

DEPUTY PRIME MINISTER'S MESSAGE

THE challenges faced by Singapore's healthcare system come out of a positive fact. Singaporeans are living much longer than they did just two generations ago. Our aim is to help everyone enjoy active and fulfilling years throughout life.

The sector will provide many more good careers, in a whole range of vocations. We will be investing even more heavily in everyone working in healthcare, so that they have the skills to deliver the best quality care while taking full advantage of new technologies. The Healthcare Manpower Plan outlines how everyone in the sector can be equipped so that they can play a part in shaping this future.

We are at the same time making fundamental shifts in how and where healthcare is delivered to Singaporeans. Our whole approach is to promote good health throughout life rather than wait to treat illnesses. Even as we expand our hospitals, the biggest emphasis will be on preventive healthcare, and on continuing care at home and in the community, through a network of GPs, polyclinics and centres for active ageing in our neighbourhoods.

Everyone is a stakeholder in this journey of making the healthcare system of the future. Together we will provide our people with high quality and humane care, affordably, and in a way that can be sustained over the long term.



Tharman Shanmugaratnam

Deputy Prime Minister, Coordinating Minister for Economic And Social Policies, & Chairman, Council for Skills, Innovation, and Productivity



We will be investing even more heavily in everyone working in healthcare, so that they have the skills to deliver the best quality care while taking full advantage of new technologies.

MINISTER'S FOREWORD



WITH a growing and rapidly ageing population, there will be good jobs for Singaporeans of all ages, both in healthcare and in aged care delivery. As we journey towards SG100, we need to transform the practice of medicine and the delivery of healthcare services to meet the needs of a rapidly ageing population. New models of care are emerging, and the roles of different healthcare professionals are also evolving in tandem, to provide better care for our people.

We will expand the healthcare workforce to support growth in the sector. The profile of the workforce will change – we need a different mix of specialities, our workforce will need new skills and be able to leverage technology to innovate and chart new frontiers in healthcare delivery to improve the lives of Singaporeans.

MOH has developed the Healthcare Manpower Plan together with employers, the Healthcare Services Employees' Union and the Workforce Singapore. The Plan outlines our strategies to:

- (i) Prepare our healthcare workforce with future skills needed for an ageing population
- (ii) Grow a strong local core in this workforce
- (iii) Improve our work environment and patient experience with technology.

We hope that this Manpower Plan will serve as a blueprint to enable employers, Union and individuals to develop our healthcare workforce of the future, provide exciting career opportunities in the healthcare sector and deliver Better Health, Better Care and Better Life for all Singaporeans.

Gan Kim Yong
Minister for Health

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THE PULSE OF HEALTHCARE



Thumbs-up for our healthcare workers... Singapore General Hospital nurses celebrate Nurses' Day in 2016. Nurses' Day honours and recognises the contributions of nurses to Singapore.

PHOTO: SINGAPORE GENERAL HOSPITAL

Living longer with better healthcare

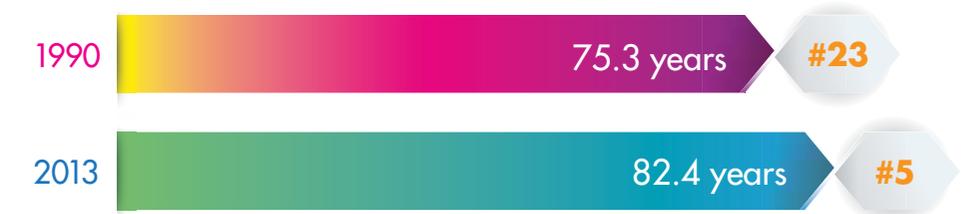
TODAY, Singapore is widely recognised to have a good healthcare system that has achieved good public health outcomes for our citizens. This system is underpinned by good health services, infrastructure, sound policies and, most importantly, the generations of healthcare workers who have served the nation with dedication and passion.

SINGAPORE RESIDENTS' LIFE EXPECTANCY

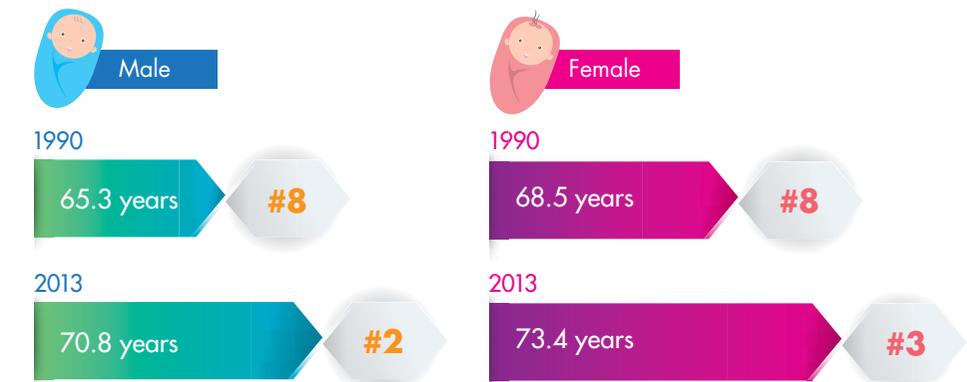
We are living longer



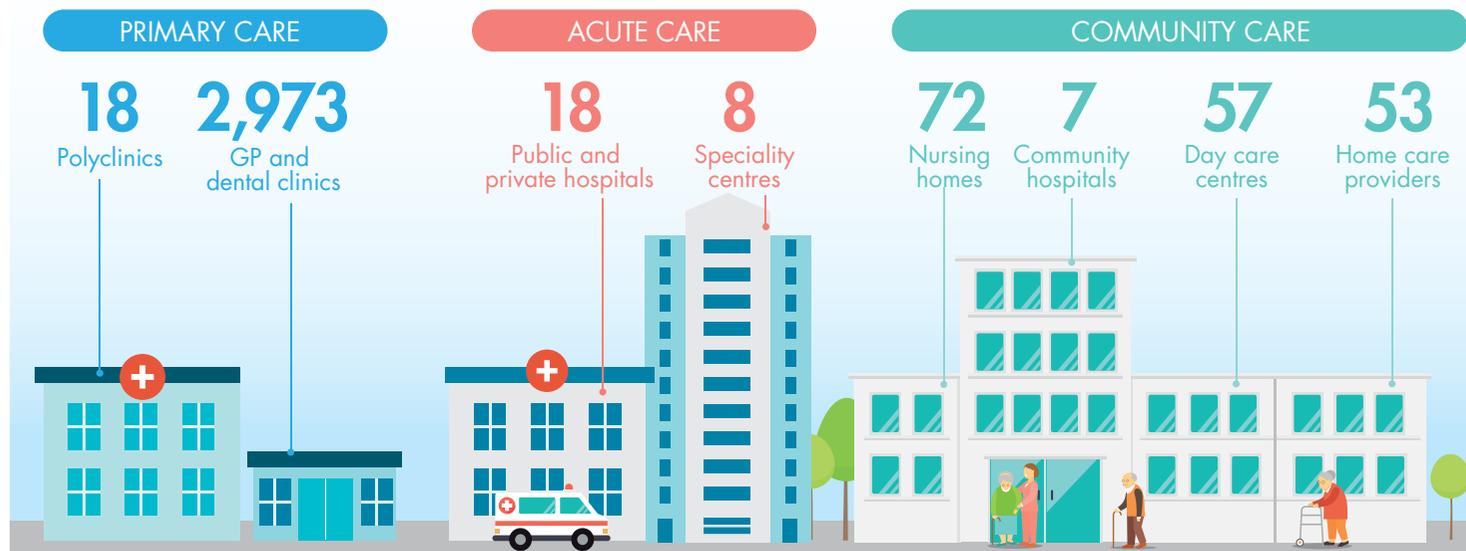
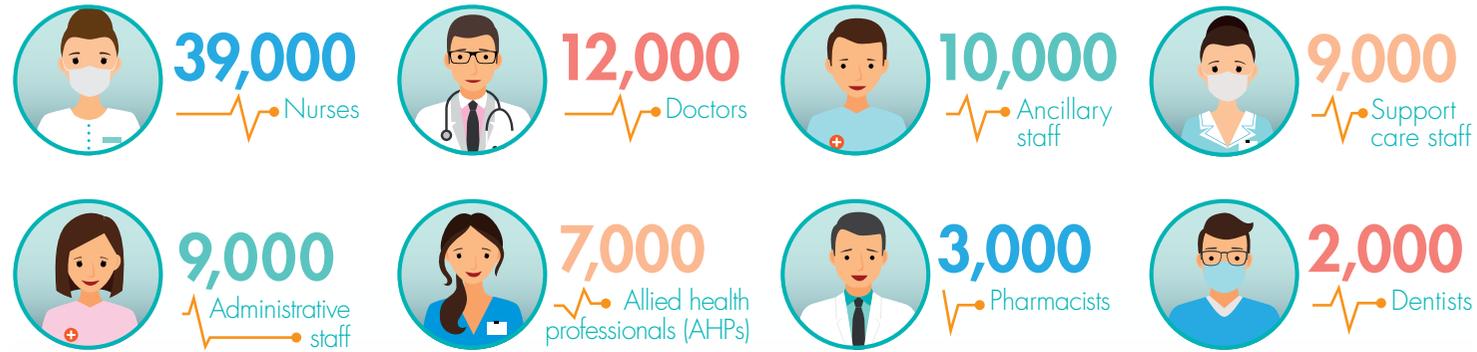
Singapore's international ranking for Life Expectancy at birth



