

## Mission Statement

Improving the percentage of live listed patients at TTSH DSOT and NHG 1-Health from 32% to 100% in 6 months

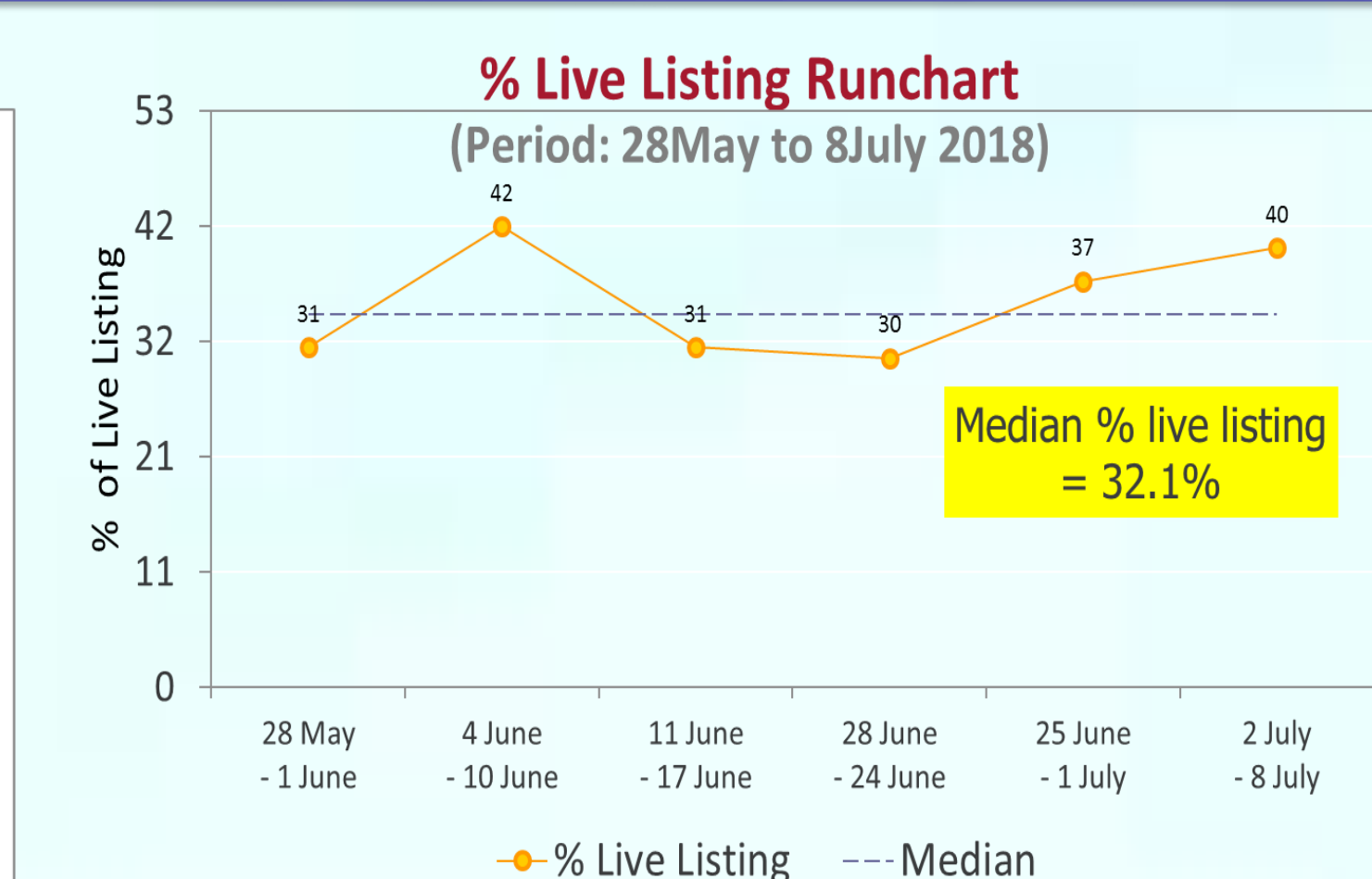
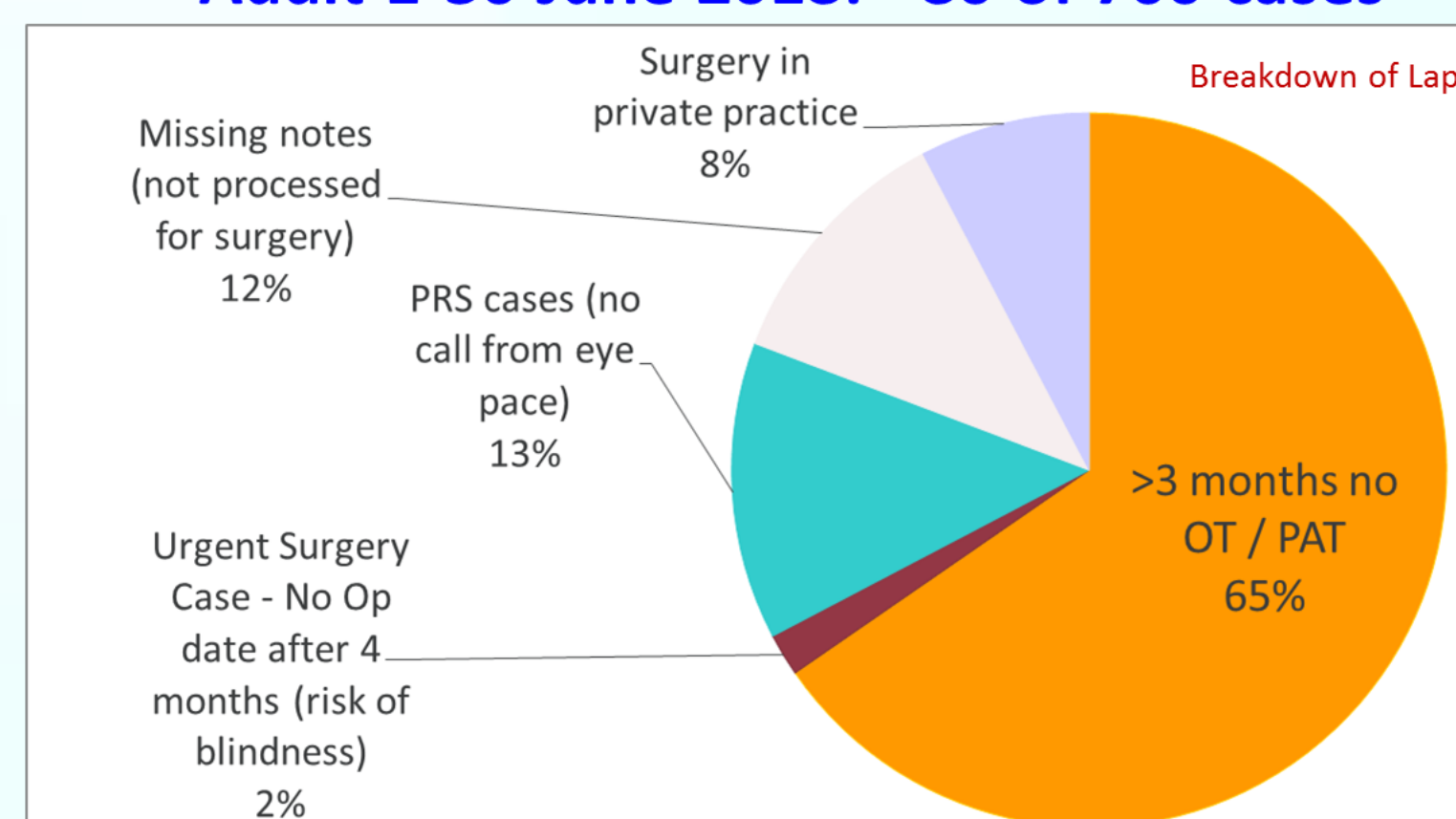
1. Live Listed Patients: Patient confirms op date on same day after seeing doctor
2. Inclusion Criteria: TTSH subsidised cataract patients
3. Exclusion Criteria: Non-cataract surgeries
4. Secondary Outcome measures
  - OT utilisation% at TTSH DSI and NHG 1H
  - Number of failed cases

