

### **Project Title**

Electronic Patient Contact Verification in Emergency Department

### **Project Lead and Members**

Project lead: Desmond Koh

Project members: Wong Meng Khin, Ng Siew Lian, Yan Feng Shan

### **Organisation(s) Involved**

Ng Teng Fong General Hospital

### **Healthcare Family Group Involved in this Project**

Healthcare Administration

### **Applicable Specialty or Discipline**

Operations

### **Project Period**

Start date: Jul 2017

Completed date: Mar 2018

### **Aims**

To reduce both the number of returned bills, as well as time needed to audit contact verification by at least 50%.

### **Background**

See poster appended/ below

### **Methods**

See poster appended/ below

## **Results**

See poster appended/ below

## **Lessons Learnt**

Courage to drill into and overcome self-limiting beliefs on the backroom and frontline's resistance to change is essential to the project reaching fruition to do contact verification right.

## **Conclusion**

See poster appended/ below

## **Project Category**

Care & Process Redesign, Quality Improvement, Workflow Redesign

## **Keywords**

Patient Contact Verification, Returned Bills

## **Name and Email of Project Contact Person(s)**

Name: Desmond Koh

Email: koh\_tze\_hock@nuhs.edu.sg

# ELECTRONIC PATIENT CONTACT VERIFICATION IN ED

MEMBERS: DESMOND KOH, WONG MENG KHIN, EPIC ASAP TEAM

- ✓ SAFETY
- ✓ PRODUCTIVITY
- ✓ PATIENT EXPERIENCE
- ✓ QUALITY
- ✓ VALUE

## Define Problem/ Set Aim

### Opportunity for Improvement

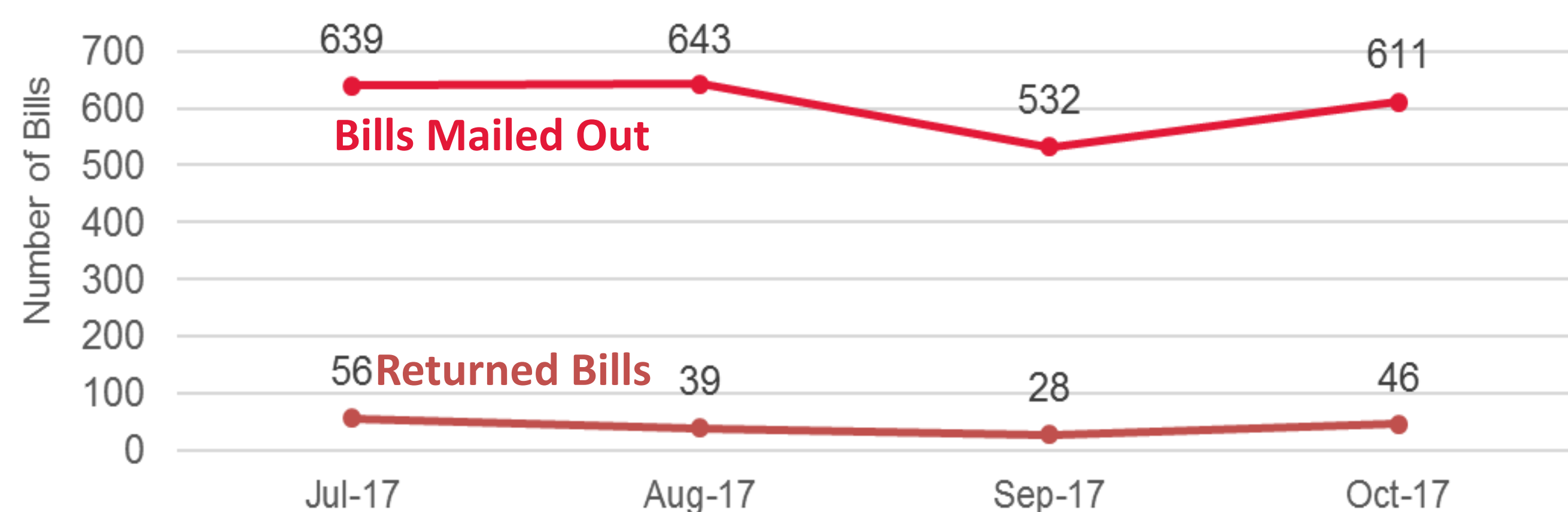
ED started contact verification at discharge in Nov 2017, to **reduce returned bills with invalid addresses**. Patients verify details and sign off on hardcopy health declaration forms (HDF). Some wondered why they were asked to sign off on an unrelated form. PSAs have also **forgotten to update details** into SAP. Auditing compliance with paper HDFs is also **very inefficient**.

