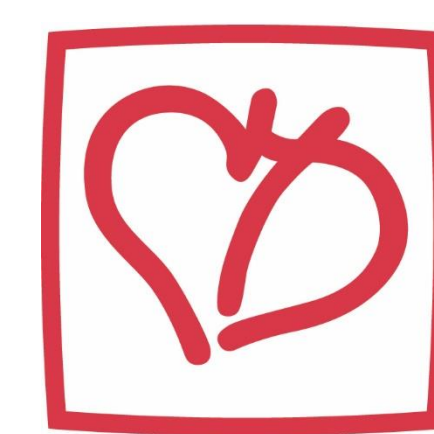




**Singapore Healthcare
Management 2019**

Pilot Program of PROMs for Patients with Acute Coronary Syndrome in Singapore

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Abstract

The National Heart Centre Singapore (NHCS) has initiated a study on **Patients Reported Outcomes Measurement (PROMs)** to understand Coronary Artery Disease (CAD) patients' experiences. The study aims to collect from a large cohort of patients who was followed up in a longitudinal study over the period of 5 years. PROMs are collected and analyzed in areas of care delivery, clinical outcomes and patients experience. Using ICHOM as reference, the CAD Standard Set variables are collected from our patients at admission, 30 days, 90 days, 180 days and annually for 5 years. This study started on August 1st, 2017 and the first set of complete data collection and analysis would be done in 2022.