Singapore's international ranking for Healthy Life Expectancy at birth



SINGAPORE'S HEALTHCARE WORKFORCE AND FACILITIES IN 2015



2015 HEALTHCARE BUDGET



Population demographic changes and planned expansions in healthcare

LOOKING ahead, new challenges abound. The combination of a rapidly ageing population and the rise of chronic diseases will mean a higher demand for healthcare and aged care services. The healthcare sector is set to grow in tandem.

AGEING POPULATION

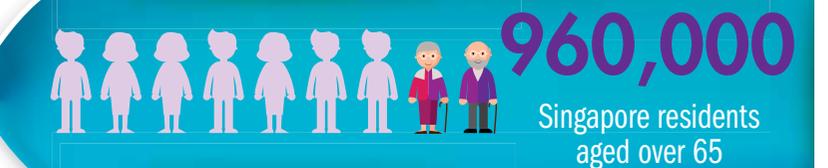
YEAR
2015



YEAR
2020
(projected)



YEAR
2030
(projected)



WHAT I DO MATTERS



Tan Mui Lan, Advanced Practice Nurse
St Luke's Hospital

WHEN Tan Mui Lan was a teenager, she wanted to be a nurse but her mother nudged her to become a medical technologist. Years later, feeling helpless when her mother suffered from colon cancer, she was drawn back to her teenage ambition. Spotting an advertisement by the Singapore Workforce Development Agency (now Workforce Singapore) about the Professional Conversion Programmes to re-skill jobseekers to take on new jobs in industries such as healthcare, she signed up. Two years later, she joined St Luke's Hospital. In 2015, she completed her Master's in nursing training and also obtained her Advanced Practice Nurse certification.



I chose to be in the community care sector as I felt I can make an impact in the lives of my patients. Even if it's just listening to them, I go home with the satisfaction that what I do matters. With the support I received at St Luke's for my advanced nursing training, it shows that there is career progression in community care.

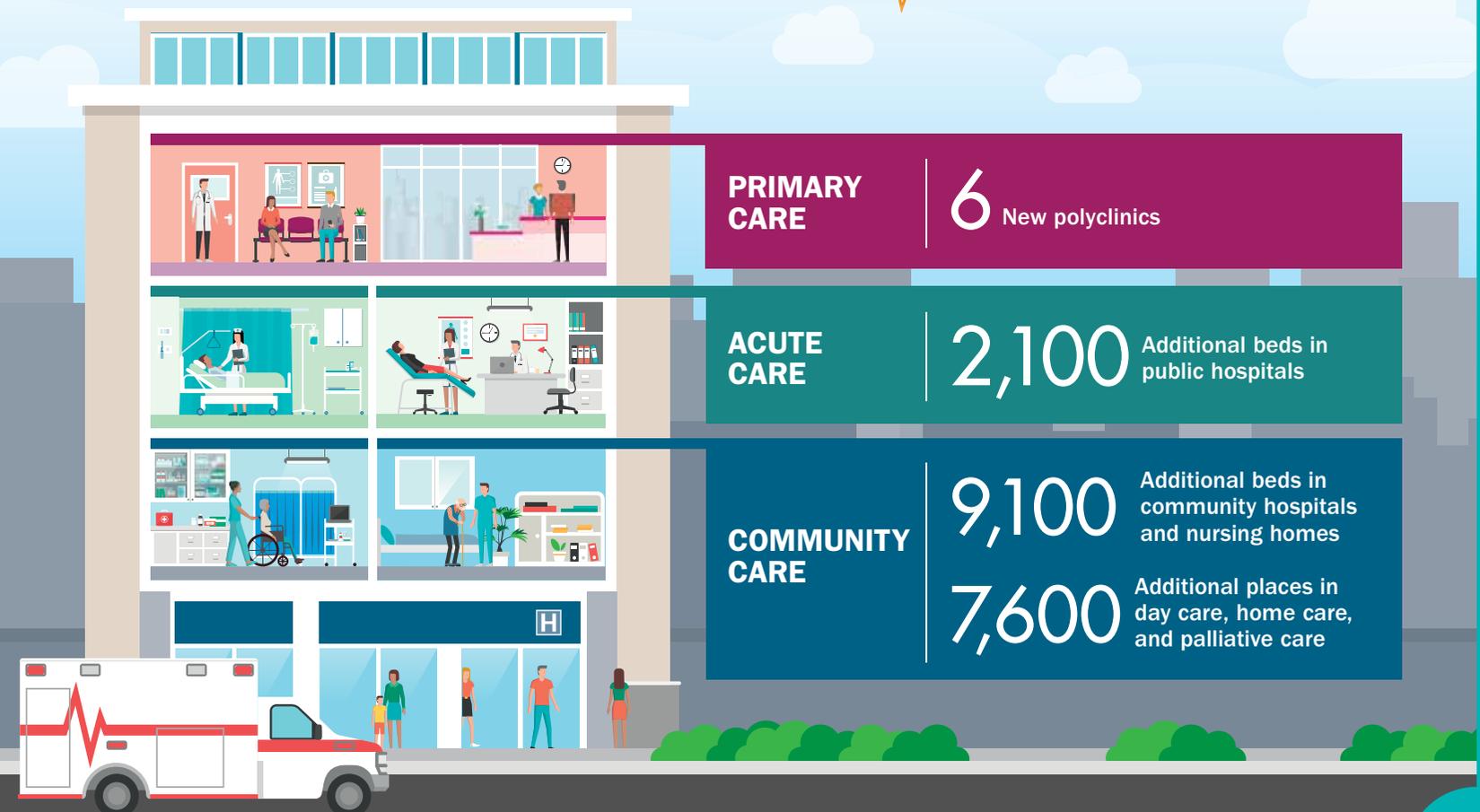
PROJECTED GROWTH IN HEALTHCARE JOBS FROM 2015 TO 2020

30,000

Additional healthcare workers



GROWTH IN HEALTHCARE FACILITIES FROM 2015 TO 2020



I DO MAKE A DIFFERENCE

Hong Jiawei, Nurse
Home Nursing Foundation

ON HER Honda MSX 125cc motorcycle, Hong Jiawei weaves her way around Singapore to get to her patients from Mondays to Fridays. The only exception is when it rains; then she relies on public transport. She sees between five and nine patients in their homes each day, providing nursing care such as changing dressings, providing stoma care (a surgically created opening on

the abdomen which allows stool or urine to exit the body), managing patients' medications and training caregivers. Sometimes she goes the extra mile and helps to tidy the homes of some of her bed-bound patients whose caregivers have to work, because she wants them to be comfortable. Having worked in a public hospital's geriatrics ward, followed by a stint in a private specialist clinic, Jiawei joined the Home Nursing Foundation in May 2015 as she missed working with the elderly.



