

Serene Kho, NHG Diagnostics

Mission Statement

Aim Statement		
What are you measuring? <i>Number of missed critical results reporting</i>	Numeric Goal: <i>Achieve zero missed critical results reporting</i>	Time frame for completion <i>Within 6 months</i>
	Stretch goal: <i>Achieve zero missed and delayed critical results reporting</i> <i>*delayed refers to more than 2 hours after result is ready.</i>	

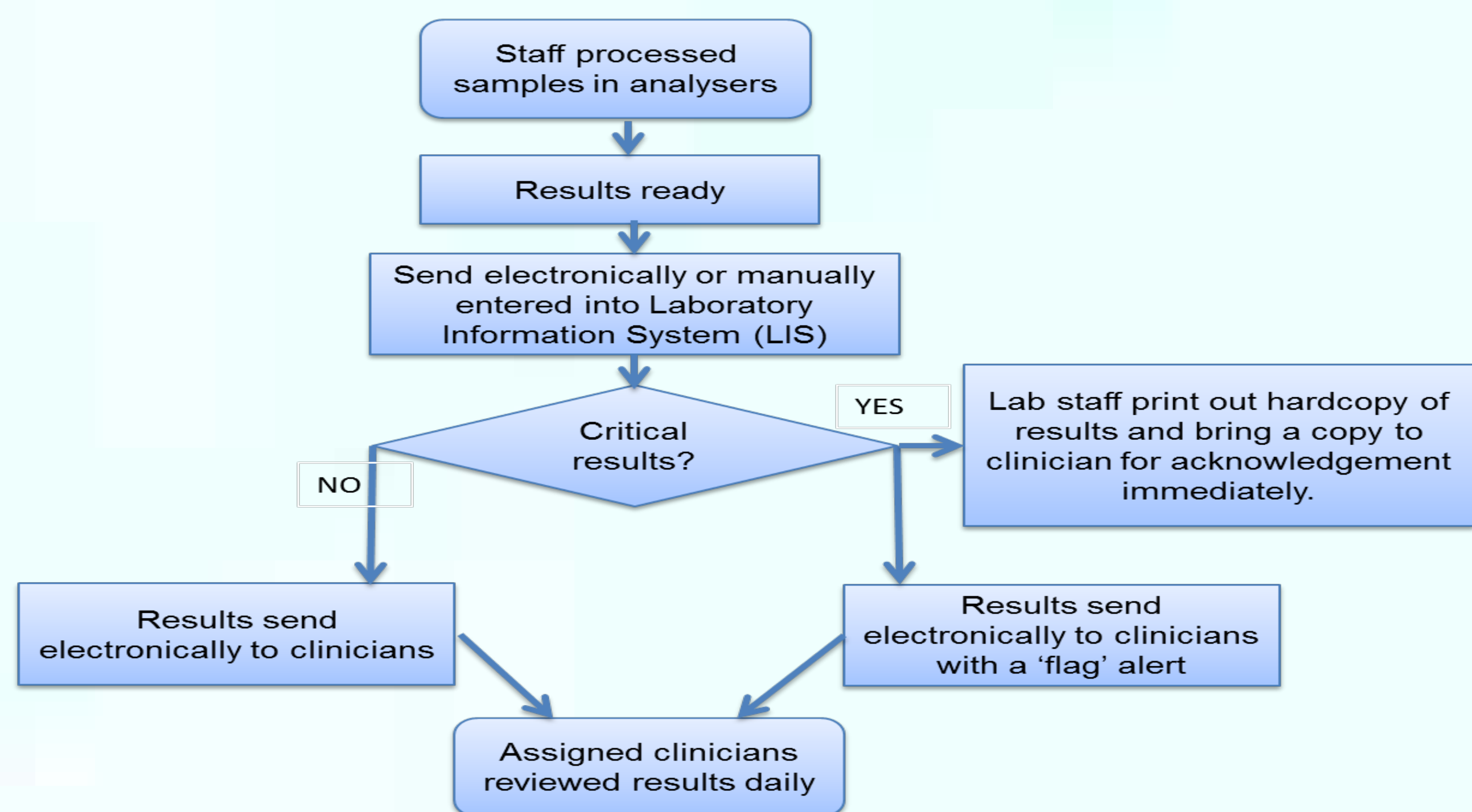
Team Members

Roles	Name	Designation
Leaders	Serene Kho	Deputy Head, Laboratory, NHGD
Members	Teng Janet	Med. Tech, NHGD
	Jason How	IT Executive

