

Project Title

Automation of Inpatient/Day Surgery Bills from the Inpatient/Day Surgery Billing System to the HR Information System (HRIS)

Project Lead and Members

- Koh Li Hoon
- Zann Tan
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Organisation(s) Involved

SingHealth HQ, IHiS

Aims

- To reduce the processing time for inpatient medical bills
- To enhance staff validation process for the Business Office/ Admission Office colleagues

Background

Refer poster appended/ below

Methods

Refer poster appended/ below

Results

Refer poster appended/ below

Conclusion

Refer poster appended/ below

Project Category

Technology, Process Improvement

Keywords

Technology, Process Improvement, Fishbone Diagram, Turnaround Time, Error Avoidance, Inpatient, Finance, Human Resource, SingHealth HQ, Bills Automation, Patient Billing System, Bill Interface Programme, Human Resource Information System

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Automation of Inpatient/Day Surgery Bills from the Inpatient/Day Surgery Billing System to the HR Information System (HRIS)

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 Zann Tan, SingHealth HQ (Strategic HR) and C&B Team
 Subijanto Teddy, SingHealth HQ (Strategic HR) and HR Tech Team
 On behalf of SingHealth Medical Benefits Workgroup :
 (Institutions' Reps from Human Resource,
 Business Office and Admission Office as well as iHIS)



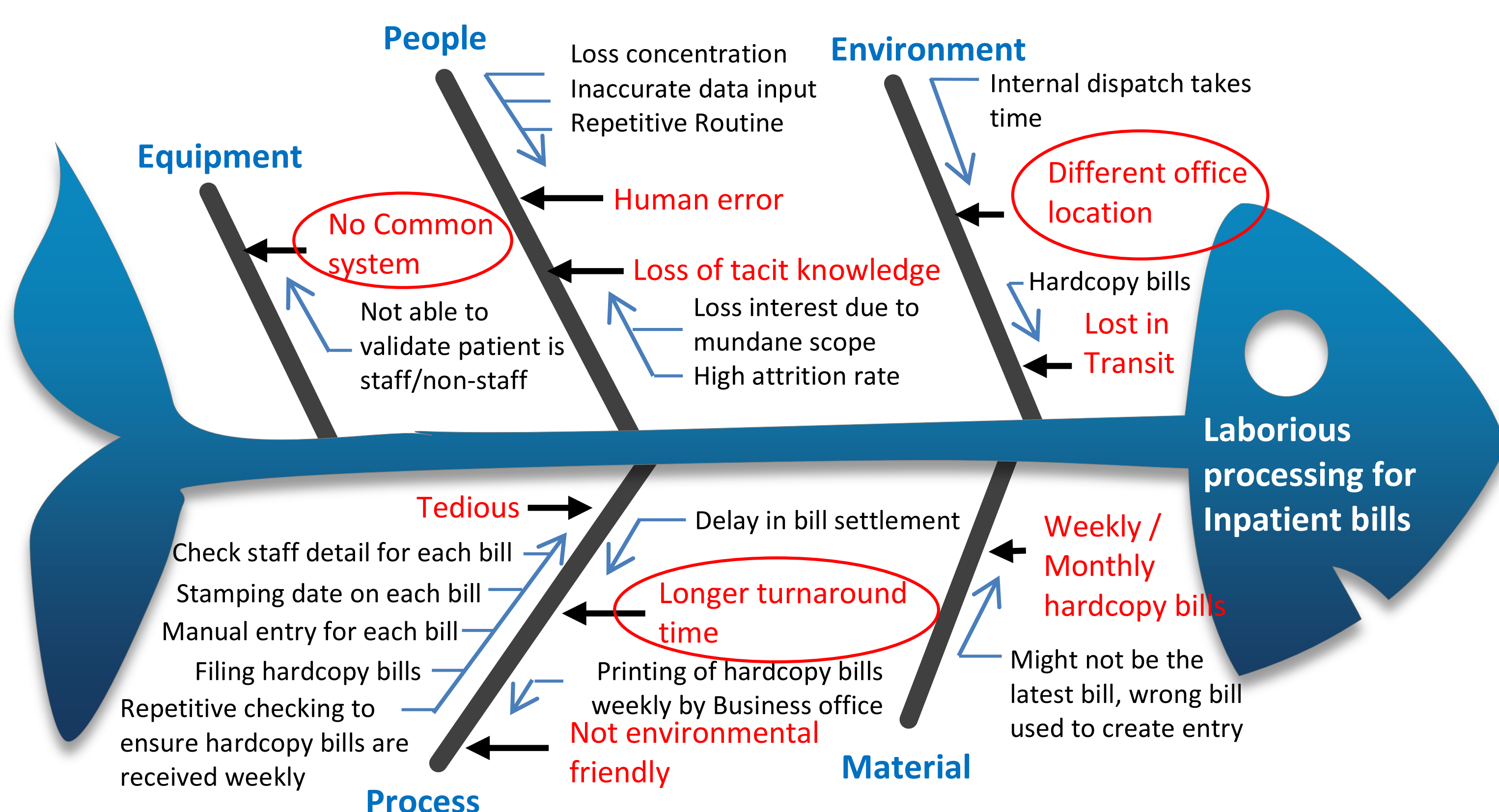
Introduction

- SingHealth's institutions HR medical benefits administrators processed about 4800 inpatient/day surgery bills annually. It took an average of 17 days for the hardcopy bills to reach HR, and administrative overheads were laborious when the bills were misplaced.
- The automation project was embarked to reduce the processing time for the inpatient medical bills and to enhance the staff validation process for the Business Office / Admission Office colleagues.

