



Background

Accuracy in the weighing of the newborn babies in Labour Ward is important for Neonatologist to calculate the dosage of medication / amount of milk feeds required. There are two battery operated infant weighing scales for the weighing of newborns. Charging these weighing scales at the charging points is required after each use to ensure the functionality for the subsequent use (Figure 1). There had been multiple episodes of broken adaptor cables for the chargers due the frequent abrupt removal from electrical sockets (Figure 2). These damaged adaptor cables had to be sent to the Biomedical Engineering Department for repair almost every fortnightly and it took 3 to 4 working days (Figure 3). The repair process and duration impacted the smooth workflow due to the unavailability/ shortage of infant weighing scales for daily usage. This had indeed caused disruption to the work flow in weighing of babies.



Figure 1
Weighing scale at the charging point



Figure 2
Staff did not remove the adaptor with cable from the electrical socket before usage.

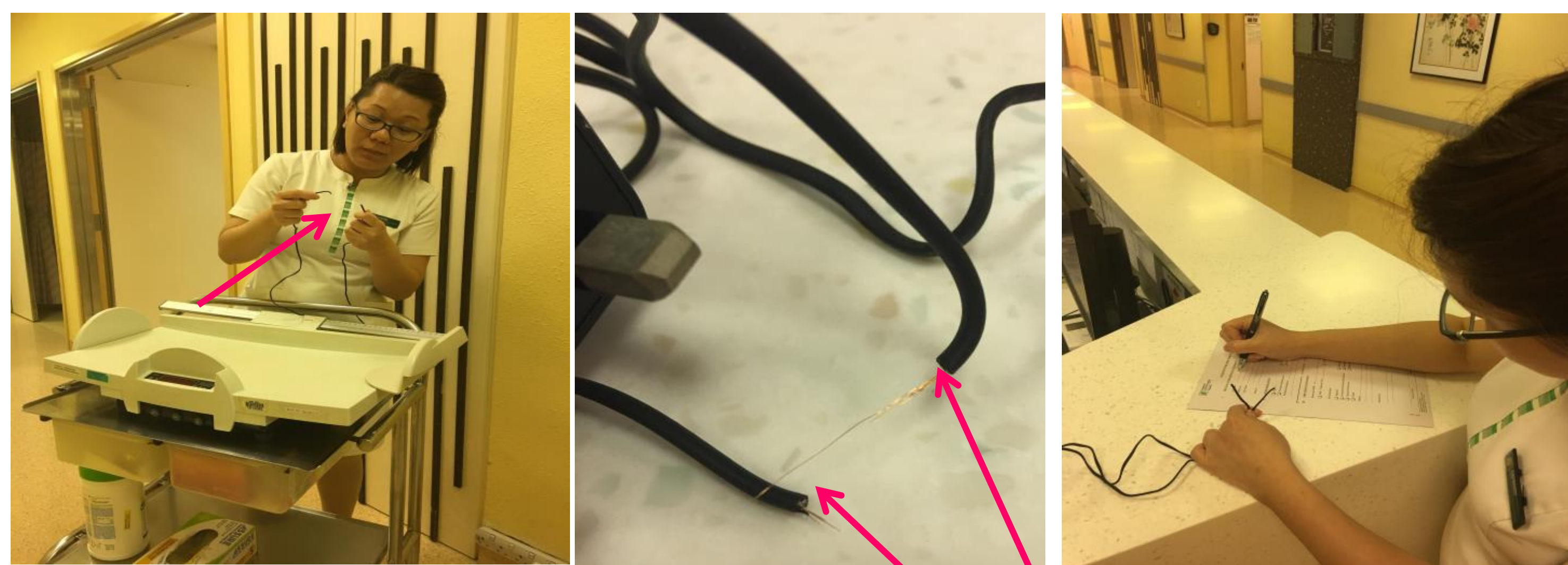


Figure 3
There were multiple incidents where the staff removed the weighing scale without removing the adaptor from the charging point and hence led to the damage of the cable. Time and money were wasted to send damaged adaptor cables for repair or replacement.

Mission Statement

To improve the work process by decreasing the number of repair to the charging adaptor cables by 70% within 3 months.

