Project Title

My Health Map: A Preventive Health Management Plan

Project Lead and Members

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Organisation(s) Involved

Ng Teng Fong General Hospital

Healthcare Family Group(s) Involved in this Project

Allied Health & Community Operations, Quality, Innovation & Improvement, Dietitian

Applicable Specialty or Discipline

Population Health

Aim(s)

- To testbed the delivery of a local population health management model in improving outcomes and reducing healthcare utilization
- To understand residents' needs and link residents to appropriate and beneficial interventions in the community

Background

See poster appended/ below

Methods

See poster appended/ below

Results

See poster appended/ below

Lessons Learnt

With the COVID-19 pandemic came its restrictions and challenges. The team took the opportunity to reinvent the programme's outreach in 3 areas. Health events and roadshows continued but were converted onto virtual platforms. Physical centre-based outreach by our care connectors were conducted via teleconferencing. Finally, interdisciplinary case discussions involving medical and social partners were held over zoom. As such, the programme was able to persist in achieving its outcomes by being open and flexible to alternative ways of working and operating.

Building a culture of trust, based on building strong relationships also encourages co-creating solutions and supports innovation. A strong sense of trust between the care connectors with the participants, was one of the key enablers in encouraging participants to take charge of their health and follow through with the suggested preventative health interventions. Strong and effective relationships between the hospital and the stakeholders in the community provided a conducive environment to co-create solutions together which ensured the practicability and sustainability of the solutions.

In recent years, the volume of data available in our EMR and administrative systems has grown exponentially. Data is now a critical corporate asset and analytics will play a key role in further work. Our strategy is to harness data analytics to extract value from data to evaluate the impact and outcomes from our programmes.

The outcome of this project has created unprecedented teamwork towards building a culture of data driven continuous improvement within the organisation.

Conclusion

See poster appended/ below

Additional Information

In the midst of innovation, we must not forget the intangible assets like relationship building. Relationships provide the context to understand the residents' motivations and needs to carve out individualised care plans that are personable and achievable. A strong relationship between the health and social community partners in a township empowers the community to go the extra mile to co-create possible solutions and innovation that ensure sustainability.

Project Category

Care Continuum, Population Health, Preventive Care, Primary Care, Chronic Care

Care & Process Redesign, Valued Based Care

Keywords

Preventive Health, Improve Population Health Outcomes, Population Health Management Model, Staying Healthy

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MY HEALTH MAP: A PREVENTIVE HEALTH MANAGEMENT PLAN

☑ CARE REDESIGN
❑ WORKFORCE TRANSFORMATION
❑ AUTOMATION, IT, ROBOTICS INNOVATION

MEMBERS: LEE HEE HOON, CHEE THONG GAN, CHRISTINE WU, JESSLYN CHONG HWEI SING, FRANCIS PHNG, WESLEY TEO, KEVIN NG MAN HON, KATHERINE TAN, CHEE JIA YI , NASEEMA BANU, ALVIN LEE HOCK ANN , SIM LING LING , NUR SUAIBAH, JAMIE HO

1. Define Problem, Set Aim

Background

- Singapore is facing a rapidly ageing population, and it is estimated that one in four Singaporeans will be aged 65 years and above by 2030.
- The key challenge faced in an ageing population is the increase in prevalence of frailty, a result of accumulation of co-morbidity, disability, cognitive and psychological decline as a person ages, often moderated by social factors. This has in turn resulted in increased disease burden and healthcare expenditure.

Problem/Opportunity for Improvement

- To delay the onset of frailty, a holistic approach is required to manage these risk factors upstream. This approach includes screening, vaccination, chronic disease management, lifestyle interventions that target modifiable risk factors and socio-environmental interventions.
- NUHS developed a pilot concept for a local population health management model to collaborate with community partners to test new engagement, health promotion and care models and improve population health.