### Aim

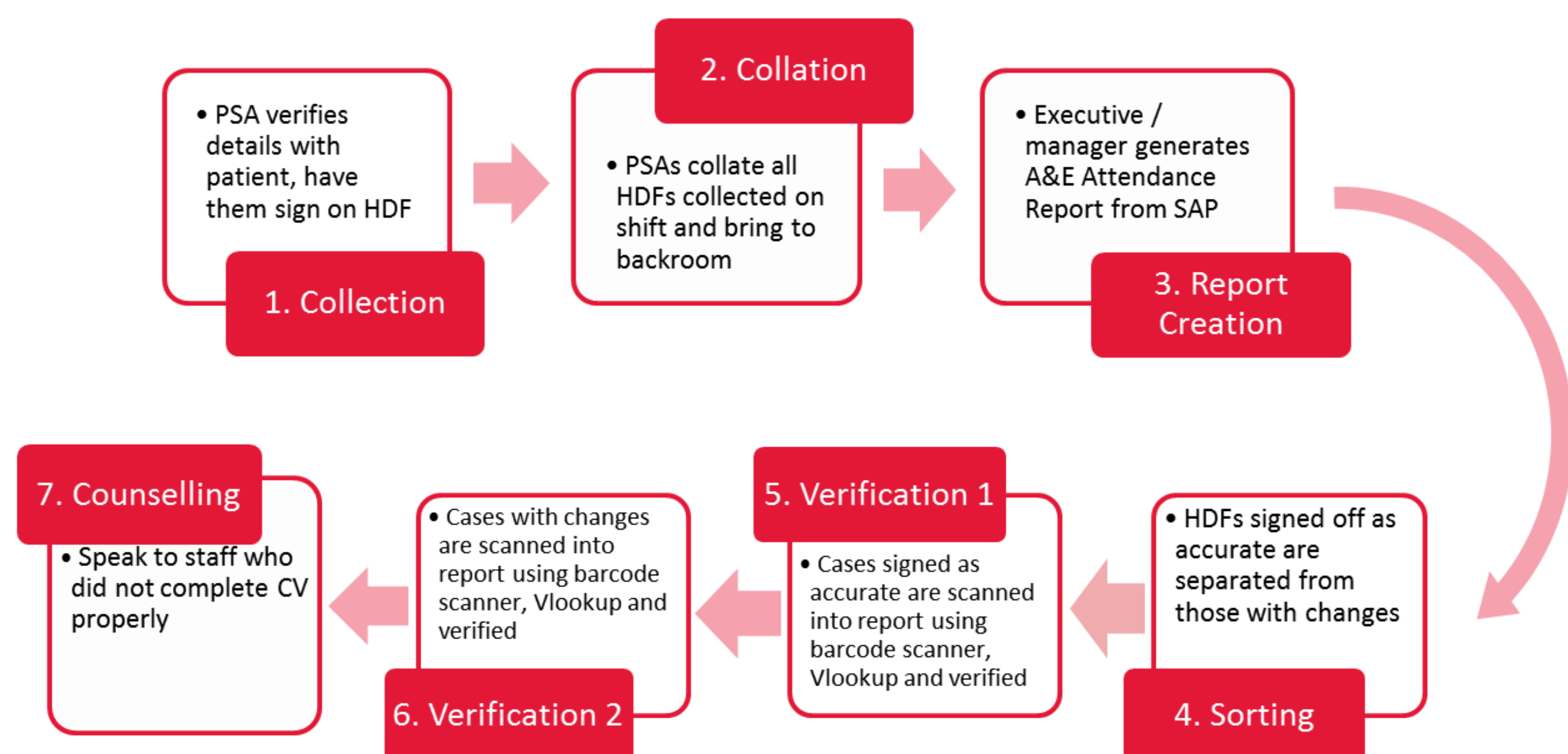
In six months, the team wants to reduce **both** the number of returned bills, as well as time needed to audit contact verification by at least **50%**.

## Establish Measures

**7%** of all mailed ED bills are not delivered successfully on average due to invalid addresses captured during the discharge process.

