

APPENDIX 1

NEEDS AND PROBLEMS
FOLLOWING THE
WOODSTOCK TORNADO

presented by
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at the Annual Meeting of
Federal and Provincial Directors of Emergency Planning

Arnprior
November 1981

My goal as an epidemiologist in a Department of Family Medicine is to study the health of families in times of stress.

My goal today is to present you with the results of a study of a group of families who had experienced great stress - their homes were destroyed in the Woodstock tornado in August 1979. This study is only partly completed, so the results I am presenting are preliminary. I shall, therefore, present what I call descriptive statistics only.

This study has its roots in three traditions: firstly the epidemiology tradition, represented by Bennett et al's study of health after the Bristol floods; secondly the tradition of emergency planing and evacuation represented by Parker's studies of the Darwin cyclone; and thirdly the psychiatric tradition represented by the classic work of Cobb and Linemann with the survivors of the Coconut Grove fire.

Although one of my goals for thsi study was to further knowledge of families under stress, another important aim was to provide information relevant to Emergency Planners. I am, therefore, pleased to have this opportunity to share my findings with you today.

Slide 1 shows the way the study was conducted: lengthy, open-ended interviews during the six months after the tornado and structured interviews two years later.

Slide 2 shows the factors we studied.

Slide 3 shows that we approached 58 families from three communities from the nine stricken by the tornado: a farm community, a village and a city neighbourhood.

Let me give you some impression of what we were dealing with. Two tornadoes, 3/4 of an hour apart and six miles from each other, travelled a total of fifty miles on the ground. They immediately caused three deaths, and 127 people made emergency visits, of whom 30 were admitted to hospital. Seventy-eight percent of my sample were injured, but only one was admitted to hospital overnight. 688 claims were received by the Disaster Relief Fund, one-third of which were claimed ineligible.

To be eligible for the study, a family's home had to be destroyed. In other words, these people not only had suffered the terror of the storm, but were left with destruction all around their daily lives.

Our job in the initial stages of the study was to help the families and we did a lot of social work, public health nursing and communicating needs to appropriate agencies. We found at this stage that we were the only professionals actually visiting the destroyed homes and the communities. The needs of people whose cars and trucks had been blown away could not have been

ascertained without such a visit.

I will present the results of three topics. The first is the degree of psychological disturbance created by the tornado. Slide 4 shows the percent of participants in my study who had high scores on a questionnaire designed to measure psychological status. The term "psychological distress" is used with caution. These were normal people reacting to a severe stress. They were adamant about not wanting to be labelled "sick" and not wanting referrals to psychiatrists. We see in Slide 4 that the victims of the Woodstock tornado were slightly more psychologically distressed during the four months following the tornado than either the Darwin evacuees or patients going to family doctors. Slide 5 shows the females to be somewhat worse off than the males, but also we see that the frequency of distress has dropped dramatically two years after the tornado, both for men and women, and, as Slide 6 shows both for the rural and urban participants.

Other measures of psychological distress are shown in Slides 7 and 8, to show how these symptoms improved over time essentially levelling around eight months after the tornado and to show the anniversary reaction evident in the children. This problem was attributed by the parents to the frequent "tornado warnings" on the radio that summer which would perhaps have been better labelled "weather warnings".

The second general topic is the need perceived by the participants in the study and the timing of these needs. The most common need on Slide 9, need for clothes and equipment, was prominent until mid-winter. Need for help from family persisted for two whole years. The need for financial help lasted around four months, Slide 10, but was delayed in the farm community, Slide 11, because of the well-organized aid of the International Mennonite Relief workers. The need for help from community agencies such as Red Cross and Salvation Army lasted much longer than expected, well into winter, i.e. 6 months after the tornado, Slide 12. This help was not frequently deemed necessary by the city neighbourhood, Slide 13. The need expressed for the services of a family doctor was quite low compared to an international study of utilization, but show an anniversary reaction, Slides 14 and 15.

Slide 16 shows the results relevant to the third general topic - disaster planning. The participants had ten suggestions for better planning in the event of another such disaster. Some are: need for a central point in each community immediately after the disaster for communication and coordination - one community had such a focal point and found it helped greatly; need for a central bureau for information and advice on rebuilding for weeks after the disaster to include expert knowledge of insurance, temporary housing, emotional problems; need for more organizations like the Mennonite Disaster Relief who know the importance of good organizing and of having the owner work alongside the helpers and make key decisions himself; need for emotional

counselling in the home for up to one to two years.

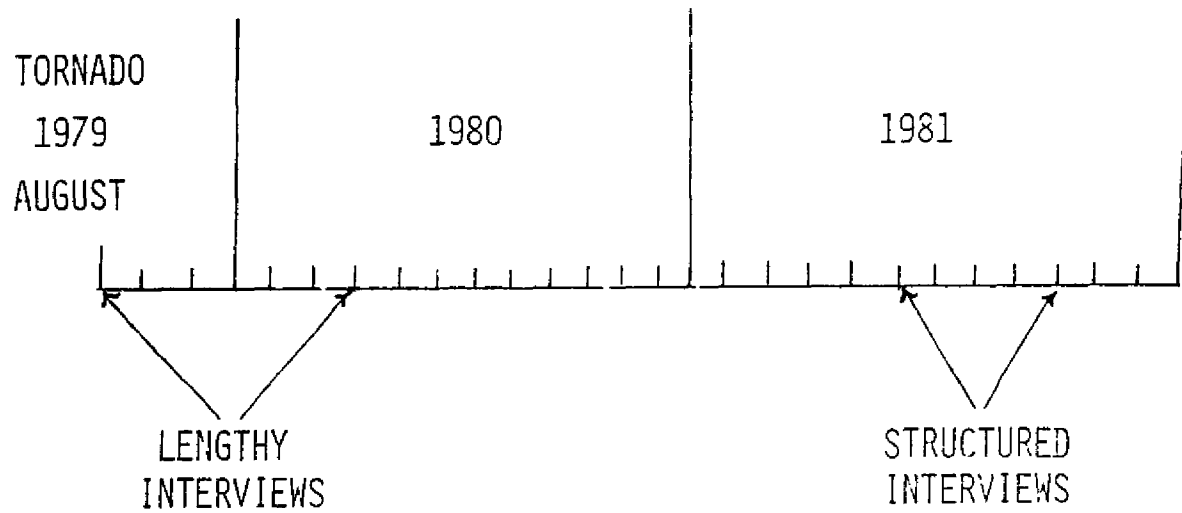
To summarize the findings of the study to date, I have shown that the victims in the study exhibited marked psychological distress four months after the tornado, but that this had diminished dramatically two years later. These people did not want the label "mentally ill" and resisted referral to psychiatrists. The children showed an anniversary reaction.

The needs of this group of victims lasted much longer than the four to six weeks of any of the programs by local agencies, being noticeable six to eight months later.

The participants' comments on future disaster planning, I hope, have been of some interest to you in deliberating about your programs. I thank you for the opportunity of sharing these findings with you.

SLIDE 1

TORNADO STUDY DESIGN
OF DATA COLLECTION



SLIDE 2

FACTORS STUDIED

NEEDS AFTER TORNADO

HEALTH SINCE TORNADO

DAMAGE DUE TO TORNADO

COMMENTS ON PLANNING FOR FUTURE DISASTER

UTILIZATION OF MEDICAL SERVICES 1981

SYMPTOMS 1981

GENERAL HEALTH QUESTIONNAIRE 1979, 1981

FAMILY FUNCTIONING, 1979, 1980, 1981

COPING AFTER TORNADO

SOCIAL SUPPORTS 1981

LIFE STRESSES SINCE TORNADO

SLIDE 3

SAMPLING

<u>3 COMMUNITIES</u>	NUMBER OF FAMILIES <u>APPROACHED</u>	NUMBER OF FAMILIES <u>PARTICIPATING</u>	RESPONSE <u>RATE</u>
FARM COMMUNITY	10	8	80.0
VILLAGE	35	20	57.1
CITY NEIGHBOURHOOD	13	12	92.3
TOTAL	58	40	68.9

SLIDE 4

GENERAL HEALTH QUESTIONNAIRE

	<u>NUMBER</u>	<u>% HIGH SCORES PSYCHOLOGICAL DISTRESS</u>
1. PATIENTS AT A FAMILY PHYSICIANS' OFFICE (GOLDBERG & BLACKWELL)	200	51.0
2. DARWIN EVACUEES (PARKER)	67	58.0
3. WOODSTOCK STUDY	54	59.3

SLIDE 5

GENERAL HEALTH QUESTIONNAIRE BY SEX

WITHIN 4 MONTHS OF THE TORNADO

% HIGH SCORES
PSYCHOLOGICAL DISTRESS

MALES	50.0
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FEMALES	68.7
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TWO YEARS AFTER THE TORNADO

% HIGH SCORES
PSYCHOLOGICAL DISTRESS

MALES	20.0
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FEMALES	35.7
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SLIDE 6

