Project Title

Improving Nursing Shift Handover Process by Implementing Electronic Handover Template

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Organisation(s) Involved

Changi General Hospital

Lessons Learnt

Change is what brings forth new ideas, solutions and growth. It is about breaking free from our circle of comfort in order to start seeing alternative routes offered to improve the situation.

Project Category

Productivity, Process Improvement, Technology

Keywords

Changi General Hospital, Productivity, Process Improvement, Technology & Automation, Process Redesign, Information Technology, Communications, Care Continuity, Nursing, Nursing Informatics and Care Transformation, Inpatient Care, Shift Handover, Electronic Nursing Shift Handover, Handover Checklist, Electronic Template, Staff Feedback, Standardized Workflow, Systematic Handover, Excel Worksheet, Patient Care, Staff Satisfaction, Timely Handover

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INTRODUCTION

The nursing *Shift Handover* is an important part of communication process that takes place three times a day between outgoing nurses to the incoming nurses. This is the point where crucial information on patient care is communicated to patient's incoming nursing care team. Traditionally as what has been practiced for many years, nurses take a lot of time handling over report to the next shift. In our current system in place, the information that is most important for patient handover is gathered throughout many charts, reports and system . An analysis of the current situation was conducted:

Handover Involving Lengthy Process and Many Steps
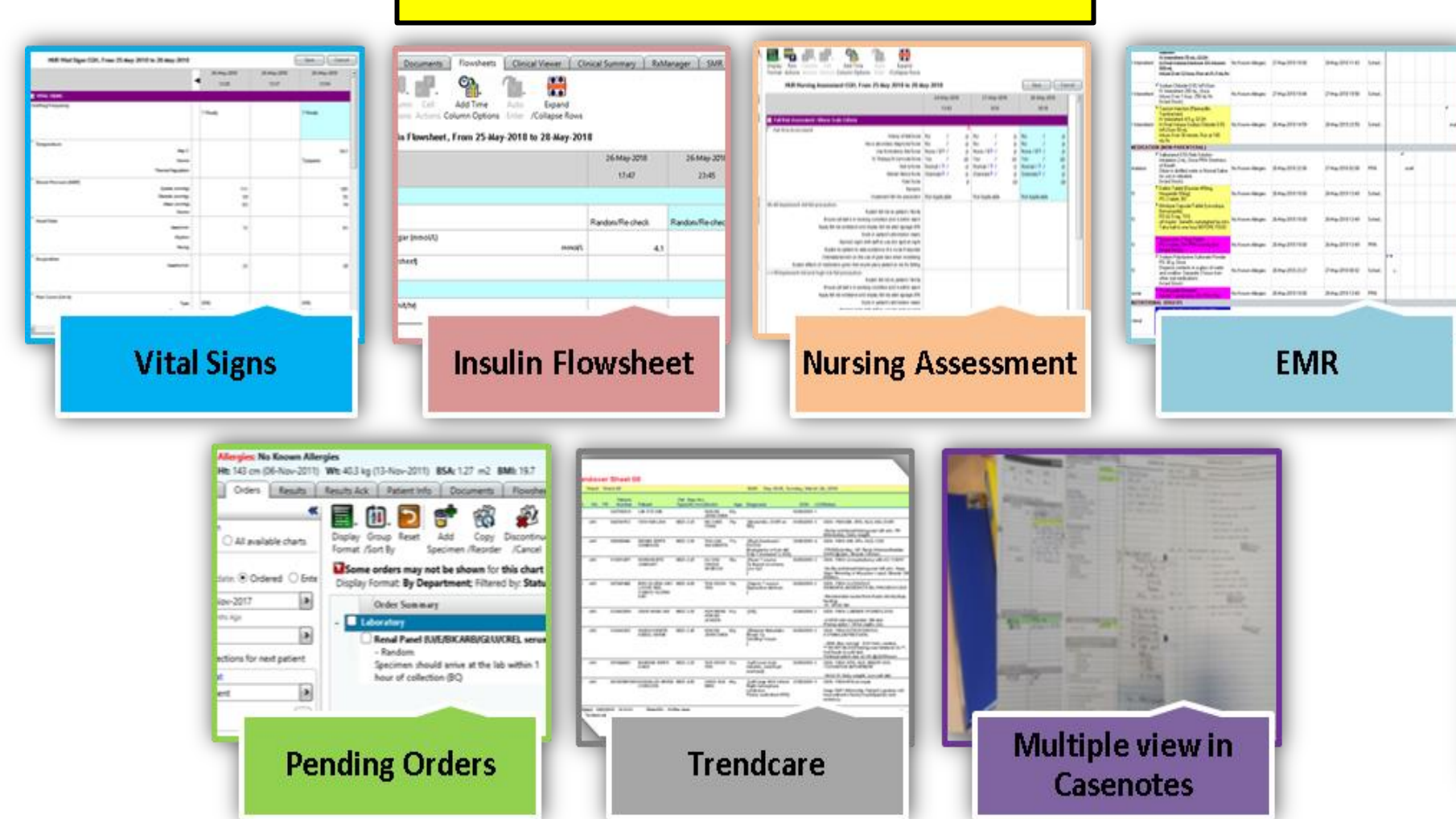- Using Multiple Views from the system, case-notes, trendcare, nursing organisers, worksheets and charts. (Fig A)

