups, they are also tailored for patients at various stages of their chronic conditions.

As a health-promoting organisation, NHGPs staff have also led by example, actively participating in our Workplace Health Promotion (WHP) activities as well as the annual staff health screening. WHP activities which include regular exercise sessions at all our clinics as well as headquarters, provide our staff with an avenue to pursue a healthy lifestyle for better health.

BUILDING A WORLD CLASS PRIMARY CARE ECOSYSTEM

NHGPs invests heavily in medical education and research to develop our healthcare professionals. FY2016 saw four of our doctors formally admitted into the Academy of Medicine, Singapore, as Fellows on 23 April 2016. In addition, all of NHGPs Family Medicine residents have successfully obtained their Master of Medicine. The successful fellowship awards to our graduates reinforce our commitment to research and the future of healthcare.

As we pursue a healthy lifestyle for better health,NHGPs staff have also ensured that care at our polyclinics remains accessible, seamless, comprehensive and affordable. As we look ahead, I am confident that the team at NHGPs will rise to the challenge to be future-ready as we carry this past year in furthering our mission to develop the primary care sector. As a health-promoting organisation, NHGPs staff have also ensured that care at our polyclinics remains accessible, seamless, comprehensive and affordable.

I commend the NHGPs team for doing an admirable job this past year in furthering our mission to develop the capacity and capabilities of the primary care sector. We have also ensured that care at our polyclinics remains accessible, seamless, comprehensive and affordable. As we look ahead, I am confident that the team at NHGPs will rise to the challenge to be future-ready as we carry this past year in furthering our mission to develop the primary care sector.

I wish to take the opportunity to thank our Board and Senior Management of NHGPs for their leadership and strategic guidance as we overcome challenges in an ever-changing healthcare landscape. I am excited to express my gratitude to MOH and our partners for supporting and working together with us towards our common goal of providing quality healthcare and improving population health. I am excited to express my gratitude to MOH and our partners for supporting and working together with us towards our common goal of providing quality healthcare and improving population health.

Our 9th annual Primary Care Forum, ‘World Class Primary Care: Relationships, Partnerships & Innovations’ which was held on 23 and 24 September 2016, discussed global strategies for an enduring and viable healthcare system and included sharing sessions on partnering the community to achieve healthier population outcomes. The forum served as an ideal platform for participants from the primary care sector to gain a better understanding of the essentials of developing a sustainable world class primary care ecosystem.

To further aid the development of a world class primary care ecosystem, NHGPs partnered the Institute of Mental Health and Lee Kong Chian School of Medicine to obtain a grant to conduct primary healthcare research in Multi-Morbidity and Mental Health in a Multi-Ethnic Population. The $5 million grant will focus on three main areas of research: management of chronic diseases and multi-morbidities, evaluation of new technology utilisation to elicit patient involvement and the provision of coordinated care for patients with mental conditions. These research capabilities will help ensure that our primary care landscape harnesses cutting edge developments in technology and patient care to advance family medicine.

MOVING FORWARD

As we forge ahead to meet the evolving challenges of the primary care landscape, we must fundamentally challenge our current paradigms to achieve a person-centred approach to care. We need to develop new models of care while dynamically refining existing ones to provide value-based care for the population. This will lead us to shift the focus of care from illness to wellness management. We must also further strengthen our patient and community efforts to provide a more coordinated outreach effort to improve overall population health.

I wish to take the opportunity to thank our Board and Senior Management of NHGPs for their leadership and strategic guidance as we overcome challenges in an ever-changing healthcare landscape. I am excited to express my gratitude to MOH and our partners for supporting and working together with us towards our common goal of providing quality healthcare and improving population health.

As we forge ahead to meet the evolving challenges of the primary care landscape, we must fundamentally challenge our current paradigms to achieve a person-centred approach to care. We need to develop new models of care while dynamically refining existing ones to provide value-based care for the population. This will lead us to shift the focus of care from illness to wellness management. We must also further strengthen our patient and community efforts to provide a more coordinated outreach effort to improve overall population health.

As we forge ahead to meet the evolving challenges of the primary care landscape, we must fundamentally challenge our current paradigms to achieve a person-centred approach to care. We need to develop new models of care while dynamically refining existing ones to provide value-based care for the population. This will lead us to shift the focus of care from illness to wellness management. We must also further strengthen our patient and community efforts to provide a more coordinated outreach effort to improve overall population health.

We need to develop new models of care while dynamically refining existing ones to provide value-based care for the population. This will lead us to shift the focus of care from illness to wellness management. We must also further strengthen our patient and community efforts to provide a more coordinated outreach effort to improve overall population health.

As we forge ahead to meet the evolving challenges of the primary care landscape, we must fundamentally challenge our current paradigms to achieve a person-centred approach to care. We need to develop new models of care while dynamically refining existing ones to provide value-based care for the population. This will lead us to shift the focus of care from illness to wellness management. We must also further strengthen our patient and community efforts to provide a more coordinated outreach effort to improve overall population health.

We need to develop new models of care while dynamically refining existing ones to provide value-based care for the population. This will lead us to shift the focus of care from illness to wellness management. We must also further strengthen our patient and community efforts to provide a more coordinated outreach effort to improve overall population health.

As we forge ahead to meet the evolving challenges of the primary care landscape, we must fundamentally challenge our current paradigms to achieve a person-centred approach to care. We need to develop new models of care while dynamically refining existing ones to provide value-based care for the population. This will lead us to shift the focus of care from illness to wellness management. We must also further strengthen our patient and community efforts to provide a more coordinated outreach effort to improve overall population health.

We need to develop new models of care while dynamically refining existing ones to provide value-based care for the population. This will lead us to shift the focus of care from illness to wellness management. We must also further strengthen our patient and community efforts to provide a more coordinated outreach effort to improve overall population health.

As we forge ahead to meet the evolving challenges of the primary care landscape, we must fundamentally challenge our current paradigms to achieve a person-centred approach to care. We need to develop new models of care while dynamically refining existing ones to provide value-based care for the population. This will lead us to shift the focus of care from illness to wellness management. We must also further strengthen our patient and community efforts to provide a more coordinated outreach effort to improve overall population health.

We need to develop new models of care while dynamically refining existing ones to provide value-based care for the population. This will lead us to shift the focus of care from illness to wellness management. We must also further strengthen our patient and community efforts to provide a more coordinated outreach effort to improve overall population health.

As we forge ahead to meet the evolving challenges of the primary care landscape, we must fundamentally challenge our current paradigms to achieve a person-centred approach to care. We need to develop new models of care while dynamically refining existing ones to provide value-based care for the population. This will lead us to shift the focus of care from illness to wellness management. We must also further strengthen our patient and community efforts to provide a more coordinated outreach effort to improve overall population health.

We need to develop new models of care while dynamically refining existing ones to provide value-based care for the population. This will lead us to shift the focus of care from illness to wellness management. We must also further strengthen our patient and community efforts to provide a more coordinated outreach effort to improve overall population health.

As we forge ahead to meet the evolving challenges of the primary care landscape, we must fundamentally challenge our current paradigms to achieve a person-centred approach to care. We need to develop new models of care while dynamically refining existing ones to provide value-based care for the population. This will lead us to shift the focus of care from illness to wellness management. We must also further strengthen our patient and community efforts to provide a more coordinated outreach effort to improve overall population health.

We need to develop new models of care while dynamically refining existing ones to provide value-based care for the population. This will lead us to shift the focus of care from illness to wellness management. We must also further strengthen our patient and community efforts to provide a more coordinated outreach effort to improve overall population health.

As we forge ahead to meet the evolving challenges of the primary care landscape, we must fundamentally challenge our current paradigms to achieve a person-centred approach to care. We need to develop new models of care while dynamically refining existing ones to provide value-based care for the population. This will lead us to shift the focus of care from illness to wellness management. We must also further strengthen our patient and community efforts to provide a more coordinated outreach effort to improve overall population health.

We need to develop new models of care while dynamically refining existing ones to provide value-based care for the population. This will lead us to shift the focus of care from illness to wellness management. We must also further strengthen our patient and community efforts to provide a more coordinated outreach effort to improve overall population health.
In the primary care landscape, the National Healthcare Group Polyclinics (NHGP) is one of the first touchpoints for patients with acute and chronic conditions. In managing a variety of such conditions, NHGP constantly evaluates and refines its care delivery model to provide patients with timely and appropriate care.

NHGP’s model of care emphasises the building of relationships between patients and the healthcare team to create a sustainable care environment that centres on enhancing the quality of care and treatment outcomes for the patient. NHGP is also committed to providing integrated services that expand primary care capabilities while ensuring healthcare remains accessible to all in the community.
PUTTING PATIENTS FIRST

TEAM-BASED CARE
NHGP’s Patient Empanelment Care Model comprising two Family Physicians, a Care Manager, a Care Coordinator and Allied Health Professionals in each team, was first piloted at Toa Payoh Polyclinic in 2014. Patients are risk-stratified by their chronic conditions and assigned to the appropriate care team members. This care model aims to provide comprehensive patient-centric care so that better coordinated chronic disease management can be achieved in the long-term in the primary care setting.

An evaluation of this pilot project conducted over a period of two years showed improved clinical outcomes of the patient panel managed by the care team at Toa Payoh Polyclinic. This personalised model of care has earned the team the NHG Team Recognition Gold Award which was presented at the NHG Awards on 15 July 2016. This new care model provides holistic care that not only improved patients’ health outcomes but also strengthened the patient-doctor relationship and optimised resource utilisation.

To streamline and improve the workflow, regular training and quarterly review sessions are held. NHGP’s Patient Empanelment Care Model has since been implemented at all NHG Polyclinics. As of 31 March 2017, more than 64,000 patients were empaneled under this care model.

NPHROLOGY EVALUATION MANAGEMENT AND OPTIMISATION
The Nephrology Evaluation Management and Optimisation (NEMO) Programme is a collaboration between NHGP and the National University Health System.

From October 2011 to February 2017, NEMO evaluated nearly 121,000 patients with diabetes through regular follow-up at NHGP. Compared to patients with diabetes not enrolled in the programme, NEMO patients had a 23% lower rate of worsening kidney function.

Recognised for its significant clinical efforts to slow the progression of diabetic kidney disease, the NEMO Programme was conferred the National Clinical Excellence Team Award at the National Medical Excellence Awards (NMEA) Ceremony in August 2016.

Following NEMO’s positive results, the Ministry of Health (MOH) announced the implementation of a national ‘Holistic Approach in Lowering and Tracking Chronic Kidney Disease’ (HALT-CKD) Programme across all polyclinics starting from April 2017 during the Committee of Supply debate in March 2017. This programme aims to identify and manage risk factors such as high blood pressure and poor diabetes control which contribute to chronic kidney disease deterioration.

BRINGING MENTAL HEALTH CARE CLOSER TO THE COMMUNITY
To help patients with mental health concerns and provide support for their caregivers, NHGP has spearheaded several initiatives and partnerships for patients to receive appropriate care within the community.

Memory Clinic
Since September 2012 when the first Memory Clinic was piloted at Ang Mo Kio Polyclinic in partnership with Tan Tock Seng Hospital (TTSH), the clinic has been providing step-down care for stable dementia patients. This collaboration facilitates capability-building of NHGP’s primary care teams in managing patients with dementia or memory issues.

This programme was accorded the NHG Team Recognition Silver Award on 15 July 2016 for Dementia Care Integration between Primary Care Provider and Tertiary Hospitals.

As of 31 March 2017, the three Memory Clinics at Ang Mo Kio Polyclinic, Yishun Polyclinic and Choa Chu Kang Polyclinic have seen more than 700 patients with dementia and memory issues.
In October 2012, NHGP and the Institute of Mental Health collaborated to form the Assessment and Shared Care Team or ASCAT@Central project to develop clinical capability in primary care to manage common mental health conditions such as depression, anxiety and insomnia and to reduce referrals to psychiatric Specialist Outpatient Clinics.

The ASCAT@Central was awarded the NHG Team Recognition Bronze Award at the NHG Awards Ceremony held on 15 July 2016. The programme was renamed Health and Mind Service (HMS) in October 2015. HMS is available at Yishun Polyclinic, Ang Mo Kio Polyclinic, Woodlands Polyclinic and Jurong Polyclinic. As of 31 March 2017, more than 3,000 patients have benefitted from this service.

**TELE-HEALTH**

To enhance its care delivery model, NHGP has in place various tele-health initiatives. These initiatives help ensure patients receive appropriate and efficient care for their conditions.

**Tele-health Services Led by Nurses**

**Tele-wound Care Monitoring**

In June 2016, Tele-wound Care Monitoring was piloted at Yishun Polyclinic. Patients with certain types of wounds were taught how to perform wound dressing on their own and were encouraged to care for their wounds at home. These patients would then send images of their wounds by email to nurses for assessment and follow-up over the phone.

Such an approach helps reduce the need for patients to visit the polyclinics to get their wounds assessed and dressed. This initiative was later implemented at Woodlands Polyclinic in September 2016, Choa Chu Kang Polyclinic in February 2017, and will be implemented across all NHG Polyclinics in FY2017. As of 31 March 2017, more than 100 patients have benefitted from this programme.

**Tele-consultations**

Tele-health is multi-faceted and has evolved over the years. NHGP’s Nursing Services, in collaboration with Clinical Services, has developed services involving telephone consultations. Such consultations involve helping patients monitor their conditions, advising them on insulin titration and offering post-nebulisation follow-ups for patients with asthma.

In FY2016, more than 21,000 tele-consultations were conducted.

**Tele-care Programme**

NHGP’s Tele-care Programme was first piloted in February 2013 and implemented across all NHG Polyclinics in September the same year. The Tele-care Programme is a nurse-led home-monitoring initiative involving patients with stable diabetes, hypertension or lipid disorder (high cholesterol). Patients who opt for this service receive tele-consultations from Care Managers who are nurses trained in chronic disease management.

In this programme, patients monitor their blood glucose (for patients with diabetes), blood pressure and weight, then submit their readings on ‘Track Health Vitals’ via HealthHub, a one-stop health portal. The Care Managers would then schedule one to two telephone consultations a year to assess patients’ control levels and advise on medication refills.

As of 31 March 2017, there were more than 200 patients enrolled in tele-care. Nearly 300 more patients indicated interest in using HealthHub for the recording of their home monitoring readings which could be viewed by doctors and nurses during clinic consultations. Tele-care empowers patients to remain independent in their own homes through standardised care plans, and reduces the number of face-to-face consultations at the clinics. Patients can manage their health conditions better and maintain good clinical outcomes.

**Tele-care Programme Led by Nurses in FY2016**

- Nearly 170 tele-wound consultations were held
- More than 21,000 tele-consultations were conducted
- More than 200 patients were enrolled in NHGP’s tele-care
Bringing Specialist Care to the Community

Tele-ECG

In April 2016, the Tele-ECG initiative for asymptomatic patients with abnormal Electrocardiograms (ECGs) was launched at Ang Mo Kio Polyclinic, Toa Payoh Polyclinic and Hougang Polyclinic, in collaboration with the Department of Cardiology at TTSH. A common information technology platform shared by TTSH and the three polyclinics enabled TTSH cardiologists to review ECGs remotely. This collaboration allows patients to receive specialist cardiology opinions promptly, thus reducing the need for referrals. As of 31 March 2017, nearly 500 patients have benefitted from this programme.

Tele-DERM

In January 2016, NHGP and the National Skin Centre (NSC) embarked on a pilot at Hougang Polyclinic to provide Tele-DERM services to patients. An e-consult service, Tele-DERM facilitates timely discussion between primary care physicians and NSC dermatologists on patients’ skin conditions and treatment options. The service has since been implemented at all NHG Polyclinics.

Tele-DERM brings specialist skin care closer to the community and enables patients to have their skin conditions managed during the same visit. This reduces the need for additional follow-up appointments by patients at NSC and allows them to receive prompt review at the polyclinics.

As of 31 March 2017, NHGPs dermatologically-trained family doctors were activated for more than 800 cases, of which nearly 300 were directly managed at the NHG Polyclinics.

Open Access To Specialists

NHGP has worked with MOH to adopt standardised Open Access protocols for Gastroenterology and Cardiology to reduce unnecessary referrals to Specialist Outpatient Clinics (SOCs) at the public hospitals. With open access referrals, NHGP doctors are able to refer patients with gastrointestinal or cardiac conditions directly for further laboratory investigations without the need for them to visit a specialist to request such investigations. This programme has allowed the facilitation of appropriate referrals to SOCs and maintained the management of patients within primary care where possible.

WOMEN AND CHILDREN HEALTH SERVICES

The women and children health services at NHGP are mainly led by well-trained nurses. Women Health Services (WHS) includes antenatal care, family planning and women’s health screening while Children Health Services (CHS) encompasses immunisation and child development assessment which monitor the growth of children from birth to four years of age at regular intervals.

In FY2016, more than 24,000 visits were recorded for WHS while nearly 350,000 visits were recorded for CHS.

ADVANCED PRACTICE NURSES

Since the concept of Advanced Practice Nurses (APN) was introduced in 2009, NHGP has (as of 31 March 2017) 10 APNs of which nine are trained in Chronic Disease Management while one is trained in Women’s Health.

In FY2016 alone, APNs conducted over 20,000 consultations. APNs are registered nurses who hold master-level qualifications and who are trained to diagnose and manage common medical conditions, including chronic illnesses. They work collaboratively with doctors, nurses and allied health professionals to deliver advanced nursing care to patients, thereby providing holistic person-centred care.

The introduction of APNs has allowed doctors to focus on more complex cases.

DIABETES COMPLICATIONS PREVENTION

Singapore Integrated Diabetic Retinopathy Programme (SIDRP)

NHGP collaborated with NHG Eye Institute (NHGEI) to launch the Singapore Integrated Diabetic Retinopathy Programme (SIDRP) in April 2011. Although diabetic retinopathy is a leading cause of blindness in Singapore, vision loss from diabetic retinopathy is preventable if diagnosed early and treated appropriately.

An important benefit of SIDRP is the provision of standardised care to patients with diabetes. Through the establishment of uniform referral guidelines, patients are promptly and appropriately referred to the SOCs or Accident & Emergency department.

