

# Cook Children's Supply Chain Project GDerrick Tabe IE 4350: Senior Capstone





#### **ABSTRACT**

The purpose of this project was to follow the DMAIC method and improve the pickup and delivery routes for Inventory & Distribution department at Cook Children's Hospital.

#### INTRODUCTION

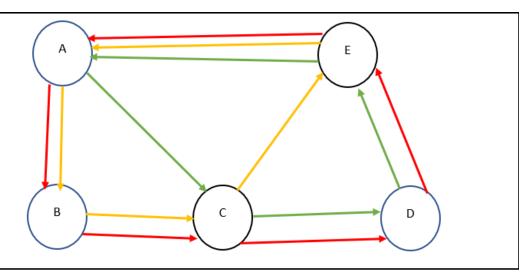
Receiving and delivering mail or packages on time in a hospital is important because delaying care to patients is never what any hospital intends to do. Having the necessary supplies on hand when a medical professional at Cook Children's is attending to any patient keeps the patient flow moving. With the completion of this project, mail couriers should improve upon the established baseline for all routes.

#### REFERENCES

IE 3315, IE 4315, IE 3343, IE 3301

#### METHODOLOGY

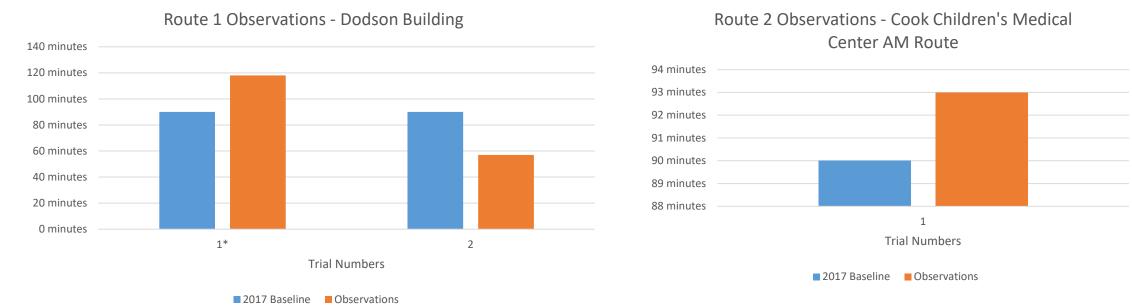
<u>Define</u> Current State vs Future State

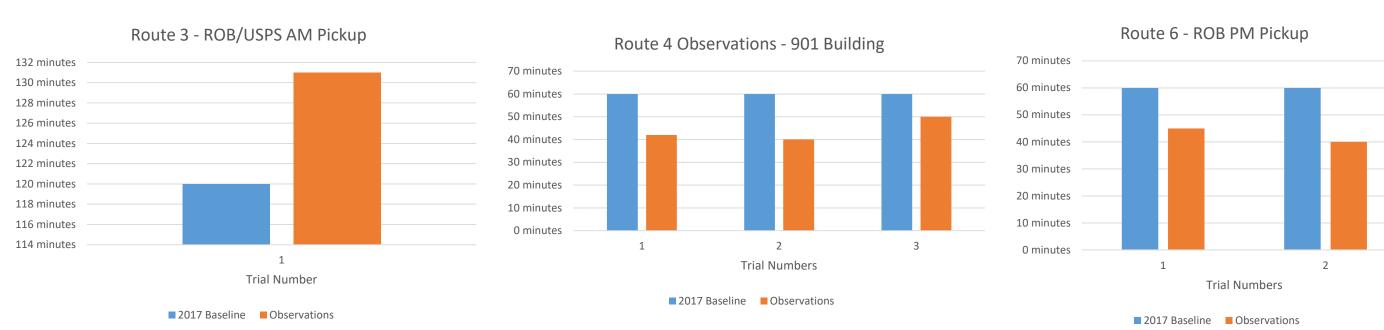


The yellow lines represents mail pickup route.
The green lines represents delivery routes.
The red lines represent mail and packages being delivered at the same time.

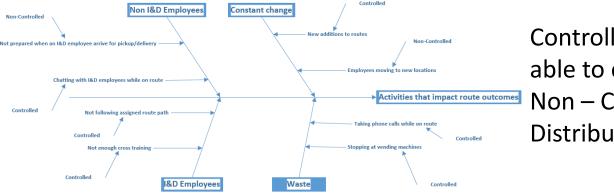
On pickup routes, only mail is picked up.
On delivery routes, packages are sent to various departments and locations.

### <u>Measure</u>





## <u>Analyze</u>



Controlled: What Inventory & Distribution (I&D) is able to control

Non – Controlled: What is out of Inventory & Distribution's control

## Improve & Control

Performance based raises

Documenting when a courier leaves and returns



#### CONCLUSION

The data shows combining mail with packages is better than having both done separately. Combining mail and packages minimized delivery time by an average of 37%. The number of steps couriers walked was reduced by an average of 35%. Since the new process is still relatively new, there will still be things to work out. As more cross training is done, there will be more improvement.

#### FUTURE WORK

Cross training for all mail couriers needs to continue so the outcomes for deliveries and pickups can improve.