“

I really like my job even though it can be challenging. I like working with seniors. Despite their health conditions, my presence in their homes brings them some comfort. I get a lot of appreciation from them.

“

We are all interested in a common goal – patient-centred outcomes. With a common purpose and understanding how the patient can benefit from our combined efforts, the experience in providing that service is a pleasant one.



MULTI-DISCIPLINARY APPROACH TO HELP

Dr Muhammad Rahizan Zainuddin, Principal Physiotherapist
Rehabilitation Department, Ng Teng Fong General Hospital

A COOL head, a calm demeanour and a soft heart... these enable Dr Muhammad Rahizan Zainuddin to help patients with chronic lung and heart issues through their physical rehabilitation at Ng Teng Fong General Hospital. However, when it comes to ensuring holistic care for patients, a multi-disciplinary team effort is required. Dr Rahizan and his team of physiotherapists work with nurses who are care coordinators, closely collaborate with medical social workers to provide home care and home help such as a Meals-on-Wheels programme as well as work with the patients' family members who are going to be the caregivers at home. This patient-centred approach ensures that the various care needs of patients are met.



The Ministry of Health and its partners are putting in place plans to nurture a future ready healthcare workforce – from the professionals to the support staff and the wider community – to meet the changing needs of our citizens. There is no better time than today to embark on a meaningful, exciting and fulfilling career in the healthcare sector.



Staying healthy together... young and old meet at NTUC SilverCove, an integrated senior wellness facility at Marsiling Heights, for their regular group workouts. PHOTO: MINISTRY OF HEALTH

TRANSFORMING CARE



Better health, better care, better life

AN AGEING population and a slowing national workforce growth... these are the challenges facing our healthcare system. We will need to harness our creativity and innovate new healthcare solutions that meet the different care needs of Singaporeans. Accessible, Quality, Affordable and Sustainable Healthcare – these are the four objectives that will guide the transformation of our healthcare system for the future. To stay ahead of the curve, we need to make three major shifts in our approach to delivering care.



Beyond Healthcare to Health
 Beyond Hospital-based Care to Community-based Care
 Beyond Quality to Enhancing Value

SHIFT 1

Healthy living for
all Singaporeans

WE NEED to shift beyond providing healthcare to promoting health upstream. By enabling Singaporeans to take personal responsibility for their health right through their lives, and not just when they are sick, we aim to create a healthier nation and healthier people. We will step up health promotion and preventive health services in the next phase of the nation's healthcare journey. The Government has teamed up with our healthcare partners to ensure that our policies, financing structure, support system and programmes come together to support this quest of enabling healthy living for all.



Move it, move it... the Health Promotion Board regularly organises exercise programmes like Fitness@Work to motivate working adults to incorporate physical activity into their hectic schedules. PHOTO: HEALTH PROMOTION BOARD

VOLUNTEER FOR LIFE

**Madam Nor Ain Saleha Abdul Hamid,
Health Ambassador**

Health Promotion Board

MADAM Nor Ain Saleha Abdul Hamid may be retired but she is busy practically every day of the week, volunteering with the Health Promotion Board (HPB) and other organisations. Signing up as a Health Ambassador with HPB in 2011, when she retired after nearly four decades with the Singapore Sports Council (now Sport Singapore), she is now familiar with topics like a healthy lifestyle, good nutrition and health screenings, and helps manage various events organised by HPB. She also volunteers once a week at the Pioneer Generation Office in Tampines, to help explain the Pioneer Generation Package to pioneers in the area.



After working so hard for so many years, I feel lucky to be able to choose what I want to do with my time. That I can do it while remaining healthy, active and be of service to the community is a bonus.

SHIFT 2

Care in the community



Community care... patients get help from community nurses who play an active role in their health regimens so they are able to live independently and comfortably at home or in their community.

PHOTO: NATIONAL UNIVERSITY HOSPITAL

INCREASINGLY, Singaporeans will have more of their healthcare needs met within their community, and less in the hospital. This means that citizens, especially those who are ageing, will be able to enjoy the comfort of receiving care in familiar surroundings with a supportive community.

The Ministry of Health (MOH) will expand and improve existing polyclinics and family medicine

clinics even as more are built. This will give Singaporeans convenient and affordable access to quality primary care, as the first and continuous line of care.

Senior citizens will be able to age gracefully in the neighbourhoods they are familiar with. MOH is building more community hospitals, nursing homes and senior care centres in the community and ►

ONE PATIENT, ONE POINT OF CONTACT

Transitional Care Services Tan Tock Seng Hospital

HOW do you help patients with multiple chronic conditions and limited social support that require close monitoring stay out of hospital? Tan Tock Seng Hospital (TTSH) has come up with a solution: Its Transitional Care initiative aims for every patient with complex health issues to have a single point of contact within the healthcare network. Led by Associate Professor John Abisheganaden (front row, third from right), the Transitional Care team helps patients transition smoothly from hospital to home by giving each of them a tailored care plan as well as a person to call if they need medical assistance. This person then directs the required care to the patient. Not only does this make life easier for patients, it will lead to better use of resources and manpower at the hospital too.



The focus is on the delivery of care to be person-centric, with truly a single point of contact to coordinate, follow-up and review the patient's care plan. It has become increasingly important for general hospitals, primary care partners and community care providers to engage in the holistic care of patients.

— Associate Professor John Abisheganaden



► making home care more accessible and affordable. With the expansion of primary and community care, more healthcare workers such as nurses, therapists and healthcare assistants will be needed in these settings.

As Singaporeans become more educated, they will want greater ownership of their health and to participate actively in self-care and management of their conditions. Therefore, empowering patients and their caregivers, where appropriate, through training and the use of technology will be important. For instance, more self-service formats such as self-registration and payment kiosks, and locker boxes for medication collection are being rolled out across healthcare institutions to enable greater convenience to patients.



ACTION HEROES

Jace Tan, ACTION Team
Agency for Integrated Care and Khoo Teck Puat Hospital

JACE Tan (above, centre) and her Aged Care Transition (ACTION) team colleagues at Khoo Teck Puat Hospital live up to the acronym of their team's name. They help patients return home from hospital as smoothly as possible, taking action when required. They conduct home visits to ensure their patients are coping well, and arrange necessary community care services to aid their recovery. This prevents unnecessary hospital readmissions. Currently, there are ACTION teams in 12 general and community hospitals, as well as the National Heart Centre. Jace, a trained nurse, is used to solving problems on the job. Once, she encountered an elderly patient with a fractured hip who needed a lot of assistance to return home. Jace brought in an occupational therapist to prescribe the needed assistive devices, worked with HDB to install ramps and grab bars, and arranged for home care services to help her recover at home. To thank her, the family gave Jace a box of chocolates which made her day.



