

We don't seem to be conducting the necessary research to determine the long-range effect of lead pollution. We could find ourselves in a position where the health of the Nation was in fact periled only because we hadn't conducted the necessary research early enough to obtain an early warning.

Dr. ECKARDT. I think the best measure of lead is the determination of lead in the blood and urine of humans. This is just what we in industry do to follow our lead workers and make sure they are not subjected to a health hazard and which we know from following these men that if their lead intake does not exceed a certain level, they do not accumulate it. There is a balance established between the intake and excretion of lead and it is only when you raise this level and change this balance that you may run into difficulties.

Now, the levels of lead that the general population is exposed to in comparison with industrial workers is perhaps of the order of 20 times less than industrial workers. And, of course, having studied these industrial workers over many years we feel they have not accumulated lead if they are not permitted to be exposed to a level in excess of a figure that has been set by the American Conference of Governmental Industrial Hygienists. This is a stated working level for workmen and I don't know whether I have still answered your question.

Mr. DADDARIO. You could argue, however, that that level that has been established is not in fact a proper level or that the research has not been adequate. Simply because people aren't keeling over and dropping dead does not mean that it may not be harmful.

Dr. ECKARDT. These men have been examined since the 1920's with no measurable effect on their health that we can see.

Mr. DADDARIO. We know that the human body is absorbing and accumulating certain amounts of certain substances such as lead and insecticides. The point has not yet been reached where a proper determination can be made to gauge the effect on a human being over a long period of time of an accumulation of these types of substances.

Dr. ECKARDT. You mean in combination?

Mr. DADDARIO. Yes.

Dr. ECKARDT. This, I would agree but lead alone I think has been studied perhaps more than any metal we know. We know more about lead than perhaps any other metal that we know anything about.

Mr. DADDARIO. Despite the fact that you don't believe any such cumulative effect now exists or will exist, do you agree that research should be conducted so that we do, in fact, come to a determination as to whether or not such an effect is possible?

Dr. ECKARDT. Absolutely.

Mr. VIVIAN. I was curious about your statement indicating that the amount of lead in the air in Cincinnati has not increased or decreased over a period of 30 years. Is that because less lead is used per gallon?

Dr. ECKARDT. No, this is because coal burning in the Cincinnati area has decreased, and you have to remember that coal probably contributes about as much lead in the atmosphere as the lead from the automobiles.

Mr. VIVIAN. Is this residual lead in the coal as opposed to added lead in the automobiles.