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Mr Khaw (fourth from left) at the groundbreaking ceremony for JGH.

Health care at your doorstep

Jurong General Hospital and Jurong Community Hospital are built together to provide integrated health care to those in western Singapore



Leong Phei Phei

WHEN Jurong General Hospital (JGH) opens in 2014, it will be the first hospital here to have a window for every patient to provide fresh air and a view.

It will also be the first acute care hospital that is planned and built at the same time with a community hospital, Jurong Community Hospital (JCH), by the side.

These and other unique features of JGH and JCH in Jurong East St 21 were unveiled at a groundbreaking ceremony last Tuesday.

Mr Foo Hee Jug, chief executive officer of JurongHealth Services (JurongHealth), says:

"The first step in fulfilling our mission of providing integrated health care is to build the two hospitals together.

"This is a first in Singapore. Patients who have received appropriate acute care at the regional hospital and are ready for rehabilitation or sub-acute care at the community hospital will only be a short bed-transfer away.

"Patients will also benefit from co-management by doctors from both the acute and community hospitals, where their treatment plans and records are seamlessly shared electronically between the attending doctors. Running the two hospitals almost as one will assure patients and caregivers that their care is coordinated."

JurongHealth is Singapore's newest public health-care cluster. Its primary role is to cater to the health-care needs of the population in the west.

This is in line with the government's plan to recluster the health-care sector, with Khoo Teck Puat Hospital taking care of those living in the north; Changi General Hospital for the east and Tan Tock Seng Hospital for south-central.

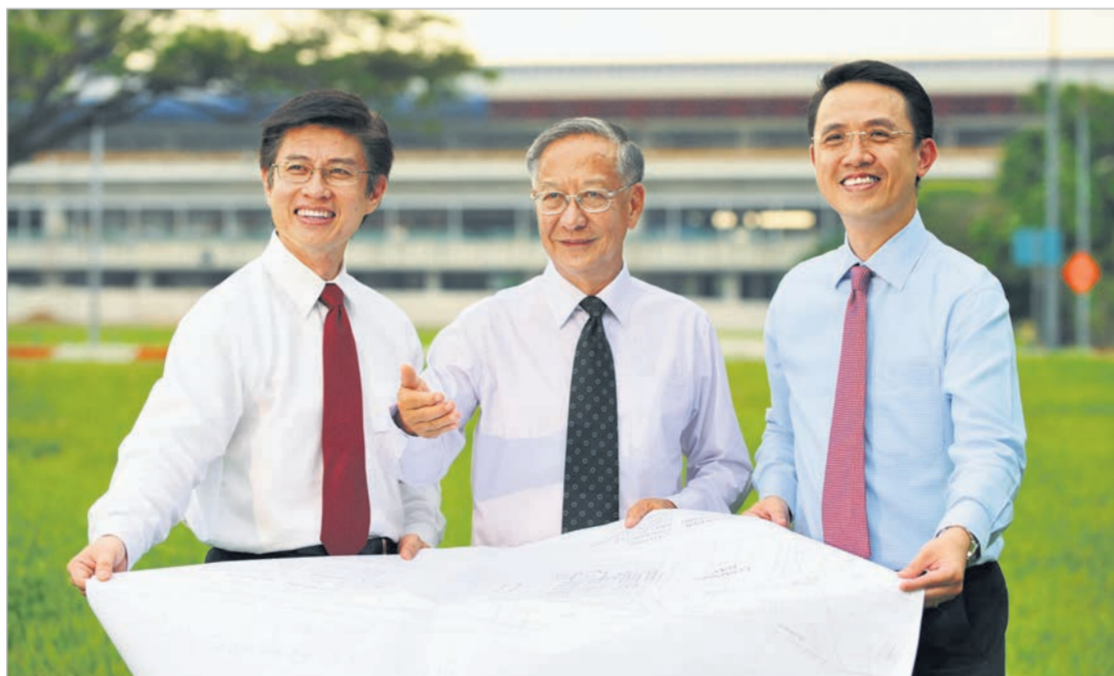
Leveraging on their proximity, there will be a lot of synergy between the 700-bed JGH and 286-bed JCH to provide seamless care for patients.

