

## 6.10. PEOPLE IN EVACUATION CENTRES

### 6.10.1. The range of the Evacuation Centre experience.

For most Mississaugans, the evacuation meant a visit to friends and relatives, or a stay in a hotel. For some 8,700 people (3.8%), it meant between one and seven nights camping in an Emergency Evacuation Centre. As had been discussed in the preceding chapter, many of the people who went to the Centres were among the least able to afford to pay for a hotel out of their own pockets, and did not realise at the time that they would be able to claim compensation.

As individuals, they had very different reasons for choosing to go to a Centre rather than to a private home (Section 5.5) and they were in a variety of family situations. Some were old; some were families with young children, some were pet owners, some could not speak English. Thus, as a group, the evacuation centre people cut across all the other categories of people discussed in this chapter. This makes it difficult to separate out the social impacts of the Evacuation Centre experience from the effects related to their family situations.

The analysis is further confounded by the fact that the different Evacuation Centres provided very different experiences for evacuees. They varied in size, degree of crowding, quality of facilities, services and general organisations. They also varied through time; for example, the International Centre was crowded, cold and had insufficient food and beds for the first night it was opened. Evacuees were even charged for cups of coffee. Later in the week, there was abundant free food and plenty of space for the few people left. Most Centres had many dogs and cats mixed in with people while one refused to accept pets (Section 4.3).

Thirty-eight percent of evacuees registering at the Centres stayed less than 24 hours. Some were clearly dismayed

by the accommodation they were offered, particularly in the Centres like Square One and the International Centre, and they decided to stay with friends and relatives or go to a hotel. These people were among the more affluent evacuees registering at the Centres (Section 5.5.1).

#### 6.10.2. Satisfaction with the Centres

The survey of evacuees registered at Centres asked them to evaluate their food, sleeping, washroom, recreation, health care and information facilities (Table 6.4). Overall, evacuees were most satisfied with the food and health care provided, although older people (over 60 years) were significantly less happy with them. The Centres themselves did not score very differently for food and health care except for the health care provided at Square One, which was ranked below that in other Centres.

Washroom facilities at the International Centre (where there were no showers) were the most often evaluated as inadequate. In all evacuation centres, people in their 20's and 30's were least satisfied with washroom facilities. Younger people (in their 20's) were also the most critical of the recreation facilities offered by the Centres, particularly in Square One. The greatest dissatisfaction expressed by all évacuees in the Centres was with sleeping accommodation; especially in the International Centre where some 70% of evacuees felt the accommodation was inadequate.

Follow-up interviews with evacuees reveal that sleeping in some Centres was extremely difficult. Initially, people did not always have beds or even places to sit. They were crowded together so that a stranger might wake up to find an inadvertent arm around him. Other people never went to sleep because of the unaccustomed lack of privacy. In some Centres, the noise made sleep impossible with children, pets

Table 6.4. Evacuees' evaluations of facilities provided  
at selected Evacuation Centres

	<u>Percentage at centres saying facilities were INADEQUATE</u>				
	<u>International</u>	<u>Square</u>	<u>Erindale</u>	<u>Streetsville</u>	<u>All</u>
	<u>Centre</u>	<u>One</u>	<u>SS</u>	<u>SS</u>	<u>Centres</u>
	<u>%</u>	<u>%</u>	<u>%</u>	<u>%</u>	<u>%</u>
Food	9	18	11	15	12
Sleeping	74	69	50	50	62
Washroom	30	15	18	23	20
Recreation	50	73	14	68	52
Health Care	13	27	7	8	15
Information	15	41	19	46	27
Overall operation	3	9	0	8	5

and radios all contributing.

At the same time, other centres were praised for providing separate quiet rooms for sleeping. Generally teenagers, especially enjoyed the communal atmosphere.

### 6.10.3. Comparison of the evacuation experience; private home versus Evacuation Centre

Compared to the majority of evacuees who went to private homes, the Evacuation Centres clearly provided a different short-term experience of the emergency. It was an experience that seems to have suited young people best with unlimited access to fast food like hamburgers; organised films and games; and plenty of companionship. For older people, the noise, lack of privacy, boredom during the day and difficulty in sleeping during the night, stand out in their memories.

