

Project Title

Digitalisation of Medical Courier Process for Improving Productivity and Effectiveness of Medical Courier

Project Lead and Members

Project lead: Wong Chong Keat

Project members:

- Francesca Lee Beng Guek
- Zul Bakri bin Abas

Organisation(s) Involved

National Healthcare Group Diagnostics

Project Period

Start date: March 2020

Aims

To support the internal needs for on time delivery of lab specimens and clinical reports in cost effective manner.

- Timely updating of about 100 daily consignment note (CN) delivery status for ensuring completion of delivery jobs.
- Remote monitoring of courier's readiness for daily job including vehicle conditions and on the go supplies via daily checklist for ensuring that courier could perform their daily jobs effectively.

Background

See poster appended/ below

Methods

See poster appended/ below

Results

See poster appended/ below

Lessons Learnt

We learnt that:

- Changing of mind-set is the first hurdle.
- Process improvement usually involves rethinking of the process first.

If to start again, we hope to move faster than we had before to realise the gains sooner.

Conclusion

See poster appended/ below

Additional Information

We are glad that the FormSG introduced by GovTech has enabled us to rethink our processes. The accessibility of the technology, security of the platform and the low cost barrier of entry allows it to be spread widely.

The early successes in using FormSG has now spurred on other projects to digitalise more aspects and processes of the operations. What's most heartening is to see the courier members coming back now to suggest other ways of using FormSG. With that we are now a stronger and more efficient team in supporting NHGD through the wide network of partners.

Project Category

Technology, Automation, IT & Robotics Innovation

Keywords

Technology, Automation, IT & Robotics Innovation, Process Improvement, Primary Care, National Healthcare Group Diagnostics, FormSG, Medical Courier, Remote Monitoring, Data Retrieval

Name and Email of Project Contact Person(s)

Name: Wong Chong Keat

Email: chong_keat_wong@diagnostics.nhg.com.sg

Digitalization of Medical Courier Process for Improving Productivity And Effectiveness of Medical Courier

ABSTRACT

NHG Diagnostics (NHGD) is a business unit of the National Healthcare Group. We provide one-stop imaging and laboratory services to primary care and the community via our network of 30 over centres and a fleet of mobile centres.

NHGD maintains a medical courier team of 10 couriers to support the internal needs for on time delivery of lab specimens and clinical reports in cost effective manner.

In March 2020 the team started a digitalisation project by adopting FormSG to improve two areas critical to the performance of medical courier team:

- Timely updating of about 100 daily consignment note (CN) delivery status for ensuring completion of delivery jobs.
- Remote monitoring of courier's readiness for daily job including vehicle conditions and on-the-go supplies via daily checklist for ensuring that courier could preform their daily jobs effectively.

KEY OUTCOMES

FormSG for uploading CN to monitor delivery status

Tangible Benefits

- TAT for updating status reduced from ≥ 2 days to 1 day.
- 100% of consignment notes received. No loss CN reported.
- TAT for checking of dispute: Improved from 2 0 7 days to immediate extract from digital archive. 4 cases since implementation in 2020.
- Productivity increase of about 111 hours/ year for Admin Assistant

Intangible benefits:

- Remote monitoring and updating of status without sighting of hardcopy CN.