GENERAL HEALTH QUESTIONNAIRE BY COMMUNITY

WITHIN 4 MONTHS OF THE TORNADO

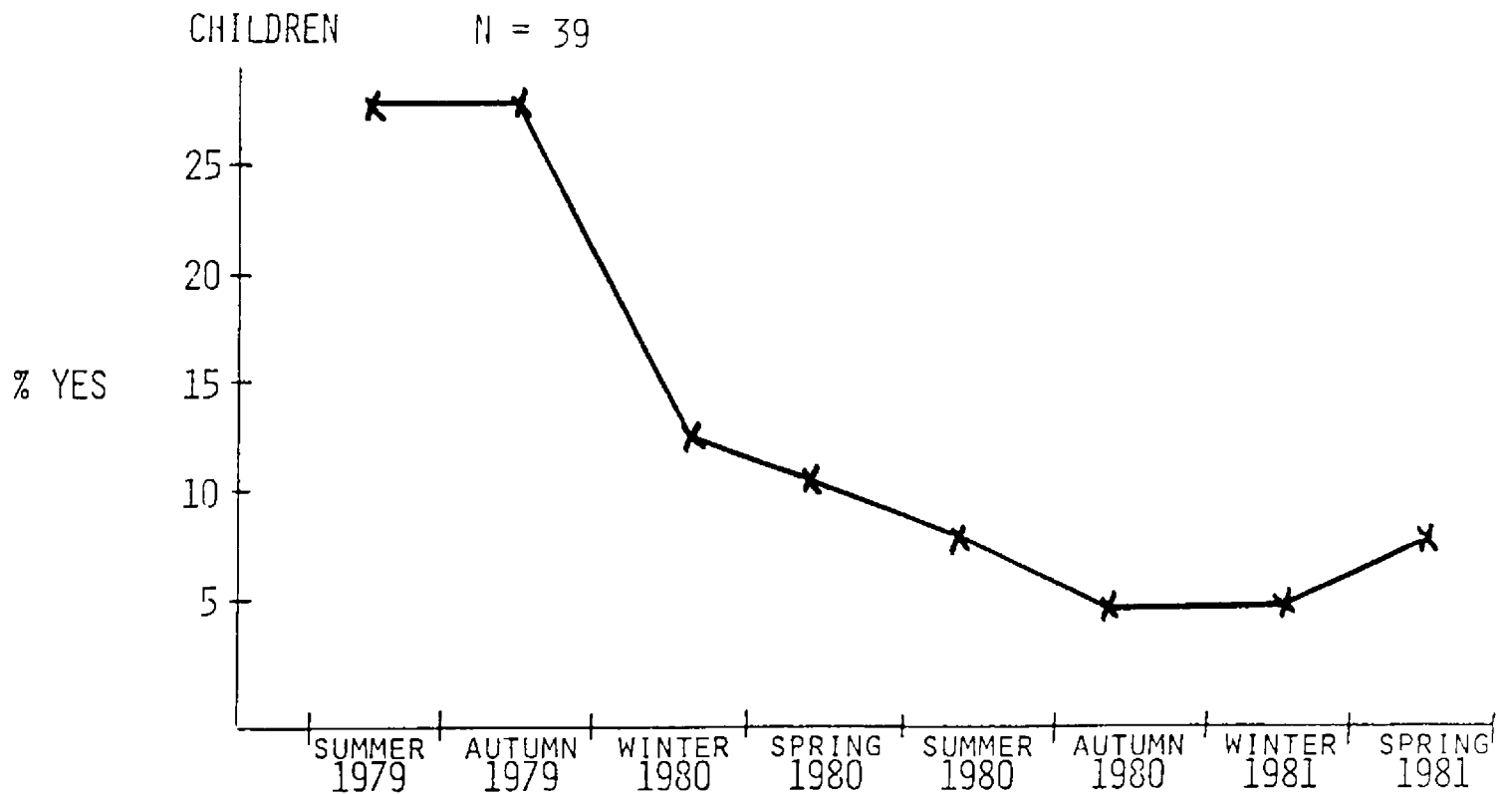
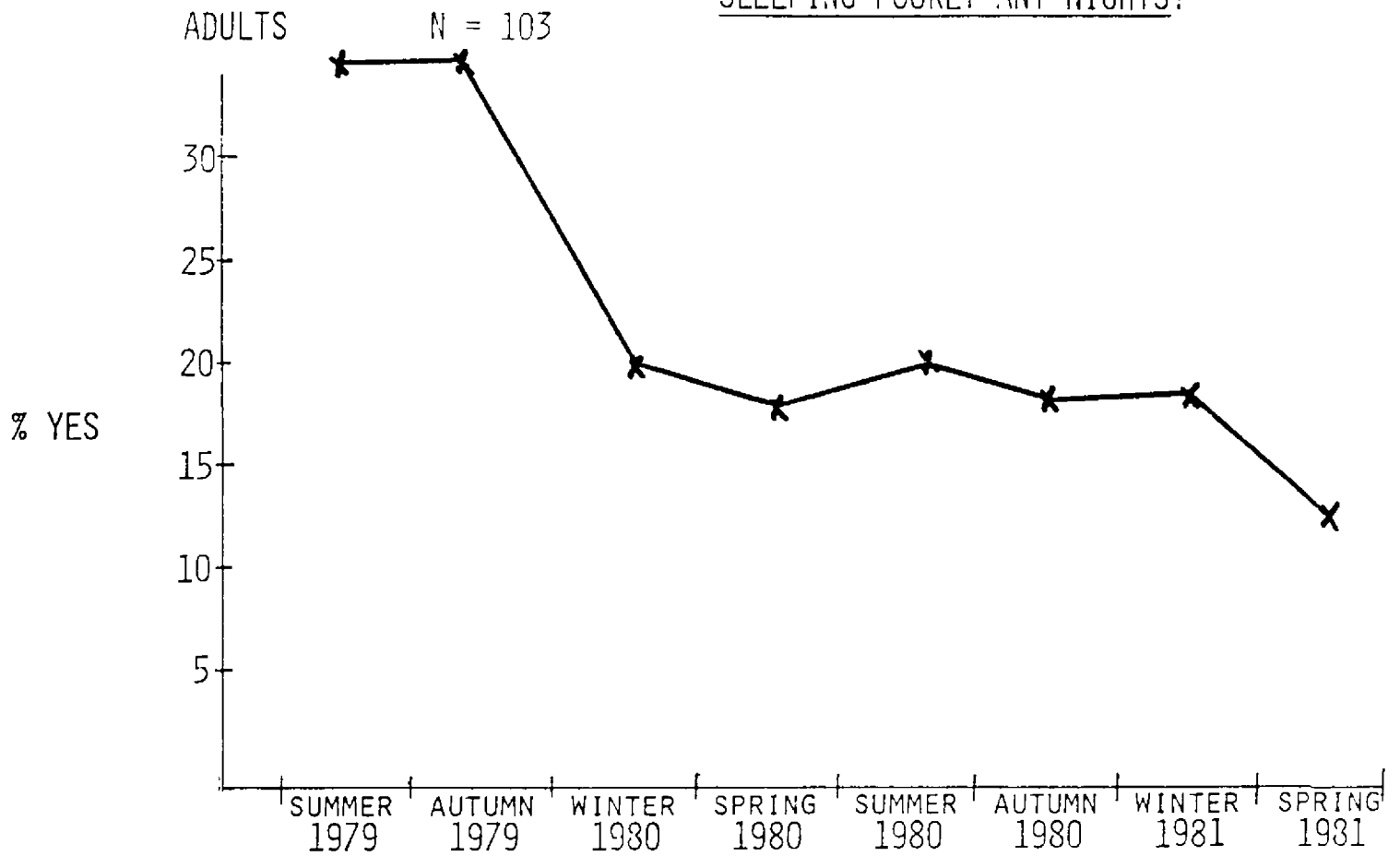
	% HIGH SCORES PSYCHOLOGICAL DISTRESS
FARM COMMUNITY	60.0
CITY NEIGHBOURHOOD	58.6

TWO YEARS AFTER THE TORNADO

	% HIGH SCORES PSYCHOLOGICAL DISTRESS
FARM COMMUNITY	36.0
CITY NEIGHBOURHOOD	21.2

SLIDE 7

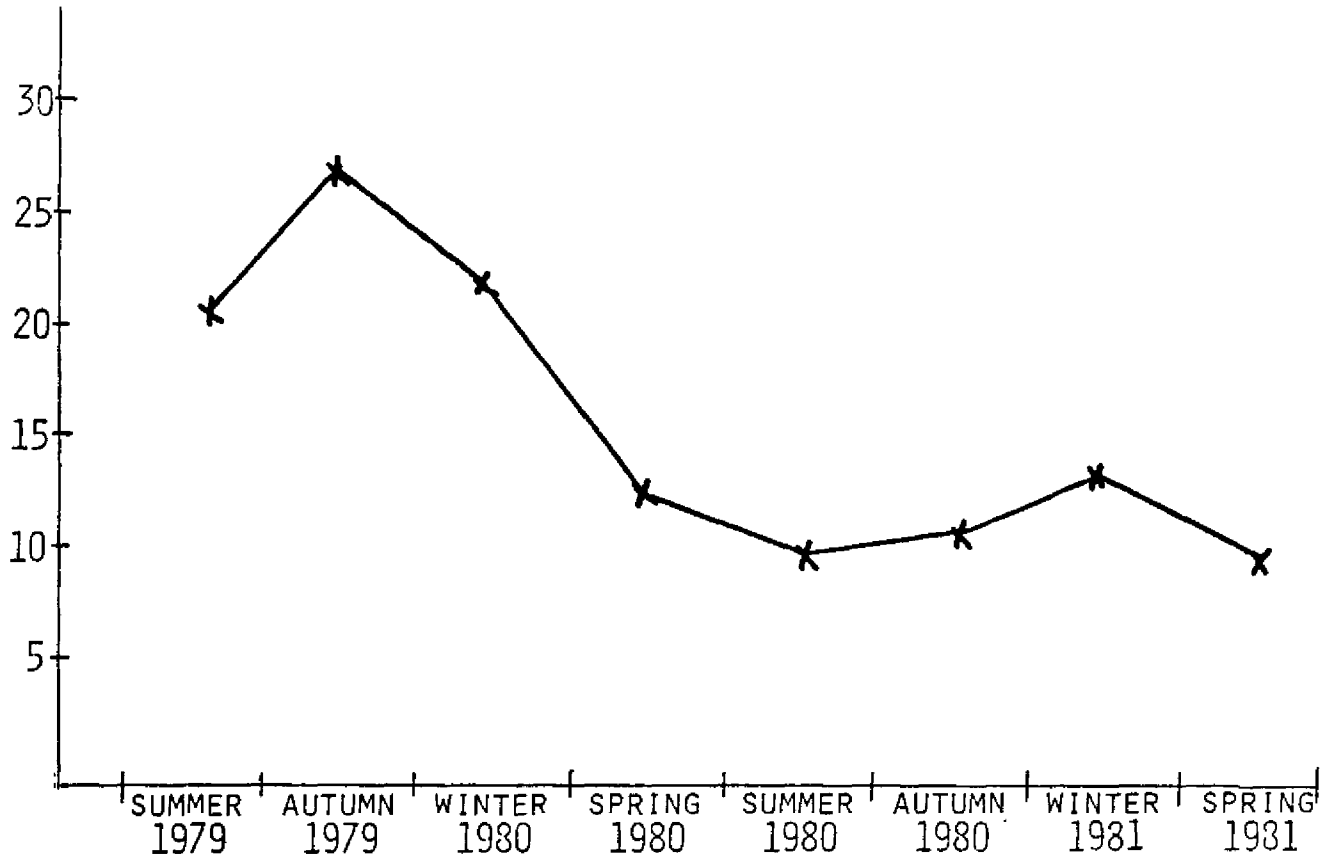
SLEEPING POORLY ANY NIGHTS?



