

## NICARAGUA

A.	<a href="#">Regulation on sources</a> .....	2
B.	<a href="#">International Agreements</a> .....	2
C.	<a href="#">Blood lead-level monitoring programs</a> .....	3
D.	<a href="#">Inventory of toxic sites (Toxic Sites Identification Program (TSIP), Pure Earth)</a> .....	3
E.	<a href="#">Scientific papers on lead exposure</a> .....	4
F.	<a href="#">Blood testing in National Health Surveys</a> .....	4

### A. Regulation on sources

Source of lead	Relevant legislation/regulation	Government agencies	Data source
	There exists no published regulation for lead in Nicaragua to date.		

### B. International Agreements

Agreement	Year Ratified
1. Basel Convention on the Control of Transboundary Movements of Hazardous Wastes and Their Disposal	1997 (a) <sup>1</sup>
2. Rotterdam Convention on the Prior Informed Consent Procedure for certain hazardous Chemicals and Pesticides in international trade	2008 (a)
3. Minamata Convention on Mercury	2014
4. Stockholm Convention on Persistent Organic Pollutants	2005

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<sup>1</sup> Accession (a)

### C. Blood lead-level monitoring programs

Details	Data source
<p>1. No details of a national or regional level structured program for blood lead level testing found. However, published studies point to some presence of testing programs at the local level. An example is the community-initiated study of blood lead levels of children in Nicaragua</p>	<p>1. Refer to section E on scientific papers that perform blood lead-level sampling</p> <p>2. <a href="#">A community-initiated study of blood lead levels of Nicaraguan children living near a battery factory</a></p>

### D. Inventory of toxic sites (Toxic Sites Identification Program (TSIP), Pure Earth)

Site	Province/Region	Details (all data comes from the TSIP <a href="#">website</a> )
Lago Xolotlan (Lake Managua)	Leon	The sediments in Lake Managua are heavily polluted with mercury, and therefore fish are also contaminated. Particularly affected are tilapia, a major food source, thereby threatening human health.
La Libertad, La Libertad, Chontales	Chontales	La Libertad is a small-scale mining town where mercury is released from amalgamation centers located near residential neighborhoods. High accumulations of mercury were found in water samples from creeks and rivers in the area.
San Juan de Limay, Esteli	Esteli	Groundwater, soils and wells in San Juan de Limay contain elevated levels of naturally occurring arsenic. This is the drinking water source for the dense rural population in the area.

### E. Scientific papers on lead exposure (Please contact [info@gahp.net](mailto:info@gahp.net) for information on studies not in the public domain)

Topic	Authors	Year	Title	Abstract/ description
Lead in water	Cruz, Adela; Fomsgaard, Inge; Lacayo, Julio	1994	Lead, arsenic, cadmium and copper in Lake Asososca, Nicaragua	<b>Abstract:</b> The present study of lead, arsenic, cadmium and copper was carried out between July 1991 and April 1992 in the water and sediment of Lake Asososca. The concentrations of lead in water were within normal limits for drinking water, but significant differences from month to month were found. No significant difference was found either between the concentrations at each sample station or between the concentrations at each sample depth. Arsenic concentrations were within a relatively normal range, but the concentrations in July was significantly lower than in the rest of the year. Cadmium and copper concentration levels were normal. In the superficial sediment of the lake, the cadmium and copper concentration levels were similar in the whole lake. The lead and arsenic contents in sediment were significantly higher at the pumping station than at the rest of the sampling points.

### F. Blood testing in National Health Surveys

National Health Survey	Non-Communicable Diseases Risk-Factors Surveillance	Source
Purpose	Advance in the process of generating information and evidence about the process of restoring the right to health of the Nicaraguan population, through support to government institutions and other organizations for proper decision-making in the field of demography and reproductive health, and to update demographic and health statistical information that allows the elaboration of relevant sector indicators.	<a href="#">Encuesta Nicaragüense de Demografía y Salud 2011/2012 – Informe Final</a> (Nicaraguan Demographic and Health Survey 2011/2012 – Final Report), Ministry of Health
Sample size	All residents of selected households; women in their fertile ages (15-49 years old) in each	

	household; children younger than 5 years old, kids of the selected women; men in their fertile age (15-49 years) in a third of the chosen households.	
Blood sample testing	General blood testing	
Latest round	2011/2012	
Next round	-	