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PLEASE REPLY TO
FRANCIS X. WORDEN, M.S.
Western Electric
222 Broadway
New York, N. Y. 10038

August 19, 1969

ROBERT A. KEHOE, M.D., Professor Emeritus
Kettering Laboratory
College of Medicine
Cincinnati, Ohio 45219

Dear Dr. Kehoe:

I received the attached letter today from Dr. John P. Curran and I know that you are, in my opinion, the best qualified physician in the United States to answer the letter.

In essence, Dr. Curran questions the upper limit of normal for lead in blood 0.06 milligrams per 100 grams whole blood. He would like to know the basis for this level (e.g., population, age, socio-economic status and environmental circumstances).

Dr. Curran suggests that the upper normal limit be reduced to 0.04 milligrams of lead per 100 milliliters blood. What do you think of this suggestion?

Please communicate with Dr. Curran. I would appreciate a copy of your reply. Many thanks for your cooperation.

Sincerely,



F. X. WORDEN, Secretary
Occupational Health Section

Att.

Copy to:
Herbert E. Stokinger, Ph.D.
United States Public Health Service
1014 Broadway
Cincinnati, Ohio 45202

John P. Curran, M.D., F.A.A.P.
Director, Dept. of Pediatrics
Medical Center
Jersey City, New Jersey 07304

E. Lynn Schall
New Jersey State Department of Health
John Fitch Plaza
Trenton, New Jersey

97th Annual Meeting of the American Public Health Association
and meetings of Related Organizations, Philadelphia, Pa., November 10-14, 1969

N21228

MEDICAL CENTER

JERSEY CITY, N. J. 07304

JOHN P. CURRAN, M.D., F.A.A.P.
DIRECTOR
DEPARTMENT OF PEDIATRICS

AREA CODE 201
433-7000

August 15, 1969

Mr. Francis X. Worden
Secretary
Industrial Hygiene Section, American Public Health Association
Western Electric Corporation
222 Broadway
New York, New York

Dear Mr. Worden:

For several years I have been troubled by the standards for normal blood levels as published by the Committee on Lead Poisoning and accepted by the Poison Control Program of the New Jersey State Department of Health. I am particularly concerned with 0.06 milligrams per 100 grams whole blood as the upper limit of normal.

I have been unable to determine ~~what~~ any description of the age, socioeconomic status and environmental circumstances of the population from which these values were derived.

Specifically, I think that the value of 0.06 milligrams may be too high as the upper limit, since it is quite likely that this figure is based on determinations from samples which include large numbers of children from old urban housing areas who have experienced increased exposure to lead. The upper limit of normal can only be established by determining the range of values in children who do not experience such exposure. The sampling should include children from new urban or suburban housing that is known to be free of lead containing paint and plaster. I doubt that such a population has been utilized to obtain the values now in current use. A more recent study suggests a range of 0.015 to 0.040 milligrams per 100 milliliters of blood, with a mean value of 0.017 milligrams. I know nothing about the patient population surveyed.

I suggest that we have significantly divergent values from two different sources, and that the upper limit of normal for blood lead in children cannot be established unless the samples are obtained from children who have not experienced an increased exposure to this metal.

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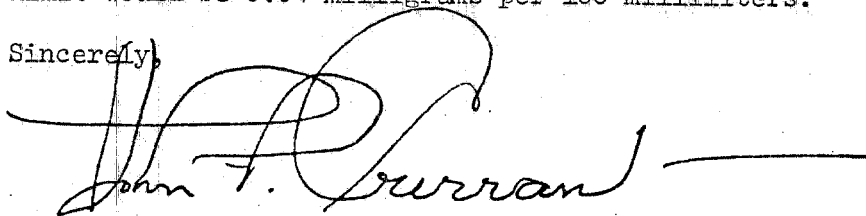
Mr. Francis X. Worden

- 2 -

Our last 100 determinations from children aged one to four, from old substandard urban housing, showed a mean of 0.019 milligrams per 100 milliliters of blood.

I am led to believe that the value of 0.06 milligrams is too high, and that many children with 0.04 and 0.05 milligrams per 100 milliliters are in fact experiencing unusually high and potentially damaging exposure to lead, but are excluded from any program of prevention and treatment. I suggest a more realistic upper limit would be 0.04 milligrams per 100 milliliters.

Sincerely,

A handwritten signature in cursive script, reading "John P. Curran", followed by a horizontal line.

John P. Curran, M.D., F.A.A.P.

JPC:sm

cc: Herbert Stokinger, Ph.D
Mr. E. Lynn Schall

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