ADULTS

N = 103

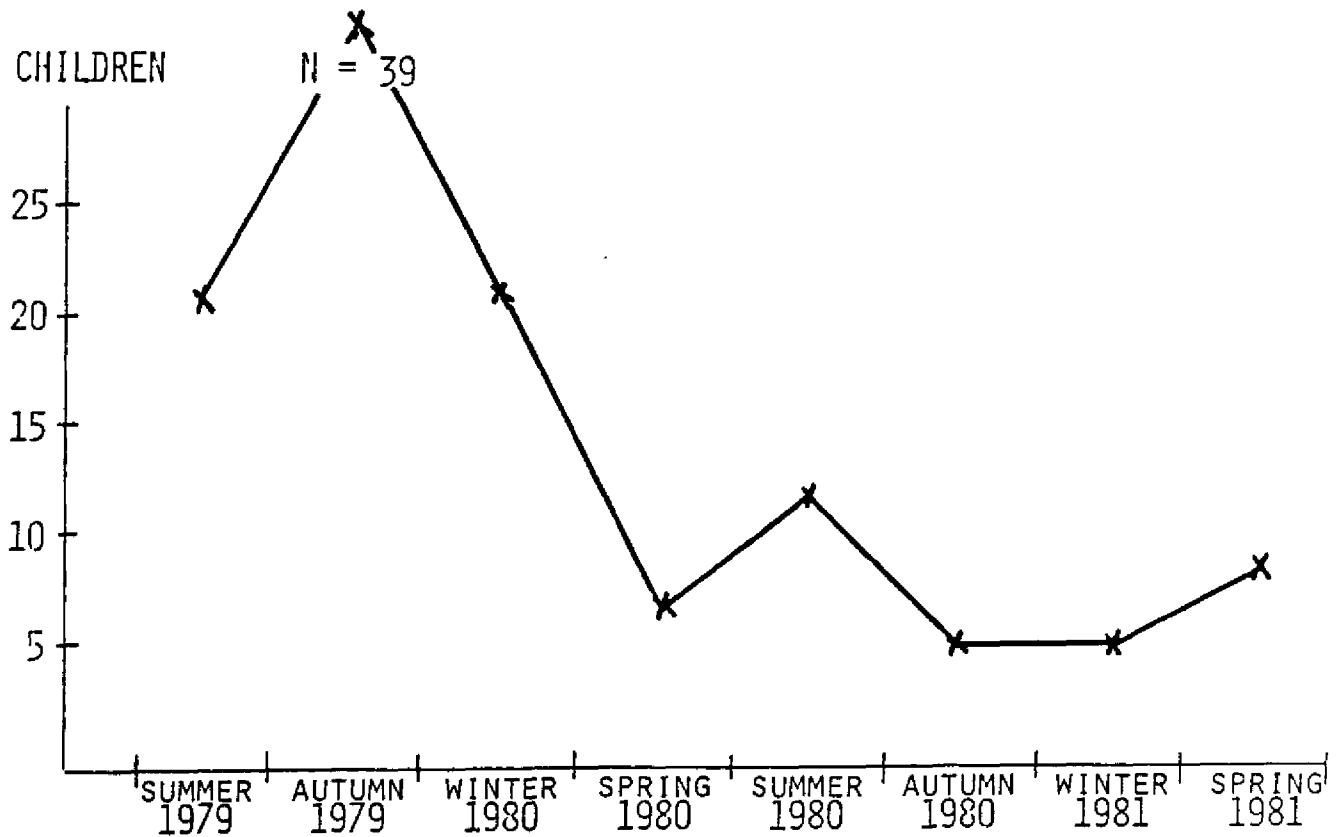
% YES



CHILDREN

N = 39

% YES



SLIDE 9

NEEDS DURING THE SUMMER 1979

ADULTS N = 103

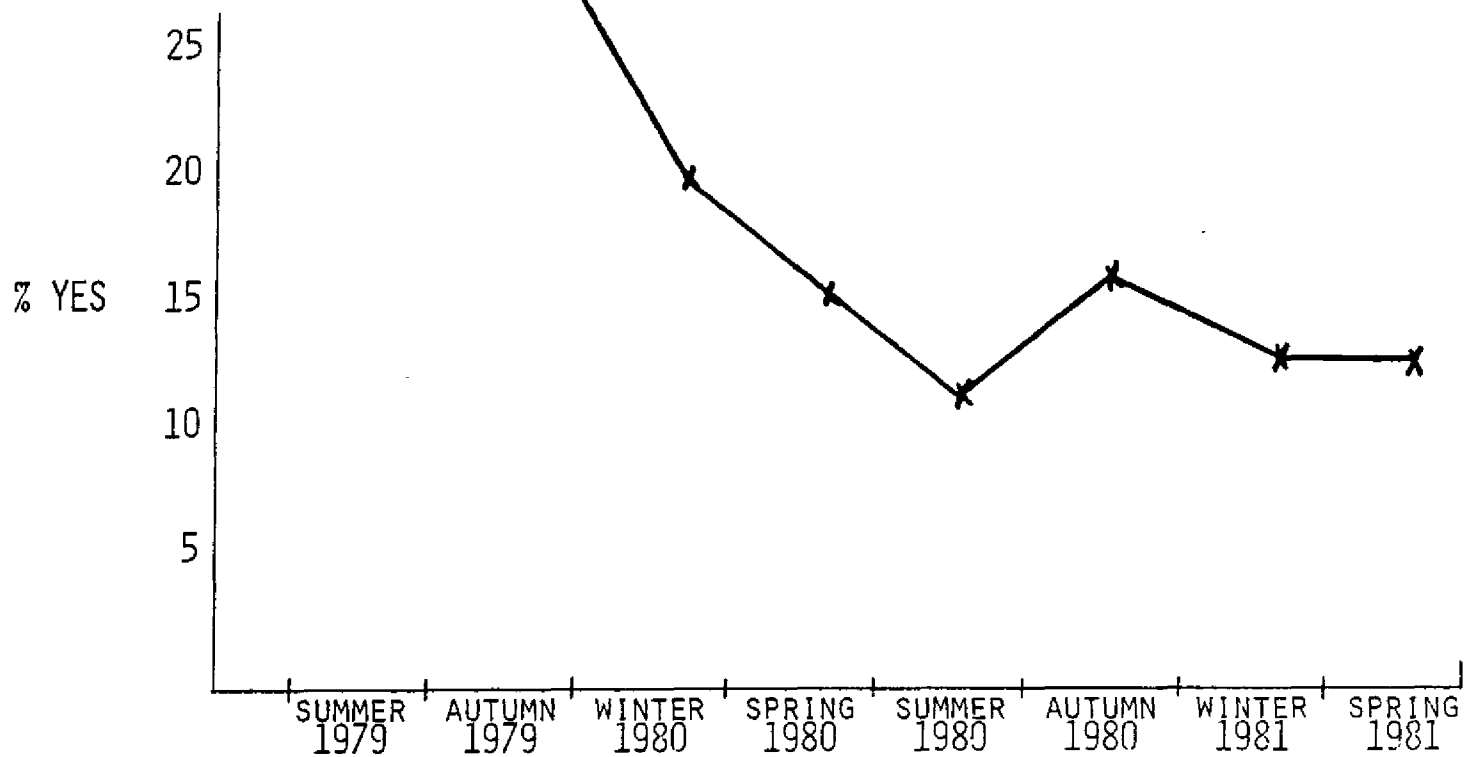
	% YES
NEEDED REPLACEMENT FOR CLOTHES AND HOUSEHOLD EQUIPMENT	41.1
NEEDED HELP FROM IMMEDIATE FAMILY	36.8
NEEDED FINANCIAL HELP	30.2
NEEDED HELP FROM RELATIVES	28.4
NEEDED HELP FROM COMMUNITY AGENCIES	25.0
NEEDED HELP FROM FAMILY DOCTOR	21.1
NEEDED HELP FROM COUNSELLOR	2.1