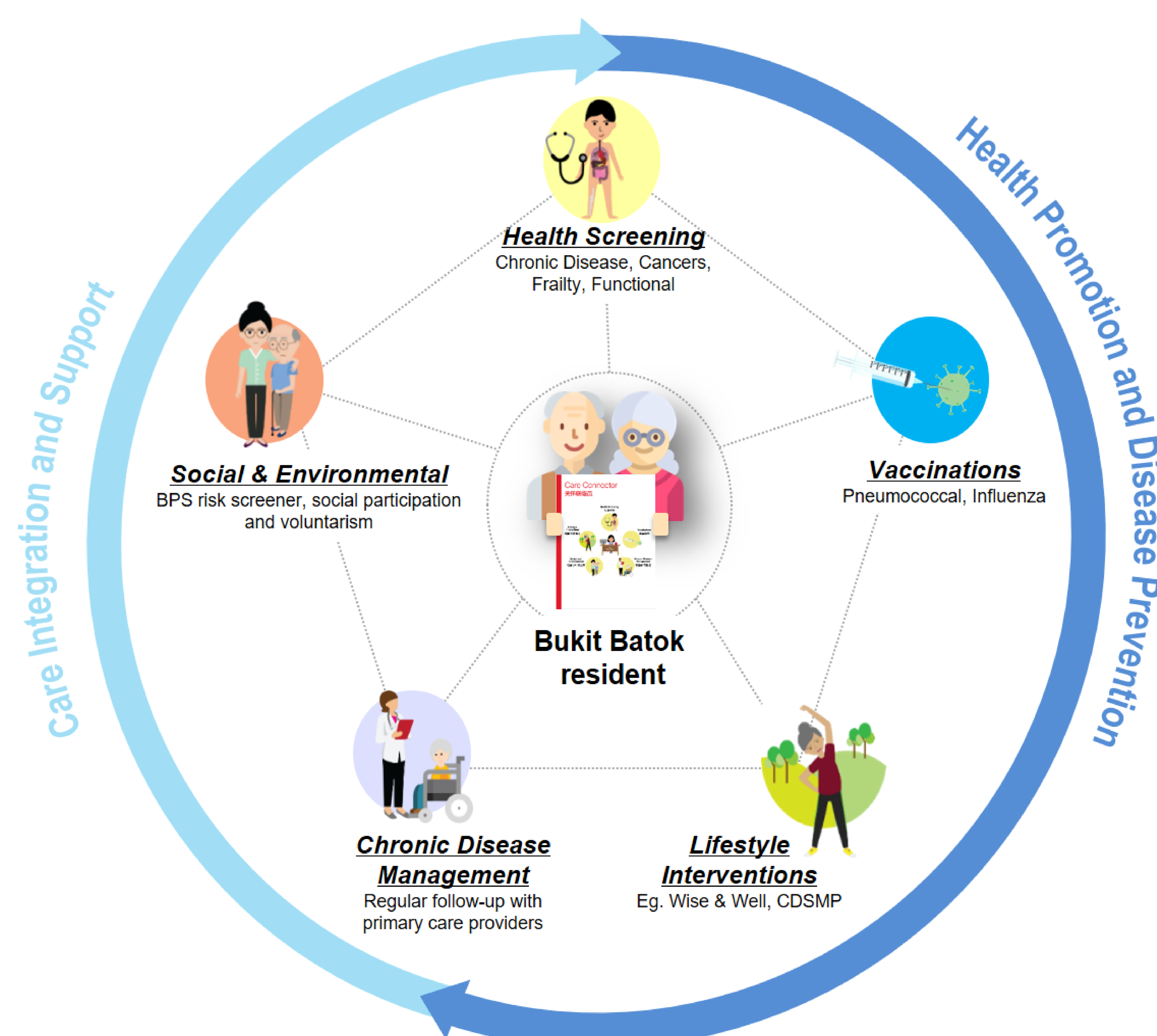
Aim

- To testbed the delivery of a local population health management model in improving outcomes (such as Quality of Life), and reducing healthcare utilisation
- To understand residents' needs and link residents to appropriate and beneficial interventions in the community.

