March 3, 1961

Albert B. Sabin, M.D.
The Children's Hospital Research Foundation
Elland Ave. and Bethesda
Cincinnati 29, Ohio

Dear Doctor Sabin:

Dr. Robbins asked that I reply to your recent letter.

First, let me clarify the table presented at the Live Poliovirus Vaccine Conference in June concerning antibody response (p. 305). We were very non-committal since we had blood from only 37 babies at that time. This fraction of the total population had a disproportionate number with a low maternal antibody titer. In table 4, page 305, under column "no change" are included babies who had either a 2-tube rise or drop because we require a 3 tube difference before we call it a change in either direction. If you assume that all 15 babies in that column were positive antibody responders then this number is artifically high.

We have 3 month bloods from 107 of the 119 babies from whom we have 7 month bloods. If we use Krugman's criteria (Live Poliovirus Vaccine Conf., page 317) for a positive antibody response at 3 months on these 107 babies, we have 50% with a positive antibody response. However, these are not necessarily the same 51% that we quote as being immune at 7 months. There is an error in both directions, although not too great.
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Krugman's population is not the same as ours in terms of maternal antibody titers. We have 65% with titers of 256 or higher whereas less than 40% of his are at the higher levels (Live Poliovirus Vaccine Conf. P. 321). This may partially explain the lack of influence of breast milk feeding on excretion of virus in most of the Bellevue babies. It may also make it difficult to compare his results with ours.

There were only 3 babies included in Fig. 4 (our paper) whose titers rose more than 2 tubes between the 3 month and 7 month blood. (Two tubes are within the limits of error in this laboratory.) However, we excluded 6 additional babies of the original 144 from all antibody data because they showed a 3-tube greater rise between the 3 month and 7 month bloods. We have summer stools bi-monthly from these babies and will run them for wild-type poliovirus. All of these had stopped excreting vaccine virus before the 3 month blood.

All antibody titrations in this laboratory are carried out in tubes, using 2-fold dilutions and 1 tube per dilution. The titer given is the last tube which is yellow.

You are right. There is an error in the section about collection of stools beyond 6 weeks. It is my error, not a typographical one.

Sincerely yours,

Martha L. Lepow, M.D.

MLL/hd