



Singapore Healthcare
Management 2019

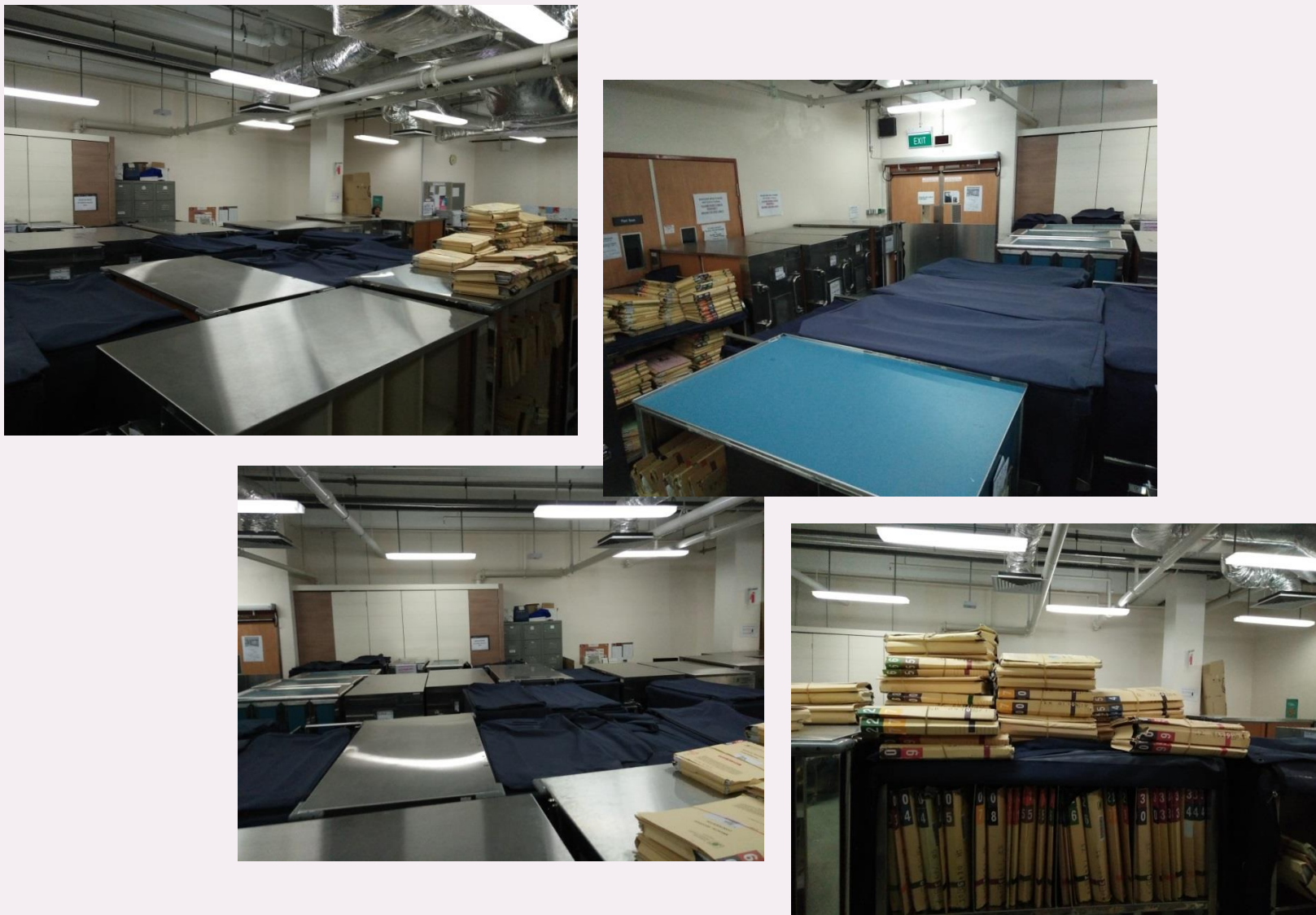
Streamlining the Delivery of Medical Records

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INTRODUCTION | BACKGROUND

A major role of Health Information Management Services (HIMS) is to retrieve medical records and have them delivered to various locations such as wards, clinics and clinical departments. These medical records are required by the various locations for the clinical care of patients and other administrative purposes such as completion of medical reports/replies by clinicians.

The delivery of hardcopy medical records relies heavily on manpower. With the advent of electronic medical records, processes have to be transformed to adapt to the change.