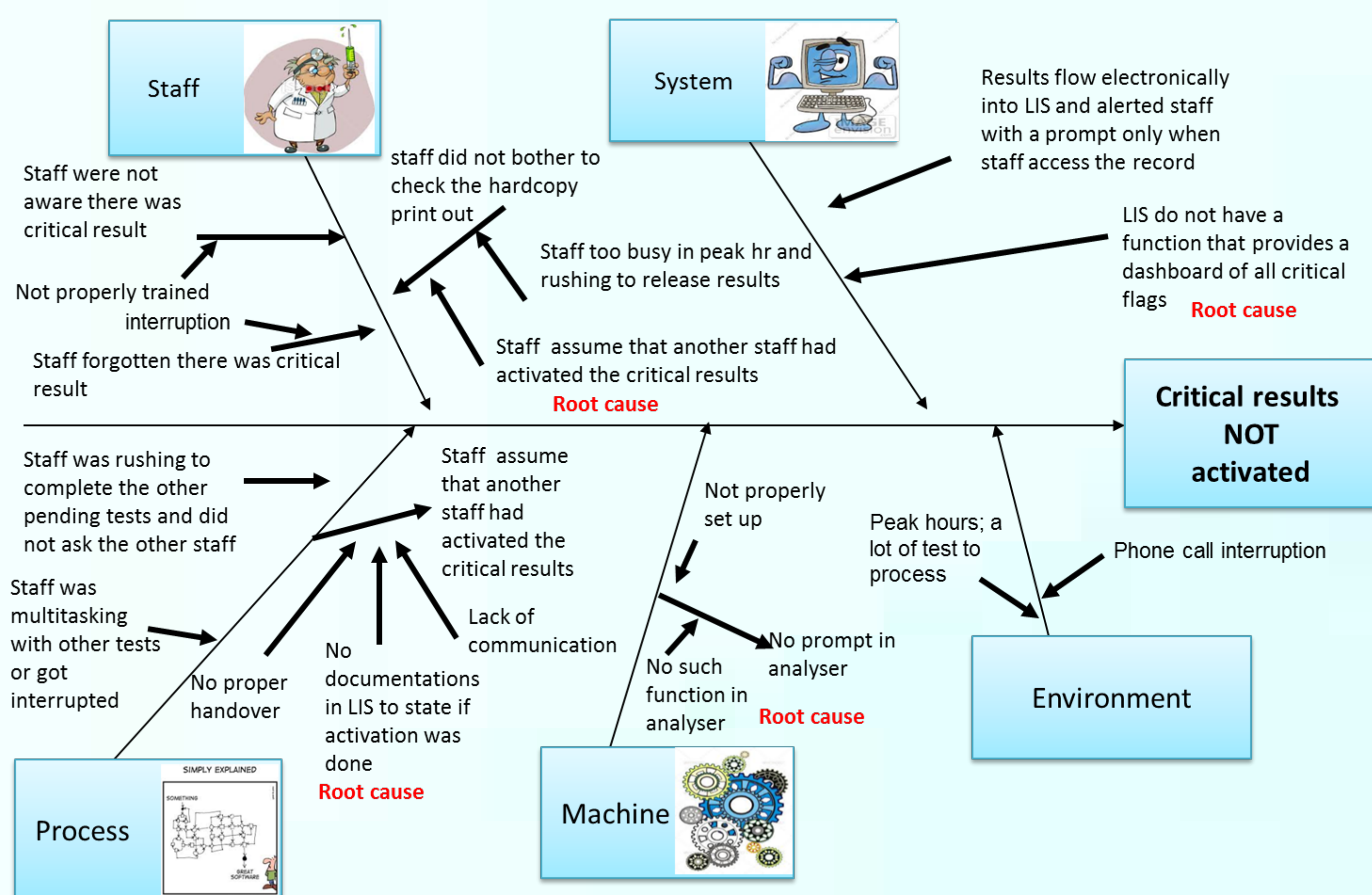
Evidence for a Problem worth solving

There were 3 cases of missed out critical reporting in 2014. Those occasions were likely due to the sharp 55% increase of onsite tests processed within the laboratories. The implications of missing out critical reporting include delayed patient management, as well as potential medical legal issues.

