Report on

CHILD LEAD CASES OCCURRING IN BALTIMORE

(From January 1948 to August 1949)

The following report was prepared for Mr. Manfred Bowditch, National Lead Industries Association, from data on 60 case records supplied by the Baltimore City Health Department. These case records contained the laboratory results of blood-lead analyses together with the findings of field investigations and the diagnoses made by attending physicians. Compilation of the report was done under the direction of Dr. Anne Eastjer by Mrs. Mary Watt, a medical student, who reviewed hospital records and consolidated them with the Health Department records during August and September 1949.

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I. Introduction

The purpose of this report is to review the clinical, laboratory, and field data relating to cases of lead poisoning in the children of Baltimore during 1943 and 1949. This work was done for the Lead Industries Association, under the direction of the Department of Physiological Hygiene, Johns Hopkins School of Hygiene.

II. Source of Data

A. Health Department Records

The Baltimore City Health Department supplied the following data: the names of the cases, the hospitals in which they were treated, the blood lead values and the field data. This department maintains a laboratory blood lead detection service. Cases suspected of being lead poisoning by private physicians or by hospitals become known to the Health Department through this service, since blood samples are sent to the department for free lead analysis. The blood is analyzed by the Bureau of Laboratories. 

Then the blood lead value is found to be high, the Bureau of Environmental Hygiene investigates home conditions in an effort to determine the source of exposure.

The field data presented in this report had been collected by a Health Department worker, who had visited the children's homes, talked with the parents, and, wherever possible, obtained a sample of the painted surface which the child had chewed. Where paint or plaster samples were obtained in the field survey, the analyses of these samples for lead were also made by the Health Department.

Samples of blood to be analyzed were collected in prepared containers known as "blood lead outfits" consisting of a lead free glass test tube, stoppered with a clean new XXXX quality Armstrong cork. These outfits were distributed to hospitals and local physicians by the Health Department, and the collected specimens were returned to the Bureau of Laboratories for analysis.

Laboratory Methods. Lead in Blood.

The method of analysis of lead in blood which was used by the Health Department Bureau of Laboratories is a modification of the dichromate method described by Wilkins, Wiloughby, et al. and the photometric technique of Clifford and Wichmann. The Beckman Model DU Quartz spectrophotometer is used in the final lead determination. Ten grams samples of whole clotted blood are taken for analysis.

Procedure. (4)

"Weigh the sample into a 300 ml. Kjeldahl flask, add 2 ml. of concentrated sulfuric acid, 15 ml. of concentrated nitric acid and reduce to small volume by digestion over medium flame for about 65 minutes. When fumes of sulfur trioxide appear and charring begins, add 2 ml. of periiodic acid (60%) and continue heating until digest clears. Allow flask and contents to cool, add 5 ml. water and 5 ml. of salt reagent (5% HCl solution saturated with sodium.
chloride) heat to effect clear solution, then cool. Add 50 ml. water and small piece of litmus paper. Neutralize by addition of concentrated ammonium hydroxide, and boil off excess of ammonia. Add 5 ml. of 4% citric acid and cool. Transfer contents of Kjeldahl flask to 250 ml. separatory funnel containing about 2 ml. of water and 4 drops of concentrated ammonium hydroxide. Add 2 ml. of 10% potassium cyanide and 0.5 ml. of 38% hydroxylamine hydrochloride solution. Extract with several 5 ml. portions of extraction dithizone solution in chloroform. Draw off chloroform extracts into 125 ml. separatory funnel containing 50 ml. of 1% nitric acid in 0.1% hydroxylamine hydrochloride solution. Discard chloroform layer. Wash the nitric acid extract with 5 ml. chloroform, separate and discard the chloroform. To the nitric acid extract, add 10 ml. of ammonia-cyanide solution (75 ml. conc. NaOH, 100 ml. 10% KCN, 225 ml. H2O), and 10 ml. of standard dithizone solution (6 mg. of dithizone per 1000 ml. of purified chloroform; 0-15 microgram range) and shake the mixture for 1 minute. Allow the layers to separate. Filter the chloroform layer through lead-free Whatman No. 42 filter paper. Transfer to spectrophotometer cell and read at 510 NM. Amount of lead present is determined from graph prepared in standardization of dithizone solution against known amounts of lead. Blank determinations must be made on all reagents used and the sample readings corrected accordingly."

Blood lead values are reported as milligrams of lead per 100 grams of blood.

Lead in Paint Scrapings.

The test used by the Bureau of Laboratories to determine lead in paint scrapings is a qualitative one, and no attempt is made to weigh the sample accurately. It was found that quantitative methods of analysis were impractical and in most instances impossible because of the presence of contaminants such as wood or plaster adhering to the sample.

The procedure of analysis is as follows: (5)

1. Transfer scrapings (powder if necessary) to 250 cc. beaker.
3. Maintain at boiling point for about 15 minutes.
4. Cool somewhat; dilute to ca. 75 ml.; filter, wash once with warm water
5. Add 5 cc. concentrated H2SO4 to filtrate and evaporate to fumes (if possible).
6. If large precipitate
   Wash by decantation until no longer acid to congo red paper
   If small precipitate
   Dilute evaporated solution to about 159 cc. - heat to boiling - cool - add alcohol to make about 30-40%. Filter, wash thoroughly with 30-40% alcohol
7. Dissolve precipitate in about 20 cc. boiling ammonium acetate containing about 2 drops glacial acetic acid.
   Divide in two portions.
   A. To one portion add H2S
   B. To other portion add K2Cr2O7

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Reporting of Results:

a. Lead strongly positive. The immediate appearance of a heavy precipitate of lead chromate and lead sulfide. The presence of approximately 10 mg. of lead in the aliquot of the ammonium acetate extract to which potassium bichromate is added will give this strong positive test. This would imply the presence of at least 20 mg. of Pb in the sample of paint scrapings taken for analysis.

b. Lead positive. Immediate precipitation without rapid settling of the precipitate.

c. Trace of lead present. Slight turbidity with chromate test and dark color without precipitation in HgS test."

Lead present in a paint simply as a dryer is not detected by this method according to the Bureau of Laboratories of the Health Department.

B. Hospital Records

The remainder of the data was obtained from the hospital histories. Histories were read in the seven Baltimore Hospitals in which the cases were seen. The list of hospitals, and the number of cases treated at each hospital is as follows:

- Johns Hopkins Hospital, Harriet Lane Home – 34 cases
- University Hospital – 10 "
- Baltimore City Hospitals – 4 "
- Gideon Hospital – 4 "
- Sinai Hospital – 3 "
- St. Joseph's Hospital – 2 "
- West Baltimore General Hospital – 1 case

One child, No. 48, was seen at the Druid Health Center (a Baltimore Health Department Clinic), and in her case the data were obtained from the Health Department. Only one case, No. 21, was entirely under the care of a private physician, and was never seen in a hospital. Here the data were obtained from this physician's report to the City Health Department.