The two hospitals will share one kitchen, a warehouse for storing supplies and other things that are needed on a daily basis. There will also be one central pharmacy system to serve both hospitals.

An automatic guided vehicle will pick and deliver meals and linen trolleys to designated wards.

Canisters in the tube system can deliver the blood samples of JGH patients to the laboratory for investigation.

In terms of patient care, JGH has a specialist outpatient clinic to cater to those suffering



From left: Associate Professor Cheah, Mr Lim and Mr Foo at the site where JGH and JCH will be built. PHOTOS: CHONG JUN LIANG, JURONGHEALTH

My vision is for a "hassle-free health service" where providers coordinate and integrate their care for their patients in a seamless manner.

I challenge the JGH leadership to go outside the hospital to enable its patients a hassle-free experience even after their discharge.

Building the community hospital and the general hospital as one project should allow you to push integration and coordination to the maximum. It will enable you to achieve multiple physical connections between both entities, smooth movement for patients and families, encourage mingling of doctors and care staff, sharing of information and services.

Mr Khaw Boon Wan, Health Minister, at the hospital groundbreaking ceremony on Nov 9

from strokes and other serious illnesses.

These patients can move to the cheaper community hospital next door for rehabilitation after the acute phase of their illnesses.

Doctors in the two hospitals will have easy access to medical records and work closely to ensure a smooth flow of services.

Mr Foo says: "Planning the two hospitals from ground up results in better cost effectiveness. We

have been able to design space adjacencies so that we minimise the need to duplicate facilities."

Beyond treating patients, JurongHealth's vision is in transforming care, which calls for a fundamental shift in the way hospitals see their roles. It is about moving away from illness-care to keeping patients and residents healthy and looking after their well-being.

Mr Foo explains: "Bringing health to every

home speaks of our aspiration to integrate and simplify health care so that it may be accessible to help the healthy stay well, help the sick get well and to empower the community to manage their well being."

Towards this end, JurongHealth organised a three-day health fair, Health on Track, last weekend, where the public was invited to go for health screening such as blood glucose and cholesterol testing, bone density scanning, fall risk assessment and participate in sports stations and games.

The health fair was organised in conjunction with the signing of a Memorandum of Understanding with St Luke's Community Hospital. St Luke's is a dedicated leading community hospital providing quality health-care services for post-acute and rehabilitative care.

Mr Lim Yong Wah, chairman of JurongHealth, says: "It is not easy to change existing systems. And we can't do this alone. We will work closely with health-care providers such as general practitioners, community and grassroots partners, and caregivers. We need to bring health care nearer to our residents, and to help them to stay healthy."

JurongHealth has set up a base in Alexandra Hospital (AH) and it will be there until 2014 when the two new hospitals are ready.

The staff are excited about creating the future model of health care in Singapore.

Mr Lim says: "The heart and soul of JurongHealth is really our people — the people we have are those who are attracted to this idea of bringing health care to as close as possible to where people live. It is an opportunity to do something new and well and I can sense the excitement in our organisation. Our people are excited to be founding members helping to shape a new way to good health."

Although the founding team began its work from scratch, the clinicians and allied health professionals are not new to the health-care scene as they come from established public and private health-care institutions.

Mr Foo, for instance, has 17 years of experience in health care. He was formerly from Toa Payoh Hospital, then Changi General Hospital. Before JurongHealth, he was the chief operating officer of Singapore General Hospital, group chief operating officer and group chief procurement officer of SingHealth.

Associate Professor Cheah Wei Keat, chairman of medical board, AH and JGH, says: "Our health-care professionals share an aligned vision and goal to build a new health-care cluster and to transform the health-care system in Singapore. They bring to the table a diversity of strengths and experiences — both locally and internationally — which are critical in creating ideas and ways to enhance how we deliver the right care to benefit patients." — **Additional reporting by Ahmad Osman**



A hospital of the future

JurongHealth's director of hospital planning Tan Tai Soon provides a glimpse of the unique features of Jurong General Hospital and Jurong Community Hospital

Ahmad Osman

JURONGHEALTH Services' two new hospitals sit on prime land that is part of the Jurong Lake District masterplan. Jurong General Hospital (JGH) will also be the first hospital-within-a-city with its central location in the heart of Jurong Lake District, which is slated to be the biggest lakeside destination for business and leisure in the west of Singapore.

