

CHILDHOOD LEAD POISONING SCREENING ACTIVITY IN FRANCE: A FIFTEEN-YEAR EXPERIENCE (1995-2009)

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Background and Aims: Lead poisoning is responsible for neurodevelopmental damage in children. In 1995, a Nationwide Monitoring System began in France recording blood lead levels (BLL) and characteristics of children who had blood lead (BL) tests. This study provides an overview of children screening for lead poisoning and a description of children's characteristics and risk factors.

Methods: Were included in the study, all the children under 18 who had one or more BL tests (within a screening framework) performed in France between 1995 and 2009.

Results: More than 83 600 children had at least one test during the study period. A peak of annual activity was observed in 2004 (10 060 children). From 1995 to 2001, the screening activity was stable: each year around 3 000 children had a first BL test. From 2004 to 2009 a stabilization of the activity was observed around 7 000 tested children per year. Most of the children were under 7 (80-90%). Most of them were screened because they lived in old housing (79.1% in 2005-2007). More than 60% of the children lived in the Greater Paris area even though the children population in this area was less than 20% of the French children population.

In 1995, 24.3% of screened children had a BLL \geq 100 μ g/L. They were 3.3% in 2009. From 1995 to 2009, the BLL geometric mean decreased from 59.2 μ g/L to 22.4 μ g/L in screened children.

Conclusions: The incidence of lead poisoning in screened children decreased regularly since 1995. The policies of old housing improvement, the leaded gasoline phase-out and the implementation of local prevention actions have taken part in this decrease. However the screening activity remained exceedingly area-dependant; so some children, exposed to lead, are not screened. The future evolution of the screening strategy and therefore of the surveillance system are currently being discussed.