AIR MAIL
December 29, 1965

Edgar Page
Project Officer
Consumers' Association
14 Buckingham Street
LONDON WC2, England

Dear Mr. Page:

Your letter of November 5 (to which my reply is, as you know, unavoidably delayed) raises one of the very many problems that have to do with the contamination of food, quite unnecessarily, with lead. It is a difficult matter, in our presently complex technological society, to deal successfully with these matters, but we must continue, as best we can, through legislation, alert observation and investigation, and primarily, I believe, by means of regular educational efforts conveyed through every possible avenue, whereby food can be produced, harvested, processed, preserved, and prepared for the table with the least opportunity for contaminationwwith lead and other potentially objectionable materials.

I do not believe that the matter of which you speak is especially alarming, but it is the result of a considerably less than intelligent point of view in the production of utensils and containers for food. The fact is that the solder-like coatings on cooking utensils are removed in a comparatively short time. It is true that the particles of the melted coatings go into the food, and that some portion of these particles, after being dissolved, (a small portion, fortunately) are absorbed from the alimentary tract by those who eat such cooked food. In general, however, a skillet or saucepan lasts for a long time in household use, and is a source of significant contamination for only a relatively short time (that is, the surface coating disappears). The additional exposure to lead from all such sources is intermittent, and as such is unlikely to cause lead intoxication, since the absorption of lead from the alimentary tract,

at best, is slow and incomplete. It is only by a combination of such and similar opportunites for the ingestion of lead, that any very significant risk is introduced into the family in the household, the clientele of the restaurant, or the people in the community generally. The real question, here, is one which we have undertaken to investigate in a cross section of our population, namely - what is the composite sum of all such artificial factors in the dietary intake of representative persons? Our data, collected over a period of years, demonstrate that the unusual amounts of lead, taken in grossly contaminated food, occur infrequently, and as such, while indicative of potentially dangerous situations, are not of great hygienic significance. (Do not conclude that I am not concerned about this for the future.)

I have no information which would enable me to offer an opinion on the importance of such factors in the British community. I suspect, for a number of reasons, that there is greater opportunity for the contamination of food in the British household and restaurant, and this suspicion is borne out to some extent by the observations and publications of your Monier-Williams, but it cannot be said that the facts in this regard have been determined.

We have had some problems, much more significant than that to which you refer, with improperly glazed ceramic ware in use in the household - specifically, the product of artists in the production of such ware, rather than experienced and technically trained artisans. We have actually seen two well-documented casesoof lead poisoning from this source. We have also, through the years, enccuntered the use of solder (as inner coatings of cooking utensils) and lead-containing alloys (in food-processing equipment) employed in a variety of ways that were advantageous, technically, but undesirable from the hygienic viewpoint. I have no doubt that such uses will continue to turn up, here and there, and in the most unanticipated ways. Our people, and yours, as well, are clever in the technological sense, and the ways of free and independent producers and manufacturers are unpredictable. The trouble is that many, if not most, of these developments are not even considered in terms of the overall intake of lead by the population. The tendency is to think, if at all, of each item in terms of a tolerance, while, unfortunately, the collective tolerances may add up to levels of intolerance.

We must, somehow, convince the producers, handlers and producers of food that they have great responsibility for the citizens of their own and other countries, and that certain elements (lead being one) should not be added to the food and beverages (including the water) of any segment of a national population.

In answer to your questions as to the risk involved in the practice which you have discovered, it is my opinion, as an investigator, that there should be thoroughgoing investigation of the food of the country, somewhat along the lines of our investigations in this country. As to the specific problem of cooking utensils, there should be, I should think, some reasonably satisfactory means, through private or (preferably, I should think) governmental avenues of determining what the current practices are among the manufacturers of such equipment. It is usual, in this country, to find that there are trade associations through which, if the matter is fully understood and the information is handled properly, a knowledge of current practices can be obtained in a fairly comprehensive manner. For example, we were able to work with such an association of the principal manufacturers of tableware in the entire U.S.A. so as to obtain information and to affect procedures which would serve to monitor and control the general practices in this country. Certainly there are and will continue to be small and independent contributors to the tableware in use in the country, but a fairly wide distribution of knowledgeable and alert people in this trade in the country can be counted on to influence the practice. Moreover a testing laboratory has been set up within the industry to check and to certify (by means of a stamp on all passed utensils) that the product is safe. The educational value of this procedure within the public domain will probably be considerable.

I have gone to some length to express our views based on extensive experience in this matter. I think it advisable to send some of the published information, principally because it will describe some of the methods of investigation that will yield useful information fairly promptly. This will follow by separate mail.

Cordially yours,

Robert A. Kehoe, M.D.

P.S. Incidentally, you need not expect to obtain any (or much) useful information on these matters from clinicians. The case material, if available at all (and usually it is not available), will yield very little clue to the significance of this set of problems in your midst.

RAK