

## Mission Statement

**Transform external staff attachment process and find new, better ways of doing things to improve efficiency and productivity**

- Aim to achieve faster turnaround and improved user experience by designing:
  - seamless and transparent workflow
  - simple form to avoid confusion and rework

Target Outcome:

- Processing turnaround time from 3 months to 1 month
- To reduce, combine and consolidate the number of forms by at least 50%

Aligning to department initiatives in driving operational and processes efficiencies as well as digitalizing forms and approval processes wherever possible

## Team Members

	Name	Designation	Department
Team Leader	Koo Xin Ni	Assistant Manager	CRIO
Team Members	Norhazlizah Binte Rabu	Executive Assistant	CRIO
	Flora Khoo Boon Li	Assistant Manager	Kaizen Office
	Eve Cheng Pei Ying	Sr Executive	Kaizen Office
Sponsor	Adj A/Prof Tan Cher Heng	ACMB (Clinical Research & Innovation)	CRIO

## Evidence for a Problem Worth Solving

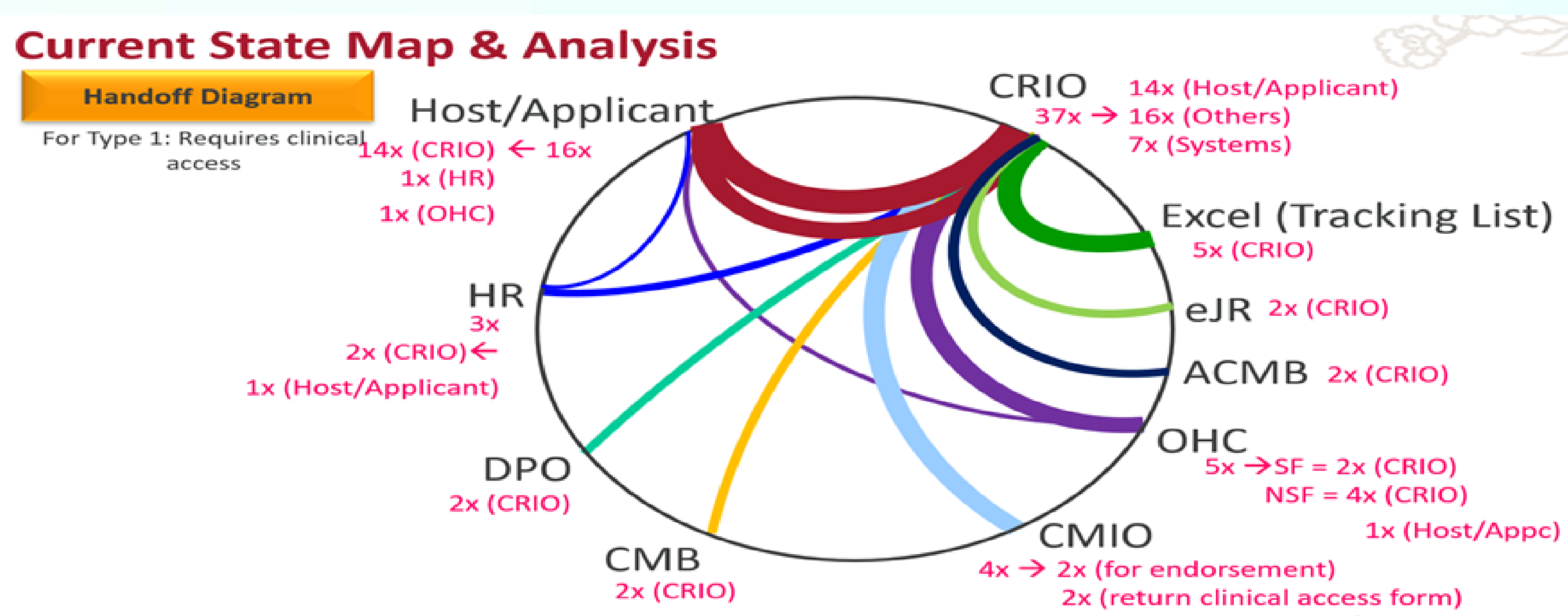
External Staff from external or other institutions are attached to TTSH to assist in research study by augmenting existing manpower to conduct research activities. CRIO coordinates the attachment process by liaising with various stakeholders such as HR, OHC, OCCI etc and seek relevant approvals for commencement of the attachment. CRIO also provides governance support by overseeing appropriate management of these external staff.

Due to the involvement of many internal stakeholders, multiple forms are required to be completed, and many points of information exchange i.e. hands-off and touch points. It creates confusion and frustration to both the requesting department and external staff. Users experience repetitive questions in some of the forms and long turn-around time on application processing.

