



**PUBLIC SERVICE DELIVERY TRANSFORMATION**

**TOUCHING LIVES THROUGH  
PUBLIC SERVICES**



**YBHG TAN SRI DR. ALI HAMSA**  
Chief Secretary to the Government

Over the course of the NTP, the Public Service Delivery Transformation (PSDT) SRI focus areas have evolved from improving the Government's services to create a business-conducive environment to ensuring that Malaysia's public services effectively address the rakyat's key concerns. This has been achieved through holistic activities which focus on maximising outcomes and optimising resources. This is in line with our National Blue Ocean Strategy (NBOS) which was introduced in 2009 with the aim to increase collaboration across Ministries, Departments and Agencies (MDAs) to implement high-impact citizen-centric projects rapidly at low cost.

As a testament to these initiatives, Malaysia was ranked second out of nine ASEAN countries and 15<sup>th</sup> globally for its efficiency in Government spending in the World Economic Forum's Global Competitiveness Report 2017-2018. Globally, Malaysia's ranking is ahead of some European and other Asian countries such as Finland, Norway, China, Iceland, Sweden and Japan.

To date, more than 100 NBOS initiatives have been implemented, addressing a wide range of socio-economic areas and providing game-changing public services to the rakyat. These include the Urban Transformation Centres (UTC) and Rural Transformation Centres (RTC) which serve as one-stop premises which provide a range of integrated Government services for the rakyat's convenience and for efficient utilisation of public resources.

Under the PSDT SRI, the Government is focusing on transforming the delivery of public health services to the rakyat by introducing LEAN Healthcare initiatives. Initiated as a pilot project in Hospital Sultan Ismail,

Johor Bharu in 2013, significant improvements in reducing waiting time as well as congestion at the hospital prompted the expansion of LEAN Healthcare to all 133 hospitals nationwide in phases.

There are 52 hospitals under the Ministry of Health (MOH) which have implemented the LEAN Healthcare initiative in their various departments. MOH aims to expand the LEAN methodology to all hospitals nationwide.

Further to this, the Government has also embarked on various transformation led by Public Service Department to enhance and expand digitisation of public services. A total of 1,432 transformation initiatives, including high-impact initiatives such as the 1Malaysia Customer Service of Civil Servants (ISERVE), 1Malaysia Civil Service Retirement Support (IPESARA), Domiciliary Treatment Services and Ez ADU KPDKKK have been undertaken.

The Government is committed to continuously review and improve its services. We will continue to adopt NBOS to deliver the TN50 vision, which will require paradigm shift in terms of planning and implementation. With this innovative thinking and shift of our perspective and strategy in delivering national transformation, we are confident the NTP will be successful and pave a new phase of Malaysia's transformational and inclusive development.

# IMPROVING HEALTHCARE SERVICES FOR THE RAKYAT

SRI PSDT projects focus on process improvements and “doing more with existing or less resources”. To this end, the LEAN Healthcare initiative by the Ministry of Health (MOH) has demonstrated improvements in the quality of care provided by public hospitals, thereby enhancing the patient experience and adding value to delivery of healthcare to the public.

Up to 2017, 52 hospitals have embarked on the LEAN Healthcare transformation journey mainly in the Emergency Departments (ED) and Medical Wards (MW), which include 16 new hospitals this year. The initiative aims to reduce waiting time and congestion in hospitals by improving the process flow of patients’ visit at MOH hospitals.

The 16 hospitals are Hospital Banting, Hospital Segamat, Hospital Kluang, Hospital Port Dickson, Hospital Bukit Mertajam, Hospital Kepala Batas, Hospital Sibul, Hospital Pekan, Hospital Tawau, Hospital Duchess of Kent, Hospital Keningau, Hospital Lahad Datu, Hospital Bintulu, Hospital Kapit, Hospital Sri Aman and Hospital Seri Manjung.

In addition to EDs and MWs, MOH also initiated five LEAN pilot projects this year:

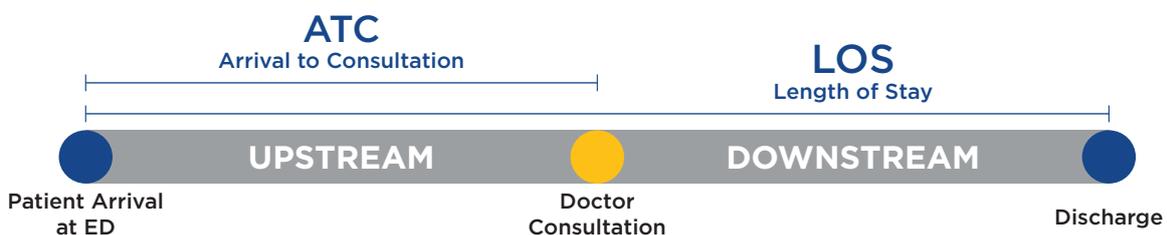
1. Introducing a block appointment system in specialist clinics;
2. Improving Operating Theatre (OT) utilisation;
3. Improving management of medical records;
4. Improving turnaround time on urgent diagnostic tests run by the Pathology department; and
5. Improving delivery of hospital support services.

