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Response to CPSC letter to CHSWC concerning the Sharps Study, 4/27/2015

To: Eduardo Enz, Acting Executive Officer, CHSWC

My recent study, "Infection Risk from 'Sharps' Injuries to Non-Healthcare Workers" has been criticized by CPSC. While I appreciate the concern CPSC has with issues surrounding the waste disposal process in California, I believe they misunderstand the purpose of the study, methods used, and conclusions of the report. I hope I can clarify some misunderstandings and address their concerns.

1. Most important CPSC confuses the concept of "incidence" with the concept of "risk". The report is meant to assess the "risk" posed by sharps. While the "incidence" (number of injuries) is a factor in assessing risk, it is not the only factor. Consider broken glass. I suspect the injuries to waste handlers from broken glass are many times more frequent than injuries from sharps. Why aren't CPSC and the legislature raising issue with the need for proper disposal of broken glass (or any other sharp objects)? Because there is no special risk of infection with HIV, HBV or HCV from cuts from broken glass. The primary issue is the risk of infection with one of these three diseases, not the number of injuries.

2. CPSC raises a single issue with two of the approaches used here: 1) the review of literature on sharps-related infections to non-healthcare workers, and 2) estimation of the overall risk based on estimating the risk at each intermediate stage. The issue raised by CPSC is that the research cited is not "contemporary". CPSC should be assured that the research used was the most contemporary available. Very little if any more recent research is being done in this area because the issue has been decided and there is very little that additional research can add. The CDC, for example, is unlikely to undertake another comprehensive survey of non-healthcare, sharps-related HIV infections given that the 2005 study identified no such infections over the previous two decades. New research will probably be undertaken only if there is a significant change in the risks related to sharps.

3. CPSC criticizes the report for being explicit that the data sources used are imperfect. Yes, these data sources (WCIS and OSHPD) are imperfect, but they are also really, really good. These data allow us to evaluate thousands of needle sticks, the nature of subsequent treatment and the cost of that treatment. This type of data is invaluable when trying to reach informed decisions about the actual incidence of sharps injuries and making informed estimates of the risk associated with these injuries. To say the data are imperfect is not the same as saying the data are inadequate or uninformative. The WCIS and OSHPD data offer important insights into the risk of sharps-

related injuries.

4. CPSC claims that the report minimizes the medical cost, sick leave, and trauma caused to waste workers. This is incorrect. The approach used was careful to make proper use of WCIS data to estimate the medical and lost time costs related to sharps injuries. If anything, the report risks over estimating the costs. In addition, we are quite explicit in identifying the psychological trauma and related treatment that can result from concern about infection from a sharps injury, even if the actual risk is extremely small. We measured the incidence of psychological counseling and prophylactic treatment. We also suggested that better communication of the actual risk could be useful in reducing workers' concerns related to sharps injuries.

I believe the methods used in this study were appropriate for evaluating the concerns raised by the Legislature. Other methods could be used, like interviewing individual waste handlers or government officials as suggested by CSPC, but that approach is not appropriate for the questions posed by the Legislature.

I would be glad to discuss these issues with CPSC if they want additional clarification.

Sincerely,



Frank Neuhauser