AIM

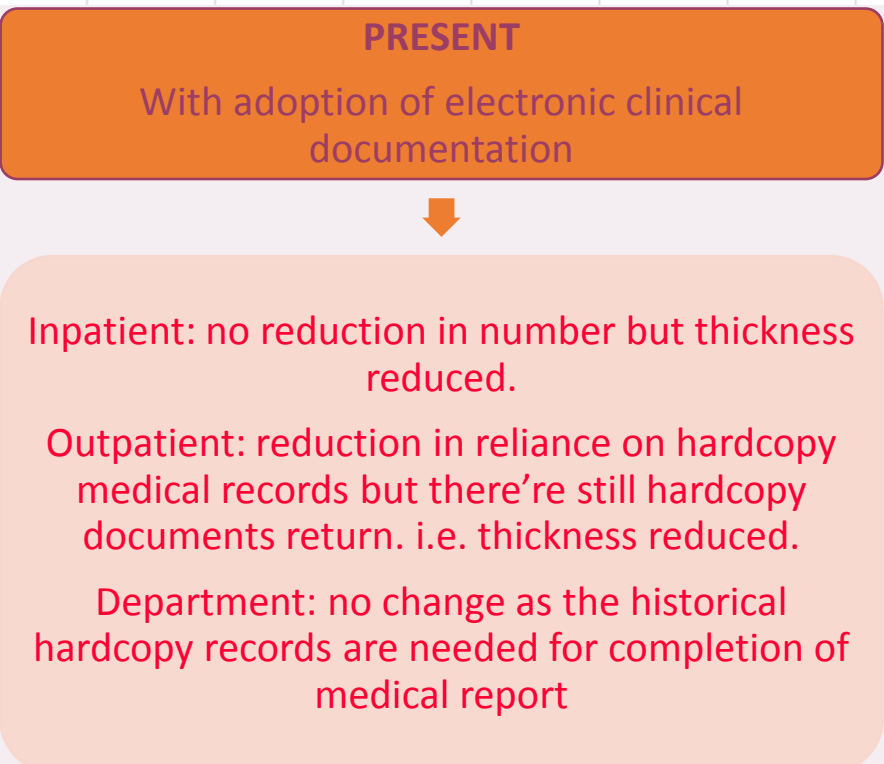
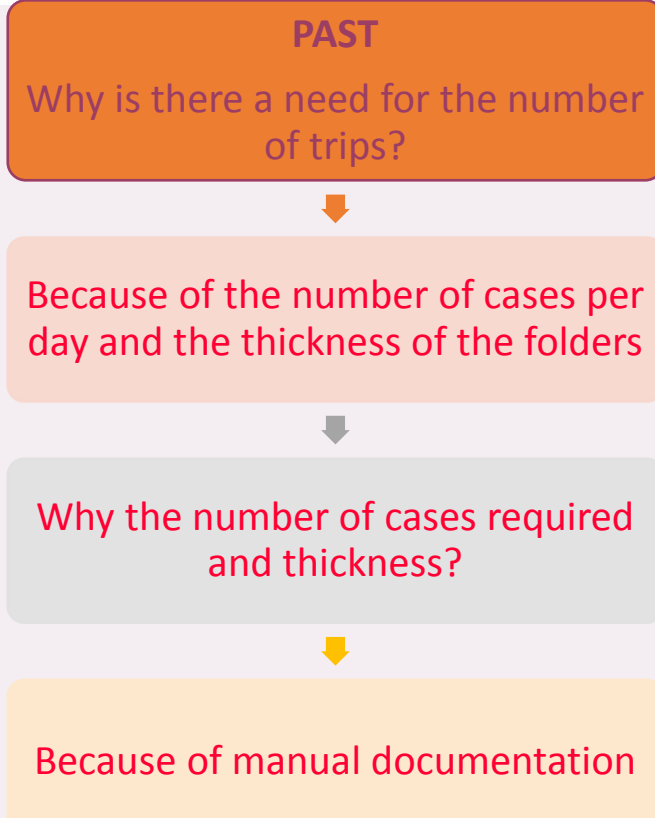
The principal aim of this project is streamline the delivery of medical records to optimize the manpower without compromising the end-result.

METHODOLOGY

The challenge of changing the processes involves team members from different departments to be open minded on the possibilities and willingness to change. There were several sessions of discussion with the various teams involved.