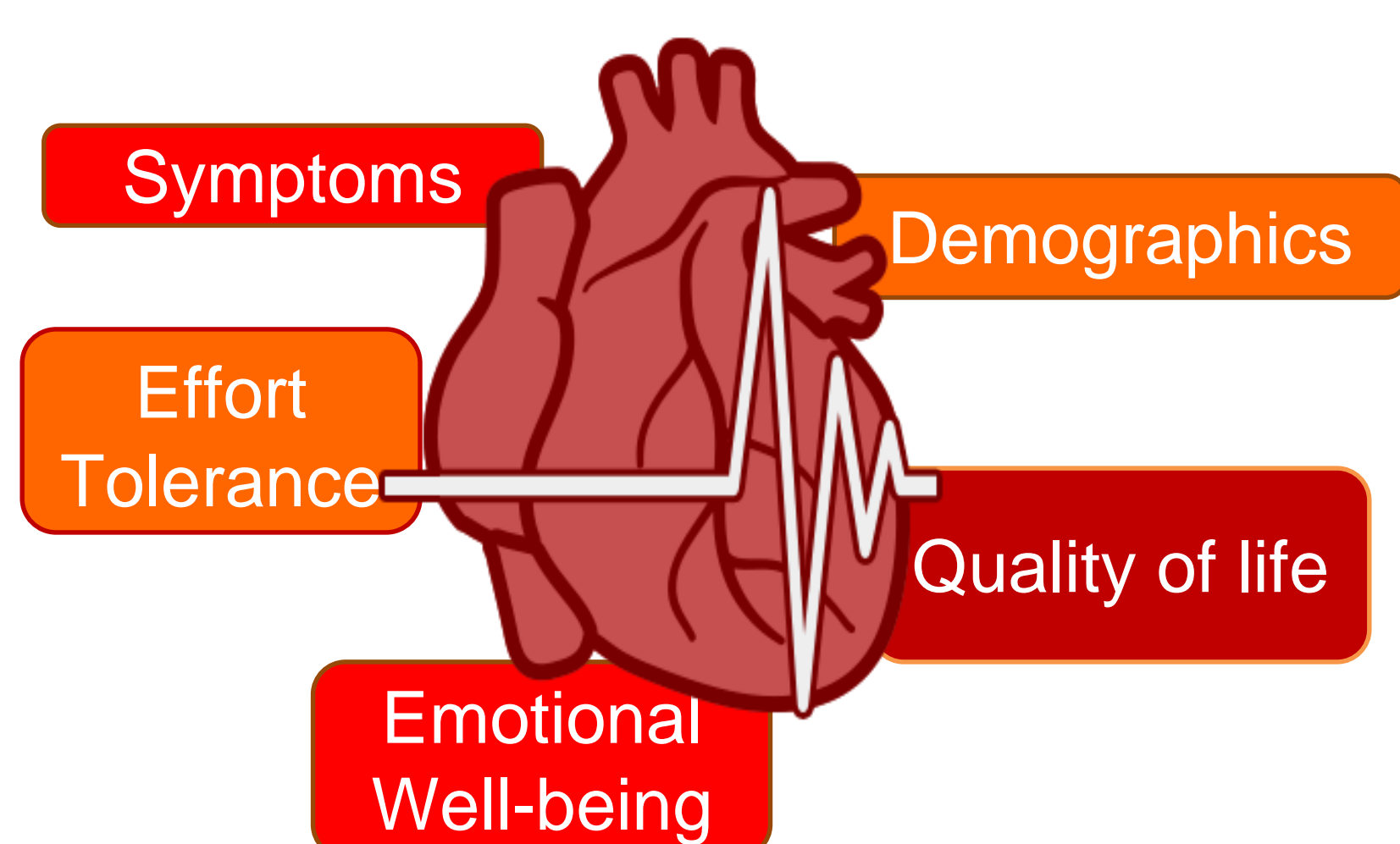
Introduction

The Acute Coronary Syndrome (ACS) PROMs Study aims to measure the outcomes that matter most to patients. It collects data using Rose Questionnaire, SAQ-7 and PHQ-2 templates. Over time, such data would be able to help us find out what constitutes 'value' to our society as we delve deep into the relationships between the cost of care and patients' treatment outcomes.

Objective

To initiate a program for PROMs collection of ACS Patients

PROMS Focus Areas



Methodology

Research Design: Quantitative research,
Longitudinal study

Sampling Procedure: Judgment sampling,
Sampling Size: 589

Data collection method: Rose Questionnaire,
SAQ-7 and PHQ-2

Data analysis: Using STATA Continuous data
as mean (standard deviation) and categorical
data as counts (percentages)