SLIDE 10

NEEDED FINANCIAL HELP

ADULTS

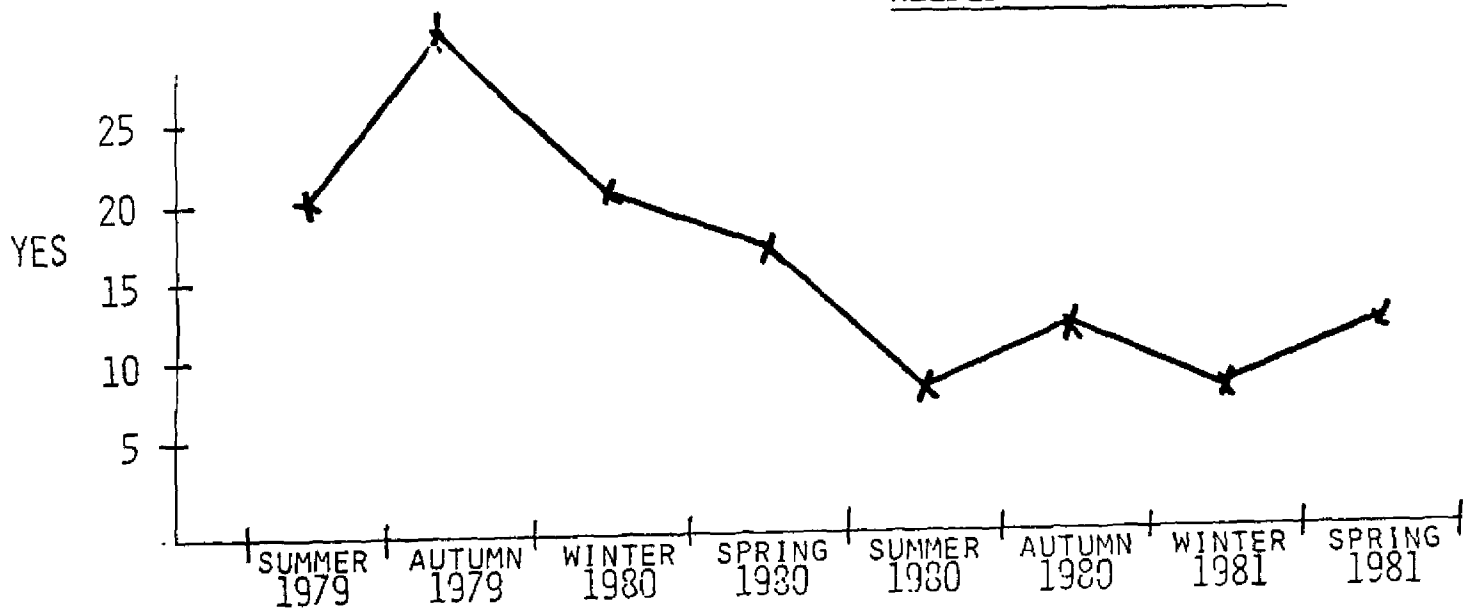
N = 103



FARM COMMUNITY

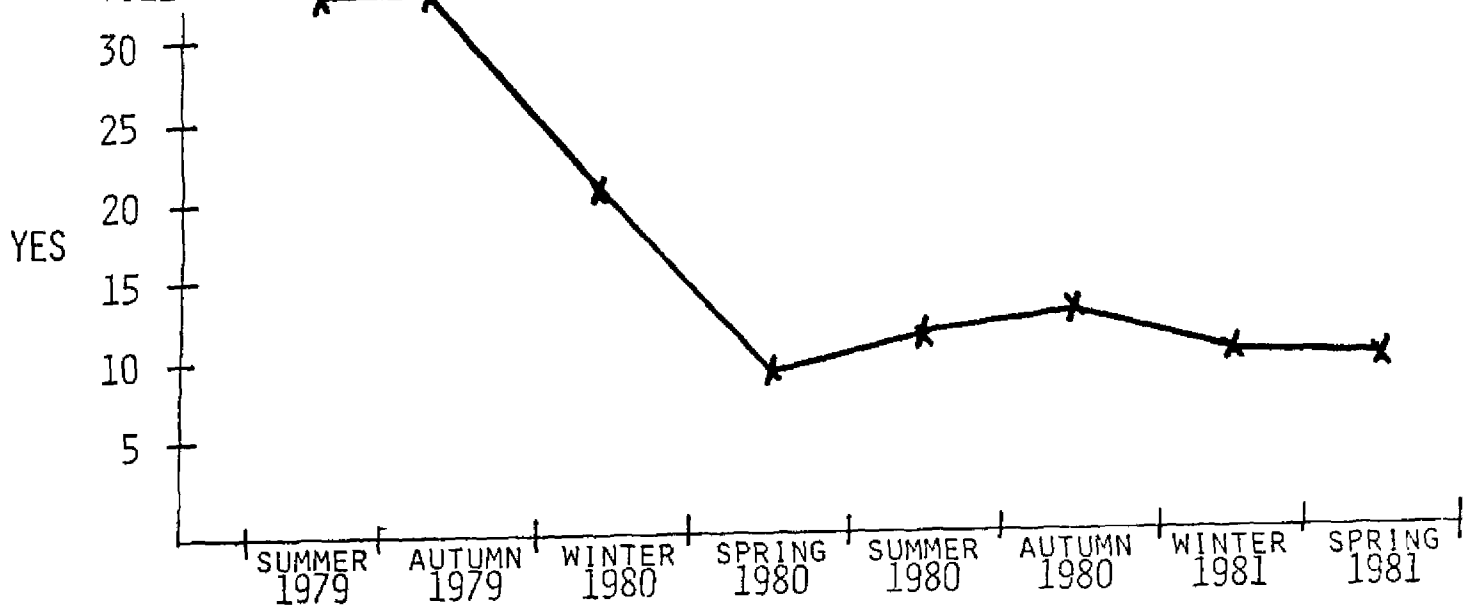
N = 25 SLIDE 11

NEEDED FINANCIAL HELP



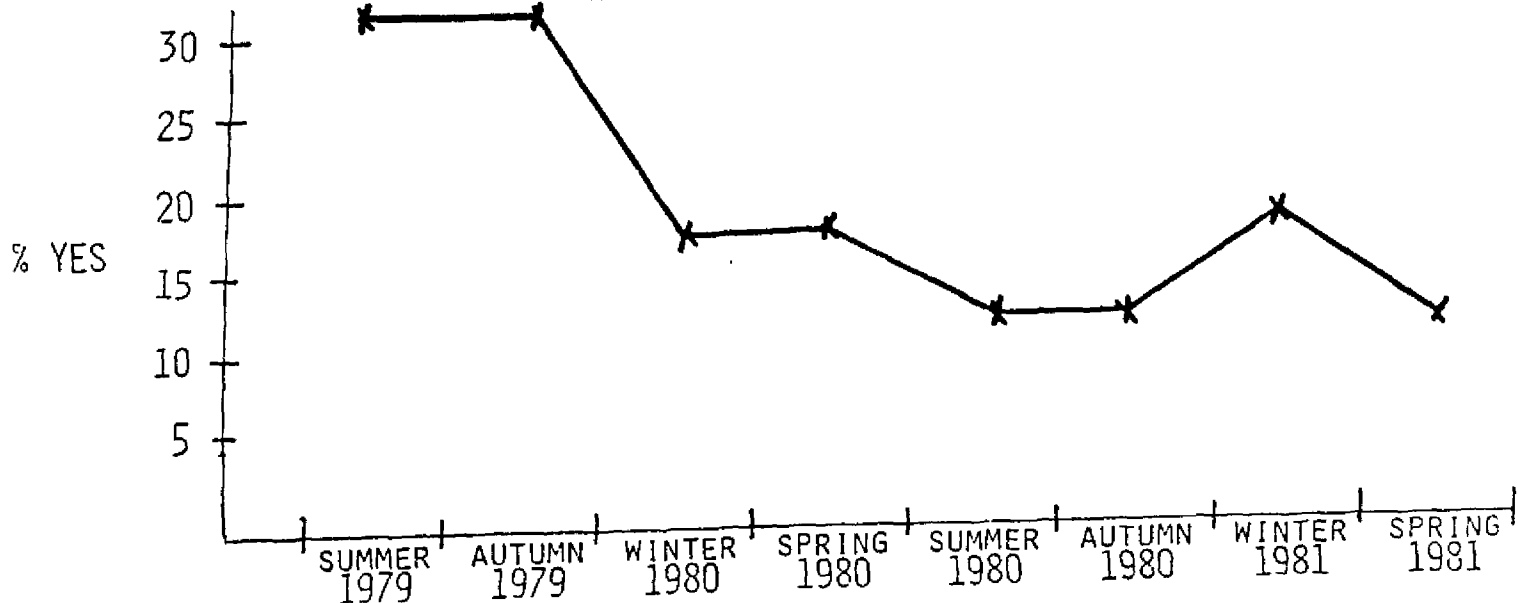