Because of the ageing population, our role is expanding. As the link between acute and community care, we enable the senior population to grow old and stay healthy in their homes and community. The patients appreciate what we do for them.

COMMUNITY PARTNERS FOR BETTER CARE

Dr Eng Soo Kiang, Family Physician
and member of the Mental Health GP Partnership

AS a general practitioner (GP) who has a practice in the HDB heartland, Dr Eng Soo Kiang knows he can help patients deal with a spectrum of health issues, physical and mental. That's why he is one of 122 GPs who work with the Institute of Mental Health (IMH) to offer people with stable mental health conditions the option to receive care close to their homes. Dr Eng, who teams up with psychiatrist Dr Kelvin Ng from IMH, recalls one such case: While treating a woman for obesity, sleep deprivation and hypertension, he found out that she has three children with multiple learning disabilities. She was very worried that her second son had Attention Deficit Hyperactivity Disorder (ADHD) and was showing signs of caregiver stress and depression. Dr Eng and Dr Ng diagnosed that her child merely had some features of hyperactivity and, as a result of their joint effort, the woman started treatment for her depression. This new initiative led to a partnership that worked and the commencement of an integrated network.



Family doctors are expert generalists. We can help to link up care for the patients and, most importantly, provide access to comprehensive care in the community. At a doctor level, there is benefit in mutual sharing too; I learn about community psychiatry from Kelvin and Kelvin gets to re-familiarise himself with the new developments in hypertension too.



SHIFT 3

Value-based care

SINGAPOREANS are concerned about the cost of healthcare. We have to provide care that is appropriate to the needs of patients and ensure that care is effective and value for money. MOH has set up the Agency for Care Effectiveness (ACE) to expand our capacity to evaluate the clinical and cost effectiveness of health technologies. ACE will look into high cost treatments and technologies, systematically evaluate and develop guidance to:

- (1) Direct the proper use of such treatments and technology.
- (2) Encourage providers to manage costs while providing quality care.

This will help patients, caregivers and clinicians make more informed decisions on treatments and avoid over-provision of services that will drive up costs.



Better care, lower costs... the Singapore Integrated Diabetic Retinopathy Programme, the telemedicine-based screening of diabetic retinopathy, helps patients to be managed within the polyclinics.

PHOTO: SINGAPORE NATIONAL EYE CENTRE

EYE ON SPEED AND BETTER CARE

Singapore Integrated Diabetic Retinopathy Programme

by the Agency for Integrated Care (AIC), National Healthcare Group Eye Institute (NHGEI), Singapore Eye Research Institute (SERI), Singapore National Eye Centre (SNEC) and Integrated Health Information Systems (IHIS)

GOING blind is the biggest fear for any diabetic. With 11.3 percent of adults in Singapore with Type-2 diabetes, diabetic retinopathy or diabetic eye disease is a big concern. This is where the Singapore Integrated Diabetic Retinopathy Programme (SiDRP) comes in. The team behind the national eye screening programme (below) uses an integrated national IT system, hosted on Singapore's public Healthcare Cloud, that connects two reading centres at the NHGEI and SNEC Ocular Reading

Centre to the 18 polyclinics. Patients with diabetes can have their eyes screened at the polyclinics and the images are sent electronically to the reading centres for assessment. The readers use an advanced grading tool to interpret the images and create a report based on their analysis for the polyclinics. Patients can get the results within one hour to a day instead of waiting two to four weeks in the past. This allows doctors to take quick and corrective action where necessary.



“ SiDRP has transformed eye screening for diabetic patients by leveraging the strengths of telemedicine and centralised reporting. Retinal images are now graded far more speedily and consistently by strictly trained and audited reading teams. This will facilitate more responsive and appropriate eye monitoring and specialist referrals for our diabetic patients.

– A/Prof Wong Hon Tym, Director NHGEI

BIG DATA FOR BETTER CARE

Dr Chow Wai Leng, Health Services Research Eastern Health Alliance

NUMBER crunching has never been more compelling. More so now with the promise of data analytics making a difference in delivering better care to patients. Dr Chow Wai Leng (fourth from right) and her multi-disciplinary health services research team comprising data experts, health economists, clinicians, mathematicians and engineers are driving this movement at Changi General Hospital. For example, in July 2013 the team came together with senior doctors from the Accident and Emergency (A&E) Department to tackle the high patient demand and long waiting times. They started with a simple question: Why was this happening? After analysing the patterns, Dr Chow and her team proposed tweaking the junior doctors' rosters at the A&E, which included adjusting the distribution of manpower to the morning shifts and introducing new shifts in the evenings to match the surge in attendances. As a result, the average daily median waiting time for patients with more serious conditions to get a consultation dropped from 35.4 to 25.7 minutes, a 27.3-percent improvement. Doctors have also reported an improvement in their workload.



What is more important is what happens after the analysis. I call it "actionable analytics"; being able to translate the insights into action that enables better outcomes for patient care. It's a cycle: First use data to understand the problem of interest and design interventions, then monitor when we implement improvement strategies and, finally, evaluate the effectiveness of the interventions and make further refinements if necessary.



Ageing well... organisations such as SASCO Integrated Eldercare Centre offer integrated services to seniors that meet their social, rehabilitation and dementia care needs so they can live well and age gracefully in the community.

PHOTO: SASCO@WEST COAST



Together, these three paradigm shifts – Healthy living for all Singaporeans, Care in the community and Value-based care – will serve as a roadmap to transform our healthcare system in the medium to long term, to ensure better health and better care for Singaporeans for the future, in a sustainable manner.



FUTURE-READY HEALTHCARE WORKFORCE



Talent development... our healthcare workforce comprising a diversity of occupations, is at the heart of our healthcare system.

PHOTO: CHANGI GENERAL HOSPITAL

Three strategies of the Healthcare Manpower Plan

AS WE transform the healthcare system along the three paradigm shifts outlined in the previous chapter, our healthcare workers must be able to take on the changes and challenges it brings. The Ministry of Health (MOH), in partnership with healthcare providers and the Healthcare Services Employees' Union, will develop a future-ready healthcare workforce guided by three key strategies:

1 BUILDING FUTURE SKILLS

Equipping our healthcare workforce with relevant skillsets to prepare for the evolving healthcare needs of an ageing population



2 GROWING A STRONG LOCAL CORE

Investing in our fresh school leavers, supporting mid-career entrants and tapping on community support for a strong Singaporean core