In each case, the entire history of the child's illness was read, and the data regarding history, clinical symptoms and signs, hospital laboratory results, and the final hospital diagnosis were extracted and summarized.

C. Other Sources of Data

True lead values were obtained from Dr. Harold Harrison of the Harriet Lane Home, Johns Hopkins Hospital, who contributed them from his study of the effect of Pd on lead encephalopathy.
III. General Characteristics of Group

A. Color. The large majority of the cases occurred in colored families, 48 of the children being of the colored, and only 12 of the white race.

B. Sex. Sex distribution was about equal, with 31 males and 29 females.

C. Age. Age distribution is as follows:

<table>
<thead>
<tr>
<th>Age</th>
<th>Cases</th>
</tr>
</thead>
<tbody>
<tr>
<td>Less than 12 mos.</td>
<td>0</td>
</tr>
<tr>
<td>12-23 mos.</td>
<td>23</td>
</tr>
<tr>
<td>24-35 &quot;</td>
<td>26</td>
</tr>
<tr>
<td>36-47 &quot;</td>
<td>1</td>
</tr>
<tr>
<td>60-71 &quot;</td>
<td>3</td>
</tr>
<tr>
<td>More than 72 mos.</td>
<td>2</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>60</strong></td>
</tr>
</tbody>
</table>

D. Economic Status

According to the Health Department, the majority of the cases included in this review were children who came from the low social and economic group of the community.

IV. Data

The cases of child lead poisoning whose histories are summarized below are grouped according to the Baltimore City Health Department's listing into "positive" and "probable" cases. This grouping was used as a guidepost rather than as an absolute distinction. In general, the differentiation was made by the Health Department as follows:

"For Positive Cases:"

1. If the values were approximately 0.10 milligrams of lead per 100 grams of blood or greater, investigations were made in the homes to substantiate the habit of eating paint and a semi-quantitative analysis was made of samples of paint adjoining the chewed or flaked surfaces. (However, some cases with lower blood lead values were included in the positive cases. See Table I)

2. Information on the history of exposure together with symptoms was obtained from the parent or guardian.

3. Finally the attending physician was consulted in his diagnosis.

"For probable cases:

1. Blood lead values in the range from about 0.06 to 0.10 were considered in this category since abnormal absorption of lead was indicated."

Table I is a summary of the 60 cases considered in this review. Thirty-one "positive" cases occurred in 1948. Of the 12 "probable" cases in 1948, only 3 are reviewed, the others having incomplete or absent records at the time of
reviewing. Twenty "positive" cases are included for 1949, and one "probable" case.

Out of the total 60 cases, there were 8 deaths, 4 occurring in 1948 and 4 in 1949.

The color, sex and age in months of each child is recorded in Table I. The final hospital diagnosis, made on discharge or death of the child is listed in a separate column. The post-mortem analysis is reported as plus (positive), strong positive, trace or minus (absent). The significance of these results is explained above.

Under the "Laboratory" heading are included the blood lead values, hemoglobin, and presence or absence of basophilic stippling of the red blood cells. In each case, the blood lead level listed in Table I is the initial value obtained before treatment was instituted. Similarly, the hemoglobin value given is the initial one.

Throughout the table, where quantitative values cannot be given, a plus sign indicated the presence, and a minus sign the absence of the specified symptom or sign. Blanks indicate that there was no record in the history of the particular finding shown in the table.

Under "Gastro-intestinal Symptoms" are included abdominal pain, constipation, vomiting and other. "Other" refers to anorexia, nausea, diarrhea and other non-specific gastro-intestinal symptoms. Under "Neurological Signs and Symptoms" convulsions are given a separate heading; all other definite neurological signs and symptoms are grouped together, and a last heading is devoted to such non-specific entities as nervousness, irritability, slight lethargy, etc.

Another separate column is devoted to long-tube X-rays, when taken. A plus sign here indicated that the X-ray findings were compatible with a diagnosis of lead poisoning; a minus indicates questionable or conflicting findings; a minus sign, findings that were not in any way suggestive of lead poisoning.

The final column is devoted to the analysis of lead in urine. The analysis for case No. 49 was done at the Medical College of Virginia where this patient was seen before coming to Baltimore. The rest were done at the Harriet Lane Home, Johns Hopkins Hospital. The values listed are those obtained before B.I treatment was started.

Table II gives a brief summary of each individual case, with the name of the child, the hospital in which he was treated, and the pertinent facts of his illness. Any history of plus or minus injection is reported, including the initial hospital history, and the later information obtained by the Health Department inquiries. Pertinent symptoms and signs are listed.
tory data are listed. The reports of paint analysis are included when they were done. Lastly the final hospital diagnosis is given.

V. Summary

This report reviews the clinical, laboratory and field data on those children who were diagnosed as, or suspected of having lead poisoning during 1948 and 1949 in Baltimore according to the records of the Baltimore City Health Department. The source of the data given is explained, and the procedure of review is given. The data are tabulated and an attempt is made to correlate the laboratory and field data to the clinical picture.

VI. Acknowledgements

This review would not have been possible without the aid and cooperation of Dr. Huntington Williams, Dr. Wilmer Schulze, Mr. Charles Couchman and Dr. Emanuel Kaplan of the Baltimore City Health Department. Thanks is also due to the personnel of the hospital history rooms for their help in making the histories available, and to Dr. Harold Harrison for kindly supplying the urine lead values.

Mary F. Watt

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References:

1. Kaplan and McDonald, Am. J. Public Health, 32, 481, May 1942
5. (As performed in the Bureau of Laboratories)
TABLE I
LEAD POISONING IN CHILDREN - POSITIVE CASES
January 1, 1948, - August 1949