## Team Members

| Role         | Name                      | Designation  |
|--------------|---------------------------|--|
| Leader       | Dr Don Pek Chern Kuok     | TTSH Eye Consultant, CIC Eye Pace Director NHG 1-Health, Eye |
| Team Members | Dr Wong Wan Yi            | TTSH Anaesthesia Consultant                                  |
|              | Dr Jacob Chin Yu Hang     | TTSH Eye Associate Consultant (EMR)                          |
|              | Dr Kwok Jian Wah          | TTSH Eye Pace Resident Physician                             |
|              | Ms Pauline Gan Seok Choon | TTSH Eye Admin Director                                      |
|              | Ms Alicia Chang Sook Ping | TTSH OTS Nursing Manager                                     |
|              | Mr Ryan Tay Hsiung Jren   | TTSH Senior Optometrist (Roster)                             |
|              | Ms Angela Ang Bee Peng    | TTSH Eye PSA Executive (Roster)                              |
|              | Ms Chua Ming Shan         | TTSH Eye PSA Supervisor                                      |
|              | Ms Ruby Cheong Sok Yee    | TTSH Eye Pace Nurse Screening                                |
|              | Mr Darius Seow Zhi Wei    | TTSH Eye Clinic + Pace Phone Listing                         |
| Sponsor      | A/Prof Vernon Yong        | TTSH Eye HOD   |
| Mentor       | Adj A/Prof Tai Hwei Yee   | Group Chief Quality Officer, NHG                             |