As of 31 March 2017, more than 44,000 patients have benefitted from SIDRP.
ENSURING QUALITY CARE AND SAFETY FOR PATIENTS

Clinical Care and Patient Safety Initiatives in FY2016

- Completed projects: 53
- Ongoing projects: 48
- Projects showcased at local and overseas conferences: 22

Clinical Care and Patient Safety Initiatives

In FY2016, NHGP completed 53 projects that were aimed at improving the quality of patient care and enhancing patient safety while another 48 projects were ongoing (refer to Appendix A on Pages 87 to 89 for the list of Quality improvement projects completed in FY2016).

In addition, 22 of these projects were showcased at local and overseas conferences.

BMJ International Forum on Quality and Safety in Healthcare

Singapore

Outcome: Poster
Organiser: BM
Date: 28-29 September 2016

To increase the percentage of Diabetic Foot Ulcer patients who have received Ankle-Brachial Index Assessment within two weeks of diagnosis from 0% to 80%

Dr Tan Lye Yoong
Resident Physician
Toa Payoh Polyclinic

To achieve 95% uptake of Pneumococcal Vaccination in children aged 3-4 months during their 5-in-1 vaccination visits to Yishun Polyclinic

Ms Tan Pek Hoon
Senior Nurse Manager
Yishun Polyclinic

To improve the management of patients on Warfarin through the use of pharmacist-led Anti Coagulation Clinic at polyclinics

Mr Gary Wiratama
Senior Pharmacist
National Healthcare Group Pharmacy

To reduce motion waste by Dental Assistants when retrieving instruments

Ms Wu Yangmei
Oral Health Therapist
Woodlands Polyclinic

To increase the percentage of patients with a change in preventer therapy who received Written Asthma Action Plan from 27% to 80% at Ang Mo Kio Polyclinic

Ms Evonne Oh
Senior Staff Nurse I
Ang Mo Kio Polyclinic

To redesign the abnormal lab results recall process

Dr George Chua
Vinh Phuc Polyclinic

To achieve 100% of patients with newly diagnosed Impaired Fasting Glucose or Impaired Glucose Tolerance at Bukit Batok Polyclinic to receive intensive lifestyle education within two months

Ms Bian Li
Assistant Nurse Clinician
Bukit Batok Polyclinic

To reduce Physiotherapy appointment default rates for Bukit Batok Polyclinic from 33% to 20% in six months

Mr Kwok Boon Chong
Senior Physiotherapist
Clinical Services

To increase the percentage of patients on preventer therapy who were on Written Asthma Action Plan

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

To achieve 95% uptake of Pneumococcal Vaccination in children aged 3-4 months during their 5-in-1 vaccination visits to Yishun Polyclinic

Ms Tan Pek Hoon
Senior Nurse Manager
Yishun Polyclinic

To improve accessibility of high risk patients requiring acute podiatric management to NHGP Podiatry Services

Ms Kathryn Xu
Senior Executive
Clinical Services

To reduce waiting time of dressing patients in Jurong Polyclinic

Ms Evonne Ho
Executive, Clinic Operations
Jurong Polyclinic

To improve the management of patients on Warfarin through the use of pharmacist-led Anti Coagulation Clinic at polyclinics

Mr Gary Wiratama
Senior Pharmacist
National Healthcare Group Pharmacy

To achieve 100% of patients with newly diagnosed Impaired Fasting Glucose or Impaired Glucose Tolerance at Bukit Batok Polyclinic to receive intensive lifestyle education within two months

Ms Bian Li
Assistant Nurse Clinician
Bukit Batok Polyclinic

To produce a multi-faceted hand hygiene intervention programme

Ms Yan Chau Chain
Senior Staff Nurse I
Bukit Batok Polyclinic

To increase the rate of Ankle-Brachial Index Assessment of newly diagnosed Diabetic Foot Ulcers in the primary care setting

Dr Donna Tan
Family Physician, Associate Consultant
Clinical Services

To target specific sharps safety measures for pharmacy and diagnostic services in primary care

Ms Nisha Menon
Senior Staff Nurse II
Nursing Services

Annual National Forum on Quality Improvement in Health Care (IHI)

Orlando, Florida
Outcome: Poster
Organiser: IHI
Date: 4-7 December 2016

To improve early access for high-risk patients requiring acute podiatric management to primary care podiatry services

Dr Donna Tan
Family Physician, Associate Consultant
Clinical Services

To increase the rate of Ankle-Brachial Index Assessment of newly diagnosed Diabetic Foot Ulcers in the primary care setting

Dr Tan Lye Yoong
Resident Physician
Toa Payoh Polyclinic

To target specific sharps safety measures for pharmacy and diagnostic services in primary care

Ms Nisha Menon
Senior Staff Nurse II
Nursing Services

To reduce Physiotherapy appointment default rates for Bukit Batok Polyclinic from 33% to 20% in six months

Mr Kwok Boon Chong
Senior Physiotherapist
Clinical Services

To increase the percentage of patients with a change in preventer therapy who received Written Asthma Action Plan from 27% to 80% at Ang Mo Kio Polyclinic

Ms Evonne Oh
Senior Staff Nurse I
Ang Mo Kio Polyclinic

To redesign the abnormal lab results recall process

Dr George Chua
Vinh Phuc Polyclinic

To achieve 100% of patients with newly diagnosed Impaired Fasting Glucose or Impaired Glucose Tolerance at Bukit Batok Polyclinic to receive intensive lifestyle education within two months

Ms Bian Li
Assistant Nurse Clinician
Bukit Batok Polyclinic

To produce a multi-faceted hand hygiene intervention programme

Ms Yan Chau Chain
Senior Staff Nurse I
Bukit Batok Polyclinic

To increase the rate of Ankle-Brachial Index Assessment of newly diagnosed Diabetic Foot Ulcers in the primary care setting

Dr Donna Tan
Family Physician, Associate Consultant
Clinical Services

To target specific sharps safety measures for pharmacy and diagnostic services in primary care

Ms Nisha Menon
Senior Staff Nurse II
Nursing Services

Annual National Forum on Quality Improvement in Health Care (IHI)

Orlando, Florida
Outcome: Poster
Organiser: IHI
Date: 4-7 December 2016

To improve early access for high-risk patients requiring acute podiatric management to primary care podiatry services

Dr Donna Tan
Family Physician, Associate Consultant
Clinical Services

To increase the rate of Ankle-Brachial Index Assessment of newly diagnosed Diabetic Foot Ulcers in the primary care setting

Dr Tan Lye Yoong
Resident Physician
Toa Payoh Polyclinic

To target specific sharps safety measures for pharmacy and diagnostic services in primary care

Ms Nisha Menon
Senior Staff Nurse II
Nursing Services

To reduce Physiotherapy appointment default rates for Bukit Batok Polyclinic from 33% to 20% in six months

Mr Kwok Boon Chong
Senior Physiotherapist
Clinical Services

To increase the percentage of patients with a change in preventer therapy who received Written Asthma Action Plan from 27% to 80% at Ang Mo Kio Polyclinic

Ms Evonne Oh
Senior Staff Nurse I
Ang Mo Kio Polyclinic

To redesign the abnormal lab results recall process

Dr George Chua
Vinh Phuc Polyclinic

To achieve 100% of patients with newly diagnosed Impaired Fasting Glucose or Impaired Glucose Tolerance at Bukit Batok Polyclinic to receive intensive lifestyle education within two months

Ms Bian Li
Assistant Nurse Clinician
Bukit Batok Polyclinic

To produce a multi-faceted hand hygiene intervention programme

Ms Yan Chau Chain
Senior Staff Nurse I
Bukit Batok Polyclinic

To increase the rate of Ankle-Brachial Index Assessment of newly diagnosed Diabetic Foot Ulcers in the primary care setting

Dr Donna Tan
Family Physician, Associate Consultant
Clinical Services

To target specific sharps safety measures for pharmacy and diagnostic services in primary care

Ms Nisha Menon
Senior Staff Nurse II
Nursing Services
NHG PATIENT SAFETY AWARENESS CAMPAIGN
NHGP held its second Patient Safety Awareness campaign from 17 February to 10 March 2017 across all NHG Polyclinics. The campaign sought to inculcate a culture of patient safety and educate staff on the use of NHGP’s Incident Reporting Information System (IRIS) to report incidents. This system would enable NHGP to evaluate and identify patient safety issues and facilitate the clinic teams’ efforts in enhancing patient safety. The campaign proved successful with staff demonstrating a clearer understanding of IRIS and its benefits.

NHG PATIENT SAFETY CULTURE SURVEY
NHGP participated in NHG’s Patient Safety Climate Survey from 16 January to 13 February 2017. The survey aimed to determine staff awareness levels about patient safety as well as diagnose and assess patient safety culture at all NHG institutions. With the survey findings, NHGP has identified its strengths and areas for improvement to develop a stronger culture of patient safety.

STAFF WORKSHOPS

Improving Quality of Clinical Care and Patient Safety
FMEA Workshop
The ‘Failure Mode Effect Analysis (FMEA)’ workshop was conducted during the Operations Summit Learning Sessions on 20 January 2017. This workshop focused on the use of key tools to assess and mitigate risks for better patient safety.

QI Booster Workshops
Quality Improvement (QI) Boosters served as a refresher on essential QI concepts and simple QI tools for staff to improve care and service delivery. These lunchtime sessions were conducted at all NHG Polyclinics.

PATIENT SAFETY FORUMS
On 24 January 2017, NHGP Nursing Services held a Patients Safety Forum where nurses gained a better understanding of the role of human factors and confirmation bias in the prevention of medication errors. The 160 nurses who attended the forum learned about the possible causes of medication, vaccine safety incidents and the appropriate corrective actions through case studies.

Kaizen Workshops
Two Kaizen workshops were conducted by the Urgent Care Workgroup in April and May 2016 to develop a framework for the management of patients requiring urgent care. The workshops ensured the streamlining of work processes across clinics and established evidence-based recommendations and protocols for such patients.

The inaugural Evidence-Based Nursing, Innovations and Research Development Forum organised by Nursing Services, was held on 11 March 2017 to encourage nurses to use evidence-based research in their practice to improve the quality and safety of patient care. About 100 nurses from NHGP attended the bi-annual forum at the Primary Care Academy at Choa Chu Kang Polyclinic. Besides a lively talk by Professor Doris Young, Research Advisor to NHGP, on the trends and direction for nursing research in primary care, nurses presented their research projects and shared their findings.
At the forefront of Singapore’s healthcare system is primary care, providing accessible, affordable and quality care to the community. In an evolving healthcare landscape, Singapore’s growing and rapidly ageing population is a strong driver for healthcare demand. More than just providing greater infrastructural development, effective management of chronic diseases in a sustainable care environment is needed in the long-term.

In line with one of the Ministry of Health’s (MOH) key shifts to move beyond hospital to community, the National Healthcare Group Polyclinics (NHGP) has been building new healthcare facilities to address the needs of the future. At the same time, NHGP has expanded the reach and capabilities of the primary care sector by developing relationships with General Practitioners to ensure patients continue to receive quality care.
INCREASING PRIMARY CARE CAPACITY

CONSTRUCTION OF PIONEER POLYCLINIC
During the construction of Pioneer Polyclinic, NHGP started the operation of a temporary polyclinic on 1 July 2016 at the Jurong Medical Centre. The temporary Pioneer Polyclinic provided primary care to the population in the region and served as a testbed for new workflows involving patient empanelment and team-based care.

Construction work on the seven-storey Pioneer Polyclinic started in 2013. On 13 March 2017, the Temporary Occupation Permit was obtained.

Before the handover of Pioneer Polyclinic to the National University Polyclinics (NUP), a tour of the development was arranged for National Healthcare Group Board of Directors, members from the Ministry of Health Holdings, stakeholders and staff of NHGP and NUP on 16 May 2017. On 27 June 2017, Mr. Gan Kim Yong, Minister for Health, and Associate Professor (A/Prof) Benjamin Ong, Director of Medical Services, MOH, also visited Pioneer Polyclinic to gain insights on its operational and clinical aspects. Pioneer Polyclinic opened its doors on 17 July 2017.

REDEVELOPMENT OF ANG MO KIO POLYCLINIC AND YISHUN POLYCLINIC
Ang Mo Kio Polyclinic and Yishun Polyclinic are currently undergoing redevelopment. These redeveloped clinics are expected to be operational in the first half and second half of 2018 respectively. The redeveloped polyclinics are designed to accommodate bigger patient loads and provide integrated spaces for team-based care. These new facilities would enable NHGP to meet the growing healthcare needs of the population in the central and northern regions of Singapore.

PARTNERING FAMILY MEDICINE CLINICS WITH GENERAL PRACTITIONERS
Engaging General Practitioner (GP) and Family Medicine Clinic (FMC) partners to care for patients with chronic conditions in the community is part of NHGP’s primary care transformation efforts.

With a growing number of chronic diseases suffered by an ageing population, NHGP is committed to work closely with GP and FMC partners to co-manage patients. Through engagement sessions, NHGP hopes to forge closer ties between the public and private sectors to provide quality and seamless care to patients in the community. This includes working with GPs and FMCs in the vicinity of NHG Polyclinics to transfer NHGP patients eligible for Community Health Assist Scheme (CHAS) to their care. In addition, the Unity FMC set up in collaboration with NTUC Health in March 2014 and the Hougang FMC set up in collaboration with solo GPs in September 2015 have enabled residents in the community to receive seamless care closer to their homes.

As of 31 March 2017, NHGP has successfully transferred the care of nearly 25,000 chronic patients and more than 15,000 dental patients to FMC and GP partners in the community.

Since 2015, the Central Fill Pharmacy located at the Pharmacy Services Centre has been receiving prescriptions directly from six GPs. With this service, NHG Polyclinics patients who have been right-sited to these GPs continue to receive medication at subsidised cost and enjoy the convenience of community-based healthcare providers. This effort complements NHGP’s primary care transformation efforts in right-siting patients to GPs.

Number of Patients Transferred to GP and FMC Partners as of 31 March 2017

| Number of Patients Transferred | 25,000 chronic patients | More than 15,000 dental patients |

A clinic tour by NHGP and NUP was conducted for Mr. Gan Kim Yong, Minister for Health, and A/Prof Benjamin Ong, Director of Medical Services, MOH, on 27 June 2017.
RENEWAL OF BS OHSAS 18001:2007 CERTIFICATION
NHGP renewed its BS OHSAS 18001:2007 certification for fulfilling its Occupational Health and Safety Management System requirements. Both Jurong Polyclinic and Woodlands Polyclinic were audited on 30 June 2016 while the remaining seven clinics conducted internal audits. The renewal of BS OHSAS 18001:2007 recognises NHGP’s commitment to Occupational Health and Safety systems at the workplace for staff, patients and visitors.

ISO15189 RE-ACCREDITATION FOR NHG DIAGNOSTICS
In April 2016, NHG Diagnostics (NHGD) successfully attained the ISO15189 re-accreditation. This certification is an international benchmark for quality and competency for medical laboratories. The reaccreditation is an affirmation of the quality, reliability and accuracy of NHGD’s laboratory processes and results.

Savings in procedural time with the upgrading of conventional X-ray systems
NHGP patients who had their X-rays done at the polyclinic’s laboratory were served faster with the new digital radiography system. This system eliminates the use of cassettes allowing X-ray images to be seamlessly transferred to radiologists for reporting in six seconds. The automation saw an estimated 20% savings in procedural time.

INTRODUCTION OF MOBILE ULTRASOUND SERVICE
NHGD launched the Mobile Ultrasound Service in October 2016. This service, the first-of-its-kind in Singapore, allows more patients to receive ultrasound services at any one time. Deployed at Hougang Polyclinic and Jurong Polyclinic, the service has ensured that patients from these polyclinics need not travel to a hospital for ultrasound services. The Mobile Ultrasound Service has reduced the waiting time for appointments from 10 weeks to less than two weeks.
Preventive care is essential in helping the population manage its health in the long-term. To ensure better health outcomes for all, the National Healthcare Group Polyclinics (NHGP) has been actively reaching out to the community at different levels to empower and educate them on making wise lifestyle choices and improving their knowledge of chronic conditions and other diseases.

NHGP’s health promotion efforts include activities held on a national scale as well as grassroots and community events, all of which are integrated into NHGP’s model of care as part of the primary care transformation journey.
ACTIVATING THE COMMUNITY

WAR ON DIABETES

With the increasing prevalence of diabetes among Singaporeans, the Ministry of Health (MOH) started a nationwide War on Diabetes in April 2016. As one of the first points of contact for Singaporeans seeking care for the management of their chronic conditions, NHGP plays a critical role in supporting this national effort.

To help patients and the community take charge of their health and improve their efforts in preventing or managing the disease, several activities were held in FY2016 such as talks and workshops as well as support group activities.

As one of the first points of contact for Singaporeans seeking care for the management of their chronic conditions, NHGP plays a critical role in supporting the national ‘War on Diabetes’ effort.

2016

<table>
<thead>
<tr>
<th>Month</th>
<th>Event</th>
</tr>
</thead>
<tbody>
<tr>
<td>Apr</td>
<td>Diabetes education for newly diagnosed patients with diabetes at Bukit Batok Polyclinic (first run).</td>
</tr>
<tr>
<td>May</td>
<td>Diabetes medication management during the fasting month of Ramadan for the Malay Diabetes Support Group at Woodlands Polyclinic.</td>
</tr>
<tr>
<td>Jun</td>
<td>Diabetes education for newly diagnosed patients with diabetes at Bukit Batok Polyclinic (second run).</td>
</tr>
<tr>
<td>Jul</td>
<td>Talk on understanding glycemic index for the Ang Mo Kio Diabetes Support Group at Ang Mo Kio Polyclinic.</td>
</tr>
<tr>
<td>Aug</td>
<td>Mental health talk on the psychological management of diabetes for Whampoa residents at Whampoa Community Centre.</td>
</tr>
<tr>
<td>Sep</td>
<td>Supermarket tour to learn food label reading for patients of Bukit Batok Polyclinic, Clementi Polyclinic and Jurong Polyclinic.</td>
</tr>
<tr>
<td>Oct</td>
<td>Nutrition tips and healthy cooking demonstrations using whole grains and oats for patients of Ang Mo Kio Polyclinic, Yishun Polyclinic, Hougang Polyclinic and Jurong Polyclinic.</td>
</tr>
<tr>
<td>Nov</td>
<td>Healthy meal planning using HPB’s ‘My Healthy Plate’ concept for Malay Diabetes Support Group at Bukit Batok Polyclinic.</td>
</tr>
<tr>
<td>Dec</td>
<td>Meal planning and food label reading for patients of Ang Mo Kio Polyclinic.</td>
</tr>
<tr>
<td>Jan</td>
<td>Talk on maintaining good blood sugar control and understanding the importance of daily physical activity in managing diabetes for residents at Clementi.</td>
</tr>
</tbody>
</table>

Chapter 3
Empowering and Educating Patients

Annual Report FY2016
Building Today for Tomorrow
SCREENING FOR HEALTH
NHGP’s early intervention efforts aim to empower patients and the community to make healthier lifestyle choices for their well-being. In FY2016, NHGP held several activities to spread the message on preventive care in the community.