<table>
<thead>
<tr>
<th>Case</th>
<th>Color</th>
<th>Sex</th>
<th>Age in mos.</th>
<th>Final Hospital diagnosis</th>
<th>Neurological signs and symptoms</th>
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<tbody>
<tr>
<td>1</td>
<td>c</td>
<td>m</td>
<td>24</td>
<td>Pb poisoning</td>
<td></td>
</tr>
<tr>
<td>2</td>
<td>c</td>
<td>m</td>
<td>36</td>
<td>Pb poisoning</td>
<td></td>
</tr>
<tr>
<td>3</td>
<td>c</td>
<td>m</td>
<td>24</td>
<td>Pb poisoning</td>
<td></td>
</tr>
<tr>
<td>4</td>
<td>c</td>
<td>m</td>
<td>24</td>
<td>Pb poisoning, Pica, nutritional anemia</td>
<td></td>
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<td>5</td>
<td>c</td>
<td>f</td>
<td>48</td>
<td>Pb poisoning, Pb encephalopathy</td>
<td></td>
</tr>
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<td>6</td>
<td>c</td>
<td>m</td>
<td>18</td>
<td>Pb encephalopathy, Plumbism</td>
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<tr>
<td>7</td>
<td>c</td>
<td>f</td>
<td>14</td>
<td>Pb encephalopathy, Plumbism</td>
<td></td>
</tr>
<tr>
<td>8</td>
<td>c</td>
<td>m</td>
<td>24</td>
<td>Pb encephalopathy, Plumbism</td>
<td></td>
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<tr>
<td>9</td>
<td>c</td>
<td>f</td>
<td>24</td>
<td>Pb encephalopathy, Plumbism</td>
<td></td>
</tr>
<tr>
<td>10</td>
<td>c</td>
<td>m</td>
<td>22</td>
<td>Pb encephalopathy, Plumbism</td>
<td></td>
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<tr>
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<td>c</td>
<td>m</td>
<td>24</td>
<td>Pb encephalopathy, Plumbism</td>
<td></td>
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<td>c</td>
<td>f</td>
<td>35</td>
<td>Pb encephalopathy, Plumbism</td>
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<tr>
<td>13</td>
<td>w</td>
<td>m</td>
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<td>Pb encephalopathy, Plumbism</td>
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<td>w</td>
<td>m</td>
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<td>m</td>
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<td>e</td>
<td>f</td>
<td>20</td>
<td>Pb encephalopathy, Plumbism</td>
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</tbody>
</table>

**Laboratory**
- **Blood**
  - Haemoglobin (Hgb)
  - Red Blood Cells (RBC)
- **Abdominal pain**
- **Constipation**
- **Vomiting**
- **Other**
- **Correlation**
- **Von-specific**
- **Long bones**
- **Urine**

<table>
<thead>
<tr>
<th>Case</th>
<th>Color</th>
<th>Sex</th>
<th>Age in mos.</th>
<th>Final Hospital diagnosis</th>
<th>Laboratory</th>
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<td>1</td>
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<tr>
<td>4</td>
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<td>? Plumbism, Pica, nutritional anemia</td>
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<td>0.095 8.8</td>
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<td>Pb encephalopathy, Plumbism</td>
<td>0.25 9.5</td>
</tr>
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</table>

**Neurological signs and symptoms**
- Abdominal pain
- Constipation
- Vomiting
- Other
- Correlation
- Von-specific
- Long bones
- Urine

**Laboratory**
- **Blood**
  - Haemoglobin (Hgb)
  - Red Blood Cells (RBC)
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- **Other**
- **Correlation**
- **Von-specific**
- **Long bones**
- **Urine**
<table>
<thead>
<tr>
<th>No.</th>
<th>Age</th>
<th>Sex</th>
<th>Cause of Death</th>
<th>Cause of Disease</th>
<th>Pb Poisoning</th>
<th>Pb Encephalitis</th>
<th>Pb Encephalopathy</th>
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</tr>
</thead>
<tbody>
<tr>
<td>27</td>
<td>18</td>
<td>M</td>
<td>Pb Poisoning</td>
<td>Strong + 0.06</td>
<td>-</td>
<td>9.2</td>
<td>-</td>
<td>-</td>
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<tr>
<td>28</td>
<td>23</td>
<td>M</td>
<td>Pb Poisoning</td>
<td>Strong + 0.12</td>
<td>6.2</td>
<td>-</td>
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<td>26</td>
<td>M</td>
<td>Pb Poisoning</td>
<td>Strong + 0.26</td>
<td>6.5</td>
<td>Rare</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>30</td>
<td>27</td>
<td>M</td>
<td>Pb Poisoning</td>
<td>Strong + 0.35</td>
<td>9.0</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>31</td>
<td>30</td>
<td>M</td>
<td>Pb Poisoning</td>
<td>Strong + 0.10</td>
<td>8.0</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>32</td>
<td>33</td>
<td>M</td>
<td>Pb Poisoning</td>
<td>Strong + 0.33</td>
<td>10.8</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>33</td>
<td>36</td>
<td>M</td>
<td>Pb Poisoning</td>
<td>Strong + 0.19</td>
<td>8.5</td>
<td>Occ.</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>34</td>
<td>39</td>
<td>M</td>
<td>Pb Poisoning</td>
<td>Strong + 0.19</td>
<td>9.5</td>
<td>Rare</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>35</td>
<td>35</td>
<td>M</td>
<td>Pb Poisoning</td>
<td>Strong + 0.23</td>
<td>10.5</td>
<td>+</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>36</td>
<td>36</td>
<td>M</td>
<td>Pb Poisoning</td>
<td>Strong + 0.168</td>
<td>8.5</td>
<td>+</td>
<td>-</td>
<td>-</td>
</tr>
</tbody>
</table>

Plumbism: strong + 0.15 6.0
Pb Poisoning: strong + 0.082 6.2 Occ.
Pb Poisoning: strong + 0.088 6.2 Occ.
Pb Poisoning: strong + 0.15 8.5
Pb Poisoning: strong + 0.061x 8.5
Pb Poisoning: strong + 0.12 12.0
Pb Poisoning: strong + 0.27 12.0
Pb Poisoning: strong + 0.26 9.0 2 cells
Pb Poisoning: strong + 0.139 9.0
Pb Poisoning: strong + 0.44 7.8 Occ.

