

## **Biomonitoring, and the National Health and Nutrition Examination Survey (NHANES)**

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The health significance of human exposures to many chemicals used in modern societies is limited and often contradictory. Studies to investigate the prevalence of such exposures are of public health importance because of the potential harmful health effects of some of these chemicals, as often indicated in animal studies. Biomonitoring programs are particularly valuable for investigating human's chemical exposures. One of these programs, the National Health and Nutrition Examination Survey (NHANES), collects data on the health and nutritional status of the U.S. general population. Since 1999, concentrations of select chemicals in urine and blood of NHANES participants have provided the most comprehensive assessment of Americans' chemical exposures. NHANES biomonitoring data have also been used to establish reference ranges, to provide exposure information for risk assessment (e.g., set intervention and research priorities, evaluate effectiveness of public health measures), and to monitor exposure trends. NHANES data have shown widespread exposure to some environmental chemicals among the general population. NHANES data also suggest variability in exposure by sex, age, and race/ethnicity, all of which probably reflect lifestyle differences. Moreover, NHANES data suggest that reformulation of commercial products and regulations in the United States during the last decade may have had important implications for exposures to certain chemicals and their commercial replacements.