Managing Hazards in a Changing Multi-Cultural World

by Fred Cooper and Laurie Laughy
Emergency Preparedness Canada, British Columbia and Yukon

This paper is based on a presentation made by Fred Cooper and Laurie Laughy to the Emergency Preparedness National Symposium in September 1988.

Background

Very little attention has been paid in Canada to the multicultural effects in disaster management. The results of current research are primarily based on American research. This in itself should serve as a warning flag for Canadian emergency planners and should reinforce the need to take ethnic issues into consideration for planners in the United States and abroad.

The *1986 Statistics Canada Report* indicates that in 1986, the Canadian population was 25,309,330. Most Canadians, 62%, live in the provinces of Ontario and Quebec. The population is widely distributed and primarily concentrated in urban communities along the American border. Large expanses, such as the Northwest Territories, have very few residents.

Approximately 10% of the population is either under the age of five or over the age of eighty. This information alone adds to the complexity of emergency planning in Canada. But the ethnic makeup of Canada, with what we have learned from elsewhere, adds to the intricacy of planning.

Table I: Ethnic Breakdown for Canada

	% of Canadians	Speak Neither French nor English	% of Ethnic Origin who Speak Neither Language
British	39 13	11,995	0 09
French	25.69	5,465	0.06
British & French	3 90	1,900	0.15
Latin, Central & S. America	0 16	4,355	8 70
Caribbean	0.26	530	0.65
African American	0.82	1,100	0.42
Aboriginal	2 25	23,505	3 30
N. Europe	2 19	1,900	0 27
S Europe	5.39	108,300	6.35
E Europe	10.55	13,475	0.40
W. Europe	5.97	19,320	1.02
Western Asia	0 16	3,740	7 24
Southern Asia	0.99	18,105	5.76
Southeast Asia	2 18	87,125	12 65
Pacific Islands	0.03	330	3.18

* Figures extrapolated from *Statistics Canada 1986*

Section 1 - Meeting the Needs of the Diverse School Population

What do we know about Canada's ethnic population? We can see by examining the figures in Table 1, that over 300,000 persons in 1986 did not speak either national language. Since we know that, in many cases, new immigrants to our country tend to migrate to neighborhoods where the population is comprised of persons with similar ethnic backgrounds (e.g. "Chinatown," "Little India," "Little Italy"), we have large pockets of citizens who have difficulty relating in the common language.

This is compounded by the fact that *Statistics Canada* reports that an additional 680,524 immigrants have arrived in Canada since 1986 Given the number of English as a Second Language (ESL) students in our elementary schools, although no national figures are available, it would appear to be reasonable to assume that many of the new immigrants have difficulty communicating in French or in English.

In some ethnic cultures there is a much higher proportion than in others of those who speak neither official language. With 12.65% of those from Southeast Asia not speaking either national language, provinces such as British Columbia and Ontario, with a high concentration of Southeast Asians, have many ethnic issues to address. Many emergency planners would probably be surprised to hear that over 23,000 aboriginal people speak neither French nor English.

It is important to consider that *Statistics Canada* further breaks down ethnic categories by primary language spoken, and recognizes 61 separate languages. However, this can be misleading as it records Chinese as one language and fails to recognize the many dialects which can present additional problems.

Some of the breakdowns by language, of those who speak neither French nor English and may be of interest are:

Table II: Language Breakdown

German (0.43%)	Ontario	3,874	Chinese (16 46%)	Ontario	29,786
	Alberta	2,068		Alberta	9,342
	B C	1,768		B C.	20,662
Italian (5 41%)	Ontario	34,047	Inuit (10.69%)	N W T	1,962
	Quebec	10,739		Quebec	786
	B C	5,008			
Vietnamese (15 39%)	Quebec	2,681	Greek (6.4%)	Ontario	6,304
	Alberta	1,791		B.C.	760
	B C.	1,091			
Cambodian (26 66%)	Quebec	1,539	Portuguese (12.94%)	Ontario	20,988
	Ontario	976		B.C.	2,686
	Alberta	315			

* Extrapolated from *Statistics Canada 1986*

Of additional interest are the percentages of the various ethnic populations who speak neither national language. For example, while the actual numbers of Germans and Vietnamese who speak only their language of origin in the province of Ontario are roughly the same, the percentages are quite different. With less than one percent of Germans speaking neither official language, the chances are that there will almost always be someone who can translate. However, with more than 15% of those from a Vietnamese background unable to speak either language, the odds of having a translator available decrease significantly.