By building the regional and community hospitals side-by-side, JurongHealth aims to achieve cost saving synergy, efficiency and connectivity for the population in the west to have seamless integrated outpatient, inpatient and step-down health care.

JurongHealth will go beyond the confines of the two hospitals and work with community partners, including polyclinics, general practitioners, voluntary welfare organisations and grassroots leaders to spread the message of healthy living.



Synergy and efficiency

The Specialist Outpatient Clinic (SOC) is part of JGH. This hospital will admit and treat patients hit by strokes and other serious medical conditions. They can "step down" to the cheaper Jurong Community Hospital (JCH) next door for rehabilitation once they are past the acute phase.

Linked by a 40m long bridge, these two hospitals will share medical records, administrative software and other resources to provide seamless integrated health care for patients.

Connectivity

A pedestrian network on Level 2 connects the two hospitals directly to Jurong East MRT station. The hospitals are also within walking distance to retail, infotainment and other facilities in the commercial hub of the proposed Jurong Lake District.

Ward design

The hospital ward design breaks away from the norm with its innovative fan shape. This revolutionary design, which provides a window for every patient, will improve ventilation in the wards as well as maximise natural light.

These attributes not only enhance patient comfort and recovery, they also allow for improved infection control and more spacious and conducive working areas for the hospital staff.

The orientation of the ward towers in the east-west direction optimises day lighting while reducing glare.

Other winning features include soothing views of sky gardens on every floor to create a conducive healing environment for patients and a pleasant experience for visitors. Lush greenery outside every patient's window and small gardens at visitor areas will bring the feeling of the exterior into the urban hospital.

Focus on patients

Having intensive care units and high dependency units on the same floor in JGH help to optimise the use of facilities and achieve greater efficiency.

There will be dedicated lifts and pathways separating the patients and visitors. This will help to enhance the control of infections and give patients more privacy. Visitors will not see patients



being wheeled in and out of operating theatres.

There are pharmacies on every floor of the SOC, making it convenient for patients to collect their medicine and be picked up on the same floor. Pharmacists can bring medicine to the beds of JGH inpatients when they are discharged. A discharge pharmacy is located in the basement of JGH for easy access for patients to pick up medicine before their families drive them home.

Integrating with the community

People and organisations in the west of Singapore can use the Community and Well-

ness Park next to the SOC to promote health and wellness activities.

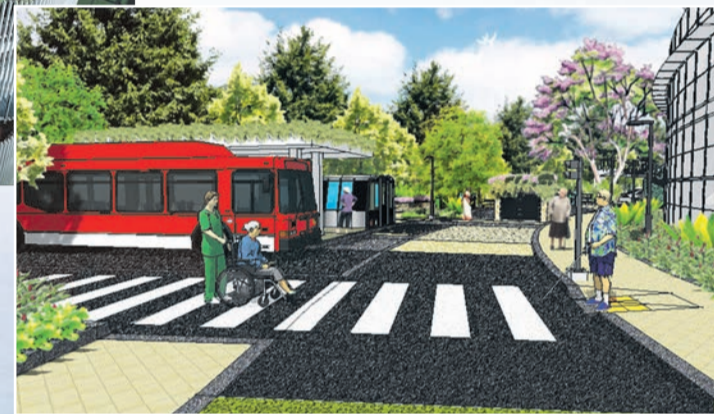
The idea is to use this park to engage the community. The public can help to maintain and grow the garden here.

There are rooms and auditoriums within the building which can be booked for events. There are also hot desks for voluntary welfare organisations which want to set up an office or hand out health information brochures.

Mobility park in JCH

This park is meant for the therapeutic treatment of patients who have suffered a stroke or elderly patients to improve their mobility before they are discharged.

It features a zebra crossing to teach these people how to cross the road, for instance. Mr Tan adds: "We are also looking for mock-ups of a MRT train carriage and a taxi which we can use as training tools. The park will also



train caregivers who may not be good at getting wheelchairs in and out of public trains and taxis."

Managing outbreaks of infectious diseases

Those seeking treatment for infectious diseases will be in an isolation ward, which is located close to JGH's Accident and Emergency (A&E) department.

There are also isolation wards on every floor to contain the spread of infectious diseases such as SARS.