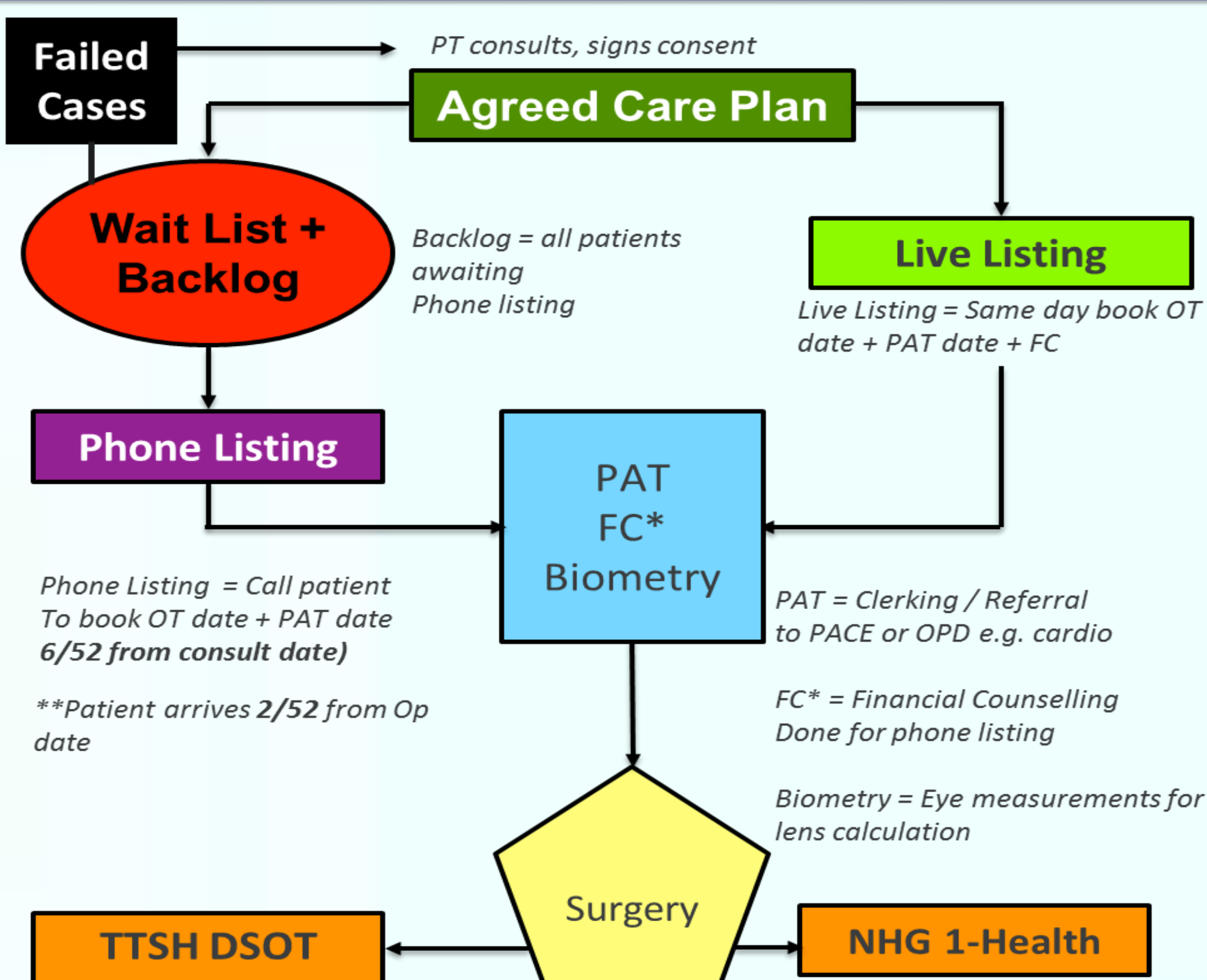
## Evidence for a Problem Worth Solving

Audit 1-30 June 2018: ~80 of 700 cases