Until they have obtained landed immigrant status, many refugees coming to Canada are legally unable to work. While in many cases family, friends and the community provide for refugees, in other cases, refugees find themselves in difficult financial circumstances. Often, until refugees obtain employment and become assimilated into the Canadian culture, they live at a lower socio-economic standard.

Canada is still a country of persons and families living in self-owned dwellings, although as housing costs rise in the larger cities, fewer and fewer renters are able to afford to buy a home. The 1986 *Statistics Canada* reports that of the 24,773,100 people living in private dwellings, 17,235,500 or 69.57% live in owned dwellings as opposed to living in rental accommodation.

For social and economic reasons, many minority ethnic groups choose to live in particular neighborhoods, such as the "Chinatown" area in Vancouver, B.C. In addition, many ethnic groups live in older, unreinforced masonry buildings. These buildings were built prior to the existence of the National Building Code, which was implemented across Canada in the early 1950's and as a result, are most susceptible to damage during an earthquake. The Canada Mortgage and Housing Report, following studies based on the Loma Prieta earthquake, predicted that following a major earthquake, 50-100% of the unreinforced masonry buildings in the Vancouver area will be uninhabitable. The extent of the problem, with the combination of large ethnic populations concentrated in pre-1950 buildings, is considerable.

Table III: Canadian Occupied Private Dwellings

Provinces	5 Story Apartment Building Built Prior to 1920	5 Story Apartment Building Built 1921-1945
British Columbia	1,740	1,250
Alberta	275	375
Saskatchewan	115	115
Manitoba	390	330
Ontario	2,650	6,175
Quebec	1,775	3,680
New Brunswick	80	145
Nova Scotia	130	170
Prince Edward Island	0	0
Newfoundland	5	0
Total	**7,160**	**12,240**

** Statistics Canada 1986*

Having given you some of the Canadian facts and figures regarding multiculturalism in Canada, as related to emergency planning, it is important to examine some of the problems and solutions identified in Canada and other international communities. While the ethnic mixes may be somewhat different, the message should be clear.

Hazard and Risk

Belonging to an ethnic minority is an added risk because disaster related deaths are historically higher among ethnic minorities. Damage levels are directly related to ethnicity because residential patterns are determined by ethnicity and different ethnic groups live in differing sorts of housing (Bolin & Bolton, 1986). For example, in the Coalinga earthquake in 1983, the Hispanics suffered the most because they lived in older unreinforced masonry buildings, many of which were poorly built. Ironically during Hurricane Iwa in 1982, it was the Caucasian minority living in expensive beachfront homes on Kauai who suffered greater amounts of property damage (Bolin & Bolton, 1986).

Therefore, it is important for planners to complete a hazard and risk analysis which includes a hazardous building analysis and targets the populations most likely at risk (Bolton, 1988). But it is also important for planners to realize that racial and ethnic minorities assess risk differently (Perry, 1987). For example, Perry noted that in sample studies in the United States, African Americans and Mexicans were often more fatalistic about earthquake danger and more skeptical about science. He found that African Americans viewed flooding as an uncontrollable natural event and were thus less confident in their ability to deal with such events.

Surveys have also indicated that ethnic groups hear or learn about hazards from different information sources. In one survey, Caucasians listed newspapers, mail, and radio as the preferred means of communication while Mexicans listed radio and neighborhood meetings (Perry, 1987). In the 1987 Whittier Narrows earthquake, it was found that residents in the Asian areas of Monterey Park were out of the information network and were not as aware of earthquake hazards as the Hispanics from earthquake areas (Bolton, 1988).

As part of the community hazards needs assessment, planners should attend to the social organizational issues and develop an ethnic profile of the community. By doing so, one becomes sensitive to the living patterns and customs of relevant ethnic minority groups (Perry, 1987).

One can also develop contacts who can provide information on emergency planning issues relevant to ethnic groups. It is, therefore, very important for the emergency planner to provide hazard information distribution networks geared to the way in which ethnic and cultural groups receive and assimilate information.

Mitigation

Very little work has been done in the area of mitigation, primarily because it is a new area of concentration for the emergency planning profession as a whole. What is suggested is that since ethnic groups have differing degrees of fatalism, some may fail to take protective actions, thus leading to higher death and injury rates. If a person believes a hazard is beyond the control of technology, he may then be reticent to take protective measures.

Therefore, any mitigative program that is geared towards the reduction or elimination of existing hazards or the reduction of the risk that these hazards present is going to have to take this factor into consideration.

