Background National Planning Department is the central organization granting project approvals in the government sector in Sri Lanka. As a prerequisite for implement a project, an approval is mandatory. This entire process was paper-based and possessed several limitations resulting in stagnations and rejections. Four major gaps identified in the current process: insufficient knowledge and experience of the personnel in project formulation and submission, unavailability of guiding materials in native languages, absence of project appraisal mechanism and lack of feedbacks. To address these issues, a set of interventions designed and implemented.

Methods Project was carried out in three phases at the decentralized health management units in Northern Province of Sri Lanka.

Phase I, a preintervention arm involved evaluation of current proposal statuses.

Phase II consisted design and implementation of interventions. Upon identifying gaps, an online proposal feedback portal that used colour coding and provided real-time feedbacks was developed. Health planning unit staff were trained through workshops to develop project proposals and get feedbacks via an online portal. A project appraisal committee also formed and guiding documents translated into native languages. Phase II spanned across three months.

Phase III comprised of post-intervention result assessment.

Findings Post-interventional analysis indicates that all major gaps are bridged.

Evaluation of submitted and approved project proposals revealed a post-intervention approval rate of 60-100% as compared to pre-intervention which was 40-50%.

Post-intervention mechanisms were rated more favorably than pre-intervention, including convenience to obtain feedback (mean 2.0-4.29) and were statistically significant.

Impact This research project is bringing an impact on Health Care System by ensuring the timely implementation of the projects without delay. It prevents cost, quality and time overruns.

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HEALTH WORKFORCE AND HOSPITAL CAPACITY MANAGEMENT IN THE CONTEXT OF COVID-19 PANDEMIC RESPONSE

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10.1136/leader-2021-FMLM.26

Aims a) Health workforce and hospital capacity building in the covid-19 pandemic.

Challenges a) Lack of adequate staff capacity including ICU capable staff b) Need for real time re-designs of models for COVID-19 patients, without affecting essential services.

Intervention 1) Measures taken to improve staff levels:

Recruited and trained doctors and nurses from other specialties. Temporary re-deployment of clinicians of various specialties. New graduates were mentored and on-the-job training for generalist workers provided.

2) Measures taken to increase hospital capacity:

Reduced elective medical care Altered and re-purposed clinic and underused spaces for COVID-19 services. Home-based care for COVID-19 patients with mild or moderate symptoms.

3) Additional strategies :

Developed COVID-19 pandemic preparedness committee. Nodal officer nominated to liaise with government authorities. Rapid procurement of ventilators, oxygen concentrators and respirators for health care workers. Telemedicine platforms for clinical advice to patients.

Impact Expansion of staff and bed capacity, ensured that COVID-19 and non COVID-19 emergencies were treated adequately.

Conclusion Health care organizations will be challenged to adjust capacity, redesign care and redeploy staff in a pandemic. Building health workforce capacity, will support health systems in the immediate response and also form a foundation for global health security in future.

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HEALTHCARE IN THE TIME OF A PANDEMIC AND BEYOND: THE INNOVATIVE LARGE-SCALE AND INTEGRATED SAUDI NATIONAL HEALTH COMMAND CENTRE

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Background The increasing frequency of pandemics, and costs of healthcare services requires integrative, efficient and effective health systems.

Aim Describe the framework and distinctive outcomes of the Saudi National Health Command Centre (NHCC). **Method:** A review was performed to describe the system-based engineering approach utilised to design the Saudi NHCC. This smart centre creates a new model of care delivery which impacts clinical and operational indicators by adopting integrative and interdisciplinary methods to analyse, disseminate, manage, and measure outcomes.

Results The NHCC is structured into four main departments with data integration and real-time data visualisation to allow for rapid assessment of available resources. It's organised to support technical incubators and empower several initiative. This enhanced the proactive capacity management in the centre and collectively contributed to several favourable outcomes. These included rapidly deploying medical staff and mechanical ventilators during its response to coronavirus disease (COVID-19); bending the curve early of the first wave of COVID-19 resulting in a low mortality rate (<2%); and reducing ICU lengths of stay by 10%, average lead-time of the supply chain from 60 days to 25 days, and surgery waiting times. It also supported the increment bed capacity from 6,000 to 10,400, and maintaining the percentage of patients receiving care within 4 hours in emergency departments above 85%.

Conclusion The NHCC replaces the traditional reliance on the subjectivity of information-based processes with actionable data, which helps building fairer systems to tackle structural inequalities in healthcare access and outcomes, eliminating waste, and allocating resources more effectively and efficiently. Importantly, a command centre to healthcare design and delivery creates synergy between people, processes, and technology

facilitating substantial improvements in both patient and service outcomes.