x - later rose to 0.13 and 0.106
### TABLE 2

#### LEAD POISONING IN CHILDREN—PROBABLE CASES

January 1, 1948, – August 1949

<table>
<thead>
<tr>
<th>Case</th>
<th>Color</th>
<th>Sex</th>
<th>Age in mos.</th>
<th>Final Hospital diagnosis</th>
<th>Paint analysis</th>
<th>Blood Pb mg.%</th>
<th>Hgb</th>
<th>RBC Stippling</th>
<th>Neurological signs and symptoms</th>
</tr>
</thead>
<tbody>
<tr>
<td>52</td>
<td>w</td>
<td>m</td>
<td>27</td>
<td>Pb poisoning</td>
<td></td>
<td>0.049</td>
<td>6.5</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>53</td>
<td>c</td>
<td>f</td>
<td>18</td>
<td>Febrile convolution</td>
<td></td>
<td>0.079</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>54</td>
<td>c</td>
<td>f</td>
<td>34</td>
<td>Plumbism</td>
<td></td>
<td>0.076</td>
<td>10.5</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>55</td>
<td>c</td>
<td>f</td>
<td>16</td>
<td>Plumbism</td>
<td></td>
<td>0.077</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>56</td>
<td>c</td>
<td>m</td>
<td>36</td>
<td>Idiopathic epilepsy</td>
<td></td>
<td>0.09</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>57</td>
<td>c</td>
<td>f</td>
<td>22</td>
<td>URI; possible Pb poisoning</td>
<td></td>
<td>0.077</td>
<td>8.5</td>
<td>-</td>
<td>+</td>
</tr>
<tr>
<td>58</td>
<td>w</td>
<td>m</td>
<td>144</td>
<td>Hysteria</td>
<td></td>
<td>0.072</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>59</td>
<td>c</td>
<td>f</td>
<td>23</td>
<td>Pb poisoning</td>
<td>strong +</td>
<td>0.061</td>
<td>10.2</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>60</td>
<td>w</td>
<td>f</td>
<td>24</td>
<td>Plumbism</td>
<td></td>
<td>0.078</td>
<td>710</td>
<td>-</td>
<td>-</td>
</tr>
</tbody>
</table>

Cases listed by B.C.H.B.
### Table II

1948

<table>
<thead>
<tr>
<th>Case 1</th>
<th>William Adams</th>
<th>24 mos.</th>
<th>HLH</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>History: eating plaster, 1 month (Hosp.)</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>gnawing on painted window-sill (P.H.)</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Symptoms and signs: para-umbilical pain, vomiting, convulsions, irritability</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Lab: Hgb. 10.6 Gm.</td>
<td>Pb. level: 0.085 mg./100 Gm. blood</td>
<td>11-6-48</td>
</tr>
<tr>
<td></td>
<td>Follow-up: sample of paint from window-sill positive for Pb</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Hospital Diagnosis: Pb poisoning</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Case 2</th>
<th>Eugene Ayres</th>
<th>36 mos.</th>
<th>HLH</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>History: pica (plaster) (Hosp.)</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>eats paint peeling from window-sills (P.H.)</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Symptoms and signs: vomiting, anorexia</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Lab: Hgb. 7.4 Gm.</td>
<td>X-ray: compatible with the diagnosis</td>
<td>Pb levels: 0.162</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>0.172</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>0.135</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>0.072</td>
</tr>
<tr>
<td></td>
<td>Follow-up: sample of paint from window-sills strongly positive for Pb</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Hospital Diagnosis: Pb poisoning, anemia, due to chronic Pb poisoning</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Case 3</th>
<th>Calvin S. Brooks</th>
<th>24 mos.</th>
<th>HLH</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>History: eats plaster (Hosp.)</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>gnawed on window-sills of neighbors home, where child stayed all day (P.H.)</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Symptoms and signs: anorexia, nausea, vomiting</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Lab: Hgb. 8.3 Gm.</td>
<td>rare basophilic stippling of RBC</td>
<td>Pb levels: 0.12</td>
</tr>
<tr>
<td></td>
<td></td>
<td>X-ray: compatible with the diagnosis</td>
<td>0.10</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>0.13</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>0.15</td>
</tr>
<tr>
<td></td>
<td>Follow-up: sample from window-sills of neighbors house strongly positive for Pb</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Hospital Diagnosis: Pb poisoning</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
1948

Case 4.
James Brown
CM' 24 mos.  HLH

1. History: Eating plaster and paint off furniture (Hosp.)
gnawing hard painted window-sill surface (P.H.)
2. Symptoms and signs: abdominal pain
vomiting
anorexia
drowsiness
pallor
irritability
3. Lab: Hgb. 4.5 Gm.
rare basophilic stippling of RBC
x-ray: "could represent a very minimal amount of heavy metal
deposition"
Pb levels:

<table>
<thead>
<tr>
<th>Date</th>
<th>Pb level</th>
</tr>
</thead>
<tbody>
<tr>
<td>9-11-48</td>
<td>0.081</td>
</tr>
<tr>
<td>10-25-48</td>
<td>0.093</td>
</tr>
<tr>
<td>9-27-48</td>
<td>0.088</td>
</tr>
</tbody>
</table>

4. Follow-up: sample from window-sill strongly positive for Pb
5. Hospital Diagnosis: Pica, nutritional anemia. ? Plumbism

Case 5.
Edna Cornick
CF 48 mos.  HLH

1. History: gnawing on hard painted window-sill
2. Symptoms and signs: vomiting
abdominal pain
constipation
disziness
ataxia
convulsions
hallucinations
3. Lab: Hgb. 7.0 Gm.
x-ray: compatible with the diagnosis
Pb level:

<table>
<thead>
<tr>
<th>Date</th>
<th>Pb level</th>
</tr>
</thead>
<tbody>
<tr>
<td>8-4-48</td>
<td>0.14</td>
</tr>
<tr>
<td>11-7-48</td>
<td>0.11</td>
</tr>
<tr>
<td>8-10-48</td>
<td>0.14</td>
</tr>
<tr>
<td>8-17-48</td>
<td>0.12</td>
</tr>
</tbody>
</table>

4. Follow-up: sample from gnawed window-sill strongly positive for Pb.
5. Hospital Diagnosis: Pb poisoning, Pb encephalopath

Case 6.
Hubert Dickerson  CM 18 mos.  HLH

1. History: eats plaster, but no lead paints (Hosp.)
gnawing painted window-sill (P.H.)
2. Symptoms and signs: pain in leg and neck
moderate neck rigidity
drowsiness
course tremor of all extremities
reflexes hyperactive
bilateral ankle clonus
3. Lab: Pb levels:

<table>
<thead>
<tr>
<th>Date</th>
<th>Pb level</th>
</tr>
</thead>
<tbody>
<tr>
<td>11-7-48</td>
<td>0.080</td>
</tr>
<tr>
<td>11-13-48</td>
<td>0.080</td>
</tr>
<tr>
<td>12-22-48</td>
<td>0.080</td>
</tr>
</tbody>
</table>

4. Follow-up: sample from window-sill strongly positive for Pb
5. Hospital Diagnosis: Pb poisoning
Case 7.
Agnes Fleming  OF  14 mos.  HLH

1. History: eats plaster (Hosp.)
   eats plaster, paper and paint peeling from window-sill (PH)
2. Symptoms and signs: "nervousness"
3. Lab: Pb levels:
   0.081 9-23-48
   0.085 10-1-48
   0.070 11-3-48
   0.080 11-8-48
   0.071 11-15-48
   0.089 11-30-48
4. Follow-up: sample of peeling paint shows trace of Pb
5. Hospital Diagnosis: Plumbism