On the other hand, many people in private homes felt stress through crowding and the fear of imposing on others. For mothers of young children, and owners of pets, the stress was focussed on the potential damage their charges could wreak. For families with a disabled or infirm member, stress was related to concern about what impact the move and the strange surroundings might have upon their relative's condition.

It seems, however, that the experience was a more exhausting one for people in the Centres. They emerged tired, more dishevelled and more in need of a good bath and rest than did other evacuees. Many more of them would not wish to repeat the experience; 25% say they would go to a hotel next time rather than return to an Evacuation Centre (this compares to only 8% for all evacuees).

The length of time people stayed in the Centres is related to their satisfaction with the facilities and to their response to the evacuation generally. Those people staying 3 days or more are more satisfied with the Centres than those who left after one day. This is both because the most

*Housing evacuees.....*

*Mrs. L. heard on the radio that people in the Evacuation Centres needed food and shelter. She is the secretary-treasurer of a church group that tries to help the poor and needy and her immediate reaction was to take sandwiches and coffee to her nearest Centre.*

*At the Centre, the Red Cross gave Mrs. L. the names of two women who needed accommodation. They were Mrs. A., a lady in her 70's and her daughter, Miss A., who was in her 40's. They also had their dog with them, a huge German Shepherd. Mrs. L. assured the ladies that all three would be welcome in her home.*

*The three evacuees stayed for a week with Mrs. L., her husband, and their two grown-up children. Mrs. L.'s daughter gave up her downstairs bedroom for the two ladies and slept on the sofa bed in the study. Mrs. A. is somewhat crippled from an old leg injury and has difficulty walking.*

*Everyone got on well together. Mrs. A. was always helping with the dusting and peeling potatoes. It was just like having Mrs. L.'s own mother there. The dog was well behaved and much appreciated by both families. In the evenings, the group watched T.V. or enjoyed the fellowship of other friends. Mrs. A. particularly enjoyed listening to Mrs. L.'s son playing the piano.*

*They have kept up the friendship through visits and phone calls since the evacuation. The evacuees sent Mrs. L. a big, beautiful flower arrangement and Miss A. has sent presents she made herself. In return, Mrs. L.'s son has sent a tape of himself playing the piano to the elderly lady to remind her of the time they all spent together. Miss A. tells Mrs. L. that the stay with them during the evacuation was the happiest time her mother had had in years.*



dissatisfied are most likely to get up and leave, and because the facilities themselves improved as they became better organised and the numbers of people to be served went down.

The people who stayed longer in the Centres were the most likely to respond in our surveys that the evacuation was justified because of the danger that existed and to comment that the authorities acted well. They appear, in retrospect, to have been among those who were most satisfied with the way the evacuation was handled. At the time, however, people in charge of the Centres saw an increase in restlessness among evacuees after the first three days. Evacuees quickly tired of fast-food and wanted to go home. They became more impatient with everyone and clearly more bored with their situation and the repetitiveness of the news stories recapitulating the week's events. A change in their diet and situation would have been called for if the evacuation had lasted any longer.

#### 6.10.4. Impacts felt after the return home

The social impacts of the emergency appear to be most related to a person's family circumstance and responsibilities, and to a lesser extent how close to the accident they lived, rather than to where they spent the week of the evacuation. The people spending that time in Evacuation Centres do not appear to have suffered significantly greater, or different, effects from other evacuees. They report similar degrees of concern today about the rail transportation of hazardous goods as do other evacuees (Table 6.5) although they were more anxious about their family's safety during the emergency. (Table 6.6.)

Table 6.5. Concern today expressed by all evacuees and those using centres about the rail transportation of hazardous goods.

	<u>Very Concerned</u> %	<u>Concerned</u> %	<u>Not Concerned</u> %	
All evacuees (N=504)	45	40	15	100%
Those in centres (N=175)	45	36	19	100%

Table 6.6. Concern felt by all evacuees and those in Centres during the emergency

	<u>Very Concerned</u> %	<u>Concerned</u> %	<u>Not Concerned</u> %
All evacuees (N=504)	31	33	36
Those in Centres (N=175)	42	29	29

Table 6.7. Knowledge of transportation of hazardous materials by rail before the accident for all evacuees and for those in Centres.