Methodology

Problem analysis

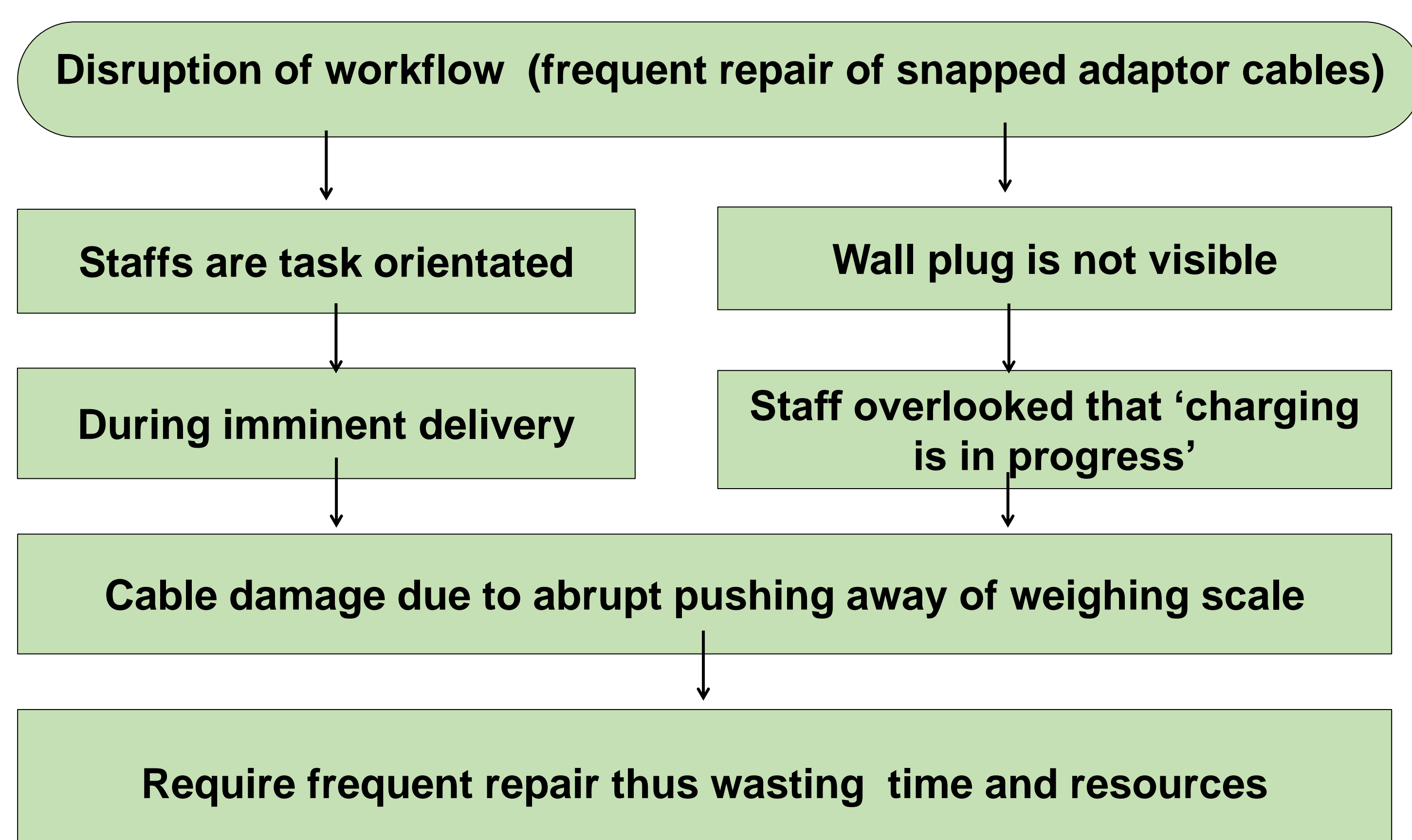


Figure 4

Interventions / Initiatives

PDCA 1 - Reminders during roll call

Verbal reminders were given during roll call sessions to all staff to be observant and cautious on the need to unplug the adaptor with cable from the charging point. However, it did not reduce the number of damage to the adaptor cables.

PDCA 2 (Figure 5) – Placement of colourful cards on scale act as a reminder

Colourful cards with plastic covers was placed on the weighing scales to remind the staff to unplug the weighing scale from the charging point before pushing for use.