NHGP has embarked on opportunistic Coronary Risk Screening (CRS) at seven of its polyclinics since 1 April 2016 to help eligible patients identify their risks of developing cardiovascular disease and to seek follow-up for at-risk patients. As of 31 March 2017, CRS has screened close to 30,000 patients.

As part of its ‘Disease Day’ initiative, NHGP’s Dietetics Services and Health Promotion and Preventive Care (HPPC) department collaborated with the Singapore Cancer Society (SCS) to raise awareness on colorectal cancer.

A month-long roadshow on colorectal cancer prevention was held at all NHG Polyclinics in March 2017. The roadshows reached out to about 900 people who signed-up for colorectal cancer screening.

ENCOURAGING HEALTHIER LIFESTYLES THROUGH MASS MEDIA
As a health-promoting institution, NHGP actively explores different ways to spread the health message to the population. In FY2016, NHGP’s Corporate Communications Department (CCD) worked closely with the healthcare team including Family Physicians, nurses and allied health professionals to provide health advice via broadcast and print media.

Chronic disease management and adopting healthier lifestyles were major focus areas of the media engagement strategy.
**ENGAGING PATIENTS AND THE COMMUNITY**

**International Women’s Day**

On 5 March 2017, NHGP’s Clinical Services joined hands with Nee Soon Group Representation Constituency (GRC) to support its International Women’s Day 2017 Dialogue. The team conducted a health talk on obesity among women and demonstrated exercises for weight management during the session. Our dietitians also educated participants on ways to cut down their calories through controlling their food portions using ‘My Healthy Plate’ concept, and provided tips on choosing healthier foods and beverages with less fat and sugar.

**Psychologists’ Outreach Efforts**

In FY2016, NHGP Psychology Services reached out to patients and the community through numerous talks and events. This included a public education event held on 2 October 2016 at Yio Chu Kang Community Club in conjunction with World Mental Health Day. The event, jointly organised by NHGP’s CDC and Ang Mo Kio Polyclinic, comprised a series of Mandarin talks on the impact of stress in managing a chronic condition.

**Physiotherapists’ Outreach Efforts**

NHGP Physiotherapy Services commemorated World Physiotherapy Day 2016 with a series of exercise sessions for patients and the elderly in the community. The first set of exercise sessions was conducted at Bukit Batok Polyclinic, Toa Payoh Polyclinic, and Woodlands Polyclinic. This was followed by a series of sessions for elderly clients attending the Care Corner Seniors Activity Centre in Toa Payoh. These sessions aimed to educate the seniors on the importance of regular exercise in the management of age-related health problems.

**NHGP Dietetics Services Outreach Programmes in FY2016**

**Talks**

**Cooking Demonstrations**

**Supermarket Tours**

**Public Forums**

**Support Group Sessions**

**Dietitians’ Outreach Efforts**

In FY2016, NHGP Dietetics Services conducted outreach programmes which included talks, cooking demonstrations, supermarket tours, public forums and support group sessions for patients with chronic diseases at various NHG Polyclinics. NHGP dietitians also participated in group education programmes such as the diabetes prevention programme and weight management programmes for patients and staff.

To commemorate Dietitians’ Day 2017, NHGP Dietetics Services set up nutrition booths at NHG Polyclinics from 6 to 10 March 2017. The theme, ‘Eat a Rainbow – 2+2 Fruit and Vegetables Daily’, aimed to encourage patients with chronic diseases at various NHG Polyclinics to eat healthily.

**Medical Social Workers’ Outreach Efforts**

As part of its community efforts, NHGP’s Medical Social Services collaborated with the Ministry of Social and Family Development (MSF) to raise awareness of family violence. NHGP Medical Social Workers held lunchtime talks at all nine NHG Polyclinics from September to November 2016 to guide staff on how to recognise victims of abuse and enable them to get help. To further raise awareness of family violence, information panels and game booths were set up by MSF at the patient waiting areas. The objective of the joint education campaign was to help the community not only understand family violence but to encourage victims to seek help.

**NHGP’s Medical Social Services Outreach**

As part of its community efforts, NHGP’s Medical Social Services collaborated with the Ministry of Social and Family Development (MSF) to raise awareness of family violence. NHGP Medical Social Workers held lunchtime talks at all nine NHG Polyclinics from September to November 2016 to guide staff on how to recognise victims of abuse and enable them to get help. To further raise awareness of family violence, information panels and game booths were set up by MSF at the patient waiting areas. The objective of the joint education campaign was to help the community not only understand family violence but to encourage victims to seek help.
Pharmacists’ Outreach Efforts

NHG Pharmacy (NHGPh) conducted a series of Mandarin talks on gastrointestinal problems. The talks held at Toa Payoh Polyclinic on 9 July 2016, at Jurong Polyclinic on 26 November 2016 and at Ang Mo Kio Polyclinic on 18 February 2017 benefitted more than 60 patients.

In addition, NHGPh celebrated the nationwide Pharmacy Week with health-quiz posters displayed at NHG Polyclinics on 16 October 2016. The posters aimed to engage patients to understand their own health but they also got to know their community healthcare professionals better.

Yishun Polyclinic

Yishun Polyclinic participated in the Nee Soon Community Health Fair 2016 on 31 July 2016 to engage elderly residents in the region. The event was graced by Er Dr Lee Bee Wah, Member of Parliament for Nee Soon GRC and Mr K Shanmugam, Minister for Home Affairs and Minister for Law and Member of Parliament for Nee Soon GRC. Organised by Nee Soon South Community Club, NHGP podiatrists and Yishun Polyclinic, the event also included exhibits on foot care and an interactive health quiz.

Pharmacists’ Outreach Efforts

NHG Pharmacy (NHGPh) conducted a series of Mandarin talks on gastrointestinal problems. The talks held at Toa Payoh Polyclinic on 9 July 2016, at Jurong Polyclinic on 26 November 2016 and at Ang Mo Kio Polyclinic on 18 February 2017 benefitted more than 60 patients.

In addition, NHGPh celebrated the nationwide Pharmacy Week with health-quiz posters displayed at NHG Polyclinics on 16 October 2016. The posters aimed to engage patients to understand their own health but they also got to know their community healthcare professionals better.

Photos

Top: Health talks conducted by NHGPh allied health professionals for the Zumba community at Choa Chu Kang Polyclinic in March 2017.

Bottom: Yishun Polyclinic staff sharing tips on foot care with residents at the Nee Soon Community Health Fair 2016 on 31 July 2016.

Nurses’ Outreach Efforts

Global Hand Hygiene Day

NHGP Infection Control Advisor Representatives (ICAR) held lunchtime roadshows at all nine NHG Polyclinics to commemorate Global Hand Hygiene Day on 5 May 2016. The roadshows focused on fostering and supporting a general culture of good hand hygiene among healthcare workers. Among the fun learning activities were interactive booths for patients and healthcare staff to learn about the importance of hand hygiene, which included glow-light activities, crossword puzzles and word search games to reinforce the message that hand hygiene offered a simple and effective means of preventing the spread of infection.

Besides the outreach activities, clinic staff who had demonstrated exemplary hand hygiene practices received the Healing Hands Award 2016 from the Prevention & Control of Infection Committee (PCIC).

International Infection Prevention and Control Week

In conjunction with the International Infection Prevention and Control Week, Nursing Services held a seminar at Yio Chu Kang Grassroots Club on 22 October 2016. The event, attended by 160 participants, included lunch, games, skits, and a talk by invited guest speaker, Professor Paul A Tambyah, Department of Medicine, National University of Singapore, who shared the importance of keeping healthcare equipment and surfaces clean to prevent the spread of harmful microorganisms. Prizes were also given out to recognise and reward all groups in the ‘Infection Control Bulletin Board Contest’.

Top: An Infection Control Advocate engaging a participant in a glow-light activity at the hand hygiene roadshow on 5 May 2016.

Bottom: NHGP’s Infection Control Advisor Representatives, Infection Control Advocates and members of the Prevention and Control of Infection Committee at the Infection Prevention and Control Seminar held at Yio Chu Kang Grassroots Club on 22 October 2016.

Polyclinics’ Outreach Efforts

Choa Chu Kang Polyclinic

Choa Chu Kang Polyclinic conducted a series of health talks for the Zumba community at the Choa Chu Kang Community Club over three consecutive Saturdays in March 2017. The talks, jointly organised by Choa Chu Kang Polyclinic, NHGP allied health professionals and People’s Association, included health topics such as management of fatigue and mental health, basic stretching exercises to alleviate muscle cramps and pointers for buying proper footwear. Through these talks, not only did residents learn how to take charge of their health but they also got to know their community healthcare professionals better.

Photos

Chapter 3
Empowering and Educating Patients
Annual Report FY2016
Building Today for Tomorrow
Singapore’s ageing population and growing prevalence of chronic medical conditions pose challenges for healthcare institutions to provide continual long-term care. The National Healthcare Group Polyclinics (NHGP) sees itself playing an important role in partnering patients on their journey from disease management to wellness.

The advancement of Family Medicine and continuing medical education are integral aspects in strengthening the capabilities of our staff to help patients on their journey to wellness. NHGP has been actively investing in research and education to enable our multi-disciplinary healthcare teams to learn from one another, gain new insights on best practices and keep up with the latest advancements. Through capability building, NHGP aims to transform the primary care landscape and improve quality of care.
Primary Care Forum 2016
NHGP held its 9th Primary Care Forum on 23 and 24 September 2016 in conjunction with the Singapore Healthcare and Biomedical Congress (SHBC).

An important event for primary care professionals and experts, the theme of the forum was ‘World Class Primary Care: Relationships, Partnerships and Innovations’. The annual forum focused on relationship-based care, community partnerships and innovative care programmes. More than 900 local and overseas speakers at the forum discussed the importance of a holistic care environment for patients in an evolving primary healthcare landscape.

Medical Forums and Workshops
Regular medical forums and workshops are held to ensure that NHGP healthcare professionals are kept up-to-date with the latest advancements in healthcare. Bi-monthly medical forums also help to equip Family Physicians with the key competencies under the Accreditation Council for Graduate Medical Education (ACGME) framework.

In addition, quarterly research forums are also organised to foster a research culture among staff and Family Medicine Residents. These research forums also provide a platform for research presentations and discussions (refer to Appendix B on Page 90 for the list of medical forums conducted).

NHGP’s 9th Primary Care Forum graced by Dr Lam Pin Min, Senior Minister of State, Ministry of Health, Ministry of Transport (sixth from left), on 23 September 2016.

Learning from Visiting Experts
To gain global perspectives on healthcare systems, NHGP Senior Management and working groups welcomed overseas experts:

Discussions were held from 20 to 22 September 2016 with Professor Jan De Maeseneer, Family Physician and Head, Department of Family Medicine & Primary Health Care, Ghent University, Belgium, and Chairman, European Forum for Primary Care on the Belgian healthcare system and its medical education system.

From 22 to 26 September 2016, NHGP also met with Professor Kamlesh Khunti, Professor of Primary Care Diabetes and Vascular Medicine, University of Leicester, United Kingdom, a world-renowned researcher in diabetes to discuss the importance of early identification and interventions for people with diabetes and those at risk of developing diabetes.

A sharing session was held on 21 March 2017 with Professor Eric Bateman, a renowned Pulmonologist, clinician scientist and board member of the Science Committee of the Global Initiative for Asthma on the optimisation of asthma care and guiding selection for at-risk patients. The session was also webcast live to doctors in Jurong Polyclinic and Woodlands Polyclinic.
HMDP VISITING EXPERTS SCHEME

Lectures and Workshops on Research Methodologies

As part of the Ministry of Health’s (MOH) Health Manpower Development Plan (HMDP) Visiting Experts scheme, Professor Kurt Stange, editor of the leading family medicine journal, the ‘Annals of Family Medicine’ visited NHGP from 13 to 17 February 2017. During his five-day visit, Professor Stange conducted lectures and workshops on research methodologies and medical writing. He also engaged staff in project discussions, with the aim of imparting skills necessary to develop successful and sustainable research in primary care.

Development of Pharmacy Support Workforce

NHG Pharmacy (NHGPh) hosted Dr Andrew Brown, an expert in pharmacy and health supply chains, at Bukit Batok Polyclinic on 6 October 2016. Dr Brown, who was in Singapore as the HMDP Visiting Expert for Pharmacy Technicians Workforce and Training Development, shared his views on the Australian Pharmacy Technician Competency and Registration Model. He also introduced the needs-based approach to education where learning is service-driven and competence-based.

HMDP VISITS

To Oregon and Alaska

In June 2016, a team from NHGP visited two American agencies, Care Oregon in Oregon and the South Central Foundation in Alaska, to learn about the care models practised at these institutions. The NHGP team took back useful ideas from the person-centred care model of the two institutions to be adapted to Singapore’s healthcare context for the management of patients under the team-based care programme.

To Wisconsin and Florida

Five NHGP staff members went on a three-week study trip to learn about the team-based care model of two world-renowned healthcare systems, Bellin Health at Green Bay, Wisconsin, and Veterans Health Administration Primary Care Services at Primary Care Annex, Tampa, Florida, in November 2016. The objective of the study trip was to expand the team’s knowledge in team-based care and aid NHGP’s efforts in transforming the primary care ecosystem in Singapore.

To California and Washington

In February 2017, four NHGP staff members went on a two-week study trip to California and Washington as part of the HMDP Fellowship Programme. The trip included visits to several renowned healthcare and academic institutions such as the University of California’s Center for Excellence in Primary Care. The trip provided the team with practical ideas on best practices in building strong teams.

TRAINING OPPORTUNITIES PROVIDED BY PRIMARY CARE ACADEMY

The Primary Care Academy (PCA) has been strengthening its role to improve the skills and capacity of primary care professionals. In FY2016, PCA conducted courses covering both soft and technical skills, including General Practitioner’s Assistant training, and workshops covering fall risks and preventive care. Forty-five courses were conducted in FY2016 (refer to Appendix C on Page 91 for the list of courses conducted by PCA).

TRAINING OPPORTUNITIES PROVIDED BY PRIMARY CARE ACADEMY

The Primary Care Academy (PCA) has been strengthening its role to improve the skills and capacity of primary care professionals. In FY2016, PCA conducted courses covering both soft and technical skills, including General Practitioner’s Assistant training, and workshops covering fall risks and preventive care. Forty-five courses were conducted in FY2016 (refer to Appendix C on Page 91 for the list of courses conducted by PCA).

HMDP Visits in FY2016

- June 2016
  - Care Oregon, Oregon
  - South Central Foundation, Alaska

- November 2016
  - Bellin Health, Green Bay, Wisconsin
  - Veterans Health Administration Primary Care Services at Primary Care Annex, Tampa, Florida

- February 2017
  - Center for Excellence in Primary Care, University of California, San Francisco
  - San Francisco Health Network, San Francisco Department of Public Health, San Francisco
  - School of Optometry, University of California, Berkeley
  - Iora Primary Care, Iora Health, Seattle
  - Qliance, Seattle
VISITS TO NHGP

In FY2016, NHGP hosted numerous visits by local government officials and healthcare institutions as part of its efforts to share knowledge and ideas. During the year, NHGP also hosted visitors from various countries to exchange ideas and knowledge of primary healthcare services in Singapore and NHGP’s efforts in transforming the primary care landscape.

MINISTRY OF HEALTH

Mr Chan Heng Kee, Permanent Secretary (PS), MOH, visited Bukit Batok Polyclinic on 29 July 2016. Associate Professor (A/Prof) Chong Phui-Nah, CEO, NHGP, and Senior Management hosted Mr Chan. The tour, which included a visit to the Family Medicine Academy located at Bukit Batok Polyclinic, provided insights into how team-based care delivery model provides better care for patients with chronic conditions.

PCA hosted a group of MOH officers at Choa Chu Kang Polyclinic and Woodlands Polyclinic on 2 June and 20 October 2016 respectively. The visits provided MOH officers with a macro view of the primary healthcare landscape, a better understanding about the implementation of healthcare policies on the ground and an introduction to NHGP’s team-based care delivery model.

LOCAL HEALTHCARE INSTITUTIONS

Jurong Polyclinic hosted a team from KK Women’s and Children’s Hospital on 7 October 2016 to learn about NHGP’s Cash Management System.

Toa Payoh Polyclinic hosted A/Prof Ong Biauw Chi, Chief Medical Board, Sengkang Health, Professor Christopher Cheng, Chief Executive Officer, Sengkang Health, and the team from Sengkang Health on 7 November 2016 to share the setup of NHGP’s team-based care model and operations model at the clinic.

Jurong Polyclinic hosted a team from Tan Tock Seng Hospital on 6 December 2016 to share about the enhanced operational efficiency achieved with NHGP’s Self-Payment Kiosk.

Toa Payoh Polyclinic hosted Professor Helen Smith, Professor of Primary Care, Lee Kong Chian School of Medicine (LKC Medicine) from 12 to 14 December 2016 to provide insights on the operational aspects of the polyclinic’s operations.
The Singapore Healthcare Improvement Network (SHINE) faculty made two visits to Clementi Polyclinic, on 14 July 2016 and 7 February 2017. The clinic team gave an update of the work done to reduce hypoglycemia among patients with diabetes in Clementi Polyclinic which had served as the pilot site for this programme.

Yishun Polyclinic hosted a group of 10 pre-registration/post-graduate nursing students from Taiwan's Central Taiwan University of Science and Technology on 12 July 2016.

Jurong Polyclinic hosted 16 nursing directors and lecturers from China’s Xiangyang Health School Hubei on 5 August 2016. The participants were in Singapore on a three-week nursing pedagogy course at Nanyang Polytechnic.

Choa Chu Kang Polyclinic hosted a group of 20 nurses from Sri Lanka on 7 April 2016. The delegates were in Singapore to learn about Singapore’s healthcare system as part of a nursing programme organised by Nanyang Polytechnic.

Yishun Polyclinic hosted 20 nursing leaders and educators from China’s Hebei/Tianjin universities and hospitals on 22 September 2016.