## Strengthening the frontline

Emergency Departments and Medical Wards are at the frontline of hospitals, and to this effect MOH continues to focus on improving services in these areas. To date, MOH has rolled out LEAN to the EDs and MWs of 52 hospitals. This has improved patient flow at the ED’s Green Zones, which is measured by the throughput of the following two metric targets:

- Waiting time from arrival to consultation (ATC) of 60 minutes or less; and
- Total length of stay (LOS) in ED of 120 minutes or less.

Throughput indicates the ED’s percentage of success in meeting the key targets mentioned above. Before the implementation of LEAN, the EDs were first ranked into categories A, B, C and D based on ATC and LOS throughput. A measure of success is when EDs move up in the direction of Category D to Category A post-LEAN implementation as they become more efficient and achieve higher throughput.

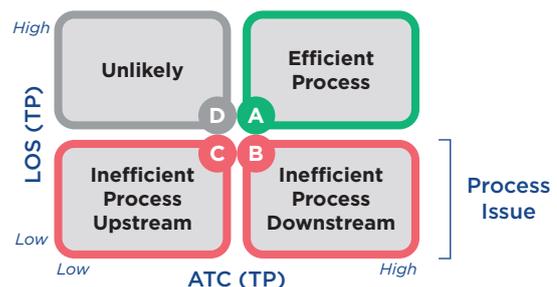


### THROUGHPUT\* (TP)

ATC (TP)	LOS (TP)	WHAT IT MEANS
low	low	Upstream Issue
low	high	Unlikely
high	low	Downstream Issue
high	high	Efficient Process

\*Higher throughput is better

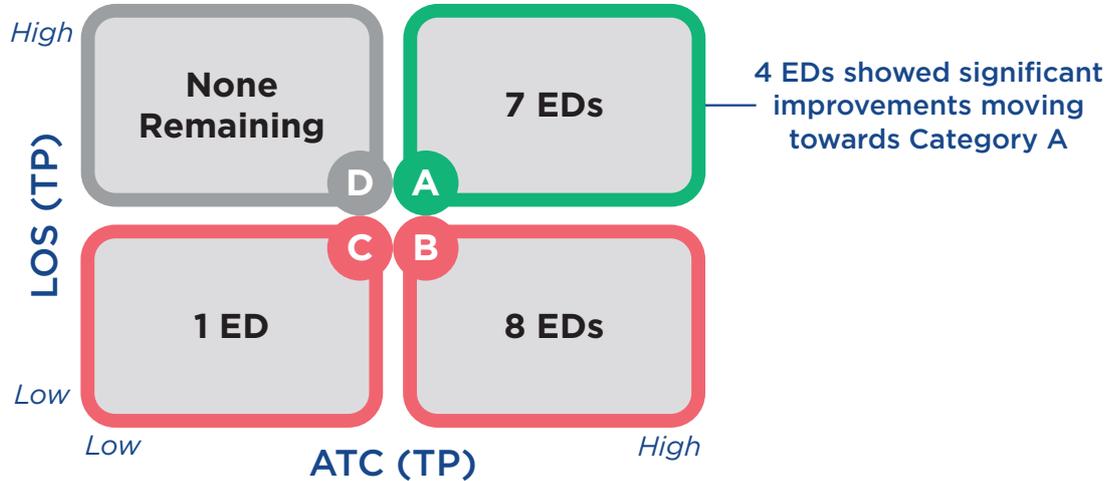
### 2x2 MATRIX



The diagrams above demonstrate how the Emergency Departments are categorised on a 2x2 matrix based on throughput of ATC and LOS.