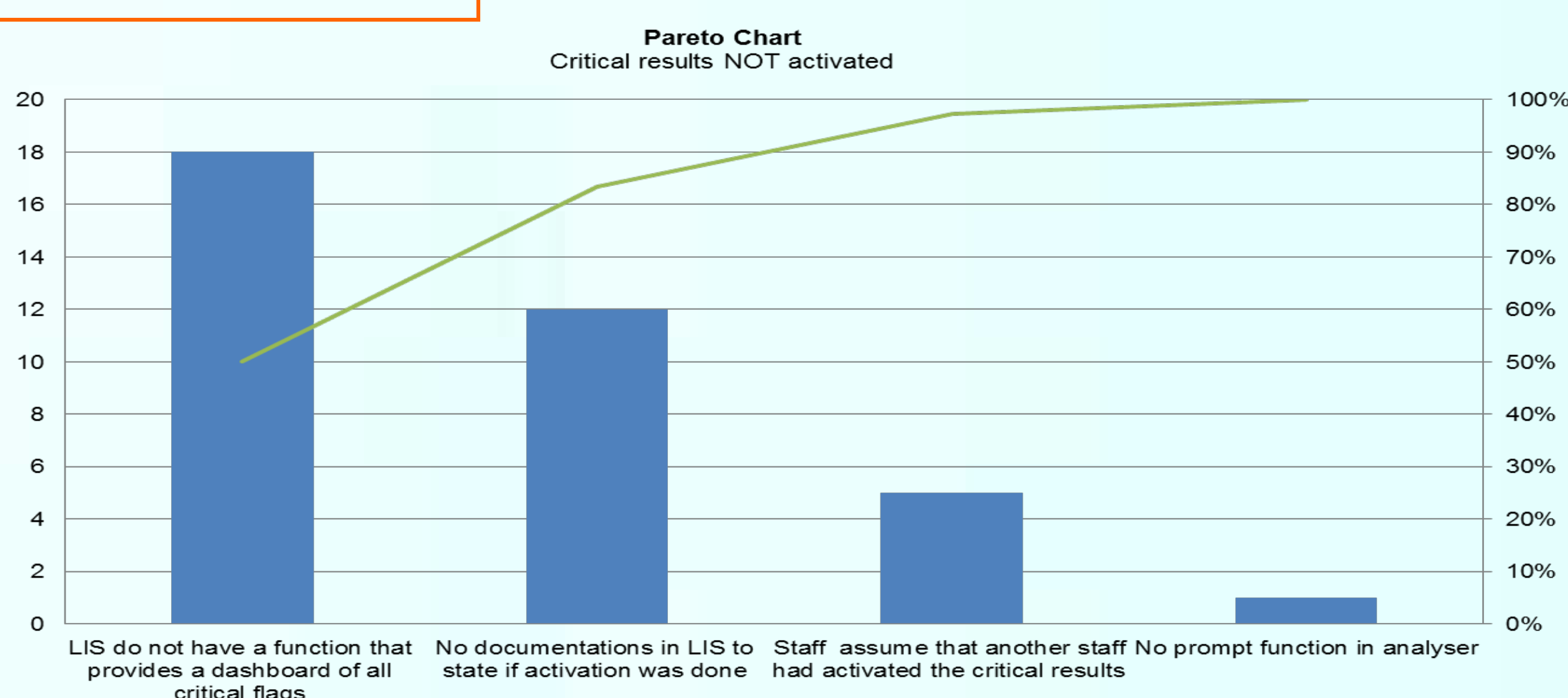
Flow Chart of Process



Root Cause Analysis

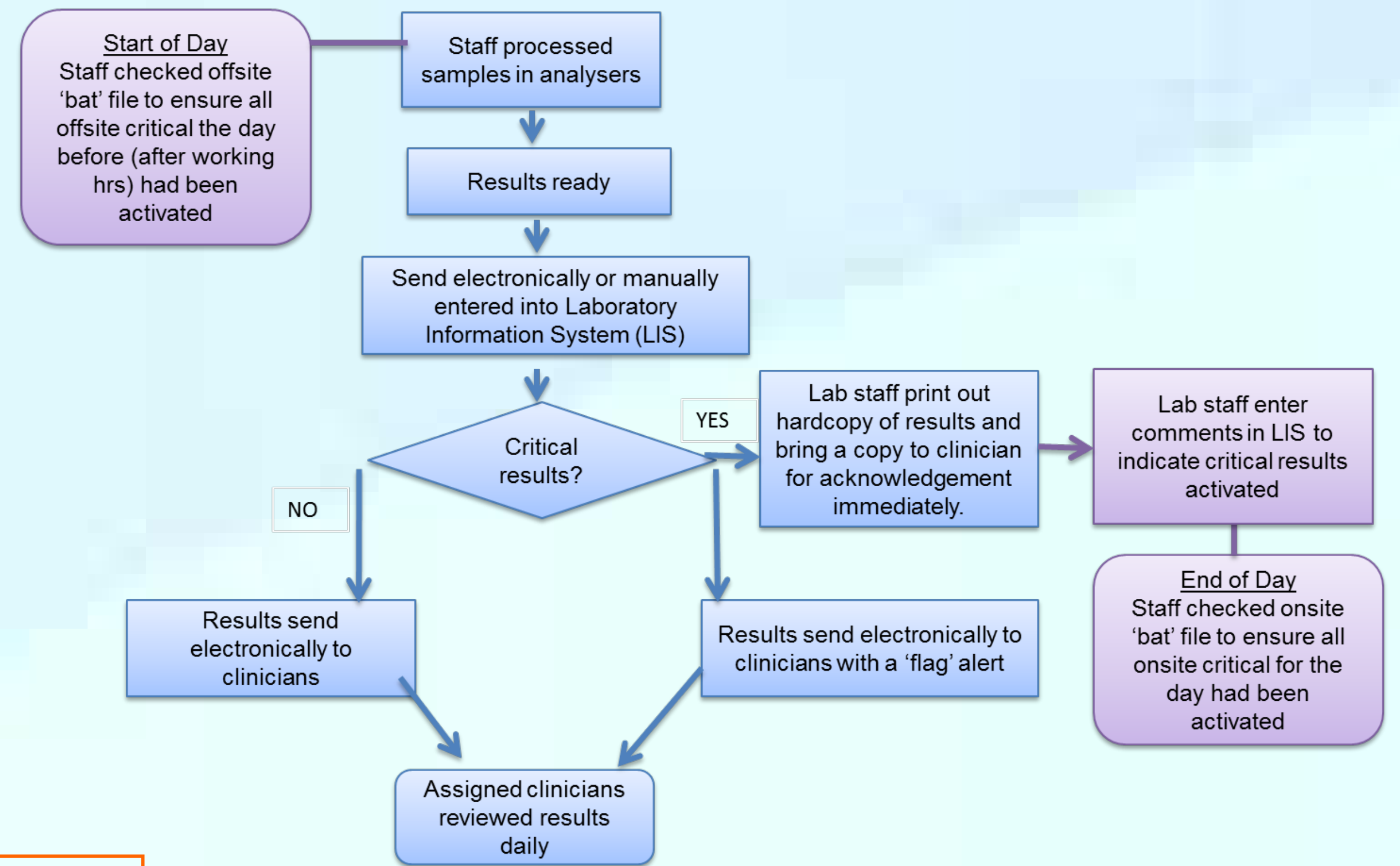


Pareto Chart

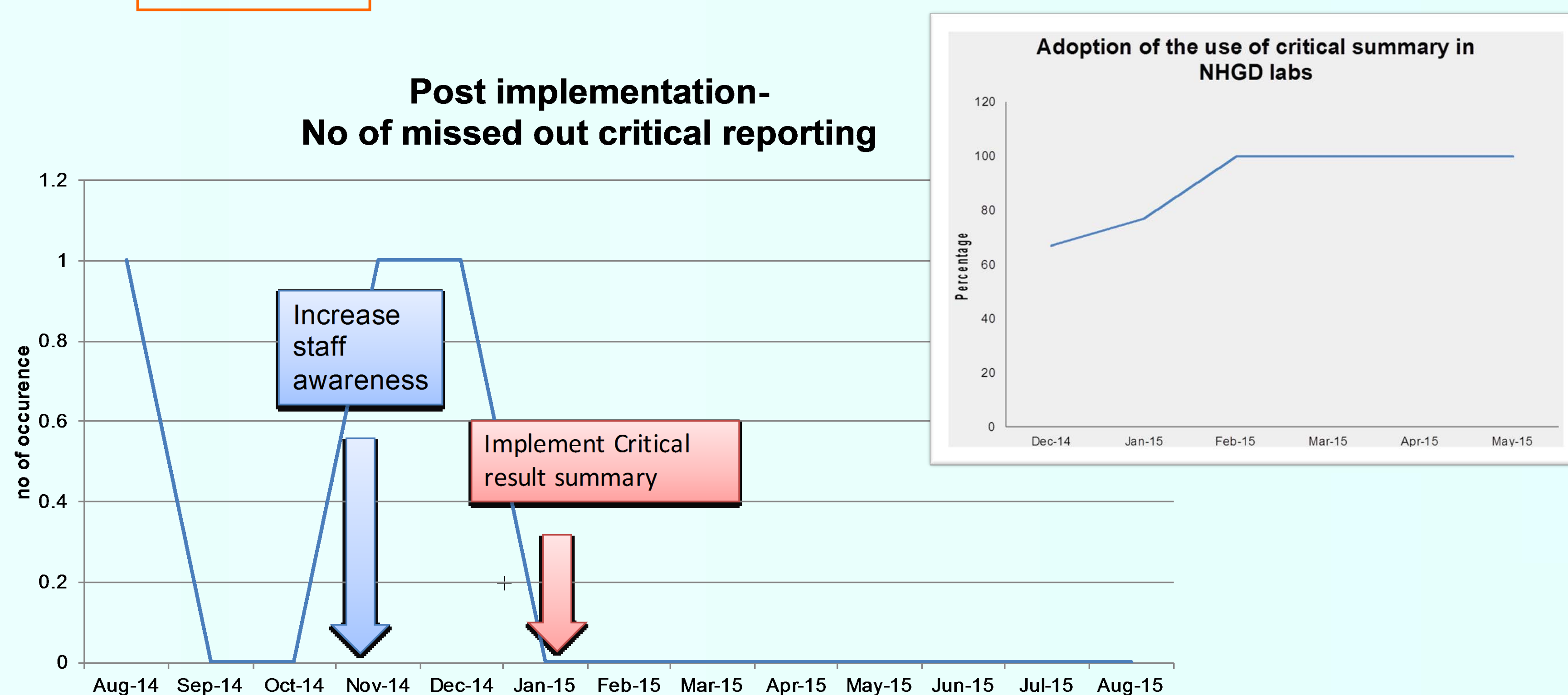


Implementation

Countermeasures Tested	Date of experiment	To make countermeasure permanent? Yes/No	Remarks/Why?
1. Create a 'bat' file that is able to extract all critical results into a excel format	1 Oct 2014	Yes	Zero missed out critical cases since roll out. Staff also feel more assured with the extracted critical list.
2. To insert comment on action taken in LIS under the critical test so that it will also be viewable on the extracted critical list	1 st Dec 2014	Still evaluating	The comments may be added at report level and hence when extract on test level, the comments cannot be extracted



