

Project Title

Transforming inpatient care experience for patients and nurses through mobility devices

Project Lead and Members

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Project members: Ms Ng Gaik Nai, Ms Lee Chen Ee, Ms Ang Shin Yuh, Ms Lau Gek Muay, Ms Lau Soy Soy, Mr Jonathan Sim Guan Hua, Mr Patrick Ng Chee Sang, Mr Franklin Tan Chee Ping, Ms Elena Binte Mohamed Ayob, Mr Wong Kok Cheong, Mr Tan Teck Choon

Organisation(s) Involved

Singapore Health Services (SHS)

Project Period

Start date: end-2018

Completed date: 2021 (targeted)

Aims

The project team comprised of nurse leaders from acute hospitals and national centre within the SingHealth cluster collaborating to drive innovation and transform how care is rendered in the inpatient ward environment.

Enabled by patient-centric mobility devices - bedside tablets, the project involves redefining how patients receive care and how nurses provide care in an efficient and timely manner.

Background

See attached

Methods

See attached

Results

See attached

Lessons Learnt

1. The importance of having a committed project team makes a difference in how fast the project can proceed – From timely updates to project sponsors and the co-chairs, to seeking guidance, liaising with stakeholders, vendor management...etc the team were able to work well as a unit together.
2. The strong teamwork and collaboration between members of each institution are also crucial to ensure that the team could function together and help members from other institution(s) when the need arises. This was not easy to achieve as different institutions have different cultures and processes, but the team continually encouraged and assisted one another to facilitate the pilot deployments in the other institutions.

Conclusion

See attached

Project Category

Care Redesign

Keywords

MyCare app, Design Thinking, Process-Mapping, Time-Motion Studies, Care Redesign, Patient Satisfaction, Singapore Health Services

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Background

By 2030, a quarter of Singapore's population will be above the age of 65. With an ageing population, the workload for inpatient setting has been increasing. For instance, the compound annual growth rate (CAGR) for the total patient days within the SingHealth cluster was 13.5% (from Financial Year 2016 to 2018).

Facing with dual challenge of increasing patient loads and raising expectation from patients and family members, there is a concomitant increase in demand for nurses. The SingHealth Nursing Taskforce noted the urgent need to redefine care in the inpatient setting by empowering patients to take a more active role in their care journey, as it is not sustainable to recruit and train large number of nursing staff to meet the demand. The Taskforce had reviewed the current workflow processes in acute care setting, conduct workshops with stakeholders and explore ways to improve the processes and redefine how care is being rendered.

The Taskforce had conceptualized the idea of redesigning the inpatient care for patients and nurses through the use of user-centric bedside tablets/ platform, with the aims to empower and educate patients in their care journey to meet the challenges.

Methodology

A multidisciplinary team comprising personnel from Nursing, Inpatient Wards, Communications, Information Technology and Office for Service Transformation was formed. The team utilised the iterative **Plan-Do-Check-Adjust** cycle for the purpose of redefining care for our patients.



Plan: Establish objectives and processes required to deliver the desired results. The SMART goal was defined, with current and future processes mapped out to identify areas of improvement.



Check: Adopt stepwise approach and broad strategies. Commenced pilot in one ward, gathered learning points, and refined requirements to achieve the overall results.



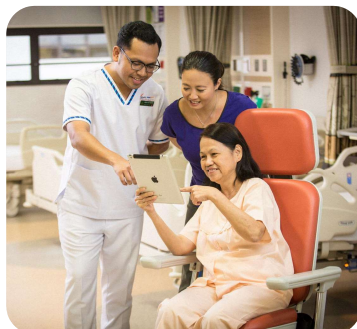
Adjust: Identify issues and adjust action plans. Root causes of issues were investigated and eliminated by modifying the process.



Do: Execute the defined plan and gathered data. The Taskforce brainstormed on how to redesign care and empower patients in their care journey.

The Taskforce conducted design thinking cum process-mapping workshops amongst stakeholders. The insights showed that patients and caregivers wanted a user-centric platform to access treatment plan, clinical data with trending feature, prescribed drug information, and appointment schedule. The discussions also allowed stakeholders to cross-pollination of ideas which then resulted in educating patients with curated information as well as streamlining of orientation process so that nurses could focus on direct patient care and complex cases.

The pilot commenced in one ward within SGH in November 2018 and received encouraging feedback from patients and nurses. The success of the pilot had allowed the project to scale to five other wards across SGH, KKH, CGH and NHCS from July 2019. This allows the Taskforce to gather invaluable insights and redesign care prior to full deployment across the SingHealth cluster.



Patients at the Heart of All We Do

Results



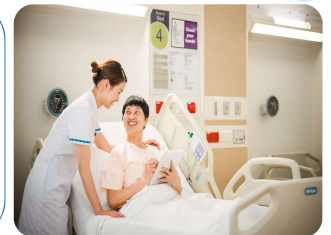
89% of the respondents rated Good and above for the deployed orientation videos in the mobility devices (aka bedside tablets)

Over 60% of patients are receptive of mobility devices which exceeded the initial estimates that an average of 50% of the patient population are receptive to mobility devices.



"I am able to **check my blood pressure and medical condition at my own convenience without seeking assistance from nurses**", shared by **Mr Quek Joo Tiang, 72 years old, under respiratory care.**

"With the app, nurses are informed of the patients' requests on the tablet without having to go the bedside, unlike when patients had to press call buttons", said **Ms Tan Sheng Lian, assistant nurse clinician at SGH, on how the platform improved work processes.**



>50% Save at least 50% of the nurse time for the features deployed through mobility devices as patients could self help themselves. Over a five-year period of full project deployment, a **potential of 100 nursing staff can be saved.**

Conclusion

Through utilization of the PDCA cycle, the multidisciplinary team adjusted the care redesign plan to meet the evolving needs of patients and nursing staff. The redesign care model and refined workflow processes have improved the satisfaction of both patients and nurses.

Key takeaways



- A committed project team who could work together to resolve challenges and realize the envisaged care redesign model.
- Strong support and guidance from the core leaders and the co-chairs to bridge gaps across different institutions.