GAO Highlights

Highlights of GAO-14-103, a report to congressional requesters

Why GAO Did This Study

EPA’s UCMR program collects data on unregulated contaminants in the nation’s drinking water. EPA uses these data and other information to make regulatory determinations—decisions on whether to regulate additional drinking water contaminants. It is currently in its third data collection cycle, UCMR3.

GAO was asked to examine the UCMR program. This report examines: (1) the extent to which EPA implemented GAO’s prior recommendations to improve the program and opportunities, if any, to strengthen it further; (2) the factors EPA considered when it selected the UCMR3 contaminants and the limitations, if any, it faced in selecting them; and (3) the extent to which UCMR data support regulatory determinations.

GAO reviewed EPA documents, surveyed 48 subject matter experts, assessed the UCMR program against statutory requirements and other standards, and interviewed EPA officials.

What GAO Found

The Environmental Protection Agency (EPA) has implemented all of the recommendations GAO made in its May 2011 report to improve the Unregulated Contaminant Monitoring Rule (UCMR) program. In that report, GAO recommended that EPA (1) monitor for the full 30 contaminants allowed by statute, (2) monitor for most or all contaminants using a more robust monitoring approach, and (3) select sufficiently sensitive minimum reporting levels (MRL) for monitoring contaminants. EPA now requires public water systems to monitor for 30 contaminants in the UCMR3 program, using its most robust monitoring approach for a majority of these contaminants, and setting MRLs as low as can be reliably measured, according to EPA. The Safe Drinking Water Act (SDWA) requires EPA to vary the monitoring frequency based on the type of contaminant likely to be found, but EPA used a standard monitoring frequency for all contaminants. This may result in inaccurate estimates of the occurrence of sporadically occurring microbes (e.g., viruses) or pesticides, according to experts GAO surveyed and studies it reviewed. In such cases, the monitoring data may not provide reliable estimates of contaminant occurrence.

EPA used 10 factors to select the 30 contaminants for UCMR3, but its selection process faced some limitations. Officials told GAO that the contaminants did not have to meet all 10 of the selection factors to be chosen, but 3 were very important: (1) the availability of an analytical method to detect contaminants, (2) the reliability of health effects information on the contaminants, and (3) the need for data to support regulatory determinations for priority contaminants. However, EPA is limited by a statutory cap of 30 contaminants every 5 years, which restricts its ability to collect data on additional contaminants that could have been monitored for little additional cost. SDWA’s legislative history reflected concerns with the ability of public water systems to absorb such costs, but many of the analytical methods EPA is using for UCMR3 are able to test a single sample of drinking water for more than one contaminant at a time. However, because of the limit of 30, EPA cannot always take advantage of this efficiency and is unable to gain economies of scale using monitoring that is already under way.

EPA uses UCMR data to support regulatory determinations but faces a time lag when doing so. EPA has used UCMR data to support 10 out of 12 regulatory determinations it has made since 2008 and is currently using UCMR data to inform the determinations expected in 2015. However, a time lag between the statutory deadline for making regulatory determinations and when UCMR data are available delays determinations on given contaminants until the following cycle. The 2-year time frame SDWA originally established from the time EPA publishes the UCMR list to when it makes regulatory determinations has not provided enough time for the agency to incorporate the UCMR data into the determinations. The UCMR3 monitoring, data collection, and analysis overlap with the time when EPA will be making its regulatory determinations for contaminants from its most recent Contaminant Candidate List. Consequently, UCMR data are not available to support regulatory determinations for contaminants during the cycle in which they are monitored; rather, UCMR data typically are not used until the next cycle. EPA officials told GAO that most of the UCMR3 data, which are being collected from 2013 to 2015, will be used to support the regulatory determinations it expects to issue in 2020 instead of 2015.

What GAO Recommends

Congress should consider amending the Safe Drinking Water Act to allow EPA to monitor for more than 30 contaminants under certain circumstances, and to adjust statutory time frames so UCMR data can inform regulatory determinations in the same cycle. GAO, among other things, recommends that EPA vary the monitoring frequency based on contaminant type. In commenting on a draft of this report, EPA generally agreed with GAO’s findings, conclusions, and recommendations.

View GAO-14-103. For more information, contact J. Alfredo Gómez (202) 512-3841 or gomezj@gao.gov.