However, the coloured picture smudged easily due to alcohol seeping into the plastic cover after frequent wipe down using the mikrozid AF wipes.

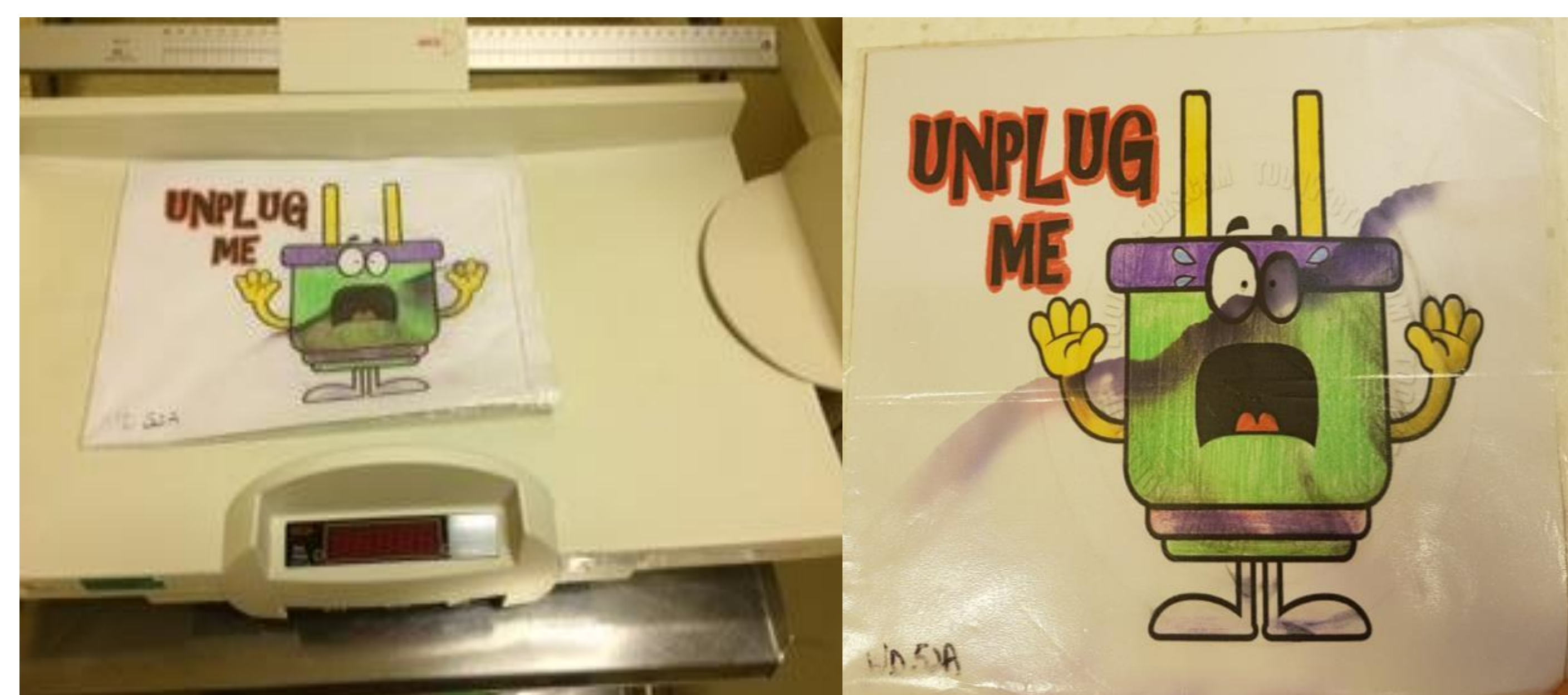


Figure 5

PDCA 3 (Figure 6) - Revised Laminated colourful picture

The colourful card with plastic cover was then changed to a laminated cover to curb smudging. Staffs were happy with this change and it had reduced the number of damaged adaptor cables thus reducing the repair needs tremendously.