Emergency Response

While implementing the planning process and in writing emergency response plans, planners have often ignored critical ethnic and cultural factors. From the warning stage through stages of recovery and reconstruction, minority groups have specific needs and concerns which need to be considered.

Warning

It goes without saying that to follow warnings or orders, one must understand the message. However, different ethnic groups have different concepts of what is a threat or the credibility of a warning (Perry, 1987). Clearly, non-English or non-French speaking persons are subject to more warning related difficulties as they may never be aware of the warning or may not understand it. In addition, they may have less confidence in the warning and therefore perceive themselves to be less at risk (Perry, 1987).

Different ethnic groups may learn about the warning in different ways and thus may perceive the warning quite differently. Native populations in Northern Canada, when dealing with the Royal Canadian Mounted Police (RCMP) respect and see the officers as being credible, despite local problems with them (Larkin, 1991). In fact, any person in uniform, such as a security guard, is often seen as someone in authority who should be listened to. While all groups

see civil authorities as reliable, the mass media can be seen as less reliable than other sources by certain minority groups. Similarly, in small towns, friends and relatives can be seen as more reliable when the threat is a familiar one (Perry, 1987).

The degree to which one has relatives and friends in a community is, therefore, a consideration on how a given community responds to certain warnings. For example, if certain ethnic groups have a large kinship network or if a specific cultural society has large extended families, how information is communicated in the warning phase will be very different than in a single's neighborhood in an isolated setting.

The size of one's family also has implications for evacuation. When there are elderly individuals as well in the household, this increases complications in complying with an evacuation order (Perry, 1987).

As previously mentioned, in many cases refugees awaiting immigration status and other ethnic minorities, experience a lower socio-economic status. Low socio-economic status has been shown to have an effect on interpretation of warnings (Perry, 1987). Although there is insufficient data to conclusively determine the relationship between socio-economic status and ethnicity, findings to date would suggest there exists a correlation.

Planners must therefore develop alert and warning plans which take into account language difficulties, risk perceptions, socio-economic disparities and cultural characteristics such as extended families and kin networks.

Rescue

During the rescue phase, ethnic minorities may have language difficulties which interfere with understanding the directions for rescuing others. Lack of understanding may result in volunteers putting themselves and others at risk during rescue operations.

What information does get communicated during the rescue phase is also subject to language constraints. For example, in Whittier although there was a Chinese radio channel, it did not meet the needs of those who spoke one of the thirty-two different dialects. Bilingualism was not widespread and so instructions were not communicated well. Most of the information was by word of mouth and much of this information was wrong (Bolton, 1988).

Studies following the Whittier earthquake indicated that there was a real need to develop better media packages to reduce the uncertainty after the earthquake as opposed to information on what to do during the quake, which is what most radio stations provide (Bolton, 1988).

Bolton (1988) mentioned that lack of consideration for ethnic diversity also led to problems with building inspectors following the Whittier earthquake. Whereas we generally think of police, fire and ambulance as being the primary first responders, after the quake the building inspectors were very much on the front line. The inspectors had to respond to a large number of damaged buildings, many of which were inhabited by ethnic minorities. They often ended up working day and night, assisting authorities to determine whether the building was safe to re-enter.

These building inspectors were not bilingual and unused to talking face-to-face with tenants, many of whom were Hispanic. They also were not trained to be "social workers" to those unable to return to their homes with no place to go, and not used to working with other first responders. Additionally, their lack of visible and credible identification compromised their authority with both rescue and ethnic groups.

Planners and the media must carefully plan for language differences in the rescue phase to ensure that instructions and information is readily accessible to those of different ethnic backgrounds. Identification of those in roles of authority must be clearly identifiable to those not speaking the common language.

Recovery and Reconstruction

Most of the research to date has been done during the recovery and reconstruction phases. This is a period of assessment and acceptance when people require shelter, food and other necessities until life begins to return to some degree of normalcy.

Studies indicate that minorities have greater difficulties after a disaster because they have more communication problems, lower incomes, less money, more unemployment and less insurance (Perry, 1987). After a disaster, the provision of temporary shelter and food are a priority, but how these services are accessed, perceived and accepted by ethnic groups differs considerably. It's been found that in several ethnic groups, people were unclear that there might even be assistance and so they didn't bother to ask. In other cases, services such as those provided by the Red Cross, were known but people didn't see them in the community and therefore did not access them (Bolton, 1988).

