Lead exposure is an important public health problem that causes cumulative toxicity in multiple body systems. Children are particularly vulnerable to its neurotoxic effects and therapy consists of removal of the exposure source and good nutrition. Georgia is a country with a population of 3.7 million, a third of which lives in Tbilisi that contains new and old dwellings relatively concentrated in separate areas. There is no data on lead exposure or levels in children in Georgia. The aim of the study was to describe the blood lead level (BLL) in children living in Tbilisi.

254 children were included. 58.7% were male. 70.5% of children were aged between 2 and 4, 24.4% were 4 years old and 5.1% were 5 years old. 24% were living in the old part of the city. The BLL geometric mean was 5.7 mcg/dl and the median was 3.9 mcg/dl. The range was 3.3 to 57.0 mcg/dl with a standard deviation of 5.3. 33% of BLLs were ≥ 5 mcg/dl, 9.5% ≥ 10 mcg/dl, 2.8% ≥ 20 mcg/dl and 0.4% ≥ 45 mcg/dl. The mean BLL was 7.6 mcg/dl in children living in the old part of Tbilisi. Log‐rank test showed a statistically significant difference (p=0.0136) in BLL for new and old regions. There was no statistically significant difference for gender or age group.

**RESULTS**

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**DISCUSSION**

Based on this sample, the BLL in children is higher than the data from the USA. Although only 2.8% had a BLL ≥ 20 mcg/dl and 0.4% ≥ 45 mcg/dl, there is a need for public health action to eliminate any lead exposure in children and decrease the percentage with BLL ≥ 5 or 10 mcg/dl. The sample size is small and not random, the age of the dwelling is unknown and there was no subject data collected to inform about possible sources of exposure. Therefore our results are not generalizable.

**CONCLUSION**

Further research should be performed at a population level with a focus on old dwellings and include an environmental component.