Appropriate JGH and JCH entry points can be secured if there is an outbreak of infectious diseases. There will be separate screening areas for patients and visitors.

Air from these separate areas will be expelled through separate air condition ducts. "If you are infected, you will not pass the infection to the rest of the hospital," Mr Tan says.

He adds that there will be decontamination facilities in the A&E department for patients hurt by chemical spills and other industrial accidents.

Using smart and green technologies

Solar panels will tap sunlight to boil water. The air conditioning system will also recover heat for hot water.

Sensors detecting body heat will automatically switch off power when nobody is in the room. This will save energy, Mr Tan says, adding that JGH and JCH will have the infrastructure for wireless radio frequency connectivity.

This technology can be used for patients to wear tags in order to track their movements. It can guide them to go in the right direction to where they are going.

Mr Tan says: "Patients are always the main focus of what we do."

All set for emergencies

Jurong General Hospital (JGH) is the first health-care institution here to use simulation as a tool to plan and design its Accident & Emergency (A&E) department.

The project, initiated by JGH chief operating officer Joanne Yap with the A&E and hospital planning teams, engages the GE simulation team to test the layout of the new department.

The simulation tool provided planners with information on the department's utilisation of resources, capacity constraints, workflow and layout.

JGH used the results to forecast how the A&E infrastructure could support an increasing load of patients over a period of 10 years.

The forecast allows planners of the hospital to design a scalable A&E capacity which can meet increasing demand in future.

Dr Quek Lit Sin (far right), head of the hospital's emergency department, says: "The path to the future of JGH A&E is now more certain. There is a way to predict and preempt how our A&E can cope with the increasing load in the years to come. Our design and layout can be robustly tested to ensure that we optimise resources, cut waste and promote efficient and effective workflow processes. This will ultimately benefit our patients."

After opening its doors in 2014, the GE simulation modelling programme allows current hospital planning to take into consideration various measures for the A&E operating capacity to be ramped up, if this is necessary in future, to maintain maximum efficiency.



PHOTOS: JURONGHEALTH

What the staff say

Meal time is one of the few things our patients look forward to, so it is crucial that we give patients the best.

— Mr Richard Woo, executive chef

My job is to "Make Things Happen!" for patients and colleagues. I am fortunate to have the opportunity to put my experience and aspirations to bear in a new hospital.

— Ms Joanne Yap, chief operating officer

I want to contribute new ideas and ways of doing things and hope that we will have the best practices to differentiate ourselves from others.

— Ms Long Chey May, head of medical social services, allied health (medical social services)

This is a rare opportunity to be able to contribute and build both the software and hardware of a brand new health-care institution.

— Ms Ivy Seah, senior executive, operations support

Being with JGH allows me to contribute my working experiences to build a well-facilitated hospital to serve the people.

— Mr Eddy Nai, facilities management engineer, operations support

Awareness of the importance of 'wellness' has always been important to me. Being in health care enables me to do that.

— Ms Lydia Hoalim, head of psychology, allied health (psychology)

Being in the pioneering team gives me the opportunity to shape and help enhance the level of health care in Singapore.

— Ms Kimmy Liew, deputy head, allied health (pharmacy)

Being able to contribute to the planning and development of a new hospital provides me with a sense of gratification.

— Ms Choo Yee Mun, nurse clinician

As part of the pioneering team, we can look forward to changing the lives of our patients with our knowledge, skills and experiences.

— Ms Lee Hee Hoon, head, dietetics & nutrition

I get to meet people with different competencies and different cultural backgrounds here.

— Ms Prema Balan, senior nurse manager

JurongHealth gives me the opportunity to learn and experiment with new things.

— Mr Lim Tow Peng, senior engineer, operations support (facilities development)

I get to contribute and share new ideas and create a difference in the new hospital.

— Ms Malliga Selvaraju, enrolled nurse

To be able to use my expertise in providing a green and ideal environment for patients, visitors and staff, to soothe and heal — these motivate me in my career with JGH.

— Mr Louie Fong, horticulturist

JGH represents the heart and soul of good medicine and I can think of no better place to be.

— Dr Lesley-Ann Goh, head, radiology

JurongHealth has an inspiring vision. It's a promise of possibilities and opportunities to fulfil dreams and aspirations that every health-care professional embraces deep in his heart.