Case 8.
Milton Harper  OL  24 mos.  HLH

1. History: eats paint off wall, and plaster (Hosp.)
   eats painted wall-paper (PH)
2. Symptoms and signs: vomiting
3. Lab: Pb levels:
   0.077 12-9-48
   0.063  ?
4. Follow-up: sample of painted wall-paper contained no Pb
5. Hospital Diagnosis: Plumbism

Case 9.
Joyce Idela Jones  OF  24 mos.  HLH

1. History: eats plaster (Hosp.)
   chews on paint peelings from sills and walls (PH)
2. Symptoms and signs: vomiting
   constipation
3. Lab:
   Hgb. 12.8 Gm.
   rare basophilic stippling of RBC
   X-ray: questionable
   Pb levels:
   0.16 7-1-48
   0.13 7-6-48
   0.20 8-18-48 (on 2nd hospital admission)
   0.103 9-5-48
4. Follow-up: sample of paint strongly positive for Pb
5. Hospital Diagnosis: Plumbism
Case 10.
George Langford  CM  22 mos.  HLH

1. History: eats plaster and ashes (Hosp.)
   eats painted peelings from wall in kitchen (P.R.)
2. Symptoms and signs: abdominal pain
   vomiting
   hyperactive knee-jerks
3. Lab: Hgb: 5.8 Gm.
   X-ray: not conclusive
   Pb levels: 0.53  6-17-48
   0.39  6-22-48
   0.18  7-1-48
4. Follow-up: sample of painted peelings showed a trace of Pb
5. Hospital Diagnosis: Pica; ? Pb poisoning

Case 11.
Ernest Long  CM  24 mos.  HLH

1. History: eats plaster between bricks (Hosp.)
   eats painted mortar on wall (P.H.)
2. Symptoms and signs: constipation
   irritability
3. Lab: Hgb. 9.2 Gm.
   Pb levels: 0.098  9-22-48
   0.085  10-8-48
4. Follow-up: sample of painted mortar on wall contained no Pb
5. Hospital Diagnosis: Plumbism

Case 12.
Frances Miller  CF  35 mos.  HLH

1. History: eats paint off window-sills and paper off wall
2. Symptoms and signs: periumbilical pain
   vomiting
   irritability
   stiff neck
   bilateral papilledema
3. Lab: Hgb. 9.2 Gm.
   X-ray: compatible with the diagnosis
   Pb levels: 0.21  7-12-48
   0.22  7-21-48
4. Follow-up: sample from window-sills strongly positive for Pb
5. Hospital Diagnosis: Pb poisoning
Case 13.
Ernest Smelser      WM  19 mos.  HLH
1. History: eats paint from dresser and window-sills, licks wall
2. Symptoms and signs: vomiting, constipation, pallor, irritability, restlessness
3. Lab: Hgb. 10.2 Gm.  
Pb levels: 0.05 2-2-48 
         0.091 8-27-48 
         0.087 9-15-48
4. Follow-up: sample of flaked paint strongly positive for Pb
5. Hospital diagnosis: Plumbism

Case 14.
Russell Sprinkle    WM  30 mos.  HLH
1. History: eats plaster (Hosp.) gna's on high-chair, window (P.H.)
2. Symptoms and signs: vomiting, constipation, diarrhea, drowsiness, irritability, neck rigidity, tremor, convulsions
3. Lab: Hgb. 9.4 Gm. 
X-ray: compatible with the diagnosis 
Pb levels: 0.25 8-20-48 
         0.123 8-24-48 
         0.12 9-3-48 
         0.078 9-15-48 
         0.089 10-11-48 
         0.081 11-26-48
4. Follow-up: sample of paint strongly positive for Pb
5. Hospital Diagnosis: Plumbism, Pb encephalopathy

Case 15.
James Stubbs       CM  45 mos.  HLH
1. History: eats plaster (Hosp.) gna's window-sills (P.H.)
2. Symptoms and signs: diarrhea, irritability, nystagmus, twitching, coma, loss of toilet habits and table manners, mental retardation, personality change
3. Lab: Pb levels: 0.17 9-24-48 Urine Pb: 0.85 mg/liter 
       0.16 10-11-48 
       0.06 11-11-48
4. Follow-up: sample from window-sill strongly positive for Pb
5. Hospital Diagnosis: Plumbism, Pb encephalopathy

Case 16.
Jennie Lee Walker  CF  23 mos.  HLH
1. History: picks at plaster, eats comic books
2. Symptoms and signs: vomiting
3. Lab: Pb level: 0.072  10-18-48
4. Follow-up: sample of plaster strongly positive for Pb
5. Hospital Diagnosis: Plumbism

Case 17.
Maxine Williams  CF  24 mos.  HLH
1. History: eats plaster off wall and cracked paint from window-sill (Hosp.)
   eats painted wall peelings in kitchen (P.H.)
2. Symptoms and signs: vomiting
3. Lab: Hgb. 10.5 Gm.
   X-ray: "typical of heavy metal ingestion"
   Pb level: 0.147  6-7-48
   0.067  7-16-48
   0.115  6-14-48
4. Follow-up: sample of peeling paint strongly positive for Pb
5. Hospital Diagnosis: Plumbism

Case 18.
Thomasin Young  CF  24 mos.  HLH
1. History: eats plaster (Hosp.)
   eats peeling painted wall-paper (P.H.)
2. Symptoms and signs: anorexia
   restlessness
   irritability
   convulsion
3. Lab: Hgb. 8.8 Gm.
   X-ray: compatible with the diagnosis
   Pb level: 0.095  11-7-48
4. Follow-up: sample of painted wall-paper strongly positive for Pb
5. Hospital Diagnosis: Plumbism

Case 19.
Barbara L. Dorsey  CF  20 mos.  BCH
1. History: eats paint off window-sills
2. Symptoms and signs: anorexia
   vomiting
   constipation
   irritability

0051-CDD-000000850.16
1033-00016

41365
3. Lab: Hgb. 9.5 Gm.
   rare, questionable stippling of RBC
   X-ray: compatible with the diagnosis
   Pb levels: 0.25  8-6-48
         0.169  8-20-48
         0.104  9-2-48
         0.13   9-17-48
         0.12   11-11-48
         0.26   8-3-48

4. Follow-up: sample of peeling paint strongly positive for Pb

5. Hospital Diagnosis: Pb poisoning

Case 20.
Stanley Harris

1. History: eats plaster and paint
2. Symptoms and signs: vomiting
   strabismus
   staggering
   hyperactive reflexes
   neck rigidity
   left 6th nerve paralysis
   bilateral papilledema

3. Lab: Hgb. 10.2 Gm.
   very rare basophilic stippling of RBC
   X-ray: compatible with the diagnosis
   Pb level: 0.51  7-6-48

