Extended Producer Responsibility: An Emerging Strategy for Managing Pharmaceuticals in the Environment

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Pharmaceuticals in Potable Water

- Found in drinking water and wastewater effluent
- Parts per billion / trillion
- No known human health effects...yet
- Difficult to study – individual compounds and mixtures
Pharmaceuticals in the Aquatic Environment

- Marine and freshwater fish, frogs, oysters, mussels, turtles, crayfish, squid, sharks, phytoplankton
- Intersex
- Altered sensory perception
- Less aggressive behavior
- Diminished predator avoidance
How Pharmaceuticals Enter Water: Excretion & Disposal
Pharmaceuticals in Our Communities

• Medicine cabinets are the “drug dealers in our homes”

• Gateway drugs

• Most homes with multiple pharmaceuticals

• Stockpile, flush, or throw in trash

• Prescribing, marketing, lifestyle
Extended Producer Responsibility
Pharmaceutical EPR Legislation

• Ordinances passed in Alameda County (CA) and King County (WA)

• Drug producers organize and pay for public disposal program

• Increased number of safe disposal opportunities

• Public education and promotion

• Ordinance developed and passed in Cook County (IL) in 2016
Cook County Ordinance Overview

• Program operated by Cook County Sheriff’s Office (not producers)
• Minimum of five collection sites per Commissioner district (85 total)
• Establishes Advisory Committee
• Mail-back services
• Promotion ➔ fee reduction for producers
• No initial producer fee; revisit fee by July 1, 2018
• No mechanism for enforcing producer registration
Progress in Cook County

• 104 locations throughout Cook County

• 50 lbs collected / site / month

• Goal: Manage 200 sites and collect 10,000 pounds / year

• www.cookcountysheriff.org/SupportServices_PrescriptionDrugTakeBack

• www.CookCountyMeds.org
Ongoing Challenges & Projects

- Producer registration fee
- Services to elderly/homebound
- Drug destruction
- DEA rules for disposal
- Police stations vs. Pharmacies

- Larger environmental and public health problems remain
- Research and monitoring
- Drug design
Takeaways

(1) Pharmaceuticals are impacting our environment and communities

(2) EPR policies address these problems – in part – by focusing on proper drug disposal

(3) Widespread public support for drug disposal opportunities

(4) EPR ordinances may face intense industry opposition

(5) Fine-tuning and additional research is necessary
Thank You!

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