Disruptions and Disturbance during Handover
- Case notes are taken away by other care team staff, e.g., Drs, Therapist
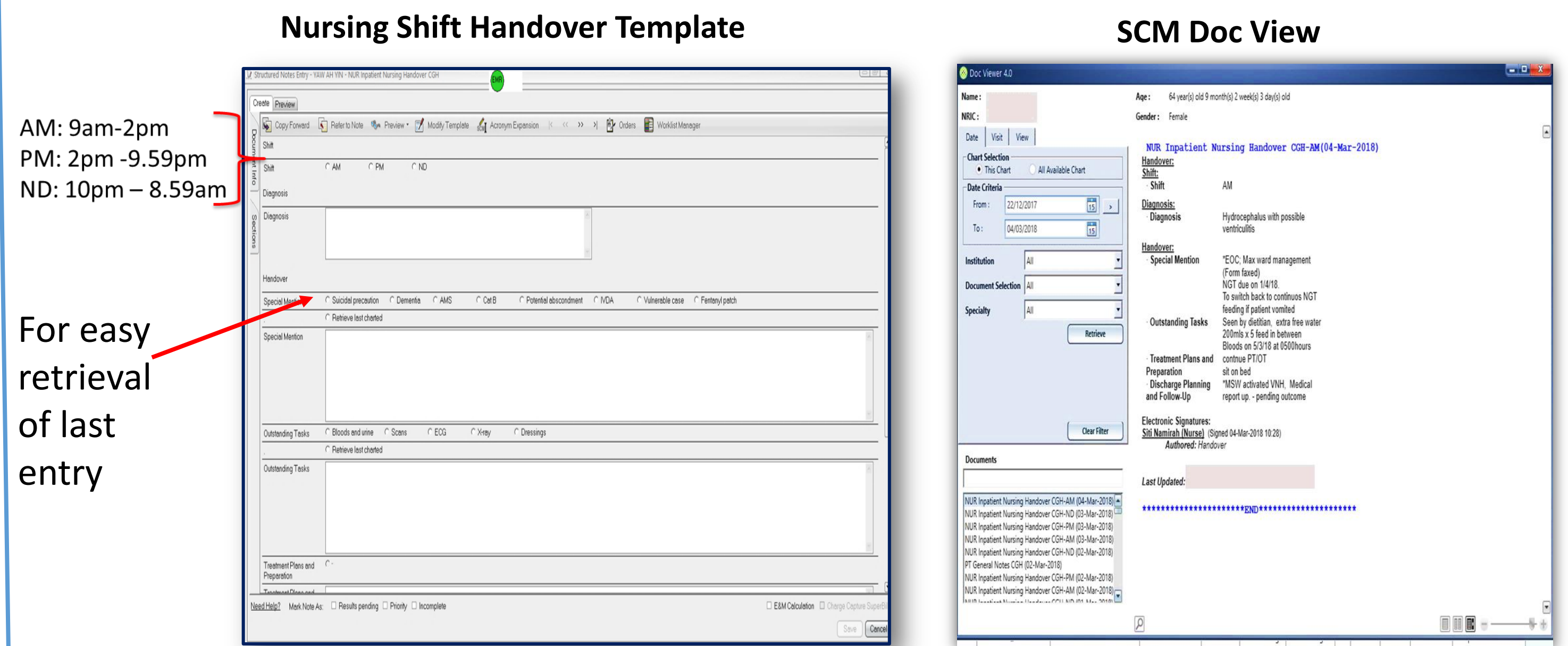
Lack of Standardization