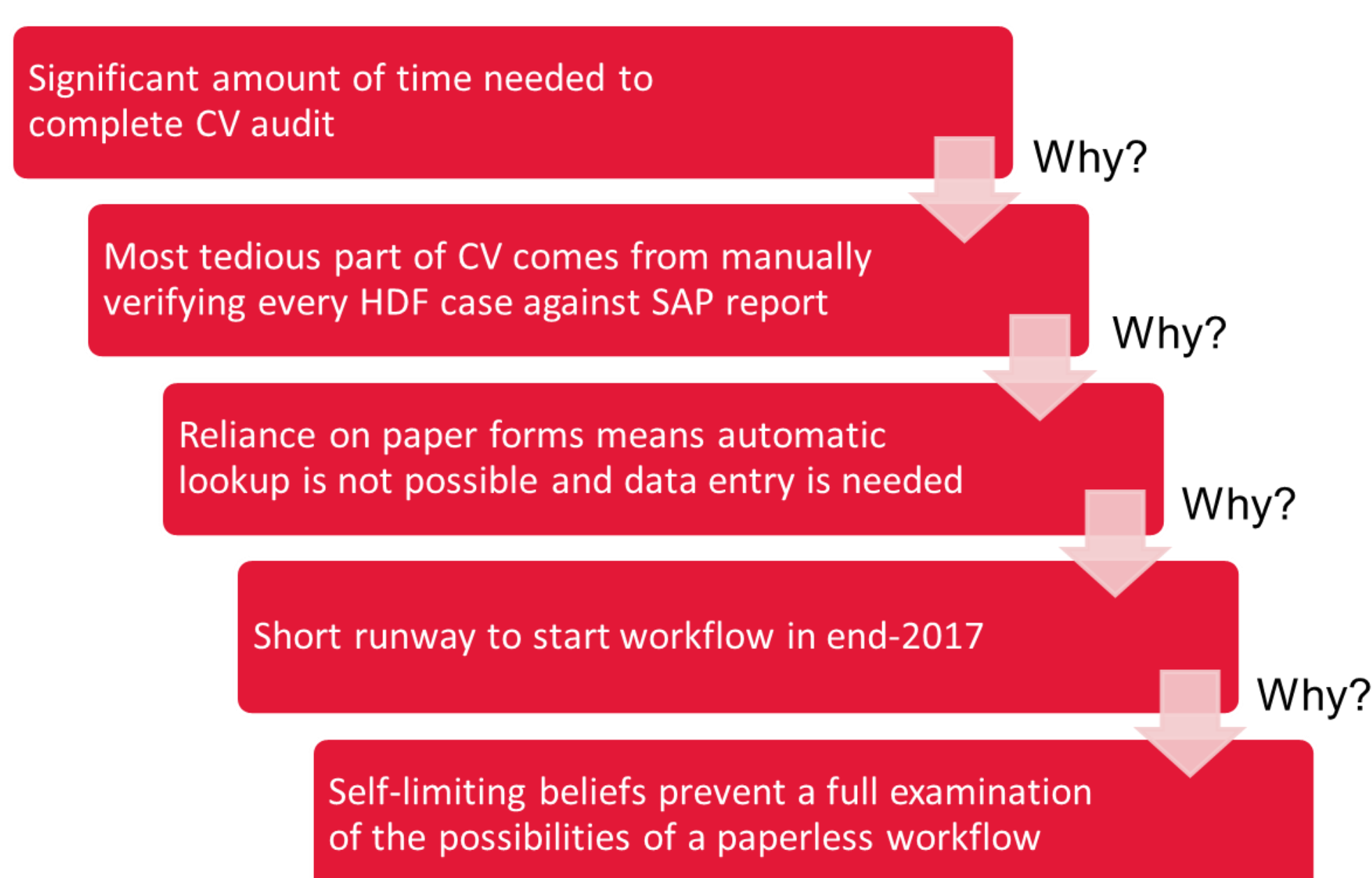


It takes an executive **~4 hours** to audit **~160 discharge HDFs** a day. The audit required **730 man hours** a year to complete, costing **~\$16,000** a year (at midpoint of JG11 salary of \$3,590).



## Analyse Problem

The team completed a **5 Whys** analysis to uncover the barriers to a more effective verification process, and realised **a paperless contact verification process** can resolve the above concerns.



