Reduce Solid Waste and Improve Recycling
Park Nicollet Health Services Clinics

Hannah Brady
Company Supervisor: Farrukh Bashir
MnTAP Project Advisor: Anna Arkin

University of Minnesota
Driven to Discover™
Park Nicollet Health Services

• More than 55 medical and surgical services
• More than 8,200 employees
• 29 different locations in West Metropolitan Area
• St. Louis Park Clinic is one of the largest multispecialty clinics in the United States
Project Focus

• Clinics
• Wayzata, Shakopee, and St. Louis Park
• Solid waste
  • Paper (Protected Health Information – PHI)
  • Recyclables (Lunchtime waste, packaging, plastics, blue wrap)
  • Organics (Paper towels and food waste)
Incentives to Change

• Sustainability Goals 2020
  • Reduce waste generated
  • Develop and improve access to Sustainability Program
  • Reduce paper use

• Improve health, the environment, and affordability

2015 Average Waste Sort Results

- Trash, 29%
- Recyclables, 21%
- Organic, 50%
Motivations for MnTAP Intern Project

• Increase sustainability in clinics
• Develop waste station concept
  • Economic analysis
  • Implementation process
• Assist with paper reduction pilot program
Approach

- Identify materials for source reduction or recycling
  - Waste sorts
  - MN Waste Wise Business Site Visit Reports for Park Nicollet Clinics
  - Interviews and clinic walk-throughs
  - Employee survey

- Estimate reduction/diversion potentials by collecting data
- Propose solutions and develop implementation processes
- Pilot where possible to get more accurate reduction potentials
Recommendations Overview

• Diversion options:
  • Increase recycling rates via infrastructure and education
  • Implement organics composting program

• Reduction options:
  • Default printers to duplex
  • Install hand dryers whenever possible
Increase Recycling Rates

- Waste sort revealed 9% capture rate at Wayzata Clinic
- Walk-through and survey showed limited access to recycling bins and an opportunity to increase knowledge of recycling program

- Two part solution:
  - Infrastructure
  - Education

<table>
<thead>
<tr>
<th>Recommendation</th>
<th>Clinic Location</th>
<th>Annual Environmental Savings</th>
<th>Annual Savings</th>
<th>Payback Period</th>
<th>Status</th>
</tr>
</thead>
<tbody>
<tr>
<td>Waste stations and education</td>
<td>Wayzata</td>
<td>9 tons</td>
<td>$2,500</td>
<td>7 months</td>
<td>Pilot planned</td>
</tr>
</tbody>
</table>
Recycling Infrastructure

Standard waste stations

Public Waste Station
Staff Waste Station

Eliminating trash bins underneath desks

Before
After
Recycling Education

- PowerPoint presentation
- Break room poster
- Desk side cheat sheets
- Aimed at increasing knowledge and staff engagement with the recycling program
Reducing Paper Use

• Park Nicollet buys nearly 300 tons of paper annually
• Shakopee clinic piloting defaulting printers to duplex
• 16% reduction after week 2

<table>
<thead>
<tr>
<th>Recommendation</th>
<th>Clinic Location</th>
<th>Annual Environmental Savings</th>
<th>Annual Savings</th>
<th>Payback Period</th>
<th>Status</th>
</tr>
</thead>
<tbody>
<tr>
<td>Default duplex</td>
<td>Shakopee</td>
<td>0.5 tons</td>
<td>$800</td>
<td>Immediate</td>
<td>Piloting</td>
</tr>
</tbody>
</table>
Diverting Organics

• Clinic waste sorts reveal that 50% of trash by weight is organics
  • Food waste and paper towels

• Education is important and Hennepin County provides many resources at no charge

• Wayzata clinic

<table>
<thead>
<tr>
<th>Recommendation</th>
<th>Clinic Location</th>
<th>Annual Environmental Savings</th>
<th>Annual Savings</th>
<th>Payback Period</th>
<th>Status</th>
</tr>
</thead>
<tbody>
<tr>
<td>Composting program</td>
<td>Wayzata</td>
<td>15 tons</td>
<td>$ 2,100.00</td>
<td>7 months</td>
<td>Recommended</td>
</tr>
</tbody>
</table>
High-Efficiency Hand Dryers

• Composting diverts but hand dryers reduce waste
• LCAs suggest much better
• Expensive
• Hygiene concerns
• Retrofitting not recommended but should be considered during renovations and construction

<table>
<thead>
<tr>
<th>Recommendation</th>
<th>Clinic Location</th>
<th>Annual Environmental Savings</th>
<th>Annual Savings</th>
<th>Payback Period</th>
<th>Status</th>
</tr>
</thead>
<tbody>
<tr>
<td>High-efficiency hand dryers</td>
<td>St. Louis Park</td>
<td>3 tons</td>
<td>$15,400.00</td>
<td>2 years</td>
<td>Recommended</td>
</tr>
</tbody>
</table>
Other Ideas/Potential Future Projects

- Green Champion Program
- Website
- Electronic faxing
Personal Outcomes

- Communication skills
- Independent motivation
- Economic analysis skills
- Exposure to climate of a large organization
- Helping the environment
<table>
<thead>
<tr>
<th>Recommendation</th>
<th>Clinic Location</th>
<th>Annual Environmental Savings</th>
<th>Annual Savings</th>
<th>Payback Period</th>
<th>Status</th>
</tr>
</thead>
<tbody>
<tr>
<td>Waste stations and education</td>
<td>Wayzata</td>
<td>9 tons</td>
<td>$ 2,500</td>
<td>7 months</td>
<td>Pilot planned</td>
</tr>
<tr>
<td>Default duplex</td>
<td>Shakopee</td>
<td>0.5 tons</td>
<td>$ 800</td>
<td>Immediate</td>
<td>Piloting</td>
</tr>
<tr>
<td>Composting program</td>
<td>Wayzata</td>
<td>15 tons</td>
<td>$ 2,100.00</td>
<td>7 months</td>
<td>Recommended</td>
</tr>
<tr>
<td>High-efficiency hand dryers</td>
<td>St. Louis Park</td>
<td>3 tons</td>
<td>$15,400.00</td>
<td>2 years</td>
<td>Recommended</td>
</tr>
<tr>
<td>Total</td>
<td></td>
<td>28.5 tons</td>
<td>$ 20,800</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>