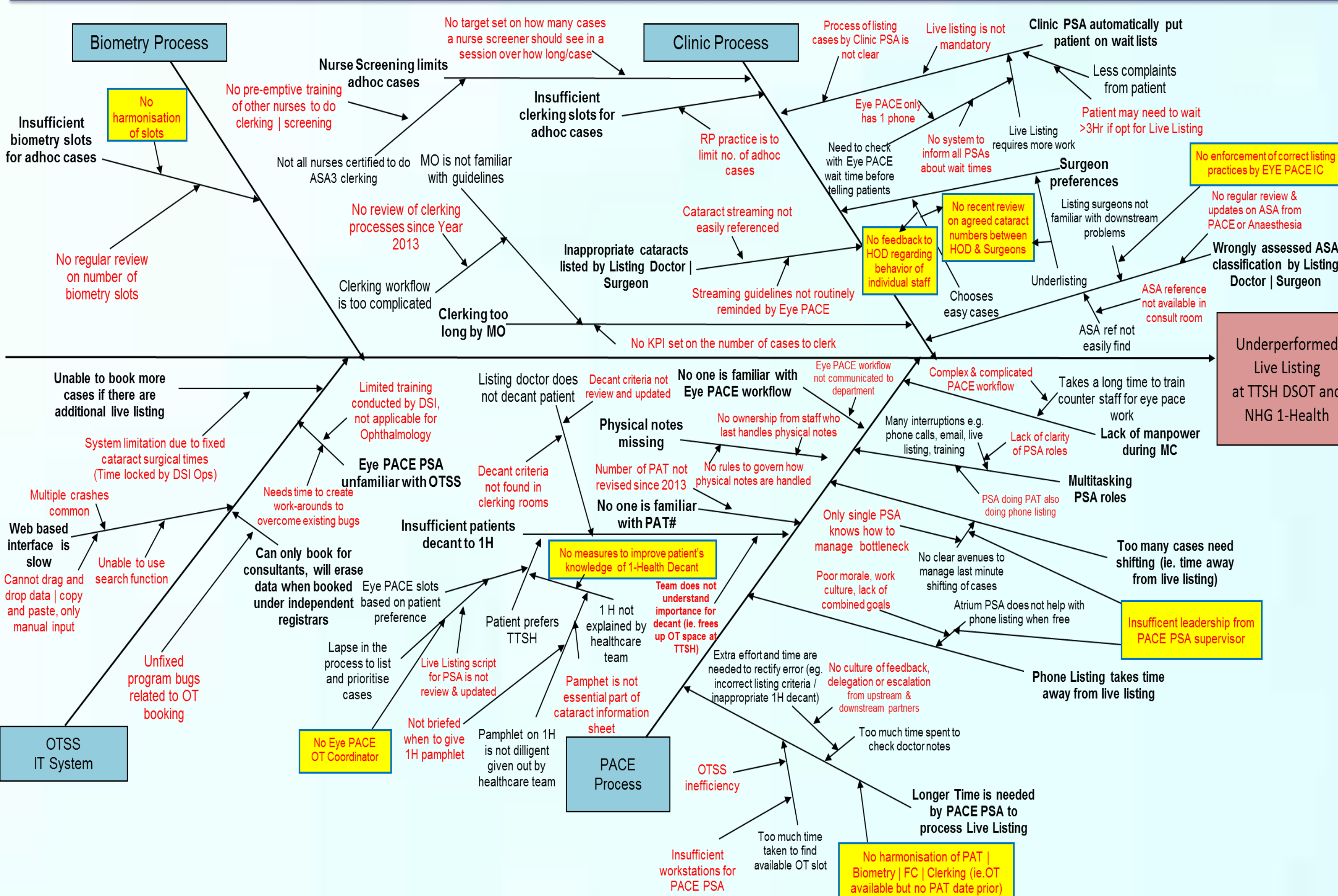


52 out of 80 Cases showed significant lapses resulting in inability to provide clinical needs of patients

