



Chemical Footprint of Pediatrics' Products

December 19, 2017



**CLEAN
PRODUCTION
ACTION**



Mary Ellen Leciejewski, OP

Vice President

Corporate Sustainability

Dignity Health

Mark S. Rossi, Ph.D.

Executive Director

Clean Production Action



Lauren Bulin

Contract Director

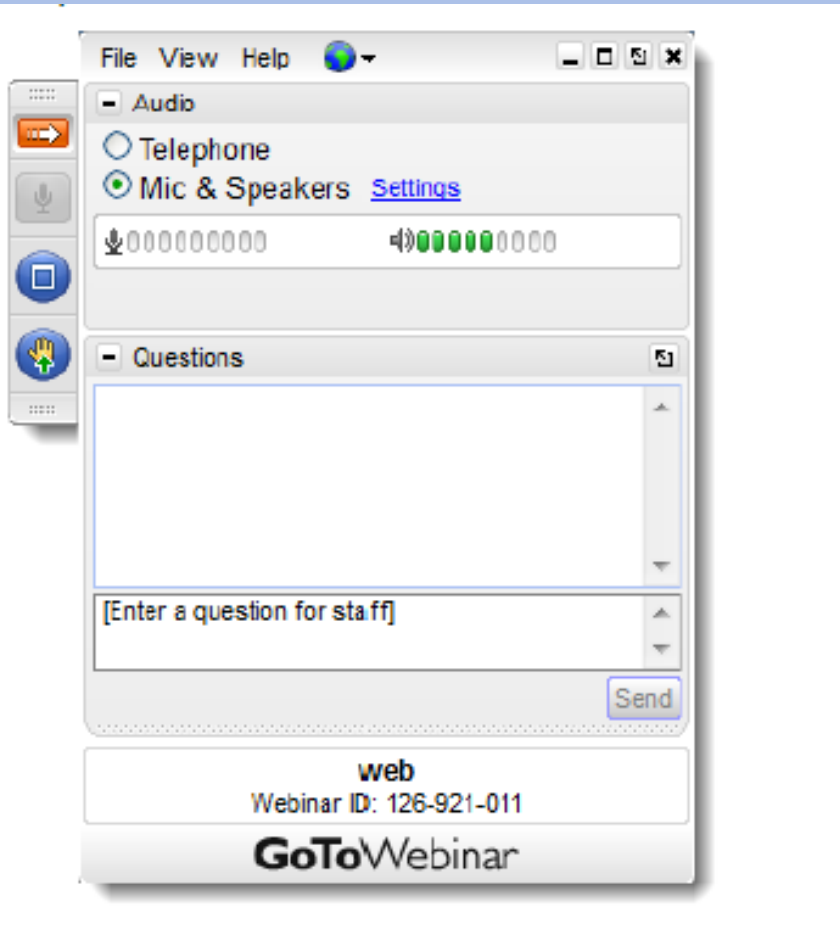
Patient Care Products for Supply & Service
Management

Dignity Health



Questions?

- Post your question to the Questions pane in your GoToWebinar Control Panel
- Presentation and recording will be available at www.cleanproduction.org



Dignity Health's Chemical Footprint Pediatric Product Assessment

Lauren Bulin, RN, MBA
Contract Director, Patient Care Products

Sister Mary Ellen Leciejewski, OP
VP Corporate Responsibility

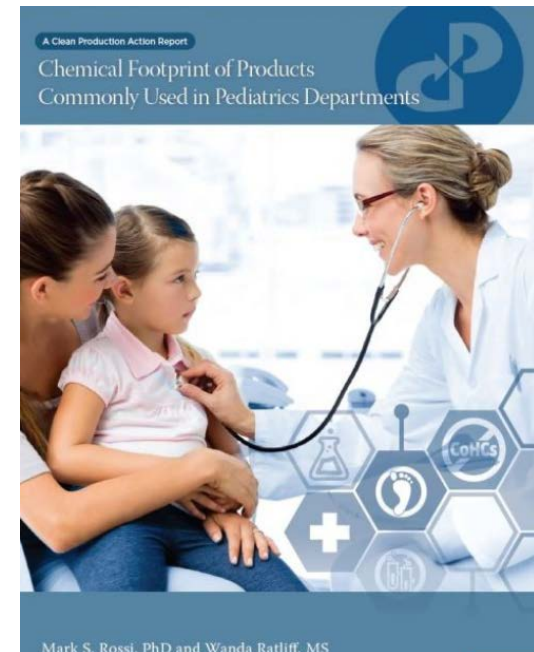
Mark Rossi, PhD
Executive Director, Clean Production Action