Woodlands Polyclinic hosted a visit by Western Australia’s Deputy Leader of the Opposition and Shadow Minister for Health, Mr Roger Cook, and his delegation on 30 September 2016.

PCA and Hougang Polyclinic hosted a delegation of 22 General Practitioners from Ningbo, China, on 18 October 2016. The visit was part of the delegates’ two-week exchange programme in Singapore.

Bukit Batok Polyclinic hosted a four-member delegation led by the Chief of Service, Hospital Authority of Hong Kong, on 8 November 2016.

Jurong Polyclinic hosted 24 nursing directors and managers from Shaanxi on 15 February 2017. This was part of the Executive Nursing Management Programme organised by Nanyang Polytechnic, School of Health Sciences (Nursing).
NHG EDUCAUTION AWARDS
NUS Medicine Dean’s Awards 2016
Two NHG Family Physicians were recognised for their contributions as clinical teachers at NUS Yong Loo Lin School of Medicine. The awards were presented at the NUS Medicine Clinical Teachers’ event held on 22 November 2016.

NHG Teaching Awards
The annual NHG Teaching Excellence Awards (or Teachers’ Day Awards ceremony) was held on 2 September 2016 to recognise exemplary teachers and educators across all NHG institutions for their dedication to the professional development of healthcare staff.

NHG Education Leaders Award 2016
Dr Tang Wern Ee
Family Physician, Senior Consultant Education Director, Family Medicine Development
Head, Clinical Research Unit

NHG Teaching Award for Junior Clinicians 2016
Dr Tan Tee Hian
Family Physician, Associate Consultant Deputy Head (Designate), Pioneer Polyclinic

NHG Outstanding Nurse Teachers 2016
Ms Chan Su Sie
Senior Staff Nurse I, Bukit Batok Polyclinic

Ms Srimathi Lishumaman
Senior Staff Nurse II, Toa Payoh Polyclinic

NHG Inter-Professional Teaching Award 2016
Ms Estonie Yuen Wing Ting
Senior Clinician, Clinical Services

Ms Kau Chung Ping
Senior Medical Social Worker, Clinical Services

Ms Wang Yuefen
Senior Doctor, Clinical Services

Ms Goh Khoon Chin
Senior Nurse Clinician, Bukit Batok Polyclinic

Pharmacy Senior Preceptors
Mr Gavin Cheah
Senior Pharmacist, Jurong Polyclinic

Ms Lee Poh Lih
Senior Pharmacist, Jurong Polyclinic

NHG Teaching Award for Nursing Preceptors 2016
Ms Lee Ching Lian
Senior Nurse Clinician, Hougang Polyclinic

NHG Inter-Professional Teaching Award 2016
Ms Estonie Yuen Wing Ting
Senior Clinician, Clinical Services

Ms Kau Chung Ping
Senior Medical Social Worker, Clinical Services

Ms Wang Yuefen
Senior Doctor, Clinical Services

Ms Goh Khoon Chin
Senior Nurse Clinician, Bukit Batok Polyclinic

Preceptors
Mr Gavin Cheah
Senior Pharmacist, Jurong Polyclinic

Ms Lee Poh Lih
Senior Pharmacist, Jurong Polyclinic

PROFESSIONAL ADVANCEMENT OF OUR STAFF
NHGP recognises our staff for their work in Family Medicine by investing in the development of their knowledge and skills throughout the course of their careers.

Master of Medicine (Family Medicine)
Dr Grace Chew
Resident Physician, Bukit Batok Polyclinic

Dr Jessica Tang Hay
Resident Physician, Clementi Polyclinic

Dr Ibraa Darke
Resident Physician, Choa Chu Kang Polyclinic

Dr Zhi Han
Resident Physician, Hougang Polyclinic

NHG Teachers Award 2016
Dr Zhang Zhi Peng
Family Physician

Dr Tan Wee Hian
Family Physician, Associate Consultant Deputy Head (Designate), Pioneer Polyclinic

Pharmacy Senior Preceptors
Mr Gavin Cheah
Senior Pharmacist, Jurong Polyclinic

Ms Lee Poh Lih
Senior Pharmacist, Jurong Polyclinic

Fellowship of Academy of Medicine, Singapore
A/Prof Chong Phui-Nah
Family Physician, Senior Consultant Chief Executive Officer, NHGP

Dr Doraisamy Gowri
Family Physician, Senior Consultant Woodlands Polyclinic

Dr Keith Tsou
Family Physician, Senior Consultant Bukit Batok Polyclinic

Dr Angelia Chua
Family Physician, Consultant Yishun Polyclinic

Fellowship of College of Family Physicians (Singapore)
Dr Manojkumar Kharbanda
Family Physician, Associate Consultant Deputy Chief Medical Informatics Officer, Office of Clinical Informatics

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

Dr Lim Chee Kong
Family Physician, Consultant Deputy Director (Medical Manpower) Clinical Services

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

Dr Desmond Ong
Family Physician, Associate Consultant Jurong Polyclinic

Dr Franco Wong
Family Physician, Associate Consultant Deputy Head, Jurong Polyclinic

Master of Nursing
Ms Chan Cheuk Ying
Senior Staff Nurse I, APN Intern, Nursing Services

Graduate Diploma in Family Medicine
Dr Lee Tong Chsia
Resident Physician, Senior Staff, Ang Mo Kio Polyclinic

Dr Olivia Tian
Resident Physician, Yishun Polyclinic

Dr Chooon Siow Li
Resident Physician, Yishun Polyclinic

Dr Candice Lee Wei Zhen
Resident Physician, Woodlands Polyclinic

Dr Ismail Afrana
Resident Physician, Hougang Polyclinic

Dr Claire See
Resident Physician, Hougang Polyclinic

Dr Yeap Youwen
Resident Physician, Woodlands Polyclinic

Dr Chua Ying Xian
Resident Physician, Jurong Polyclinic

Dr Evelyn Chua
Resident Physician, Jurong Polyclinic

Dr Alexandra Lau
Resident Physician, Jurong Polyclinic

Dr Chie Zhi Ying
MOE, Woodlands Polyclinic

Chapter 4
Strengthening Family Medicine and Continuing Education
Annual Report FY2016
Building Today for Tomorrow
MINISTRY OF HEALTH IN-SERVICE SCHOLARSHIP
In FY2016, 11 NHGP nurses were awarded the MOH In-Service Scholarship (MOH ISS).

The MOH ISS aims to enhance the capabilities of our nurses to develop their leadership and professional qualities to build the next generation of leaders.

CREATING A CULTURE OF RESEARCH AND INQUIRY

NHGP secured a $5-million National Medical Research Council Centre Grant together with the Institute of Mental Health and LKC Medicine to increase research capacity and capability in primary care in Singapore. The grant funding will cover the period from May 2017 to April 2021. The grant application, titled ‘Primary Health Care Research in Multi-Morbidity and Mental Health in a Multi-Ethnic Population’ sets to establish an internationally-recognised primary healthcare research centre of excellence that informs policy-makers, practitioners and programme planners.

On 23 September 2016, NHGP entered into a Memorandum of Understanding (MOU) with LKC Medicine to set up a research centre, Primary Health Care Research and Innovation. The research centre will look to introduce new technologies and creative ways to manage patients with one or more chronic conditions and provide support for their caregivers. It will develop medical practitioners who are active in research as well as increase their awareness and knowledge of the latest healthcare developments.

NHGP Clinician-Scientist Preparatory Programme (CSPP)
Dr Kee Kok Wai, Family Physician, Consultant, Toa Payoh Polyclinic, and Assistant Director, Family Medicine Development Department, successfully attained the FY2016 NHG Clinician-Scientist Preparatory Programme (CSPP) award. The CSPP, which comprises project funding, sponsored research training and mentorship, aims to expose clinicians to research opportunities in the early phase of their career through research training and project experience.

RESEARCH ACHIEVEMENTS
In March 2017, NHGP secured a $5-million National Medical Research Council Centre Grant together with the Institute of Mental Health and LKC Medicine to increase research capacity and capability in primary care in Singapore. The grant funding will cover the period from May 2017 to April 2021. The grant application, titled ‘Primary Health Care Research in Multi-Morbidity and Mental Health in a Multi-Ethnic Population’ sets to establish an internationally-recognised primary healthcare research centre of excellence that informs policy-makers, practitioners and programme planners.

On 23 September 2016, NHGP entered into a Memorandum of Understanding (MOU) with LKC Medicine to set up a research centre, Primary Health Care Research and Innovation. The research centre will look to introduce new technologies and creative ways to manage patients with one or more chronic conditions and provide support for their caregivers. It will develop medical practitioners who are active in research as well as increase their awareness and knowledge of the latest healthcare developments.

RESEARCH PUBLICATIONS, PRESENTATIONS AND AWARDS
Engaging in research is important in the advancement of family medicine. The culture of research ensures that NHGP staff continue to adopt the best practices in healthcare that is supported by evidence, to further improve the health outcomes of patients and raise the overall standard of primary care in Singapore.

NHG Clinician-Scientist Preparatory Programme (CSPP)
Dr Kee Kok Wai, Family Physician, Consultant, Toa Payoh Polyclinic, and Assistant Director, Family Medicine Development Department, successfully attained the FY2016 NHG Clinician-Scientist Preparatory Programme (CSPP) award. The CSPP, which comprises project funding, sponsored research training and mentorship, aims to expose clinicians to research opportunities in the early phase of their career through research training and project experience.

RESEARCH ACHIEVEMENTS
In March 2017, NHGP secured a $5-million National Medical Research Council Centre Grant together with the Institute of Mental Health and LKC Medicine to increase research capacity and capability in primary care in Singapore. The grant funding will cover the period from May 2017 to April 2021. The grant application, titled ‘Primary Health Care Research in Multi-Morbidity and Mental Health in a Multi-Ethnic Population’ sets to establish an internationally-recognised primary healthcare research centre of excellence that informs policy-makers, practitioners and programme planners.

On 23 September 2016, NHGP entered into a Memorandum of Understanding (MOU) with LKC Medicine to set up a research centre, Primary Health Care Research and Innovation. The research centre will look to introduce new technologies and creative ways to manage patients with one or more chronic conditions and provide support for their caregivers. It will develop medical practitioners who are active in research as well as increase their awareness and knowledge of the latest healthcare developments.

RESEARCH PUBLICATIONS, PRESENTATIONS AND AWARDS
Engaging in research is important in the advancement of family medicine. The culture of research ensures that NHGP staff continue to adopt the best practices in healthcare that is supported by evidence, to further improve the health outcomes of patients and raise the overall standard of primary care in Singapore.

NHG Clinician-Scientist Preparatory Programme (CSPP)
Dr Kee Kok Wai, Family Physician, Consultant, Toa Payoh Polyclinic, and Assistant Director, Family Medicine Development Department, successfully attained the FY2016 NHG Clinician-Scientist Preparatory Programme (CSPP) award. The CSPP, which comprises project funding, sponsored research training and mentorship, aims to expose clinicians to research opportunities in the early phase of their career through research training and project experience.

RESEARCH ACHIEVEMENTS
In March 2017, NHGP secured a $5-million National Medical Research Council Centre Grant together with the Institute of Mental Health and LKC Medicine to increase research capacity and capability in primary care in Singapore. The grant funding will cover the period from May 2017 to April 2021. The grant application, titled ‘Primary Health Care Research in Multi-Morbidity and Mental Health in a Multi-Ethnic Population’ sets to establish an internationally-recognised primary healthcare research centre of excellence that informs policy-makers, practitioners and programme planners.

On 23 September 2016, NHGP entered into a Memorandum of Understanding (MOU) with LKC Medicine to set up a research centre, Primary Health Care Research and Innovation. The research centre will look to introduce new technologies and creative ways to manage patients with one or more chronic conditions and provide support for their caregivers. It will develop medical practitioners who are active in research as well as increase their awareness and knowledge of the latest healthcare developments.

RESEARCH PUBLICATIONS, PRESENTATIONS AND AWARDS
Engaging in research is important in the advancement of family medicine. The culture of research ensures that NHGP staff continue to adopt the best practices in healthcare that is supported by evidence, to further improve the health outcomes of patients and raise the overall standard of primary care in Singapore.

NHG Clinician-Scientist Preparatory Programme (CSPP)
Dr Kee Kok Wai, Family Physician, Consultant, Toa Payoh Polyclinic, and Assistant Director, Family Medicine Development Department, successfully attained the FY2016 NHG Clinician-Scientist Preparatory Programme (CSPP) award. The CSPP, which comprises project funding, sponsored research training and mentorship, aims to expose clinicians to research opportunities in the early phase of their career through research training and project experience.

RESEARCH ACHIEVEMENTS
In March 2017, NHGP secured a $5-million National Medical Research Council Centre Grant together with the Institute of Mental Health and LKC Medicine to increase research capacity and capability in primary care in Singapore. The grant funding will cover the period from May 2017 to April 2021. The grant application, titled ‘Primary Health Care Research in Multi-Morbidity and Mental Health in a Multi-Ethnic Population’ sets to establish an internationally-recognised primary healthcare research centre of excellence that informs policy-makers, practitioners and programme planners.

On 23 September 2016, NHGP entered into a Memorandum of Understanding (MOU) with LKC Medicine to set up a research centre, Primary Health Care Research and Innovation. The research centre will look to introduce new technologies and creative ways to manage patients with one or more chronic conditions and provide support for their caregivers. It will develop medical practitioners who are active in research as well as increase their awareness and knowledge of the latest healthcare developments.

RESEARCH PUBLICATIONS, PRESENTATIONS AND AWARDS
Engaging in research is important in the advancement of family medicine. The culture of research ensures that NHGP staff continue to adopt the best practices in healthcare that is supported by evidence, to further improve the health outcomes of patients and raise the overall standard of primary care in Singapore.

NHG Clinician-Scientist Preparatory Programme (CSPP)
Dr Kee Kok Wai, Family Physician, Consultant, Toa Payoh Polyclinic, and Assistant Director, Family Medicine Development Department, successfully attained the FY2016 NHG Clinician-Scientist Preparatory Programme (CSPP) award. The CSPP, which comprises project funding, sponsored research training and mentorship, aims to expose clinicians to research opportunities in the early phase of their career through research training and project experience.
Contributions by NHGP Staff to New Medical Knowledge

The following pages highlight the various research programmes undertaken by NHGP staff that have been presented in journal publications as well as local and international conferences in FY2016.

Publications with Contributions by NHGP Staff in Peer Review Journals

**Diabetes & Vascular Disease Research**
- **Date**: April 2016
- **Title**: Central arterial stiffness is associated with systemic inflammation among Asians with Type 2 Diabetes
  - **Authors**: Dr Simon Lee (Family Physician, Consultant, Chief Medical Informatics Officer, Office of Clinical Informatics), Dr Ruth Zheng Mingli (Family Physician, Senior Consultant, Bukit Batok Polyclinic), and Mr Kwok Boon Chong (Family Physician, Consultant, Head, Clinical Research Unit)

**Journal of Interprofessional Care**
- **Date**: June 2016
- **Title**: Attitudes towards inter-professional collaboration among primary care physicians and nurses in Singapore
  - **Authors**: Dr Ruth Zheng Mingli (first author), Family Physician, Consultant, Bukit Batok Polyclinic

**Journal of Thoracic Disease**
- **Date**: July 2016
- **Title**: Ethnic disparity in central arterial stiffness and its determinants among Asians with Type 2 Diabetes
  - **Authors**: Dr Simon Lee (Family Physician, Consultant, Chief Medical Informatics Officer, Office of Clinical Informatics), Dr Tang Wern Ee (Family Physician, Senior Consultant Education Director, Family Medicine Development), and Mr Kwok Boon Chong (first author), Family Physician, Consultant, Head, Clinical Research Unit

**The Journal of Infection**
- **Date**: September 2016
- **Title**: Respiratory viruses and influenza-like illness: epidemiology and outcomes in children aged 6 months to 10 years in a multi-country population sample
  - **Authors**: Dr Lim Feng Seng (Family Physician, Senior Consultant, Choa Chu Kang Polyclinic)

**Nephrology, Dialysis, Transplantation**
- **Date**: July 2016
- **Title**: Genetic variants in the receptor for advanced glycation and 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
  - **Authors**: Dr Simon Lee (Family Physician, Consultant, Chief Medical Informatics Officer, Office of Clinical Informatics), Dr Tang Wern Ee (Family Physician, Senior Consultant Education Director, Family Medicine Development), and Mr Kwok Boon Chong (first author), Family Physician, Consultant, Head, Clinical Research Unit

**British Journal of General Practice**
- **Date**: June 2016
- **Title**: Evolving health policy for primary care in the Asia Pacific region
  - **Authors**: A/Prof Chong Phui-Nah (Family Physician, Senior Consultant, Chief Executive Officer, NHGP)

**British Food Journal**
- **Date**: October 2016
- **Title**: Effectiveness of nutrition education accompanied by cooking demonstration
  - **Authors**: Ms Lynette Goh Mei Lim (Senior Dietitian, Clinical Services)

**Atherosclerosis**
- **Date**: January 2017
- **Title**: Baseline predictors of aortic stiffness progression among multi-ethnic Asians with Type 2 Diabetes
  - **Authors**: Dr Simon Lee (Family Physician, Consultant, Chief Medical Informatics Officer, Office of Clinical Informatics), Dr Tang Wern Ee (Family Physician, Senior Consultant Education Director, Family Medicine Development), and Mr Kwok Boon Chong (first author), Family Physician, Consultant, Head, Clinical Research Unit

**Journal of Diabetes and its Complications**
- **Date**: February 2017
- **Title**: Arterial stiffness is an independent predictor for albuminuria progression among Asians with Type 2 Diabetes: A prospective cohort study
  - **Authors**: Dr Simon Lee (Family Physician, Consultant, Chief Medical Informatics Officer, Office of Clinical Informatics), Dr Tang Wern Ee (Family Physician, Senior Consultant Education Director, Family Medicine Development), and Mr Kwok Boon Chong (first author), Family Physician, Consultant, Head, Clinical Research Unit

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

**33rd National Conference – Dietitians Association of Australia**
- **Date**: May 2016
- **Title**: Great Simple Tasty (GST) Corners: An innovative primary care health promotion initiative to encourage healthy eating practices
  - **Authors**: Ms Lynette Goh Mei Lim (Senior Dietitian, Clinical Services)