3 A BETTER WAY WITH TECHNOLOGY

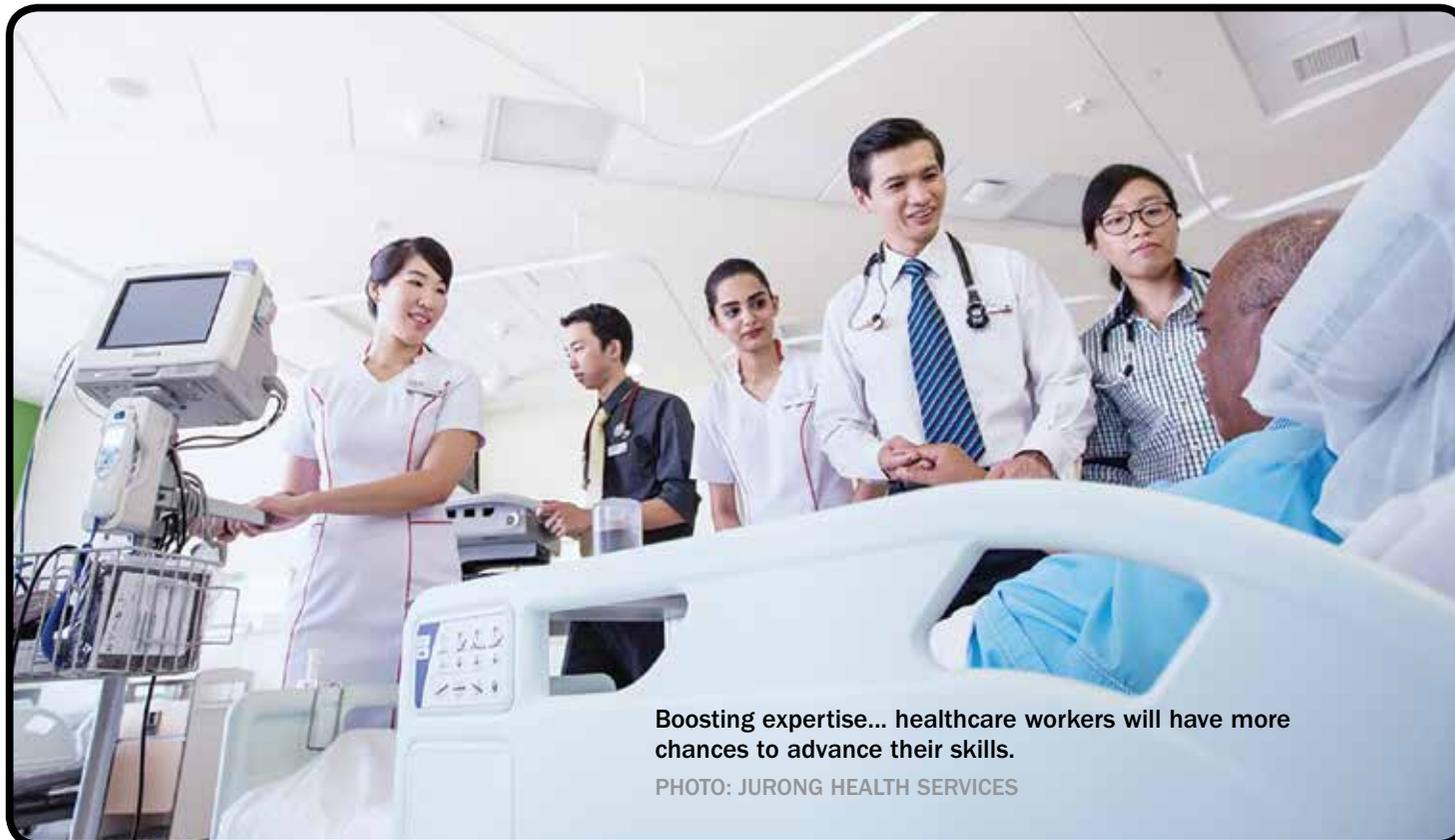
Improving our work environment and patient experience with technology

STRATEGY

1

Building future skills

WITH more training opportunities, our healthcare workers will be able to innovate and upgrade their skills to take on expanding roles in important areas of need.



BUILDING A FUTURE-READY WORKFORCE



DOCTORS

We are training more family physicians and geriatric, internal and rehabilitation medicine specialists to provide care in the community.

Training more family physicians to provide the first and continuous line of care for Singaporeans in the primary care setting:

Medical trainees in Family Medicine

2012 – 2015
387

2016 – 2019
504

30%
increase

Training more internal medicine, geriatric medicine and rehabilitation medicine specialists to meet the care needs of our elderly:

Medical trainees in Internal Medicine, Geriatric Medicine and Rehabilitation Medicine

2012 – 2015
54

2016 – 2019
104

93%
increase

BUILDING A FUTURE-READY WORKFORCE (continued)



NURSES

We are grooming more highly-skilled Advanced Practice Nurses (APNs) to lead and implement complex evidence-based care programmes.

Enabling nurses to expand their professional capabilities:

Enhanced APN Certification pathway to groom expert clinician nurses



Experienced nurses may take up dual portfolios, as part of professional development and to facilitate their movement across settings



APNs will helm nurse-led clinics at primary and community health settings

More funding for Masters programme to train APNs



APNs can prescribe medications

APNs registered with the Singapore Nursing Board

2012	2015	2020 (estimated)
88	172	330



SKILLSFUTURE INITIATIVES FOR THE HEALTHCARE WORKFORCE



SkillsFuture Study Awards

\$5,000

to develop skills in areas such as

- (1) Aged care
- (2) Healthcare IT and data analytics
- (3) Healthcare design, organisation and delivery



SkillsFuture Credit

\$500

for Singaporeans aged 25 and above to pay for a wide range of approved courses, including healthcare-related courses



SkillsFuture Earn & Learn Programme (ELP) for nursing diploma graduates

Opportunity to undergo structured on-the-job training to deepen skills

\$5,000

sign-on incentive for eligible Singapore citizens

up to **\$15,000**

training grant per participant for employers

For more information, please visit <http://www.skillsfuture.sg/>

BUILDING RELATIONSHIPS

Ang Kim Wai, Advanced Practice Nurse
Tampines Polyclinic, SingHealth Polyclinics

MADAM Chan Soon Kiah is 81 and needs regular check-ups for her high blood pressure. Thanks to Advanced Practice Nurse (APN) Ang Kim Wai (below attending to Madam Chan), these regular visits to Tampines Polyclinic are no longer tiresome for her. On the contrary, she looks forward to meeting APN Ang. Thanks to their advanced levels of training and education, APNs are equipped to manage patients with chronic medical conditions such as diabetes and hypertension. This increases efficiency as it trims waiting times for patients and lets doctors at the polyclinic focus on more complex cases. At the same time, patients receive advanced nursing care. As for APN Ang, who has over 20 years of experience as a nurse in both acute and primary care, working at the polyclinic gives her a chance to build a rapport with patients like Madam Chan, get to know them well and follow-up on their conditions closely.

No wonder Madam Chan enjoys her trips to the polyclinic.



“

It is good to have Advanced Practice Nurses in the polyclinics. APN Ang spends more time listening to me and I feel at ease sharing my concerns. After seeing her, I am more aware of my condition and able to take better care of myself. The waiting time to see APN Ang is also shorter than seeing the doctor. I am happy.

– Madam Chan Soon Kiah

TRAINING THE NEXT GENERATION OF FAMILY DOCTORS

Dr Valerie Teo, Family Physician, Associate Consultant and Deputy Head

Ang Mo Kio Polyclinic, National Healthcare Group

WHEN Dr Valerie Teo chose to specialise in family medicine, it was a decision borne out of her positive experiences with her own family doctor. The personal connections he made with his patients inspired her to pursue the same path. A graduate of National University of Singapore's (NUS) Yong Loo Lin School of Medicine in 2009, Dr Teo received her Master of Medicine (Family Medicine) with a Gold Medal in 2013. On top of her busy practice at Ang Mo Kio Polyclinic, the former medal-winning national bowler is an adjunct lecturer at the Lee Kong Chian School of Medicine at Nanyang Technological University. She also tutors undergraduates at her alma mater and is the clinical facilitator for fourth-year NUS medical students who are sent to her polyclinic for an attachment. Despite the workload, Dr Teo loves being a teacher and a mentor. Like the family doctor who inspired her, she too wants to inspire the next generation of doctors to pursue family medicine.

“

The concept of paying it forward and being able to share your experiences with the next generation is important to me. It's not about the nitty gritty details of medical conditions, which you can get from a textbook... it is about the human experience and the human touch of family medicine, or even medicine in general, that really inspired me to teach.