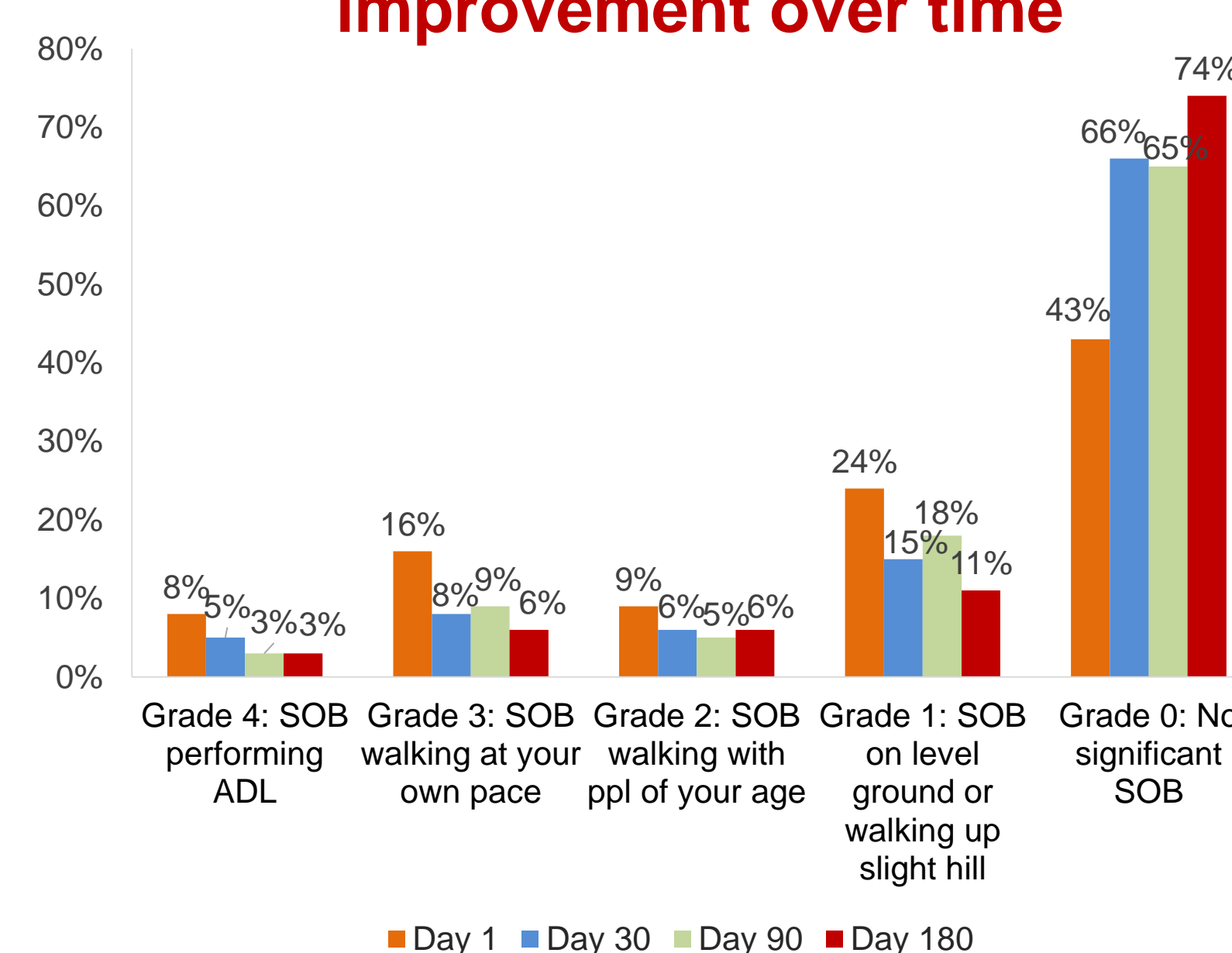
Findings

(As at 31 July 2018)

