

# Smart Waiters System Collaboration

Ashlee Hall, Donna Spina, Shana Sporman

TAP TO GO BACK  
TO KIOSK MENU

## Introduction/Problem

Each day, the Ullian Cafeteria on East Campus serves an average of 1950 customers. The main production for this occurs one floor below the cafeteria. This leads to challenges in maintaining an appropriate supply of items at any given moment. In addition, storage for food inventory in the cafeteria is limited, leading to a constant need for communication between the Retail Team and Culinary Production Team. The primary space for transfer of food is a narrow dumbwaiter between both floors. This also served as the method to send dirty and used items back to the main kitchen.

- During time between breakfast and lunch, the dumbwaiter had a bottleneck of food going both directions, up and down.
- There was limited communication between kitchen and retail staff, causing delays on both sides.
- Wasted time and motion from deli prep, entrée and cook positions.
- Inaccurate standard operating procedures causing delays to the customer.

## Aim/Goal

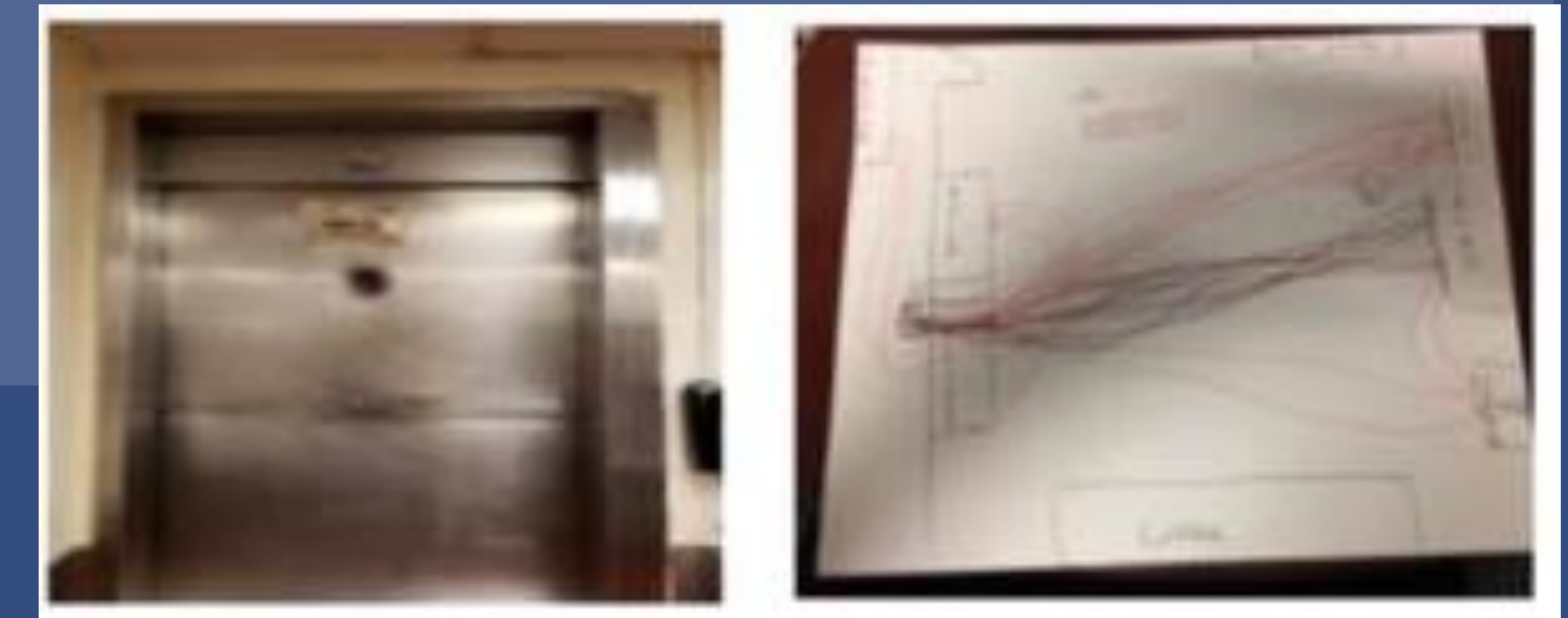
Improve flow of food and dirty dishes between first floor kitchen and second floor retail area utilizing the dumbwaiter, as well as improve communication between kitchen and retail staff to decrease wasted movement of staff.