## Post LEAN Emergency Department (ED) Efficiency Categories



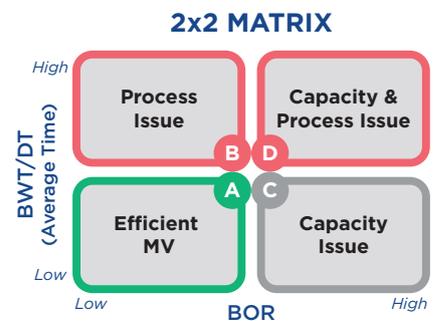
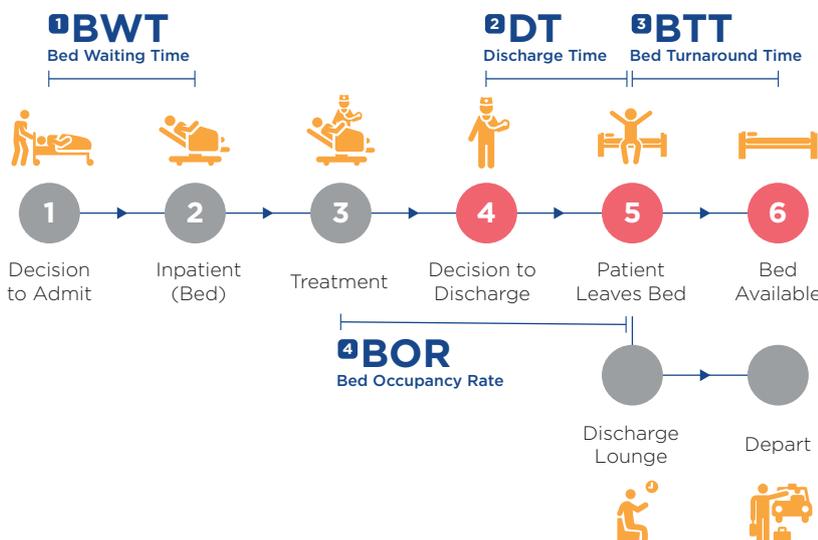
The diagram above shows the Efficiency Categories of the 16 Emergency Departments post LEAN implementation.

Four out of the 16 EDs demonstrated a significantly higher throughput post LEAN implementation, showing movement from Category B to Category A. The remaining EDs showed smaller improvements but remained within Categories A and B.

To achieve the LEAN targets, steps that did not create value were eliminated and value-added changes which result in high-impact improvements were introduced.

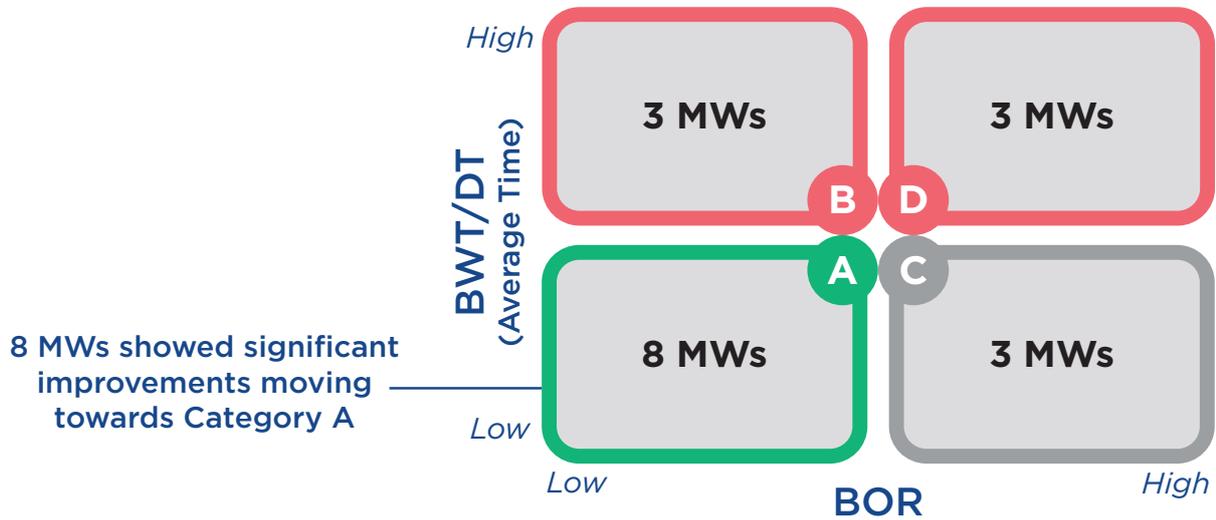
Meanwhile in the MWs, MOH aimed to improve bed management. This involved improving the discharge time (DT), bed turnaround time (BTT), bed occupancy rate (BOR) and bed waiting time (BWT) to streamline the process. The targets for the metrics are four hours or under for DT, 30 minutes or under for BTT, 85% or below for BOR and 120 minutes or below for BWT.