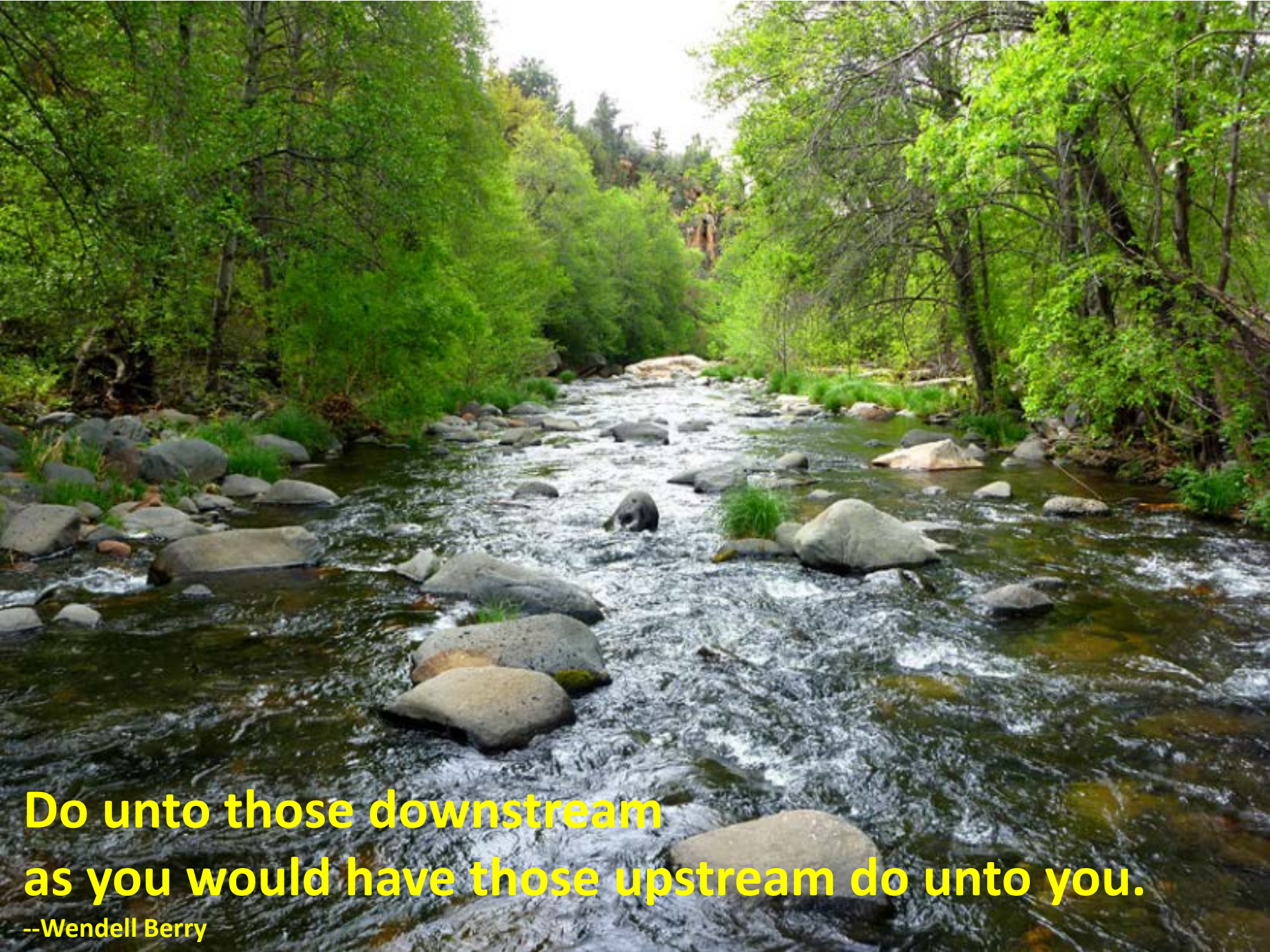
Tuesday, December 19, 2017



Overview

- Reflection
- Background
- Mission & Values Alignment



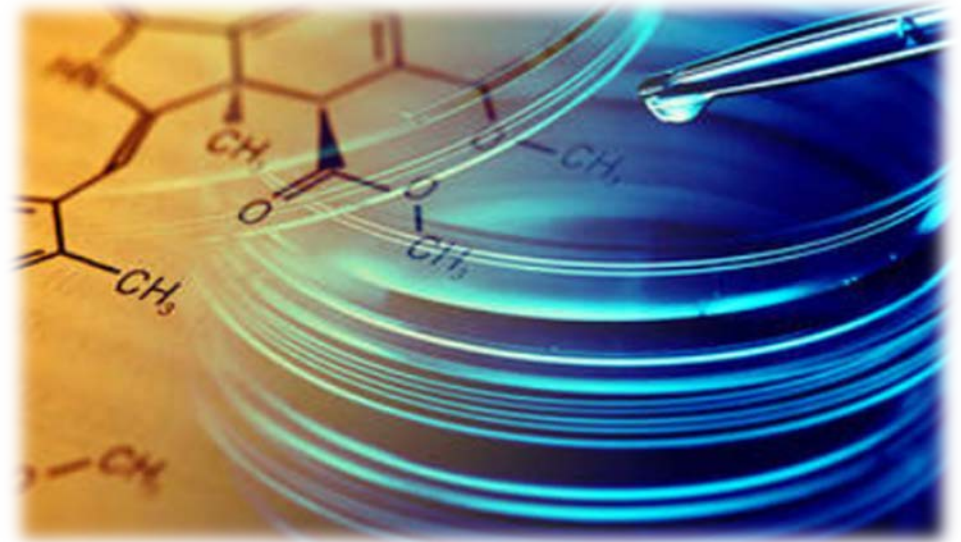


**Do unto those downstream
as you would have those upstream do unto you.**

--Wendell Berry

Timeline

- February 2014
 - CFP introduced at Dignity Health Green Summit
- May 2014
 - Dignity Health joins CFP steering committee
- December 2014
 - Lloyd Dean, CEO of Dignity Health, signals support of CFP
- August 2016
 - Dignity Health joins Peds Project



