Food salvaging to alleviate hunger and food insecurity: The role of mobile technology

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Food insecurity: definition

- Lack of consistent physical and economic access to sufficient, safe and nutritious foods for an active and healthy life (FAO, 1996)

- USDA categorizes household food security into 4 levels

- Prior to the pandemic, 11.4% (1 in 9) Americans were food insecure, accounting for 37 million people, including 11 million children (USDA).

- Pandemic will worsen rates
Food insecurity is associated with excess weight

- Communities that are food insecure, typically experience targeted marketing of unhealthy, highly processed foods
- Consumption of highly processed foods are associated with excessive caloric intake, poor dietary quality, and cardiometabolic risk factors
- Example, Bronx:
  - food insecurity (26%) and high rates of overweight and obesity (70-79%), rapidly increasing in adolescents and young adults
  - Consistently reports lowest fruit and vegetable intake
  - high intakes of sugary beverages

The “Pandemic Pantry”

Evidence suggests:
- Fruit snacks +12.6%
- Energy drinks +10.1%
- Dried beans +10.1%
- Pretzels +9%
- Frozen fruit +6.6%
- Frozen Veggies +44%
- Frozen Pizza + 94%
- Frozen dinners +68%
Hunger on College Campuses

- 21% Marginal food security
- 31% High food security
- 26% Low food security
- 22% Very low food security

44% percent of students cut the size of their meals or skipped meals because there wasn’t enough money for food.

15% percent of students lost weight because there wasn’t enough money for food.

20% percent of students did not eat for a whole day because there wasn’t enough money for food.
Food2share App Features

Food2Share app has three interface

• **NYU community mobile interface (faculty, staff, students)**
  - Users use the app to order food for themselves from the restaurants around the NYU campuses with a 10% discount
  - They can buy extra food for students in need with a 50% discount that the restaurant offers through the Food2Share application

• **Restaurant web-based interface to see orders**
  - Restaurants offer 10% discount for the NYU community to buy food through Food2Share mobile application
  - Restaurants also offer 50% discount for select items for NYU community to buy for students in need
  - Restaurants might offer 100% discounted food to mitigate food waste

• **Mobile interface for students who are food insecure**
  - Students in need can search for restaurants and food items that they can get for free which is donated by both the restaurant owners and the NYU community members
Food2Share App

How the app works?
Food2Share

- Log-in
- Tour of the app
- Restaurant selection
  - By map
  - Cuisine
  - Category
- Claim donated food
- Select order details
Food2Share

• Confirm the order

• Pick up the food in 45 minutes

• Share in social media to spread the word

• Follow the health tips within the app for nutritional literacy and for making healthy choices educational aspects

• Novel- Annual donation report to be used for tax return
CONCLUSION:
• The App fosters community engagement to address campus food insecurity through partnerships
  • Connects stakeholders and local communities
• Eliminates the stigma
• Supports small business and food establishments
• Offers nutrition education
• Provides tax incentives for restaurant and donor
• Not only alleviating hunger and food insecurity
  • Reducing food waste
  • $680 billion worth of food waste every year
• Adaptable to outreach globally
  • County and context specific
• Ability to scale up to:
  • Community feeding agencies
  • Corporate supermarket chains
  • Farmers
Questions?