	<u>Knew Before</u> %	<u>Did not know before</u> %
All evacuees (N=504)	34	66
Those in Centres (N=175)	20	80

Their concern today is a new one for most of them because 80% of the Evacuation Centre evacuees were unaware of the risk before the accident (Table 6.7). This greater proportion of people in evacuation centres not knowing about the risk is related to the higher proportion of low wage earners among them; fewer of those with low family incomes or blue-collar occupations knew about the risks beforehand.

The Evacuation Centre group do report suffering some long-term effects more frequently than do other evacuees. Only 31% say they have suffered no long term consequences (compared to 38% for all evacuees) and 20% mention specifically that they feel there are permanent effects on themselves and their families (compared to 13% for all evacuees). In addition, 25% say that next time they are asked to evacuate, they would not use an Evacuation Centre, implying that it was not an experience that they would wish to repeat.

#### 6.11. CARE OF PETS

Half the homes in Mississauga had at least one pet at the time of the evacuation. The removal of 75,500 families from their homes therefore also affected some 38,500 animals. Of these, 16,500 were dogs, 11,200 were cats and the remainder included fish, rodents, birds and reptiles (Table 6.8).

Most dog owners (88%) took their pet with them when they evacuated but only half (55%) of the cats were taken. Fish, rodents and birds were generally left behind. This meant that an estimated 2,000 dogs, 5,000 cats and 8,000 fish, rodents and birds were left in the evacuated area. While many pets were left with sufficient food and water for one day, their owners began to get anxious by Tuesday morning and hundreds phoned the Ontario Humane Society for help.

By 16:00, on Tuesday 13 November, an Emergency Animal Care Program was set up by the Ontario Humane Society in cooperation with the Police and the City of Mississauga

Animal Control Department for animals left inside the evacuated area. Owners were asked to bring house keys to the OHS Emergency Headquarters at Mississauga City Hall or to an Ontario Humane Society office and to provide written (if possible) or verbal permission for an OHS Officer to enter their premises. The service was advertised on the media and some 1,861 homes, stores and other premises were entered and 2,500 animals were cared for.

In addition, there were kennels, pet shops, animal research laboratories and a bird sanctuary in the evacuation zone. Some owners decided to remain with their animals inside the zone. A veterinary hospital close to the accident was evacuated. Research animals at the University of Toronto and in various schools were fed by students or regular maintenance personnel under police escort. People with pets in evacuation centres who were going to hotels handed them over to OHS officers to be taken to private boarding kennels in Oakville.

The police granted permission for Ontario Humane Society officers to enter the evacuation zone only in marked, official OHS vehicles and with a police officer accompanying each vehicle as a witness to the entry to private premises. This obviously increased the demands on police officers' time and made the policing of the evacuated area (for looters, etc.) more difficult.

The demands on the Ontario Humane Society officers and volunteers were also very high. They worked long hours dealing with anxious pet owners, necessary paper work, and hungry animals. The last calls to private homes to care for pets were made at 20:00 on Friday, the 16th, but for the next few days, they had to organise the return of thousands of house keys to their owners. Many owners had given their only available house key to the Humane Society.

Remarkably few animals were permanently lost because of the evacuation. A few animals died, mainly fish and birds left without sufficient care and unable to find food for themselves.

Table 6.8 Pet ownership in Mississauga at time of evacuation

(a) <u>Number of pets</u>	
	Households (N=352) %
No pets	48.9
1 pet	27.0
2 pets	11.6
3 pets	4.3
4 pets	0.9
5 pets	0.9
No answer	6.5
	100.1%
 (b) <u>Type of pets</u>	
	Households (N=352) % *
No pets	48.9
Dog	26.1
Cat	17.6
Fish	6.3
Rodent	1.1
Bird	6.5
Hamster	2.3
Reptile	0.6
No answer	3.4

\* Percentage adds up to > 100 because some householders have more than one pet.

Some animals made a mess in the homes in which they were abandoned. According to the Ontario Humane Society, animals suffered from loneliness as much as from anything else. Financial compensation was given by CP Rail to some owners of fish and birds for the loss of their pets. In the longer term, there was no apparent change in the frequency of lost or abandoned animals or in the number of cases of animal abuse.

The Mississauga evacuation highlights the large number of pets living in a residential area and the anxiety that can be generated for householders when they are separated from their pets during an emergency. The problem of mass care of pets during an evacuation was minimised in this case because most of the 14,500 dogs and 6,000 cats evacuated were taken by their owners to the homes of friends and relatives. The pets which were taken to evacuation centres caused complaints from other evacuees and most hotels refused to take pets with evacuees.