**International Symposium on Dental Hygiene**
- **Date**: June 2016
- **Title**: To increase patients’ awareness on post-operative care of fillings
  - **Authors**: Ms Ang Wei Wei (Oral Health Therapist, Woodlands Polyclinic)

**Association for Medical Education in Europe (AMEE) Conference**
- **Date**: August 2016
- **Title**: Limited health literacy in patients: how do educators address the issue in practice?
  - **Authors**: Dr Tang Wern Ee (Family Physician, Senior Consultant Education Director, Family Medicine Development), and Mr Kwok Boon Chong (first author), Family Physician, Consultant, Head, Clinical Research Unit

**21st World Organisation of National Colleges, Academies and Academic Associations of General Practitioners/Family Physicians (WONCA) Europe Conference**
- **Date**: Copenhagen, Denmark, June 2016
- **Title**: Baseline predictors of aortic stiffness progression among multi-ethnic Asians with Type 2 Diabetes: A prospective cohort study
  - **Authors**: Dr Simon Lee (Family Physician, Consultant, Chief Medical Informatics Officer, Office of Clinical Informatics), Dr Tang Wern Ee (Family Physician, Senior Consultant Education Director, Family Medicine Development), and Mr Kwok Boon Chong (first author), Family Physician, Consultant, Head, Clinical Research Unit

**21st World Organisation of National Colleges, Academies and Academic Associations of General Practitioners/Family Physicians (WONCA) Europe Conference**
- **Date**: Melbourne, Australia, November 2016
- **Title**: Baseline predictors of aortic stiffness progression among multi-ethnic Asians with Type 2 Diabetes: A prospective cohort study
  - **Authors**: Dr Simon Lee (Family Physician, Consultant, Chief Medical Informatics Officer, Office of Clinical Informatics), Dr Tang Wern Ee (Family Physician, Senior Consultant Education Director, Family Medicine Development), and Mr Kwok Boon Chong (first author), Family Physician, Consultant, Head, Clinical Research Unit

**14th Asia Pacific Medical Education Development Conference (APMEC)**
- **Date**: Singapore, January 2017
- **Title**: Patterns of reflective thinking and its association with clinical teaching
  - **Authors**: Ms Christie Anna (Nurse Educator I, Nursing Services)

**International Conferences by NHGP Staff at Local and International Conferences**

**33rd National Conference – Dietitians Association of Australia**
- **Date**: May 2016
- **Title**: Great Simple Tasty (GST) Corners: An innovative primary care health promotion initiative to encourage healthy eating practices
  - **Authors**: Ms Lynette Goh Mei Lim (Senior Dietitian, Clinical Services)

**International Symposium on Dental Hygiene**
- **Date**: June 2016
- **Title**: To increase patients’ awareness on post-operative care of fillings
  - **Authors**: Ms Ang Wei Wei (Oral Health Therapist, Woodlands Polyclinic)

**Association for Medical Education in Europe (AMEE) Conference**
- **Date**: August 2016
- **Title**: Limited health literacy in patients: how do educators address the issue in practice?
  - **Authors**: Dr Tang Wern Ee (Family Physician, Senior Consultant Education Director, Family Medicine Development), and Mr Kwok Boon Chong (first author), Family Physician, Consultant, Head, Clinical Research Unit

**21st World Organisation of National Colleges, Academies and Academic Associations of General Practitioners/Family Physicians (WONCA) Europe Conference**
- **Date**: Copenhagen, Denmark, June 2016
- **Title**: Baseline predictors of aortic stiffness progression among multi-ethnic Asians with Type 2 Diabetes: A prospective cohort study
  - **Authors**: Dr Simon Lee (Family Physician, Consultant, Chief Medical Informatics Officer, Office of Clinical Informatics), Dr Tang Wern Ee (Family Physician, Senior Consultant Education Director, Family Medicine Development), and Mr Kwok Boon Chong (first author), Family Physician, Consultant, Head, Clinical Research Unit

**21st World Organisation of National Colleges, Academies and Academic Associations of General Practitioners/Family Physicians (WONCA) Europe Conference**
- **Date**: Melbourne, Australia, November 2016
- **Title**: Baseline predictors of aortic stiffness progression among multi-ethnic Asians with Type 2 Diabetes: A prospective cohort study
  - **Authors**: Dr Simon Lee (Family Physician, Consultant, Chief Medical Informatics Officer, Office of Clinical Informatics), Dr Tang Wern Ee (Family Physician, Senior Consultant Education Director, Family Medicine Development), and Mr Kwok Boon Chong (first author), Family Physician, Consultant, Head, Clinical Research Unit

**14th Asia Pacific Medical Education Development Conference (APMEC)**
- **Date**: Singapore, January 2017
- **Title**: Patterns of reflective thinking and its association with clinical teaching
  - **Authors**: Ms Christie Anna (Nurse Educator I, Nursing Services)

**International Conferences by NHGP Staff at Local and International Conferences**

**33rd National Conference – Dietitians Association of Australia**
- **Date**: May 2016
- **Title**: Great Simple Tasty (GST) Corners: An innovative primary care health promotion initiative to encourage healthy eating practices
  - **Authors**: Ms Lynette Goh Mei Lim (Senior Dietitian, Clinical Services)

**International Symposium on Dental Hygiene**
- **Date**: June 2016
- **Title**: To increase patients’ awareness on post-operative care of fillings
  - **Authors**: Ms Ang Wei Wei (Oral Health Therapist, Woodlands Polyclinic)

**Association for Medical Education in Europe (AMEE) Conference**
- **Date**: August 2016
- **Title**: Limited health literacy in patients: how do educators address the issue in practice?
  - **Authors**: Dr Tang Wern Ee (Family Physician, Senior Consultant Education Director, Family Medicine Development), and Mr Kwok Boon Chong (first author), Family Physician, Consultant, Head, Clinical Research Unit

**21st World Organisation of National Colleges, Academies and Academic Associations of General Practitioners/Family Physicians (WONCA) Europe Conference**
- **Date**: Copenhagen, Denmark, June 2016
- **Title**: Baseline predictors of aortic stiffness progression among multi-ethnic Asians with Type 2 Diabetes: A prospective cohort study
  - **Authors**: Dr Simon Lee (Family Physician, Consultant, Chief Medical Informatics Officer, Office of Clinical Informatics), Dr Tang Wern Ee (Family Physician, Senior Consultant Education Director, Family Medicine Development), and Mr Kwok Boon Chong (first author), Family Physician, Consultant, Head, Clinical Research Unit

**21st World Organisation of National Colleges, Academies and Academic Associations of General Practitioners/Family Physicians (WONCA) Europe Conference**
- **Date**: Melbourne, Australia, November 2016
- **Title**: Baseline predictors of aortic stiffness progression among multi-ethnic Asians with Type 2 Diabetes: A prospective cohort study
  - **Authors**: Dr Simon Lee (Family Physician, Consultant, Chief Medical Informatics Officer, Office of Clinical Informatics), Dr Tang Wern Ee (Family Physician, Senior Consultant Education Director, Family Medicine Development), and Mr Kwok Boon Chong (first author), Family Physician, Consultant, Head, Clinical Research Unit

**14th Asia Pacific Medical Education Development Conference (APMEC)**
- **Date**: Singapore, January 2017
- **Title**: Patterns of reflective thinking and its association with clinical teaching
  - **Authors**: Ms Christie Anna (Nurse Educator I, Nursing Services)
Ms Lily Lang, Infection Control Nurse Manager, Dental Services, was awarded the Best Oral Presentation Award at the International Congress of Infection Control (Singapore) which was held from 19 to 21 October 2016. The competition which received 55 submissions served as a platform for primary care professionals to showcase their research outcomes to help medical professionals improve their knowledge in the field of primary care (refer to Appendix D on Page 92 to 94 for the list of abstracts accepted for the SHBC Scientific Competition 2016).

Several NHGP staff were winners of the Singapore Primary Care Research Scientific Competition 2016 as listed below:

**ORAL**

- **GOLD**
  - Factors associated with avoidable admissions for diabetes in a primary care population
  - Dr Sabrina Wong Kay Wye
  - Family Physician, Consultant Assistant Director, Clinical Services

- **SILVER**
  - Preventing diabetes: Enabling pre-diabetic adults to make lifestyle modifications
  - Ms Soh Ying Hua
  - Executive Director, Health Promotion and Preventive Care

- **BRONZE**
  - Multi-morbidity and its impact on patients’ anxiety and depression status in the primary care setting
  - Dr Richard Lee Meng Kam
  - Family Physician, Consultant Clementi Polyclinic

**POSTER**

- **GOLD**
  - Differences in health concerns among patients with well-controlled and poorly-controlled Type II Diabetes Mellitus
  - Dr Ian Koh Jan Ming
  - Family Physician, Deputy Head, Yishun Polyclinic

- **SILVER**
  - Comparison between acarbose and sitagliptin as a third-line treatment for patients with poorly controlled diabetes in National Healthcare Group Polyclinics in Singapore
  - Dr Lim Zilang
  - Family Physician, Associate Consultant, Deputy Head, Yishun Polyclinic

- **BRONZE**
  - Validation of Client Satisfaction Questionnaire (CSQ-8): A study on primary care mental health services in Singapore
  - Dr Wong Mei Yin
  - Principal Clinical Psychologist, Clinical Services

**NHG-HOMER GRANT**

Ms Yan Chau Chain, Senior Nurse Manager, Nursing Services, received the NHG-HOMER (Health Outcomes and Medical Education Research) Grant FY2016 Award to further her research to advance the Helping Hands’ Programme. The ‘Helping Hands’ Programme aims to use self-determination theory to promote nurses’ knowledge, beliefs, attitudes and compliance on hand hygiene in primary care.

**DENTAL RESEARCH ACHIEVEMENTS**

Ms Lily Lang, Infection Control Nurse Manager, Dental Services, was awarded the Best Oral Presentation Award at the International Congress of Infection Control (Singapore) which was held from 19 to 21 October 2016. Ms Lang’s oral poster presentation addressed the risk of exposure to blood-borne pathogens among dental staff and emphasised the need for collaboration with different stakeholders and for multi-pronged targeted interventions.
As primary care providers, National Healthcare Group Polyclinics (NHGP) staff play a critical role in managing the healthcare needs of the population. As we work towards transforming primary care and improving population health, NHGP continues to engage our staff and grow their potential to develop a strong culture of excellence to reach our goals.

Through continuous investment in staff training, we hope to energise staff to be at the forefront of healthcare developments to be ready for future challenges. Complementing training is regular engagement by management to inspire and encourage staff to keep improving work processes to help us better serve our patients.

In recognising and celebrating the achievements of our staff, NHGP aims to foster a sense of camaraderie within the team while inspiring staff to achieve even greater heights in our primary care transformation journey to meet the evolving needs of the population.
CEO TOWNHALL

Associate Professor (A/Prof) Chong Phui-Nah, CEO, NHGP, kicked-off the annual CEO Townhall series on 5 April 2016. At the sessions, A/Prof Chong provided insights on the overarching strategy that drives NHGP’s Primary Care 2025 Vision and Mission. These regular interactions also aim to engage staff to have a better understanding on how their daily work and projects contribute to achieving NHGP’s goals.

STRENGTHENING THE NHGP CULTURE

NHGP CULTURE DNA CELEBRATION 2016

On 6 October 2016, NHGP celebrated Culture DNA (CDNA) 2016 with creative flair at NHGP HQ. Some 200 staff from NHGP, NHG Pharmacy (NHGPi) and NHG Diagnostics (NHGD) gathered for the event which featured the CDNA ‘Recipe’ competition. ‘NHGP Chefs’, from 11 participating teams with representatives from HQ and nine polyclinics, put up creations based on what they felt best represented NHGP’s CDNA and 4P7R elements, NHGP’s four principles and seven rules that guide staff on achieving the next level of performance, quality and care.

Awards such as iCARE, Way of Being, My Bright Ideas and OurCare, were presented to exemplary staff for embodying NHGP values.

Photos:

Top: A/Prof Chong, CEO, NHGP, engaging staff at Ang Mo Kio Polyclinic on 7 November 2016.

Bottom: CEO engaging staff at the CEO Townhall session held at HQ-Nexus on 17 October 2016.

Photo:

Hougang Polyclinic team presenting their CDNA ‘Recipe’ to an appreciative audience at the CDNA celebration on 6 October 2016.
Winners of the iCARE Champion Awards and iCARE HQ Partners Award at the CDNA celebration on 6 October 2016. OurCare Awards and My Bright Ideas Contributor Award winners at the same event. Way of Being Award winners at the CDNA celebration.

Photos

Top to Bottom:

NHGP FAMILY APPRECIATION DAY

NHGP held its annual Family Appreciation Day on 15 December 2016 at NHGP HQ. The event, graced by A/Prof Chong, CEO, NHGP, and Senior Management, was organised to give thanks to family members of staff. A/Prof Chong also presented the ‘Stand By Me’ Awards and Book Prizes to 32 staff and family members in recognition of their unwavering support. The Book Prizes were presented to children of staff to help them with their education needs. The funds for the Book Prizes were raised by NHGP HQ team in August 2016.

NHGP ACTIVE DAY

More than 950 staff from NHGP, NHGPh and NHGD attended the NHGP Active Day at the Singapore University of Technology and Design on 25 February 2017. The event started on a high note with an energising mass Zumba workout while the rest of the activities, Annual Staff Fitness assessment (2-km walk or 2.4-km run), inter-polyclinic Bubble Bump Soccer competition and mass aerobics took place concurrently. The inter-polyclinic Captain’s Ball competition semi-finals and finals also took place at the event. Fringe activities such as Yoga and Tai Chi were also lined up for staff participation.

Top:

Staff with their unsung heroes at the Family Appreciation Day organised at NHGP HQ on 15 December 2016.

Bottom:
The Inter-Polyclinic Captain’s Ball Preliminary rounds were held at Ang Mo Kio Secondary School on 21 January 2017.

NHGP FAMILY APPRECIATION DAY

NHGP held its annual Family Appreciation Day on 15 December 2016 at NHGP HQ. The event, graced by A/Prof Chong, CEO, NHGP, and Senior Management, was organised to give thanks to family members of staff. A/Prof Chong also presented the ‘Stand By Me’ Awards and Book Prizes to 32 staff and family members in recognition of their unwavering support. The Book Prizes were presented to children of staff to help them with their education needs. The funds for the Book Prizes were raised by NHGP HQ team in August 2016.

NHGP ACTIVE DAY

More than 950 staff from NHGP, NHGPh and NHGD attended the NHGP Active Day at the Singapore University of Technology and Design on 25 February 2017. The event started on a high note with an energising mass Zumba workout while the rest of the activities, Annual Staff Fitness assessment (2-km walk or 2.4-km run), inter-polyclinic Bubble Bump Soccer competition and mass aerobics took place concurrently. The inter-polyclinic Captain’s Ball competition semi-finals and finals also took place at the event. Fringe activities such as Yoga and Tai Chi were also lined up for staff participation.
TEAM BUILDING INITIATIVES

At NHGP, building an effective team is key to our efforts to achieving our common goal. In FY2016, several activities were organised to build and foster strong relationships among staff to achieve a shared purpose.

Top: Staff from Jurong Polyclinic and Pioneer Polyclinic had an enjoyable team building at SAFRA on 16 July 2016.

Bottom: Staff from Toa Payoh Polyclinic held their team building at Keppel Club on 23 July 2016.

Photos

Top: Team building for Yishun Polyclinic took place at Cookyn@ NSHomeTeam Clubhouse on 13 August 2016.

Bottom: Ang Mo Kio Polyclinic had their team building at Focus Adventure on 1 October 2016.
NHG QUALITY DAY 2016
The 16th National Healthcare Group (NHG) Quality Day was celebrated on 19 August 2016 to recognise efforts across NHG institutions to enhance quality and provide a platform for knowledge-sharing. A total of 13 staff members and service teams from NHGP, NHGPh and NHGD were recognised for providing quality and service excellence.

Mr. Shaik Hussein, a patient at the Clementi Polyclinic and also an NHGP Tele-care Programme patient, was awarded the Exemplary Patient and Caregiver Award 2016, for improving his blood pressure reading through the use of Pharmacist-Led Anticoagulation Clinics (ACCs) in the Polyclinics.

Mr. Shaik’s improved reading enabled him to reduce his polyclinic visits from three or four times a year to only twice annually.

EXCELLENCE IN ACTION AWARDS (EIAA)

Individual (Allied Health)
Mdm Charito C. Dolojan
Medical Technologist
NHGD
Ms Char Wai Teng
Cheryl
Senior Pharmacist
NHGPh
Ms Ei Phyu Khaing
Pharmacy Technician
NHGPh
Ms Ong Soo Im
Principal Pharmacist
NHGPh

Individual (Executive/Administration)
Ms Ho Mee Nah
Executive
NHGPh
Ms Tan Li Ling
Senior Executive
NHGPh

Individual (Nursing)
Ms Du Na
Senior Staff Nurse
Woodlands Polyclinic

Team
Public Education
Workgroup
NHGPh

QUALITY IMPROVEMENT AWARDS (QIA)

Improving and Sustaining Quality and Safety
To improve the management of patients on Warfarin through the use of Pharmacist-Led Anticoagulation Clinics (ACCs) in the Polyclinics.

Developing a Flexible and Sustainable Workforce
To improve consumable store management processes at NHG Polyclinics

INDIVIDUAL CATEGORY
SILVER
Ms Goh Min Lee Josephine
Senior Medical Social Worker
Clinical Services
BRONZE
Ms Pauline Xie
Senior Dietitian
Clinical Services
Merit
Ms Padincharayil Shima
Senior Pharmacy Technician
NHGPh
Ms Choo Poh Neo, Linda
Health Attendant
Dental Services
Hougang Polyclinic

TEAM CATEGORY
PATIENT SAFETY AWARD
Star Award, Allied Health
Ms Fong Mei Kiu
Podiatry Assistant
Clinical Services

NHG 4P7R SYMPOSIUM
Staff from NHGP, NHGPh and NHGD joined other institutions from the NHG family at the NHG 4P7R Symposium Day 2016 on 25 November 2016. Professor (Prof) Philip Choo, Group Chief Executive Officer (GCEO), NHG, spoke about the milestones NHG had achieved as a Regional Health System, highlighting the shared culture among institutions that had made these achievements possible.

NHG and NH staff received several team and individual awards at the symposium.