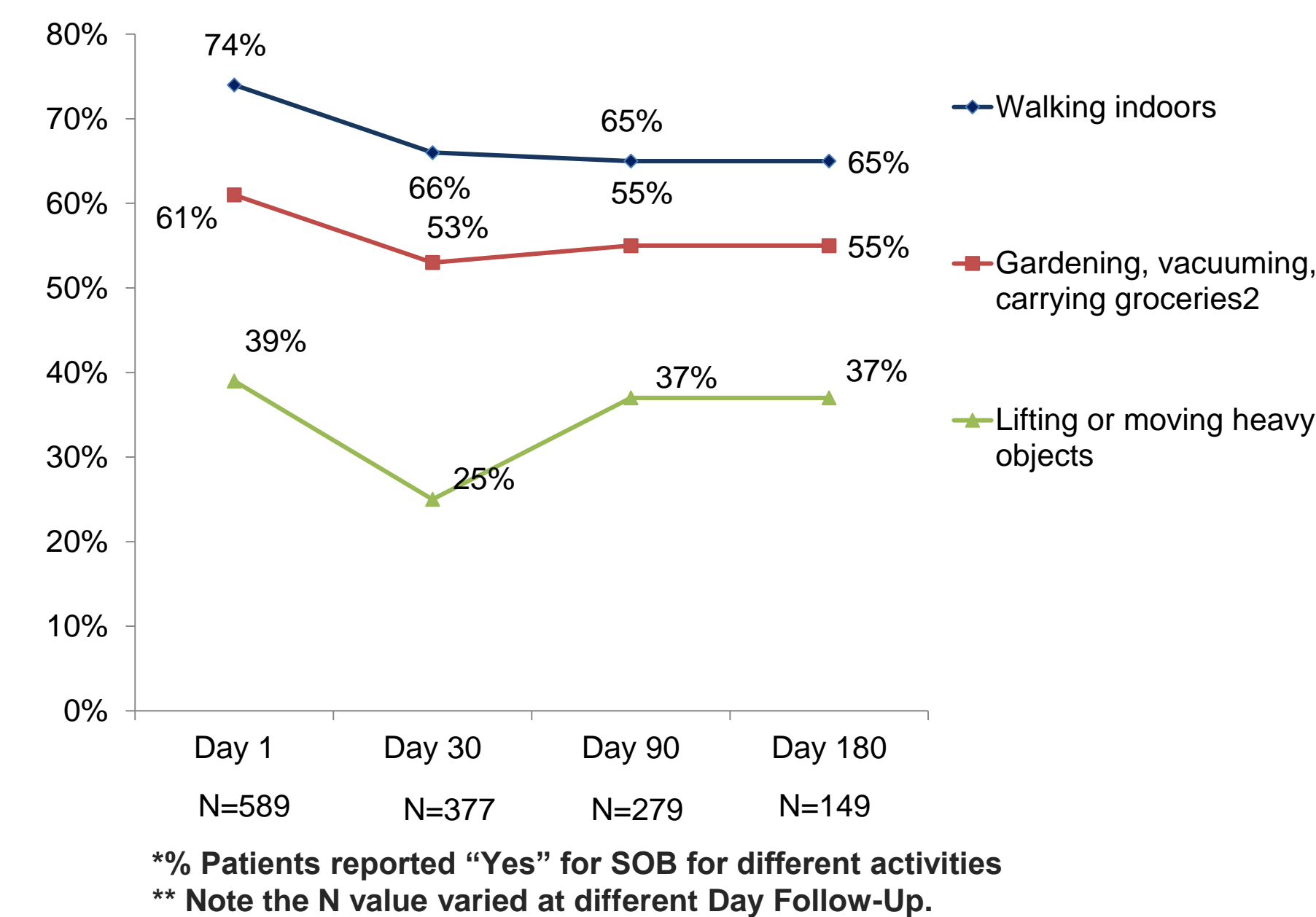
Recruited ACS Patients Demographics		
Age (year)	mean (SD)	62 (11)
Gender	Male	477 (81.0%)
	Female	112 (19.0%)
Ethnicity	Chinese	375 (63.7%)
	Malay	96 (16.3%)
	Indian	89 (15.1%)
	Others	29 (4.9%)
Education Level	Below Secondary	219 (37.2%)
	Secondary	225 (38.2%)
Main Caregiver	Self	286 (48.6%)
	Spouse	232 (39.4%)
Occupation	Not Working	243 (41.3%)
	Low Income	135 (22.9%)
	Lower Middle	121 (20.5%)

Patient Health Questionnaire-2 (PHQ-2)				
Over the past 2 weeks, how often have you been bothered by any of the following problems?				
	Day 1	Day 30	Day 90	Day 180
Little interest or pleasure in doing things				
Not at all	351 (60.0%)	270 (71.6%)	213 (76.3%)	121 (81.2%)
Several days	122 (20.7%)	60 (15.9%)	46 (16.5%)	18 (12.1%)
More than half the days	42 (7.1%)	16 (4.2%)	7 (2.5%)	4 (2.7%)
Nearly everyday	74 (12.6%)	31 (8.2%)	13 (4.7%)	6 (4.0%)
Feeling down, depressed or hopeless				
Not at all	349 (59.3%)	263 (69.8%)	207 (74.2%)	117 (78.5%)
Several days	139 (23.6%)	77 (20.4%)	59 (21.2%)	26 (17.5%)
More than half the days	38 (6.5%)	14 (3.7%)	5 (1.8%)	1 (0.7%)
Nearly everyday	63 (10.7%)	23 (6.1%)	8 (2.9%)	5 (3.4%)
Patients' Mental Well-being Improved over time, yet >22% still feel down and depressed.				