To measure performance, the MWs were also ranked on a 2x2 matrix based on the aforementioned metrics for EDs, as depicted in the following diagram:



The diagrams above demonstrate how the Medical Wards are categorised on a 2x2 matrix based on DT, BWT & BOR performances.

## Post LEAN Medical Wards (MW) Efficiency Categories



The diagram above shows the Efficiency Categories of the 16 Medical Wards post LEAN implementation.

Overall improvements were seen in the MWs post LEAN implementation, where on average:

- Discharge time has reduced by 94 minutes (39% improvement);
- Bed waiting time has reduced by 40 minutes (35% improvement); and
- Bed occupancy rate has shown 8% improvement.

In implementing these projects, MOH observed encouraging levels of teamwork in ED and MW teams, while Hospital Quality Managers also facilitated collaboration between both departments and other departments such as pathology, radiology, IT and finance. The challenge is to incorporate LEAN thinking within the staff's day to day work, as they are already occupied with the demands of high workload. Continuity is also a challenge with rapid turnover of staff in many MOH hospitals. From 2018 onwards, the ED and MW KPIs will be incorporated into the Hospital Performance Indicators for Accountability (HPIAs) to support the internalisation of LEAN.



Discharge lounge for patients to wait for their pick up.



## REVAMPING MALAYSIA'S HEALTHCARE SERVICE DELIVERY

### Establishing Hospital Kuala Lumpur as a premier hospital

In his Budget 2012 speech, the YAB Prime Minister announced that Hospital Kuala Lumpur (HKL) will be upgraded to a premier hospital. To achieve this target, HKL was allocated RM300 million in funding for the construction of new facilities including a new specialist complex, ambulatory care centre, nephrology centre and a seven-storey car park.

To enable HKL's transition into a premier hospital, a two-part workshop involving MOH, HKL and the Universiti Kuala Lumpur's Malaysian Institute of Industrial Technology was held in June 2016. The workshop identified three areas for HKL to address: The Turnaround Time (TAT) for urgent diagnostic tests, the management and retrieval of patients' medical records and the quality of support services. Addressing these issues formed Phase 1 of the HKL Transformation journey.

A LEAN pilot project was thus kicked off to speed up diagnostic results produced by the pathology laboratory (Core Lab), which receives an average of 2,300 blood samples a day on weekdays and 500 blood samples a day on weekends, with 6:00 a.m. to 7:00 p.m. being peak operational hours.



**HKL Core Lab - The time stamping step at the urgent workstation was removed to expedite the processing of samples.**

The TAT target for routine tests is four hours; however urgent tests have a turnaround time of 45 minutes (20% of routine TAT). The challenge for lab staff is in the workflow of urgent tests, where 60% of all tests are urgent requests. MOH mandates that at least 90% of urgent biochemistry and haematology requests must be reported within 45 minutes.

Following the pilot, improvements were seen. The percentage of Biochemistry tests that met the KPI improved from 9% to 24% (167% increase), and Haematology tests improved from 56% to 66% (18% increase).

The second HKL LEAN project was initiated to improve the management of patient medical records, which is critical to the delivery of efficient and effective healthcare services at hospitals. A good patient medical record system can, among other things, ensure patient safety, reduce patients' waiting time, support better clinical decision-making and reduce unnecessary test requests. The LEAN project focused on seven departments which experience high patient attendance that increases annually: Emergency Department, General Medicine, Ophthalmology, Orthopaedics, Paediatrics, Neurology and Nephrology, covering both outpatient and inpatient workflows.

Key results on Medical Records 2017 pilot LEAN implementation were:

- Reduction in records retrieval period from 14 days to five days
- The number of records not found on any clinic day has reduced from 35% to 5%; and
- The number of temporary records created has reduced from 80 cards a day to less than 10 cards a day.

The third LEAN pilot project was initiated to optimise the delivery of hospital support services. This is the first initiative which involves a third party, Radicare Sdn Bhd, which is HKL's concessionaire for hospital support services. The project focuses on two key areas within the outsourcing management framework: communications management and performance management. Communications management ensures that HKL staff and Radicare representatives are coordinated on the needs of the hospital, whilst a robust performance management system ensures that support is provided in a timely manner and meets patients' healthcare needs. HKL and Radicare have identified a list of issues, of which two thirds are deemed to be quick wins, and have begun implementing potential solutions.

## Public Service Department: The Bedrock of National Transformation

To further establish the momentum of the national transformation, which has roots in the 1Malaysia philosophy of “People First, Performance Now”, the Public Service Transformation effort was introduced in 2013 to support Malaysia’s mission of becoming a developed, high-income nation. This effort is led by the Public Service Department (PSD) with support from the Malaysian public service to ensure the achievement of desired outcomes.

