Product Stewardship of Pharmaceutical Waste

Product stewardship is a policy approach that ensures that all those involved in the life cycle of a product share responsibility for reducing its health and environmental impacts, with producers bearing primary financial responsibility (Product Stewardship Institute).

Current Product Stewardship Efforts

USA:
Currently, there are more than 60 laws around the country that require product manufacturers to provide for the recycling or safe disposal of their products such as electronics, batteries, light bulbs and paint. Several states including Maine, Rhode Island, Maryland, Florida, Minnesota, Washington and Oregon, have considered applying the product stewardship approach to pharmaceuticals since 2008. In 2010, San Francisco introduced the first local EPR ordinance for pharmaceuticals. While the policy did not pass, pharmaceutical companies agreed to partially fund a 15-month drug disposal pilot in the city. For more information on U.S. initiatives, visit the Product Stewardship Institute (PSI) website: [http://www.productstewardship.us/](http://www.productstewardship.us/)

Canada:
Canada has about 50 programs considered to be “product stewardship programs” in several provinces including Alberta, British Columbia, Manitoba, Nova Scotia and Ontario. The pharmaceutical product stewardship program in British Columbia, Medications Return Program, was created through the Post-consumer Pharmaceutical Stewardship Association (PCPSA). In 1997, the Post-Consumer Residual Stewardship Program Regulation was passed, mandating that manufacturers of pharmaceutical products sold in British Columbia take responsibility for the waste management of their products. [http://www.env.gov.bc.ca/epd/recycling/pharm/pdf/PCPSA_oct2006.pdf](http://www.env.gov.bc.ca/epd/recycling/pharm/pdf/PCPSA_oct2006.pdf)

Information about international pharmaceutical product stewardship efforts available at: [http://www.productstewardship.net/productsPharmaceuticalsIntlprograms.html](http://www.productstewardship.net/productsPharmaceuticalsIntlprograms.html)

At what cost?

Based on our research, Canada has the most recent data on the cost of implementing a product stewardship program for pharmaceutical waste. The Post-Consumer Pharmaceutical Stewardship Association, which operates the Canadian program, estimates that a product stewardship policy will cost a company around $1,000 per ton of waste collected. This amount takes into consideration cost of collection, administration, final disposal and communication.

Extended Producer Responsibility (EPR), a central tenant of product stewardship, is a policy approach in which the producer’s responsibility for their product extends to the post-consumer management of that product and its packaging. Some use this term interchangeably with Product Stewardship, but the two terms are not the same. We will use the term Product Stewardship.
Why consider a product stewardship approach for pharmaceuticals?

- To reduce pharmaceutical waste
- To promote safe management of pharmaceutical waste to protect public health and the environment
- To make it easier for people to return unused pharmaceuticals for safe disposal
- To encourage manufacturers to take responsibility for the environmental and social impacts of their products by providing financial incentive to do so.

How might product stewardship apply to pharmaceutical waste?

Product stewardship legislation may mandate that producers, along with other stakeholders, share financial responsibility for the environmental impact of their product. This could inspire manufacturers to incorporate more environmentally friendly designs and processes, including increased absorption rates of pills or green chemistry practices. Through better product design and responsible business practice, product stewardship may help decrease the overall amount of pharmaceuticals in the environment. Product stewardship could also encourage healthcare providers to examine how they dispense and prescribe medications that often end up as waste.

How might product stewardship apply to different stakeholders?

Manufacturers
- Redesign product and packaging to produce less waste
- Share the cost of waste management
- Stop wasting products

Healthcare
- Provide safe medication disposal options
- Receive less bulk medication samples

Pharmacists and Doctors
- Dispense only what is needed → reduce consumer waste
- Educate customers on safe pharmaceutical disposal

Households
- Less expired/unwanted pharmaceuticals in the home
- Reduce potential for drug abuse

Policy Makers
- Create new legislation that mandates product stewardship
- Promote environmental legislation
- Help define and implement policies for controlled substances
- Encourage changes to publicly funded healthcare programs that have inadvertently created pharmaceutical waste

Law Enforcement
- Discourage drug-related crimes
- Decrease amount of controlled substances available for illicit drug abuse

Steve Brachman, Waste Reduction Specialist, 414/227-3160, steve.brachman@ces.uwex.edu
Melissa Boehm, Pharmaceutical Waste Project Coordinator, 414/227-3344, melissa.boehm@ces.uwex.edu
Barb Bickford, DNR Medical Waste Coordinator, 608/267-3548, barbara.bickford@wisconsin.gov