VILLAGE

N = 45



CITY NEIGHBOURHOOD

N = 33

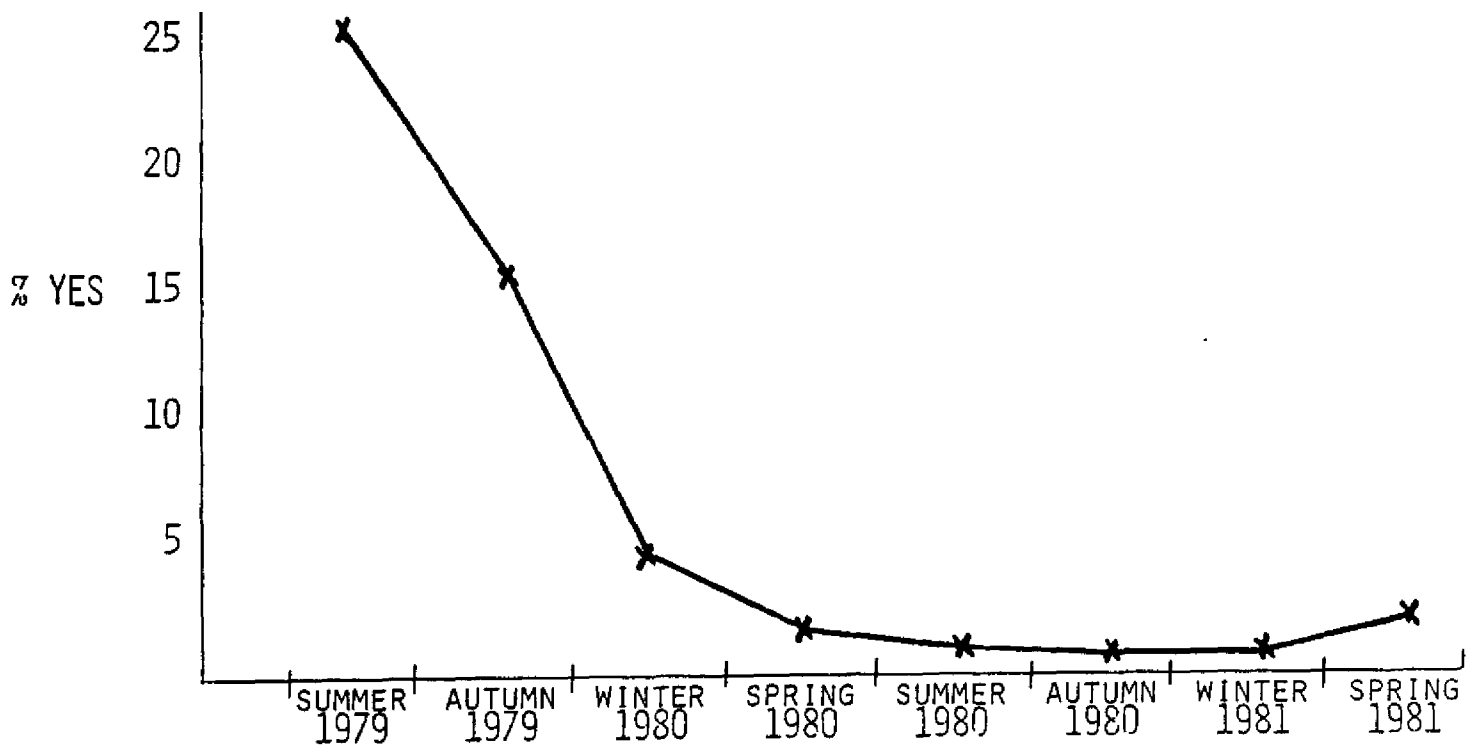


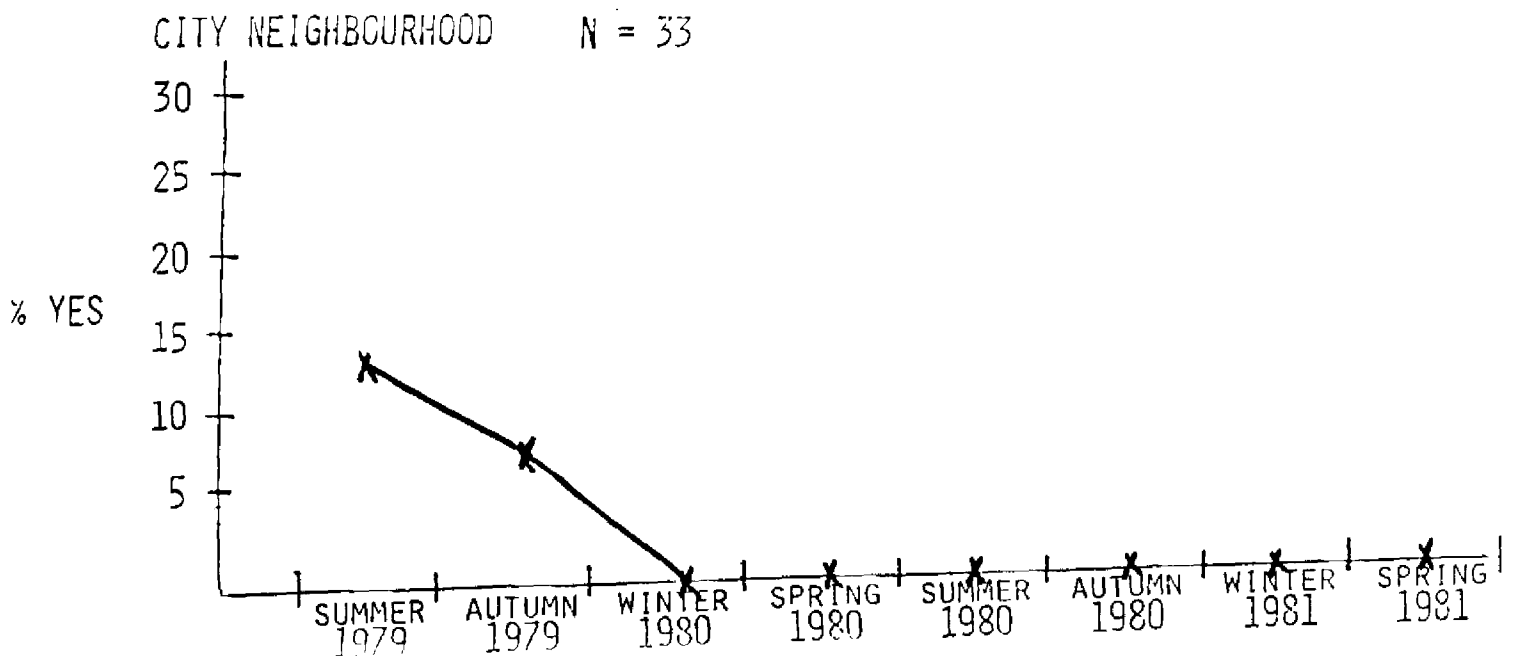
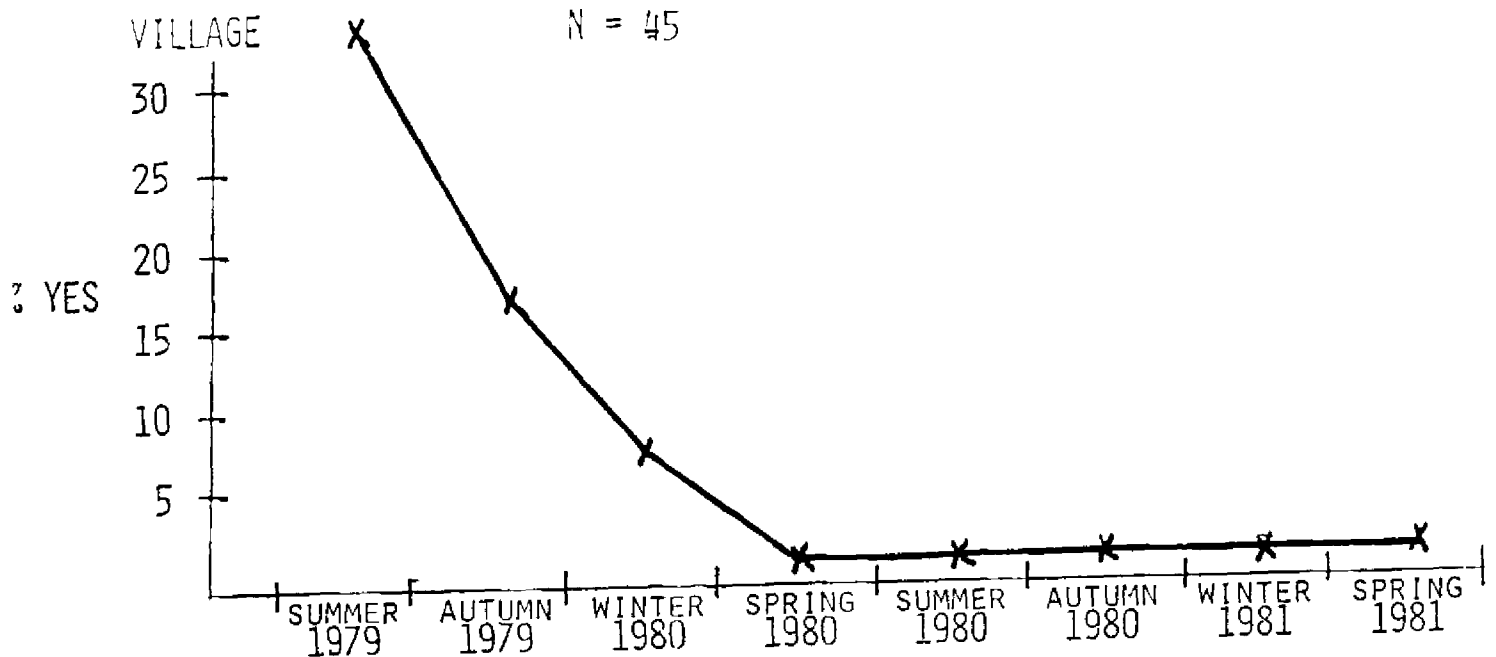
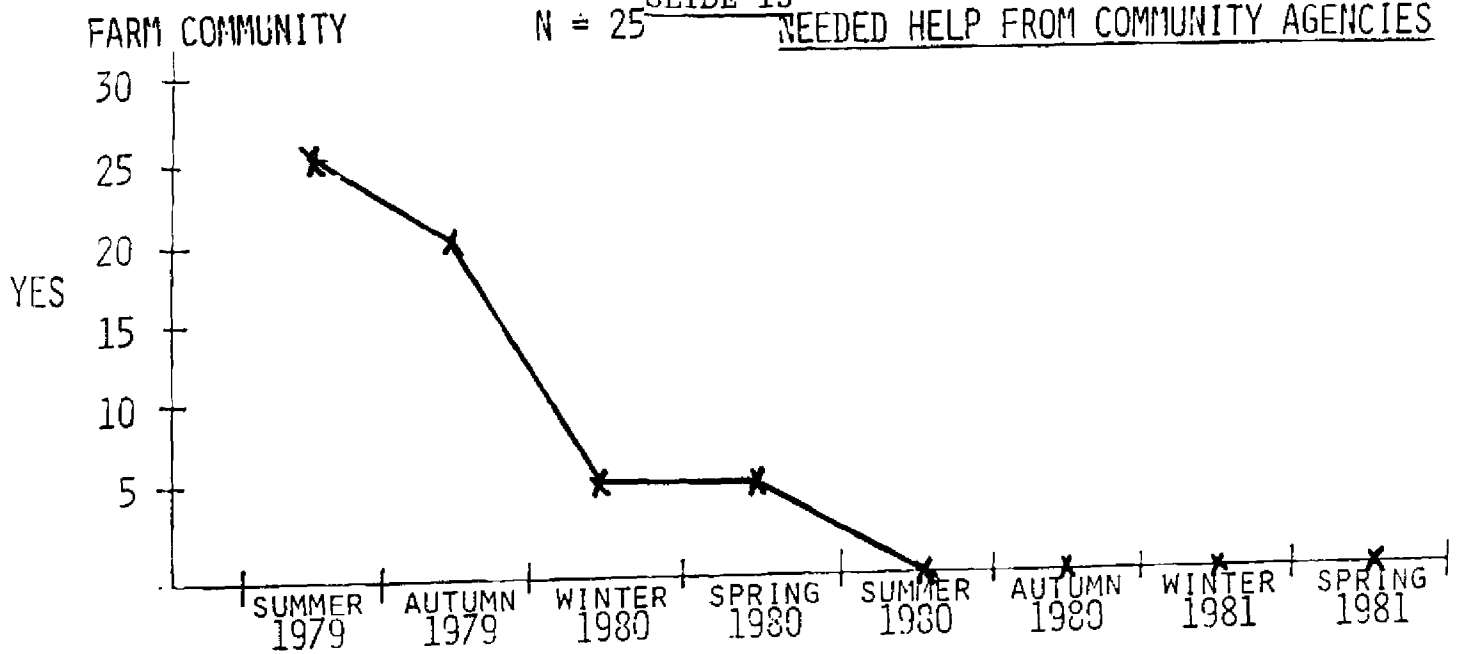
SLIDE 12

