

## OVATION CHI Learning & Development System (CHILD)

### **Project Title**

Improve Referral Process from NUH to Nursing Homes

### **Project Lead and Members**

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- Tan Guat Peng
- Eric Wie
- Sim Tan Rui

### **Organisation(s) Involved**

National University Hospital, Agency for Integrated Care, Bethany Methodist Nursing Home, Jamiyah Nursing Home, NTUC Health Nursing Home

#### **Project Category**

**Process Improvement** 



### ATI CHI Learning & Development System (CHILD)

### **Keywords**

Process Improvement, Workflow Streamlining, Access to Care, Turnaround Time, Care Continuity, Transitional Care, Discharge Planning, Patient Referral, Nursing Home Placement, Residential Services Placement, Medical Social Services, Timely Functional Assessment, Timely Documentation, Enhanced IT System, Bed Day Saving, Cost Saving, Cost Avoidance, Staff Satisfaction, Nursing, Medical Services, Allied Health, Nursing Home, Lean Management Methodology, Multi-Institutional Workgroup, National University Hospital, Agency for Integrated Care, Bethany Methodist Nursing Home, Jamiyah Nursing Home, NTUC Health Nursing Home, Restructured Hospitals, Rapid Improvement Event, Value Stream Mapping, Gap Analysis, Root Cause Analysis, Waste Identification, Residential Referral Team

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# IMPROVE REFERRAL PROCESS FROM

# TO NURSING HOMES

**Team Leaders:** Dr Desmond Teo (NUH), Teo Sork Chin (NUH), Ivy Lok (AIC), Wilson Low (Bethany), Alain Quek (Jamiyah)

**Team Members:** Amy Soh (NUH), Lee Hwee Siang (NUH), De Souza Natasha (NUH), Charlene Tay (AIC), Ong Ming Hui (AIC), Low Sau Wai (AIC), Chia Choy May (Bethany), Ameer Al-Hakim (Bethany), Fatima Zahida (Jamiyah), Tan Guat Peng (NTUC Health)

Facilitators: Eric Wie (NUH), Sim Tan Rui (AIC)









An Oasis of Love and Care





## 

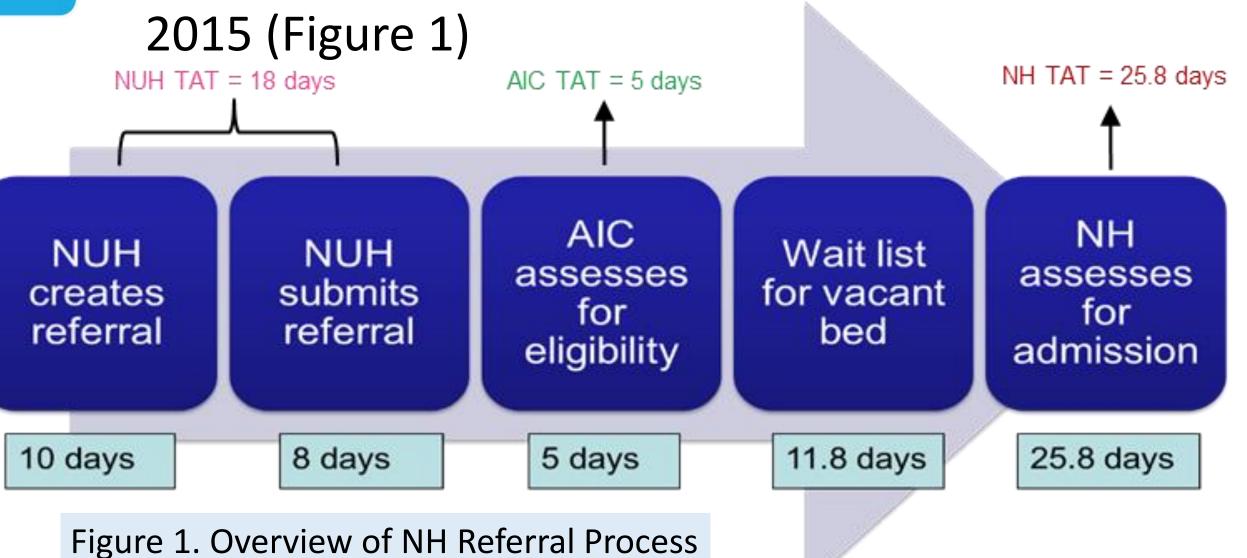
**Singapore Healthcare** 

3. Assess for admission

2. Assess for eligibility

and match patient to NH

- -An increasing aging population and increased needs for Nursing Home (NH) placement for some of our patients lead to a prolonged turnaround time (TAT) from restructured hospitals to NHs.
- -Workgroup comprising National University Hospital (NUH), The Agency for Integrated Care (AIC), Bethany Methodist NH, Jamiyah NH and NTUC Health NH was set up to review and address the challenges pertaining to residential services placements with the aim to streamline processes and improve the admission time to NHs.
- -TAT for 160 successful NUH-NH referrals at 75<sup>th</sup> percentile was 60.6 days from January to November