## Current Performance of a Process

Average initial turn-around time was 2-3 months for each application. There were up to 19 forms to complete for each application

## Flow Chart of Process



## Cause and Effect Diagram

### Summary of Waste

Waste Type	Description
<b>D</b> Defect	<ul style="list-style-type: none"> <li>Submission of incomplete forms</li> <li>Duplication of information request in various forms</li> <li>Unclear requirement and lack of clarity in the process and forms</li> <li>Unclear of what users want and when requests were dropped/withdrawn</li> </ul>
<b>O</b> Over Production	<ul style="list-style-type: none"> <li>Overprovision of forms which may not be applicable</li> </ul>
<b>W</b> Waiting	<ul style="list-style-type: none"> <li>Wait for submission of complete forms and supporting document</li> <li>Wait for hardcopies to be endorsed</li> <li>Wait for vaccination records &amp; other follow up</li> <li>Wait for applicant to sign</li> </ul>
<b>N</b> Not Utilizing Resources Effectively	<ul style="list-style-type: none"> <li>Manual keying in tracking list</li> <li>3<sup>rd</sup> party relaying messages</li> </ul>
<b>T</b> Transportation	<ul style="list-style-type: none"> <li>Unnecessary passing of hardcopies of form</li> </ul>
<b>I</b> Inventories	<ul style="list-style-type: none"> <li>Storage of hardcopy forms</li> </ul>
<b>M</b> Motion	<ul style="list-style-type: none"> <li>Using CRIO manpower to pass and collect hardcopy forms from one party to another</li> <li>Submission of hardcopy forms by host department</li> </ul>
<b>E</b> Extra Processes	<ul style="list-style-type: none"> <li>A lot of inefficiency in unnecessary process of repeated input of same info, follow up and coordinating soft and hardcopies of form                             <ul style="list-style-type: none"> <li>Printing forms and filling hardcopies</li> <li>Multiple approvals and system approval</li> <li>Interim updates of application status when waiting gets too long</li> </ul> </li> </ul>

## Intervention and Implementation

S/N	KEY CHANGES	BEFORE	AFTER	IMPACT
1	<b>Simplified application form</b> - Only data essential for CRIO's processing are required	7 pages Word Doc	1.5 page FormSG	Provide better user experience in filling up with a. Removal of duplications and unnecessary fields b. Clearer instructions and proper headers c. Easy access to form via FormSG
2	<b>Reduced no. of documents to be submitted upfront</b>	19 documents and forms	a. Up to 11 forms b. Project agreements to be retrieved internally	a. Reduced hassle and confusion to users b. Reduce rework c. Review process can commence earlier
3	<b>Hard copy to Soft copy</b>	Wet ink signature	Email endorsement is accepted	Reduce motion waste to pass hard copies around. Easy storage
4	<b>Reduced no of approvers</b>	a. DOP's approval required b. HR is required	a. 1 approver reduced within DPO b. HR is no longer needed	a. Reduced touchpoints b. Improve turnaround in application outcome
5	<b>Empower user/host department</b>	CRIO as "messenger" role	Dept empowered to liaise and obtain clearance with stakeholders	a. Reduced touch points and refinement of role from "messenger" to facilitator b. Clear understanding, more ownership on the process
6	<b>Introduction of "Orientation Page"/Workflow Diagram on Intranet</b>	No info is available	Information is available on intranet	a. Transparency in application process b. Reduce rework and back& forth clarification process c. Improve turnaround in application outcome
7	<b>Clarity in immunization &amp; CPR requirements</b>	Unsure of the minimum requirements	Minimum requirements are clarified and provided upfront on Intranet	Unnecessary steps/costs/waiting time may be avoided
8	<b>Introduction/formalizing "Extension" &amp; "cessation" workflow</b>	No exit or extension process – unaware of extension of attachment and actual end date	Formalizing extension process with provision of QR code & url link and clearance form	CRIO is kept updated of the external staff attached to TTSH and may provide info readily to HR when requested
9	<b>Removal of Observership attachment</b>	A variation in attachment for short duration < 5 days	Removed observership attachment – no hands-on	Resources are focused on attachments with 'hands on' components

## Results

### Outcomes (Clinical / Non-clinical)

- TAT reduced greatly by 80% from average of 2-3 months to < 2 weeks
- Number of handoffs were reduced by 62% from 39 to 15
- Number of forms were reduced by 42-43% from 19 forms to 8-11 forms
- Reworks and chasing for complete submission are reduced with transparency of workflow and upfront orientation of document required
- Clarity in number of active status in the organisation

### Experience: (Staff / Patient)

- Clarity in application process with visualisation of end-to-end process on department Intranet, hence less chance of misread and wrong interpretation by users.
- Seamless experience by users since all required document were made available at one glance
- More efficient and productive, hence, less frustrating, less chasing and reduced motion waste for the admin staff processing it.

## Cost Savings

- Number of manhours saving per application – this was estimated to be 36 days (from previous average of 48 working days to current 10-12 working days), after completed/minimal forms were received to allow the proceeding of getting the initial internal approval.
- Less physical storage required due to the use of digital forms and platform

## Problems Encountered

- Change of mindset
- Many stakeholders were needed to be engaged to provide opportunities for sharing of perspectives and understanding of information needs
- Encourage the review of current processes and operating procedures to explore ways of refining them to bring about increased efficiencies

## Strategies to Sustain

- Continuous engagement of stakeholders to review and improvement of processes to ensure relevance in current environment
- Regular audit to ensure compliance to approved scope of work and TTSH policies and procedures