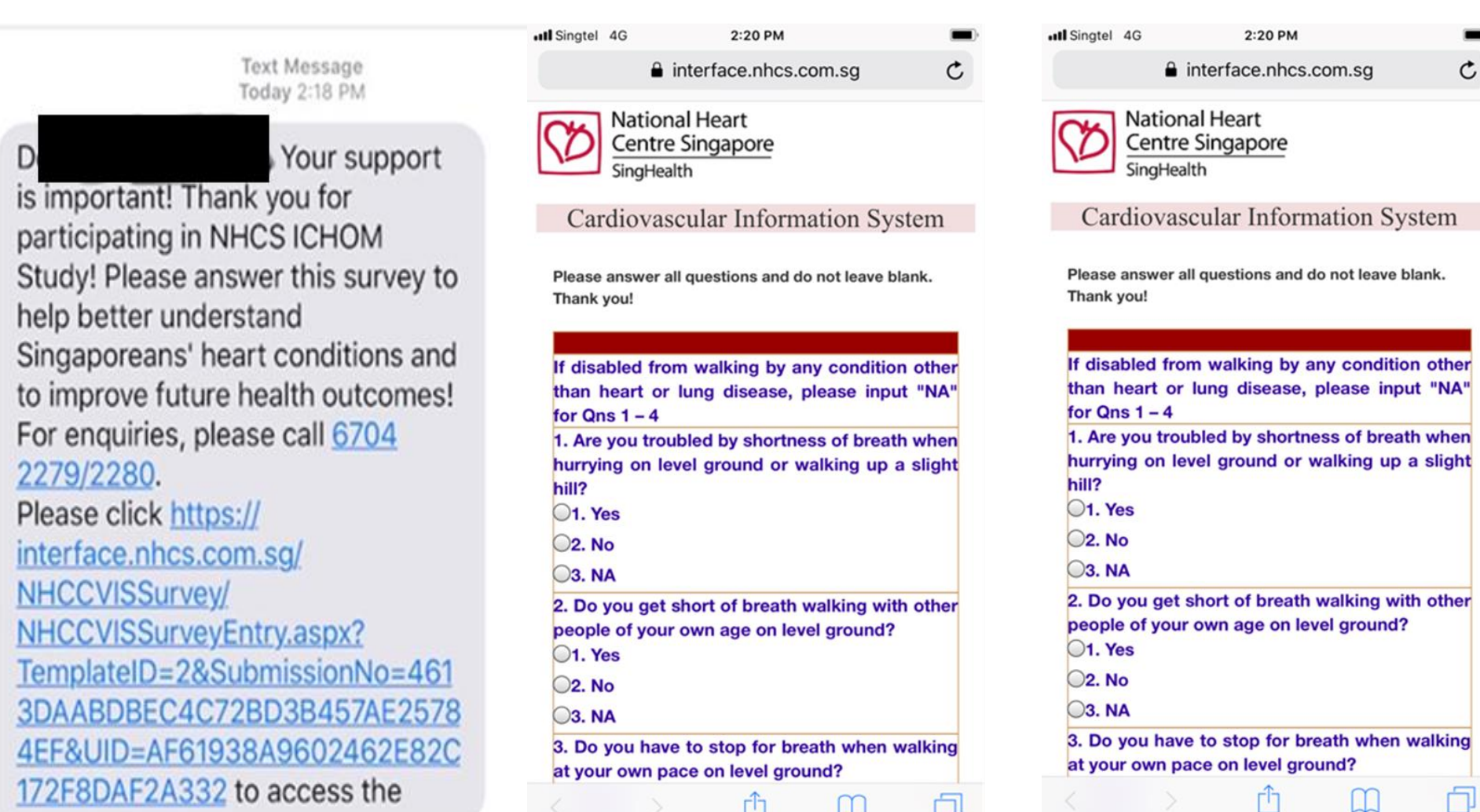
ROSE Dyspnea Questionnaire: SOB symptoms slight improvement over time



