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Protect, Prevent, Live Well

**Testimony of Lynn Goldman, MD, MS, MPH
Representing the American Public Health Association
Oversight Hearing on the Environmental Protection Agency's Implementation of the Safe
Drinking Water Act's Unregulated Drinking Water Contaminants Program
Senate Committee on Environment and Public Works
July 12, 2011**

Chairman Boxer, Ranking member Inhofe and members of the Committee, it is my pleasure to testify about the Environmental Protection Agency's Implementation of the Safe Drinking Water Act's Unregulated Drinking Water Contaminants Program on behalf of the American Public Health Association.

My name is Lynn Goldman. I am Dean of the School of Public Health and Health Services at The George Washington University School of Public Health and Health Services. I am a pediatrician and an epidemiologist. I have done research on health impact of environmental contaminants and am a member of the Institute of Medicine. From 1993-98, I served as Assistant Administrator for the Office of Chemical Safety and Pollution Prevention at the US Environmental Protection Agency (EPA). Prior to joining the EPA I worked for eight years in public health with the California Department of Health Services. I also am a member of the Board of Trustees of the Environmental Defense Fund. I have been a member the American Public Health Association (APHA) for almost 20 years, and I am pleased to represent APHA at today's hearing regarding the public health implications of the Safe Drinking Water Act (SDWA). APHA is the nation's oldest and most diverse organization of public health

professionals in the world, dedicated to protecting all Americans and their communities from preventable, serious health threats and assuring community-based health promotion and disease prevention activities and preventive health services are universally accessible in the United States. APHA has long advocated for strong environmental health laws that adequately protect the health of the public from environmental hazards and we appreciate the opportunity to testify today on the public health implications of our nation's safe drinking water laws.

The SDWA, last amended in 1996, is the nation's primary law to protect the public's health from harmful contaminants in the nation's drinking water supply. While the EPA administers the law and sets standards, the states have been delegated primary authority for enforcing drinking water programs. Our nation's state and local health departments also play a critical role in working with state drinking water regulators to ensure the safety of our drinking water.

Safe drinking water is essential to public health. According to the EPA, there are currently more than 170,000 public water systems that provide water to most Americans, and our nation's drinking water supply is one of the safest in the world. Since its enactment, the SDWA has made significant improvements to the quality of the nation's public water supplies. An overwhelming majority of Americans receive their drinking water from sources that do not violate EPA's standards for maximum contaminant levels. At the same time, the public health community remains concerned over a number of issues that continue to provide risks to the public's health, including unregulated contaminants and decreasing federal resources to states to improve drinking water infrastructure. In fact, in the final 2011 continuing resolution cut more than \$400 million (or 30 percent) from the FY 2010 level for EPA's Drinking Water State Revolving Fund.

In addition, APHA believes more must be done to protect vulnerable populations that are more susceptible to exposures, including infants/children, pregnant women, immune-suppressed individuals, and the elderly when setting drinking water standards.

There are weaknesses in federal statutes and regulations governing the safety of drinking water, and a number of EPA standards are being currently being reviewed and revised. In some instances, contaminants are not regulated, such as perchlorate and a number of pesticides. EPA standards may protect the average adult but may not adequately protect infants and children, the frail elderly, and those with weakened immune systems. Moreover, EPA standards are established to protect health while considering the water treatment costs and availability of clean-up technology.

Numbers of Contaminants Unregulated

At the time the SDWA was amended, APHA expected that this would result in an uptick in the numbers of chemicals regulated since SDWA gave EPA more flexibility to establish priorities for regulation of contaminants based on those that present the greatest public health concern, including for pregnant women, infants and children. Unfortunately, this expectation was not fulfilled, and my review of EPA's drinking water regulations at CFR 40 part 141 finds that EPA has not adopted any new drinking water safeguards for chemicals since enactment of the 1996 law – neither to assure the safety of unregulated contaminants nor to change regulations for previously-regulated chemical contaminants. Tens of thousands of chemicals are on the market but the vast majority of these will never appear in finished drinking water. Those that are in