Workload for each location

	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P
1	Average monthly portering load															
2	Month	clinic1	clinic2	BYB	AC1	AC2	Blk 4		Blk 5		Blk 6		Blk 7		2T	DMC
3							c/s	form	c/s	form	c/s	form	c/s	form		
4	Jan-17	441	410	220	265	171	203	89	286	101	160	41	363	95	170	513
5	Feb-17	450	459	245	273	200	213	81	305	107	160	39	348	83	170	510
6	Mar-17	485	387	231	264	176	170	76	289	103	161	45	329	72	180	486
7	Apr-17	575	441	240	277	184	172	74	278	107	181	51	334	86	193	477
8	May-17	424	368	238	282	184	181	81	268	104	146	56	318	83	203	372
9	Jun-17	538	292	205	276	189	160	85	249	109	174	71	287	59	191	369
10	Jul-17	530	235	238	268	178	170	77	262	111	143	64	290	78	209	363
11	Aug-17	526	370	219	269	154	151	83	248	106	135	66	280	82	208	369
12	Sep-17	582	336	201	256	154	155	91	240	114	141	56	272	96	208	334
13	Oct-17	539	327	196	263	170	163	84	248	115	135	61	263	74	211	325
14	Nov-17	497	342	203	257	172	155	75	256	102	138	61	274	52	216	323
15	Dec-17	463	297	190	239	161	144	72	226	96	140	69	256	93	197	280
16	Ave	504	355	219	266	174	170	81	263	106	151	57	301	79	196	393
17	data is no available															
18	Jan-18															
19	Feb-18	466	345	200	199	141	166	89	252	128	117	51	281	76	172	263
20																
21																



Methods used to guide the team through these discussions included:

- The “Why” method to analyse the need for the delivery trips to each locations in the past in comparison to the present.
- Analysis of the transportation route and workload analysis & distribution – to narrow down the causes and possible solutions.
 - workload analysis is not just the quantity but also the thickness of the medical records.
 - Example for inpatient cases, the number of medical records + thickness = load.
- Analysis of gaps and concerns - to identify the gaps in process that we need to close and concerns to address.
- PDSA cycles – to fine-tune the solutions such as the different combination of routes, time schedules, hand-overs like a relay. E.g. proposed solution A vs B.
- Training of staff in new routes, schedules and tasks.

SOLUTIONS

From the analysis and discovery:

- Inpatient cases – number of inpatient medical records remains the same but thickness of folders are reduced due to increase in adoption of electronic documentation.
- Outpatient cases – number of medical records to be delivered to clinic has reduced for some clinics like DMC and ARC. Outpatient documents returned are thinner.

Solution:

- Reduce the number to trips to the ward and clinics as more records can be transported per trip.
- Each porter to cover more areas e.g. one porter to cover two blocks of wards instead of one porter per block of wards.

Previous Schedule and Distribution

Previous Schedule and Distribution	
1. Inpatient cases	2. Outpatient cases
3. Inpatient cases	4. Outpatient cases
5. Inpatient cases	6. Outpatient cases
7. Inpatient cases	8. Outpatient cases
9. Inpatient cases	10. Outpatient cases
11. Inpatient cases	12. Outpatient cases
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41. Inpatient cases	42. Outpatient cases
43. Inpatient cases	44. Outpatient cases
45. Inpatient cases	46. Outpatient cases
47. Inpatient cases	48. Outpatient cases
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83. Inpatient cases	84. Outpatient cases
85. Inpatient cases	86. Outpatient cases
87. Inpatient cases	88. Outpatient cases
89. Inpatient cases	90. Outpatient cases
91. Inpatient cases	92. Outpatient cases
93. Inpatient cases	94. Outpatient cases
95. Inpatient cases	96. Outpatient cases
97. Inpatient cases	98. Outpatient cases
99. Inpatient cases	100. Outpatient cases

Proposed Solution A

Proposed Solution A	
1. Inpatient cases	2. Outpatient cases
3. Inpatient cases	4. Outpatient cases
5. Inpatient cases	6. Outpatient cases
7. Inpatient cases	8. Outpatient cases
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93. Inpatient cases	94. Outpatient cases
95. Inpatient cases	96. Outpatient cases
97. Inpatient cases	98. Outpatient cases
99. Inpatient cases	100. Outpatient cases

Proposed Solution B

Proposed Solution B	
1. Inpatient cases	2. Outpatient cases
3. Inpatient cases	4. Outpatient cases
5. Inpatient cases	6. Outpatient cases
7. Inpatient cases	8. Outpatient cases
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11. Inpatient cases	12. Outpatient cases
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97. Inpatient cases	98. Outpatient cases
99. Inpatient cases	100. Outpatient cases

RESULTS | CONCLUSION

With the change in processes, there were time and resource savings such as manpower which can be deployed to other areas of work. Streamlining of the process also allows us to deliver effectively.

Tangible benefits

- For inpatient locations: 2 porters to cover for all the wards instead of the 4 porters ➔ -2 staff
- For outpatient locations: consolidation of services from other areas to cover the duties for some of clinics like DMC ➔ -2 staff ➔ Total 4 out of 12 staff returned to the centralized pool of transportation staff.

Intangible benefits

- Lesser trips with thinner volumes of medical records is physically less taxing for staff.
- Processes are optimized.