STRATEGY

2

Growing a strong local core

THE expanding healthcare sector provides exciting career opportunities for Singaporeans of all ages: From fresh school leavers to mid-career professionals and mature workers. MOH is adopting a multi-pronged strategy to attract Singaporeans to work in this meaningful sector, where they can grow in their careers and be able to make an impact on the lives of others. Part of this strategy also includes engaging volunteers and our community to partner our healthcare professionals in care delivery.



Local opportunities... the Ministry of Health will reach out to Singaporeans of all ages to join the growing healthcare sector.

PHOTO: SINGAPORE HEALTH SERVICES

INVESTING IN OUR YOUNG ADULTS

Scholarships and sponsorships are available for young Singaporeans to pursue healthcare training programmes at local and overseas educational institutions. Recipients receive benefits such as allowances, tuition fee support and distinction/study awards for good performance, depending on the award received.

GCE 'O' level students to pursue a direct path to a degree in nursing

INTEGRATED NURSING SCHOLARSHIP

Premier scholarship to nurture the next generation of nurse leaders. Students will have the opportunity to pursue diploma and degree nursing courses at the polytechnics and local and/or overseas universities.

GCE 'A' Level (and equivalent) students to pursue undergraduate studies in various healthcare disciplines

HEALTHCARE MERIT SCHOLARSHIP AND HEALTHCARE MERIT AWARD

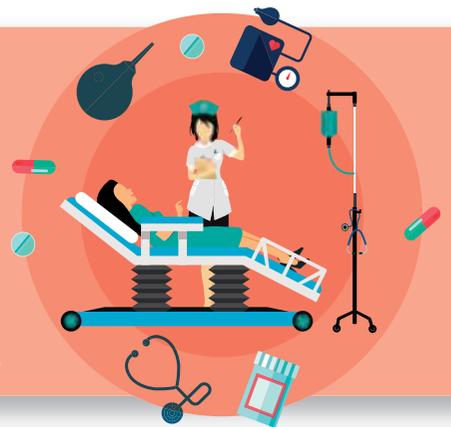
Awarded to outstanding students who demonstrate academic excellence, strong leadership qualities and community spirit, and are passionate about Singapore's public healthcare sector.

INVESTING IN OUR YOUNG ADULTS (continued)

Nursing and Allied Health Diploma graduates to pursue degree programmes

DEGREE-CONVERSION HEALTHCARE SCHOLARSHIP

Offered to outstanding final-year diploma students or recent diploma graduates to pursue a degree course in local or overseas universities.



Degree graduates to pursue Graduate Entry Masters programmes in various healthcare disciplines

HEALTHCARE GRADUATE STUDIES AWARD

Offered to final-year undergraduates or recent university graduates who are keen to pursue a Master's degree in selected healthcare disciplines such as speech therapy and audiology.



For more information on healthcare scholarships, please visit <http://healthcarescholarships.sg>

Apart from scholarships, sponsorships are also offered by the public healthcare institutions for those with a strong passion to pursue a career in healthcare. More information on sponsorships can be found on the individual websites of the healthcare institutions.

Students aspiring to join the Community Care sector may consider applying for the Balaji Sadasivan Study Award (managed by Temasek Foundation Cares), offered for selected NITEC, Diploma and Degree level healthcare-related courses. Please visit <http://bit.ly/balajisadasivan> for more information.



GOING THE DISTANCE

Muhammad Hafashah Mohd Aslam, Senior Staff Nurse
Intensive Care Unit, National University Hospital

BEING a nurse was not quite on Mr Muhammad Hafashah Mohd Aslam's mind when he was a young man. He thought he didn't have the talent to be one until he attended a career talk at his school where a male nurse shared his passion for the profession. Clearly that passion was infectious. After completing his 'O' levels, Mr Hafashah took up the two-year nursing programme at the Institute of Technical Education before doing his National Service. He joined the National University Hospital as an enrolled nurse and subsequently completed his nursing diploma at Ngee Ann Polytechnic. The hospital then sponsored his advanced diploma studies. In 2015 he obtained his Bachelor of Nursing from Griffith University. Mr Hafashah is not stopping there: He is currently doing a part-time law degree course and his long-term hopes are to be involved in policy planning and education for nurses.



“Nursing has been very fulfilling as a career. It is my responsibility to be there for my patients and their family members. I hope to work with patients on end-of-life issues, especially with the amendments to the Mental Capacity Act which will impact my patients and fellow nurses. That is why I am taking the law degree... I would like to participate in and hopefully shape the conversations that are taking place.”

A PART from attracting more Singaporeans to join healthcare, building a strong local core also entails retaining those who have chosen to work in the sector. Clinical and support care staff across the public healthcare sector will see their job scopes enhanced, be given more upgrading opportunities and enjoy better career progression.

SUPPORTING MID-CAREER ENTRANTS

1 HEALTHCARE PROFESSIONAL CONVERSION PROGRAMMES

Available for mid-career entrants keen to join healthcare as Nurses, Physiotherapists, Occupational Therapists or Diagnostic Radiographers. Participants are given a training allowance during their course of study and a Career Transition Bonus upon completion of their training.

For more information, please visit: <http://bit.ly/wsg-adaptandgrow>



2 THE RETURN-TO-NURSING PROGRAMME

Takes on a place-and-train format where healthcare providers hire former nurses to undergo a refresher course on nursing practice before commencing work.

3 THE SENIOR MANAGEMENT ASSOCIATE SCHEME

Prepares mid-career talents for a career switch into key leadership roles in the Community Care sector.



NURSING AND BEYOND

Elaine Chew, Home Care Nurse
Ang Mo Kio-Thye Hua Kwan Community Hospital

WHEN Ms Elaine Chew received her 'O'-Level results 24 years ago, she wanted to be a nurse but was stopped by her mother who didn't think much of the profession. After 10 years as a Republic of Singapore Air Force Systems Specialist, she signed up for the Professional Conversion Programme for Registered Nurses.

In 2013, armed with a nursing diploma from Nanyang Polytechnic, she joined the National University Hospital as a Surgical Nurse.

After three years, having noticed many patients discharged from the hospital without a good support system, Miss Chew joined the home care programme at Ang Mo Kio-Thye Hua Kwan Hospital. Most of her patients are elderly and their main caregivers are also senior citizens. Her role as a home care nurse is to assess how the patient and caregivers are coping, provide nursing care and make referrals to the home care doctors or therapists, depending on what is needed.

“

Home care nurses play a very vital role in keeping people out of the hospital and helping them have the pleasure of recovering in the comfort of their homes.



BACK IN THE GAME

Noraini Umar, Senior Staff Nurse
Operating Theatre, National University Hospital

LEAVING nursing in 2007 after 10 years was a hard decision for Ms Noraini Umar. But her family needed her: Her mum had heart problems, her father was battling cancer and her nine-year-old son needed her help to focus on school. Seven years later, her son finished his 'O' levels, her father was cancer free and her mother's health had stabilised... and Ms Noraini wanted to return to nursing. Undaunted by the changes in the profession during the time she had been away, she returned to the National University Hospital which put her through the Ministry of Health's Return-to-Nursing programme – a mandatory three-month refresher course started in 2014 for those who have not practiced nursing for five years in a row – before she was back doing what she loves most. Nursing.



The Return-to-Nursing programme was an eye-opening experience. There were so many changes; now technology is applied in many aspects of our work. While I had my basic nursing skills, I had to learn the new technologies that were now being used in the hospital. The programme was three months well spent.



ENGAGING THE COMMUNITY

THE SILVER VOLUNTEER FUND of \$40 MILLION

was launched in September 2015 as part of the NATIONAL SENIOR VOLUNTEERISM MOVEMENT for seniors who are keen to give back to society in meaningful ways.



