

**Working Papers
Project on the Public and Biological Security
Harvard School of Public Health**

11.

SARS in Toronto and the U.S.

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Survey Finds SARS Having a Significant Psychological, Economic Impact On Lives of Toronto Residents

Residents support quarantine but one-quarter of those with some experience said it was a major problem

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Boston, MA—A new study by the Harvard School of Public Health *Project on the Public and Biological Security* and Health Canada (the federal department of health in Canada) comparing the impact of SARS in Toronto to the United States finds that 42 percent of residents of Toronto are concerned that they or someone in their immediate family may get sick from SARS during the next 12 months. This compares to 26 percent of Americans being concerned about SARS and 17 percent believing they or a family member were likely to contract the disease.

Although levels of concern are high, residents of Toronto believed they or a family member were more likely to contract West Nile virus (37 percent) in the next 12 months than to contract SARS (22 percent).

The Toronto metropolitan area has 4.36 million residents¹ and is the largest metropolitan area outside of Asia to have been impacted by SARS. To date, Toronto has had most of Canada's confirmed cases of SARS² (238 cases nationwide), 15,000 residents in quarantine, and 32 deaths from the disease³. Most of the SARS cases have been related to in-hospital exposure to the virus.

Toronto-area residents were taking a number of precautions against SARS, such as using disinfectant at home or at work (47 percent), consulting a web site for information about protecting against SARS (27 percent), carrying something to clean objects that may have come into contact with someone who had SARS (22 percent), avoiding people who they thought may have recently traveled to Asia (17 percent), talking with their doctor about health issues related to SARS (19 percent), and buying a face mask (14 percent).

In addition, a number of Toronto-area residents were taking precautions that could have a negative impact on the region's economy. About one in five (19 percent) reported avoiding Asian restaurants and stores, and 16 percent said they were avoiding public places because of SARS. One in 10 Toronto residents who had traveled outside the country in the past 12 months reported avoiding international air travel recently. Tourism is also likely to have been affected by the belief of about one-third (35 percent) of Americans that SARS has made it unsafe to travel to Canada.

¹ Canadian Census, 2001, <http://www12.statcan.ca/english/census01/release/index.cfm>

² Foreman, William, "Taiwan Points SARS Finger at Toronto," *The Toronto Star*, June 11, 2003.

³ Ontario Ministry of Health and Long-Term Care, <http://www.health.gov.on.ca/>; Boyle, Theresa. "Premier Agrees to SARS Inquiry" *The Toronto Star*, June 11, 2003.

In the U.S., where there have been 70 cases of SARS and no deaths⁴, the public was less likely than residents of Toronto to report taking precautions against SARS. For example, 9 percent reported avoiding Asian restaurants or stores, and 7 percent said they were avoiding public events. Among those who had traveled outside the United States in the past 12 months, 9 percent reported avoiding international air travel recently.

“The implication of the SARS experience in Toronto for the U.S. is that if there were an epidemic of SARS in the U.S. that could not be contained quickly, it would have a significant economic impact on any major city where cases occurred,” said Robert J. Blendon, Professor of Health Policy and Political Analysis at the Harvard School of Public Health. “Also, people’s level of worry is higher than their assessment of their own risk. As we have seen in Toronto, as the number of cases of SARS increases, the proportion of people who are concerned grows substantially, even though many of those concerned know that their risk of contracting the disease remains low.”

Toronto residents knew that quarantine was necessary to keep SARS from spreading (96 percent) and said they would comply with a quarantine order if they were exposed to someone who had SARS (97 percent). Almost one-in-four residents of Toronto (22 percent) had a friend or a family member who was quarantined due to SARS exposure. Although the overwhelming majority support quarantine, one-quarter of those who had either been quarantined themselves (2 percent) or had a friend or family member quarantined (22 percent) said that being quarantined was a major problem. When asked about specific problems relating to quarantine, the top two “major” problems were emotional difficulties relating to the confinement (11 percent) and not getting paid because they had to miss work (10 percent).

