Non-Traditional Sources of Lead Exposure of Two Refugee Children & One U.S. Child with Blood Lead Levels ≥ 10 µg/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 µg Total Lead
(2) AFGHANISTAN - sample 52% by weight 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.

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

30,225.60 µg Total Lead Content

(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 µg Total Lead; 73% by wt. Lead