It is imperative for the Malaysian public service to adapt to present-day realities to ensure it offers the best services to the rakyat. The execution of this transformation effort, therefore, is based on the Public Service Transformation Framework, which has five Strategic Bases that encompass transforming the public service through strategic collaborations, cooperation and co-dependence between Government agencies to bring about a delivery mechanism that is characterised by high performance, integrity, dynamism, and strong people orientation.

This transformation effort takes a holistic and integrated approach, with elements of creativity and innovation featuring prominently in the execution of annual lab sessions. This helps to secure the commitment and cooperation of each public agency to deliver services of discernibly enhanced quality.

The close cooperation within the Malaysian Public Service in the past five years has yielded 1,432 transformation initiatives, including 216 high-impact initiatives to deliver maximum value to the target groups, raise productivity, form new models for service delivery, diversify service delivery channels, and introduce new products or services. Taken together, these initiatives open the doors for the rakyat to have easier and more comfortable access to services like healthcare and consultations on elevating income and productivity levels. Channels for service delivery have also been broadened with the participation of non-governmental organisations (NGOs) and the community.

The close collaborations between public agencies also serve to optimise resources. Various initiatives were birthed from this endeavour, one of which is the Inmate Upskilling programme by the Malaysia Prisons Department under the jurisdiction of the Ministry of Home Affairs. This programme aims to improve the delivery of skills training and certification for inmates

to raise their employment prospects upon their release from prison, and to reduce their falling back into crime and recidivism.

The 1Malaysia Map initiative is another example, led by the Natural Resources and Environment Ministry (NRE) and aims to make the most of the available application platforms through sharing of geospatial data from various agencies. This data encompasses the five sectors of Point of Interest, Emergencies and Natural Disasters, Education, Natural Environment, and Health. The NRE also drove another strategic collaboration, the Flood Warning and Prediction Management system by working closely with and sharing data between agencies like the Malaysian Meteorological Department, Remote Sensing Agency and the Drainage and Irrigation Department to raise the accuracy of flood predictions and reduce loss of life and possessions.

Success has also been seen in the people-oriented 1SERVE initiative, which offers various services through one-stop PSD counters with the help of other departments like the Road Transport Department, National Registration Department, Malaysian Immigration Department and local authorities. Another high impact initiative is the Ministry of Health’s Domiciliary Treatment Service, which is performed in patients’ homes after their discharge from hospital.

Efforts to entrench this culture of transformation are being prioritised by the civil service to ensure its provision of services remains relevant and fulfils the rakyat’s needs. A new direction set through Public Service Transformation 2.0 underlines several points of focus, namely execution through core business, taking the Do-it-Yourself approach, optimising cost and producing cost-effective outcomes, intensifying strategic collaborations, increasing alternative service delivery channels, prioritising touch-point services, and delivering high-impact quick wins. Emphasis is also being given to promotional activities and extending the transformation effort to agency, state and local authority levels.

The importance of a successful Public Service Transformation must continually be impressed upon all civil servants to ultimately create a public service that is wholly people-centric and trustworthy. Indeed, this transformative effort’s success is contingent on the hard work, sacrifice and perseverance of the civil service in realising a service delivery mechanism that is holistic, inclusive and capable of uplifting the rakyat’s quality of life in line with the aspirations of Transformasi Nasional 2050.



## National Blue Ocean Strategy (NBOS): Simultaneously Pursuing High Income and Greater Public Well-being

While Malaysia is moving fast towards becoming a developed nation by 2020, the Government must ensure that the rakyat can truly enjoy high income along with a greater level of public well-being. As such, the National Blue Ocean Strategy (NBOS) was launched by the YAB Prime Minister in 2009 to deliver initiatives that are high-impact, low-cost, rapidly executed and sustainable.

The NBOS employs the concept of blue ocean strategy, which takes a systematic approach to form creative solutions without directly competing with existing socio-economic boundaries. The adaptation of blue ocean strategy into NBOS is thus critical in improving efficiency in the public delivery system and accelerate the national transformation process.

To date, 115 NBOS initiatives have been implemented in more than 80 Ministries and agencies in the country. These initiatives include the Urban Transformation Centre (UTC), Rural Transformation Centre (RTC), Mobile Community Transformation Centre (Mobile CTC), Community Rehabilitation Programme and among others.