BizNGO Annual Meeting

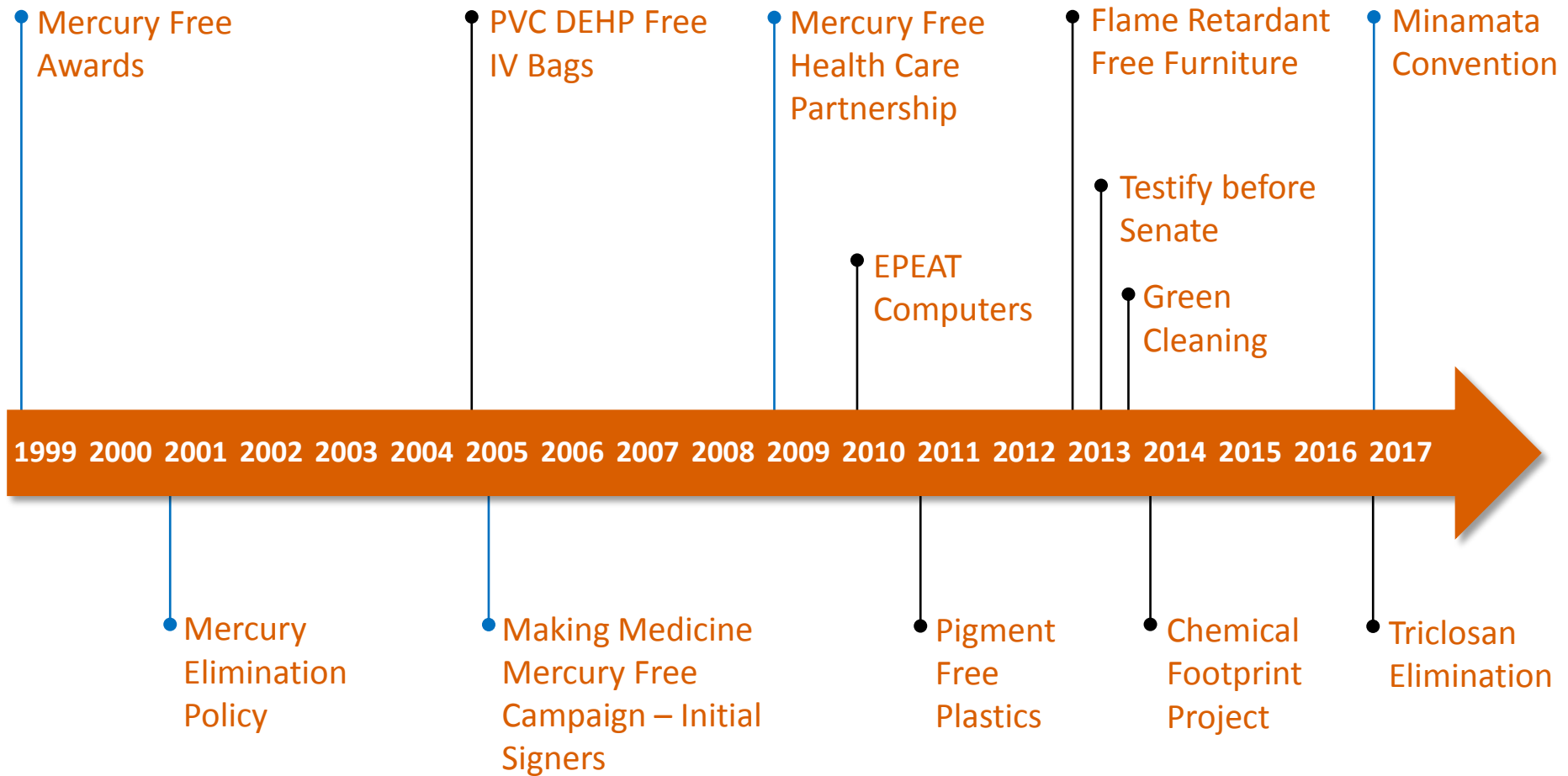


“It matters that that we work with our vendors to better understand the chemicals that go into their products and ask for safer substitutes where possible.”

Lloyd Dean, President and CEO

December 2014

Safer Chemicals - History of Leadership



Mission, Vision, Values

**Dignity Health is committed to furthering the
healing ministry of Jesus.**

We dedicate our resources to:

Delivering compassionate, high quality, affordable health services

Serving and advocating for our sisters and brothers who are poor and disenfranchised;

Partnering with others in the Community to improve the quality of life

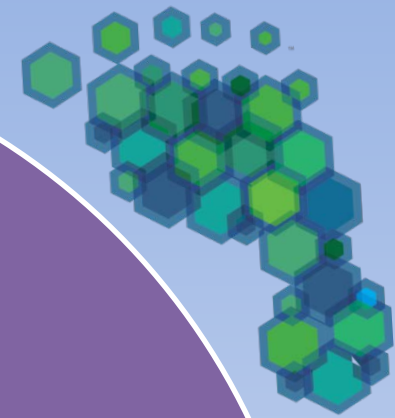
Core Values

Collaboration Dignity Excellence Justice Stewardship

Overview

- Why chemical footprinting for Dignity Health
- Report method & findings: *Chemical Footprint of Products Commonly Used in Pediatric Patient Rooms*
- How Dignity Health uses chemical footprinting to inform purchasing