- Different Content and Presentation of Handover - by experienced and inexperienced nurses and which may include handing non-essential and irrelevant information.
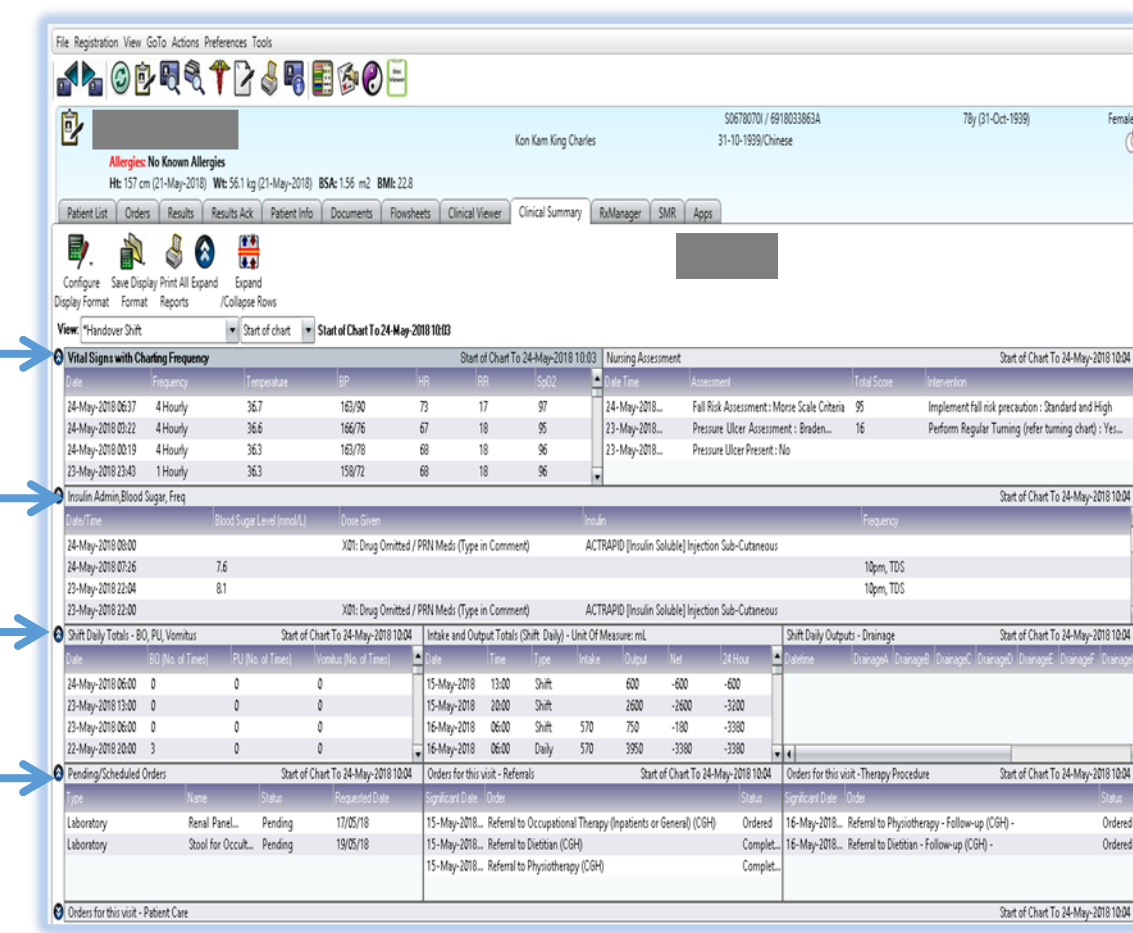
Fig A: Multiple System View

