AMR & the environment

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Right to Environmental Health and Access to Health Care
You can’t heal people on a sick planet!
HCWH Mission

Health Care Without Harm works to transform the health sector worldwide so that it becomes ecologically sustainable and a leading advocate for environmental health and justice across the globe.
What is HCWH doing?

• Making the link between the environment and health
• Evolving the Hippocratic Oath
• Leveraging the purchasing power of healthcare
• Activating health messengers for broader societal transformation
• Implementing a disease prevention agenda
Definition of Environmental Health

Environmental health is concerned with the aspects of the natural and built environment that affect human health. 

"Environmental health addresses all the physical, chemical, and biological factors external to a person, and all the related factors impacting behaviors. It encompasses the assessment and control of those environmental factors that can potentially affect health. It is targeted towards preventing disease and creating health-supportive environments." (WHO Definition)
Strategic Assumptions on Environmental Health

1. Environmental factors are a key driver in human health outcomes.

2. Climate change is becoming a “meta driver” for environmental health.

3. The health care sector itself is a major contributor to the deterioration of environmental health conditions.

4. Improvement in environmental factors can have as large or even larger impact on health outcomes than improvements in treatment technologies and resources.

5. The health care sector has a moral obligation, and good business reasons, to be a force in improving environmental health. If it leveraged the full force of its business and political assets to this end, it could have a substantial and measurable global impact.
A Comprehensive Environmental Health Agenda for Hospitals and Health Systems Around the World

www.noharm.org
www.greenhospitals.net
Global Green and Healthy Hospitals
Agenda: 10 Goals

- Leadership
- Chemicals
- Waste
- Energy
- Water
- Transportation
- Food
- Pharmaceuticals
- Buildings
- Purchasing
Pharmaceutical Resource Center

Objective: Keep track of scientific articles, reports and books related to pharmaceuticals in the environment
PUBLICATIONS

Minding the Gap: Research Priorities to Address Pharmaceuticals in the Environment

Unused Pharmaceuticals Where Do They End Up? A Snapshot of European Collection Schemes

 Pharma Leaflet (4 languages)
Pharmaceuticals from Treated Municipal Wastewater Can Contaminate Shallow Groundwater Following Release to Streams

Pharmaceuticals and other contaminants from treated municipal wastewater can travel into shallow groundwater following their release to streams, according to a recent USGS study. The research was conducted at Fourmile Creek, a small wastewater-dominated stream near Des Moines, Iowa.

"Water level measurements obtained during this study clearly show that stream levels drive daily trends in groundwater levels. Combined with the detection of pharmaceuticals in groundwater collected several meters away from the stream, these results demonstrate that addition of wastewater to this stream results in unintentional, directed transport of pharmaceuticals into shallow groundwater," said Paul Bradley, the study's lead author.

Samples for the study were taken from Fourmile Creek during the months of October and December of 2012. In October, the wastewater made up about 93 percent of the stream's flow, whereas in December, the wastewater made up about 71 percent of the stream's flow. During both months, Fourmile Creek experienced persistent dry conditions.

Pharmaceuticals and other wastewater contaminants are most likely to contaminate adjacent groundwater systems during dry conditions when wastewater contributes the greatest proportion to streamflow.

The samples from the stream and groundwater were analyzed for 110 pharmaceutical compounds, as well as other chemicals like personal care products and hormones. These compounds are able to move into the groundwater systems because they remain dissolved in the water, rather than attaching themselves to the sediments that filter other chemicals out of the water as it moves from the stream into adjacent groundwater. There were no sources of these pharmaceuticals to groundwater in the study reach other than municipal wastewater in the stream.

This study found that 48 and 61 different pharmaceuticals were present in the stream downstream of the wastewater discharge point during the two periods of study, with concentrations as high as 7,810 parts-per-trillion (specifically the chemical metformin, an anti-diabetic pharmaceutical). Correspondingly, between 7 and 18 pharmaceuticals were present in groundwater at a distance of about 65 feet (20 meters) from the stream bank, with concentrations as high as 87 parts-per-trillion (specifically feotafenadine,
AMR

- Implementation of National Action Plans
- Global Surveillance
- Progress on supply side needed
Needs

• Prudent use both human & veterinary
• Surveillance data for disease control, local, national, international
• Different sectors work towards set goals: animal production, fish husbandry, waste
• Environmental standards developed and applied
• Measuring of residues in the environment (water)
• Transparency and reporting
• Add to SAICM discussion
HCWH demands

- Pollution at production sides need to be cleaned up (China & India)
- Transparency and reporting on environmental criteria at production side needed
- Pollution prevention policies at the supply chain, reporting on water, air, soil quality at production side and 3 party inspection
- Invest in green pharmaceuticals, benign by design and end of live should be part of R&D
- Transparency along the supply chain that would allow APIs to be traced
- Green procurement by the healthcare sector
- Raise awareness among citizens and heath professionals
Thank you!

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