drinking water should be regulated by the EPA so that the public can be assured that levels are safe. According to a December 2009 report issued by the Environmental Working Group, hundreds of additional unregulated contaminants have been found in our drinking water systems. Minus the establishment of clear Maximum Contaminant Levels (MCLs) and health-based MCL Goals, how are we to know that these chemicals in their water are “safe”? A number of specific chemicals have been of concern to the APHA and the public health community in states, including: perchlorate, chromium VI, trichloroethylene (TCE) and other VOCs, and a number of pesticides and disinfection products that are found in drinking water across the nation. Unfortunately, this situation has caused several states to undertake drinking water standard setting on their own, ahead of EPA action, most notably, the State of California, which has established standards for perchlorate, chromium VI, TCE and several other VOCs, and, a number of pesticides. While APHA believes that states are responsible for taking such steps to protect the public’s health, we would prefer to see national standards that can effectively assure safe drinking water for all of the country.

SDWA and Children, Pregnant Women, and Other Vulnerable Populations

In 1995, APHA developed a policy that recommended that all environmental policy, legislation, and regulation protect children and we have long advocated that environmental health standards need to protect vulnerable populations. It is important to recognize that, as we state in that policy, “children are uniquely vulnerable to environmental exposures because they are in a dynamic state of growth, with many vital systems such as the nervous, immune, and respiratory systems not fully developed upon birth” and to understand “that children can have greater

exposures to environmental toxins”. In the case of drinking water, children drink more water and consume more water indirectly through food, per body weight, than adults. According to EPA estimates, considering all drinking water intake, infants less than 6 months of age consuming drinking water in infant formula, per body weight consume five times more drinking water than adults consume in both drinking water and food. This means that they have greater exposure to any substance, microbial or chemical, that might be present in that drinking water. At various life stages – during pregnancy, *in utero*, in childhood, in old age, and during serious illnesses -- people may have different abilities to metabolize, detoxify, and excrete certain many toxic substances, thus rendering them more vulnerable to health effects. Moreover, rapid growth and development *in utero* and in early childhood puts children at particular risk for exposure to environmental toxins that may disrupt normal developmental processes, and result in permanent irreversible damage. Traditionally EPA’s environmental health regulations have been based on data primarily from research on healthy adult humans or animals and do not take into consideration the unique exposure patterns and sensitivities of children, pregnant women, the elderly and those with chronic diseases.

In the 1996 SDWA amendments, Congress specifically directed the EPA to regulated unregulated contaminants that are at greater risk of adverse health effects due to exposures than the general population, including infants, children, pregnant women, the elderly, and individuals with a history of serious illness, or other subpopulations recognized to be of greater risk. Likewise, in establishing MCL goals, EPA was to protect the general population as well as these significant subpopulations. This authority has been exercised by EPA to craft stronger

regulations for microbial contaminants like *cryptosporidia* in drinking water, but not for addressing unregulated chemical contaminants.

Conclusions and Recommendations for Improvement

APHA suggests a number of ways that EPA could strengthen the regulation of chemicals in drinking water:

1. In all of its risk assessment efforts, EPA needs to implement the 2009 National Academy of Sciences report *Science and Decisions: Advancing Risk Assessment*. This report recommended changes in how EPA designs risk assessments, models dose response for hazardous substances, and considers uncertainty in risk assessment. In particular it concluded that EPA needs to address the issue of cumulative exposures. Exposures to drinking water contaminants occur within a context of multiple exposures to other contaminants in drinking water, foods, household environments, and air. They also occur within contexts such as significant subpopulations who have other health problems that may contribute such as poor nutrition and exposure to tobacco smoke. All of these issues need to be considered in an overhaul of EPA's risk assessment processes, including for drinking water.
2. EPA needs to more strongly weigh evidence that chemicals and pesticides are present in drinking water. Given that there are no mechanisms for systematic collection of information about levels of unregulated chemicals in drinking water, those toxic chemicals that are occurring frequently need MCLs so that they will be monitored and the public can be assured that levels are safe.

3. Each and every one of us was, at one time, a fetus or a child; have been or may become (if we are female) pregnant; has suffered from or may have a chronic illness; and (if we are lucky) may become elderly. These aren't "subpopulations"; they are life stages. EPA needs to strengthen its efforts to assure that vulnerable populations are protected as required by law.

Thank you for the opportunity to testify this morning and I am happy to answer any questions.