— Ms Anna Fok, chief human resource officer

I am given opportunities to share ideas on how to make JGH a good place to work in as well as enabling patients to receive the best medical care.

— Ms Joyce Chin, senior executive, communications & service quality

Together with my colleagues, I get to be a pioneer and have the opportunity to build an integrated health-care system in the west for the community.

— Ms Tan Chui Hoon, assistant director, nursing

Starting fresh at JGH allows one to mould and shape your work environment.

— Dr Quek Lit Sin, head, emergency

Being the pioneering team gives me the opportunity to shape and enhance the culture that JGH aspires to have.

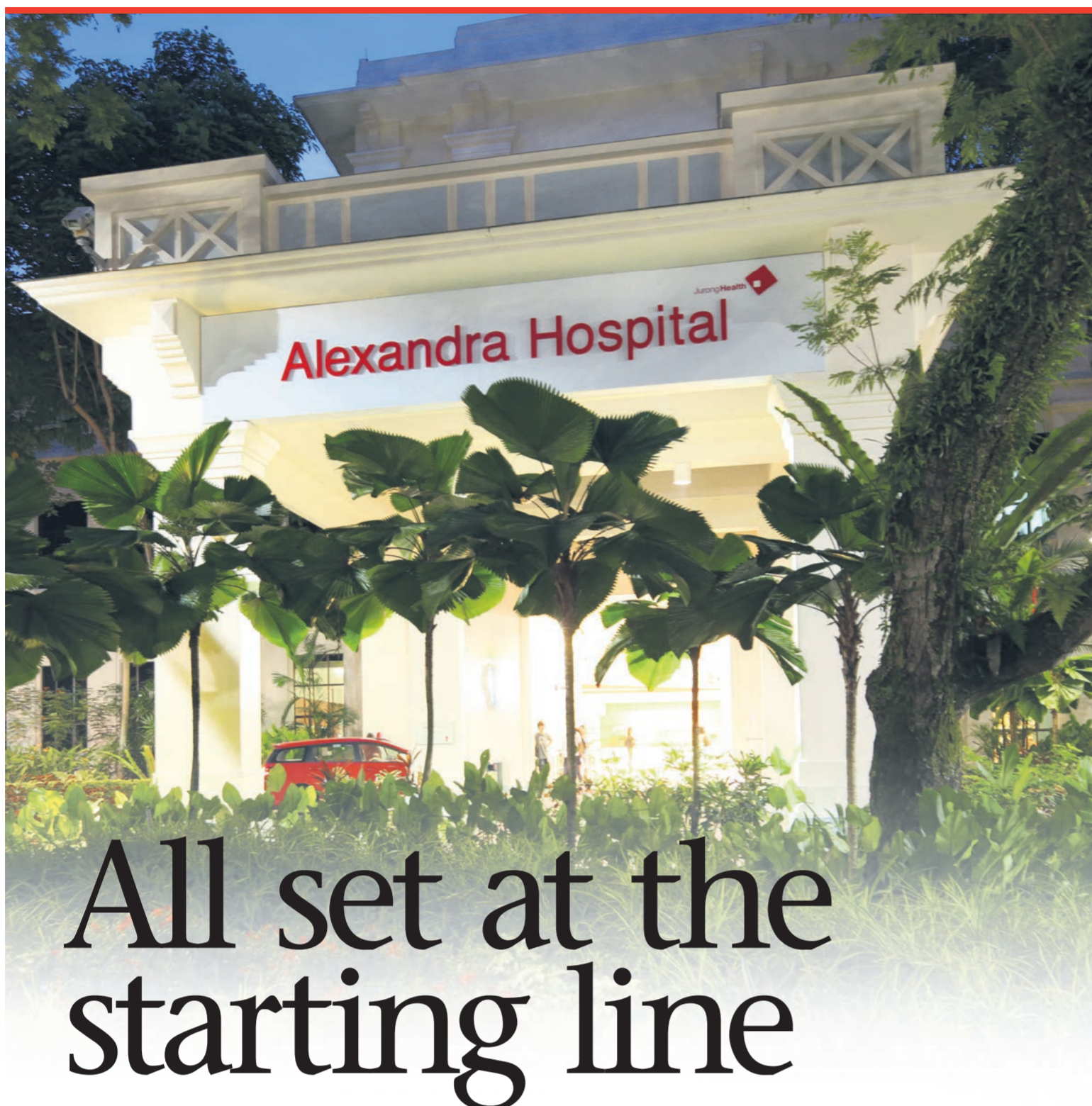
— Ms Tan Ker Lee, manager, operations

The team assembled is young and vibrant and are open to changes and exploring new ways to deliver health care in an integrated fashion.