**Chemicals of High
Concern (CoHCs):**

carcinogens; mutagens;
repro/developmental
toxicants; persistent,
bioaccumulative, and
toxic (PBTs); endocrine
disruptors

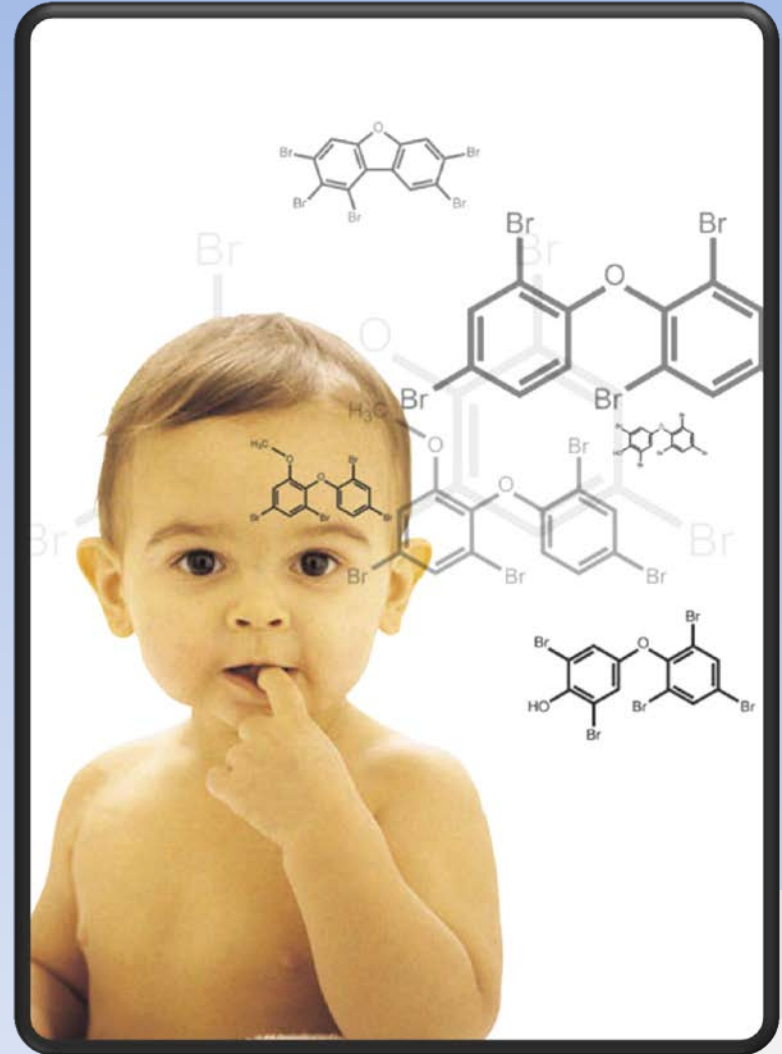
**Chemicals:
Hazards**

Chronic Disease Burden from Chemicals

- 5% of childhood cancer*
- 10% of children's neurodevelopmental disorders* (e.g., ADHD, autism -- 1 in 6 children diagnosed with neurodevelopmental disorder)
- 30% of childhood asthma**

* Mt. Sinai School of Medicine Center for Children's Health and the Environment

** European Commission





Chemicals of High Concerns (CoHCs):
number in a product
and/or
weight

Products:
• Chemical
Footprint

Chemicals:
Hazards

FIGURE ES-2 Estimated Chemical Footprint of IV Bags Made from PVC/DEHP and Polyolefins



PVC

3



31%



Number of
Chemicals of High
Concern

Chemicals of
High Concern
by Weight

PVC = Polyvinyl chloride; DEHP = di(2-ethylhexyl) phthalate

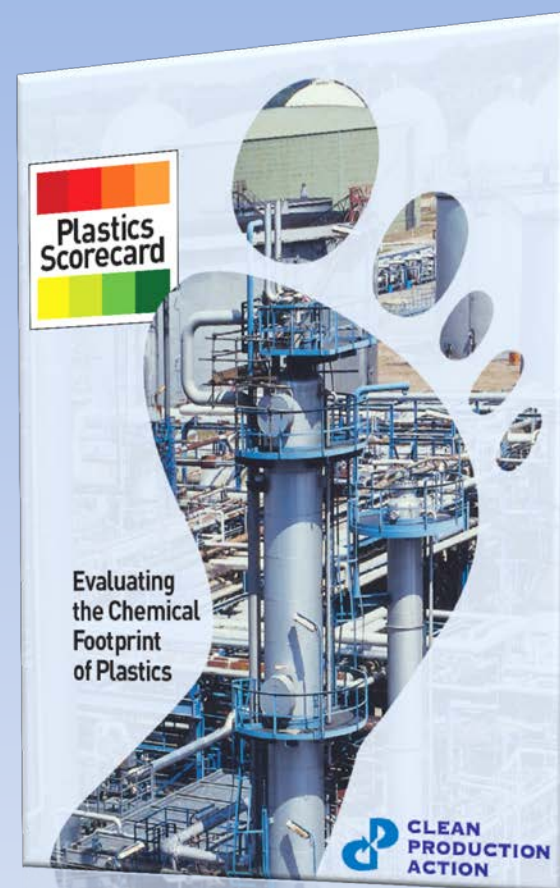


FIGURE ES-2 Estimated Chemical Footprint of IV Bags Made from PVC/DEHP and Polyolefins