4. Follow-up: sample of peeling paint strongly positive for Pb

5. Hospital Diagnosis: Pb encephalopathy

Case 21
Robert T. Fortcan

1. History: eats dirt, plaster, chews on window-sills and frames
2. Symptoms and signs: vomiting
   weight-loss
   pallor
   irritability
   slight neck rigidity

3. Lab: Hgb. 8.0 Gm.
   X-ray: compatible with the diagnosis
   Pb levels: 0.14  7-16-48
         0.084  7-26-48
         0.080  8-10-48
         0.077  9-22-48
         0.064  11-14-48

4. Follow-up: sample from gnawed window-frame strongly positive for Pb

5. Hospital Diagnosis: Pb poisoning
Case 22.
Beatrice Boston
CF 20 mos. Sydenham

1. History: eats broken painted plaster
2. Symptoms and signs: vomiting
colic
constipation
irritability
lethargy
strabismus
slight neck stiffness

3. Lab: Hgb. 8.5 Gm.
   X-ray: compatible with the diagnosis
   Pb levels: 0.46 9-22-48
   0.14 11-15-48
   0.12 10-16-48

4. Follow-up: sample of broken plaster strongly positive for Pb
5. Hospital Diagnosis: Pb poisoning, Pb encephalitis

Case 23.
Reginald Everett
CH 18 mos. Sydenham

1. History: eats plaster from wall, and powdered plaster out of a box
   in which paint had been mixed (Hosp.) eats paint peelings from wall (P.H.)

2. Symptoms and signs: anorexia
   abdominal pain
   restlessness
   irritability
   convulsion
   spasticity of right arm

3. Lab: Hgb. 9.2 Gm.
   Basophilic stippling of RBC
   X-ray: compatible with the diagnosis
   Pb levels: 0.17 8-7-48
   0.34 7-26-48
   0.19 7-28-48
   0.17 ?

4. Follow-up: sample of paint peelings from wall strongly positive for Pb
5. Hospital Diagnosis: Pb poisoning, Pb encephalitis

Case 24.
Carolyn Diggs
CF 24 mos.

1. History: picks loose, dry paint from window-sill and frame

2. Symptoms and signs: fatigue
   nausea
   vomiting
   colic

3. Lab: Pb levels: 0.26 8-2-48
   0.165 8-18-48

4. Follow-up: sample of loose dry paint strongly positive for Pb
5. Diagnosis (private L.D.): Pb poisoning
Case 25.

Marvin Squire  CH  19 mos.  Univ.

1. History: eats plaster and dried paint off window-sill and wall
2. Symptoms and signs: vomiting
   convulsions
   neck rigidity
3. Lab: Hgb. 6.2 Gm.
   X-ray: compatible with the diagnosis
   Pb levels: 0.12 8-3-48
              0.10 8-10-48
              0.099 8-17-48
              0.085 10-7-48
4. Follow-up: sample of loose paint strongly positive for Pb
5. Hospital Diagnosis: Pb poisoning

Case 26.

Frederick Allison  CH  60 mos.  Univ.

1. History: eats paint peelings on window-sills and frames (P.H.)
2. Symptoms and signs: vomiting
   constipation
   convulsion
   hyperesthesia
   mental changes
3. Lab: Hgb. 6.5 Gm.
   slight basophilic stippling of RBC
   X-ray: questionable
   Pb level: 0.261 9-7-48
            0.265 9-21-48
            0.277 11-10-48
4. Follow-up: sample of paint peelings strongly positive for Pb
5. Hospital Diagnosis: Pb encephalopathy

Case 27.

Clarence Johnson  CH  30 mos.  Univ.

1. History: no known pica (Hosp.)
   "put anything in his mouth" (P.H.)  (Died)
2. Symptoms and signs: anorexia
   vomiting
   lethargy
   nystagmus
   hyperactive reflexes
   Babinski extensor
3. Lab: Hgb. 9.0 Gm.
   X-ray: compatible with the diagnosis
   Pb level: 0.35 8-16-48
4. Follow-up: sample of loose dry peelings strongly positive for Pb
5. Hospital Diagnosis: Pb poisoning
Case 28.
Bessie Lowery . CF 23 mos. Univ.
1. History: eats plaster, chews on bed and furniture, picks flaked paint from ground and window-sill (P.H.)
2. Symptoms and signs: anorexia nausea vomiting colic
3. Lab: Hgb. 8.0 gm. Pb level 0.10 8-30-48
4. Follow-up: flaked paint strongly positive for Pb
5. Hospital Diagnosis: Pb poisoning, Pb encephalitis

Case 29.
Joseph McGowan CM 24 Univ.
1. History: eats painted peeled surface of window-sills (P.H.)
2. Symptoms and signs: nausea vomiting colic muscular weakness convulsion (Died)
3. Lab: X-ray: compatible with the diagnosis Pb level: 0.33 6-10-48
4. Follow-up: sample of peeling paint strongly positive for Pb
5. Hospital Diagnosis: Pb encephalopathy

Case 30.
John Sitzer WM 18 mos. Univ.
1. History: eats paint flakes from window-sill (P.H.)
2. Symptoms and signs: vomiting (Died) stupor irritability neck rigidity
3. Lab: Hgb. 10.8 gm. Pb level: 0.278 9-20-48
4. Follow-up: sample of paint flakes strongly positive for Pb
5. Hospital Diagnosis: Pb encephalitis
1949

Case 31.
Joyce Blackwell
  CF 72 mos.  HLH
1. History: eats paper, but no paint or plaster (Hosp.)
   chews on painted paper and peeling from painted kitchen wall (P.H.)
2. Symptoms and signs:
   vomiting
   colic
   coma
   convulsions
   left 6th nerve palsy
   left facial paralysis
   general motor weakness
   mental retardation
3. Lab: basophilic stippling of RBC
   X-ray: compatible with the diagnosis
   Pb levels:
   0.16 3-27-49
   0.102 3-27-49
4. Follow-up: sample of peeling paint strongly positive for Pb
5. Hospital Diagnosis: Pb encephalopathy

Case 32.
Aaron Brewer
  CM 24 mos.  HLH
1. History: eats plaster, licks paint around the house (Hosp.)
2. Symptoms and signs:
   drowsiness
   stiff neck
   weakness
   opisthotonos
3. Lab: Hgb. 8.0 Gm.
   Pb levels:
   0.33 4-16-49
   0.20 4-18-49
   0.16 4-19-49
   0.109 ?
   Urine Pb: 1.6 mg/liter
4. Follow-up: no Pb in plaster sample
   paint scraping strongly positive for Pb
5. Hospital Diagnosis: Pb poisoning, Pb encephalitis

