

## **Supplemental Material**

### **Evaluating and Regulating Lead in Synthetic Turf**

Gregory Van Ulirsch,<sup>1</sup> Kevin Gleason,<sup>2</sup> Shawn Gerstenberger,<sup>3</sup> Daphne B. Moffett,<sup>1</sup> Glenn Pulliam,<sup>4</sup> Tariq Ahmed,<sup>4</sup> and Jerald Fagliano<sup>4</sup>

<sup>1</sup>Agency for Toxic Substances and Disease Registry, Atlanta, Georgia, USA

<sup>2</sup>New York State Department of Health, Troy, New York, USA

<sup>3</sup>University of Nevada Las Vegas, Department of Environmental and Occupational Health, Las Vegas, Nevada, USA

<sup>4</sup>New Jersey Department of Health and Senior Services, Trenton, New Jersey, USA

Supplemental Material, Figure 1.

Portion of visible fiber dust collected by high volume vacuum sampling of synthetic turf at Surface 3 in New Jersey.



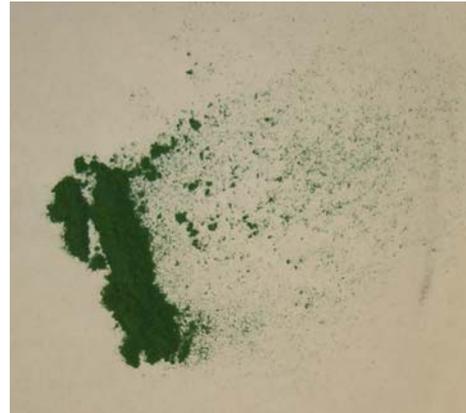
Surface 3



Surface 3



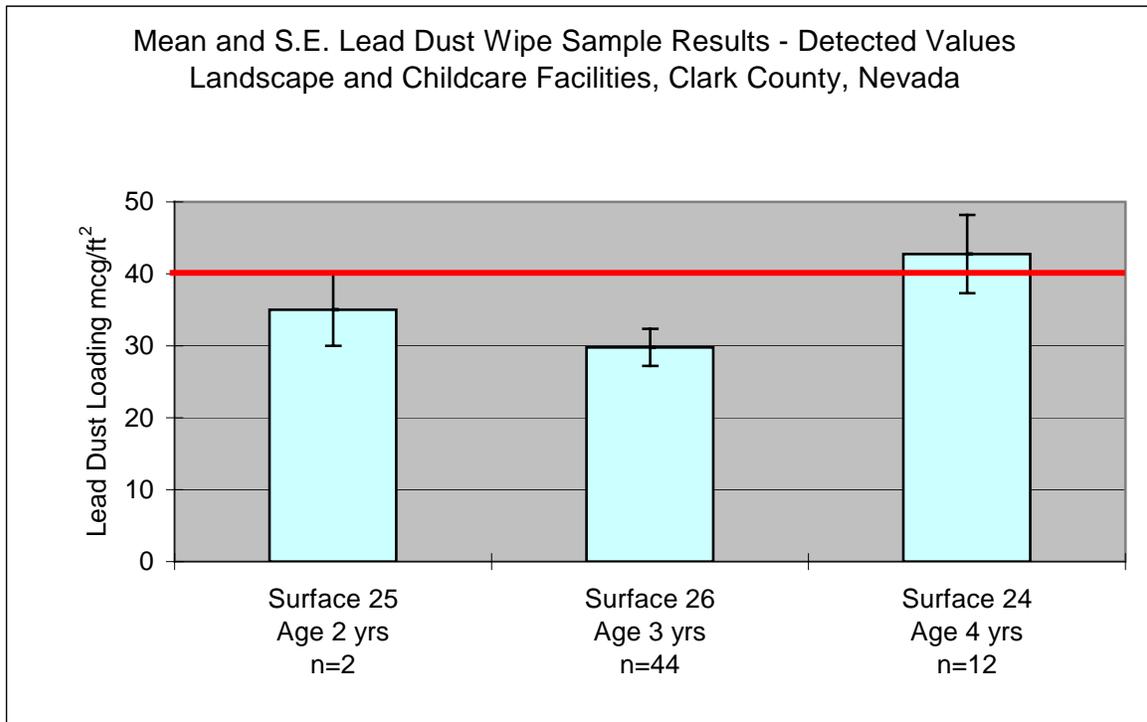
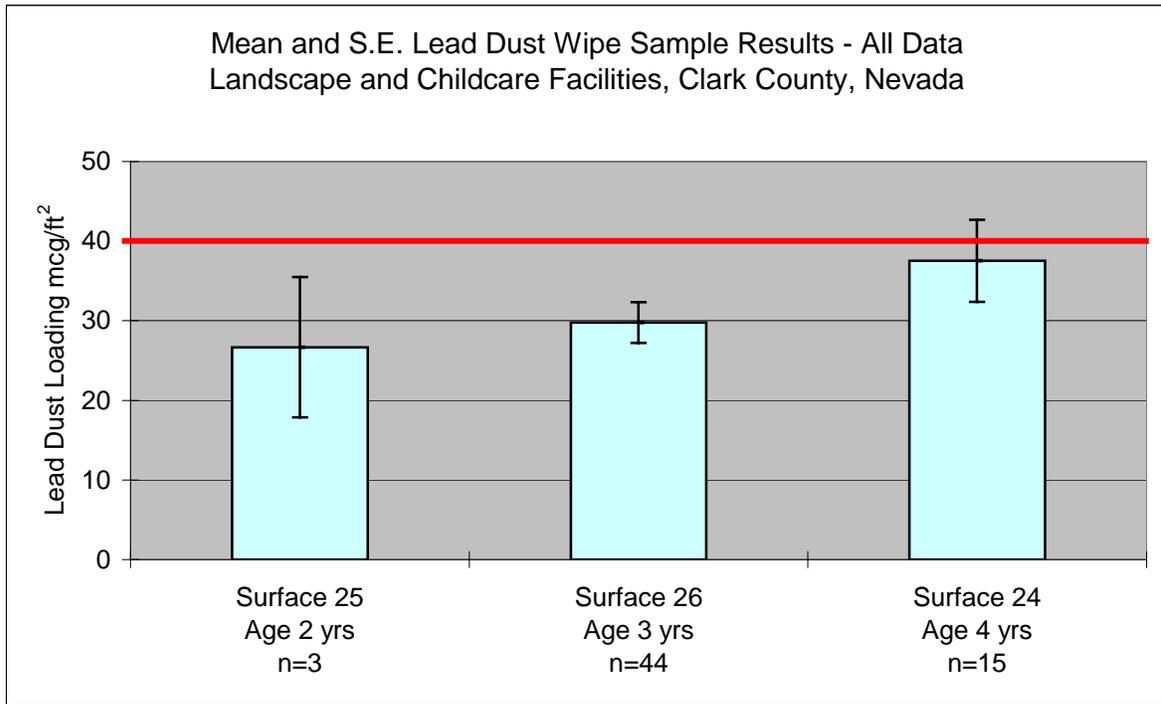
Total Dust = 1.2648 grams/ft<sup>2</sup>  
Lead Concentration = 3,200 mg/Kg  
Lead Loading = 4,047 mcg/ft<sup>2</sup>



Portion of sieved dust  
<75 microns dust = 0.7146 grams/ft<sup>2</sup>  
Lead Loading = 2,286 mcg/ft<sup>2</sup>

Supplemental Material, Figure 2.

Mean and Standard Error (S.E.) Lead Dust Wipe Sample Results for 3 Surfaces<sup>a</sup> – Landscape Use and Childcare Facilities, Clark County, Nevada. 2008.



Notes: mcg/ft<sup>2</sup> – micrograms of lead per square foot  
 40 mcg/ft<sup>2</sup> = Lead dust hazard standard for floors (bare and carpeted) (US EPA 2001)  
 Presented data for synthetic turf fibers with a total lead concentration >300 mg/Kg and with a quantified lead concentration in at least one wipe sample.  
 a - Not depicted: Lead was not present above the detection limit of 20 mcg/ft<sup>2</sup> in dust wipes from 3 additional fields - Surfaces 22 (n=6), 23 (n=2) and 28 (n=9).

## References

US Environmental Protection Agency. 2001. Lead; identification of dangerous levels of lead; final rule. Fed Reg 66(4):1206-40.