



IPWR RESPONDS TO PHARMACEUTICALS IN TAP WATER

On March 11, 2008, the Associated Press published the findings of its survey exploring the presence of pharmaceuticals in the tap water of 28 major metropolitan areas. The number of pharmaceuticals found by the AP study ranged from two in Indianapolis (caffeine and cotinine) to 63 in Philadelphia (including trimethoprim, carbamazepine, estrogen, acetaminophen and diazepam). The concentrations of these chemicals are well below their recommended or prescribed medical dosages and the AP reports that the water utilities continue to state their water is safe.

In the days since the AP published the story, a media storm has descended upon this issue. Federal legislators have now called upon the US Environmental Protection Agency (EPA) to set guidelines for limits of pharmaceuticals in public drinking water. In a statement drafted by Sen. Frank R. Lautenberg, D-NJ, chairman of the Transportation Safety, Infrastructure Security and Water Quality Subcommittee of the Senate Committee on Environment and Public Works, and Sen. Barbara Boxer, D-CA, chairman of the Senate Environment and Public Works Committee, the Senators “request that the EPA, in a timely manner, establish a national taskforce comprised of federal, state, and local government officials, industry representatives, and environmental organizations to investigate this situation and make recommendations to Congress on any legislative actions needed.”

Why has this issue gained such traction? Is it because of the ongoing news of water scarcity in the Western and Southern areas of the US or is it because we see the health impacts of drinking contaminated water? What many do not know is that this is not new information. It has been known for many years that the nation’s water supply contain traces of many contaminants, including pharmaceutical drugs. In fact, the 2000 Stockholm Junior Water Prize was awarded to Asheley Mulroy, a then 17-year-old girl, who after testing her local water source and home tap water as part of a school project found traces of penicillin, tetracycline and vancomycin, according to a March 10, 2008 article in the Wheeling, West Virginia Intelligencer.

Despite the knowledge of the presence of low dose pharmaceutical products in the aquatic environment and drinking water there has still been very little conclusive research on the effects these products have on aquatic ecosystems or on people exposed through drinking water. For example, does the presence of low levels of antibiotics or biocides in waste waters increase the probability of antimicrobial resistance? What are the impacts, if any, of the presence of low dose estrogens or diazepam in drinking water? In fact, there are millions of chemicals in commerce and it is unclear how many of these may make their way into water supply systems and community wells. Nevertheless, the continued question of low dose, chronic exposure to pharmaceuticals and other chemicals needs to be addressed using well controlled studies.

While IPWR commends the work of the AP and our legislators for their efforts in first bringing this issue to the forefront we are concerned with the lack of resources devoted to investigating the role and value of drinking safe water to promote health and prevent disease and the adverse impacts of contaminants. Water is complex and may hold key properties to sustaining life and promoting health. We know that contaminated water negatively impacts environmental, economic and human health. Keeping our water safe is essential! Nevertheless any policy response to this or any other issue has to be based on good scientific knowledge. Understanding the role that safe water plays in promoting health remains under investigated and therefore compromises our ability to respond when foreign agents are found in our water supply. Such evidence can also inform key decisions and recommendations regarding standards and guidelines for consumption.

Ultimately, sound evidence regarding the value and role of water consumption will support a health-management pathway for protecting and keeping our water supply safe and available to all. At IPWR we hope this conversation leads to a new commitment to understanding the vital role that water plays in preserving the public's health for all our citizens.