



Childhood Lead Poisoning Prevention Program: A Report on Lead Poisoning Screening at the Miami-Dade County Health Department Refugee Health Assessment Program Fiscal Year 2003-2004

Bustamante, Maria, Gomez, Joel, Fajardo, Onelia, Bispham, Gina

The Miami-Dade County's population consists of a large number of immigrants; as a result, more than fifty percent of the population is foreign born¹. Due to Miami's unique location, it serves as a port of entry and subsequent resettlement site for many immigrants and refugees; mostly from Cuba and Haiti. The Florida Department of Health Refugee Health Program provides health assessments and immunization services for the following groups of individuals: refugees, asylees, Cuban/Haitian asylum applicants, Cuban/Haitian entrants (including parolees), Amerasians, and certain victims of severe forms of human trafficking². Since October 1999, children six months to six years of age have been routinely screened for lead poisoning at the Miami-Dade County Health Department (MDCHD) Refugee Health Assessment Program (RHAP). A total of 5,037 children processed at the RHAP from October 1999 through June 2004 have been screened as a result of this effort. It is important to note that due to federal guidelines only legal immigrants are processed at the RHAP, while undocu-

mented immigrants seek medical care elsewhere, if at all.

Lead poisoning is defined as a blood lead level greater than or equal to 10 µg/dL of whole blood. During this past fiscal year, 1,306 children were screened for blood lead levels at the RHAP; representing 80% of the 1,478 children processed at the center (*table 1*). Of the 1,306 children screened for lead poisoning at the RHAP, 69 (5%) had elevated blood lead levels (BLLs) (*figure 1*). Of the 69 children identified with elevated BLLs this fiscal year, approximately one fifth were 6 months-2 years of age and the remaining were 3-6 years of age. Forty-one (59%) children with elevated BLLs were male. Most of the children with high BLLs had levels between 10-14 µg/dL (*figure 1*).



Inside this issue:

Childhood Lead
Poisoning Prevention
Program: A Report on
Lead Poisoning Screen-
ing at the Miami-Dade
County Health Depart-
ment Refugee Health
Assessment Program
Fiscal Year 2003-2004 1

Selected Notifiable
Disease reports,
Miami-Dade County,
Comparison with
Historical Data, 4

Selected Reportable
Diseases/Conditions in
Miami-Dade County,
November 2004 5

Fermin Leguen MD, MPH
Medical Executive
Director

Miami-Dade County
Health Department

8600 NW 17th Street
Suite 200
Miami, Florida 33126

Tel: (305) 470-5660

Fax: (305) 470-5533

E-mail:
fermin_leguen@doh.state.fl.us

Website:
www.dadehealth.org

PERIOD	TOTAL NUMBER OF CHILDREN	NUMBER OF CHILDREN SCREENED	PERCENT OF CHILDREN SCREENED
QUARTER 1	281	245	87
QUARTER 2	358	262	73
QUARTER 3	449	423	94
QUARTER 4	390	376	96
TOTAL	1478	1306	80

Table 1. Lead poisoning screening rates of children ages 6 months to 6 years processed at the RHAP from July 01, 2003 to June 30, 2004, by quarter.