### Urban Transformation Centres

The Urban Transformation Centre (UTC) serves as a one-stop centre offering miscellaneous public services for urban dwellers, with services extended to after-office hours (except for public holidays) to cater to urbanites' busy schedules.

The Government's main objective for establishing the UTCs is to raise the service delivery standards of the public and private sectors as well as NGOs by centrally locating these services at a venue that is easily accessible by the people. The UTC also functions as a conduit for affordable community activities by judiciously utilising Government buildings, as well as rehabilitating public spaces and intensifying economic activity in its vicinity.

The decision to kickstart the UTC initiative was made at the National Blue Ocean Strategy Meeting on 24 April 2012, chaired by the YAB Prime Minister. The



**The Chief Secretary, YBhg Tan Sri Dr. Ali Hamsa, greeted a service user at the UTC in Kuala Terengganu.**

initiative was subsequently launched after the Federal Government successfully got various ministries, agencies and State Governments on board.

The Government has plans to establish a UTC in every state capital throughout the country as well as other densely populated areas as the need arises. Each State Government, upon the Finance Ministry's request, must submit their plans for suitable UTC sites in their states. The UTCs must be located in an under-utilised Government building, situated in the state capital or a highly populated area, and be strategically positioned with easy access to public transport. Currently, there are 20 UTCs nationwide.

UTCs house various Federal and State Government agencies, statutory bodies, NGOs and private sector agencies under one roof to facilitate the rakyat's procurement of services rendered by these parties, thereby raising delivery standards by optimising the usage of all available resources.

State UTC services are categorised into 10 clusters:

1. Common Government Services
2. Health Services
3. Safety Services
4. Training, Education and Career Services
5. Entrepreneurship and Business Opportunity Development

6. Youth Activity Centre
7. Welfare Services
8. Utility Services
9. Banking Services
10. NGO Services

Services offered by city-based UTCs include:

1. Common Government Services
2. Health Services
3. Safety Services
4. Entrepreneurship and Business Opportunity Development
5. Utility Services
6. Banking Services

The use of under-utilised Government buildings to house UTCs, instead of building new premises, also optimises public funds and is in line with the basic concept of the National Blue Ocean Strategy: high-impact, low-cost, rapidly executed. The UTCs have also gained recognition as an innovative idea by international delegations from the World Bank, Indonesia, Singapore, India, Sri Lanka and Tanzania, among others. Additionally, it received the Prime Minister Innovation Award in 2014.

### Mobile Community Transformation Centre

The Mobile Community Transformation Centre (Mobile CTC) was launched by the YAB Prime Minister on 1 March 2013 as one of the initiatives under the National Blue Ocean Strategy (NBOS) and as an extension of the Urban Transformation Centre (UTC). Through the Mobile CTC, Government and private services that are normally available at UTC premises are brought to communities in the rural and remote areas of Malaysia. Since the start of its implementation up until 2017, Mobile CTC programmes have been rolled out at 152 locations and impacted over 2.59 million Malaysians in rural areas.

Among the services provided by Mobile CTCs include identity card registration, licence renewal, health screening, distribution of Government aids such as the Bantuan Rakyat 1Malaysia (BR1M) and business consultancy.

Besides that, a number of new initiatives have also been introduced to further benefit the rakyat. These

initiatives include free eye examinations at selected locations, post-flood programmes for those affected by flooding, free tuition classes for school students, and the participation of additional agencies such as JobsMalaysia through the Program Kembara Kerjaya Jelajah FELDA, the National Heart Institute through Program Pemeriksaan Jantung dan Kesihatan Rakyat, as well as the Tribunal for Consumer Claims Malaysia and the Tribunal of Housing and Strata Management.

The Mobile CTC is rolled out in a carnival format where vans and buses of Government units and private agencies gather at a location in the rural area. Meanwhile, mobile CTCs boat services are also available for areas that are not connected via roads.

Operationalisation of the Mobile CTC programme emphasises on NBOS elements such as cost effectiveness, which is achieved through the sharing of resources between the Federal Government, State Governments and participating agencies to maximise service output for the rakyat. Since implementation, the Mobile CTC programme has successfully transformed the way services can be accessed by communities who are otherwise marginalised.

### Community Rehabilitation Programme (CRP)

The Community Rehabilitation Programme (CRP), introduced in 2011, complements the Fighting Crime NKRA initiatives to reduce recidivism rate of petty criminals and overcrowding in prisons by ensuring readiness of inmates or 'People Under Supervision' to reintegrate and readjust with society before they are released. The rehabilitation is done through



**The Mobile CTC serving a group of customers in Besut, Terengganu.**



training and productive work on military premises such as farming, fishery, animal husbandry and manufacturing, amongst other technical skills.