Communication regarding existing services in the recovery phase has been a real problem. For example, after the Whittier earthquake, Asian groups had a real problem accessing information. The police translation pool had thirty-seven different translators but could not always get them in normal circumstances, let alone after a disaster. The one Chinese newspaper produced old information and the Hispanic radio stations broadcast human interest stories rather than give the facts which were broadcast on the English speaking stations (Bolton, 1988).

Ethnic and cultural perceptions have to be taken into account. For example, pride and the concept of self-reliance made it difficult and inappropriate for Asians to request services from local reception centres after the Whittier earthquake; it was not the Asian way. Fear of losing face needed to be overcome before those in need felt able to go to a centre. When they did go, they found staff who were unable to speak their language and saw Hispanics in attendance. As a result, they didn't think the services were for them and left (Bolton, 1988).

On the other hand, many Hispanics felt the centres only offered short-term assistance. They needed long-term solutions and so did not attend. Others, although financially burdened by the effects of the earthquake, did not see themselves as "poor" and also didn't go (Bolton, 1988).

An additional complication in the Whittier earthquake was that many illegal aliens had registered under the amnesty program and were unclear if their applications for assistance would make them ineligible. Authorities were equally unclear and this resulted in many people not availing themselves of benefits.

Many ethnic minorities live in similar neighborhoods of older, vulnerable buildings. The Whittier earthquake took out over 900 units of housing and the lower-income units that were damaged particularly hit the Hispanic community. Although Hispanics make up 27% of the Los Angeles populations, 90% of citizens requiring shelter were Hispanic and 90% of those spoke no English (Bolton, 1988).

Additionally, many Hispanics' had previous experiences with earthquakes which made them fear aftershocks. This was reinforced by a major aftershock which took place three days later. As a result, they were afraid to re-enter buildings showing any cracks or effects of the quake. Many wanted to stay close to their homes to prevent robbing and so congregated in parks and parking lots. Those staying outside did not have access to television and other news media and so their ability to get information on available services was curtailed (Bolton, 1988).

The fact that many of those displaced by the earthquake were renters and had difficulty speaking English created another problem. Legal Aid was unprepared for requests for information regarding rental payments on suites that were damaged by the earthquake. Although they had many bilingual staff, most of these persons were living in the hard-hit areas and didn't come to work (Bolton, 1988).

The reality is that the inability of minorities to get aid means that there is a longer period to economic recovery and thus it can mean a long-term decline in the quality of life and standard of living (Bolin & Bolton, 1986).

Since many of the ethnic families studied in the United States after a disaster tended to be large and poor, they had the most difficulty acquiring aid and recovery from a disaster. Often the ethnic groups with the highest levels of damage received the least economic recovery (Bolin & Bolton, 1986).

Insurance was often a factor. Bolin and Bolton (1986) found that fewer African Americans had earthquake insurance than Caucasians. While most earthquake insurance paid for temporary housing, even when African Americans had earthquake insurance, their policies did not provide for temporary accommodation. Thus, most survivors choosing to live in Federal Emergency Management Agency (FEMA) trailers were African American while Caucasians found other, more desirable accommodation. African Americans, then, experienced higher degrees of stress because of the inadequate housing (Bolin & Bolton, 1986).

While the large extended family relationships were highly supportive and promoted post-disaster recovery, if kin were killed in the disaster there were higher negative consequences. As a result, these different cultural groups often suffered the most losses following a disaster (Bolin & Bolton, 1986).

Many minority groups also were affected by their inability to obtain post-disaster loans. Bolin and Bolton (1986) found that in some cases Caucasians were twice as likely to get Small Business loans than African Americans. Planners, businesses and the community at large must plan for both emotional and economical recovery in order to mitigate social and cultural iniquities. The media needs to have information on what services are available, eligibility for services and access made convenient for all citizens regardless of ethnic origin.

Residents need to be made aware of disaster relief services and what they offer before the disaster occurs. Local reception centre staff need to be sensitive to ethnic concepts and perceptions and to be prepared to aggressively offer services in the community. Planners need to take stock of vulnerable buildings and ascertain which populations are most likely to be affected. Temporary housing plans need to take these factors into consideration.

Education

In examining education and training requirements for emergency preparedness, there are many ethnic considerations for emergency planners. First, different ethnic groups have different interests and cultural biases towards participating in the planning process. Secondly, communication can be a large problem.