Case 33.
Aurelia Drummond
  CF 23 mos.  HLH
1. History: eats wallpaper and plaster
2. Symptoms and signs:
   vomiting
   (Died)
   convulsions
   coma
3. Lab: Hgb. 8.5 Gm.
   occasional basophilic stippling of RBC
   X-ray: compatible with the diagnosis
   Pb levels:
   0.19 8-6-49
   0.091 8-10-49
4. Follow-up: sample of plaster strongly positive for Pb
5. Hospital Diagnosis: Pb poisoning, Pb encephalitis
Case 34.
Charlie English  CM  33 mos.  HLH
1. History:  no history of pica obtained (Hosp.)
   gnawed surfaces seen on window (P.H.)
2. Symptoms and signs:  anorexia
   vomiting
   para-umbilical pain
   lethargy
   irritability
   convolution
3. Lab:  Hgb. 9.5 Ga
   rare stippling of RBC
   Pb levels:  0.19  7-18-49
   0.097  7-21-49
   0.098  7-26-49
4. Follow-up:  sample of gnawed window-sill strongly positive for Pb
5. Hospital Diagnosis:  Pb encephalitis

Case 35.
Isaac James  CM  18 mos.  HLH
1. History:  ate cupful of plaster (Hosp.)
2. Symptoms and signs:  convulsions
   coma
   nystagmus
3. Lab:  Hgb. 10.5 Ga
   abundant basophilic stippling of RBC
   X-ray:  compatible with the diagnosis
   Pb levels:  0.23  5-24-49  Urine Pb:  1.85 mg/liter
   0.124  5-26-49
   0.055  6-3-49
4. Follow-up:  sample of flaking paint from closet door strongly positive for Pb
5. Hospital Diagnosis:  Pb encephalitis

Case 36.
Janet Langford  24 mos.  CF  HLH
1. History:  eats plaster and chips of paint falling from ceiling (P.H.)
2. Symptoms and signs:  (incomplete history)
   nerve deafness
   "Pb encephalopathy"
3. Lab:  Pb level:  0.168
   Hgb. 8.5 Ga.
4. Follow-up:  chips of paint from ceiling strongly positive for Pb
5. Hospital Diagnosis:  Pb encephalopathy

Case 37.
Elaine Morrison  CF  16 mos.  HLH
1. History:  puts "everything" in her mouth (Hosp.)
   eats paint flakes and newspapers (P.H.)
2. Symptoms and signs:  anorexia
3. Lab: Pb levels: 0.15 2-11-49
   0.092 3-4-49
   0.103 3-18-49

4. Follow-up: sample of paint flakes positive for Pb
5. Hospital Diagnosis: Plumbism

Case 38.
Glen Roberts  CM  33 mos.  HLH
1. History: chews anything and everything, including window-sills which are almost worn free of paint.
2. Symptoms and signs: irritability
   convulsion
   Mental retardation
3. Lab: Pb level: 0.082 10-4-49
   0.092 9-14-49
   0.097 8-24-49
   0.082 7-7-49

4. Follow-up: sample strongly positive for Pb
5. Hospital Diagnosis: Plumbism, mental retardation

Case 39.
Dorothy Ann White  WF  31 mos.  HLH
1. History: gnaws paint off window-sills, door facings, chairs, playpen
2. Symptoms and signs: vomiting
   abdominal pain
   irritability
3. Lab: Hgb. 6.2 Gm.
   occasional basophilic stippling of RBC
   X-ray: compatible with the diagnosis
   Pb levels: 0.35 6-2-49
   0.122 6-17-49
   0.42 5-31-49
   0.106 7-18-49
   0.22 6-8-49

4. Follow-up: sample from window-sills strongly positive for Pb
   sample from play-pen: no Pb
5. Hospital Diagnosis: Pb poisoning

Case 40
Delores Wilson  CF  36 mos.  HLH
1. History: eats flakes of paint (Hosp.)
   chews paint from outside window-sill (F.H.)
2. Symptoms and signs: anorexia
   vomiting
   restlessness
   irritability
3. Lab: Hgb. 6.2 Gm.
   Pb levels: 0.119 7-5-49
   0.10 7-14-49
   0.115 6-27-49
   0.12 6-21-49
   X-ray: compatible with the diagnosis

4. Follow-up: sample of paint from outside window-sill strongly positive for Pb
5. Hospital Diagnosis: Pb poisoning
Case 41.
Edna Cornick CF 60 mos. BCH
(same child as case 5, 1948)
1. History: has not been eating any paints or other known Pb since last admission (Hosp.)
2. Symptoms and signs: anorexia vomiting abdominal pain convulsions disorientation generalized muscular hypotonia
3. Lab: Hgb 8.5 Gm.
Pb level: 0.15 6-15-49 Urine Pb: 0.44 mg/liter
0.156 6-14-49
4. Follow-up: see case 5
5. Hospital Diagnosis: Pb encephalopathy

Case 42.
Milton Toccey CM 30 mos. BCH
1. History: chews on chairs, eats plaster (Hosp.)
chews on radiators and kitchen chairs (P.H.)
2. Symptoms and signs: anorexia constipation irritability pallor
3. Lab: Hgb 8.5 Gm.
basophilic stippling of RBC
X-ray: compatible with the diagnosis
Pb levels: 0.061 6-28-49
0.13 6-29-49
0.106 7-5-49
4. Follow-up: samples from radiators and chairs strongly positive for Pb
5. Hospital Diagnosis: Pb poisoning

Case 43.
Yolanda Ortega WF 34 mos. Sinai
1. History: Chews wall-paper, plaster, dirt, etc. (Hosp.)
picks chipping paint from front stoop and filling from front bricks (P.H.)
2. Symptoms and signs: anorexia irritability
3. Lab: Hgb. 12 Gm.
X-ray: compatible with the diagnosis
Pb levels: 0.12 8-14-49
0.102 8-15-49
0.095 9-7-49
4. Follow-up: samples of front bricks and paint on stoop strongly positive for Pb
5. Hospital Diagnosis: Pb poisoning
Case 44.
Frank Snyder  WM  36 mos.  Sinai

1. History: eats flaking paint (P.H.)
2. Symptoms and signs: vomiting discomfort in head (Died)
   restlessness agitation
   twitching of face nystagmus
   marked pallor fatigue
   muscular weakness
   convulsion