FormSG for monitoring courier readiness

Tangible Benefits

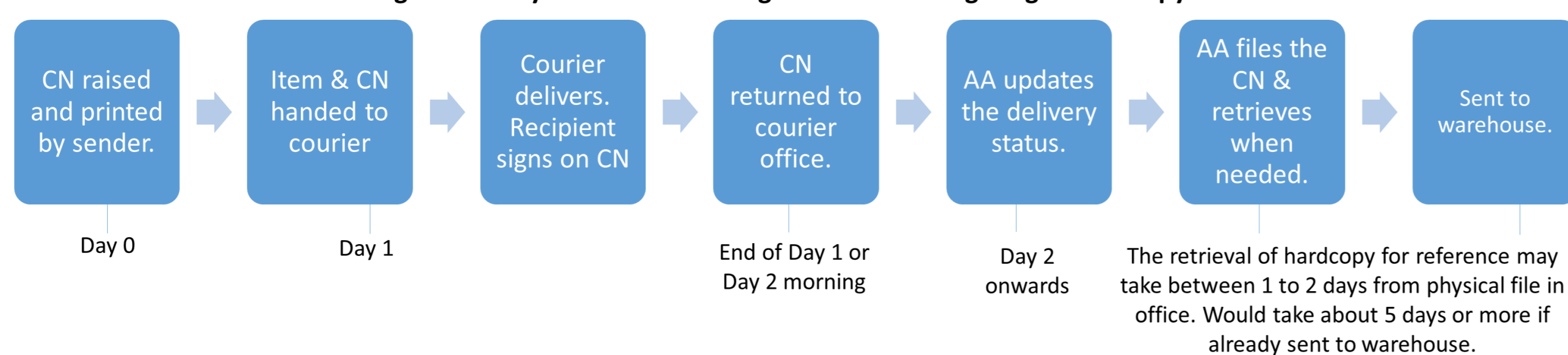
- Able to immediately and remotely check for compliance. To date, there is a 94.6% compliance by the courier in using the daily operational forms.
- Easily retrieve data for analysis and tracking.

WHAT WAS DONE

PROBLEM

1 Monitoring of delivery status via hardcopy CN

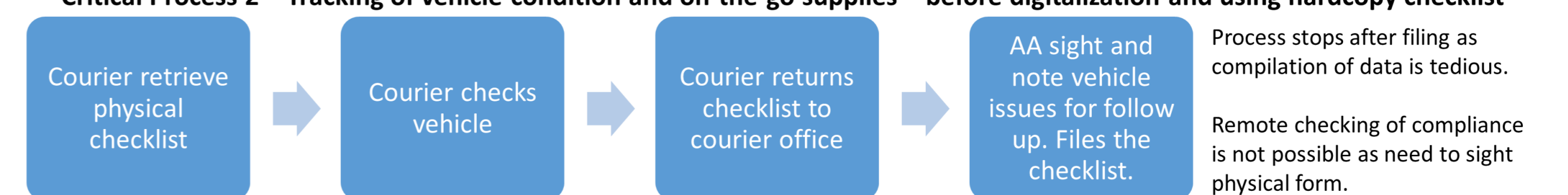
Critical Process 1 – Monitoring of Delivery Status – Before digitalisation and sighting of hardcopy CN needed



The updating of about 100 delivery status on the courier system could only be done when the hardcopy form is returned and seen. This slows down the ability of the team to monitor status of delivery which is crucial to ensure that delivery jobs are completed timely. Furthermore, the reliance on the hardcopy forms only allows ground staff to be able to update the status and supervisors have no remote monitoring capability. Subsequent retrieval of CNs are also impacted as the drawing out of physical form is tedious depending on the location.

2 Monitoring of courier's readiness via paper checklist

Critical Process 2 – Tracking of vehicle condition and on-the-go supplies – before digitalization and using hardcopy checklist



Courier uses the checklist to conduct walk through of critical functions before and after the daily operations including condition of the vehicle, condition of the delivery receptacles such as the portable fridge and the availability of on-the-go supplies including hand rub, alcohol wipes, spillage kit and etc.

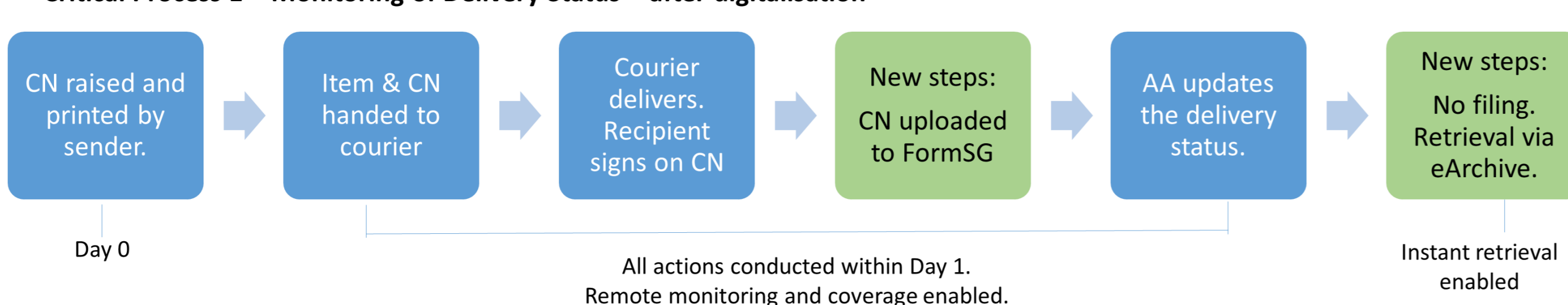
The submission of physical forms do not allow supervisors to instantly and remotely monitor the compliance and also reported issues. The information can only be seen and collated when supervisor visits the ground office. As a hardcopy form, courier are unable to attach photos of related matters for records and would rely on other forms of communications such as WhatsApp. Furthermore it is tedious to trend data as the information is stored in hardcopy.