The CRP is part of the Government's transformation agenda under NBOS that optimises available public resources to generate a higher impact. The use of military camps as Community Rehabilitation Centres is the brainchild of the YAB Prime Minister, involving an innovative collaboration between two Government agencies – The Malaysian Armed Forces and the Malaysia Prisons Department. The military camps in the programme are:

1. Mahkota Camp in Kluang, Johor;
2. Sultan Abdul Halim Muazam Shah Camp in Jitra, Kedah;
3. Syed Sirajuddin Camp in Gemas, Negeri Sembilan;
4. Desa Pahlawan Camp in Kota Bharu, Kelantan;
5. Batu 10 Camp in Kuantan Pahang; and
6. Paradise Camp in Kota Belud, Sabah.

As a result, inmates are given the opportunity to learn and dive deeper into the working field while increasing their income prior to release day. In fact, inmates who are undergoing CRP are paid RM200 more per month than non-participating inmates.

To date, implementation of CRP has successfully raised employability of ex-prisoners to 88.48%, with increase in the number of participants from 3,665 to 4,142 with a job, whether employed by employers or self-employed. Additionally, the Government has saved as much as RM2.9 million every year for grass trimming works and drain cleaning activities at the military camps maintained by inmates, while RM232.2 million was saved from not having to construct new prisons, which is a huge figure as compared to the cost of building five CRP centres at just RM22.8 million to hold over 1,450 inmates.



**Inmates working out at one of the CRP camps.**

## The LEAN Project: Elevating the Healthcare Consumer Experience

Dr. Marzilawati Abd Rahman has taken on the position of being Hospital Kuala Lumpur's (HKL) LEAN champion for the hospitals' LEAN journey which kicked off in 2015. The Acute Internal Medicine Physician embarked on this journey by learning the basics of the LEAN concept and tools from the Ministry of Health (MOH), namely those of the Medical Development Division, the Institute for Health System Research, and the Universiti Kuala Lumpur. "We commenced our LEAN Healthcare improvements with our two busiest departments, which are the Department of Medicine and Emergency Department where we improved processes to add value to our patient care," says Dr. Marzilawati.

As the LEAN Healthcare executor in HKL, the physician also gives talks to promote LEAN Healthcare awareness among HKL's staff alongside other MOH hospitals in Peninsular Malaysia. Towards this end, Dr. Marzilawati adds "I am very honoured to work with Datin Dr. Nor Akma bt Yusuf, who not only led the development and implementation of LEAN Healthcare but also initiated the Kaizen Office in HKL, whose personnel empower

departments to provide the best customer service possible by eliminating inefficiencies and creating smooth process flows that standardise the ways of performing their tasks." Today, more than seven HKL departments (orthopaedic, ophthalmology, nephrology, neurology, pathology, paediatric, record office and support services departments) are involved in this initiative.

Further, Dr. Marzilawati, as Chairman of HKL's Corporate Culture since 2016, worked with her corporate culture team to create a training module on soft skills called the 'Premiere Work Culture Module' to enable staff to deliver more personal patient care, in line with LEAN Healthcare's objectives. About 1,350 HKL healthcare workers had undergone the course since its commencement in 2016, yielding positive feedback from their direct reports.

Dr. Marzilawati opines that the LEAN programme adds value to Malaysia's healthcare services in general. The clinician explains, "The programme allows hospitals to improve the quality of care for patients by reducing errors and waiting times,



Dr. Marzilawati Abd Rahman, LEAN Healthcare executor in HKL.



which can lead to lower cost. LEAN Healthcare approaches support healthcare workers and physicians by eliminating roadblocks and allowing them to focus on providing good care. It helps break down barriers between disconnected departmental 'silos,' allowing them to work together for the benefit of patients."

This programme achieved several achievements in HKL alone, the biggest of which was the streamlining of an early pulmonary Tuberculosis (PTB) diagnosis in the hospital's medical wards by expediting the sputum microscopy process and having a mobile unit for the bedside registration and counselling of patients with the disease. Indeed, the results were remarkable - patients with PTB were more quickly diagnosed and treated, reducing man-hours in medical wards by about 40%.

Dr. Marzilawati added, "At present, our improvements are growing from many areas, and the improvements we made were presented at the International Conference 2017 (British Medical Journal Quality and Safety in Healthcare) as well as at the National QA Convention 2017 in Malaysia."