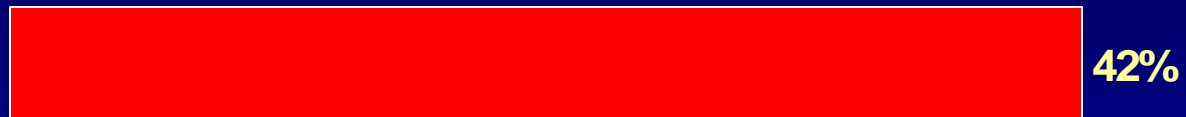
“It is a positive sign that three-quarters of Toronto residents who had experience with quarantine did not find it to be a major problem,” said Blendon. “We also see that people in Toronto have become very knowledgeable about the disease, demonstrating the effectiveness of public health and media communication.”

⁴ World Health Organization, June 11, 2003, <http://www.who.int/csr/sars/country/en/>

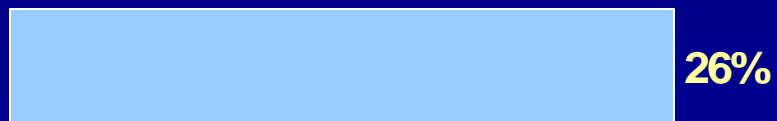
Concerns about SARS

Percent reporting they are concerned that they or someone in their immediate family will get sick from SARS in the next 12 months

Toronto Area Residents



Americans



Source: Harvard School of Public Health/Health Canada, June 2003

Precautions

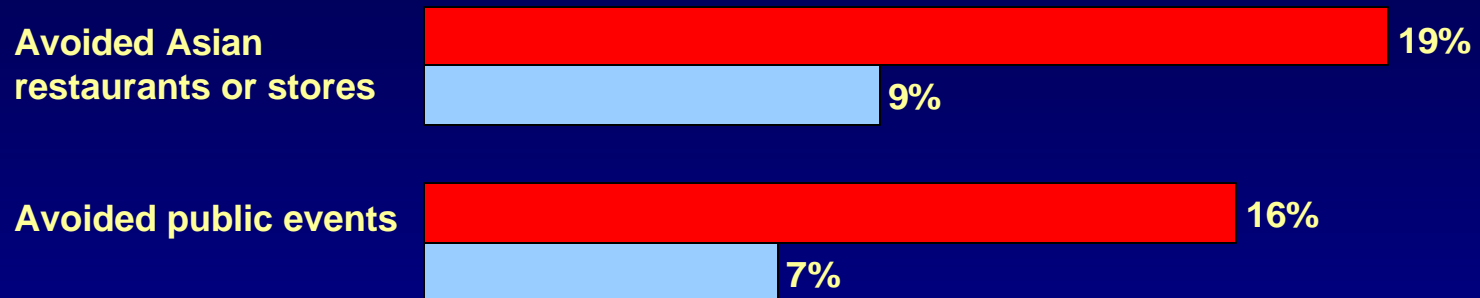
Percent reporting they took the following precautions against SARS



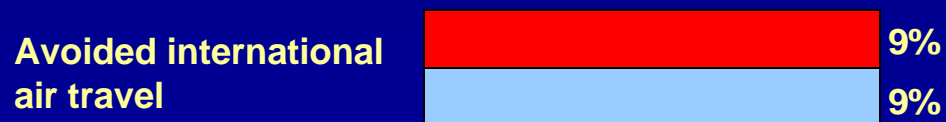
Source: Harvard School of Public Health/Health Canada, June 2003

Economic Impact of SARS

Percent reporting they...



Among those reporting international travel in the past year (n=208 in Toronto, n=171 in US)