3. Lab: fluoroscopy of long bones compatible with the diagnosis
   Pb level 0.27 6-4-49

4. Follow-up: samples of flaking paint strongly positive for Pb

5. Hospital Diagnosis: Pb poisoning

Case 45.
Earline Spottswood  CF  18 mos.  Sydenham

1. History: pica (plaster) (Hosp.)
   chews bedstead and painted plaster; window-sills badly chewed (P.H.)

2. Symptoms and signs: vomiting (Died)
   convulsion

3. Lab: Hgb. 9.0 Gm.
   2 stippled RBC
   X-ray: compatible with the diagnosis
   Pb level: 0.26 6-12-49

4. Follow-up: outside flaking paint of window-frame strongly positive for Pb

5. Hospital Diagnosis: Pb encephalitis, varicella

Case 46.
Sanora Lee Davis  WF  19 mos.  St. Joseph's

1. History: eats big chips of flaking paint off window-sills

2. Symptoms and signs: vomiting
   lethargy

3. Lab: Hgb. 9.0 Gm.
   basophilic stippling of RBC
   X-ray: compatible with the diagnosis
   Pb level: 0.134 5-2-49

4. Follow-up: sample from window-sill strongly positive for Pb

5. Hospital Diagnosis: Pb poisoning

Case 47.
Joseph Gillespie  WM  22 mos.  St. Joseph's

1. History: chews window-sills, crib, window-frames, doors, rails in hall banister

2. Symptoms and signs: anorexia
   vomiting
   constipation
   irritability
   ataxia

5. Hospital Diagnosis: Pb poisoning
3. Lab. Hgb. 7.8 Gm.
   occasional basophilic stippling of RBC
   X-ray: compatible with the diagnosis
   Pb level 0.44 5-10-49
4. Follow-up: sample from window-sill strongly positive for Pb
5. Hospital Diagnosis: Pb poisoning, Pb encephalopathy

Case 48.
Dorothy Bell

1. History: eats flaking paint
2. Symptoms and signs: colic
   nausea
   vomiting
3. Follow-up: sample of flaking paint strongly positive for Pb
4. Diagnosis: Plumbism

Case 49.
Alvin Setfes

1. History: "put things in his mouth from window-sill" (P.H.)
2. Symptoms and signs: vomiting
   thickness of speech
   constipation
3. Lab. Hgb. 10 Gm
   basophilic stippling of RBC
   Urinary Pb level 0.165 mg/liter
   Pb levels: 0.31 6-22-49
           0.166 7-18-49
4. Follow-up: sample of flaking paint from outside window-sill strongly positive for Pb
5. Hospital Diagnosis: Plumbism

Case 50.
Wilma Williams

1. History: has eaten a hole in plaster wall; found with chips of paint
   from window-sill in mouth
2. Symptoms and signs: constipation
   brownish blue line of pigmentation around gums
   nystagmus
   convulsion
3. Lab: Hgb 10 Gm.
   abundant basophilic stippling of RBC
   Pb level 0.178 7-13-49
           0.22 6-28-49
4. Follow-up: samples of plaster and flaking paint from window-sill strongly positive for Pb
5. Hospital Diagnosis: Pb poisoning
Case 51.
Reno McKinney     CM     60 mos.     Sydenham

1. History: no history of paint ingestion
2. Symptoms and signs: headache
   abdominal pain
   anorexia
   lethargy
   neck stiffness
   irritability
   positive Babinski
   clouded sensorium
3. Lab: X-ray compatible with the diagnosis
   Pb levels: 0.07 9-8-48
               0.059 9-17-48
4. No follow-up
5. Hospital Diagnosis: encephalitis, questionably due to Pb

Case 52.
Peter Ganzermiller   WM    27 mos.   HLH

1. History: eats plaster from wall (Hosp.)
2. Symptoms and signs: anorexia
   abdominal pain
3. Lab: Hgb 6.5 Gm.
   X-ray: compatible with the diagnosis
   Pb levels: 0.049
               0.065 7-14-48
               0.066 7-27-48
               0.069 8-13-48
               0.071 8-26-48
               0.074 9-11-48
               0.064 11-19-48
               0.051 6-13-49
4. No follow-up
5. Hospital Diagnosis: Impression: Pb poisoning

Case 53.
Janis Jackson      CF    18 mos.   HLH

1. History: eats plaster (Hosp.)
2. Symptoms and signs: anorexia
   convulsions
3. Lab: Pb level 0.079 3-8-48
4. No follow-up
5. Hospital Diagnosis: Febrile convolution
Case 54.
Deborah Jones CF 34 mos. HLH
1. History: eats dirt, plaster, crayons, licks paint off house and eats paint off bed
2. Symptoms and signs: anorexia nightmares hallucinations
3. Lab: Hgb. 10.5 Gm. Pb levels: 0.076 7-9-48
   0.055 8-11-48
4. No follow-up
5. Hospital Diagnosis: personality disorder, plumbism

Case 55.
Evelyn Loundes CF 16 mos. HLH
1. History: eats plaster, dirt and coal (Hosp.)
2. Symptoms and signs: nystagmus
3. Lab: X-ray: questionable Pb levels: 0.077 7-2-48
   0.062 7-14-48
   0.078 7-22-48
   0.055 8-5-48
   0.057 8-27-48
4. No follow-up
5. Hospital Diagnosis: Plumbism

Case 56.
George Frederick Murray CH 36 mos. HLH
1. History: eats paper, plaster, used to bite crib (Hosp.)
2. Symptoms and signs: convulsions
3. Lab: X-ray: questionable Pb levels: 0.09 11-16-48
   0.054 ?
   0.069 4-5-49
4. No follow-up
5. Hospital Diagnosis: Idiopathic epilepsy

Case 57.
Francine Wilson CF 22 mos. HLH
1. History: eats paper, chews on window-sills (Hosp.)
2. Symptoms and signs: anorexia vomiting abdominal pain lethargy
3. Lab: Hgb. 8.5 Gm. dark deposit along tooth-gum margin "not lead line" Pb level: 0.077 ?
4. No follow-up
5. Hospital Diagnosis: URI, feeding problem
Case 58.
Stewart Braunstein  WM  144 mos  Univ.
1. History: no history of paint ingestion
2. Symptoms and signs: progressive paralysis of left arm and leg
3. Lab: "no anemia"
   Pb level 0.072
4. No follow-up
5. Hospital Diagnosis: Hysteria

Case 59.
Jacqueline Johnson  CF  23 mos.  Univ.
1. History: no pica; she is brought in because brother died of Pb encephalopathy
2. Symptoms and signs: pallor
3. Lab: Hgb. 10.2 Gm.
   basophilic stippling of RBC
   Pb levels: 0.061
   0.078
   0.074
4. No follow-up
5. Hospital Diagnosis: Pb poisoning

Case 60.
Margaret Kellner  WF  24 mos.  W.B.C.H.
1. History: questionably eats paint (P.H.)
2. Symptoms and signs: anorexia
   vomiting
   irritability
3. Lab: Hgb. 7.0 Gm
   Pb level 0.078  5-5-49
   0.073  5-19-49
   0.061  6-22-49
4. Follow-up: paint scrapings strongly positive for Pb