Pesticides and Arsenic Exposure Among Children from Southern Sonora, Mexico.

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Dra. Meza-Montenegro has been Titular Professor at the Instituto Tecnologico de Sonora (ITSON), Mexico, for 32 years. Her expertise is in the area of environmental toxicology. She is responsible for the Environmental Toxicology and Public Health Laboratory at ITSON. Her passion is to teach, support, serve and do research with undergraduate, graduate students, and investigators from Mexico and other countries, in order to contribute to solving environmental problems which negatively impact the health of the population. She has been supported by national and international agencies with grants for environmental health research (NCI, Avon Foundation, Bill and Melinda Gates Foundation, NIHES, University of Arizona, CONACYT, etc.). More than 80 students have graduated under her advising. She is member of the National System of Researchers level II, based on the number and quality of published manuscripts indexed in Journal Citation Report. Her research has been recognized at the national and international level (BBC London, Denmark News and Discovery channel documentaries).

The Yaqui and Mayo valleys are two of the most important agricultural areas in Mexico, because they have high productivity of grains and vegetables for export. In this context, the amount and diversity of pesticides have increased in the last years. As a result of the indiscriminate application, dangerous levels of these toxic compounds, including banned compounds, have been detected in the blood and mothers' milk of some valley residents including newborns. Children from these areas have demonstrated adverse health effects compared to children living in the foothills.

The use of inorganic pesticides containing arsenic, has caused some Yaqui villages to have high arsenic levels in their drinking water. Arsenic exposure by water consumption is causing adverse chronic diseases in the children, risking the development of cancer.

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