NHG INSTITUTIONAL ACTIVITY 2016
Together with other NHG institutions, NHGP staff went on a 5-km nature walk at HortPark Singapore on 4 June 2016 organised by the NHG Inter-Institutional Activities Committee 2016. The event was attended by more than 200 participants from the NHG family who spent time bonding with one another while walking the trail and taking fun photographs to clinch the best picture of the day.

Photo
Mr. Shaik Hussein (right) receiving the Exemplary Patient and Caregiver Award from NHG GCEO Prof Choo at the NHG Quality Day on 19 August 2016.
Recognising our staff

President's Award for Nurses 2016

NHGP's Chief Nurse Ms Chen Yee Chui was one of the seven recipients of the President's Award for Nurses. The awards were presented by President Dr Tony Tan Keng Yam at the Nurses' Day Reception held at the Istana on 28 July 2016. The award is the highest accolade of the nursing profession in Singapore and recognises the country's most outstanding nurses who had shown sustained exceptional performance in their contributions to areas such as patient care, education, leadership, research and administration.

National Day Awards 2016

Two NHGP staff and one NHGPh staff received the National Day Awards 2016 in recognition of their significant contributions to public service.

Ms Yeo Loo See, Deputy Director, Nursing Services was awarded the Long Service Medal.

Ms Lee Foong Lan, Senior Dental Assistant, Woodlands Polyclinic, and Ms Surinder Kaur Basra, Retail Executive, Jurong Polyclinic, NHGPh, were both conferred the Efficiency Medal.

Photos

Top:
Ms Chen Yee Chui receiving the President’s Award for Nurses from President Dr Tony Tan Keng Yam at the reception held at the Istana on 28 July 2016.

Bottom:
Ms Yeo Loo See (left) and Ms Lee Foong Lan, recipients of the National Day Awards 2016.
Chapter 5  Cultivating a Future-Ready Workforce

HEALTHCARE HUMANITY AWARDS 2016

Dr Chua Ying Xian, Resident Physician, Jurong Polyclinic, and Mr Mah Choon Siong, Senior Pharmacist, NHGP, were recognised at the Healthcare Humanity Awards 2016. The award ceremony administered by the Courage Fund recognises outstanding healthcare workers who go the extra mile to offer care and comfort to patients.

NHG AWARDS 2016

The annual NHG Awards Ceremony, an event that recognises staff across all NHG institutions who have made significant contributions to public healthcare, was held on 15 July 2016. NHGP won four NHG Team Recognition Awards, three Young Achiever Awards, and three NHG Education Leaders Awards. 27 individual staff also received the MOH Health Manpower Development Programme (HMDP) Award.

NURSES MERIT AWARD 2016

Two NHGP nurses, Ms Dong Lijuan, Assistant Director, Nursing Services and Ms Sharon Foo Chee Ling, Nurse Clinician II, Hougang Polyclinic, received the Nurses Merit Award 2016 from Mr Gan Kim Yong, Minister for Health, on 19 July 2016 in recognition of their commendable performance and dedication to the nursing profession.

PS21 STAR SERVICE AWARD

Ms Anna Liew, Principal Pharmacist, Toa Payoh Polyclinic, NHGP, was awarded the PS21 Star Service Award for her service excellence. Mr Peter Ong, Head of Civil Service, presented her with the award at the Excellence in Public Service Awards 2016 Ceremony on 20 May 2016. The PS21 Star Awards is a national award that recognises individuals who have delivered quality service and seeks to develop service models for staff to emulate and to create service champions in the public sector.

NHS TEAM RECOGNITION AWARD

GOLD

Patient Empanelment at Ang Mo Kio Polyclinic to Ang Mo Kio Family Medicine Clinic

The team comprising NHGP and Parkway Shenton embraces the NHG core values of collegiality, respect and integrity.

Toa Payoh Polyclinic Care Transformation Team

Team-based care model piloted by Toa Payoh Polyclinic proved its feasibility and provided better care to patients.

SILVER

Dementia Care Integration between Primary Care Provider and Tertiary Hospitalist

Ang Mo Kio Polyclinic piloted the Primary Care Dementia Clinic with Tan Tock Seng Hospital to provide dementia treatment in the community.

BRONZE

Health and Mind Service at Ang Mo Kio Polyclinic

NHGP collaborated with the Institute of Mental Health to develop the multi-disciplinary Health & Mind Service to provide community mental healthcare in a primary care setting.

Photos

Top: Ms Sharon Foo Chee Ling (left) and Ms Dong Lijuan (right) with Prof Choo at the Ministry of Health Presentation Ceremony and Luncheon on 19 July 2016.

Bottom: Ms Anna Liew receiving the PS21 Star Service Award from Mr Peter Ong, Head of Civil Service, at the Excellence in Public Service Awards 2016 ceremony on 20 May 2016.
Dr Wee Wei Keong, Director, Health Promotion and Preventive Care Department, was presented a token of appreciation in recognition of his coronary risk screening efforts in the community at the inaugural National University Health System (NUHS) Regional Health System (RHS) Appreciation Day on 14 September 2016. The event was held to show appreciation and recognition of those who collaborated towards delivering person-centric and integrated care to our community in the western region of Singapore.

NHGP RECOGNISED AS CERTIFIED ON-THE-JOB TRAINING CENTRE (COJTC)

NHGP Clinic Operations was accorded COJTC status on 1 January 2016 by the Institute of Technical Education (ITE). The COJTC achievement is in line with NHGPS efforts to institutionalise a structured in-house On-the-Job Training (OJT) system to develop its staff through quality workforce training practices. Comprehensive OJT programmes have also been planned for our Patient Service Associates and Health Attendants to help them perform their core duties competently and with confidence. The OJT programme not only ensures a consistent quality of training and adherence to standards across all NHG Polyclinics but also helps to nurture staff in their core competencies and develop their career pathways.
To meet growing healthcare needs and to better provide seamless care for the nation, the Ministry of Health (MOH) announced the reorganisation of the regional health system in January 2017. The restructuring will see primary care systems reorganised into three clusters to provide more patient-centric care in the community.

As a primary care provider, the National Healthcare Group Polyclinics (NHGP) has been putting in place measures to strengthen its patient-provider relationships. These include the adoption of best practices from relevant industries and the harnessing of technology to improve operations and services. As part of its continual efforts to ensure greater efficiency in care delivery, these improvements will help NHGP in its mission to advance Family Medicine and transform primary healthcare in Singapore.
ENSURING SUSTAINABLE GROWTH

IMPROVING PATIENT EXPERIENCES AT NHGP

Besides regularly assessing patients’ needs, NHGP actively reviews and improves processes to ensure patient care remains a top priority. In addition, NHGP faces the challenge of increasing attendances and a shrinking workforce. To meet this challenge, NHGP has been focusing on productivity improvements to automate and innovate services. These offer convenience and accessibility to patients, while ensuring that healthcare remains affordable.

The use of technology has helped improve patient satisfaction and enabled staff to perform more value-added work such as building relationships with patients and focusing on delivering more patient-centric care. These ongoing initiatives are part of NHGP’s efforts to provide a pleasant experience for patients, reflecting our commitment to be a patient-centred primary healthcare provider.

NHGP’s productivity improvement efforts have seen NHGP scoring 70.3 points, an increase from 69.6 points in 2015, in the Singapore Management University’s Institute of Service Excellence’s Customer Satisfaction Index of Singapore (CSISG). The CSISG results were derived from face-to-face interviews with nearly 200 NHGP patients between October 2016 and January 2017.

IMPROVING STAFF PRODUCTIVITY

To help improve accuracy of cash count and increase manpower productivity, NHGP introduced the cash management machine. In this way, the tasks of daily counting of cash takings and cash float preparation, previously done manually by Patient Service Associates, have become automated. The machines have been installed at all NHG Polyclinics since July 2016.

In-Queue Status Checker

As part of its efforts to improve productivity, NHGP introduced the In-Queue Status Checker in September 2016. The application allows patients to use their mobile phones to scan the Quick Response Code (QR Code) to find out the number of people waiting in line before them.

SELF-PAYMENT KIOSKS

After their consultation, patients can proceed directly to the Self-Payment Kiosks to make payment at the counters. In FY2016, the Self-Payment Kiosks were enhanced to accept cash and cardless payment modes such as Visa Paywave, Android Pay and Apple Pay. They also feature multiple languages that are patient-friendly and convenient to use. With new features added to the kiosks, each transaction takes less than a minute to process.

ENHANCING PATIENT REFERRALS

Since November 2016, referrals from Tan Tock Seng Hospital (TTSH) to NHGP have been effectively done through a Primary Care e-Referral Reply Form. With this e-service, specialists at TTSH can write e-referral notes to NHGP doctors on the suggested follow-up care and diagnosis, and other related information of the patient. Besides being available in the clinical documentation, such information is now shared in the National Electronic Health Records (NEHR) system.

UPSKILLING OF ANCILLARY STAFF

The Service Ambassador (SA) concept was introduced by NHGP in January 2016 to offer personalised assistance to patients in the clinics to exemplify service excellence. An NHGP Service Ambassador Appointment and Recognition Ceremony was held on 3 October 2016 at Choa Chu Kang Polyclinic where Dr Peter Chow, Chief Operating Officer, NHGP, presented 12 SAs with badges and appointment letters.

The SA concept is part of NHGPs transformation journey to upskill ancillary staff to take on roles that were previously performed by nurses.

A TYPICAL PATIENT’S JOURNEY AT THE POLYCLINIC

1. Online Appointment System
   - In order to offer patients the flexibility to self-manage their appointment schedules, NHGP introduced the Online Appointment System (OAS). OAS offers patients with acute conditions the ability to book same-day appointments online or via the mobile application and arrive at the polyclinic closer to the appointed time. Patients with scheduled lab or doctor’s appointments can also view and reschedule their appointments. This service has reduced patients’ overall wait-time for visits by appointment and freed up staff to take on higher-value work.

2. Self-Registration Kiosks
   - Patients with appointments can quickly register themselves at the kiosks upon arrival at the polyclinic. This self-registration service helps reduce the time patients spend waiting to be registered at the counter.

3. In-Queue Status Checker
   - As part of its efforts to improve productivity, NHGP introduced the In-Queue Status Checker in September 2016. The application allows patients to use their mobile phones to scan the Quick Response Code (QR Code) to find out the number of people waiting in line before them.

4. Self-Payment Kiosks
   - After their consultation, patients can proceed directly to the Self-Payment Kiosks to complete their visit. This allows them to skip the queue to make payment at the counters. In FY2016, the Self-Payment Kiosks were enhanced to accept cash and cardless payment modes such as Visa Paywave, Android Pay and Apple Pay. They also feature multiple languages that are patient-friendly and convenient to use. With new features added to the kiosks, each transaction takes less than a minute to process.

5. Pharmacy Patient Arrival Kiosks
   - With the Pharmacy Patient Arrival Kiosks (PAK) piloted at Choa Chu Kang Polyclinic on 3 March 2017, patients could skip the queue at the reception counter to self-register their arrival at the kiosks. The PAK is expected to be implemented progressively across all NHG Polyclinics by the end of FY2018.
REORGANISATION OF THE PUBLIC HEALTHCARE SYSTEM

A RESTRUCTURED NHGP
In January 2017, MOH announced that Singapore’s public healthcare system would be reorganised from six regional health systems into three integrated clusters to meet future healthcare needs. The reorganisation will provide a higher level of integrated care by offering a broader range of services, and more seamless care to patients.

At the primary care level, some of the polyclinics have been reorganised. On 1 October 2017, NHGP welcomed Geylang Polyclinic into its family while Bukit Batok Polyclinic, Choa Chu Kang Polyclinic, Clementi Polyclinic and Jurong Polyclinic were reorganised to be part of the newly formed National University Polyclinics. The reorganisation of the public healthcare system will also see NHGP developing the upcoming Sembawang Polyclinic.

The newly integrated cluster will further strengthen NHGP’s efforts in transforming primary healthcare and providing quality primary care to patients. This will translate into closer collaboration with grassroots organisations and General Practitioners (GPs) to reach out to patients and the community to deliver more holistic care.

REALISING OUR VISION: THE NEXT LAP

NHGP's Primary Care 2025 vision, to develop a world-class relationship-based primary care ecosystem, drives its efforts to transform the primary care landscape. To meet the evolving challenges of a rapidly ageing population, growing prevalence of chronic diseases, rising healthcare costs and shortage of healthcare manpower, a sustainable primary healthcare system that continues to provide accessible, affordable and quality care for the population is crucial.

A critical part of NHGP’s transformation journey is the expansion of primary care capacity. This is closely aligned to MOH’s strategic shift, ‘Beyond Hospital to the Community’, that envisions healthcare delivery models based in primary and community care settings.

NHGP continues to forge close relationships with our colleagues in the primary care landscape such as GPs, Family Medicine Centres and private practice dentists to develop their capabilities to manage patients with chronic diseases within the community. These partnerships have enabled NHGP to right-site patients with complex chronic diseases in the community. These partnerships have enabled NHGP to right-site patients with complex chronic diseases within the community. These partnerships have enabled NHGP to right-site patients with complex chronic diseases within the community.

In expanding primary care capacity and capabilities, it is also essential for care delivery models to remain effective in helping patients transition from reactive care to wellness management. NHGP’s teamlet care model aims to develop a relationship between a dedicated, multi-disciplinary healthcare team and a patient who has one or more chronic diseases. This initiative has shown promise with positive results in patient health outcomes.

Such a relationship-based care model, where the healthcare team proactively engages patients, is a key element that can make a difference to population health in the years to come. Having reached out to over 60,000 patients since the pilot run in 2014, NHGP aims to empanel more patients with multiple chronic diseases into the teamlet care model in the future. Patients will be grouped based on the number of chronic diseases they have and their control of these chronic diseases. This form of customised care empowers each patient who has one or more chronic diseases with their condition.

A relationship-based care model, where the healthcare team proactively engages patients, is a key element that can make a difference to population health in the years to come. Having reached out to over 60,000 patients since the pilot run in 2014, NHGP aims to empanel more patients with multiple chronic diseases into the teamlet care model in the future. Patients will be grouped based on the number of chronic diseases they have and their control of these chronic diseases. This form of customised care empowers each patient who has one or more chronic diseases with their condition.

In expanding primary care capacity and capabilities, it is also essential for care delivery models to remain effective in helping patients transition from reactive care to wellness management. NHGP’s teamlet care model aims to develop a relationship between a dedicated, multi-disciplinary healthcare team and a patient who has one or more chronic diseases. This initiative has shown promise with positive results in patient health outcomes.

Such a relationship-based care model, where the healthcare team proactively engages patients, is a key element that can make a difference to population health in the years to come. Having reached out to over 60,000 patients since the pilot run in 2014, NHGP aims to empanel more patients with multiple chronic diseases into the teamlet care model in the future. Patients will be grouped based on the number of chronic diseases they have and their control of these chronic diseases. This form of customised care empowers each patient who has one or more chronic diseases with their condition.
To develop a future-ready primary healthcare landscape, NHGP is cognisant of the need to seek solutions for the issues of tomorrow, today. It is also committed to developing a culture of research and inquiry to adopt and implement technologies and evidence-based medical care programmes that will enhance the care provided to patients. This is an important aspect of NHGP’s focus on ensuring our healthcare team is prepared to meet the evolving healthcare needs of the population.

With more Singaporeans living with multiple chronic diseases, NHGP has embarked on research to examine the challenges faced in managing such patients. The research, jointly conducted by NHGP and the National Healthcare Group - Lee Kong Chian School of Medicine Joint Centre for Primary Health Care Centre Research and Innovation, will study the care-coordination between different institutions and care providers from a patient’s perspective. The centre will also evaluate available care technologies to improve care delivery. This research will help clinicians gain a better understanding of the myriad of interrelated factors in caring for patients with multiple chronic diseases.

To reduce the growing chronic disease burden, NHGP has also been an active advocate in engaging and activating our patients to make healthy living a habit. NHGP has been reaching out to patients to spread the healthy lifestyle message via workshops, cooking and exercise demonstrations as well as talks on the importance of living well to cope with their conditions.

NHGP will further fine-tune its outreach efforts to patients and those in the community and encourage healthy individuals to continue choosing a healthy lifestyle. For those with chronic diseases, NHGP will offer practical interventions designed to help them make conscious healthy lifestyle choices based on their health status.

The driving force behind these efforts is NHGP staff, the ‘heartware’ of NHGP with the power to positively impact our patients’ health. A motivated and engaged workforce plays a vital part in NHGP’s transformation journey.

Besides engaging staff with regular training programmes, NHGP aims to develop the potential of all staff via competency frameworks and groom future healthcare leaders to lead the transformation journey in the next lap.

