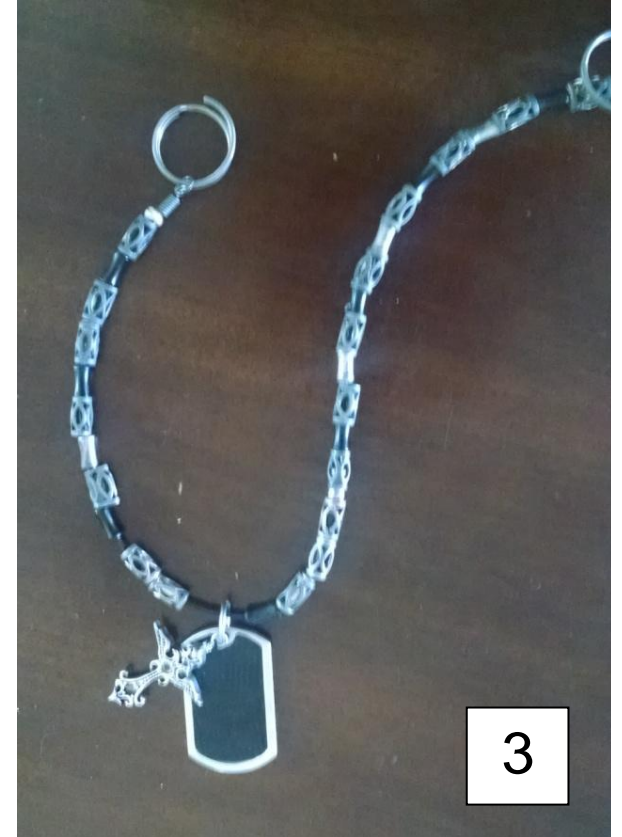




# Non-Traditional Sources of Lead Exposure of Two Refugee Children & One U.S. Child with Blood Lead Levels $\geq 10 \mu\text{g}/\text{dl}$ in Summit County



The SURMA black powder and containers were brought to the U.S. by refugee parents from Pakistan and Afghanistan.

(Uses: cosmetic, treatment for skin & eye infections, newborn's umbilical stump; teething powder in India, Middle East, and Africa)

### **SURMA Lead Lab Analysis Results**

(1) PAKISTAN sample - 48% by weight Lead Content; 243,250  $\mu\text{g}$  Total Lead

(2) AFGHANISTAN - sample 52% by weight Lead Content

(3) Necklace- The child was exposed by handling the necklace worn by his father.

30,225.60  $\mu\text{g}$   
Total Lead Content



### **SURMA a.k.a. kohl, kajal, alkohl, saott**

**SURMA** powder is used as eye make-up on children, from birth.

Made by grinding [galena](#) a.k.a. [lead sulfide](#).

Preparers of the homemade powder are usually unaware that the mineral, bought from unlicensed suppliers, may be the lead-rich galena. Galena was used in commercial kohl products also, but now manufacturers use [amorphous carbon](#) or organic [charcoal](#) instead of lead.

Use of the handmade, lead-based surma/kohl has increased due to the belief that the non-lead products are inferior.



### **(4) SINDOOR Cosmetic Used in India**

The cosmetic mark on the forehead symbolizes that a woman is married and the husband is living.

The child was exposed when playing in the powder, which was stored on a window sill in an Akron home.

734,105  $\mu\text{g}$  Total Lead; 73% by wt. Lead