Methodology



- The Cause and Effect (Fishbone) Diagram was used to identify and select the root causes :



- The Workgroup identified the following root causes :
 1) Long turnaround time
 2) Different office locations
 3) No common validation system
- The Workgroup brainstormed ideas and used a 'Decision Matrix Table' to select the most feasible solution. The scale of '1 to 6' was used with '6' being the most expensive/difficult solution.

Solution / Option	Ease of Use	Cost	Existing Resource	Implementation Timeline	Total Score
1. Self collect by institution representative	6	5	6	1	18
2. Print direct to the institution HR printer	3	4	5	4	16
3. Email softcopy bill to institution HR	4	3	4	4	15
4. Bill interface	1	6	1	6	14

- Based on the scoring, the Workgroup selected the fourth option of implementing the Bill interface program.

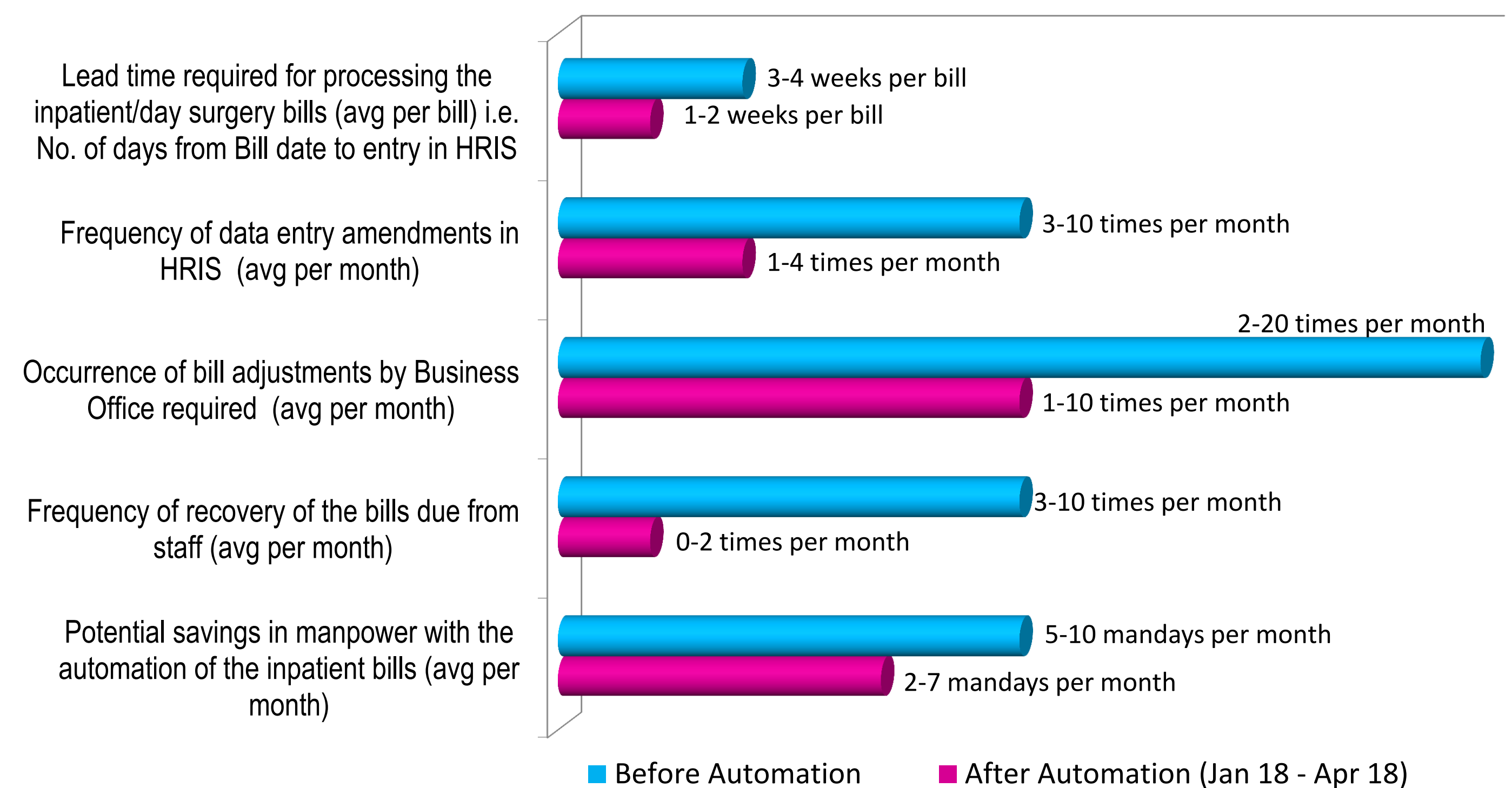
Results

- ✓ Interface programs were created to integrate the inpatient bills data from the inpatient system into Human Resource Information System (HRIS).
- ✓ Automate-computation rules, e.g. co-payment amounts were programmed.
- ✓ Greater efficiency in HR processing of the medical bills and reduced the possibility of errors.
- ✓ Softcopy inpatient/day surgery bills were generated and emailed to the respective institution's HR team.
 - ❖ Reduced the delivery time to 4 days ; and
 - ❖ Eliminated the effort and cost for bills printing and dispatching.
- ✓ Staff validation helped our BO colleagues to better manage collection of payment.



Institutions' Evaluation and Feedback

(Note : The workload and transaction varies between Hospitals and Specialty Centres)



Conclusion

With the implementation of the bills automation, there were improvements in the work processes and created greater efficiency :

- ✓ Expedite the turnaround time in inpatient/day surgery bills processing ;
- ✓ Reduce efforts and errors in manual bill computation and data entry into HRIS ;
- ✓ Reduce occurrence of bill adjustments by Business Office ; and
- ✓ Prompt recovery of the bills due from staff.