Moving forward, NHGP will press on with its efforts to build on its achievements of today to continue caring for the population of tomorrow in the primary care landscape.
**PATIENT PROFILE IN FY2016**

**GENDER RATIO OF PATIENTS IN FY2016**

Number of Patients

- Female: 435,000
- Male: 416,000

**ETHNIC COMPOSITION OF PATIENTS IN FY2016**

- Chinese: 67%
- Malay: 16%
- Indian: 10%
- Others: 5.27%

- Total number of patients: 851,000

**PATIENTS BY DIFFERENT AGE GROUPS**

**Number of Patients (’000)**

<table>
<thead>
<tr>
<th>Age Group (Years)</th>
<th>FY12</th>
<th>FY16</th>
</tr>
</thead>
<tbody>
<tr>
<td>0-5</td>
<td>61</td>
<td>74</td>
</tr>
<tr>
<td>6-18</td>
<td>87</td>
<td>83</td>
</tr>
<tr>
<td>19-39</td>
<td>218</td>
<td>213</td>
</tr>
<tr>
<td>40-64</td>
<td>291</td>
<td>320</td>
</tr>
<tr>
<td>65 &amp; above</td>
<td>136</td>
<td>177</td>
</tr>
</tbody>
</table>

**SNAPSHOTS OF OUR WORKLOAD AND PATIENTS**

**ATTENDANCE GROWTH**

- Total Attendance (Millions): FY12: 2.91, FY13: 2.97, FY14: 3.18, FY15: 3.40, FY16: 3.46

**TOP 10 PRIMARY DIAGNOSES SEEN IN FY2016**

<table>
<thead>
<tr>
<th>ICD 10</th>
<th>Diagnosis</th>
<th>Number of Visits</th>
<th>Percentage Total FY2016 Consult Visits</th>
</tr>
</thead>
<tbody>
<tr>
<td>A09.9</td>
<td>Other specified noninfective genitourinary and colonic disorders</td>
<td>78,987</td>
<td>3.4%</td>
</tr>
<tr>
<td>L98.9</td>
<td>Disorder of skin and subcutaneous tissue, unspecified</td>
<td>64,753</td>
<td>2.8%</td>
</tr>
<tr>
<td>T14.3</td>
<td>Dislocation, sprain and strain of unspecified body region</td>
<td>55,479</td>
<td>2.4%</td>
</tr>
<tr>
<td>Z00.1</td>
<td>Routine child health examination</td>
<td>51,042</td>
<td>2.3%</td>
</tr>
<tr>
<td>R51</td>
<td>Headache</td>
<td>44,174</td>
<td>1.9%</td>
</tr>
</tbody>
</table>

**SNAPSHOTS OF OUR WORKLOAD AND PATIENTS**

**ATTENDANCE GROWTH**

- Total Attendance (Daily Average): FY12: 2.86, FY13: 2.92, FY14: 2.98, FY15: 3.14, FY16: 3.38

**TOP 10 PRIMARY DIAGNOSES SEEN IN FY2016**

<table>
<thead>
<tr>
<th>ICD 10</th>
<th>Diagnosis</th>
<th>Number of Visits</th>
<th>Percentage Total FY2016 Consult Visits</th>
</tr>
</thead>
<tbody>
<tr>
<td>J06.9</td>
<td>Acute lower respiratory infection, unspecified</td>
<td>414,919</td>
<td>18.0%</td>
</tr>
<tr>
<td>I10</td>
<td>Essential (primary) hypertension</td>
<td>248,260</td>
<td>10.8%</td>
</tr>
<tr>
<td>E11.9</td>
<td>Type 2 diabetes mellitus without complication</td>
<td>338,508</td>
<td>14.7%</td>
</tr>
<tr>
<td>H78.5</td>
<td>Hyperlipidaemia, unspecified</td>
<td>111,452</td>
<td>4.8%</td>
</tr>
<tr>
<td>R68</td>
<td>Other general symptoms and signs</td>
<td>94,742</td>
<td>4.1%</td>
</tr>
</tbody>
</table>

**Note:** As numbers are rounded up for greater clarity; small rounding differences may arise.
## VISITS BY DIFFERENT AGE GROUPS AND TYPES IN FY2016

<table>
<thead>
<tr>
<th>Age Group (Years)</th>
<th>Number of Visits ('000)</th>
<th>Number of Patients ('000)</th>
</tr>
</thead>
<tbody>
<tr>
<td>0-5</td>
<td>111</td>
<td>15</td>
</tr>
<tr>
<td>6-18</td>
<td>150</td>
<td>37</td>
</tr>
<tr>
<td>19-39</td>
<td>359</td>
<td>173</td>
</tr>
<tr>
<td>40-64</td>
<td>327</td>
<td>706</td>
</tr>
<tr>
<td>65 &amp; above</td>
<td>140</td>
<td>554</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>412</strong></td>
<td><strong>74</strong></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Average Number of Visits Per Patient</th>
</tr>
</thead>
<tbody>
<tr>
<td>Acute</td>
</tr>
<tr>
<td>-------</td>
</tr>
<tr>
<td>0-5</td>
</tr>
<tr>
<td>6-18</td>
</tr>
<tr>
<td>19-39</td>
</tr>
<tr>
<td>40-64</td>
</tr>
<tr>
<td>65 &amp; above</td>
</tr>
</tbody>
</table>

### Definitions:
- **Acute**: Cases with short onset of symptoms such as upper respiratory tract infections, diarrheal diseases and sprains.
- **Chronic**: Conditions that require long-term follow-up and, in general, regular medications and management of risk factors. For example, hypertension, asthma, lipid disorders, chronic obstructive lung disease and diabetes.
- **Well and Other Services**: Includes non-doctor consultations, development assessment, lab-only visits and other administrative procedures.

### NHGP CONSULT WAIT TIME (MINUTES)

<table>
<thead>
<tr>
<th>VISIT TYPE</th>
<th>PERCENTILE</th>
<th>FY15</th>
<th>FY16</th>
<th>% CHANGE</th>
</tr>
</thead>
<tbody>
<tr>
<td>Walk-in</td>
<td>50th</td>
<td>13</td>
<td>11</td>
<td>-15.4</td>
</tr>
<tr>
<td></td>
<td>95th</td>
<td>59</td>
<td>57</td>
<td>-3.4</td>
</tr>
<tr>
<td>Appointment</td>
<td>50th</td>
<td>8</td>
<td>7</td>
<td>-12.5</td>
</tr>
<tr>
<td></td>
<td>95th</td>
<td>51</td>
<td>49</td>
<td>-3.9</td>
</tr>
</tbody>
</table>

## STAFF HEADCOUNT BY JOB CATEGORY

<table>
<thead>
<tr>
<th>JOB CATEGORY</th>
<th>FY15</th>
<th>FY16</th>
<th>% CHANGE</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ancillary</td>
<td>595</td>
<td>632</td>
<td>6.2</td>
</tr>
<tr>
<td>Nursing</td>
<td>347</td>
<td>380</td>
<td>9.5</td>
</tr>
<tr>
<td>NHG Pharmacy</td>
<td>289</td>
<td>320</td>
<td>10.7</td>
</tr>
<tr>
<td>Medical 1</td>
<td>255</td>
<td>296</td>
<td>16.1</td>
</tr>
<tr>
<td>Administrative</td>
<td>189</td>
<td>186</td>
<td>-1.6</td>
</tr>
<tr>
<td>NHG Diagnostics</td>
<td>219</td>
<td>194</td>
<td>-11.4</td>
</tr>
<tr>
<td>Allied Health 1</td>
<td>56</td>
<td>58</td>
<td>3.6</td>
</tr>
<tr>
<td>Dental 1</td>
<td>48</td>
<td>51</td>
<td>6.3</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td>1,998</td>
<td>2,117</td>
<td>6.0</td>
</tr>
</tbody>
</table>

### Note:
1. Medical and Dental Categories include Medical Officers and Dental Officers from Ministry of Health Holdings.
2. Allied Health category excludes all Pharmacy staff. Pharmacists, pharmacy technicians, pharmacy assistants, pharmacy store keepers, retail pharmacy staff are subsumed under NHG Pharmacy.
### APPENDIX A

#### QUALITY IMPROVEMENT PROJECTS COMPLETED IN FY2016

<table>
<thead>
<tr>
<th>NO.</th>
<th>TITLE</th>
<th>INITIATED</th>
<th>LEADERS</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>To increase follow-up rate of asthmatic patients who are treated with nebulisation at Toa Payoh Polyclinic from 35% to 100% within 6 months</td>
<td>TPY</td>
<td>Blessy Koottappal Mathew</td>
</tr>
<tr>
<td>2.</td>
<td>To improve blood pressure control in patients with early Diabetic Kidney Disease</td>
<td>JUR</td>
<td>Christine Choo An-Qi Sabrina Ho Wei Ling</td>
</tr>
<tr>
<td>3.</td>
<td>To reduce dental prescribing errors in NHGP Toa Payoh Polyclinic Dental Clinic</td>
<td>TPY</td>
<td>Dr Tan Sze Lin</td>
</tr>
<tr>
<td>4.</td>
<td>To increase the productivity of Automatic Tablet Dispensing &amp; Packaging System (ATDPS) at Pharmacy Services Centre (PSC) by 20%</td>
<td>HQ</td>
<td>Fanny Tan Chin Mang</td>
</tr>
<tr>
<td>5.</td>
<td>To reduce incidence of non-adherence to newly started medication due to failure to collect partial balance by 50% in Ang Mo Kio Polyclinic Pharmacy</td>
<td>AMK</td>
<td>Cheryl Tan</td>
</tr>
<tr>
<td>6.</td>
<td>To adopt a holistic approach in redesigning the Outpatient Pharmacy Automated System (OPAS) repackaging workflow at Woodlands Polyclinic Pharmacy to achieve a consistent monthly OPAS Multiplier Score of ≥ 0.8</td>
<td>WDL</td>
<td>Gavin Cheah</td>
</tr>
<tr>
<td>7.</td>
<td>To improve the efficiency and productivity of the Outpatient Pharmacy Automated System (OPAS) repackaging workflows in Build Bukit Polyclinic Pharmacy</td>
<td>BBK</td>
<td>Nur’Ain Bte Abdul Manan Tan Lay Khim</td>
</tr>
<tr>
<td>8.</td>
<td>To improve Asthma Control Test (ACT) utilisation for the assessment of asthma control in chronic asthma patients in Jurong Polyclinic</td>
<td>JUR</td>
<td>Dr Justin Chong</td>
</tr>
<tr>
<td>9.</td>
<td>To increase the uptake of Tele-care Programme by eligible patients at Bukit Batok Polyclinic</td>
<td>BBK</td>
<td>Dr Taiju Rangpa</td>
</tr>
<tr>
<td>10.</td>
<td>To attain panel size of 5,800 and a care continuity of 80% for Yishun Polyclinic Teamlet A patients over a period of 6 months</td>
<td>YIS</td>
<td>Dr Lim Ziliang</td>
</tr>
<tr>
<td>11.</td>
<td>To increase the number of Diabetes Mellitus patients screened annually for Diabetic Retinal Photography (DRP) and Diabetic Foot Screening (DFS) at Toa Payoh Polyclinic by 50%</td>
<td>TPY</td>
<td>Dr Elaine Tan</td>
</tr>
<tr>
<td>12.</td>
<td>To reduce patient waiting time by improving the workflow efficiency (Pharmacy and Express) in Clementi Polyclinic Pharmacy in 9 months</td>
<td>CLE</td>
<td>Lee Yuit Jiet Esther Wu Yunting</td>
</tr>
<tr>
<td>13.</td>
<td>To achieve 100% Dental Handpiece stock take in Hougang Polyclinic Dental Clinic in 6 months</td>
<td>HOU</td>
<td>Tay Hwee Leng</td>
</tr>
<tr>
<td>14.</td>
<td>To optimise repackaging to improve automation utilisation rate</td>
<td>HOU</td>
<td>Anthony Yip Yew Fei</td>
</tr>
<tr>
<td>15.</td>
<td>To improve the medication collection experience for patients at Toa Payoh Polyclinic Pharmacy in 3 months</td>
<td>TPY</td>
<td>Yep Lee Fang</td>
</tr>
<tr>
<td>16.</td>
<td>To improve the process of consumable ordering by establishing a system to track the demand of consumables in Jurong Polyclinic Dental Clinic</td>
<td>JUR</td>
<td>Dr Patricia Wong Dr Lim Suq Ping</td>
</tr>
</tbody>
</table>

### OUR DENTAL PATIENTS

#### DENTAL VISITS BY TYPE

- **Number of Dental Visits (’000)**
  - FY12: 102.4
  - FY13: 111.8
  - FY14: 118.9
  - FY15: 123.7
  - FY16: 130.9
- **Number of Dental Procedures (’000)**
  - FY12: 53.1
  - FY13: 59.7
  - FY14: 62.0
  - FY15: 56.9
  - FY16: 67.4

#### DENTAL VISITS BY SUBSIDISED PATIENTS

<table>
<thead>
<tr>
<th>Subsidised</th>
<th>Private</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>FY12</td>
<td>61.1</td>
<td>103.5</td>
</tr>
<tr>
<td>FY13</td>
<td>74.4</td>
<td>119.2</td>
</tr>
<tr>
<td>FY14</td>
<td>63.3</td>
<td>125.2</td>
</tr>
<tr>
<td>FY15</td>
<td>51.5</td>
<td>128.8</td>
</tr>
<tr>
<td>FY16</td>
<td>54.4</td>
<td>136.3</td>
</tr>
</tbody>
</table>

#### BASIC DENTAL PROCEDURES BY NUMBER OF VISITS

**Notes**
- The number of subsidised dental visits has increased over the years. We have also seen growth in the daily averages of dental procedures done at our polyclinics.
- Of the dental procedures performed, a larger proportion was made up of preventive procedures (i.e. polishing and scaling). The proportion of preventive procedures has also grown over the years, signifying greater emphasis on preventive care at NHGP.

<table>
<thead>
<tr>
<th>Year</th>
<th>FY12</th>
<th>FY13</th>
<th>FY14</th>
<th>FY15</th>
<th>FY16</th>
</tr>
</thead>
<tbody>
<tr>
<td>Fills &amp; Extractions</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>FY12</td>
<td>353.0</td>
<td>350.0</td>
<td>384.0</td>
<td>422.8</td>
<td>439.9</td>
</tr>
<tr>
<td>FY13</td>
<td>194.0</td>
<td>214.0</td>
<td>226.0</td>
<td>206.4</td>
<td>202.8</td>
</tr>
<tr>
<td>FY14</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>FY15</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>FY16</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Dental Checkups, Scaling and Polishing**

- FY12: 194.0
- FY13: 214.0
- FY14: 226.0
- FY15: 206.4
- FY16: 202.8

**Notes**

**Patient Profile and Our Workload**

- The number of subsidised dental visits has increased over the years. We have also seen growth in the daily averages of dental procedures done at our polyclinics.
- Of the dental procedures performed, a larger proportion was made up of preventive procedures (i.e. polishing and scaling). The proportion of preventive procedures has also grown over the years, signifying greater emphasis on preventive care at NHGP.
17. To reduce the processing steps and time required in Prothrombin Test Analysis in NHG Diagnostics Lab
   INITIATED: HQ
   LEADERS: Lee Hoong Fatt, Janet Teng

18. To develop an online repository for Patient Education Materials – My Diabetes Booklet
   INITIATED: HQ
   LEADERS: Sherry Koh, June Sulastru

19. To e-order without fuss, achieving 100% accurate appointment always
   INITIATED: HOU
   LEADERS: Sandra Chew, Santhi Govindan

20. To improve Diabetic Foot Screening (DFS)/ Diabetic Retinal Photography (DRP) screening rates in Ang Mo Kio Polyclinic Teamlet A
   INITIATED: AMK
   LEADERS: Dr Tricia Chang

21. To achieve waiting time KPI (95% patients served within 25 minutes) in Choa Chu Kang Polyclinic Pharmacy
   INITIATED: CCK
   LEADERS: Thng Hwee Ling

22. To reduce the rate of medication packing near misses in Juruong Polyclinic Pharmacy
   INITIATED: JUR
   LEADERS: Anna Liew, Chia Hui Shien

23. To streamline Electrocardiogram (ECG) process in Jurong Polyclinic Laboratory within 6 months
   INITIATED: JUR
   LEADERS: Dhana Ramgopal, Catherine Fungo Gregorio

24. To increase the Hand Hygiene compliance rate among the Health Attendants working at the Blood Pressure Stations in Toa Payoh Polyclinic from current average 46.6% to 100% within 6 months
   INITIATED: TPY
   LEADERS: Jane Fung, Tracy Gan

25. To reduce the number of patients waiting at the wrong place after registering at the Laboratory Counter within 3 months at Hougang Polyclinic Laboratory
   INITIATED: HOU
   LEADERS: Teng Janet, Zuliana binte Zulkifli

26. To improve the prescription filling experience at Jurong Polyclinic Pharmacy
   INITIATED: JUR
   LEADERS: Sim Jun Long, Marvin Tan Hue Min

27. To increase productivity in packaging of sets and instruments in Dental Clinics
   INITIATED: HQ
   LEADERS: Lily Lang

28. To increase the use of Angiotensin-Converting Enzyme (ACE) inhibitor and Angiotensin Receptor Blockers (ARB) in Diabetes Mellitus Type 2 patients with Microalbuminuria/Proteinuria
   INITIATED: JUR
   LEADERS: Tan Hue Min

29. To increase enrolment patients from 4,073 To 5,500 in 6 months
   INITIATED: BBK
   LEADERS: Dr Kwek Sing Cheer

30. To achieve 100% compliance using two Primary Identifier (Name and UIN) at registration in Clementi Polyclinic
   INITIATED: CLE
   LEADERS: April Koh

31. To increase the Woodlands Polyclinic Teamlet A Care Manager’s workload from 7/Day to 15/Day, over a period of 6 months from May 2016 to November 2016
   INITIATED: WDL
   LEADERS: Dr Jagannamohan Raja Ramasamy

32. To increase screening for Autism Spectrum Disorder (ASD) in children presenting to Choa Chu Kang Polyclinic for their 18 months Development Assessment by 75% in the next 6 months
   INITIATED: CCK
   LEADERS: Dr Abiramy Anathan

33. To improve utilisation of Asthma Control Test (ACT) for patients with Asthma from 50% to 100% in Hougang Polyclinic over 6 months
   INITIATED: HOU
   LEADERS: Dr Yong Yan Zhen

34. To improve Dietary referral rate for newly diagnosed Diabetes Mellitus patients from 10% to 50% in Jurong Polyclinic within 6 months
   INITIATED: JUR
   LEADERS: Dr Loh Goh Chor Phun Lai Teng

35. To reduce incidences of unhealthy catering
   INITIATED: HQ
   LEADERS: Ng Jia Jia

36. To improve uptake rate of Bone Mineral Density (BMD) Screening for women at high risk of Osteoporosis in Hougang Polyclinic
   INITIATED: HOU
   LEADERS: Dr Tau Zu Huang

37. To increase the use of Chronic Obstructive Pulmonary Disease Assessment Test (CAT) in Chronic Obstructive Pulmonary Disease (COPD) patients in Yishun Polyclinic
   INITIATED: YIS
   LEADERS: Dr Chen Shiyun

38. To utilise 6S methodology for medication storage in chiller
   INITIATED: HQ
   LEADERS: Sim Kok Huay

39. To reduce Hypoglycemia in diabetes patients coming for Fasting Blood Tests in a primary care setting over 6 months
   INITIATED: BBK
   LEADERS: Dr Heng Yan Shan

40. To improve the percentage of patients who receive screening for Postpartum Depression (PPD) using the Edinburgh Postnatal Depression Scale (EPDS) at the 6th Week Postpartum Checkup
   INITIATED: WDL
   LEADERS: Dr Teo Yi Lyn

41. To increase the uptake of Human Papillomavirus (HPV) vaccine among female patients aged 9 to 26 years old in Choa Chu Kang Polyclinic
   INITIATED: CCK
   LEADERS: Dr Christine Ng

42. To improve accuracy and confidence level in assisting with Minor Procedures (MP) in Non-MP trained nurses
   INITIATED: HOU
   LEADERS: Justice Phuong Santhi d/o Govindan