Vital Signs | Insulin Flowsheet | Nursing Assessment | EMR

Pending Orders | Trendcare | Multiple view in Casenotes

The project was launched to develop a Standardised Shift Handover Process by Implementing the use of Electronic Nursing Shift Handover Template.

The Objectives are to:

Objectives

- Improve Timeliness of Handover – more time spent on patient care
- Reduce and Shorten Time Spent during Handover
- Improve Staff Satisfaction – effective time spent ,better work life balance

METHOD

A *Care Process Redesign Team* workgroup was formed in July 2017. The Team comprises of representatives of nurses, Nursing Administrators, staff from Nursing Informatics and Care Transformation.

The Development of Handover Checklist was designed through:

- Use of Current Citrix Interface - Capable of Re-Organising information
- Confirm Essential Information Required for Handover
- Design and Test Presentation of Information on Handover Checklist
- Pilot Trial in Ward 19

Motion Study was conducted on the traditional Nursing Handover

Motion Study on Nursing Handover : Current			
Ward 19	Total No. of patients in Team 1	Total No. Patients to handover	Time Taken
Total Time Taken to hand over Team 1 (Day 1)	12	7	0:27
Total Time Taken to hand over Team 1 (Day 2)	12	8	0:33
Average Time taken to handover 1 patient	-	-	0:04
Average time taken to handover 12 patients in 1team	-	-	0:48

This average process included interruptions as well nurses repeating information from various sources. This translates to undesirable time spent in each shift where nurses are not available for patient care.

Prior to the implementation, briefing and training were conducted to staff in Ward 19 in September 2017.

INITIAL PHASE: BRAINSTORMING

Sequence of Handover Worksheet was drafted to identify important elements in Nursing Handover

PROTOTYPE A : USE OF MICROSOFT EXCEL SHEET

Excel Worksheet as used for data entry in the initial phase to obtain baseline information from nurses from on the essential data required and suggested format for the electronic template.

PROTOTYPE B: CREATION OF HANDOVER TEMPLATE

Feedback from the prototype A was gathered. With the help of staff from Nursing Informatics the use of Nursing Handover Template in the SCM were introduced.

Final Phase

The Template was modified to best suit the needs of users based on feedback.

Nursing Shift Handover Template

AM: 9am-2pm
PM: 2pm -9.59pm
ND: 10pm – 8.59am

For easy retrieval of last entry

SCM Doc View

Creation of Shift Nursing Handover 'Tiles' in SCM: Single Screen View

Latest Vital Signs →
Insulin Flow Sheet →
Intake Output →
Pending Bloods →

- Tiles allow nurse to view important information such: Frequency of Vitals, Pending Investigations, Intake and Output and Referral etc.

- Titles can be added or adjusted according to speciality requirement

- Nursing NUR Handover allows Nurses to have a systematic and standardized approach to Handover.

RESULTS

Post Motion Implementation Study was conducted :

