

Today's Challenge, Tomorrow's Innovation

innovPlus Challenge 2021 - Run 2



CHALLENGE STATEMENT #05

1. Challenge Owner Index and Pseudonym

#05 – SENECA

2. Challenge Statement

We are looking for an immersive learning solution that would enable our patients to learn effectively in both virtual (teleconsultation / telecounselling) and live (in-clinic) settings, where subject matter experts (nurses and/ or doctors) engage patients as learners. This innovative learning solution will identify gaps in patients' existing bias, knowledge and skillsets, and implement a strategy that would best transfer key knowledge to patients for self-care hence leading to improved outcomes for their respective chronic diseases.

3. About the Challenge Owner Organisation

We are a medical group focused on patient-centered chronic disease management which includes hypertension, diabetes and hyperlipidemia.

4. Define the Challenge

Current Situation

Our chronic disease (diabetes, hypertension and high cholesterol) focused clinics aim to improve health outcomes and support personalised healthcare improvements. Every team member is expected to be a health advocate for the patient. This involves engaging and motivating patients towards positive lifestyle changes, medication compliance, reminders for their schedule for disease-specific tests, refilling of medications, and finally, improved patient education and empowerment

Doctors, nurses and other healthcare professionals currently lack an easily digestible and acceptable method to deliver a patient's chronic disease care plan. As a result, patient engagement is often lacking or not sustainable. The information delivered is also often fragmented and not customised to the patient's needs or lifestyle. There is also a huge variation in terms of patient care and experience for each patient with regards to aspects such as understanding their medication, disease knowledge, level of engagement and the quality of care plans. For example, a patient with diabetes who sees the doctor may get contradicting information from nurse counsellors pertaining to dietary and lifestyle modification hence resulting in confusion

Past & Current Solutioning Efforts

Doctors: we have tried using the traditional doctor-led model, where doctors are advocates for health and spend time to educate patients with chronic illnesses. However, our patients often do not see the same doctor due to scheduling issues. Most doctors do not have the time or the temperament to do motivational interviewing or follow up with disease counselling. Doctors with limited time and rapport will not do a good job unless he can tap on tools to educate a patient in a systematic manner.

Nurses and clinic assistants: A typical approach in educating patients is often overly technical and based on protocols. For example, our clinic assistants currently follow a prescribed timetable to recall patients for monitoring blood tests at fixed intervals. This is often seen as impersonal and not individualized. Therefore, attendance rates for such appointments are often low.

Service quality training sessions: We have previously enrolled our staff for customer service and engagement training sessions with various government agencies. However, these programs are often generic and not customised to our needs. As a result, we have not seen significant improvements in terms of service delivery and standardisation.

Brochures/ Ads: Visual aids for patient education and educational videos via the clinic television seem to have very limited impact. This is especially so as people are constantly bombarded with information on their mobile phones and social media. As such the chances of internalising health information is very slim via traditional media outlets.

Ultimately, patients do not respond well to the traditional or paternalistic ways of engagement. They cannot remember key facts about their chronic disease, their treatment plans or medications despite repeated messaging

Challenge / Gap / Unrealised Potential

1. Patients with chronic illnesses are generally passive and not very engaged in managing their own disease conditions. In order to motivate to patients in learning keys facts about their disease conditions of concern and developing good care plans, all stakeholders including patients, doctors and clinic staff may benefit from a common learning tool.
2. Productivity is reduced if every clinical staff is required to repetitively teach and remind patients on every aspect of chronic disease management (e.g appointments for follow-up or lab tests). It is a frustrating experience for both patients and healthcare practitioners.
3. Difficulty in ensuring consistency in patient engagement. It can be demotivating for staff and doctors if there is a high variance to the patient's ability to retain information and comply with care plans.

In summary, the learning solution deals with

1. Variation in patient's experience during education/engagement/counselling;
2. Inability to scale up the program with such inconsistencies;
3. The need to leverage on technologies to that can repeatedly engage patients without fatigue unlike a human.

5. Targeted Learners / Users

An adult patient aged above 18 who suffers from common chronic diseases which may include one or all of the following:

1. Hypertension
2. Diabetes
3. Hyperlipidaemia

Primary Targets

Number of people suffering from hyperlipidaemia as an example

- 33.6 % of the Singaporean population suffer from hyperlipidaemia
- Estimated number of patients on follow-up for hyperlipidaemia per clinic: 500
- Estimated number of patients in Singapore who suffer from hyperlipidaemia: $5,700,000 \times 33.6\% = 1,920,000$

Secondary Targets

- Possible secondary targets include personnel employed in the clinics or within the healthcare sector (e.g. clinic assistants, nurses etc.) They could be trained to administer the solution or to provide technical support when necessary.

Example: Our Organisation

- Number of clinic assistants employed across 8 clinics: 50
- Number of nurses employed: 5
- This may be scaled up to involve other medical groups in Singapore if successful

6. Deliverables

We are looking for a solution partner who has the credibility and experience in developing and implementing similar solutions in other industries. Big ideas in different disciplines tend to be transferrable. A Partner who shows ability to analyze critically, implement effective change management and organize trainings is crucial for the project to be a success. Lastly the solution will need to be price-competitive and replicable. We intend to expand the use of this learning solution as a key tool that will give us a competitive advantage as we open more of our new generation clinics in Singapore and beyond.

7. Expectations of Solution

- Solution to be used in clinical settings that involve healthcare coaches to conduct patient education and engagement. In view of the COVID-19 situation and evolving healthcare needs, one must be able to apply this solution remotely as part of a teleconsultation
- Solution must adhere to the HCSA- Health Care Service Act
- Solution must adhere to ECEG (Ethical Code and Ethical Guidelines) by SMC (Singapore Medical Council)
- Solution must adhere to healthcare PDPA (Personal Data Protection Act) regulations if data is collected.
- Must be suitable for all adult age groups (>18 years old) and education levels.

8. Measures of Success

- Higher patient satisfaction levels
- Greater job satisfaction levels for healthcare staff
- Improved patient compliance to treatment or care plans
- Increased productivity levels in managing chronic disease
- More uniform and systematic care and service standards across the organization.
- Internalisation of medical information by our learners (patients suffering from chronic medical conditions).

- Improved patient compliance and education leading to better health outcomes.
- Improved engagement levels by our learners with their healthcare providers (decreased default rate for regular follow-up appointments)
- Improved compliance to medication regime
- Improved patient satisfaction levels with their care from healthcare providers