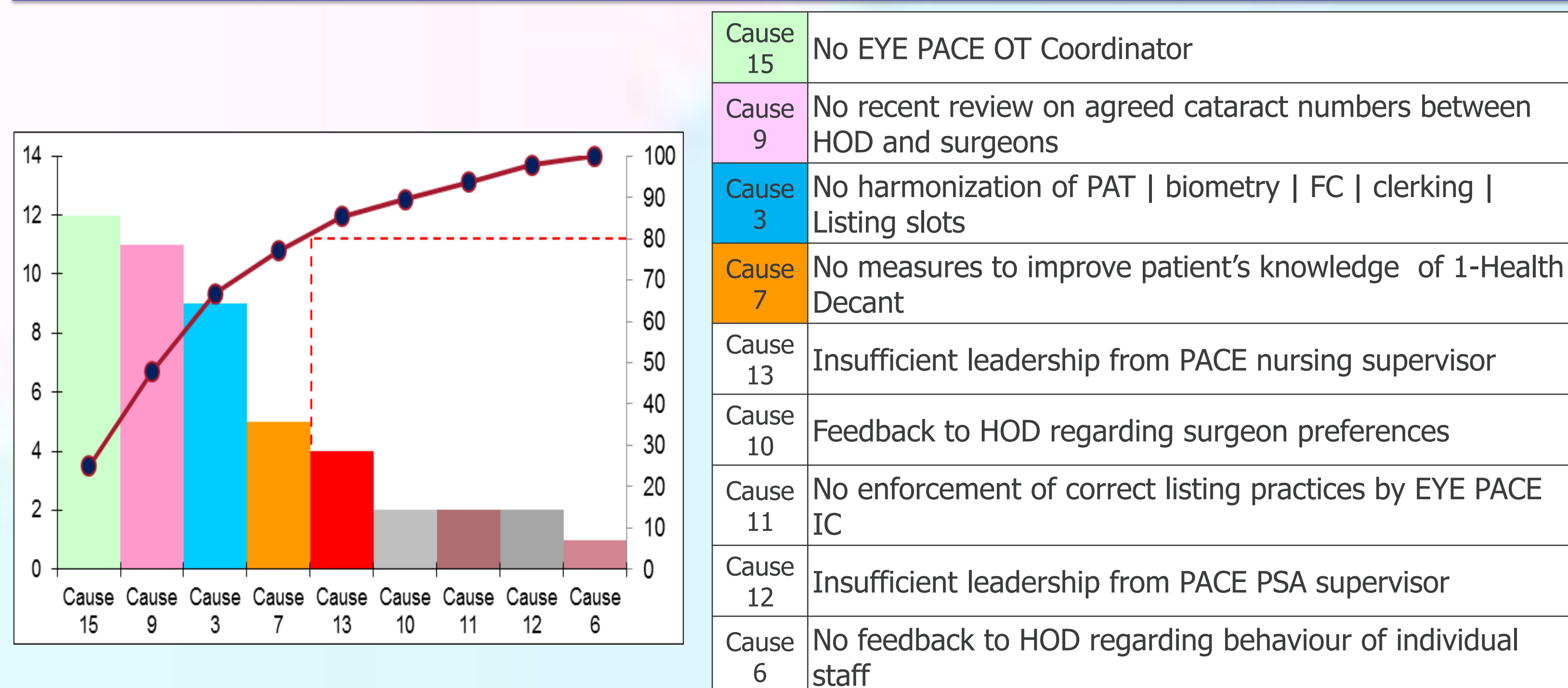
## Flow Chart of Process



## Cause and Effect Diagram



## Pareto Chart

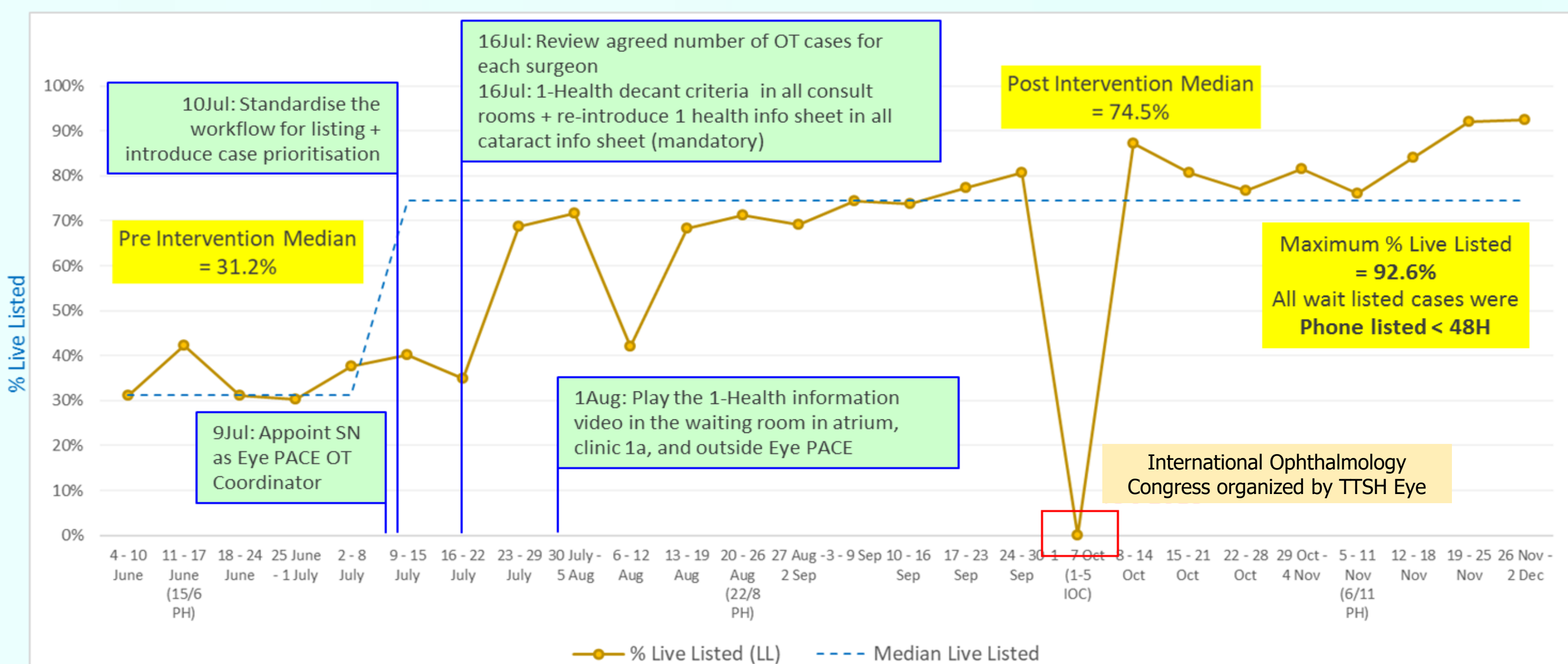


## Implementation

| Root cause  | Intervention   | Date   |
|---|--|--|
| 15) No EYE PACE OT Coordinator  | 1. Appoint SN as Eye PACE OT Coordinator<br>2. Define job responsibility + scope<br>3. Training period (with Sup PSA) + EMR, OTSS access<br>4. Document of official appointment<br>5. Training in Listing, OTSS, Lens order, shift OT cases<br>6. Authorization from DSI to shift cases (OTSS) + advise PACE | 9 Jul<br>9-20 Jul<br>9 Sep<br>19 Sep<br>24 Sep<br>24 Sep |
| 9) No recent review on agreed cataract numbers between HOD and surgeons | Review agreed number of cases each surgeon can operate on  | 16 Jul 18  |
| 3) No harmonization of PAT   biometry   FC   clerking   listing slots   | 1. Standardize the workflow for listing + introduce case prioritization<br>2. Write up SOP on approval of HOD<br>3. Department wide training   | 10 Jul<br>1 Aug<br>17 Nov                                |
| 7) No measures to improve patient's knowledge of 1-Health Decant        | 1. Calculation of projected slots needed for 2019<br>2. Meeting with stakeholders<br>3. Harmonize the slots for clerking, biometry, PAT, FC, clerking, biometry  | 9 Jul 18<br>10 Jul 18<br>16 Jul 18                       |
|   | 1. All consult rooms have 1-Health decant criteria + re-introduce 1 health info sheet in all cataract info sheet (mandatory)<br>2. Play the 1-Health information video in the waiting room in atrium, clinic 1a, and outside Eye PACE  | 16 July<br>1 Aug 18                                      |

