



UNITED STATES
 CONSUMER PRODUCT SAFETY COMMISSION
 WASHINGTON, DC 20207

Memorandum

Date MAY 21 2001

TO The Commission
 Sadye E. Dunn, Secretary

THROUGH Michael S. Solender, General Counsel *MS*
 Pamela Gilbert, Executive Director *PG*

FROM *for* Debra Sweet, Statistician, Division of Hazard Analysis *sa*
 Ronald L. Medford, Assistant Executive Director *RLM*
 Office of Hazard Identification and Reduction

SUBJECT Comments from Kimberly M. Thompson, Sc.D. on Briefing Package for
 Petition HP 00-4 Request to Ban Baby Bath Seats

This responds to a May 7, 2001 letter from Kimberly M. Thompson, Sc.D. to U.S. Consumer Product Safety Commission (CPSC) Chairman Ann Brown. Specifically, Dr. Thompson's letter provided comments on the March 30, 2001 CPSC staff briefing package on Petition HP 00-4 that requests a ban of baby bath seats. She was concerned that the staff's assessment of the risk of drowning with baby bath seats relative to the risk of drowning in bathtubs without bath seats was insufficient to support a ban.

In considering the issues raised by Dr. Thompson, it is important to note that the staff has not recommended a ban of baby bath seats. Instead, we have indicated that we have not given up on the idea that a technical solution is possible. Further, the issue before the Commission is not to decide if bath seats are more dangerous than bathtubs, but rather if there are hazards associated with the current bath seat design that can be addressed in order to reduce the risk of drowning in a bath seat.

Dr. Thompson's comments and staff responses included the following:

- *I believe that the staff incorrectly interpreted the bath seat ownership data reported in the Baby Products Tracking Study that it used to estimate the relative numbers of bath seat users and non-users. In particular, the analysis in the Briefing Document failed to look at trends in ownership as a function of the age of the infants. The Baby Products Tracking Study asks*

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mothers of new babies about their current ownership of baby accessories. Since the staff's analysis focuses on 5 to 10 month old children as the group of bath seat users, in my opinion the staff should have used the specific ownership data for this cohort. Looking at the pooled estimates from the 1996 and 1999 studies, the percentages of New Mothers of 5, 6, 7, 8, 9, and 10 month-olds were approximately 26%, 41%, 44%, 44%, 52%, and 44%, suggesting that ownership is fairly constant over this age range, or at least that it does not appear to decline significantly if one assumes that owners use the seats. Thus, based on these data, I believe that the staff should be using an estimate of 41% of bath seat users for the age range of 5 to 10 month-old children.

In its calculation of relative risk, CPSC staff used the percent of mothers who own baby bath seats provided in information published in the Baby Products Tracking Study. CPSC's guidelines for responding to petitions indicate that the staff's analysis should be based on existing or readily obtainable data. In general, the staff does not purchase market or usage data until the Commission determines that further action is needed. Staff recognizes that the percentage of new mothers that own bath seats reported through the Baby Products Tracking Study includes mothers of children too young to use these products. Nevertheless, the general information from this study was the best source available at the time of the staff's analysis. Without knowing the true distribution of ownership by age of child, a uniform distribution was the most appropriate to use.

Staff has recently obtained more detailed ownership information developed at Dr. Thompson's request. This information is only ownership rates for new mothers with children between 5 and 10 months. As with the ownership percentage used by CPSC staff, the data are not a measure of frequency of use. The relationship between ownership and usage is unknown since a parent owning a bath seat does not necessarily represent a parent's use of the bath seat.

Dr. Thompson's letter to the Chairman is based on the analysis of 1996 and 1997 drowning deaths to children between 5 and 10 months old. In an effort to learn more about the risk of drowning in bathtubs and bath seats, staff expanded the analysis to include drowning deaths in bathtubs from 1994 through 1998. These are all of the years for which we have completed investigation reports for most of the bathtub and bath seat drowning deaths that occurred in the U.S. during this time period. Table I presents staff's analysis of drowning deaths to children from 5 to 10 months old for this five year time period. The analysis is based on the percentages of ownership provided in Dr. Thompson's letter to the Chairman and verified by the staff. These percentages of ownership are pooled data from the 1996 and 1999 Baby Products Tracking Study. The table presents month by month data and data for 5 to 7 month old children and 8 to 10 month old children. The table also includes an overall risk of death using 41% bath seat ownership for children ages 5 to 10 months old as suggested by Dr. Thompson.

Table 1 1994 Through 1998 Drowning Data with Pooled Percentages of Ownership

Age of Victim	Total Bath Seat Deaths (1994-1998)	Bath Seat Deaths per 1 Million Bath Seat Owners	Total Bathtub Deaths (1994-1998)	Bathtub Deaths per 1 Million Non Bath Seat Owners	Bath Seat to Bathtub Relative Risk
5 months	3	7.08	2	1.66	4.27
6 months	4	5.98	6	6.24	0.96
7 months	10	13.94	6	6.57	2.12
8 months	8	11.15	15	16.43	0.68
9 months	10	11.79	16	20.44	0.58
10 months	5	6.97	27	29.57	0.24
Grouped Data					
5-7 months	17	9.39	14	4.54	2.07
8-10 months	23	10.08	58	22.23	0.45
Aggregate					
5-10 months	40	9.97	72	12.47	0.80

- *the small number of deaths that occur during any single year make further disaggregation to the age of months both problematic and misleading. I believe that the staff's risk analysis should define the relevant age range and compare the overall numbers without speculating about why the risks appear to be higher or lower for younger age children.*

The staff disagrees that the numbers should be aggregated across the 5 to 10 month age range or that the numbers are misleading. Within the 5 to 10 month age range, there are important differences in a child's development and size as they relate to the use of baby bath seats. Therefore, the staff is providing both individual age and aggregate data for Commission consideration. Also, as noted earlier, to increase the number of cases included in the staff's analysis, we expanded the analysis to include drowning deaths for the years 1994-1998.

- *Remarkably, the data appear to be more consistent with bath seats providing a protective effect than a hazardous one. I am concerned that if they actually provide a protective effect, that banning them will lead to an overall increase in drowning death rates. The staff appears to have overlooked the very important trend that during the 1990s, overall bathtub drowning risks for children ages 5 to 10 months old declined significantly at the same time that sales of bath seats increased substantially.*

The available information on bathtub drownings indicates that on average, the numbers of deaths for the 1980s compared to the 1990s are comparable (about 43 deaths for each time period, through 1998). The bathtub drowning rate does appear to be lower for the period 1994-1998. However, bath seat ownership for the period 1993-1999 indicates a modest 2 percent increase.

It is important to note that the staff has not recommended that the Commission ban baby bath seats. Instead, we have indicated that we have not given up on the idea that a technical

solution is possible. Further, the issue before the Commission is not to decide if bath seats are more dangerous than bathtubs, but rather if there are hazards associated with the current bath seat design that can be addressed in order to reduce the risk of drowning in a bath seat.