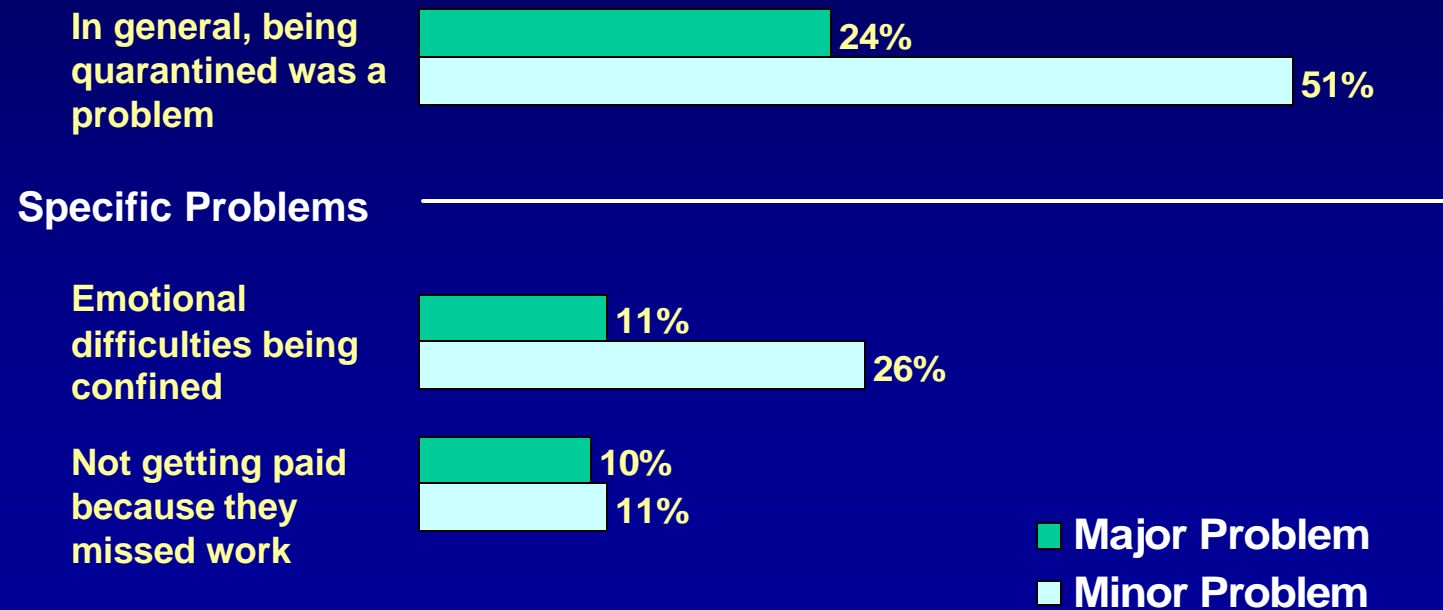


■ Americans ■ Toronto Area Residents

Source: Harvard School of Public Health/Health Canada, June 2003

Percent experiencing problems while quarantined

BASE: Toronto area residents who had been quarantined or had a friend or family member who had been quarantined (n=111)



Source: Harvard School of Public Health/Health Canada, June 2003

**Project on Biological Security and the Public
Harvard School of Public Health**

**Health Canada
(the federal department of health in Canada)**

SARS IN TORONTO AND THE U.S.

**June 5-6, 2003
501 adults in the Toronto metropolitan area**

**May 2-6, 2003
*1025 adults nationwide in the U.S.***

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PROGRAM ON BIOLOGICAL SECURITY AND THE PUBLIC
HARVARD SCHOOL OF PUBLIC HEALTH

HEALTH CANADA
(the federal department of health in Canada)

SARS IN TORONTO AND THE U.S.

Topline Results

This study was conducted by telephone with representative samples of adults 18 years of age and older in the Toronto metropolitan area (June 5-6, 2003, n=501, margin of error +/- 4 percentage

points) and in the United States (May 2-6, 2003, n=1025, margin of error +/- 3 percentage points). Field work in Canada by GPC Research and in the U.S. by ICR/International Communications Research of Media, PA.

SA-1. Have you heard or read anything in the news recently about a new form of flu in Asia, known as SARS, or haven't you?

	Have heard of SARS	Have NOT heard of SARS	Don't know	Refused
Toronto	98	2	--	--
U.S.	91	9	--	--

(Asked of one half of total respondents)

SA-2. I'm going to read you a list of things and ask you how likely it is that each of them will happen to you or someone in your immediate family during the next 12 months. First, (INSERT FIRST ITEM)? Do you think that is very likely to happen to you or someone in your immediate family, somewhat likely, not very likely, or not at all likely?

a. Contracting SARS, the new form of flu from Asia

	LIKELY			NOT LIKELY			Don't know	Refused
	<i>NET</i>	<i>Very</i>	<i>Somewhat</i>	<i>NET</i>	<i>Not too</i>	<i>Not at all</i>		
Toronto	22	4	18	75	42	33	2	--
U.S.	17	3	13	81	37	44	3	--

b. Contracting anthrax

	LIKELY			NOT LIKELY			Don't know	Refused
	NET	Very	Somewhat	NET	Not too	Not at all		
Toronto	2	*	2	93	26	67	6	--
U.S.	8	3	5	91	36	54	1	--

c. Contracting smallpox

	LIKELY			NOT LIKELY			Don't know	Refused
	NET	Very	Somewhat	NET	Not too	Not at all		
Toronto	2	1	1	93	21	72	4	--
U.S.	8	3	5	91	40	51	2	--

d. Contracting West Nile Virus

	LIKELY			NOT LIKELY			Don't know	Refused
	NET	Very	Somewhat	NET	Not too	Not at all		
Toronto	37	5	32	58	35	23	5	--
U.S.	23	6	18	72	36	35	5	--

(Asked of one half of total respondents)

SA-3. Are you concerned that you or someone in your immediate family may get sick from SARS during the next 12 months, or aren't you concerned about that?