NEEDED HELP FROM COMMUNITY AGENCIES

ADULTS

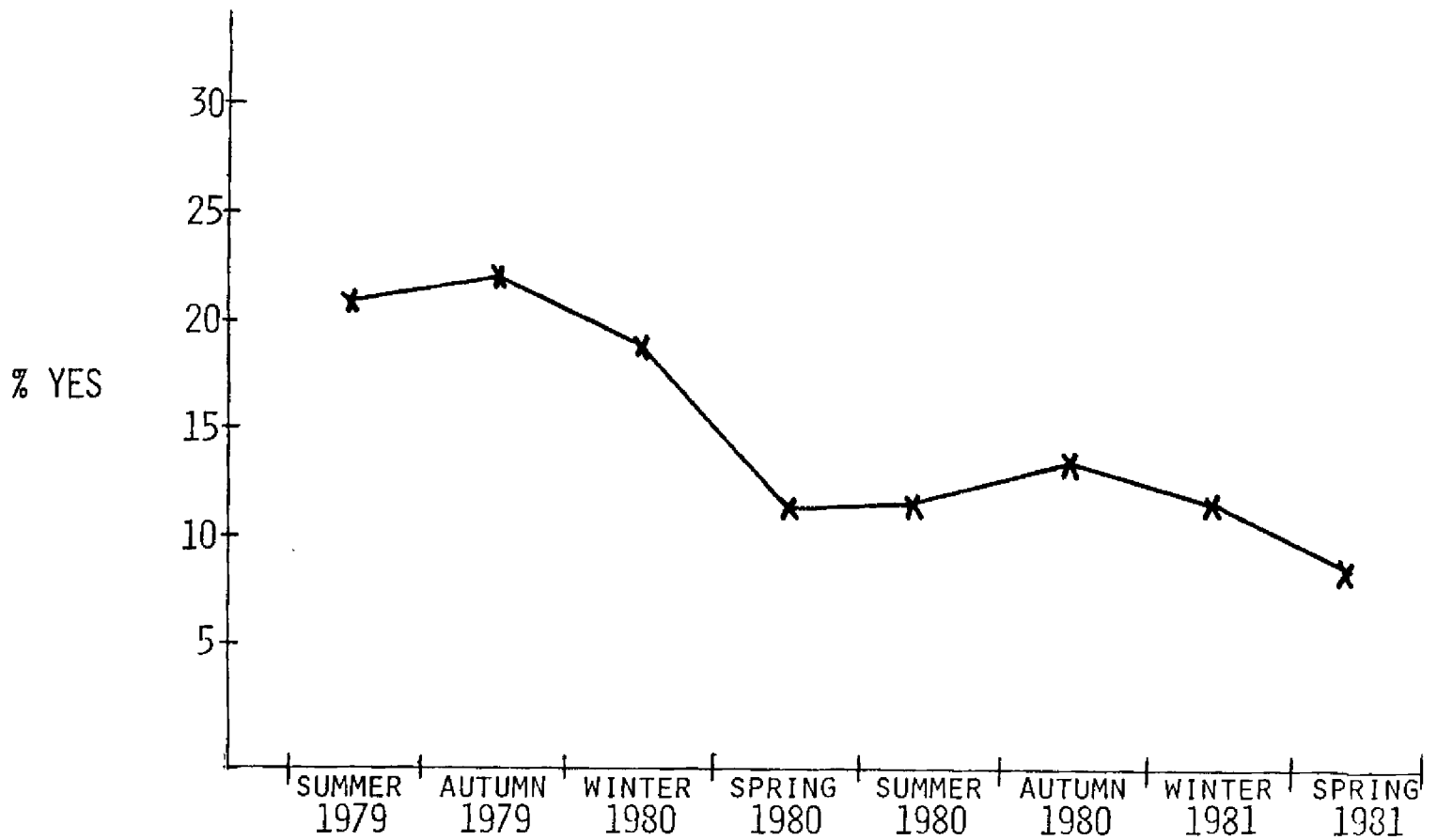
N = 103





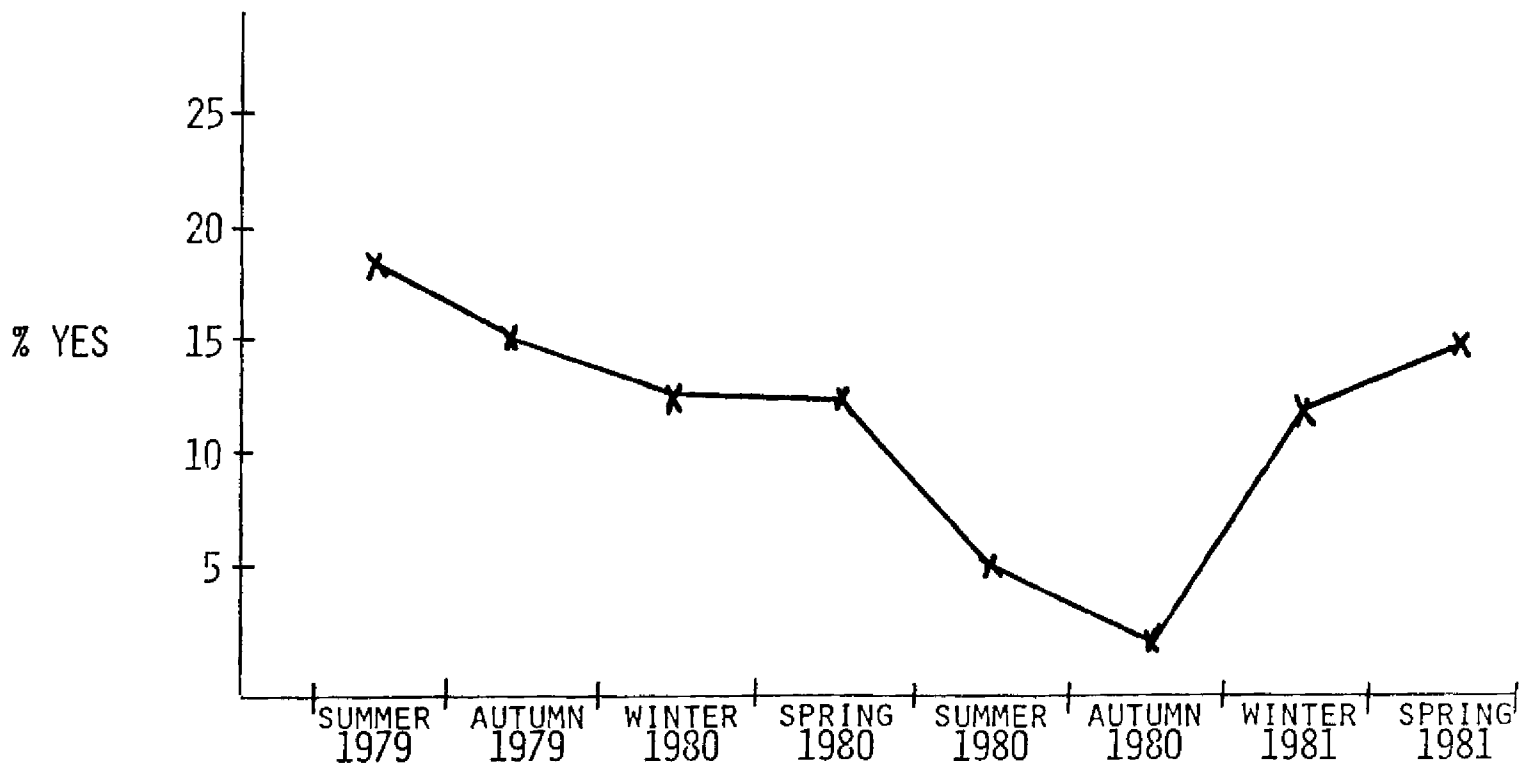
ADULTS

N = 103



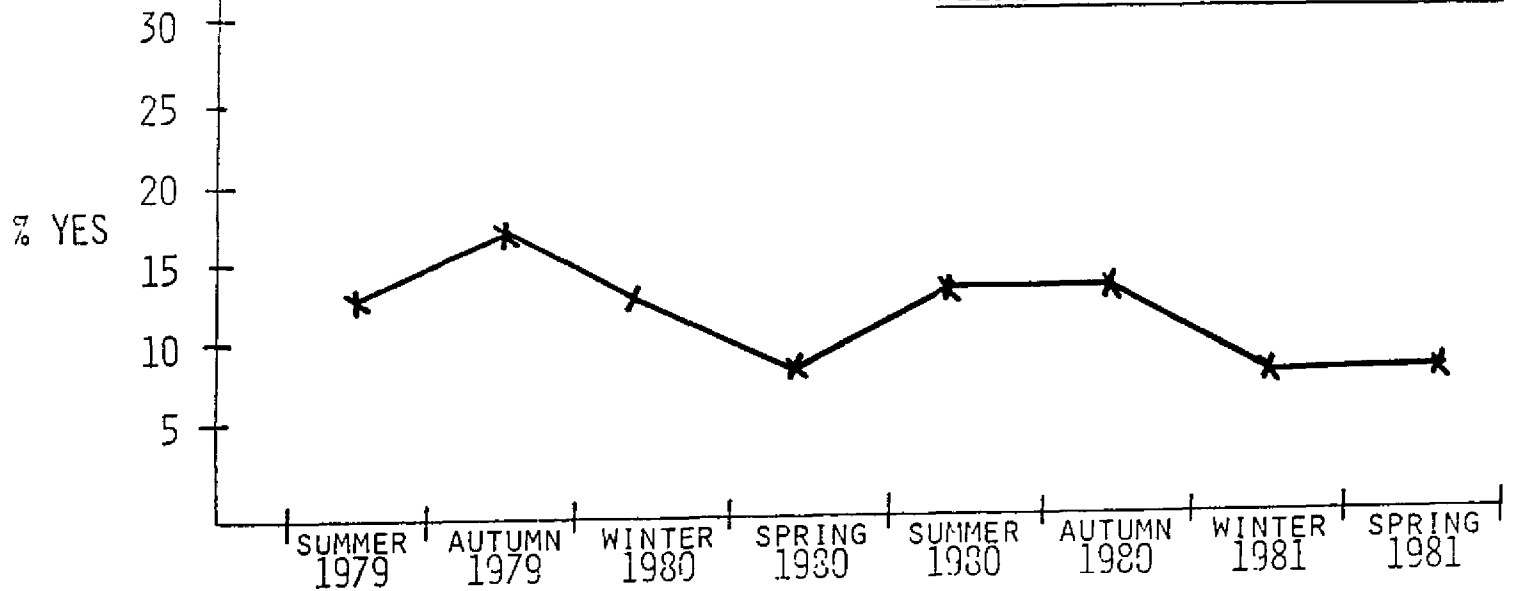
CHILDREN

N = 39



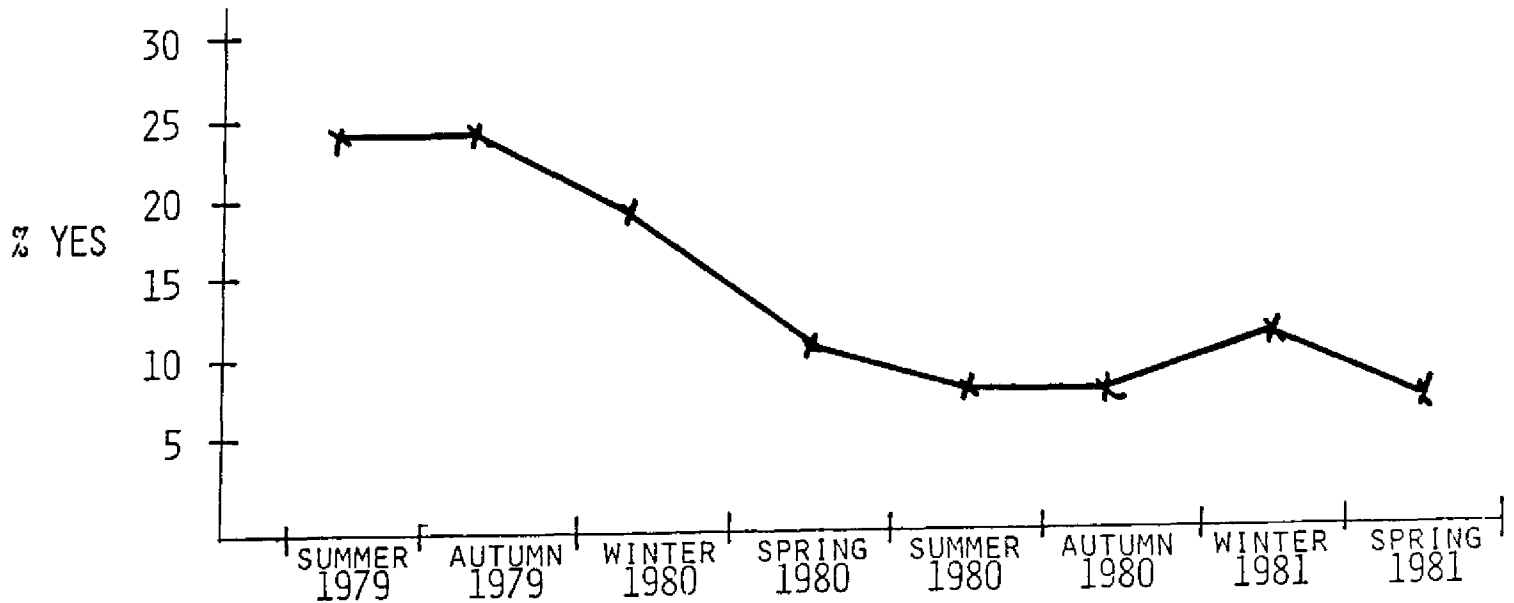
FARM COMMUNITY

N = 25

NEEDED HELP FROM FAMILY DOCTOR

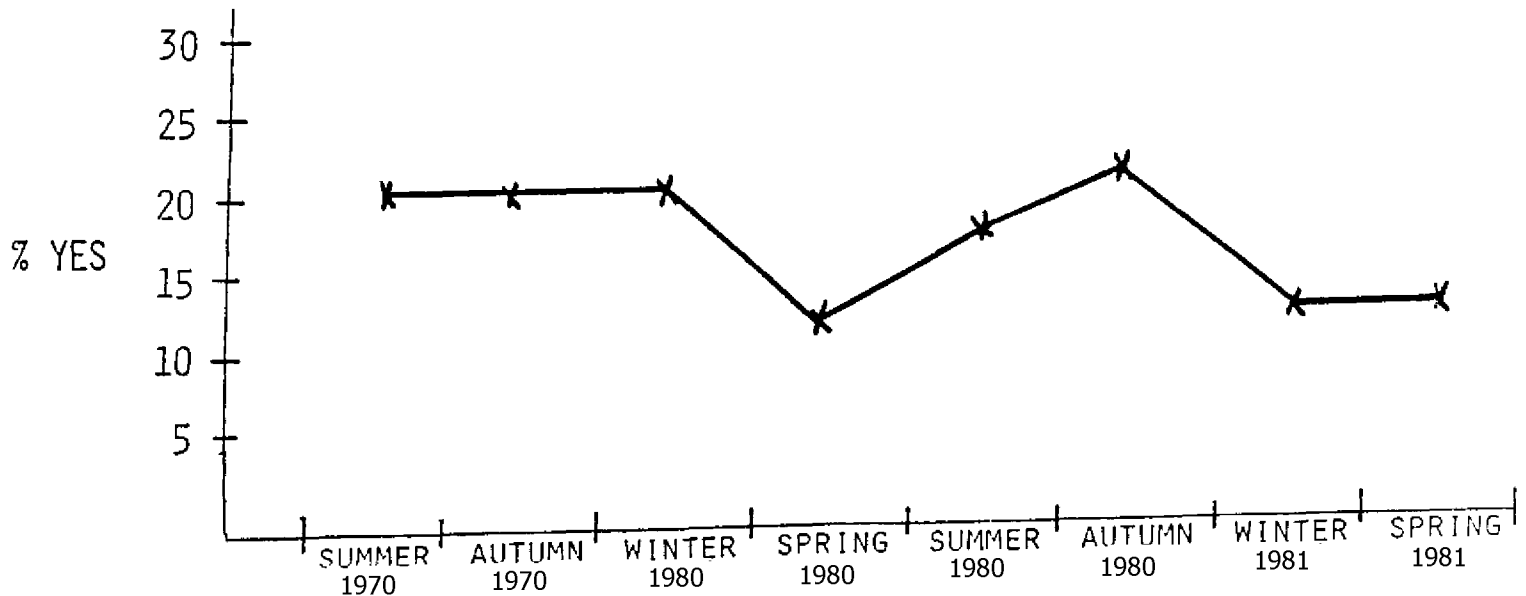
VILLAGE

N = 45



CITY NEIGHBOURHOOD

N = 33



SLIDE 16

COMMENTS ON DISASTER PLANNING

11 = 100

% WHO MADE THE COMMENT

CONTROL SIGHTSEERS	30.0
COMMUNICATION, ORGANISATION COULD BE IMPROVED	31.0
DISASTER RELIEF FUND MORE EQUITABLY DISTRIBUTED	23.0
CENTRAL ADVISORY BUREAU	24.0
MENNONITE DISASTER PLAN GOOD MODEL	17.0
PEOPLE TO PARTICIPATE MORE IN OWN RECONSTRUCTION	10.0
SCREENING TO PRESENT ABUSE OF OUTLETS FOR FOOD, CLOTHES ETC.	9.0
EMOTIONAL COUNSELLING	9.0
DISASTER PLAN NECESSARY	7.0
INCREASE POLICE SECURITY	6.0
BUILDING ADVICE NEEDED	6.0

APPENDIX 2.

FAMILY HEALTH STUDY

SUMMER 1981

Respondent's Name: _____

Date of Visit: _____

DEPARTMENT OF FAMILY MEDICINE
UNIVERSITY OF WESTERN ONTARIO
LONDON, ONTARIO

I. Health Care Experience in the past two weeks.

	1	2
3	4	5

In the past two weeks did you talk with or visit any of the following?

	YES	NO	
a) family doctor specialist physician	_____	_____	<input type="checkbox"/> 60
b) hospital emergency room	_____	_____	<input type="checkbox"/> 61
c) work or industrial clinic	_____	_____	<input type="checkbox"/> 62
d) public health or visiting nurse	_____	_____	<input type="checkbox"/> 63
e) optometrist	_____	_____	<input type="checkbox"/> 64
f) chiropodist or foot doctor	_____	_____	<input type="checkbox"/> 65
g) druggist	_____	_____	<input type="checkbox"/> 66
h) chiropractor	_____	_____	<input type="checkbox"/> 67
i) herbalist	_____	_____	<input type="checkbox"/> 68
j) psychologist	_____	_____	<input type="checkbox"/> 69
k) other health worker	_____	_____	<input type="checkbox"/> 70

Within the past two weeks did you stay in bed all or part of a day because you were not feeling well?

YES _____ NO _____ DON'T KNOW _____ ☐ 71

Were there other days within the past two weeks when you were not able to do your usual activities because you were not feeling well?