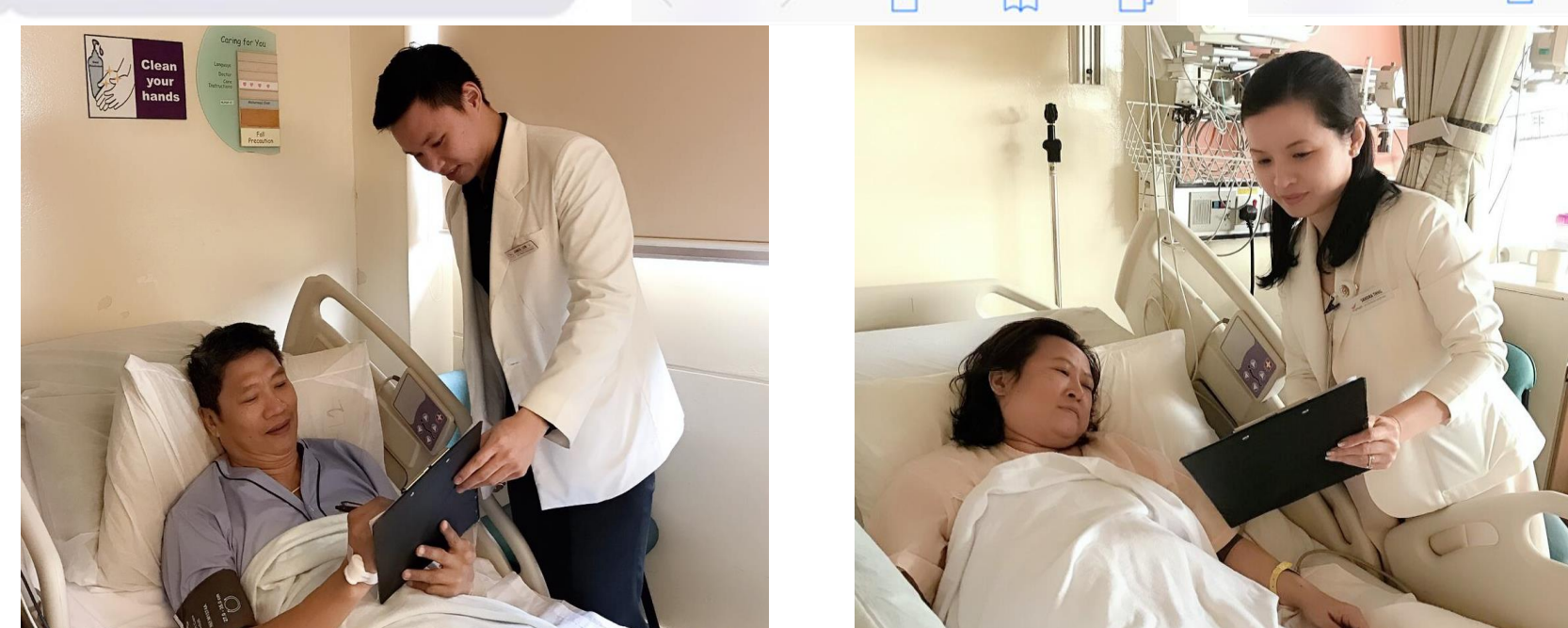
Seattle Angina Questionnaire: Slight decline reported in ADL functioning



Data Collection with Smart Devices Vs Deploying Research Coordinators



10% response rate from patients using Smart devices.



*Patients featured had given consent to display their photos.

Most follow-ups are completed by Research Coordinators.

Learning Points:

- Patient demographic may be an important consideration factor in planning the care of ACS patients.
- Exploration and enhancing of collection tools such as web based or smart phone applications is essential as the traditional way of deploying research coordinators is expensive, especially for longitudinal study.
- First PROMs in NHCS which would provide us the patients' perspective on our medical care delivery. We seek to understand how patients feel than relying just on clinical analysis.
- Depression remains undertreated in ACS patients.

Data collection going beyond 1st Year:

(Study started in August 2017)

- Longitudinal cost of care is not known for AMI patients. Thus, this study would continue to collect PROMs annually for the next 4 years after the first year of 5 touch points at admission, 1st, 3rd, 6th and 12th month.
- We will be integrating the collection and analysis of the financial cost of patients' medical treatments. As the study develops with more data collection and deeper analysis, we hope to determine what are the elements that make up "value" for our patients.