3



PVC



0

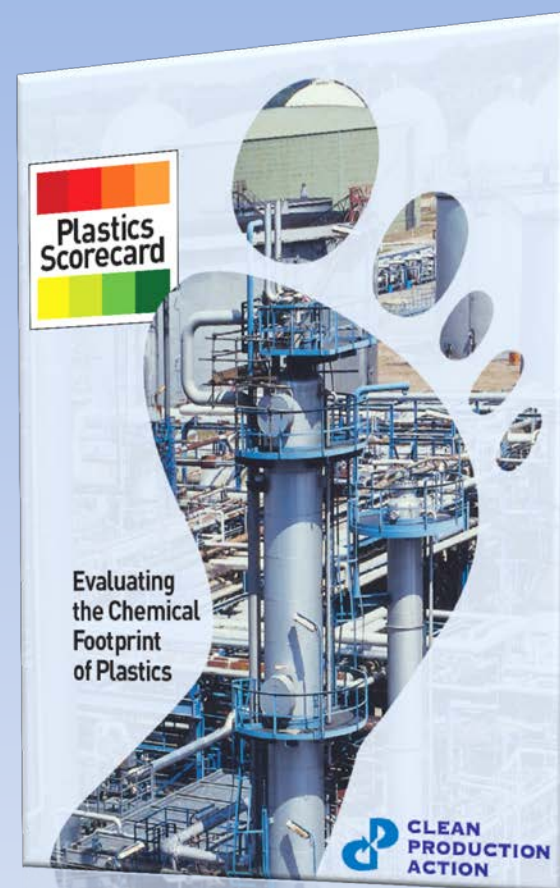


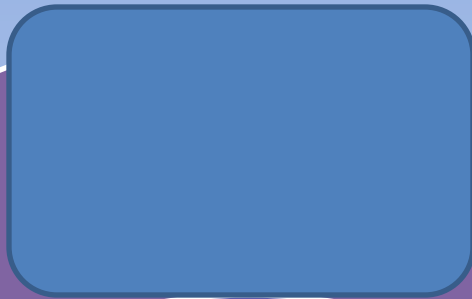
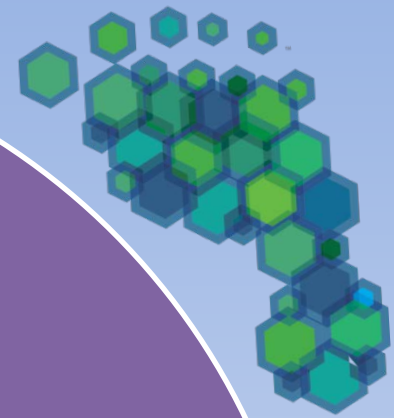
Polyolefins

Number of
Chemicals of High
Concern

Chemicals of
High Concern
by Weight

PVC = Polyvinyl chloride; DEHP = di(2-ethylhexyl) phthalate





**Departments,
Processes, Buildings,
or Organizations:**

• **Chemical Footprint**

**Products:
Chemical
Footprint**

**Chemicals:
Hazards**

**Chemicals of High
Concerns (CoHCs):**
number in a
product
and/or
weight

GOJO: How we pioneered our chemical footprint reduction target

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Nicole Koharik

Thursday, November 17, 2016 - 12:24am



Nicole Koharik

Global Sustainability Marketing Director



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Walmart Aims To Cut 55 Million Pounds Of Chemicals From Store's Products