YES _____ NO _____ DON'T KNOW _____ ☐ 72

Did you think there was anything wrong with your health within the last two weeks?

YES _____ NO _____ DON'T KNOW _____ ☐ 73

Medication taken in the past two days.

Yesterday or the day before that did you take or use any of the following medicine or pills?

	YES	NO	
a) pain relievers such as aspirin	_____	_____	<input type="checkbox"/> 74
b) antacids or other stomach remedies	_____	_____	<input type="checkbox"/> 75
c) tranquilizers or sedatives such as valium	_____	_____	<input type="checkbox"/> 76
d) medicine for heart or blood pressure	_____	_____	<input type="checkbox"/> 77

11. Below is a list of problems and complaints that people sometimes have. Read each one carefully, and select one of the 5 answers that best describes how much discomfort that problem has caused you during the past 2 weeks including today.

	<u>Not at all</u>	<u>A little bit</u>	<u>Moderately</u>	<u>Quite a bit</u>	<u>Extremely</u>
1. headaches					
2. faintness or dizziness					
3. pains in heart or chest					
4. pains in lower back					
5. nausea or upset stomach					
6. soreness of your muscles					
7. trouble getting your breath					
8. hot or cold spells					
9. numbness or tingling in parts of your body					
10. lump in your throat					
11. weakness in parts of your body					
12. heavy feelings in your arms or legs					
13. nervousness or shakiness inside					
14. trembling					
15. suddenly scared for no reason					
16. feeling fearful					
17. heart pounding or racing					
18. feeling tense and keyed up					
19. spells of terror and panic					
20. feeling so restless you couldn't sit still					
21. the feeling that something bad is going to happen to you					
22. thoughts and images of a frightening nature					
23. feeling easily annoyed or irritated					
24. temper outburst you cannot control					
25. having urges to beat, injure or harm someone					
26. having urges to break or smash things					
27. getting into frequent arguments					
28. shouting or throwing things					

III. We should like to know if you have had any medical complaints, and how your health has been in general over the past few weeks. Please answer all questions below simply by checking the answer which you think most nearly applies to you. Remember we want to know about present or recent complaints not those you had in the past.

HAVE YOU RECENTLY	Better than usual	Same as usual	Worse than usual	Much worse than usual	
1. been able to concentrate on whatever you're doing?					<input type="checkbox"/> 34
2. lost much sleep over worry?					<input type="checkbox"/> 35
3. felt that you are playing a useful part in things?					<input type="checkbox"/> 36
4. felt capable of making decisions about things?					<input type="checkbox"/> 37
5. felt constantly under strain?					<input type="checkbox"/> 38
6. felt that you couldn't overcome your difficulties?					<input type="checkbox"/> 39

	Not at all	No more than usual	Rather more than usual	Much more than usual	
7. been able to enjoy your normal day-to-day activities?					<input type="checkbox"/> 40
8. been able to face up to your problems?					<input type="checkbox"/> 41
9. been feeling unhappy and depressed?					<input type="checkbox"/> 42
10. been losing confidence in yourself?					<input type="checkbox"/> 43
11. been thinking of yourself as a worthless person?					<input type="checkbox"/> 44
12. been feeling reasonably happy, all things considered?					<input type="checkbox"/> 45

IV. Now we would like to know your thoughts and feelings about yourself and the people who matter to you. After reading the three descriptions go to the boxes below and check the one that best applies to you.

A. #1

These people rarely know that there are people they can lean on. They do not belong to any group of different people who know each other and who will help them out when things get rough.

#2

These people sometimes know that there are people they can lean on and that they will sometimes help when things get rough.

#3

These people belong to a group of many different people who know and help each other out when things get rough, just because they know each other. They always know that there are a lot of people they can lean on.

☐ 46

CHECK ONE BOX

☐

I'm like
#1

☐

I'm halfway
between #1
and #2

☐

I'm like
#2

☐

I'm halfway
between #2
and #3

☐

I'm like
#3

Some people may be better friends and can be counted on more than others. Please indicate by checking the appropriate box.

	Very, very much	Very much	Pretty much	A little	Not at all	Not applicable	
a) My wife/husband can be counted on							<input type="checkbox"/> 47
b) My children can be counted on							<input type="checkbox"/> 48
c) My relatives can be counted on							<input type="checkbox"/> 49
d) My friends can be counted on							<input type="checkbox"/> 50
e) My neighbours can be counted on							<input type="checkbox"/> 51
f) The people I work with can be counted on							<input type="checkbox"/> 52

B. #1

Everyone believes that these people will make the right decision and do the right things. They have confidence and faith in them.

#2

Some people have confidence and faith in these people. Sometimes they think that they will make the right decisions and do the right things.

#3

People rarely believe that these people will make the right decisions and do the right things. They hardly ever have faith and confidence in them.

☐ 53

CHECK ONE BOX

☐

I'm like
#1

☐

I'm halfway
between #1
and #2

☐

I'm like
#2

☐

I'm halfway
between #2
and #3

☐

I'm like
#3

C. #1

These people rarely have a close friend that they can count on. They do not know that friends will always be there to lean on and they do not give friends the same support.

#2

These people sometimes have a close friend who is there for them and who they can count on.

#3

These people always have a close friend that they can count on. These do not have to worry about whether friends will be there for them to lean on. They give friends the same support.

☐ 54

CHECK ONE BOX

☐

I'm like
#1

☐

I'm halfway
between #1
and #2

☐

I'm like
#2

☐

I'm halfway
between #2
and #3

☐

I'm like
#3

V. We would now like to know about the tornado itself and its impact on you and your family. Please check the appropriate answer for each question?

	<u>Total damage</u>	<u>Extremely severe damage</u>	<u>Severe damage</u>	<u>Moderate damage</u>	
Home	_____	_____	_____	_____	<input type="checkbox"/> 55
Farm	_____	_____	_____	_____	<input type="checkbox"/> 56
Business	_____	_____	_____	_____	<input type="checkbox"/> 57

What other losses did you suffer because of the tornado?

	YES	NO	
Pets	_____	_____	<input type="checkbox"/> 58
Livestock	_____	_____	<input type="checkbox"/> 59
Poultry	_____	_____	<input type="checkbox"/> 60
Vehicles	_____	_____	<input type="checkbox"/> 61
Other	_____	_____	<input type="checkbox"/> 62

How did the tornado affect your family's financial situation?

For the better	_____	
For worse	_____	<input type="checkbox"/> 63
No change	_____	
Don't know	_____	

How has the tornado affected other aspects of your life?

For the better	_____	
For worse	_____	<input type="checkbox"/> 64
No change	_____	
Don't know	_____	

VI. Thinking about the month following the tornado, put a check in the "YES" or "NO" column for each item, depending on whether that item applied to you.

	<u>YES</u>	<u>NO</u>	
1. Just concentrated on what you had to do next -- the next step	_____	_____	<input type="checkbox"/> 65
2. You went over the problem again and again in your mind to try to understand it	_____	_____	<input type="checkbox"/> 66
3. Turned to work or substitute activity to take your mind off things	_____	_____	<input type="checkbox"/> 67
4. You felt that time would make a difference, the only thing to do was to wait	_____	_____	<input type="checkbox"/> 68
5. Bargained or compromised to get something positive from the situation	_____	_____	<input type="checkbox"/> 69
6. Did something which you thought wouldn't work, but at least you were doing something	_____	_____	<input type="checkbox"/> 70
7. Talked to someone to find out more about the situation	_____	_____	<input type="checkbox"/> 71
8. Concentrated on something good that could come out of the whole thing	_____	_____	<input type="checkbox"/> 72
9. Tried not to burn your bridges behind you, but leave things open somewhat	_____	_____	<input type="checkbox"/> 73
10. Hoped a miracle would happen	_____	_____	<input type="checkbox"/> 74
11. Went along with fate; sometimes you just have bad luck	_____	_____	<input type="checkbox"/> 75
12. Went on as if nothing had happened	_____	_____	<input type="checkbox"/> 76
13. Felt bad that you couldn't avoid the problem	_____	_____	<input type="checkbox"/> 77
14. Kept your feelings to yourself	_____	_____	<input type="checkbox"/> 78
15. Looked for the "silver lining", so to speak; tried to look on the bright side of things	_____	_____	<input type="checkbox"/> 79 <input type="checkbox"/> 80
16. Slept more than usual	_____	_____	<input type="checkbox"/> 1 <input type="checkbox"/> 2
17. Got mad at the people or things that caused the problem	_____	_____	<input type="checkbox"/> 3 <input type="checkbox"/> 4 <input type="checkbox"/> 5
18. Accepted sympathy and understanding from someone	_____	_____	<input type="checkbox"/> 6 <input type="checkbox"/> 7 <input type="checkbox"/> 8

	<u>YES</u>	<u>NO</u>	
19. Told yourself things that helped you to feel better	_____	_____	<input type="checkbox"/> 9
20. You were inspired to do something creative	_____	_____	<input type="checkbox"/> 10
21. Tried to forget the whole thing	_____	_____	<input type="checkbox"/> 11
22. Got professional help and did what they recommended	_____	_____	<input type="checkbox"/> 12
23. Changed or grew as a person in a good way	_____	_____	<input type="checkbox"/> 13
24. Waited to see what would happen	_____	_____	<input type="checkbox"/> 14
25. Did something totally new that you never would have done if this hadn't happened	_____	_____	<input type="checkbox"/> 15
26. Made a plan of action and followed it	_____	_____	<input type="checkbox"/> 16
27. Accepted the next best thing to what you wanted	_____	_____	<input type="checkbox"/> 17
28. Let your feelings out somehow	_____	_____	<input type="checkbox"/> 18
29. Came out of the experience better than when you went in	_____	_____	<input type="checkbox"/> 19
30. Talked to someone who could do something concrete about the problem	_____	_____	<input type="checkbox"/> 20
31. Got away from it for a while; tried to rest or take a vacation	_____	_____	<input type="checkbox"/> 21
32. Tried to make yourself feel better by eating, drinking, smoking, taking medication, etc.	_____	_____	<input type="checkbox"/> 22
33. Took a big chance or did something very risky	_____	_____	<input type="checkbox"/> 23
34. Found new faith or some important truth about life	_____	_____	<input type="checkbox"/> 24
35. Tried not to act too hastily or follow your first hunch	_____	_____	<input type="checkbox"/> 25
36. Joked about it	_____	_____	<input type="checkbox"/> 26
37. Maintained your pride and kept a stiff upper lip	_____	_____	<input type="checkbox"/> 27
38. Rediscovered what is important in life	_____	_____	<input type="checkbox"/> 28
39. Changed something so things would turn out all right	_____	_____	<input type="checkbox"/> 29
40. Avoided being with people in general	_____	_____	<input type="checkbox"/> 30
41. Didn't let it get to you; refused to think too much about it	_____	_____	<input type="checkbox"/> 31
42. Asked someone you respected for advice and followed it.	_____	_____	<input type="checkbox"/> 32

	<u>YES</u>	<u>NO</u>	
43. Kept others from knowing how bad things were	—	—	<input type="checkbox"/> 33
44. Made light out of the situation; refused to get too serious about it	—	—	<input type="checkbox"/> 34
45. Talked to someone about how you were feeling	—	—	<input type="checkbox"/> 35
46. Stood your ground and fought for what you wanted	—	—	<input type="checkbox"/> 36
47. Took it out on other people	—	—	<input type="checkbox"/> 37
48. Drew on your past experiences; you were in a similar situation before	—	—	<input type="checkbox"/> 38
49. Just took things one step at a time	—	—	<input type="checkbox"/> 39
50. You knew what had to be done, so you doubled your efforts and tried harder to make things work	—	—	<input type="checkbox"/> 40
51. Refused to believe that it had happened	—	—	<input type="checkbox"/> 41
52. Came up with a couple of different solutions to the problem	—	—	<input type="checkbox"/> 42
53. Accepted it, since nothing could be done	—	—	<input type="checkbox"/> 43
54. Wished you were a stronger person -- more optimistic and forceful	—	—	<input type="checkbox"/> 44
55. Accepted your strong feelings, but didn't let them interfere with other things too much	—	—	<input type="checkbox"/> 45
56. Wished that you could change what had happened	—	—	<input type="checkbox"/> 46
57. Wished that you could change the way you felt	—	—	<input type="checkbox"/> 47
58. Changed something about yourself so that you could deal with the situation better	—	—	<input type="checkbox"/> 48
59. Daydreamed or imagined a better time or place than the one you were in	—	—	<input type="checkbox"/> 49
60. Had fantasies or wishes about how things might turn out	—	—	<input type="checkbox"/> 50
61. Thought about fantastic or unreal things (like the perfect revenge or finding a million dollars) that made you feel better	—	—	<input type="checkbox"/> 51
62. Wished that the situation would go away or somehow be over with	—	—	<input type="checkbox"/> 52
63. Did something different from any of the above	—	—	<input type="checkbox"/> 53

VII. This next group of questions deals with your health at various times since the tornado.

Please put a CHECK (✓) in the appropriate box, if the answer is YES.