(Asked of total who are concerned about SARS)

SA-3a. How concerned are you? Are you very concerned, somewhat concerned, or not very concerned?

(Based on one-half total respondents)

SA-3/SA-3a. Combo Table

	Concerned about SARS				Not concerned about SARS	Don't know	Refused
	NET	Very	Somewhat	Not very			
Toronto	42	18	19	5	58	1	--
U.S.	26	9	14	2	72	2	*

SA-4. To the best of your knowledge, is SARS, the new form of flu from Asia, a disease that is contagious, meaning that it can be passed from one person to another, or is it not contagious?

	Contagious	Not contagious	Don't know	Refused
Toronto	95	4	1	--
U.S.	89	3	8	*

SA-5. To the best of your knowledge, how easily does SARS spread? Is it spread very easily, somewhat easily, not too easily, or not easily at all?

	EASILY			NOT EASILY			Don't know	Refused
	NET	Very	Somewhat	NET	Not too	Not at all		
Toronto	77	38	39	20	17	3	3	*
U.S.	81	44	37	11	9	2	8	*

SA-6. I'm going to read you a list of some ways people can get a disease. As I read each one, please tell me whether or not you think it is possible to contract SARS that way. INTERVIEWER, IF R SEEMS HESITANT OR UNSURE, ASK: If you don't know, just tell me. First (READ FIRST ITEM). To the best of your knowledge, is it possible to contract SARS that way, or not? How about (READ NEXT ITEM)?

a. Shaking hands with someone who has an active case of SARS

	Yes	No	Don't know	Refused
Toronto	76	21	3	--
U.S.	70	23	6	1

b. Eating food that has been prepared by someone who was infected with or had been exposed to SARS

	Yes	No	Don't know	Refused
Toronto	66	25	9	1
U.S.	66	24	10	1

c. Being in close contact with someone who has SARS

	Yes	No	Don't know	Refused
Toronto	94	4	1	--
U.S.	88	7	4	1

d. Being on the same airplane with someone who has SARS

	Yes	No	Don't know	Refused
Toronto	73	22	5	*
U.S.	76	17	6	*

e. Eating undercooked chicken

	Yes	No	Don't know	Refused
Toronto	8	86	7	--
U.S.	14	74	12	*

f. Touching objects or surfaces that have been in contact with someone who has SARS

	Yes	No	Don't know	Refused
Toronto	77	20	3	--
U.S.	64	28	8	*

g. Blood transfusions

	Yes	No	Don't know	Refused
Toronto	50	35	15	*
U.S.	58	29	12	*

(Asked in Toronto)

SA-7T. Have you traveled to the United States at any time during the past 12 months?

	Traveled to U.S.	Have not traveled to U.S.	Don't know	Refused
Toronto	29	71	*	*

(Asked in Toronto)

SA-8T. Have you traveled to any other country outside Canada or the United States during the past 12 months?

	Traveled outside of Canada/US	Have not traveled outside of Canada/US	Don't know	Refused
Toronto	23	77	--	*

(Asked in Toronto)

SA-7/SA-8T Combination Table

	Traveled outside of Canada	Have not traveled outside of Canada/Don't know
Toronto	42	58

(Asked in the U.S.)

SA-7US. Have you traveled to Canada at any time during the past 12 months?

	Traveled to Canada	Have not traveled to Canada	Don't know	Refused
U.S.	6	93	--	*

(Asked in the U.S.)

SA-8US. Have you traveled to any other country outside the United States or Canada during the past 12 months?

	Traveled outside of US/Canada	Have not traveled outside of US/Canada	Don't know	Refused
U.S.	10	90	--	*

(Asked in the U.S.)

