We are working in a little bit of a "no man's land" here. We know the official record is grossly deficient, and that perhaps 10 or 100 times the number of cases actually occur. No one could say exactly how many.

However, compared with the prevalence of these agents at the turn of the century, let's say, during the first two decades when very large and very common widespread outbreaks of typhoid fever, infant diarrhea, TB, and other diseases were occuring, the situation is vastly improved.

I think we should give the health-oriented people in the academic and government circles and the industry credit for bringing about this change.

Mr. ROSENTHAL. What is your view, if I may interrupt you, your view of what you heard about this morning about turkeys at 30 degrees and thawing and freezing and potential bacteria infestation?

Dr. LEWIS. From a technological standpoint, that is a public health standpoint, I agree essentially with the testimony you heard this morning from the Department of Agriculture. The fact that food may be melted, if I may use that word, does not automatically mean that it is unsafe. There is a time-temperature relationship here, and you were given the figures on the growth of different organisms, which is the determining factor.

Defrosting is objectionable from a consumer standpoint. I don't like the appearance, perhaps you don't like the taste, but just public health-wise, until that food has been held for a number of hours at a range above, as was said, 38° F.—and I think it can go substantially higher than that unless the time is very long—there would be no multiplication of the organisms in this food.

Mr. ROSENTHAL. If it is held at 32 degrees, 34 degrees, for a few days, would that be of any significance?

Dr. LEWIS. To the best of my knowledge; no, sir. As long as that product is frozen, so there is no moisture available, the organism can not grow. I do not have the same confidence as the Department of Agriculture seems to have in the ability of its veterinary inspections to detect the presence of disease-producing organisms or their toxic products in foods.

I don't want to pick on any particular item, but I believe it is scientifically sound to say the usual type of gross veterinary inspection, ante mortem or post mortem, cannot be relied upon to detect such agents as the Salmonella organisms we heard so much about recently, or a number of other agents that could be involved in food poisoning.

It is very difficult to exclude such organisms from raw products, and unless the processing procedure is fully adequate to destroy them, they may appear in the final product. As a matter of fact, there are listed in my paper two or three instances in which outbreaks have been caused in school lunch cafeterias by foods which were USDA-inspected.

I don't necessarily blame USDA for these outbreaks, because mishandling at time of preparation is also a very considerable possibility. But it is also true that the organisms could have been present in some number in the raw product. If mishandled and allowed to grow out, the organisms could have reached dangerous proportions during preparation of the food in the local school.