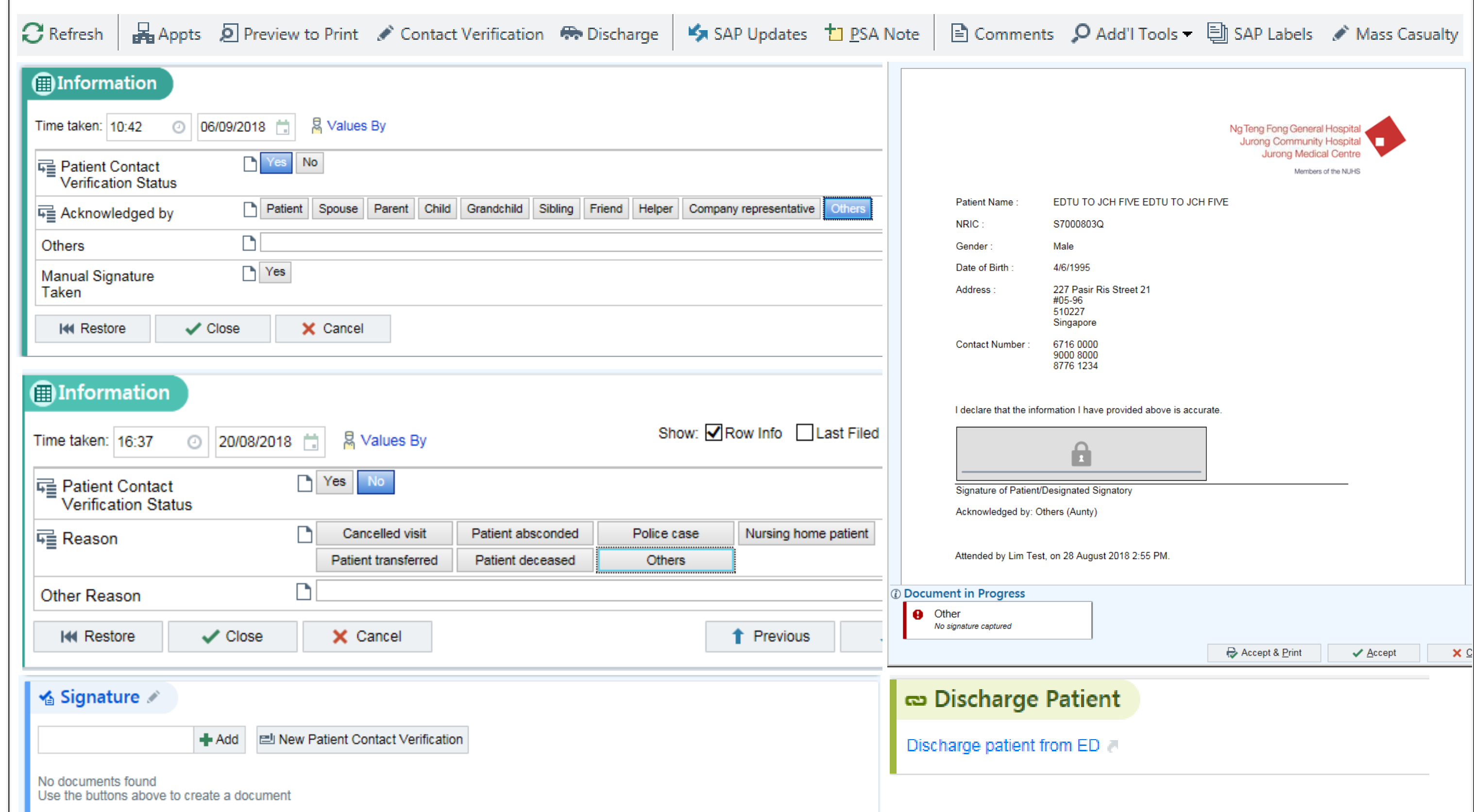
The team asked PSAs how they envision CV to be like when done in Epic, and incorporated what is technically possible with ASAP team. **2 Plan-Do-Check-Act** cycles were done to improve module.

- Initial consultation and ideation: 1.5 months
- Prototype, feedback: 2 months (PDCA Cycle 1)
- Revision, finalisation of module: 1.5 months (PDCA Cycle 2)
- Report design, further module tweaks: 1 month