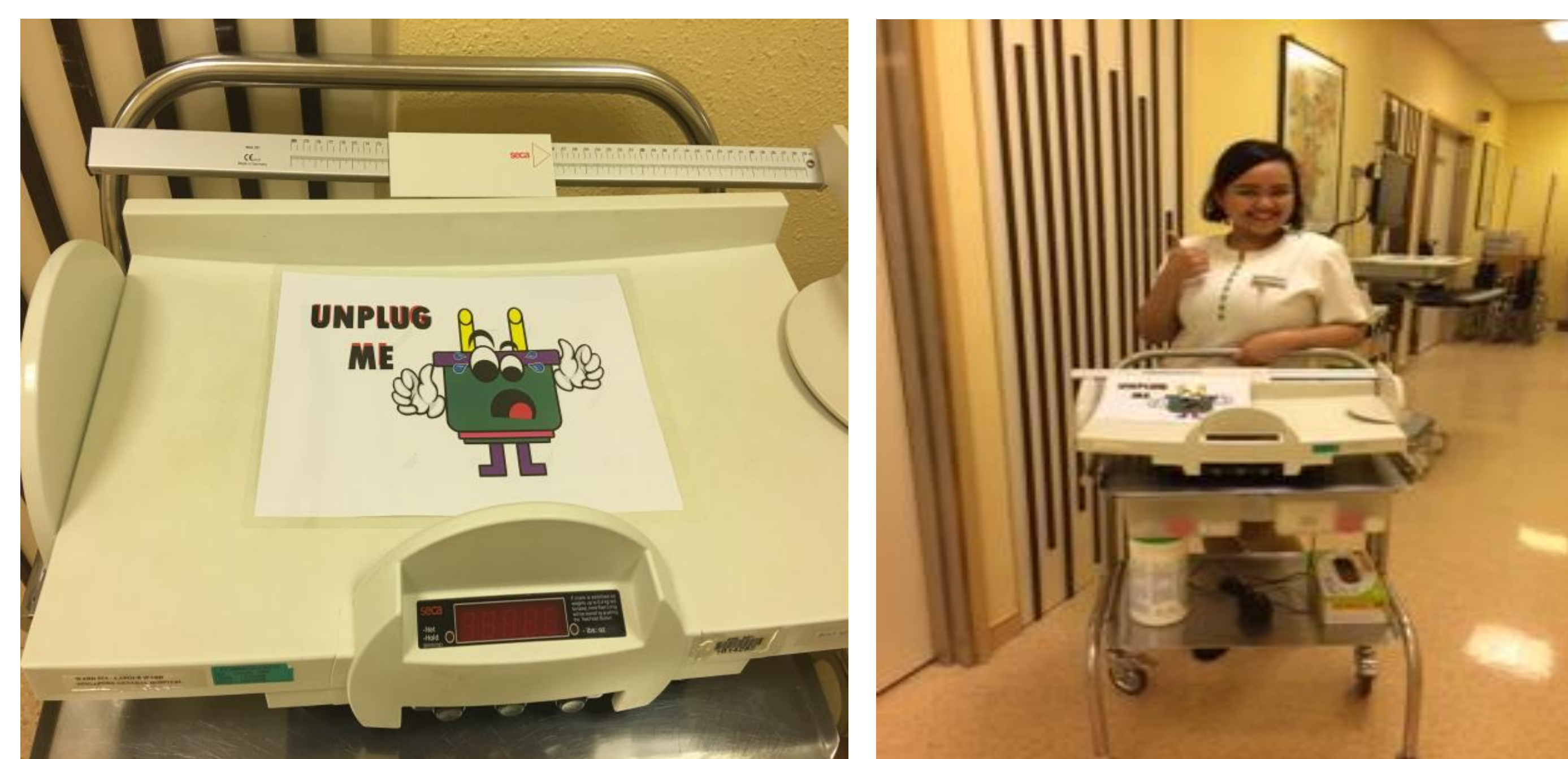


Figure 6

Results

1. There is a significant reduction in repairing the damaged adaptor cables from fortnightly to zero over the 3 months period.
2. Each repair would cost \$17, thus we achieved cost savings of total of **\$102 in total over 6 months.**
3. Cost saving on manpower and time as :
 - Labour Ward staff need not raise form and arrange e-portering to send item to BME department for repair, time can be channeled to providing quality care for mother and her baby.
 - BME staff can make use of the time save to attend to other repairing work or maintenance jobs.

Sustainability Plans

Conduct random audits on staffs' compliance on the following:

1. Removal of the adaptors before pushing the weighing scales from the charging point.
2. Placement of the pictured cards on the weighing scales after each wiping down.