🕒 10/06/2017 - 9:55am

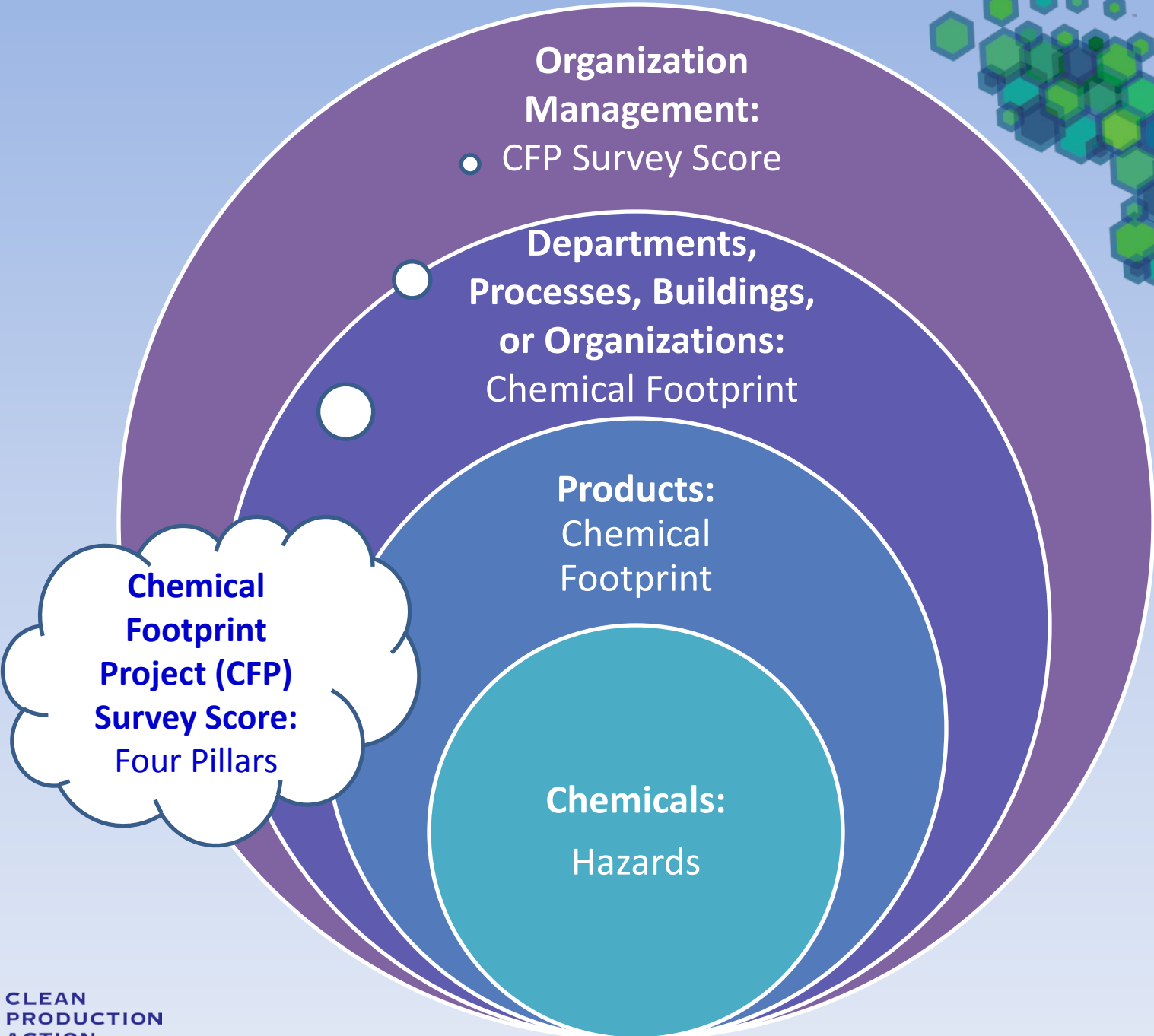
💬 3 Comments

👤 by Meagan Parrish

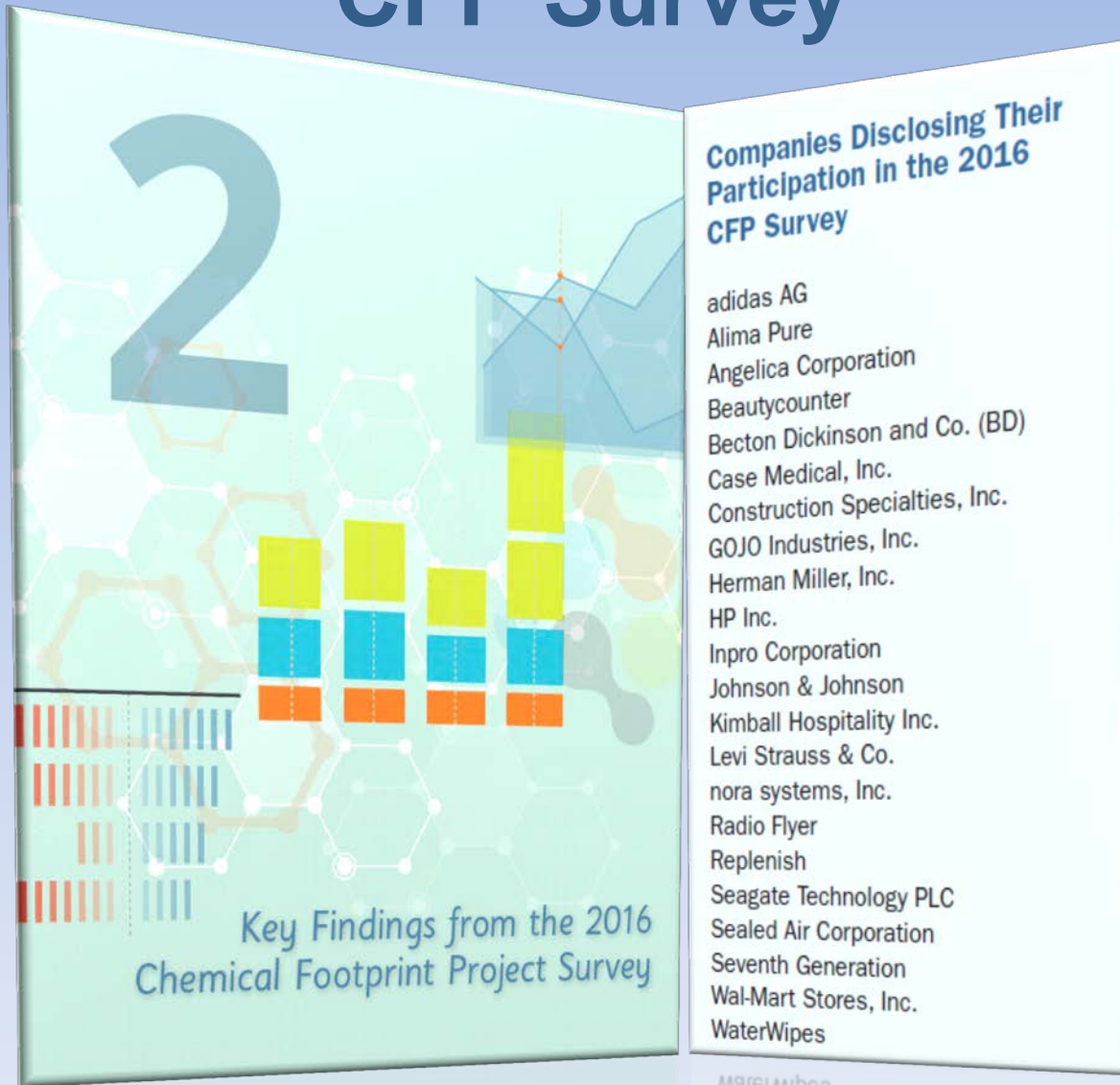
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💬 3 Comments