An emergency in which a higher proportion of families were forced to use emergency evacuation centres or hotels is likely to produce many more pets needing centrally organised care.

## 6.12. CHANGES IN PUBLIC RISK PERCEPTION

### 6.12.1. Prior knowledge about rail transportation risks

Before the accident, few people knew that hazardous materials were being regularly transported by rail through their neighbourhood (Table 6.9 ). In Mississauga, only one third of the evacuees said that they knew of the transportation before the accident. The figures are similar for the control group (27%). People living north of Burnhamthorpe were found to have even less awareness, but this is probably related to the fact that they generally are newcomers to the area. More evacuees using the Centres also report being unaware of the hazard.

Table 6.9 Knowledge of the transportation of hazardous materials by rail through their own neighbourhood before the accident

	<u>Had</u> <u>Knowledge</u> %	<u>No</u> <u>Knowledge</u> %	<u>No</u> <u>Answer</u> %	
All evacuees (N=504)	34	66	0	100%
Evacuees in centres (N=175)	20	80	0	100%
People living on perimeter (N=200)	23	77	0	100%
Control group (Don Mills) (N=200)	27	73	0	100%

### 6.12.2 Concern Today about Rail Transportation of Dangerous Goods

Since the accident, almost everyone in Mississauga and probably in Metro Toronto has become aware of the transportation of dangerous goods through the Metropolitan area. About 80% of all those questioned say that they are concerned about the risks.

The households who were evacuated are the most likely to say that they are "very concerned", followed by those living on the perimeter of the evacuated area. People living in the Don Mills Control area at a similar distance away from the railway tracks are less likely to express great concern but nevertheless, may say that they have some concern (Table 6.10).

This concern about transportation risks in general is not related to a person's sex, age, nor whether one has children. It is more a function of their socio-economic position. In contrast, concern about the danger during the emergency shows a different pattern with women, especially those with children under 10 years old, showing the most concern whether or not they live close to the railway tracks or accident site (Section 6.2.6).

### 6.12.3 Impact of the Accident on Public Perception of Risks

A major event, such as the Mississauga derailment, will clearly have impact on the public's awareness and concern for rail accidents. It may also affect how people view other hazards of a technological society.

To test this hypothesis, evacuees and the control group in Don Mills were asked to:

Table 6.10 Concern today about the transportation of hazardous goods by rail through their neighbourhood

	<u>Very Concerned</u> %	<u>Concerned</u> %	<u>Not Concerned</u> %	<u>No Answer</u> %	
All evacuees (N=504)	45	41	14	1	100%
Evacuees in centres (N=175)	44	35	19	2	100%
People living on perimeter (N=200)	35	39	24	2	100%
Control group (Don Mills) (N=200)	26	56	17	1	100%

- (a) identify what risks or hazards concerned them most  
(open question: no alternatives offered)
- (b) give reasons why they were concerned about them  
(open question)
- (c) compare the probabilities of another derailment; a road transportation accident involving dangerous chemicals; a plane crash involving many deaths; and a nuclear accident as serious as Three Mile Island occurring in Southern Ontario in the next 10 years.

Table 6.11 shows the risks of most concern to the evacuees; to those evacuees using the official shelters, and to the control group. The most frequently mentioned risk for both groups of evacuees is a train wreck, followed by a nuclear accident, chemical accident and road accident (in that order). For the control group, the risk of a nuclear accident is of concern to more people, followed by a road accident. Concern about a train accident is third, with 10% of the people interviewed spontaneously mentioning it. Differences in risks mentioned are not significant between the two groups of evacuees, but they are highly significant (Chi-square significant at less than .001 confidence level) between evacuees and non-evacuees. It therefore seems that the experience of the evacuation has focussed the evacuees attention, in particular, on transportation accidents, especially rail accidents. As a consequence, nuclear and air and water pollutions risks are of relatively less concern.

Not all risks are of concern to the public for the same reasons. Some, such as nuclear accidents, are feared because their effects are seen as long term, or large scale. Others are of concern because they present a hazard to the public at large (fires, road, rail, and air accidents). Transportation risks are seen as having high probabilities and caused by human error. In contrast, air and water pollution are felt to result mainly from inadequate safety measures (Table 6.12).