WHAT HAS IMPROVED

FormSG was integrated into the process allowing for immediate improvement to the critical steps with no further zero cost outlay. FormSG being built by GovTech and the availability of the "email mode" and "storage mode with attachment" allows use to use the platform in the suitable manner securely.

1 Monitoring of delivery status via CN on FormSG

Critical Process 1 – Monitoring of Delivery Status – after digitalisation



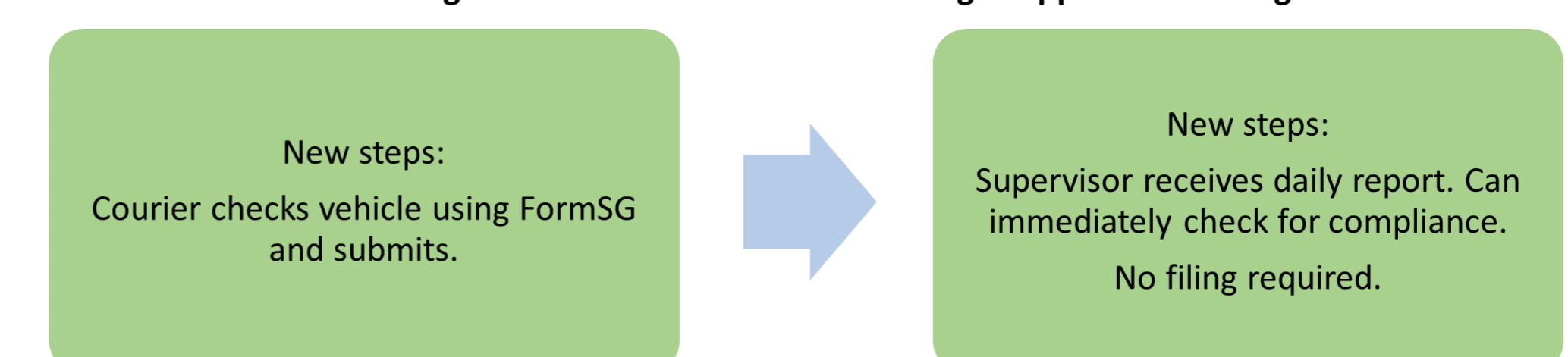
By integrating FormSG into our processes we have immediately enabled the capability for remote monitoring, reduce turnaround time for supervision of the critical process and enabled instant retrieval of information.

The ability of quickly updating the delivery status and the subsequent speed in retrieving information has improved the confidence of our senders and recipients towards the service level and capability of the medical courier team.

Both implementation was also timely as we moved through the phases of Circuit Breaker as it supported the need for supervisors to remotely monitor the team's performance while working from home.

2 Monitoring of courier's readiness

Critical Process 2 – Tracking of vehicle condition and on-the-go supplies – after digitalisation



INSIGHTS AND MOVING FORWARD

1) In implementing the changes, there were some initial resistance and reservations from the courier as it impacted their daily routine. Constant engagement through the supervisors was critical in bringing them on-board

2) Process improvements often arise from addressing each small issues that arise which will overtime would accumulate to larger benefit and impact for the team.

This early successes in using FormSG has now spurred on other projects to digitalise more aspects and processes of the operations. The accessibility of the technology, security of the platform and the low cost barrier of entry allows it to be spread widely. What's most heartening is to see the courier members come back now suggesting other ways of using FormSG.