## **GOALS**

- Reduce TAT from initiation of referral in NUH till placement of patient in NHs by improving the end-to-end process and coordination between NUH, AIC and NHs
- Reduce the number of times a referral case is returned to NUH for clarifications or rework

## METHOD

Social Work Department

Initiate referral and

create application

- A 4.5 days Rapid Improvement Event (RIE) was held to understand the end-to-end process, identify wastes and root causes using lean management methodologies.
- Value Stream Mapping (VSM) and Gap Analysis showed multiple hand-offs and bottlenecks in the referral process.
- Unclear guidelines and different understanding of NH's assessment criteria also led to high reworks between NUH and AIC.
- A pilot was conducted for 5 months in general medical wards and further adjustments were made to the new work process.

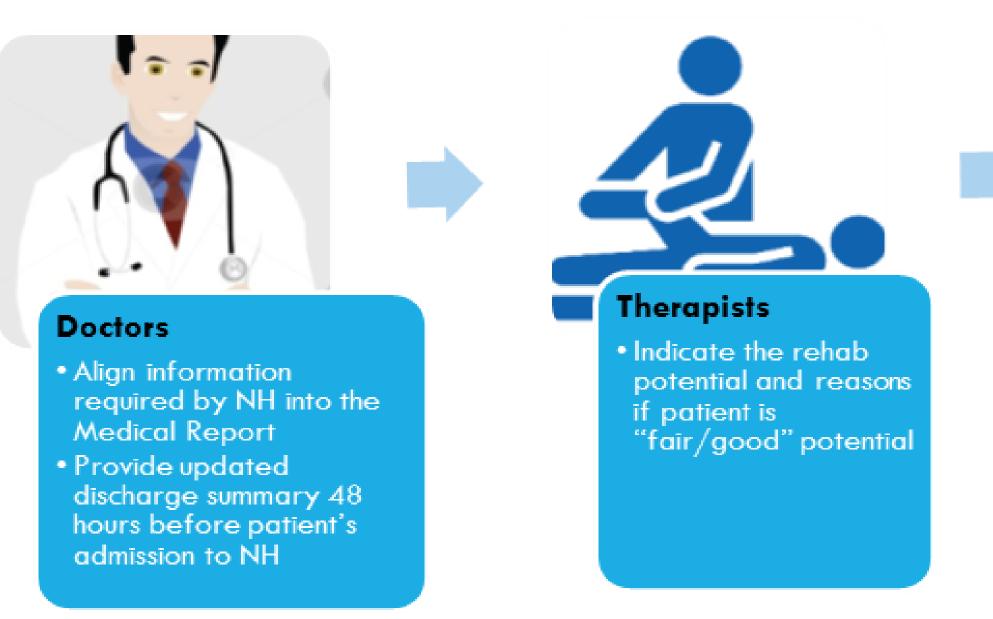
## IN DERVINION STRANDGY



- assessment criteria and information required by NH Collaborated with AIC to finalize the new roles and responsibilities of "AIC Residential Referral Team (RRT)"; beginning from referral
- creation to patient admission to the NH Activate RRT to enable prompt assessment of patient's condition and eliminate rework

## Nurses Work with RRT on functional assessment, Residence Assessment Form and nursing procedures On discharge, prepare

necessary items for transfer of patients to NH (i.e. medication, wound dressing products and milk feeds) and discharge nursing memo (i.e. feeding regime, latest wound



agency for integrated care **AIC Staff**  Standardize assessment information and removed unnecessary information Provide standardized and clear guidelines on NHs' requirements to the hospitals Deployment of RRT to the hospital to jointly assess patient's conditions • Enhanced IT system to enable easier reconciliation



 Alignment of NHs' requirement and processes with the referral source · Releasing of bed status to AIC as and when there is vacant

bed

Figure 2. Interventions by different healthcare professionals

## RESULTS

New work process was implemented to hospital-wide for all NHs' referrals in October 2016 after positive pilot results.