👤 by Meagan Parrish



Responders to the CFP Survey



- Demonstrate chemical footprinting in health care
- Engage three health care providers at different levels
- Inform purchasing decisions and supplier engagement



Pediatrics Report: Chemicals of High Concern (CoHCs)



1. California Proposition 65 chemicals
2. Polyvinyl chloride (PVC)
3. Phthalates
4. Antimicrobials and antibacterials
5. Bisphenol A (BPA)
6. Latex
7. Bromine- and chlorine-based compounds
8. Metals: lead, cadmium, mercury, and organotin compounds
9. Non-halogenated flame retardants
10. Perfluorinated chemicals (PFCs)
11. Persistent, Bioaccumulative and Toxic substances (PBTs)
12. EU Restriction of Hazardous Substances (RoHS) in electronics

Pediatric Product Survey: Priority Products



Method for Chemical
Footprinting Products
Used in Health Care

Moderate to high potential for exposure:

- “In” patients: endotracheal tubes, nasogastric tubes, catheters, etc.
- “On” patients: personal care products (lotions, shampoos), beds, chairs, etc.
- “Around” patients: cleaning / disinfecting products

Used in Health Care
Footprinting Products
Method for Chemical

Products in Pediatric Patient Rooms: Suppliers Contacted & Replied

- Contacted
 - 62 suppliers
 - 358 products
- Replied
 - 50 suppliers
 - 253 products
 - Medical supplies (185)
 - Personal care products (50)
 - Furnishings (11)
 - Cleaning & disinfecting products (7)





Executive Summary



Pediatrics Report: Products with no CoHCs



Bringing
Chemical Footprinting
to Healthcare

- Most needles & syringes (25 out of 28)
- Baby bottles & nipples (15 products)
- Exam gloves (6 products)
- Lotions, ointments, and lip balm (11 products)
- Most oral care products (6 out of 7)
- Diapers (5 products)
- Most skin wipes (4 out of 5)

Pediatrics Report: Medical Supplies

FIGURE ES-2. Number of Medical Supplies Commonly Used in Pediatric Patient Rooms that Contained and Did Not Contain Chemicals of High Concern (CoHCs)