— Dr Gamaliel Tan, head, orthopaedics

It is a great joy to shape the culture of a pioneering team and to watch the team bond and grow.

— Madam Kuttiammal Sundarasan, director, nursing



All set at the starting line

JurongHealth now works out of Alexandra Hospital to be operationally ready as its two new hospitals are being built in Jurong

Leong Phei Phei

THE staff of the new JurongHealth cluster will be based in Alexandra Hospital (AH), where they receive training and bond as a team, until Jurong General Hospital (JGH) and Jurong Community Hospital (JCH) are ready in 2014.

The transition process, which started in March this year, culminated with JurongHealth assuming full management of AH in August.

Associate Professor Cheah Wei Keat, chairman of medical board, AH and JGH, says: "Being a part of the pioneering team and starting our base in AH is an exciting opportunity for everyone as we build a patient-centric hospital to offer seamless and holistic care."

"We aim to give patients the highest level of care with a team of committed and dedicated doctors, nurses and allied health professionals driven by compassion and integrity."

More than 1,000 JurongHealth staff currently run AH during the construction of the two new hospitals in the west. The number is expected to be tripled by 2015.

Many of them have experience in the health-care sector. Mr Foo Hee Jug, chief executive officer of JurongHealth, says: "We use AH as our base

for many of the things we would like to do in JGH. We experiment here in a smaller setting and learn as much as possible. This is also the place where we build our identity and that is important even as we move into JGH."

On what is available now in AH, Mr Foo says there is a comprehensive range of clinical services for the community, such as dental, endocrinology, general medicine, geriatrics and orthopaedic surgery.

"So really, we are not just keeping the place open. We have a comprehensive suite of clinical services. It is our aspiration to keep up to the level of patient satisfaction and quality of care for our patients and to the community," he says.

The AH Garden Café has also been given a facelift with the transfer of management to JurongHealth. New food stalls have been added to provide more variety for the staff, patients and visitors.

To build a cohesive team, Mr Foo engages his team regularly over informal tea sessions.

Staff and stakeholders were also engaged in the development of JurongHealth's vision, mission and values. The pioneer batch of 32 staff interviewed families in the west with varying demographic backgrounds

6 We aim to give patients the highest level of care with a team of committed and dedicated doctors, nurses and allied health professionals driven by compassion and integrity.

— Associate Professor Cheah Wei Keat, chairman of medical board, AH and JGH

to better understand the needs of the community they will be serving.

One of the residents, Madam Chua Soo Buay, 49, says: It is good to have a hospital that will be designed and built around our needs. A lot of times, I have to go from one doctor to another and the different tests I have to take can be in various locations in the hospital. I hope the new JGH and JCH will have one-stop services in their clinics. And I also hope there will be translators who can help to explain my condition to me as I only speak Mandarin."

JurongHealth's mission statement

VISION

Transforming care:

Transforming care is a call for a fundamental shift in the way we deliver the most appropriate care centred on the needs of patients. It is about moving away from illness care to truly keeping the community healthy, and looking after their well being.

Bringing health to every home: Bringing health speaks of JurongHealth's aspiration to integrate and simplify health care so that it is accessible to help the healthy stay well, help the sick get well and to empower the community to manage their well being.



PHOTOS: JURONGHEALTH

MISSION

- Stay well
- Heal
- Empower

Providing integrated health care by working hand-in-hand with community partners, patients, caregivers and staff.

VALUES

- **Patient centredness:** Designing and delivering care around the needs of patients and their caregivers.
- **Integrity:** Upholding trust through what it says and do.
- **Excellence:** Giving its best, every time.
- **Mutual respect:** Treating each and every individual with dignity.
- **Open mindedness:** Embracing change and championing innovation.

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