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	Before RIE (75 <sup>th</sup> percentile)	After RIE (75 <sup>th</sup> percentile)	% Improvement
Turnaround Time (TAT)	NUH - 18 calendar days  AIC - 5 calendar days  NH - 25.8 calendar days	NUH – 3.8 calendar days*  AIC – 0 calendar day  NH – 14 calendar days	78.9% <b>1</b> 100% <b>1</b> 45.7% <b>1</b>
Revert Back (RB) between AIC & NUH	Average gross count of RB - 3.8 times per referral	Average gross count of RB - 0 times per referral since Aug 16	100%

Table 1. Post implementation results

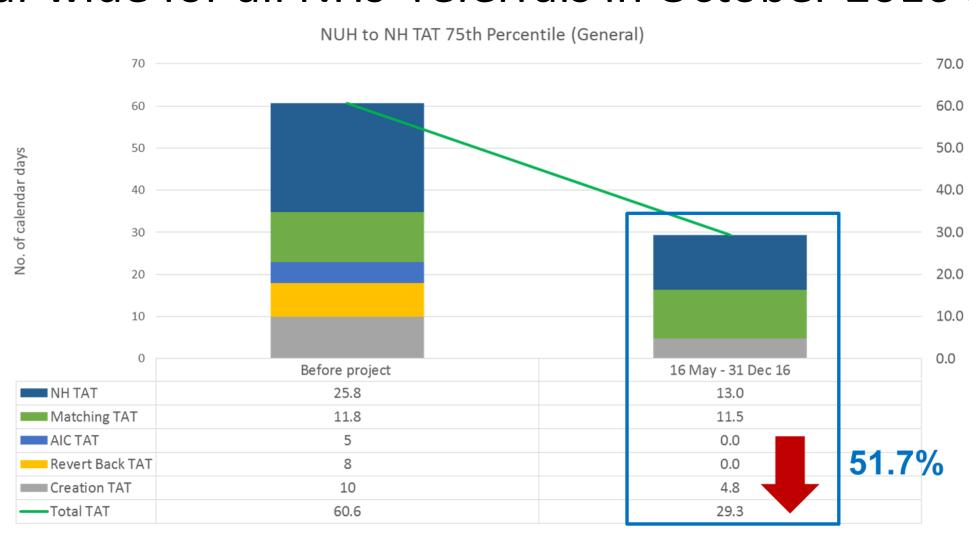


Figure 3. TAT Comparison

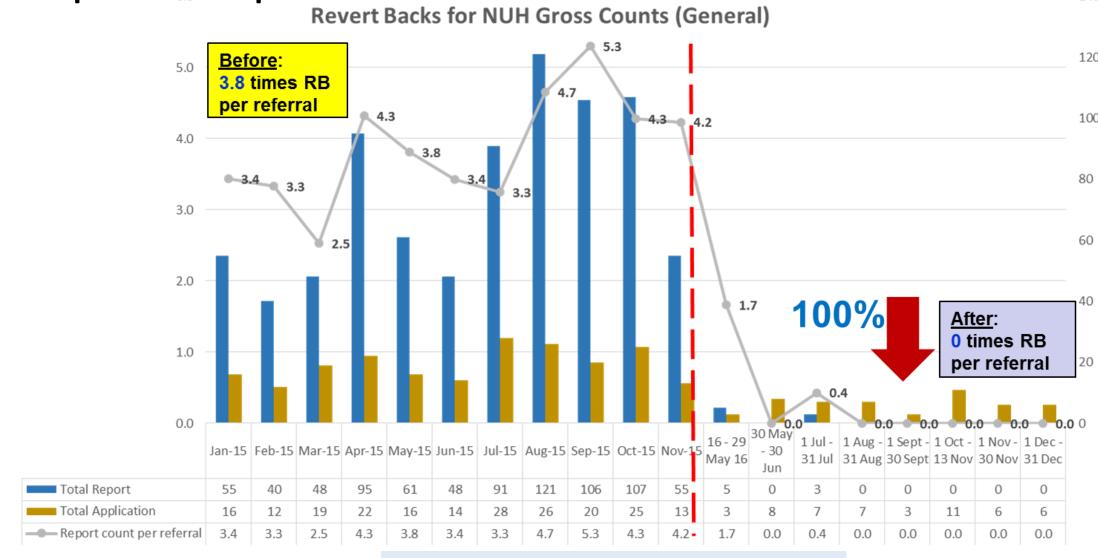


Figure 4. Rework Comparison

- ✓ Average bed days saved per patient are 7.7 days leading to cost avoidance of \$867.4K per annum.
- ✓ Improved staff satisfaction due to elimination of rework between NUH and AIC.
- ✓ Patients are assured that there is improved continuity of care and unnecessary delays are avoided.

## CONCLUSION

- $\triangleright$  By eliminating wastes and closing gaps in the processes, overall TAT was reduced by more than 50%.
- > Current challenge is to advocate the new work processes to all restructured hospitals and NHs so that the referral process will be standardized across Singapore.
- > For sustenance, it is crucial that the different stakeholders periodically come together to align their work processes as NH assessment requirements and guidelines may change over time.