In Canada, from experiences with some of the Inuit and other Native peoples, we know they have different cultural outlooks towards programs and training. Tyrone Larkin, the Regional Fire and Safety Officer for Public Works Canada, has spent many years involved in training Native people in the Yukon and northern British Columbia in fire prevention and safety. He has found that, based on their history, the Native people have often felt a loss of control over their own destinies and this has, in many cases, created a dependency on others to care for them. Because of these feelings, there is a strong sense of fatalism. In the past, if a house caught on fire, it burned to the ground and there was nothing the Native person could do since he had no skills, equipment or training for fire fighting. Training and education has been crucial in helping Native people regain their sense of control, and has given them the opportunity to take the necessary steps towards emergency preparedness.

Larkin found that the Native people responded very well to training sessions which included a short, theoretical presentation, immediately reinforced with practical sessions. Repetition of tasks, frequently conducted, until behavior became *base knowledge* was very effective in teaching fire fighting skills. Personalizing the training, relating current practice to injuries or incidents where the trainees had personal information of the situation, was very important. *You don't want to have what happened to Mary happen to you, do you?*

Larkin found that incentives that worked well for Caucasians or other ethnic groups did not work well for Native people. Performance or planning related to economic incentives was not effective. A history of infrequent paycheques, lowered socio-economic status and reliance on others, tended to make financial inducements not very attractive. However, Larkin found that Native peoples have very strong family ties and that their children and elders are very important to them. Emergency preparedness programs which focused on the ability of Native persons to meet their family commitments worked well.

For many Native people there was a need to see a practical application for the training and payoffs needed to be tangible and in the very near future. Programs with long term goals were not seen to be as valuable by Native persons as those with short term goals.

Larkin also found that Native people were very receptive to audio-visual training aids. He felt that one of the best ways of reinforcing the lines of authority and responsibility during an emergency was to post a large organization chart in a common area. Names and passport size pictures next to each name, indicating the lines of authority and delegation, were very effective in helping people remember who they reported to.

Although the previous information clearly makes some generalizations based on a very specific ethnic population, the issues it raises are important ones. It is important for planners to use both local knowledge and census data regarding living patterns. If ethnic minorities are clustered within a community, then language problems will exist. However, if ethnic groups are dispersed throughout the community, then one can probably assume that the language problems will not be as significant (Perry, 1987).

After the Whittier earthquake, the lack of bilingual staff in various agencies was a real problem. There was a need to develop a coordinated approach. Using people who were bilingual, but unfamiliar with disaster relief also presented problems (Bolton, 1988). There was a need to have a trained bilingual staff.

Access to non-English media is also critical and there is a need for signs and directions to be pre-printed in multiple languages. It is also important to ensure that translations are accurate. When translation is sloppily or hastily prepared, those who understand both languages become mistrustful and suspicious of the intentions of those in charge (Bolton, 1988).

Education and training in different ethnic neighborhoods is necessary prior to the disaster. For example, apartment managers of buildings housing different ethnic groups are often seen as a source of information, however, without training they are unable to answer the questions of the residents (Bolton, 1988). In addition, since many residents are extremely reluctant to leave their own neighborhoods to go to reception centres, it is important to have trained agency resource staff who can go into the neighborhood and provide help and answer questions rather than wait in their offices (Bolton, 1988).

Conclusion

Emergency preparedness is still, for many, a low priority and receives little public interest or funding. Even so, it is important that emergency planners reach the entire community, including the different ethnic groups. Our country is enriched by its multi-culturalism and it is, therefore, important for emergency planners to take these ethnic factors into consideration when planning for disasters.

While all citizens are affected by a disaster, and communities will and do recover, any emergency planning efforts which can be made to alleviate suffering and accelerate recovery will be to the benefit of all.

References

Bolin, R., & Bolton, P. (1986). Race, religion and ethnicity in disaster recovery, Program on Environment and Behavior, Monograph #42. Institute of Behavioral Science, University of Colorado.

Bolton, P. (1988, December). Preliminary project report: Notes from interviews. Ethnic Community Structure and the Use of Disaster Assistance Project, funded by the National Science Foundation.

Cooper, F., & Laughy, L. (1988, September). Managing Hazards in a Changing Multicultural World. Paper presented to the Emergency Preparedness Canada National Symposium.

Larkin, T. Regional Fire and Safety Officer, Public Works Canada. Whitehorse, Yukon. (Personal meeting)

Perry, R. (1987). Disaster preparedness and response among minority citizens. In R.R. Dynes, B. de Marchi, & C. Pelanda, (Eds.) Sociology of disasters: Contribution of sociology to disaster research. Milan, Italy: Franco Angeli.