## The Team

- Ming Cheung, MS, RD, LDN, General Manager, BI Needham Food Services
- Ashlee Hall, Retail Manager, BIDMC Food Services
- Stephen O'Brien, Operations Manager, Northeast Health System s EVS
- Courtney Shea, CNM, Cape Cod Hospital
- Caitlin Sheehan, RD, Operations Manager, Brigham and Women's Hospital
- Tim Sheehan, RD, General Manager, Lahey Medical Center
- Donna Spina, Operations Manager BIDMC Food Services
- Shana Sporman, MS, RD, Director BIDMC Food Services

## The Interventions

- GEMBA - Interviewed staff to find out the most frustrating points
- Identified forms of waste across entrée, production, and deli station job flows through spaghetti graphing motion, measuring number of steps, and timing dumbwaiter motion
- Value steam map process
- Value graphed solutions
- Observed wasted time for guests during breakfast service



## Results/Progress to Date



Top photo of prior state of dumbwaiter and spaghetti diagram of wasted motion between deli, dumbwaiter, oven, and entrée service table

Resulting dumbwaiter signage, spaghetti diagram, and new systems

**For more information, contact:**

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## Results / Progress to Date

### Conditions upon completion:

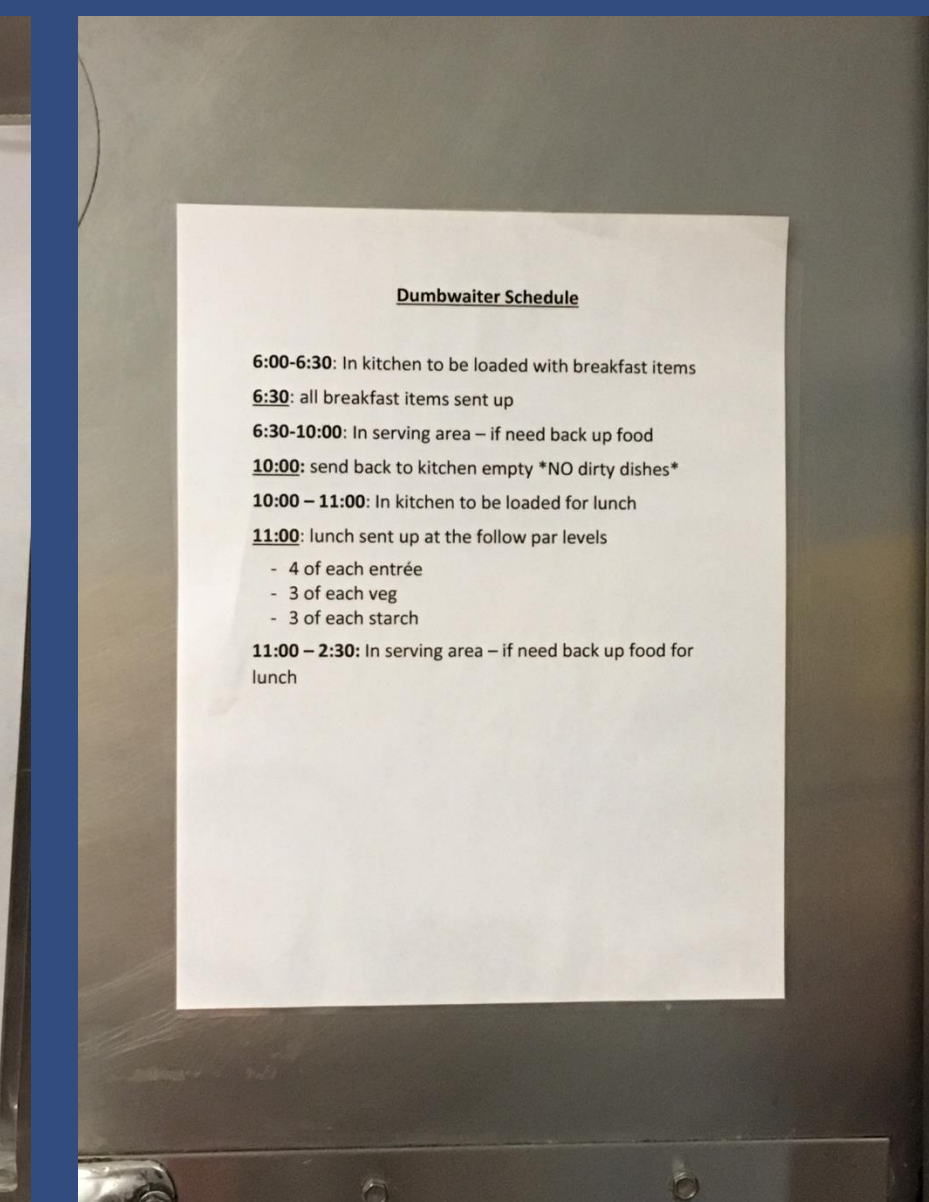
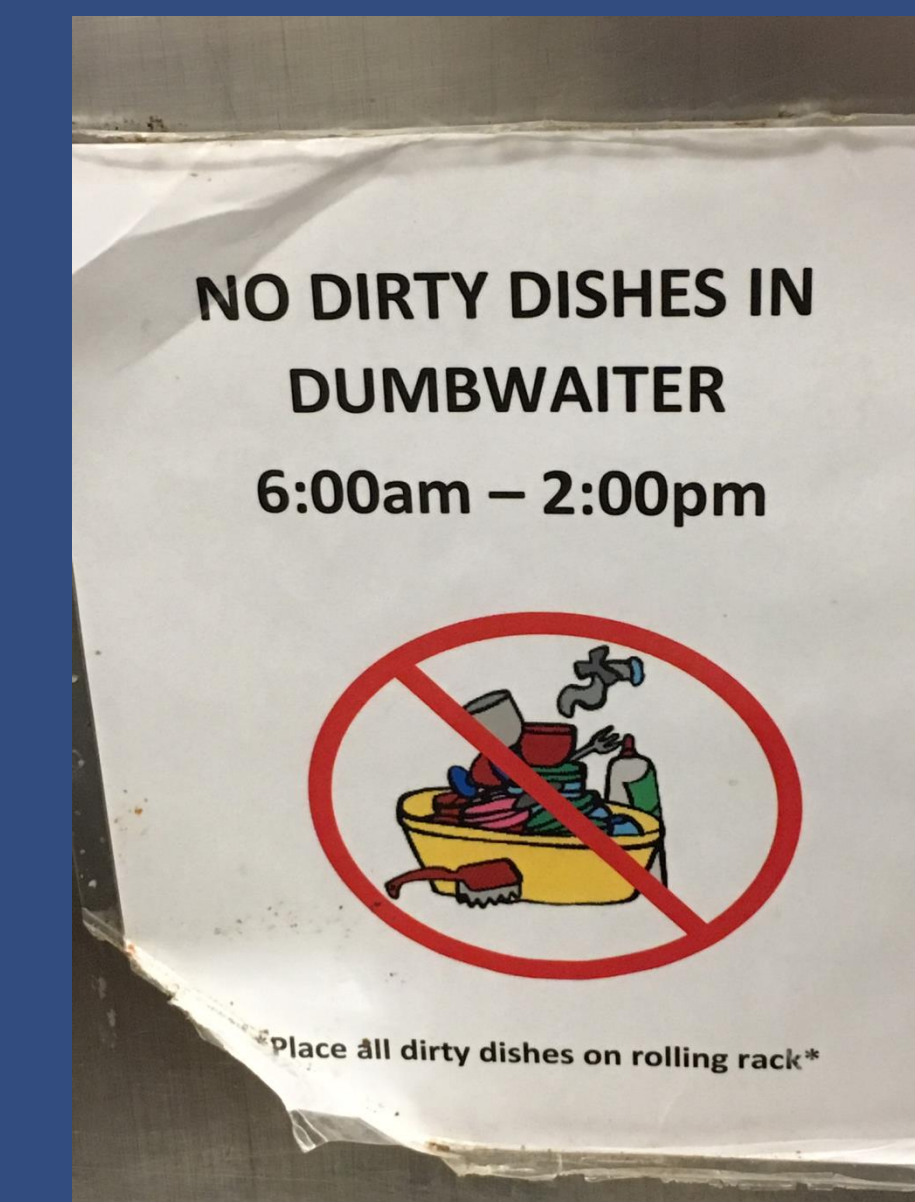
- Installed visual controls to decrease need to use phone for communication
- Reduced wasted motion in set up and breakdown of stations through single space for used pans
- Implemented new standard operating procedures to decrease unnecessary or inappropriate processing of inventory to place into service
- Eliminated cross-contamination in dumbwaiter between in service and out of service food
- Increased breakfast sandwich sales by approximately 10% due to decrease in wait time.

### Time Saving Conclusions:

- Breakfast Sandwich production time pre-project: 105 seconds per transaction; 13.7 seconds per transaction with new system. This equates to **182.6 minutes per day time reduction for customers.**
- **300 steps saved (87%)** while cleaning breakfast bar to reset for salad bar
- **18 minutes saved** for retail production cook no longer awaiting dumbwaiter

## Lessons Learned

- Kanban Card System challenging to maintain for front line staff and is remaining a work in progress
- The light used as the visual cue for the dumbwaiter location cannot be battery operated. A reflector or bike light is a more sustainable visual control.
- A change of job flow was necessary for the retail porter to accommodate the new dirty dish rack's transit between Ullian Cafeteria and the 1<sup>st</sup> Floor Kitchen.



## Next Steps

- Revise Kanban Cards to be more sustainable
- Reevaluate placement of dirty dish rack and schedule of removal from cafeteria
- Request return of System Green Belt Team to evaluate other areas for improvement

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