## Select Changes

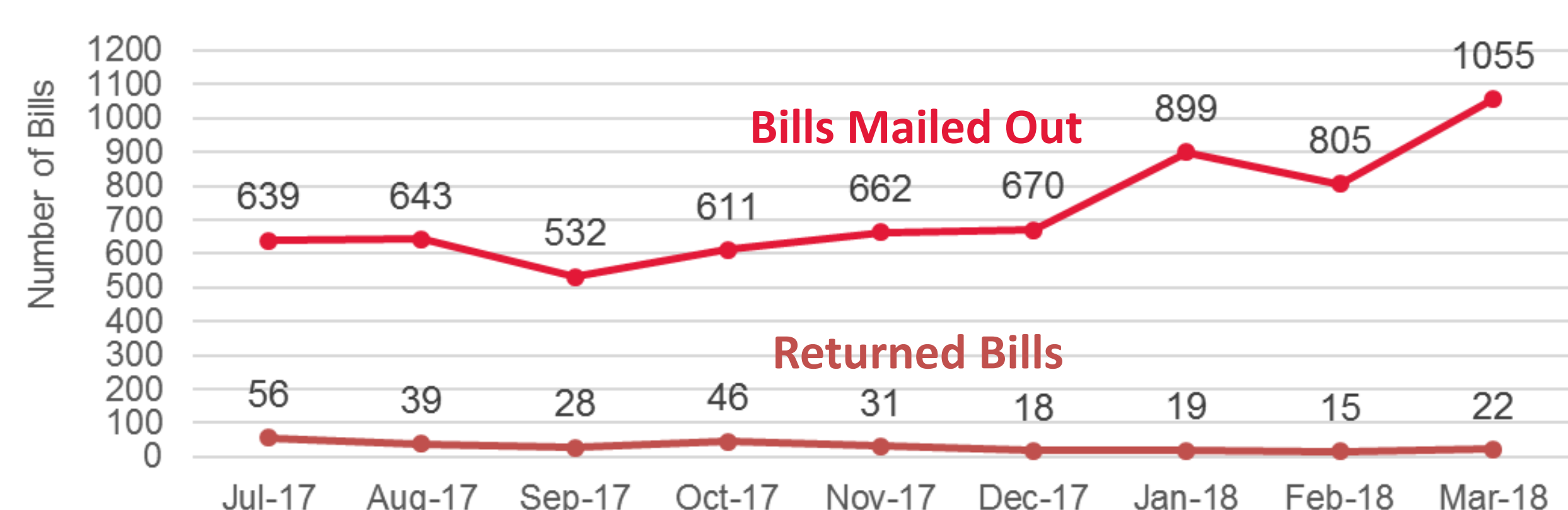
PSA activate **Epic Contact Verification** module and fill up flowsheet. Details will be **read out and confirmed with patient**, then **signed off**. Manual signature option added in case of signature pad failure.

A report was also created to simplify the audit process.

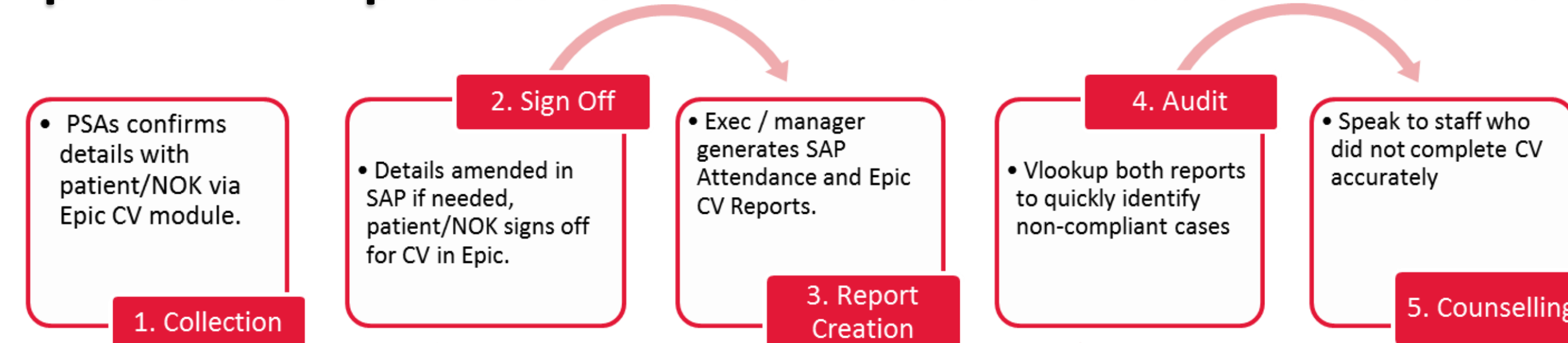


## Test & Implement Changes

Percentage of returned bills declined drastically to **2%** on average.



**Simplified work process** for both contact verification and audits.



The new workflow makes it mandatory for all staff to complete contact verification before discharge, ensuring **100% compliance**. Audits can now be completed in **30 minutes**, a **87.5%** improvement in productivity, saving **657 man hours** a year. This adds up to **\$14,500** annually (at midpoint of JG11 salary of \$3,590 a month).

## Spread Change/ Learning Points

### Sustaining the Change

The module is an integral part of a PSA's workflow, so compliance is natural. Monthly audits and feedback reinforced the improvement.

When rolling out the module, the team actively sought out queries, convincing the PSAs of the time savings, and lightening of duties. The team thus gradually gained supporters to the change.

### Key Learning Points

The team started this project to take charge on a function worth improving – To do contact verification right. Courage to drill into and overcome self-limiting beliefs on the backroom and frontline's resistance to change is essential to the project reaching fruition.