SA-7/SA-8US Combination Table

	Traveled outside of US	Have not traveled outside of US/Don't know
U.S.	14	86

(Asked in the U.S.)

SA-8aUS. Do you think that it is currently safe to travel to Canada, or do you think that SARS has made it unsafe to go to Canada?

	Safe to travel to Canada	Not safe to travel to Canada	Don't know	Refused
U.S.	57	35	8	*

SA-9. In response to reports of SARS, have you or has someone in your household done any of the following? Have you (INSERT ITEM)?

a. Consulted a website for information about how to protect yourself against SARS

	Yes	No	Don't know	Refused
Toronto	27	73	--	--
U.S.	8	91	*	*

b. Avoided public events

	Yes	No	Don't know	Refused
Toronto	16	84	*	--
U.S.	7	92	*	*

c. Talked with your doctor about health issues related to SARS

	Yes	No	Don't know	Refused
Toronto	19	82	--	--
U.S.	6	93	*	*

d. Purchased a face mask

	Yes	No	Don't know	Refused
Toronto	14	86	--	--
U.S.	3	96	*	*

eT. Avoided international air travel, that is airline travel outside the Canada (**among those who have traveled outside of Canada in the last 12 months, n=208**)

	Yes	No	Don't know	Refused
Toronto	9	91	*	--

eUS. Avoided international air travel, that is airline travel outside the United States (**among those who have traveled outside the US in the last 12 months; n = 171**)

	Yes	No	Don't know	Refused
U.S.	9	91	*	--

f. Avoided Asian restaurants or stores

	Yes	No	Don't know	Refused
Toronto	19	81	*	--
U.S.	9	90	*	*

g. Carried something to clean any objects you think might have come into contact with someone who has SARS

	Yes	No	Don't know	Refused
Toronto	22	78	*	--
U.S.	6	94	*	*

h. Used a disinfectant at home or work to protect against SARS

	Yes	No	Don't know	Refused
Toronto	47	52	1	--
U.S.	16	83	*	*

i. Avoided people you think may have recently visited Asia

	Yes	No	Don't know	Refused
Toronto	17	82	1	--
U.S.	11	87	3	*

SA-10. From what you have heard or read, have medical experts identified the virus that causes SARS, or haven't they yet identified the virus?

	Yes, identified virus	No, have not identified	Don't know	Refused
Toronto	44	45	10	*
U.S.	36	49	15	*

SA-11. To the best of your knowledge, is there a vaccine against SARS, or isn't there one?

	Yes, there is a vaccine	No, there is no vaccine	Don't know	Refused
Toronto	4	93	4	--
U.S.	4	88	8	*

SA-12. To the best of your knowledge, is there an effective treatment for people who have contracted SARS, or doesn't such a treatment exist?

	Yes, there is treatment	No, there is no treatment	Don't know	Refused
Toronto	38	50	12	--
U.S.	36	47	17	*

SA-13. Of people who get SARS, about how many do you think die from the disease? Less than one in ten, about one in four, about half, or about three-quarters?

	Less than one in ten	About one in four	About half	About three-quarters	Don't know	Refused
Toronto	74	11	4	5	6	*
U.S.	52	16	11	10	10	*

SA-14. Some contagious diseases require people who have been exposed to the disease to be quarantined in order to keep the disease from spreading. To the best of your knowledge, is SARS one of the diseases where people who are exposed need to be quarantined, or isn't it?

(Asked of those who say SARS is one of the diseases that must be quarantined)

SA-15. To the best of your knowledge, are any people in Canada [in Toronto survey]/the United States [in U.S. survey] currently being quarantined for SARS, or not?

SA-14/SA-15. Combo Table

	Must be quarantined		Do not have to be quarantined	Don't know	Refused	
	NET	People are being quarantined				People are not being quarantined
Toronto	96	94	2	3	2	--
U.S.	84	33	35	9	7	*

SA-16. If you had SARS and health officials told you that you needed to be isolated for two or three weeks in a health care facility to prevent spreading the disease, would you agree to go, or wouldn't you?

	Yes, agree to be isolated	No, would not be isolated	Don't know	Refused
Toronto	95	4	*	*
U.S.	95	3	2	*

SA-17. Suppose you were exposed to someone who has SARS but you didn't know if you had the disease or not. If health officials told you that you and your family needed to be quarantined in your home for up to ten days away from other people in order to prevent spreading the disease, would you agree to do that, or wouldn't you?