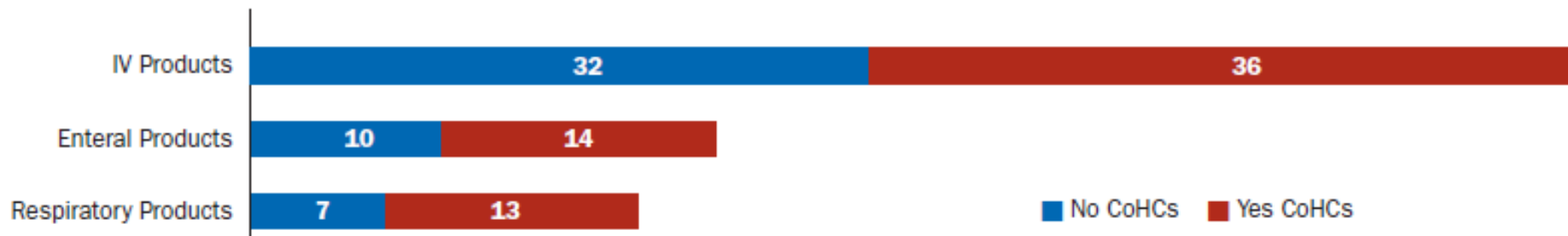
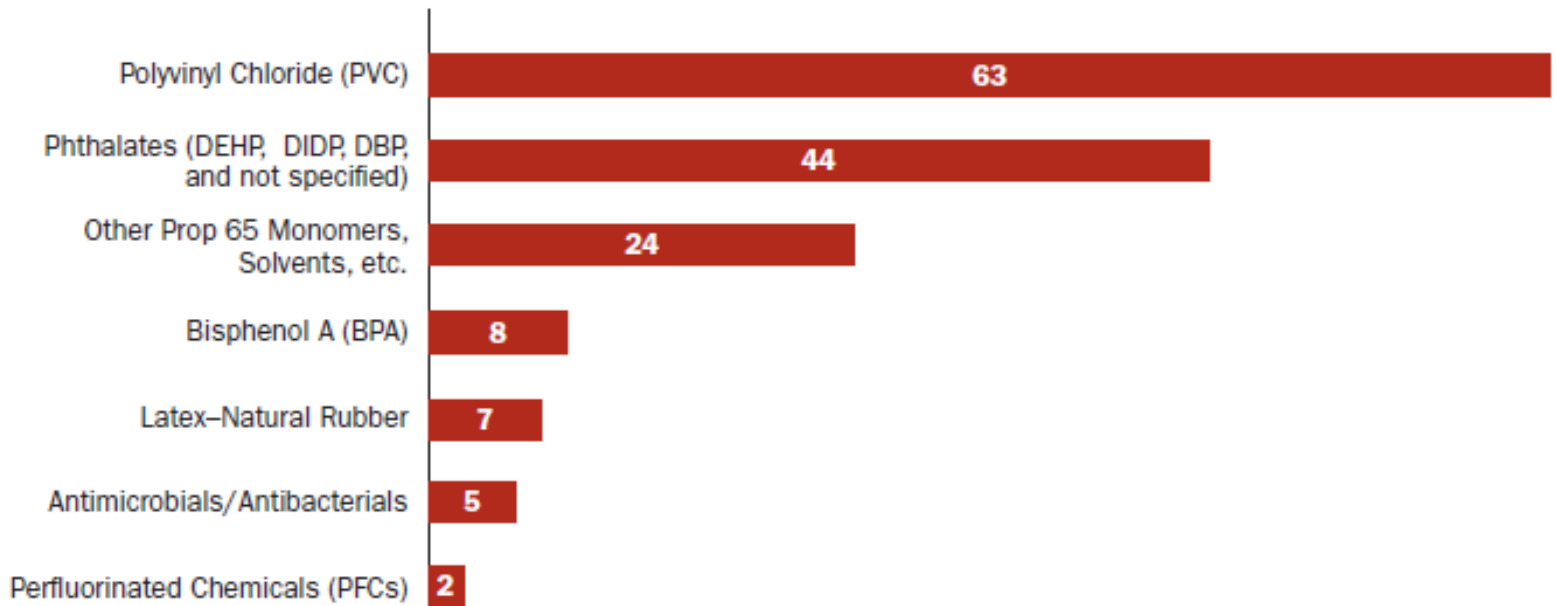


FIGURE ES-3. Chemicals of High Concern (CoHCs) in Medical Supplies Commonly Used in Pediatric Patient Rooms and the Number of Products that Contained Them



Pediatrics Report: Findings



Results

- **Eliminating PVC and associated CoHCs in medical supplies** would reduce 75% of the CoHCs in medical supplies
- **Products in contact with skin** are likely to contain antibacterials / antimicrobials: id bracelets, IV arm restraints, wash cloths, cribs
- **For every personal care product** with a CoHC, there was an equivalent product with no CoHCs: soap, body wash, hand sanitizers, etc.
- **Other products with and without CoHCs:** enteral feeding tubes, IV arm restraints, and IV catheters

Recommendations

- Measure chemical footprint
- Identify safer alternatives
- Reduce chemical footprint
- Systemic changes
 - Align to CoHCs
 - Use common reporting template (for example, Health Product Declaration)
 - Certification

4

Recommendations:
Where do we go from here?



Improving Quality for our Smallest Patients

- **Protecting children, healthcare workers and the environment is the “right thing to do”**
- Healthcare workers- women of child-bearing age
- Chemicals are **harmful to growing fetus and children**
 - Rapid growth period- cell disruption
 - Reproductive developmental impact
 - Endocrine disruption
 - Neurotoxicity- ADHD and autism
- Chemicals are **harmful to the environment**
 - Circle of poison- landfill -> water -> consumption

Supply Chain's “Active” Role

- Raise **awareness** of product chemical composition and **impact** on personal and environmental safety
- **Seek** products with **safer alternatives**
 - Utilize resources- CPA, Healthcare without Harm (noharm.org), Practice Green Health
- **Drive “system” change** supported by comprehensive chemical policy
 - Vinyl Gloves (DINP Plasticizer)
 - Anti-microbial Soaps (Triclosan)
- Monitor **facilities respond** to **product conversions** promptly and completely

Collaboration: SSRM and Clean Production Action

- Welcomed opportunity for benchmarking chemicals of concern and identifying where we can make safer choices
- **Process:**
 - Engaged Peds/PICU in 2 facilities
 - Obtained product usage
 - Reviewed supplier notification letters
 - Prompted suppliers to respond to surveys

Prioritizing and Implementing Change

- **Products of highest concern:** In, on & around patients
 - Volume of usage
 - Level of exposure
 - Individual chemical

- **Clinician Feedback**
 - Does alternate product require change in nursing work flow?
 - Does alternate product require nursing education?

Next Steps

- Reach out to suppliers where concerns arise to request safer alternatives
- Provide cross reference where available for personal and medical care products
- Continue to engage with suppliers to request safer alternatives for the pediatric and neonatal populations

A photograph of a hospital room with medical equipment. In the foreground, there are two monitors on a stand, one above the other. The monitors have green screens and control panels. Wires and tubes are connected to the equipment. In the background, a patient is lying in a hospital bed, partially visible. The room is brightly lit, and the overall atmosphere is clinical.

Thank You!

Questions?

**For the Chemical Footprint in Pediatrics report go to:
www.cleanproduction.org**