43. To improve patients’ checkout experiences
   INITIATED: CCK
   LEADERS: Gus Teoh

44. To increase same-day and outstanding bills collection
   INITIATED: HQ
   LEADERS: Mok Zi Yin, Aow Siow Mey

45. To improve Influenza vaccine uptake rate in asthma patients
   INITIATED: TPY
   LEADERS: Dr Sam Cheong Wei

46. To reduce prescription errors among patients aged 12 years old and below in Woodlands Polyclinic
   INITIATED: WDL
   LEADERS: Dr Ooi Cheng Pung

47. To improve the rate of Metabolic Syndrome Screening among patients diagnosed with Gout in Hougang Polyclinic
   INITIATED: HOU
   LEADERS: Dr Jeremy Koh

48. To reduce Fasting Hypoglycemic events at Choa Chu Kang Polyclinic
   INITIATED: CCK
   LEADERS: Dr Amith Sebastian

49. To improve Tele-developmental Surveillance for 2-year old children in Yishun Polyclinic
   INITIATED: YIS
   LEADERS: Dr Angela Chua Tan Pei Hoon

50. To reduce unintentional prescription errors among chronic patients who are in transition of care at Jurong Polyclinic
   INITIATED: JUR
   LEADERS: Dr Ong Khi Pieng

51. To eliminate infection control lapses and ensure equal distribution of work load in Immunisation Room by introducing a daily checklist
   INITIATED: TPY
   LEADERS: Jeena Varghese, Lian Hnem Par

52. To optimise resources at Blood Pressure Station
   INITIATED: TPY
   LEADERS: Goh Sixuan

53. To increase the percentage of obese Type 2 Diabetes patients in Woodlands Polyclinic who have received Individualised Dietary Intervention in Obesity Management from 11.93% to 50% in the next 6 months
   INITIATED: WDL
   LEADERS: Dr Nagar Umarak

LEGEND

AMK - Ang Mo Kio Polyclinic
BBK - Bukit Batok Polyclinic
CCK - Choa Chu Kang Polyclinic
CLE - Clementi Polyclinic
JUR - Jurong Polyclinic
HOU - Hougang Polyclinic
TPY - Toa Payoh Polyclinic
WDL - Woodlands Polyclinic
YIS - Yishun Polyclinic
WDL - NHGP Headquarters
**APPENDIX B**

**MEDICAL FORUMS AND WORKSHOPS CONDUCTED IN FY2016**

<table>
<thead>
<tr>
<th>DATE</th>
<th>TITLE</th>
<th>SPEAKER / TRAINER</th>
</tr>
</thead>
<tbody>
<tr>
<td>19 May 2016</td>
<td>Helping Patients Change Using Motivational Interviewing</td>
<td>Adjunct Associate Professor Joseph Leong Jern-Yi</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Senior Consultant; Community Psychiatry/Rehabilitation Psychiatry Service, Institute of Mental Health</td>
</tr>
<tr>
<td>21 July 2016</td>
<td>Adolescent Health Screening, Counselling and Support Services</td>
<td>Prof Doris Young</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Chair of General Practice, Associate Dean (Academic) and Assistant Dean (China) in the Faculty of Medicine, Dentistry and Health Sciences, University of Melbourne</td>
</tr>
<tr>
<td>1 September 2016</td>
<td>Professionalism in Primary Care - The Makings of the Family Physician NOW!</td>
<td>Dr Aaron Ang</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Senior Consultant; Head, Department of Psychological Medicine, Tan Tock Seng Hospital</td>
</tr>
<tr>
<td>17 November 2016</td>
<td>Diabetic Foot Care</td>
<td>Dr Eric Khoo</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Senior Consultant; Head, Division of Endocrinology, National University Hospital</td>
</tr>
<tr>
<td>23 March 2017</td>
<td>Diabetes: Latest in Diabetes Care and Implications for Practice</td>
<td>Dr Seow Cheng Jye</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Consultant, Endocrine &amp; Diabetes, Tan Tock Seng Hospital</td>
</tr>
</tbody>
</table>

**APPENDIX C**

**LIST OF PRIMARY CARE ACADEMY WORKSHOPS**

**MEDICAL KNOWLEDGE**
- M.Med OSCE Exam Preparation
- M.Med Slide Exam Preparation
- GDFM OSCE Exam Preparation
- Introduction to Research

**PRACTICE-BASED LEARNING**
- Evidence Based Medicine – Guide to Critical Appraisal
- Teaching 101 for Busy Healthcare Professionals
- Advancing Ethics and Professionalism in Primary Care
- Foundation Chronic Disease Management
- Health Literacy Workshop
- Team-Based Care Training
- Adult Vaccination Workshop
- Infection Control Seminar
- Common Issues in Developmental Paediatrics
- Early Childhood Nutrition Workshop
- Dermatology Workshop: Updates on the Management of Acne
- Advance Wound Management Workshop
- Caring of Older Adults in Primary Care
- AED Certification
- BCLS Full Certification
- BCLS Re-Certification

**PATIENT CARE / CLINICAL & PROCEDURAL SKILLS**
- Surgical Procedures for the Primary Healthcare Physician
- Orthopaedic Procedures for the Primary Healthcare Physician
- Common Eye Conditions Update and Eye Examination Techniques for Family Physicians
- Interpretation of Spirometry Results
- Diabetic Foot Screening
- Dermatology Workshop: Updates on the Management of Acne

**SUPPORT FOR CLINICAL DELIVERY**
- 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
- Train the Trainer for Essential Skills: Clinical Ancillary Staff (New)
- 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
- Service Communications Foundation Course for Frontline Clinic Staff (New)

**COURSES FOR THE PUBLIC AND COMMUNITY**

**For Public**
- General Practitioner’s Assistant Courses – Foundation, Intermediate, Advance
- Basic First Aid Workshop
- Care for the Elderly
- CPR + AED
- Community Diabetic Health Ambassador (New)
- Public Health Talks

**NHG Diagnostics**
- Falls Prevention & Use of Ambulatory Aids (New)

**For the Agency for Integrated Care (AIC)**
- Infection Control Workshop

**INTERPERSONAL COMMUNICATION**
- Enhancing Critical Communication Skills that Matter
- Basic Communication Skills
- Mentoring – A Guide by the Side
## APPENDIX D

**ABSTRACTS BY NHGP STAFF AND COLLABORATORS**

**PUBLISHED IN ANNALS OF THE ACADEMY OF MEDICINE, SINGAPORE – PROCEEDINGS OF SHBC 2016, SEPTEMBER 2016, VOL. 45 (SUPPL) NO. 9.**

<table>
<thead>
<tr>
<th>NO.</th>
<th>ABSTRACT TITLE</th>
<th>AUTHORS</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>Multi-morbidity and its Impact on Patients’ Anxiety and Depression Status in the Primary Care Setting</td>
<td>Richard Lee Meng Kam, Lee Eng Sing, Mythily Subramaniam, Janhavi Ajit Vaingankar, Teo Sok Huang, Zhang Yunjue</td>
</tr>
<tr>
<td>2.</td>
<td>Preventing Diabetes: Enabling Pre-Diabetic Adults to Make Lifestyle Modifications</td>
<td>Soh Ying Hua, Audrey Tan Sook Ling, Ng Chiew Leng, Wee Wei Keong</td>
</tr>
<tr>
<td>3.</td>
<td>Factors Associated with Avoidable Admissions for Diabetes in a Primary Care Population</td>
<td>Sabrina Wong Kay Wye, Sim Yu Fan, Tan Sing Ying, David Ng Wei Liang</td>
</tr>
<tr>
<td>4.</td>
<td>Comparison Between Acrabose and Slatiglipin as a Third-line Treatment for Patients with Poorly Controlled Diabetes in National Healthcare Group Polyclinics in Singapore</td>
<td>Lim Ziliang, Kong Jing Wen, Sim Yu Fan</td>
</tr>
<tr>
<td>5.</td>
<td>Differences in Health Concerns Among Patients with Well-Controlled and Poorly-Controlled Type 2 Diabetes Mellitus</td>
<td>Ian Koh Jan Ming, Christine Chenn Win Fah, Jessica Koh, Alice Watt Yim Pek, Revatly d/o Rajatesh Singh, Fadzlina Binte Sujak, Jessica Zhu Hui, Chen Mimuth, Nor Shawsyah Binte Haron, David Ng Wei Liang</td>
</tr>
<tr>
<td>6.</td>
<td>Validation of Client Satisfaction Questionnaire (CSQ-8) A Study on Primary Care Mental Health Services in Singapore</td>
<td>Wong Mei Yip, Yap Chee Khiong</td>
</tr>
<tr>
<td>7.</td>
<td>To Increase Patients’ Awareness on Post-Operative Care of Dental Fillings</td>
<td>Ang Wei Hwee, Serene Zhang Ruping, Shirlena Chiam Siew Cheng, Daniel Tan, Tan Keng Wee, Siti Rahmah Binte Kamaruddin, Lee Foong Lan</td>
</tr>
<tr>
<td>8.</td>
<td>An Update of Clinical Outcomes from Pharmacist-managed Hypertension, Diabetes and Lipids Clinic in Primary Care</td>
<td>Esther Bek Siew Joo</td>
</tr>
<tr>
<td>9.</td>
<td>Pharmacy Technicians’ Satisfaction with Job Scope and Impact of Career Framework Redesign in Primary Care</td>
<td>Esther Bek Siew Joo, Ong Soo Im</td>
</tr>
<tr>
<td>11.</td>
<td>Validating the Interventions in Reducing the Number of Dislodged Fillings in Dental Clinics as Being Effective</td>
<td>Shirilena Chiam Siew Cheng, Sharon Koo Li Gin, Serene Zhang Ruping, Daniel Tan, Tan Keng Wee, Ang Wei Hwee, Lee Foong Lan, Siti Rahmah Binte Kamaruddin, Kenneth Low Meng Tze</td>
</tr>
<tr>
<td>12.</td>
<td>ACGME Core Competencies – How Much do Primary Care Physicians Know in Singapore?</td>
<td>Angelia Chua Hwee Ling</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>NO.</th>
<th>ABSTRACT TITLE</th>
<th>AUTHORS</th>
</tr>
</thead>
<tbody>
<tr>
<td>14.</td>
<td>Effectiveness of Tele-Medicine for Distant Wound Care Advice towards Patient Outcomes: Systematic Review and Meta-Analysis</td>
<td>Goh Ling Jia, Julia Zhu Xiaoli</td>
</tr>
<tr>
<td>15.</td>
<td>Exploring Patients’ and Caregivers’ Perceptions of Managing Wound at Home for Patients with Simple Acute Wound in the Primary Healthcare Sector</td>
<td>Goh Ling Jia, Ann-Louise Caress, Lee Eng Sing, Julia Zhu Xiaoli</td>
</tr>
<tr>
<td>16.</td>
<td>Effectiveness of Nutrition Education Accompanied by Cooking Demonstration on Healthy Eating Behaviour: A Follow-up Study</td>
<td>Lynette Goh Mei Lim, Agnes Wong Xiao Yan, Gary Ang Yee</td>
</tr>
<tr>
<td>17.</td>
<td>Behavioural Determinants of a Patient’s Expectation of a Good Consultation in Polyclinic</td>
<td>Kee Kok Wai, David Ng Wei Liang, Samuel Tay Rong Yao, Jessica Lims Wann Xuan</td>
</tr>
<tr>
<td>18.</td>
<td>Temporary Use of Basal Insulin at Different Time-Point Postdiabetes Diagnosis and Pancreatic Beta-Cells Function Maintenance – A Case Series</td>
<td>Kee Kok Wai</td>
</tr>
<tr>
<td>19.</td>
<td>Primary Care Practitioners’ Perspectives of Using Electronic Medical Records in Their Daily Practice</td>
<td>Manojkumar Amarnal Kharbanda, Lee Eng Sing, Teo Sok Huang</td>
</tr>
<tr>
<td>20.</td>
<td>Simulated Clinical Documentation Audit Process to Evaluate Clinicians’ Agreement and Differences (Phase 1)</td>
<td>Kwok Boon Chong, Justin Lim Xuan Li</td>
</tr>
<tr>
<td>22.</td>
<td>Effectiveness of Follow-up Telephone Call to Improve Asthma Patients’ Appointment Uptake</td>
<td>Blessy Kootappal Mathew, K Nanda Kumari, Rajwant Kaur, Norhafiza Binti Md Nor, Alice Watt Yim Pek, Lia Siang Hnem Par</td>
</tr>
<tr>
<td>23.</td>
<td>An Evidenced-based Project to Enhance Registered Nurses Care for Neonatal Umbilical Cord Stump in Hougang Polyclinic</td>
<td>Hamzah Mohamed Hamzah</td>
</tr>
<tr>
<td>24.</td>
<td>Evaluation on the Effectiveness of Group Diabetes Education Compared to Individual Diabetes Education</td>
<td>Ng Soh Mui</td>
</tr>
<tr>
<td>25.</td>
<td>The Usefulness of Health and General Clinic Information Topics in Polyclinic TV Screens for Patient Education</td>
<td>Ng Ja Jia</td>
</tr>
<tr>
<td>26.</td>
<td>Work Motivation and Job Satisfaction Among Doctors Working in the Polyclinic – A Mixed-Methods Pilot Study</td>
<td>David Ng Wei Liang</td>
</tr>
<tr>
<td>27.</td>
<td>Unravelling Factors that Promote Relationship Building in Primary Care Teamlets</td>
<td>Predeeptha Kannan, Teo Sok Huang, Sabrina Wong Kay Wye, Yeo Loo See, Tang Wern Ee</td>
</tr>
<tr>
<td>28.</td>
<td>Evaluating the Correlation Between Roland Morris Disability Questionnaire and the Bournemouth Questionnaire in Patients with Low Back Pain: A Prospective Pragmatic Randomised Study</td>
<td>Cindy Soh Seok Chin, Kwok Boon Chong</td>
</tr>
<tr>
<td>NO.</td>
<td>ABSTRACT TITLE</td>
<td>AUTHORS</td>
</tr>
<tr>
<td>-----</td>
<td>--------------------------------------------------------------------------------</td>
<td>---------------------------------------------------------------------------------------------------</td>
</tr>
<tr>
<td>29.</td>
<td>Effectiveness of Lifestyle Weight Management Programme in Primary Healthcare</td>
<td>Soh Ying Hua, Audrey Tan Sock Ling, Estonie Yuen Wing Ting, Wee Wei Keong</td>
</tr>
<tr>
<td>30.</td>
<td>Analysis of Patient Demographics for Woodlands Polyclinic</td>
<td>Bobby Rico Stryker, Evan Sim Chin Sing</td>
</tr>
<tr>
<td>31.</td>
<td>Improving Diabetes Control Through a Low Carbohydrate, High Fat Diet Approach</td>
<td>Bobby Rico Stryker</td>
</tr>
<tr>
<td>32.</td>
<td>Evaluation of New Family Medicine Postgraduate Training Using a Standardised Patient Satisfaction Questionnaire</td>
<td>Meena Sundram, Kee Kok Wai</td>
</tr>
<tr>
<td>33.</td>
<td>Improving the Uptake of Pneumococcal Vaccination in Children Aged Three to Four Months in a Primary Care Clinic</td>
<td>Tan Pek Hoon, Angeli Chua Hwee Ling</td>
</tr>
<tr>
<td>34.</td>
<td>Combination Therapy with Alpha-Adrenergic Blocker and 5-Alpha-Reductase Inhibitor for Lower Urinary Tract Symptoms in Benign Prostatic Hyperplasia: A Review</td>
<td>Tan Wee Hian</td>
</tr>
<tr>
<td>35.</td>
<td>The Use of Manual Therapy, a Possibility for Tension Type Headache Management in Primary Care?</td>
<td>Valerie Teo Hui Ying</td>
</tr>
<tr>
<td>36.</td>
<td>A Cross-Sectional Questionnaire Study: Patients' Attitudes Towards End-of-Life Care in a Singapore Public Primary Healthcare System</td>
<td>Valerie Teo Hui Ying, Ahn Ong Cong Wei, Teo Sok Huang, Michelle Lee Kai Feng, Evonne Oh Siew Gek, Sabrina Wong Kay Wye</td>
</tr>
<tr>
<td>37.</td>
<td>Prevalent Cardiovascular Conditions and Degree of Risk Factor Control Among Prediabetes Patients Attending Polyclinics in Singapore</td>
<td>Matthias Paul Toh Han Sim, Darren Seah Ee-Jin, Lee Lin Jen, Linus Tham</td>
</tr>
<tr>
<td>38.</td>
<td>Evaluating the Preceptorship Programme at National Healthcare Group Polyclinics</td>
<td>Tong Ling Hoh, Dong Lijuan</td>
</tr>
<tr>
<td>39.</td>
<td>Predictor of Satisfaction with Primary Care Mental Healthcare Services in Singapore</td>
<td>Wong Mei Yin, Yap Chee Khong</td>
</tr>
<tr>
<td>40.</td>
<td>First Year Outcomes of the NHGP Patient Empanelment Care Model at Toa Payoh Polyclinic</td>
<td>Sabrina Wong Kay Wye, Sim Yu Fan, Tan Sing Ying, Alan Pui Wei Ming, David Ng Wei Liang</td>
</tr>
<tr>
<td>41.</td>
<td>Reviewing the Need to Screen for Urinary Tract Infection in Asymptomatic Prolonged Neonatal Jaundice in the Primary Care Setting in Singapore</td>
<td>Franco Wong Pey Gein</td>
</tr>
<tr>
<td>42.</td>
<td>Evaluation of Advanced Wound Management Course for Registered Nurse at Primary Care Setting</td>
<td>Julia Zhu Xiaoli, Dong Lijuan</td>
</tr>
<tr>
<td>43.</td>
<td>Putting Feet First, Are People Doing All They Can? A Diabetic Foot Disease Review at Primary Care</td>
<td>Julia Zhu Xiaoli, Tan Lye Yoong</td>
</tr>
<tr>
<td>44.</td>
<td>The Effectiveness of Structured Clinical Education on Pharmacist Competency Assessment Scores and Satisfaction with Training</td>
<td>Esther Bek Siew Joo, Ong Soo Im, Evonne Lee Yan Qun</td>
</tr>
<tr>
<td>45.</td>
<td>The Application of Quality Thinking Through the Employment of Ergonomics to Improve Service Quality</td>
<td>Grace Ir-Ving Yeap</td>
</tr>
</tbody>
</table>
This page is intentionally left blank.