Minnesota’s Healthcare Hazardous Waste Initiative

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The Problem:

Hazardous waste disposed of in red bag waste, solid waste, and into the sewer.
The Plan of Action:

- Devise Committee
- Meet with Stakeholders
- Training
- Compliance and Enforcement

Results:

- Hurdles
- Successes / Pollution Prevention
- Lessons Learned
USGS Water Quality Study, 2000-2002

- First Minnesota water study of organic wastewater contaminants (OWCs), including:
  - pharmaceuticals,
  - disinfectants
- 65 sites in Minnesota: 91 target OWCs
- \( \geq 1 \) OWCs found in 90% of water samples
- Up to 8 OWCs found in treated drinking water

USGS; Presence and Distribution of OWCs, Minnesota
Regulations: Noncompliance

- Enforcement Actions
  - Financial Penalties
    - Nassau University Medical Center $279,900 (2003)
  - Up to $32,500 per day per violation
Evaluate Waste:

- List all wastes generated by each department
  - Solid wastes
  - Wastes disposed of into the sewer

- Examples of waste:
  - Discarded pharmaceuticals
  - Discarded laboratory reagents
  - Used Surgical Preparation Materials
  - Spill residues and absorbents
  - **Non-empty containers**
Evaluate Waste:

- Determine waste streams
  - Hazardous waste may be generated by every department in a facility
    - Pharmacy
    - Laboratory
    - Radiology
    - Oncology
    - Surgery
    - Dental
    - Pathology
    - Sterile Processing
    - Plant Engineering
    - Emergency
    - Ophthalmology
    - Morgue
Training:

- In fiscal year 2006 The MCPA and Metro Counties presented 12 healthcare hazardous waste workshops resulting in over 500 professionals receiving training.
Hurdles:

- Acutely Toxic Waste -P- Listed Waste
- Dual Waste
- Lab Machines
- MN Lethality Characteristic
Compliance and Enforcement

- Grand Rapids Medical Center, $10,000 (2005)
- Virginia Medical Center, $10,000 (2005)
- VA Medical Center, MN $45,650 (2006)

Common Violations:
Improper disposal / Failure to close
Mislabeled containers
Mislabeled container
Quantitative Results

- 28 metro area hospitals first to come into compliance.
- 75 tons of pharmaceuticals, 30 tons of laboratory waste now being properly managed.
- Chemotherapy management and reporting increased by over 400%.
- Over 1,000 pounds of mercury eliminated.
- Hospitals saving over $250,000 annually with P2.
Success and Pollution Prevention

- Hospital received Governor’s Award
- Environmental Initiative Recognition for the partnership.
- MN Tap - Intern Program
- Website Materials
- Teaching other states
Lessons Learned

- Invaluable Relationships built between State agencies, County agencies, MN Tap, Wastewater Treatment and The Healthcare Sector.

- Respect, Negotiation skills, Creativity and Gratitude.
Get Started

- Healthcare Hazardous Waste Website: [http://www.pca.state.mn.us/industry/healthcare.html](http://www.pca.state.mn.us/industry/healthcare.html)
- Hospitals for a Healthy Environment [http://www.h2e-online.org/](http://www.h2e-online.org/)
- Minnesota Technical Assistance Program Catherine Zimmer [Zimme053@umn.edu](mailto:Zimme053@umn.edu) [http://mntap.umn.edu/health/index.htm](http://mntap.umn.edu/health/index.htm)
- MN HEARRT [http://www.mntap.umn.edu/health/hearrt.htm](http://www.mntap.umn.edu/health/hearrt.htm)
- Pharmwaste listserv [http://lists.dep.state.fl.us/cgi-bin/mailman/listinfo/pharmwaste](http://lists.dep.state.fl.us/cgi-bin/mailman/listinfo/pharmwaste)