

March 22, 1965

John H. Ludwig, Chairman
Working Group on Lead Contamination
Robert A. Taft Sanitary Engineering Center
4678 Columbia Parkway
Cincinnati, Ohio 45226

Dear John:

I return the second draft of the paper, and the Press Release, with my suggestions for editorial alterations. I have exercised great restraint as to the language, and have urged changes only when they seemed to me to be imperative - not that my way of altering the text is the way, but that some such alteration is called for. On one of these (page 10), I became emphatic, because I couldn't help doing so.

The more important suggestions for alterations in stress or interpretation in the paper are to be found on the first page. The first of these is, I think, essential. The term "significantly increase the hazard" is most unfortunate if interpreted literally, as it will be by some persons. There must be hazard, if it is to be increased, and if there is hazard and if it is increased, the situation is intolerable. It is best not to walk into such a potentially ambiguous situation. I have suggested a better way - not necessarily the best way - of saying this. It is not a type of watering down, but a more precise presentation of the issue.

My only other serious objection relates to the loose manner of speaking of the "body burden" of lead. There is a relation between the concentration of lead in the blood and the "body burden" of lead, but this is something that requires a much more precise expression than can now be given. I am serious about this, for the reason that the implication in the paper that this can be determined directly by the analysis of the blood cannot be defended. In our experiments on the metabolism of lead we are trying hard to establish the physiological facts on which a mathematical expression can be arrived at. It is because of this situation that I objected strenuously to John Goldsmith's intention of discussing this subject. He had nothing useful to say, and therefore I didn't think he should talk about it. The only data (on human beings) that bear significantly

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on this matter are those in our hands, and I am not ready to release them, in this relationship, until their meaning is clear.

My other suggestions as to the paper are of much lesser importance and can be taken or left. Those on the press release are more important, and I wish to comment on certain of them.

1. There is little difference between "shows" and "indicates", but there is a shade. There is no doubt, of course, that the greater the exposure to lead in the air of areas in which one works, the greater is the evidence of the absorption of lead (blood and urine). This is something different from saying flatly that there is real evidence that variations in the concentration of lead in the ambient air, as these are found, result in corresponding variations in the lead in the blood and urine of persons who live in these areas. There is a trend which suggests that this is the case, but the evidence in the report does not permit one to say so certainly that this is the case. Frankly, I do not believe that it is the case. If it is, why do not the groups in Los Angeles differentiate themselves from corresponding groups in Cincinnati? The reason is that these atmospheric differences are too small, in the total environment of the individual, to show up. I will not argue against the suggestive trend, but I am reasonably certain, in my own mind, on fairly good evidence, that they can be, and will be explained better on other grounds. This flat statement, therefore, mixes two environmental factors in a statement that is much too bold.

2. My second criticism on page 1 of the press release is equally serious. The statement that the "information was insufficient on which to rest a conclusion", is not altogether untrue, but it conveys the wrong impression. The evidence was regarded as good as far as it went, but as being insufficient in scope to cover the country and (more importantly) to provide a basis for subsequent comparison. Still more importantly, as a matter of public concern and policy (and this was not written into the record for good reasons) it was derived from one source, and had not been checked by the Public Health Service. It is wrong, and it is a disservice in the field of public opinion, to imply that the evidence, in itself, was weak, for the opposite is true. It was simply lacking in comprehensive applicability until it had been confirmed in a broader basis, as has now been done.

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I have objected, on page 2 of the press release, to the use of the term "body burden", for reasons given above, and to the undue prominence given to the increment of exposure to lead, represented in smoking. The latter is trivial, and it should not be given such prominence.

I have thought it wise to eliminate "chiefly" from line 6 from the bottom of page 2, for the simple reason that there is nothing in the report which justifies its use. I think it is probably true, but this is opinion without satisfactory evidence. I don't like opinions in situations in which we are talking about conclusions from observed facts. I would leave out all of the quantitative relationships that are inferred in this sentence. Other suggestions in the press release represent preferences in verbiage. I have indicated them only when I couldn't restrain my impulse toward change.

And now that I have expressed my criticism, let me say that the second draft of the paper is generally good. I congratulate you on doing a difficult job and also upon your patience and fortitude. The latter qualities enable me to speak frankly, almost bluntly, without fear of giving offense.

Sincerely yours,

Robert A. Kehoe, M.D.

RAK:meh

Enclosures

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VICE

DIRECTOR
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March 15, 1965

To: Members, Working Group on Lead Contamination
From: John H. Ludwig, Chairman
Subject: Second Drafts of AIHA Paper and Press Release

I have prepared second drafts of the AIHA paper and the press release for the Lead Study Report. I have incorporated those changes which I believe are within the context of the material in the Redbook and the Three-City Report. I have tried to do this (as much as I could) from the position of the Chairman of the Working Group being questioned by groups representing various points of view. Hopefully, both the paper and the press release reflect the results of the study and do not represent either an overemphasis on the atmospheric pollution aspects nor a whitewash of the significance of lead in community atmospheres. In my opinion we must protect ourselves from both, as neither attitude is going to give credence to these reports.

With this in mind, I wish each of you would review the second drafts. If there are questions as to why I did or did not include your comments, or modified them, call me on the phone and we can try to resolve the disagreements. My number is Area Code 513, 871-1820, Extension 229. I would appreciate your comments by April 1.

John H. Ludwig, Chairman
Working Group on Lead Contamination

CC: Dr. L. E. Anderson
Mr. W. A. Burhouse
Mr. V. J. Castrop
Dr. C. R. Diggs
Mr. H. E. Hesselberg
Dr. R. A. Kehoe
Mr. J. A. Maga
Dr. R. O. McCaldin
Dr. M. R. Plancy

P.S. The Lead Report went to the printers last week and should be received in four or five weeks.

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