## Results

### % Live Listed Runchart

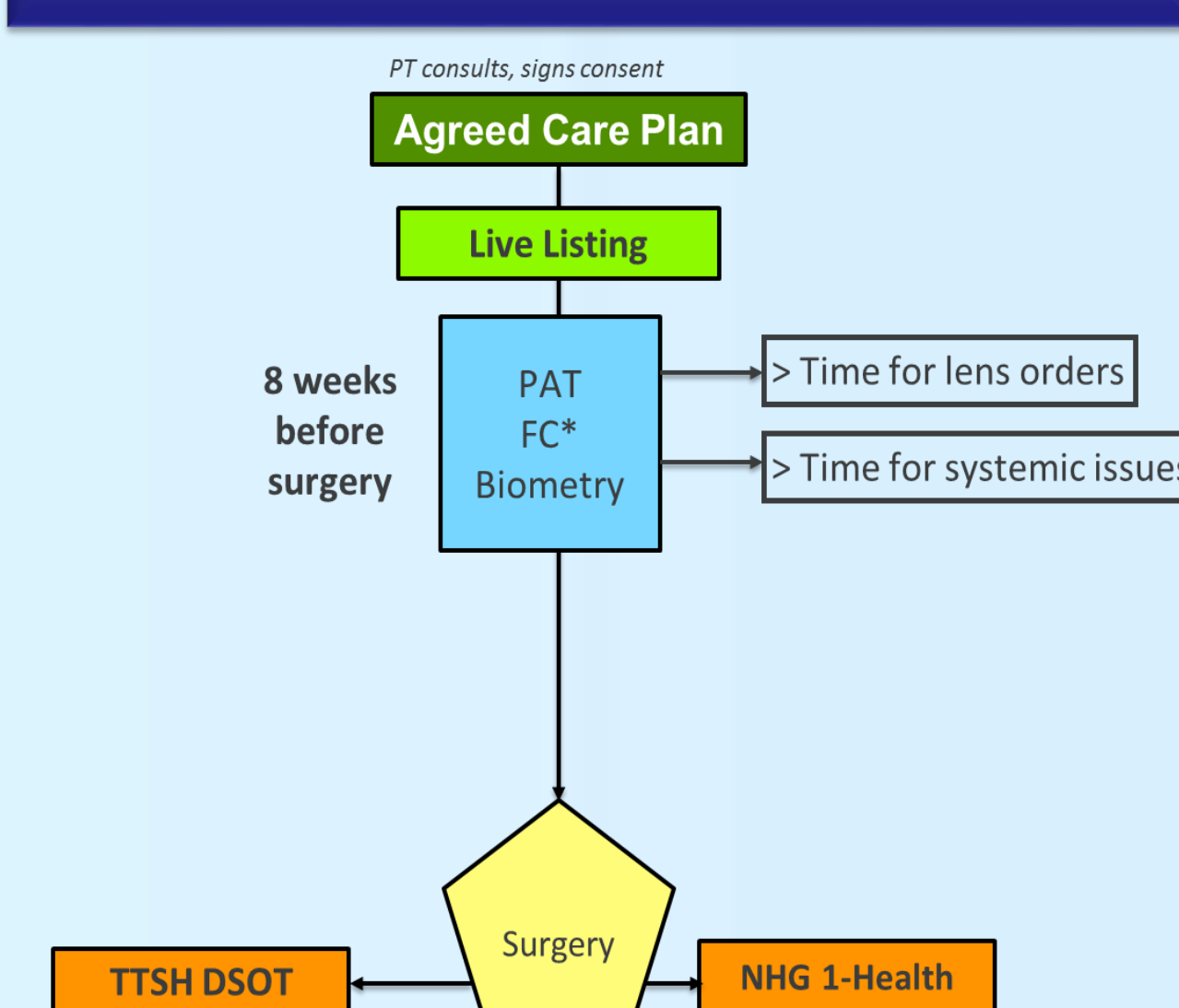


| Date             | % Live Listed (LL) | Median Live Listed |
|------------------|--------------------|--------------------|
| 4-10 June        | 31                 | 31.2               |
| 11-17 June       | 42                 | 31.2               |
| 18-24 June       | 33                 | 31.2               |
| 25 June - 1 July | 30                 | 31.2               |
| 2-8 July         | 37                 | 31.2               |
| 9-15 July        | 40                 | 31.2               |
| 16-22 July       | 74.5               | 31.2               |
| 23-29 July       | 74.5               | 31.2               |
| 30 July - 5 Aug  | 74.5               | 31.2               |
| 6-12 Aug         | 74.5               | 31.2               |
| 13-19 Aug        | 74.5               | 31.2               |
| 20-26 Aug        | 74.5               | 31.2               |
| 27 Aug - 2 Sep   | 74.5               | 31.2               |
| 3-9 Sep          | 74.5               | 31.2               |
| 10-16 Sep        | 74.5               | 31.2               |
| 17-23 Sep        | 74.5               | 31.2               |
| 24-30 Sep        | 74.5               | 31.2               |
| 1-7 Oct          | 74.5               | 31.2               |
| 8-14 Oct         | 74.5               | 31.2               |
| 15-21 Oct        | 74.5               | 31.2               |
| 22-28 Oct        | 74.5               | 31.2               |
| 29 Oct - 4 Nov   | 74.5               | 31.2               |
| 5-11 Nov         | 74.5               | 31.2               |
| 12-18 Nov        | 74.5               | 31.2               |
| 19-25 Nov        | 74.5               | 31.2               |
| 26 Nov - 2 Dec   | 74.5               | 31.2               |

## Cost Savings

|  |                      |
|--|----------------------|
| Cost Avoidance from Repeated TCU (Annualized)            | -\$61,200.00         |
| Cost Avoidance from Repeated Tests (Annualized)          | -\$6,969.60          |
| Cost Avoidance from PRS Cases (Annualized)               | -\$44,730.00         |
| Cost Avoidance from Hiring New PSA (Annualized)          | -\$70,000.00         |
| Cost Avoidance from 68% to 5% Phone Listing (Annualized) | -\$84,787.20         |
| <b>Annualized Cost Avoidance</b>                         | <b>-\$267,686.80</b> |

## Changes to Macro Flow



## Lessons Learnt

- CPIP is elegant tool to identify the crux to a complex process
- Given enough manpower, money and time, only the symptom of an underlying problem can be solved, not the problem itself.
- Changing upstream processes have big impact on downstream systems

## Strategies to Sustain

- Monitor efficiency of EYE PACE using statistics e.g. #backlog, #free slots, OT% utilization, # failed cases
  - Compliance = SOP for reference for complex process + teaching
  - Create group goals + healthy work culture
- "The goal of EYE PACE is to restore vision"**