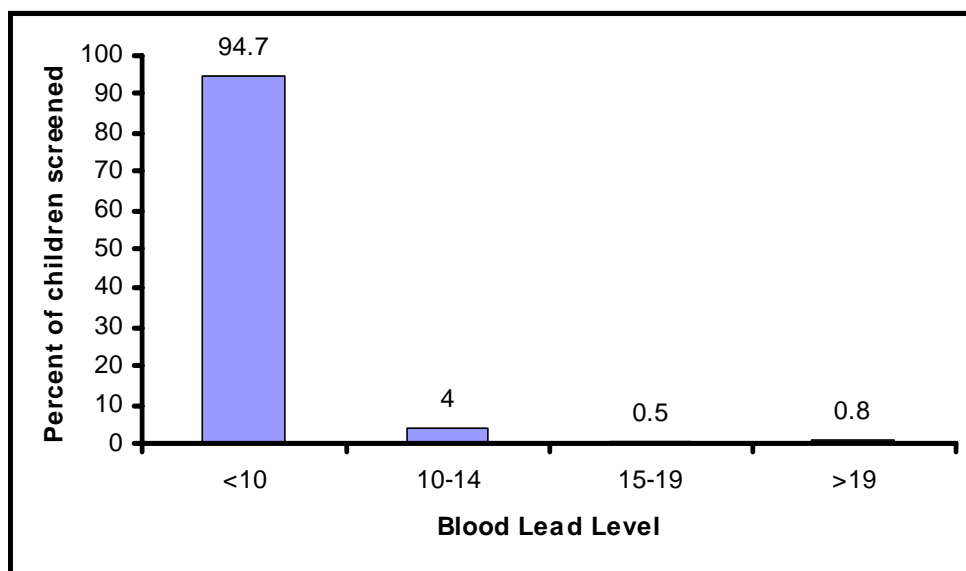


Figure 1. Blood lead levels (BLLs) in refugee children screened for lead poisoning at the RHAP from July 01, 2003 to June 30, 2004 (N=1306).

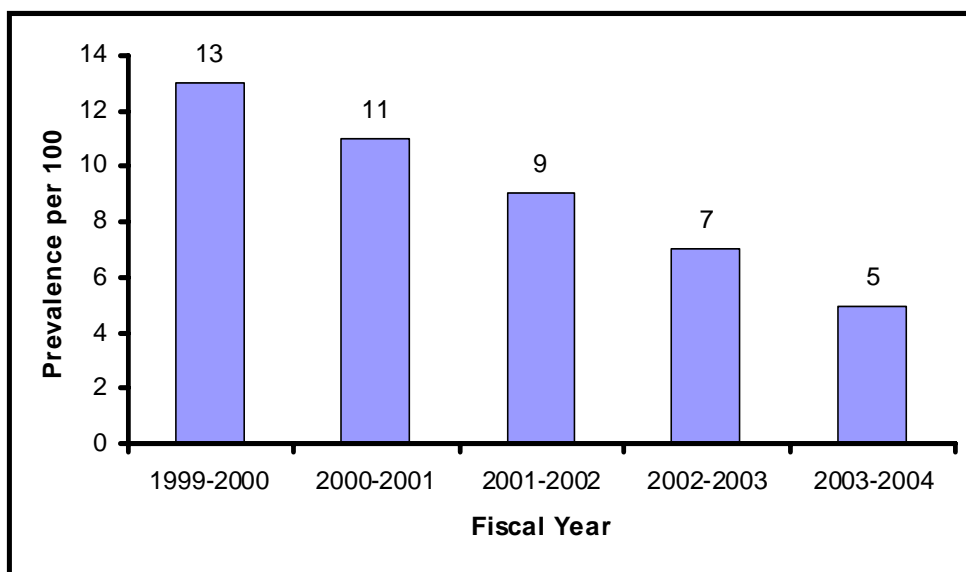


Figure 2. Lead poisoning prevalence per 100 children screened at the RHAP from July 1999 to June 2004*.

* Screening began in October 1999



Figure 3.



Childhood Lead Poisoning* Screening Map for Miami-Dade County

To report lead poisoning* cases, call (305) 623-3565

Screening Guidelines:

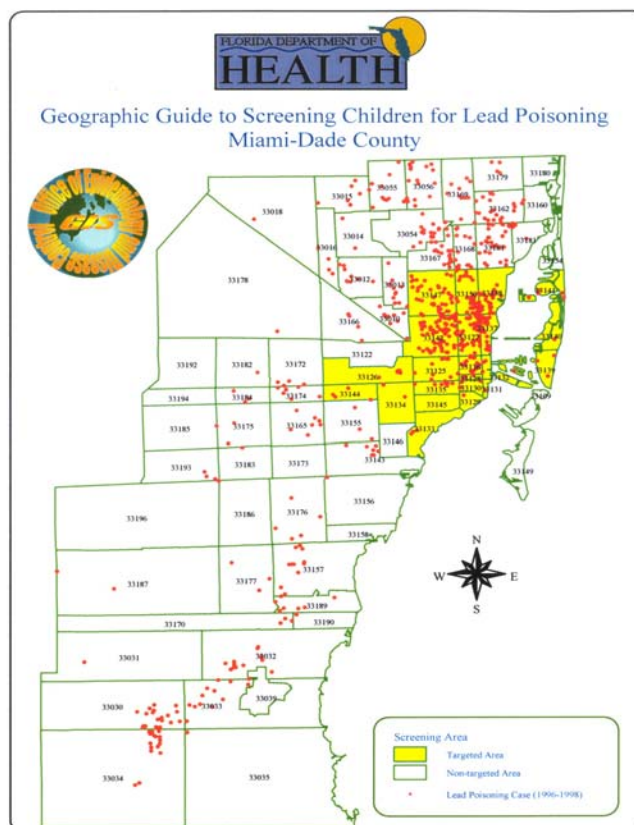
Screen Children at ages 12 and 24 months (at 36-72 months if child has not been screened previously) who meet any of the following criteria:

- ✓ Are enrolled in Medicaid or receive health care in a publicly funded clinic
- ✓ Receive any type of public assistance
- ✓ Live in or regularly visit a house that was built before 1950
- ✓ Live in or regularly visit a house built before 1978 that is being remodeled
- ✓ Recently arrived to the U.S. within one year
- ✓ Have a sibling or playmate with lead poisoning
- ✓ Live in or attend day care in any of the following zip code areas (corresponding to the yellow shaded areas on the map)

List of Target Zip Code Areas

33125 33126 33127 33128 33129 33130 33131
33132 33133 33134 33135 33136 33137 33138
33139 33140 33141 33142 33144 33145 33147
33150

* Lead Poisoning is a blood lead level greater than or equal to 10 ug/dL of whole blood.
10/06/2002



Sixty-nine (20 %) of the 347 new cases of lead poisoning reported to the MDCHD Childhood Lead Poisoning Prevention Program (CLPPP) during this fiscal year were identified through screening at the RHAP. The MDCHD CLPPP provides appropriate follow-up for all children reported to the program with elevated blood lead levels as recommended by the Center for Disease Control and Prevention (CDC) with the goal of reducing their blood lead levels. A lead risk assessment questionnaire is completed with each family to help identify possible lead hazards and high-risk behaviors from their country of origin in an effort to prevent the continued practice of hazardous activities here in the United States. Lead hazards identified from the country of origin may include the presence of peeling or chipping paint in the home, car repair, lead melting and/or recycling, and welding. If the child's blood level is high enough to trigger an environmental investigation (20 ug/dL), a home inspection is conducted to ensure the child is not adding to his lead burden by living in a toxic environment. During this fiscal year, 88% of children were contacted

by staff and provided with education, referrals and home inspections if needed within the recommended CDC timeline (10-14 $\mu\text{g/dL}$ within 30 days, 15-19 $\mu\text{g/dL}$ within 14 days, 20-44 $\mu\text{g/dL}$ within 7 days, 45-69 $\mu\text{g/dL}$ within 48 hours and greater than 70 $\mu\text{g/dL}$ immediately).

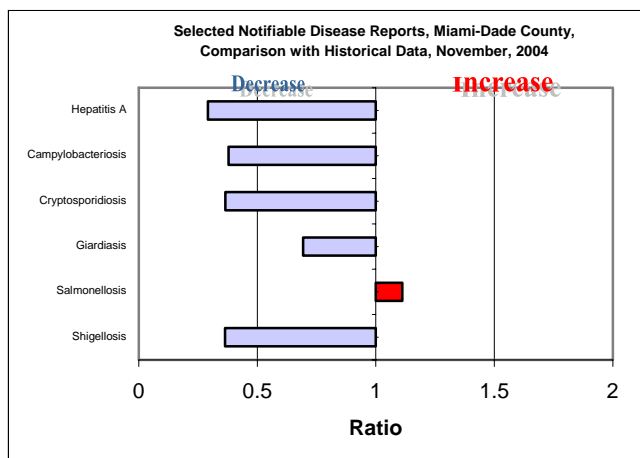
The prevalence of childhood lead poisoning has followed a general downward trend since screening began in 1999 (*figure 2*). For fiscal year 2003-04 the prevalence of childhood lead poisoning in children ages 6 months to 6 years processed at the RHAP is 5% (*figure 2*). While the prevalence of lead poisoning observed in this refugee population has decreased each fiscal year (*figure 2*), this year's rate is still approximately two and a half times higher than the prevalence found in the United States of 2.2%³. This exemplifies the importance of continued screening of this high-risk refugee



population. Because the childhood lead poisoning prevalence observed in the RHAP has always been higher than the national average, we have modified the Centers for Disease Control and Prevention (CDC) screening recommendations to include screening of children who have recently arrived to the U.S. within one year (*figure 3*). Maintaining a high screening rate for lead poisoning of all children ages 6 months to 6 years processed at the RHAP will ensure that these children receive necessary case management services where appropriate. Despite the forthcoming elimination of lead poisoning by 2010, imported cases will continue to be an issue for health officials in Miami-Dade County. A need for culturally sensitive education concerning lead poisoning will remain a necessity in Miami-Dade county for many years to come.