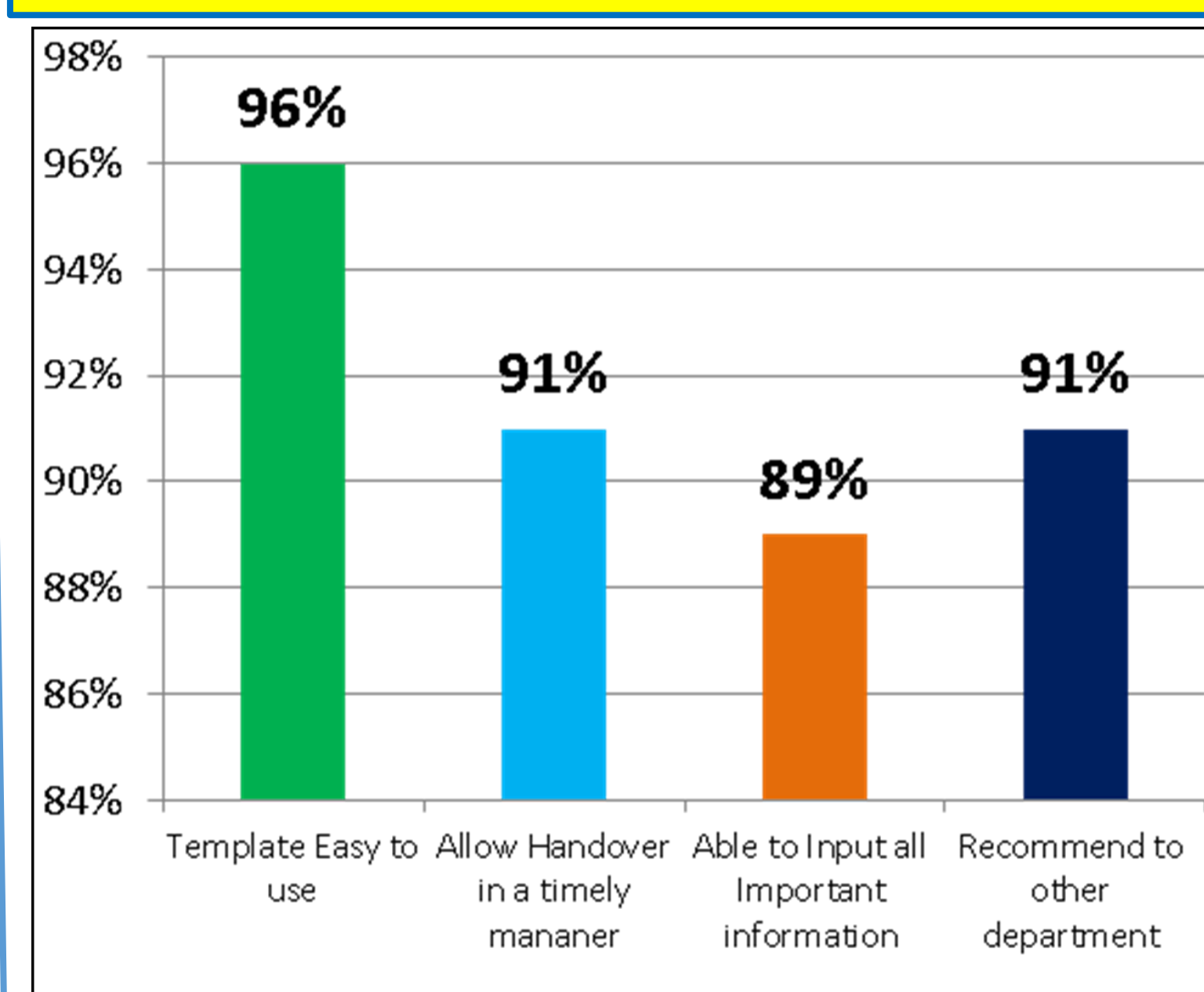| Motion Study on Nursing Handover : Post Implementation			
Ward 19	Total No. of patients in Team 1	Total No. Patients to handover	Time Taken
Total Time Taken to hand over Team 1 (Day 1)	12	9	0:18:29
Average Time taken to handover 1 patient	-	-	0:02:03
Average time taken to hand over 12 patients Team 1	-	-	0:24:36

Average Time Saving to Handover: 2 mins/Patient

	Total Patient	Time Saving/ Shift	Time Saving mins per day x 3 shifts	Time Saving mins year
WD 19	40	2 mins X 40 = 80 mins	240mins /day	87,600 mins
WD 46	44	2 mins X 44 = 88 Mins	264mins /day	96,360 mins
WD 57	32	2 Mins X 32 = 64 Mins	192mins /day	70,080mins
Total Time Save				254,040 min
Total Man Hours Saved for the 3 Wards				4,234 hours

Time Savings per year 4,234 Hours

CONCLUSION

Change is what brings forth new ideas, solutions and growth. It is about breaking free from our circle of comfort in order to start seeing alternative routes offered to improve the situation. The success of this project saw the spread to Ward46 and Ward IB Ward57 in February 2018. Results are positive with 91%

Nurses Feedback from WD 19, WD 46 & WD57

96% — Template Easy to use
91% — Allow Handover in a timely mananer
89% — Able to Input all Important information
91% — Recommend to other department

✓ Less Interruption
✓ Easy Access

✓ Standardized Sequence of Handover
✓ Timely Handover

We are seeking approval for Hospital Wide Spread in the near future. Though there were some initial resistance, (as they have to break from the norm),nurses from the Pilot Wards are commended for embracing the change positively. This is as a result of strong support from Nursing Administrators as well and Nursing Supervisors from the wards.