Define the problem / Opportunity:

Respiratory samples are not getting timely virology results

Current State: (What happens now? Be visual – value stream map, graphs, facts & measurements etc)

Goal (State the specific target(s). State in measurable or identifiable terms)

1. To ensure that all samples booked in the morning, are delivered to the PCR lab in time for the same-day testing.
2. To ensure all samples booked in the afternoon of one day are tested the following day, and thus within 24 hours.

Waste Identified: (Transportation, inventory, motion, waiting, overproduction, overprocessing, defects, unused creativity, automating an inefficient process)

- Turnaround time increases when samples booked in afternoon
- Some samples booked in morning still take >24 hours for result (miss the 1 per day batched run)
- Some samples booked in afternoon take ~48 hrs (they even miss next day’s run)
- Some samples appear to have TAT of zero
- Larger number of samples received on Mondays
- Mean based on huge range
- Uneven distribution of booking-in between morning and afternoon (eg yellow/grey bars for Weds)

Root Cause Analysis (What is the root cause of the problem?)

Q1: Why did sample A miss the daily PCR run? A: Because it wasn’t in the courier box that was transported to the PCR lab
Q2: Why wasn’t it in the box? A: Because the courier took a different box instead.
Q3: Why did the courier take a different box? A: Because he didn’t know he had to take the one with PCR samples in
Q4: Why didn’t he know? A: Because it looks like all the other ones.
Q5: Why does it look like all the other ones? A: Good question!
A3 Lean Improvement

Version: 
Author: 

Team Members: 

Future State: (What will it look like? Be visual i.e. future state value stream map)

<table>
<thead>
<tr>
<th>Samples drop out of air-tube and into sample area</th>
<th>Samples sorted into baskets and time-stamped</th>
<th>Baskets collected by pharmacy staff (within 45 min)</th>
<th>Samples bags opened and time + tube labelled</th>
<th>Samples into racks and loaded in original form</th>
<th>Forms go for scanning and sampling point to transport box</th>
<th>Box taken across to other building</th>
<th>Samples unloaded, checked, and processed</th>
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</thead>
</table>

Action Plan

<table>
<thead>
<tr>
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</thead>
<tbody>
<tr>
<td>Action Plan</td>
<td>Who?</td>
<td>When?</td>
<td>Progress Status</td>
</tr>
</tbody>
</table>

Results and Measures: (What was your PDSA cycle, how long did you run it for, what data did you collect before and after the change, what did you find? Add any charts or tables)

Next Steps: (Any remaining issues/problems, any further follow up required?)