While she is satisfied with the results thus far, she also believes that her team has some way to go before LEAN Healthcare becomes embedded in HKL's working culture. Part of this reason is because transforming a culture is not an easy task, especially for an organisation as huge as HKL. "Starting something new is always tough. My biggest challenges were in breaking the 'silos' between departments and to change the entrenched mindsets and perceptions in utilising LEAN tools for improvements. However, the LEAN concepts themselves teach me and my team to respect and support the staff. All of it is a team effort, not the work of any individual," she said.

Dr. Marzilawati thinks that LEAN Healthcare or its underlying concepts should be expanded to other Ministries in the Government to further elevate the capacity and quality of public services in Malaysia.



**HKL Core Lab - Blood samples are placed in a basket after barcoding instead of being repacked again into specimen bags to shorten process time.**

"Working together with the relevant ministries will ensure patient safety, improve workflow, as well as achieve a balanced and synchronous production of healthcare services in Malaysia. Sharing innovations, expertise and services between ministries will be a conducive platform for public healthcare to grow, and increase the number of success stories in LEAN's journey," she asserted. Assimilation and incorporation with Malaysia's National Blue Ocean Strategy (NBOS) platform will further enhance cost-saving measures and create various benefits through quality improvements for the wider Malaysian society.

Going forward, Dr. Marzilawati foresees public healthcare to continue leading the marketplace for healthcare services in Malaysia. As price pressures and cost challenges loom large, so too will the number of customers for public healthcare services grow. In this respect, the clinician believes that LEAN methods will be instrumental in enabling healthcare providers to effectively reduce the actual cost of providing safe and reliable care.

### Optimising utilisation of operating theatres

The LEAN Operating Theatre (OT) project was piloted in 2017 at Hospital Sultan Ismail in Johor. It aims to achieve 80% utilisation of operating theatres and a turnaround time of 20 minutes. Turnaround time refers to the time taken from when a patient exits the OT to the next patient entering the room. Three types of surgeries take place in these OTs: emergency, elective and non-surgical procedures. Scheduling for the use of OTs are extremely complex due to OTs being used by medical personnel from multiple disciplines, the lack of visibility towards actual demand and a high proportion of emergency surgeries displacing scheduled surgeries. The project is currently ongoing, and is in the stage of collecting base data.

### Improving efficiency at specialist clinics

Hospital Sungai Buloh has piloted the introduction of block appointment times to reduce congestion in specialist clinics. In 2014, outpatient attendance at Hospital Sungai Buloh was over five times more

than admissions, with the majority of outpatients seeking treatment at the specialist clinics. There are presently 14 departments in Hospital Sungai Buloh with specialist clinics: Ophthalmology; Orthopaedics; O&G; Ear, Nose and Throat (ENT); Paediatrics; Infectious Disease; Surgical; Dermatology; Psychiatric and Mental Health; Plastic Surgery; Oral and Maxillofacial Surgery (OMFS); Neurosurgery; Paediatric Dentistry; and Anaesthesiology.

Currently, most patients with scheduled appointments arrive at the specialist clinics at around 8:00 a.m., causing congestion at the clinics with patients facing difficulties in parking their cars. To overcome these problems, a staggered patient appointment system is introduced across all 14 specialist clinics. This system will use pre-determined time blocks for scheduling appointments and ensure that patient demand and staffing levels are matched, thus possibly reducing waiting time and creating a more positive patient experience. Implementation is due to begin in all 14 clinics at various start points throughout 2018.



**Congestion at the central registration counter at Hospital Sungai Buloh.**



## MOVING FORWARD ▶▶

The LEAN Healthcare initiative will be expanded in the hospitals that have previously implemented LEAN project in EDs and MWs with projects for the Orthopaedics Clinic, Ophthalmology Clinic, Operating Theatre, Medical Record Service and Hospital Support Service. These pioneering projects are presently in the calibration phase. All data gleaned from these projects will then be used to develop a master template for nationwide rollout.

Vital to the sustainability of LEAN is the development of an organisation which supports staff involvement and LEAN education to inculcate LEAN thinking and implementation in their day-to-day work. A new LEAN Healthcare governance structure will also be introduced to ensure the sustainability of LEAN Healthcare initiatives. This will involve the establishment of a dedicated sub-unit parked under the Quality Unit at the State and hospital levels to facilitate implementation and monitoring as well as provide feedback on the progress of its implementation.

Following the successful implementation of NBOS programmes as well as the transformation initiatives led by Public Service Department, the Government remains committed to continuing these efforts to touch the lives of over 30 million rakyat, in line with the TN50 vision of a prosperous, inclusive and sustainable nation.

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