	Summer 1979	Autumn 1979	Winter 1980	Spring 1980	Summer 1980	Autumn 1980	Winter 1981	Spring 1981
1. Did not feel well any days?								
2. Off work any days?								
3. Work performance deteriorated?								
4. Sleeping poorly any nights?								
5. Got upset easily?								
6. Greater than normal use of cigarettes?								
7. Greater than normal use of alcohol?								
8. Greater than normal use of tranquilizers?								
9. Significant weight loss or gain?								

VIII.

This next group of questions deals with your need for assistance at various periods since the tornado.

Please put a check (✓) in the appropriate box, if the answer is YES.

	Summer 1979	Autumn 1979	Winter 1980	Spring 1980	Summer 1980	Autumn 1980	Winter 1981	Spring 1981
1. Needed help from family doctor								
2. Needed help from a counsellor								
3. Needed replacement for clothes and household equipment								
4. Needed help from my immediate family (e.g. those living with you)								
5. Needed help from relative (e.g. family not living with you)								
6. Needed financial help								
7. Needed help from community agencies								

IX. If you live alone, please skip this page and return the questionnaire to the interviewer.

We now want you to think about how the tornado affected you and your family. Circle an answer for each time period.

	Year before the tornado Aug.1978-Aug.1979	Year after the tornado Aug.1979-Aug.1980	Second year after the tornado Aug.1980-Now
1. I was satisfied that I * could turn to my family for help when something was troubling me.	<input type="checkbox"/> YES <input type="checkbox"/> NO	<input type="checkbox"/> YES <input type="checkbox"/> NO	<input type="checkbox"/> YES <input type="checkbox"/> NO
2. I was satisfied with the way my family talked over things with me and shared problems with me.	<input type="checkbox"/> YES <input type="checkbox"/> NO	<input type="checkbox"/> YES <input type="checkbox"/> NO	<input type="checkbox"/> YES <input type="checkbox"/> NO
3. I was satisfied that my family accepted and supported my wishes to take on new activities or directions.	<input type="checkbox"/> YES <input type="checkbox"/> NO	<input type="checkbox"/> YES <input type="checkbox"/> NO	<input type="checkbox"/> YES <input type="checkbox"/> NO
4. I was satisfied with the way my family expressed affection and responded to my emotions, such as anger, sorrow or love.	<input type="checkbox"/> YES <input type="checkbox"/> NO	<input type="checkbox"/> YES <input type="checkbox"/> NO	<input type="checkbox"/> YES <input type="checkbox"/> NO
5. I was satisfied with the way my family and I shared time together.	<input type="checkbox"/> YES <input type="checkbox"/> NO	<input type="checkbox"/> YES <input type="checkbox"/> NO	<input type="checkbox"/> YES <input type="checkbox"/> NO

* "Family" is the people with whom you usually live.

Thank you for completing this section.

Please return this to the interviewer now.

Please look at this list and give me the number of any of these events that have occurred to you since August 1979, the time of the tornado. For any that have happened, give me the date when it happened.

- | | |
|---|--|
| 1. Death of Spouse | 23. Son or daughter leaving home |
| 2. Divorce | 24. Trouble with in-laws |
| 3. Marital separation | 25. Outstanding personal achievement |
| 4. Jail term | 26. Wife begins or stops work |
| 5. Death of close family member | 27. Begin or end school |
| 6. Personal injury or illness | 28. Change in living conditions |
| 7. Marriage | 29. Revision of personal habits |
| 8. Fired at work | 30. Trouble with boss |
| 9. Marital reconciliation | 31. Change in work hours or conditions |
| 10. Retirement | 32. Change in residence |
| 11. Change in health of family member | 33. Change in schools |
| 12. Pregnancy | 34. Change in recreation |
| 13. Sexual difficulties | 35. Change in church activities |
| 14. Gain of new family member | 36. Change in social activities |
| 15. Business readjustment | 37. Mortgage or loan less than \$10,000. |
| 16. Change in financial state | 38. Change in sleeping habits |
| 17. Death of close friend | 39. Change in number of family get-togethers |
| 18. Change to different line of work | 40. Change in eating habits |
| 19. Change in number of arguments with spouse | 41. Vacation |
| 20. Mortgage over \$10,000. | 42. Minor violations of the law |
| 21. Foreclosure of mortgage or loan | |
| 22. Change in responsibilities at work | |

CHILDRENS QUESTIONNAIRE

APPENDIX 3.

	1	2
3	4	5

Health Care Experience in the past two weeks.

In the past two weeks did your child talk with or visit any of the following?

	YES	NO	
a) family doctor specialist physician	_____	_____	<input type="checkbox"/> 60
b) hospital emergency room	_____	_____	<input type="checkbox"/> 61
c) work or industrial clinic	_____	_____	<input type="checkbox"/> 62
d) public health or visiting nurse	_____	_____	<input type="checkbox"/> 63
e) optometrist	_____	_____	<input type="checkbox"/> 64
f) chiropodist or foot doctor	_____	_____	<input type="checkbox"/> 65
g) druggist	_____	_____	<input type="checkbox"/> 66
h) chiropractor	_____	_____	<input type="checkbox"/> 67
i) herbalist	_____	_____	<input type="checkbox"/> 68
j) psychologist	_____	_____	<input type="checkbox"/> 69
k) other health worker	_____	_____	<input type="checkbox"/> 70

Within the past two weeks did your child stay in bed all or part of a day because of not feeling well?

YES _____ NO _____ DON'T KNOW _____

☐ 71

Were there other days within the past two weeks when your child was not able to do the usual activities because you were not feeling well?

YES _____ NO _____ DON'T KNOW _____

☐ 72

Did you think there was anything wrong with your child's health within the last two weeks?

YES _____ NO _____ DON'T KNOW _____

☐ 73

Medication taken in the past two days.

Yesterday or the day before that did your child take or use any of the following medicine or pills?

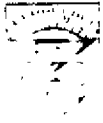
	YES	NO	
a) pain relievers such as aspirin	_____	_____	<input type="checkbox"/> 74
b) antacids or other stomach remedies	_____	_____	<input type="checkbox"/> 75
c) tranquilizers or sedatives such as valium	_____	_____	<input type="checkbox"/> 76
d) medicine for heart or blood pressure	_____	_____	<input type="checkbox"/> 77

HEALTH CALENDAR FOR THE CHILDREN

Please put a CHECK (✓) in the appropriate box, if the answer is YES.

	Summer 1979	Autumn 1979	Winter 1980	Spring 1980	Summer 1980	Autumn 1980	Winter 1981	Spring 1981
1. Visited family doctor?								
2. Visited counsellor?								
3. In hospital?								
4. Felt sick any days?								
5. Off school any days?								
6. School work deteriorated?								
7. Sleeping poorly any nights?								
8. Got upset easily?								
9. Greater than normal use of tranquilizers?								
10. Significant weight loss or gain?								

APPENDIX 4



The University of Western Ontario

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Faculty of Medicine
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Telephone (519) 679-2712

Dr. Moira Stewart

Request for OHIP Information

I hereby request that the Ontario Health Insurance Plan compile all information pertaining to my medical care (including physician visits, visits to non-medical professionals, x-rays, tests and hospitalizations) for the year before the tornado and the year after the tornado i.e. August 1978 to September 1980. I understand that while all expenses related to collecting this information will be paid by Dr. Moira Stewart, I will receive all OHIP information gathered in respect of myself and I am not obliged to forward same to Dr. Stewart but may do so at my option.

Signature of Witness

Signature of Participant
(Parent or Guardian)

Date: _____

Please print

Name: _____

Birth Date: _____

Sex: _____

OHIP # _____

Address: _____

APPENDIX 5

Description of the Data from the Ontario Health Insurance Plan

The Data Dissemination Committee of the Ontario Ministry of Health sent an alphabetic listing of all persons who signed the consent form shown in Appendix 4. The listing showed seven items of information: patients' name, patient's OHIP number, patient's birthdate (month and year), the service code (described in the Ontario Health Insurance Plan Schedule of Benefits 1979), service date (day, month and year), physician code (as described in the Ontario Health Insurance Plan Physician and Hospital Index, 1980) and the physician's specialty code (described in the Schedule of Benefits, 1979). In an effort to translate services into visits, we eliminated all service codes for tests, x-rays, laboratory work, detentions (i.e. add on fees if the visit takes longer than usual or if the visit is after hours), in-hospital care and second billings on the same day as another billing.

The following list contains those service codes excluded from the analysis: X's, G's, Z's, L's, H's if in-hospital, J's, R's, S's, M's, N's; KO91, PO22, PO24, FO01A, FO76A which were in-hospital procedures, Q019, K99_'s, A99_'s, B99_'s which were detention billings; T306 a dental procedure; W002 long-term institutional care.

In the next step we counted visits of six different kinds:

- (1) visits to (or from) a family physician for a service other than counselling, including the following service codes A001-00, A003-00, A004-00, A007-00, P004-00, B009-00, K014-00, A002-00, K009-00, K017-00, K002-00, B001-00, A903-00, A436-00, E115-00, E542-00, K112-00, K114-00, Q011-00, Q014-00, Q017-00,
- (2) visits to (or from) a family physician for counselling, including the following service codes K007-00, K013-00, K004-00,
- (3) visits to a psychiatrist for counselling including the following service codes K197-19, K195-19, A195-19, A197-19, A198-19,
- (4) visits to a chiropractor including the following codes V101-59, V102-59, V103-59,
- (5) visits to (or from) a specialist other than a family physician or psychiatrist including the following service codes A021-02, A025-02, A031-03, A035-03, A061-06, A063-06, A064-06, A065-06, A135-13, A136-13, A138-13, A436-13, A183-18, A201-20, A204-20, A205-20, A231-23, A233-23, A234-23, A236-23, A241-24, A245-24, A266-26 and also these codes followed by any 2-digit specialist code A903- , A436-__, E542-__, E115-__, K114-__, K112-__, Q011-__, Q017-__, Q014-__,

(6) visits to other health professionals, chiropodist V303-58, V305-58 and optometrist V401-56, V402-56, V403-56.

The final step was to group these data into two subgroups: a) visits for counselling, #'s (2) and (3) on the previous list and b) visits for any service other than counselling, #'s (1), (4), (5), and (6) on the preceding list. Further, a dichotemous variable was created for each of these two subgroups for 8-3 month periods, the four quarters before the tornado and the four quarters after the tornado.