2. Strategy for Change

A Preventive Health Management Plan

- A stronger focus on preventive care is required in order to address the challenges of an ageing population and improve population health outcomes.
- The 'My Health Map' (MHM) programme was developed to empower residents to make informed decisions about their lifestyle choices and take the first steps to staying healthy as they age actively. MHM is a preventive health management plan consisting of 5 key domains:



3. Interventions and Results

Key Interventions

- Health and social interventions were introduced to residents aged 40 years and above through the MHM programme. Care Connectors sought to understand residents' needs and linked residents to appropriate and beneficial interventions in the community

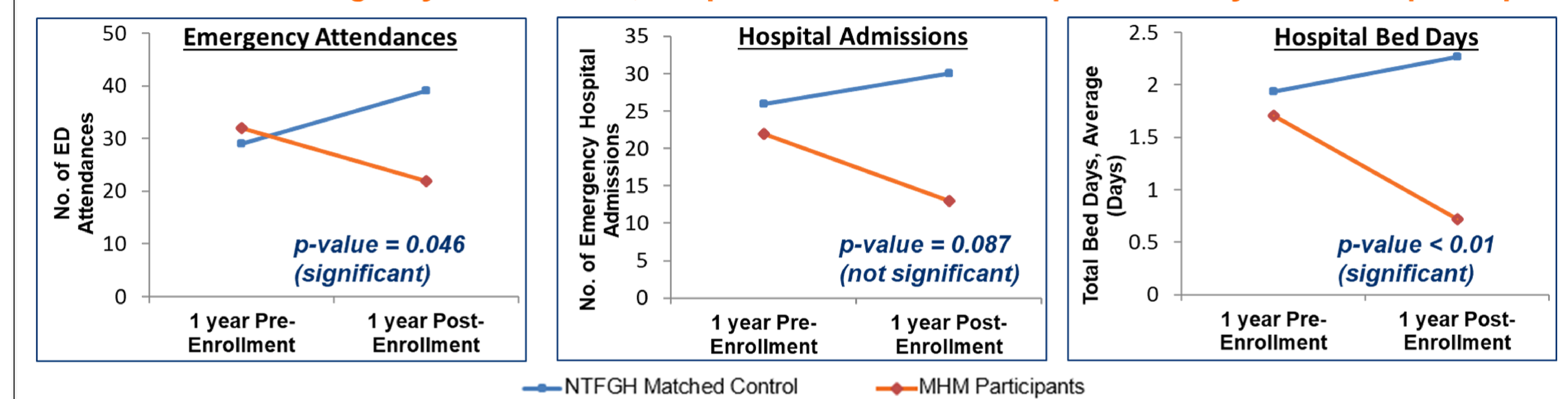
Reduction in Healthcare Utilisation

- The MHM programme was associated with a significant reduction in emergency attendances (p-value<0.05) and hospital bed days (p-value<0.05), as well as a reduction (p-value=0.09) in emergency hospital admissions post enrolment (Figure 2A).

Improvement in Quality of Life

- Overall improvement in EQ-5D was found to be statistically significant (Figure 2B). Additionally, the improvement for age groups 60-69 and 70 and above was also found to be statistically significant.

A. Reduction in Emergency Attendances, Hospital Admissions & Hospital Bed Days for MHM participants



B. Improvement in Quality of Life after joining the programme

MHM Participants' EQ5D Score			
Pre	Post	Change	*Statistical measure p-value
0.76	0.86	0.10	< 0.01*

EQ5D Score: Zero Health 0 — 1 Full Health

4. Learning Points

COVID-19 Pandemic

- With the COVID-19 pandemic came its restrictions and challenges. The team took the opportunity to reinvent the programme's outreach in 3 areas. Health events and roadshows continued but were converted onto virtual platforms. Physical centre-based outreach by our care connectors were conducted via teleconferencing. Finally, interdisciplinary case discussions involving medical and social partners were held over zoom.
- As such, the programme was able to persist in achieving its outcomes by being open and flexible to alternative ways of working and operating.

Relationships and Trust

- A strong sense of trust between the care connectors with the participants was one of the key enablers in encouraging participants to take charge of their health and follow through with the suggested preventative health interventions.
- Strong and effective relationships between the hospital and the stakeholders in the community provided a conducive environment to co-create solutions together which ensured the practicability and sustainability of the solutions.

Data-driven culture

- Data is now a critical corporate asset and analytics will play a key role in further work. Our strategy is to harness data analytics to extract value from data to evaluate the impact and outcomes from our programmes.

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