	Yes, agree to be quarantined in home	No, would not be quarantined in home	Don't know	Refused
Toronto	97	3	*	--
U.S.	93	5	2	*

(SA-18 through SA-25 were asked only in the Toronto survey)

SA-18 Have you ever been quarantined because you had been exposed to SARS?

	Yes, have been quarantined	No, haven't been quarantined	Don't know	Refused
Toronto	2	98	*	--

SA-22 Do you have any friends or family members who have ever been quarantined because of exposure to SARS?

	Yes, have been quarantined	No, haven't been quarantined	Don't know	Refused
Toronto	22	78	--	--

(SA-19/23 through 21/25 were asked if respondent, friend, or family member was quarantined for SARS. The following results combine the respondents' own experiences if they were quarantined and the respondent's answers about their friend or family member's experience with quarantine if the respondent was not quarantined. n=111)

SA-19/23 How many days did (you/your friend or family member) stay in quarantine?

Toronto	
1 day	2%
2 days	3%
5 days	1%
7 days	4%
10 days	78%
11 days	1%
12 days	2%
14 days	6%
20 days	1%
21 days	2%
Don't know	1%

(SA-19/23 through 21/25 were asked if respondent, friend, or family member was quarantined for SARS. The following results combine the respondents' own experiences if they were quarantined and the respondent's answers about their friend or family member's experience with quarantine if the respondent was not quarantined. n=111)

SA-20/24 How much of a problem was it for (you/your friend or family member) to be quarantined? Was it a major problem, a minor problem, or not a problem at all?

	Major problem	Minor problem	Not a problem	Don't know
Toronto	24	51	21	3

(SA-19/23 through 21/25 were asked if respondent, friend, or family member was quarantined for SARS. The following results combine the respondents' own experiences if they were quarantined and the respondent's answers about their friend or family member's experience with quarantine if the respondent was not quarantined. n=111)

SA-21/25 I'm going to read you a list of specific problems a person might have because of being quarantined. Please tell me whether or not (you/your friend or family member) had that problem while (you/they) were quarantined for SARS. (READ, RANDOMIZE) (If Yes) Was that a major problem or a minor problem for (you/your friend or family member)?

- a. Did (you/they) not get paid because (you/they) had to miss work?

	Yes, major problem	Yes, minor problem	No, not a problem	Don't know
Toronto	10	11	64	15

- b. Were (you/they) unable to get enough food or water?

	Yes, major problem	Yes, minor problem	No, not a problem	Don't know
Toronto	4	14	80	2

- c. Were (you/they) unable to get (your/their) regular medical care and the prescriptions (you/they) needed?

	Yes, major problem	Yes, minor problem	No, not a problem	Don't know
Toronto	3	10	74	12

- d. Were (you/they) unable to communicate with family members who were not with (you/them)?

	Yes, major problem	Yes, minor problem	No, not a problem	Don't know
Toronto	6	11	79	4

e. Did (you/they) have emotional difficulty being confined this long?

	Yes, major problem	Yes, minor problem	No, not a problem	Don't know
Toronto	11	26	58	4

SA-26. Some people have proposed showing a video about SARS on airplanes during flights to other countries. The video would describe the disease and what to do if you have been exposed to SARS. Do you think showing such a video on flights would be helpful because it would provide information on what to do, or do you think it would needlessly alarm people?

	Video is helpful	Video will needlessly alarm people	Don't know	Refused
Toronto	61	36	3	*
U.S.	71	26	2	--

(Asked of one half of total respondents)

SA-27. Suppose you were on an airplane traveling within Canada [in Toronto survey]/the United States [in U.S. survey] and someone there was coughing a lot. If the airline made face masks available, would you want one you could wear during the flight, or wouldn't you think this was necessary?

	Yes, want face mask	No, face mask not necessary	Don't know	Refused
Toronto	64	31	5	--
U.S.	61	33	5	*

(Asked of one half of total respondents)

SA-28. Suppose you were on an airplane traveling to another country outside Canada [in Toronto survey]/the United States [in U.S. survey] and someone there was coughing a lot. If the airline made face masks available, would you want one you could wear during the flight, or wouldn't you think this was necessary?

	Yes, want face mask	No, face mask not necessary	Don't know	Refused
Toronto	69	27	3	*
U.S.	73	22	4	1