References

1. U.S. Census Bureau. Census 2000.
2. Florida Department of Health. Refugee Health Program Overview. http://www.doh.state.fl.us/disease_ctrl/Refugee/mission.html
3. Centers for Disease Control and Prevention, January 2003. Second National Report on Human Exposure to Environmental Chemicals.



*Ratio of current month total to mean of 15 month totals (from previous, comparable, and subsequent month periods for the past 5 years).



From all Staff of Miami-Dade
County Health Department
Office of Epidemiology and
Disease Control

TO REPORT ANY DISEASE AND FOR
INFORMATION CALL:



Office of Epidemiology and Disease
Control

Childhood Lead Poisoning
Prevention Program (305) 470-6877
Hepatitis (305) 470-5536
Other diseases and outbreaks (305) 470-5660
HIV/AIDS Program (305) 470-6999
STD Program (305) 325-3242
Tuberculosis Program (305) 324-2470
Special Immunization Program (786) 845-0550
Nights, weekends, and holidays (305) 377-6751



Volume 5. Issue 12
December 2004
Page-4

Monthly Report

Selected Reportable Diseases/Conditions in Miami-Dade County, November 2004

Diseases/Conditions	2004 this Month	2004 Year to Date	2003 Year to Date	2002 Year to Date	2001 Year to Date	2000 Year to Date
AIDS ^{*Provisional}	112	1311	943	1013	1095	1198
Animal Rabies	0	0	0	0	1	0
Campylobacteriosis	5	127	132	102	106	142
<i>Chlamydia trachomatis</i>	298	4286	4014	4320	3382	2869
Ciguatera Poisoning	0	0	0	2	0	2
Cryptosporidiosis	1	17	13	12	11	29
Cyclosporiasis	0	2	1	1	0	0
Diphtheria	0	0	0	0	0	0
<i>E. coli</i> , O157:H7	2	5	0	0	2	3
<i>E. coli</i> , Non-O157	0	1	2	2	1	0
<i>E. coli</i> , Other	0	1	0	0	0	0
Encephalitis (except WNV)	0	0	0	1	0	0
Encephalitis, West Nile Virus	0	15	6	1	0	0
West Nile Fever	0	5	0	1	0	0
Giardiasis, Acute	14	254	196	204	227	225
Gonorrhea	128	1646	1687	1847	1728	1884
Granuloma Inguinale	0	0	0	0	0	0
Hepatitis A	3	40	56	133	170	100
Hepatitis B	7	35	47	41	63	114
HIV ^{*Provisional}	121	1617	1532	1787	1537	1609
Lead Poisoning	14	277	252	273	233	383
Legionnaire's Disease	4	11	7	0	3	0
Leptospirosis	0	0	0	0	0	0
Lyme disease	0	3	2	2	6	7
Lymphogranuloma Venereum	0	0	0	0	0	0
Malaria	2	18	12	12	17	21
Measles	0	0	0	0	0	0
Meningitis (except aseptic)	1	11	7	10	9	15
Meningococcal Disease	2	20	4	11	15	24
Mumps	0	0	0	0	0	2
Pertussis	0	9	9	6	2	7
Polio	0	0	0	0	0	0
Rubella	0	0	0	0	0	0
Rubella, Congenital	0	0	0	0	0	1
Salmonellosis	39	402	490	306	269	254
Shigellosis	6	143	275	224	127	211
<i>Streptococcus pneumoniae</i> , Drug Resistant	1	56	101	98	150	172
Syphilis, Infectious	13	197	174	200	175	129
Syphilis, Other	46	744	935	1024	798	687
Tetanus	0	0	0	0	1	1
Toxoplasmosis	2	8	9	22	11	0
Tuberculosis ^{*Provisional}	34	230	194	206	209	230
Typhoid Fever	0	3	4	4	2	2
<i>Vibrio cholera</i> Type O1	0	0	0	0	0	0
<i>Vibrio cholera</i> Non-O1	0	0	0	1	0	0
<i>Vibrio</i> , Other	0	0	1	0	0	0

* Data on AIDS are provisional at the county level and are subject to edit checks by state and federal agencies.

** Data on tuberculosis are provisional at the county level.