Results



Cost Savings

- Near missed out cases or missing forms: 2 per month
 - Actual cases missed out: 3 per year
 - Each case will need at least 15mins.
 - No of centers: 9
 - Manhours savings: 94.5 hours
- Other non-measurable savings include impact to patient's health due to delay treatment, potential medico-legal issue that will lead to monetary loss and negative reputation.

Problems Encountered

The critical list was commonly used at all centers and staff were required to eyeball at their respective laboratories as it was still possible to miss out critical results. This has been better revised to be center specific list instead. Comments to indicate critical activation is now done at test or report level. This resulted in missing comments extracted when at report level. Workflow has been standardized and reinforced to all staff for a standardize comment field under test level.

Strategies to Sustain

No.	Purpose	Task	Who	When/ How often
1	To have a close critical result audit loop from activation to actions taken by clinicians/nurses (within 48 hrs) all in the list	To include additional column in the extracted list to indicate when action(s) is/are taken.	Serene	By 3 rd quarter 2015
2	To ensure that with staff turnover, all staff are aware this file exist and perform part of a daily maintenance to do stuff	Document in Work Instruction and include in LIS maintenance checklist	Serene	By 3 rd quarter 2015
3	Ensure that staff adhere to procedure	Review of work procedure and ISO audit	All staff	Yearly