The fund goes towards equipping community organisations to engage, train and recognise senior volunteers for social causes. For more information, please visit https://www.moh.gov.sg/content/moh_web/successfulageing.html

“

The people I look after closely are between 70 and 90 years old and they live in my block. Every evening after work, I take them out for a walk and if they are sick, I take them to the GP. If I notice anyone needs help, I will call Zahara and the team. I feel responsible for all the elderly in my block; this is my kampong (village) after all.

– Volunteer Nekmah Mahadi (seated below, left)

THE NEIGHBOURHOOD WATCH

Neighbours for Active Living programme Eastern Health Alliance

THE Eastern Health Alliance (EHA) is reviving the ‘kampung spirit’ with its Neighbours for Active Living programme. Volunteers like Ms Nekmah Mahadi, Madam Sangeetha Ponnamma Pillai, Madam Bessie Yap and Mr Lee Kwok Meng work with a team of healthcare workers led by Ms Zahara Mahmood and care coordinators like Ms Janet Lau (below left in dark blue polo T-shirts, with the volunteers), to keep an eye out for their sick and frail neighbours.

The EHA Neighbours programme, as it is referred to, co-created their volunteer matching programme known as “Friend-A-Senior” with the South East Community Development Council in November 2013. Its aim was to reach out to Bedok and Siglap residents who have been frequently admitted to Changi General Hospital. Officially launched in 2014, it now covers 18 neighbourhoods in the East with over 200 volunteers matched with about 150 seniors in the community. The volunteers, from various backgrounds ranging from homemakers to professionals, are trained by EHA’s Community Care team on how to manage the residents — some of them have multiple chronic conditions from diabetes to hypertension, as well as mental health issues — and identify red flags. Thanks to their ‘kampung spirit’, Ms Zahara and her team have been able to serve the community much better.



“

The job is not easy, but I love it. Training at my age was not easy, but my Nursing Director was very kind and told me to do it at my pace. Now I am up to speed with the rest of my younger colleagues. And the residents give me motivation. Many of them have dementia but once in a while I will get a pat on my shoulder or arm from one of them saying thank you. That makes me happy.

LEARNING AND CARING

Maria Munnusamy, Nursing Home Aide Singapore Christian Home

CHANGING careers is not easy, especially when you are 51. For Madam Maria Munnusamy, it was a challenge to move from the electronics industry to the Community Care sector in 2013.

On her first day as a Health Attendant at the Singapore Christian Home (SCH), an elderly resident with dementia slapped her. While it was not a welcome she anticipated, Madam Maria knew the resident was unaware of her actions and she persevered with her new job. To get her skills up to speed, SCH enrolled her for the ITE Skills Certificate in Health Care (Home Care) course in 2014. After completing the one-year training programme, Madam Maria was re-designated as a Healthcare Assistant and promoted to Nursing Aide in 2016. She is now able to do simple wound dressings and assist residents in their daily living. Happy with her career progression, Madam Maria looks forward to more opportunities to upgrade her skills.

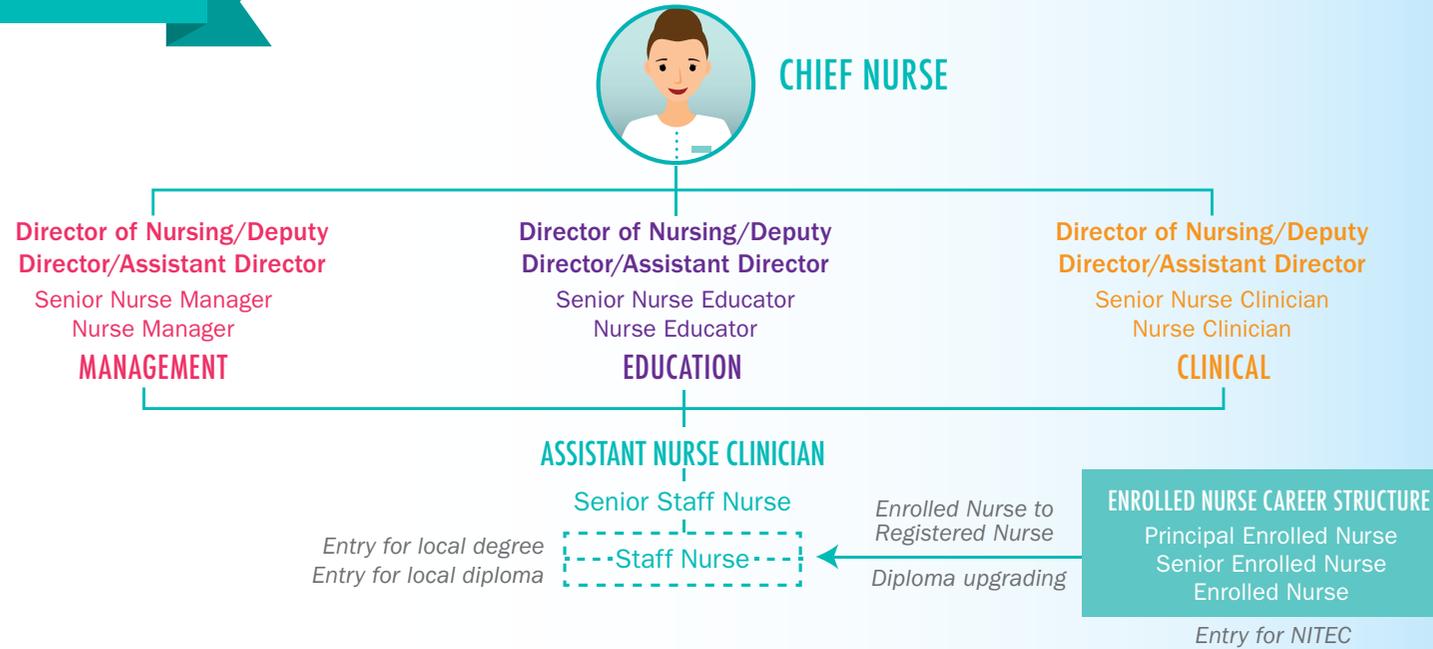


MULTIPLE CAREER PATHWAYS

Nurses and Allied Health Professionals

NURSES

REGISTERED NURSE CAREER STRUCTURE



ALLIED HEALTH PROFESSIONALS (AHPs)



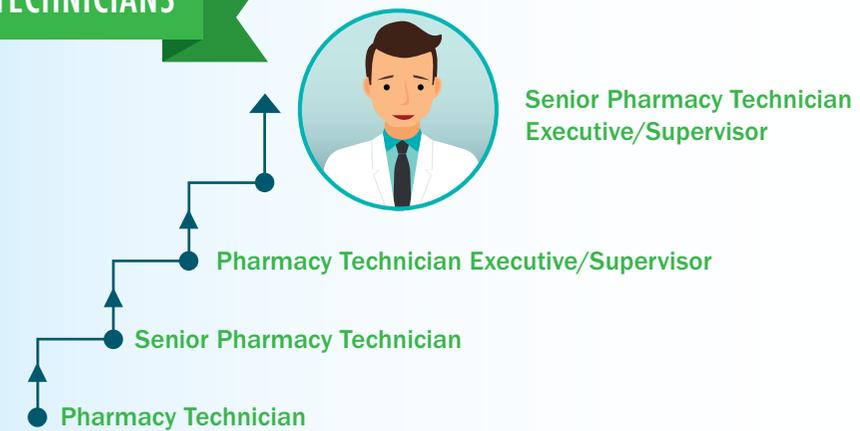
ENHANCED CAREER DEVELOPMENT FRAMEWORK

Patient Service Associates and Pharmacy Technicians

PATIENT SERVICE ASSOCIATES (PSAs)



PHARMACY TECHNICIANS



STRATEGY

3

A better way with technology

RAISING productivity in the healthcare sector is the third strategy of the healthcare manpower plan. To achieve this, we will partner healthcare providers to improve workflows and processes, adopt new technologies, expand job roles, and review rules and regulations. Specifically, technology will support healthcare transformation efforts in multiple ways. In tandem with our aspirations to become a Smart Nation, public healthcare institutions are endeavouring to deliver more efficient and productive services through the use of technology.

