

July 21, 1969

J. Julian Chisolm, Jr., M.D.
Baltimore City Hospitals
4940 Easter Avenue
Baltimore, Maryland 21224

Dear Doctor Chisolm:

I have discussed the means of developing precise and reproducible methods of sampling and analysis of small samples of blood for their lead content - such as might be obtained in a capillary tube from an infant - with Mr. Cholak. This, he is quite sure, can be done. His only obstacle is that of putting a sufficiently sophisticated member of his staff at work on the checking of the details of the procedures. His group, at the present time, is under a heavy burden of analytical work, in connection with an elaborate survey in several cities of the U.S.A., as well as the samples which flow from my experimental program, and those derived from multiple sources in industry (through which we continue to keep in touch with much of the activities of lead-using industries.

In order to get development work of the type done, it will be necessary to set up a facility, separate from other investigative projects in which the analytical group is involved, for this sole purpose. With the coming of the newly appointed director of the Laboratory next month, plans can be made to do this type of work. Several of us, including members of the regular staff, have been interested in the development of several methods. The capability exists, but not the mechanism (with budgetary support). The mechanism, we agree, must be established, since otherwise we have to sidestep difficulties of the type and postpone the issue. /Incidentally, in my present situation (Emeritus), I am in a different category, functionally, than regular members of the staff, but in many matters this is less of a handicap than of an advantage. In certain other respects, I find it necessary to keep out of the forefront, lest I become a source of embarrassment to the Director or others. This is not difficult, so long as I remember that the issue is my usefulness to the others, while still working productively, so I hope, at my own tasks./

I am interested in your plans for the comparison of various analytical results in various stages of lead poisoning, and in the recovery therefrom. A great deal of work of this type is being pursued in connection with industrial exposure to lead, both here and abroad, with quite interesting results. I am not very sanguine about the likelihood of developing highly useful information for either preventive (warning) purposes or as an aid in diagnosis, unless indeed, stable relationships can be established between the hair, skeleton and other bodily tissues with respect to the distribution of lead under a variety of conditions. This will take a long time, I suspect, and I am not sure, in the present state of our knowledge otherwise, of the behavior of lead in the human body, that it will be worth doing. But then, of course, one never knows until the work has been done. I agree with you, however, that the analysis of the blood is our best single procedure.

I should say that methods are now being employed by some analysts for dealing

N22108

J. Julian Chisolm, Jr., M.D.

Page 2

July 21, 1969

precisely with minute quantities of lead. I am not sure, however, that some of those who claim a high degree of accuracy have had the experience required to comprehend the variables in the sampling, the preparation of the samples for analysis, and the final determination. The analytical precision may be very great indeed, but it has no meaning unless the variables in the sampling and preparation of the samples have been fully controlled. There have been so many erroneous results in the literature, and so many half-baked ideas about their meaning, that I need proof to support the analytical evidence.

I'm off in a few days to the mountains in Montana, and shortly after my return from this vacation, Mrs. Kehoe and I will go to Japan to the XVI Congress on Occupational Health, and then on to Australia for a combination of professional and pleasure touring. It will be mid-November, therefore, before I return to Cincinnati.

Sincerely yours,

Robert A. Kehoe, M.D.
Professor Emeritus of
Occupational Medicine

RAK:wp