Table 6.11 Risks of most concern to public

<u>Risks</u>	<u>All evacuees</u>	<u>Those using</u>	<u>Control Group</u>
	<u>(N=504)</u>	<u>Evacuation</u>	<u>(Don Mills)</u>
	<u>%</u>	<u>Centres</u>	<u>(N=200)%</u>
		<u>(N=175)</u>	
	<u>%</u>	<u>%</u>	<u>%</u>
Train wreck	19	24	10
Road accident	10	10	16
Plane crash	6	9	6
Nuclear accident	12	17	18
Chemical accident	11	8	3
Fire	2	3	4
Air pollution	5	5	4
Water pollution	2	0	2
Other risks	19	7	18
Don't know	14	16	19
	<u>100</u>	<u>99</u>	<u>100</u>

Differences amongst the three groups are significant at .001 confidence level.  
Chi-square = 412.976 with 14. d f.

Table 6.12 Reasons why different risks are of concern to evacuees (main sample: N = 504)

	Safety precautions inadequate (%)	Is danger to public (%)	Effects are term long (%)	Effects are large scale (%)	Beyond human control (%)	People are careless (%)	Has high probability (%)	I have experience of it (%)	
Road accident	8	20	2	3	8	22	36	2	100%
Fire	6	47	0	6	18	6	6	12	101%
Nuclear accident	6	5	28	41	13	2	4	0	99%
Chemical accident	15	16	14	26	14	2	9	3	99%
Train wreck	24	22	3	17	7	12	14	2	101%
Plane crash	8	48	0	13	10	6	15	0	100%
Water pollution	20	7	6	40	7	6	7	7	100%
Air pollution	16	9	12	42	5	5	9	2	100%
Other risks	15	15	6	27	14	6	14	3	100%

Although the frequency with which the risks themselves are mentioned varies between evacuees and non-evacuees, the reasons why the risks worry the public are not affected by the evacuation experience.

However, the emergency has influenced the evacuees' perception of the probabilities of future major accidents. Table 6.13 shows the evacuees' and control group's perception of the likelihood of four different risks occurring in Southern Ontario in the next 10 years. The differences between Evacuation Centre users and other not significant, but in each case there are highly significant (at .0001 confidence level) differences between the evacuees as a whole and the control group.

Of the four types of major accident (rail, road, air and nuclear) more people in all groups see the road accident as most likely; followed by plane, derailment and nuclear accidents (in that order). For each risk considered separately, evacuees believe that it is more likely to happen than do other people living outside Mississauga.

The impact of the emergency and the evacuation experience appears, therefore, to have changed the way the public perceives risks - not only the risk of derailments but also of other man-made hazards. There is evidence that a major accident event affects a person's whole framework for risk perception so that some risks become magnified while others are downplayed. In this case, the derailment has made the evacuees sensitive to transportation risks in general. It also seems to have increased their perception of the probability of an accident in a nuclear reactor, while slightly reducing their attention overall to nuclear risks. The derailment has, for a time at least a year afterwards, focussed public awareness on "accidents" rather than the cumulative risks from air and water pollution.

Table 6.13 Perceptions of risks of another derailment, road accident, plane crash, and nuclear reactor accident occurring in Southern Ontario within the next ten years.

	<u>Very Likely</u> %	<u>Likely</u> %	<u>Unlikely</u> %	<u>Very Unlikely</u> %	<u>Don't Know</u> %	<u>Total*</u> %
<u>(a) another serious derailment</u>						
All evacuees	29	45	17	6	3	99
Those in evacuation centres	24	41	25	8	2	100
Control group	14	51	18	15	2	100
<u>(b) road accident involving dangerous release of hazardous chemicals</u>						
All evacuees	45	47	5	1	3	101
Those in evacuation centres	40	48	6	3	3	101
Control group	35	47	11	3	4	100
<u>(c) plane crashing involving many deaths</u>						
All evacuees	30	46	18	3	3	100
Those in evacuation centres	27	49	15	6	4	101
Control group	21	47	24	5	2	99
<u>(d) nuclear reactor accident as serious as Three Mile Island</u>						
All evacuees	12	30	35	19	4	100
Those in evacuation centres	13	30	33	18	6	100
Control group	6	34	35	15	9	99
* Percentages add up to >100 due to rounding errors.						