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HEALTHCARE LEADERSHIP IN MEDICAL SCHOOL: DELIVERING EXTRA-CURRICULAR LEADERSHIP TEACHING AND OPPORTUNITIES THROUGH STUDENT-SOCIETY EVENTS

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10.1136/leader-2021-FMLM.28

Introduction The experiences of medical students suggest that the teaching on healthcare leadership currently delivered through core curriculum material at medical school is insufficient, and there are few opportunities to engage in leadership activities. Thus, Birmingham Medical Leadership Society (BMLS) sought to gauge students' perceptions on an alternative form of healthcare leadership teaching that would facilitate core curriculum material – extracurricular events on healthcare leadership and management organised by a student-led society.

Methods Renowned leaders in healthcare were invited to speak on various topics related to leadership and management at 12 online events organised by BMLS. 249 participants completed evaluation forms, distributed after each event. Participants were asked to rate the leadership training available at their medical school and the perceived usefulness of the BMLS event they attended, how interesting it was, and how relevant it would be to their careers – on a scale of 1 to 5, with 5 being most useful/interesting/relevant.

Results Only 27% of participants agreed or strongly agreed that the leadership teaching or opportunities available at their medical school were sufficient for developing leadership skills for the workplace. 96% of the 249 participants rated the BMLS event they attended 5/5 (62%) or 4/5 (34%) in terms of usefulness. 92% rated the event 5/5 (62%) or 4/5 (31%) in terms of how interesting it was. 94% rated the event 5/5 (66%) or 4/5 (28%) on relevance to future careers.

Conclusion This study demonstrates that the use of the student-society model for promoting healthcare leadership and management is an effective way to incorporate leadership training at medical school without overloading medical curricula. Existing medical leadership societies across the nation are recommended to adopt the scalable, sustainable, and promising student-society model demonstrated, to promote healthcare leadership among students.

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HIGH OUTPUT VACCINATION CENTRE FOR OPTIMUM VACCINE DELIVERY

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10.1136/leader-2021-FMLM.29

Background The COVID-19 pandemic presented many challenges, one of which was the necessity to provide a large number of COVID-19 vaccines at scale within a short period of time.

Aims and Objectives To use process mapping to ensure maximum efficiency flows of patients through a High Output

COVID vaccination centre during the COVID-19 pandemic and utilize lean methodology and six sigma methods to ensure maximum output within both time and resource constraints in primary care.

Methods Using process mapping and patient flow mapping, we were able to study various permutations of COVID-19 vaccine pathways from booking to vaccine delivery. The service was challenged by practices to deliver the most effective patient vaccine volumes within a given time frame ensuring patients could be streamed through the vaccine centres with maximal efficiency. The high output vaccine model could ensure a maximum uptake of 2500 vaccines in one working day. Following the initial pilots, the process flow mapping enabled the application of lean methodology and six sigma to reduce inefficiency and duplication. The design was implemented across three sites across the Basildon, Billericay and Wickford areas optimising workflow and execution of large volumes of vaccine delivery during the national immunisation programme.

Results The methodology enabled a process flow map that would provide the most clinical and cost effective patient flow through the high output vaccine hub ensuring maximum numbers could be vaccinated in the given time.

Conclusions The QI methodology enabled a cost effective and clinically effective high output vaccine hub to provide up to 2500 vaccines in one day, across three sites in the Basildon and Brentwood, Wickford area.

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HOSPITAL 2 HOME: IMPLEMENTATION OF A CLOSED-LOOP DIGITAL PATHWAY TO SUPPORT REHABILITATION IN AN OLDER POPULATION

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10.1136/leader-2021-FMLM.30

Aims To establish the feasibility of a closed-loop feedback system to remotely monitor and deliver personalised care to patients who have had a fractured Neck of Femur (NoF).

Methods Smartwatches were provided to NoF patients post repair and linked to the Cush Health digital web-app platform allowing visualisation of the data by the patient and their clinical team and access to personalised exercise/support plans. Monthly multidisciplinary meetings attended by the healthcare team reviewed smartwatch data and patient progress to progress rehabilitation. Objective outcomes (ie. smartwatch and quality of life data) was combined with subjective feedback from patients and the clinical team.

Results 3-month data showed positive engagement with technology and a progressive increase in step count data, reduction in average heart rate and reduced length of stay in a 62-89 years old population. Clinical lessons learnt include specific drivers and barriers for older populations; use of support networks can help engagement in those not experienced with technology; closed-loop system can empower patient autonomy and progress rehabilitation whilst an inpatient and help transition to community care. Independent analysis of the pathway showed cost and carbon emission saving benefits by facilitating a remote MDT and patients have responded positively by having the supported messaging via the platform.

Conclusion Our research has shown that a rapid deployment of a digital pathway is feasible and able to deliver better