WARD OF THE FUTURE

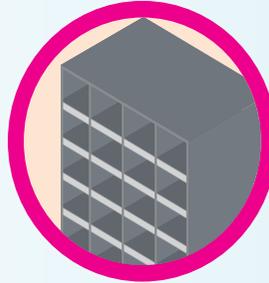
RADIO FREQUENCY IDENTIFICATION (RFID) TRACKER

Tracks patient location, thus minimising need for manual tracking and monitoring.



VENDOR MANAGED INVENTORY

Enables suppliers to monitor and top up the level of consumables and medication within the ward. This reduces manpower required for such tasks.



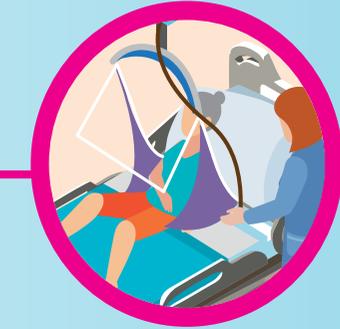
IN-PATIENT RECOVERY ROBOTICS

Assists therapist in conducting rehabilitation exercises with patients recovering from stroke and other neurological disorders.



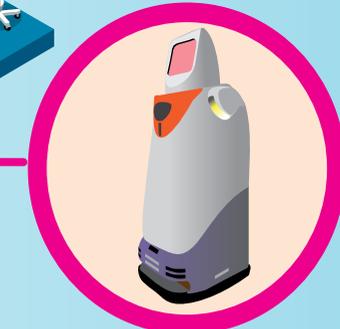
ROBOTIC ASSISTED BEDS

Transforms into a reclining wheelchair. This reduces strain on healthcare staff when transporting patients.



CEILING HOIST

Enables healthcare workers to lift a patient with minimal effort, and protects them against strain or injury.



AUTONOMOUS TRANSPORTER

Delivers medication, documents and blood samples independently throughout the hospital.



CLEAN FIX ROBOT

Cleans corridors and hallways autonomously, and reduces manpower for manual cleaning activities.

TECHNOLOGY HAS CHANGED THE PHARMACISTS' ROLE

**Lim Mun Moon, Director
Pharmacy, Singapore General Hospital**

WHEN Mr Lim Mun Moon joined healthcare in 1987 as a young pharmacist, the Ministry of Health's then Pharmaceutical Department was manufacturing drugs, including cough syrups in 100-litre tanks, for distribution to hospitals. He and his colleagues used to memorise names of medicines and dispense them at the correct dosage and strength. They also had to calculate drug subsidies relying on memory and use manual typewriters to create purchase orders for replenishment of medicines.

Over the last 30 years, technology has changed the way pharmacists work. The introduction of electronic medical records, integrated business software and automation has made dispensing of medicine a very much safer and a far more efficient process for the patient and the pharmacist. For example, not only can patients get medicine delivered to their homes, they can also use the Prescription in a Locker Box (Pilbox), introduced at Marine Parade SingHealth Polyclinic in May 2016. Instead of crowding at the pharmacy, patients can pick up medicine at their convenience from the Pilbox. They scan a QR code on their payment receipt and receive an access code via their mobile phone to unlock it.



When we first started, drugs were in loose packs. I had to count the tablets before dispensing them. Now the automated systems pick blister packs and boxes of medicine and drop them into a bag which is labelled. The way forward now is to give patients the convenience to obtain medicine where they want it and when they need it.



LEVERAGING technology to improve care for patients is an essential part of the strategy to develop a future-ready healthcare workforce.

For instance, tele-health technologies are being tested and introduced to allow healthcare professionals working at the various institutions to remotely care for their patients without them physically being at the hospital. All they need is a personal computer or a handheld device (for example, an iPad). This provides greater convenience for the patients. ▶



Care technology... a patient using the Lokomat system, a robot-assisted walking therapy device at Tan Tock Seng Hospital's Centre for Advanced Rehabilitation Therapeutics.

PHOTO: NATIONAL HEALTHCARE GROUP

HOW DOES TELE-REHABILITATION WORK?



1 Tele-rehabilitation takes place in the comfort of the patient's home, where the patient follows and performs rehabilitation exercises shown on a handheld device (for example, an iPad) via an app.



2 The tele-rehabilitation system consists of 'live' video conferencing, customised applications on handheld devices for both the patient and therapist, and sensors to measure patients' movements.



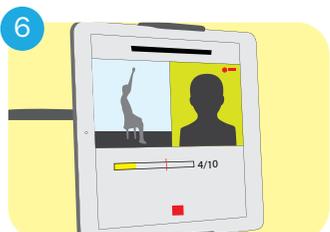
3 With the help of motion sensors which are attached to the patient's arms or legs, the app can ascertain whether the patient is performing the exercises accurately.



4 The therapist reviews the patient's movements via the video recordings and performance data collated from the rehabilitation session, and makes further adjustments if necessary.



5 The patient and caregiver can also communicate with the therapist in the healthcare institution by video-conferencing via the handheld device.



6 These videos will be saved in a private server to allow the therapist to keep track of the patient's progress over time.

► In line with the shift towards patients being cared for at home, SingHealth is testing out its latest effort, the "Match-A-Nurse" mobile application. Similar to a taxi booking application on mobile phones, patients who need home nursing services after being discharged from the hospital are matched with nurses living nearby who then "bid" for the assignment. The initiative is currently in its pilot phase at the Singapore General Hospital and is proving to be very promising. Patients who have used the application say it gives them comfort that they can receive care from a professional nurse at home and they do not need to go to the hospital frequently.

CLICK FOR CARE

Rabiah Tul Adauwiyah Ahmad Johari, Senior Staff Nurse
Match-A-Nurse programme, Singapore Health Services

THERE is an app for just about everything... including finding a nurse. Launched in April 2016, Singapore Health Services' (SingHealth) Match-A-Nurse programme works on a concept similar to that of a taxi booking app. The Match-A-Nurse app, which is currently in a pilot stage, links Singapore General Hospital (SGH) patients who require home nursing services to nurses living or working close to them. Patients' requests are listed in the app and nurses have to 'bid' for the jobs.

Ms Rabiah Tul Adauwiyah Ahmad Johari is one of the 119 SingHealth nurses who currently provide home care services during their free time. She says the Match-A-Nurse app is useful as it offers SGH patients seamless care from the hospital in the convenience of their home while nurses get an opportunity to learn about community care. SingHealth hopes to expand the app to the KK Women's and Children's Hospital to offer services for paediatrics and women's health.

“

A patient I successfully 'bid' for felt reassured knowing that I was from the hospital where she had surgery. She said the Match-A-Nurse service helped her family members save a lot of time as they didn't have to take leave from work to accompany her to the polyclinic to have her wound dressed.





PHOTO: MINISTRY OF HEALTH



The mission of caring for our nation continues to inspire us every day. Everyone – from healthcare professionals, to patients and caregivers and the community – has a part to play. Singaporeans must take personal responsibility and lead lives that are healthy and fulfilling. Our healthcare workers and policy-makers must continue to transform our healthcare system for the better and champion a healthy nation. If all of us do our part, we can look forward to living well, living long, and with peace of mind.



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