# ENVIRONICS RESEARCH GROUP

# FINAL REPORT

# Canadian Adult National Immunization Coverage (Adult NICS) Survey – 2006

Prepared for:

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# CONTENTS

Introduction	5
Executive Summary	7
Immunization Coverage	9
Vaccination summary	9
Locations for adult immunizations	12
Influenza	13
Pneumococcal disease	19
Hepatitis A	23
Hepatitis B	26
Pertussis (Whooping cough)	33
Varicella (Chicken pox)	36
Tetanus	39
Knowledge, Attitudes and Behaviours	43
Health care workers – provision of information	43
Missed opportunities for immunization	48
Immunization information sources	50
Influenza immunization knowledge, attitudes and behaviour	54
Hepatitis A and B immunization behaviour	68
Tetanus immunization behaviour	74
Pneumococcal immunization knowledge and behaviour	76
Conclusions and recommendations	83
Methodology and Respondent Profile	85

# APPENDICES

A: English questionnaire

B: French questionnaire

# LIST OF EXHIBITS

7	П					
	Ι.	A	R	T	F	ς

1.	Overview of adult vaccination coverage – general population and HCW	10
2.	Overview of adult vaccination coverage – by province	11
3.	Locations for adult vaccinations	12
4.	Influenza immunization coverage – by target groups	13
5.	Influenza immunization coverage – by demographics	14
6.	Influenza immunization coverage – by household composition	15
7.	Influenza immunization coverage – by medical recommendation	17
8.	Influenza immunization coverage of HCW – by patient contact and profession	18
9.	Polysaccharide pneumococcal immunization coverage – by target groups	20
10.	Polysaccharide pneumococcal immunization coverage – by demographics	21
11.	Polysaccharide pneumococcal immunization coverage – by medical recommendation	22
12.	Hepatitis A immunization coverage – by target groups	23
13.	Hepatitis A immunization coverage – by demographics	24
14.	Travel to endemic countries – by hepatitis A immunization and dosage	25
15.	Hepatitis B immunization coverage – by target groups	26
16.	Hepatitis B immunization coverage – by demographics	27
17.	Hepatitis B immunization coverage – by work exposure potential	28
18.	Hepatitis B immunization coverage among HCW – by region and profession	29
19.	Hepatitis B immunization coverage among HCW – by patient contact & work exposure	30
20.	Hepatitis B immunization testing among HCW – by region and profession	31
21.	Hepatitis B immunization testing among HCW – by patient contact & work exposure	32
22.	Pertussis immunization coverage – by target groups	34
23.	Pertussis immunization coverage – by demographics	35
24.	Varicella immunity – by target groups	36
25.	Varicella immunity – by demographics	37
26.	Varicella immunity among HCW.	38
27.	Tetanus immunization coverage – by target groups	39
28.	Tetanus immunization coverage – by demographics	40
29.	Tetanus immunization coverage – by treatment of wound	42
30.	Tetanus immunization coverage – by medical recommendation	42
31.	Messages shared with clients	45

32	. Questions asked about vaccinations.	47
33	. Preferred sources for information about adult vaccinations	51
34	. Usual source for information about the influenza vaccine	53
35	. Awareness of recommended influenza immunization schedule	58
36	. Locations for influenza immunization	60
37	. Who paid for influenza immunization	61
38	. Reasons for getting an influenza immunization	63
39	. Reasons for not getting an influenza immunization	65
40	. If planning to get an influenza immunization in the next influenza season	66
41	. Reasons for getting an influenza immunization in the next influenza season	67
42	. Location for hepatitis A vaccine	69
43	. Location for hepatitis B vaccine	70
44	. Reasons for getting hepatitis A immunization	72
45	. Reasons for getting hepatitis B immunization	73
46	. Reasons for getting a tetanus immunization	75
47	. Location for pneumococcal immunization	78
48	. Payment for polysaccharide pneumococcal immunization	79
49	. Reasons for getting a polysaccharide pneumococcal immunization	80
50	. Reasons for not getting a polysaccharide pneumococcal immunization in the future	81
51	. Original national sample targets	87
52	. Completion results	90
53	. General public survey	91
54	. Regional respondent profile – by target group	92
Graphs		
1.	Provide vaccine information to clients	43
2.	Vaccination coverage by medical recommendation	48
3.	Importance of influenza immunization to personal health	54
4.	Importance of influenza immunization to prevent others from getting sick	55
5.	Perceptions about influenza vaccine and pregnancy	56
6.	At greater risk for serious complications from influenza	57
7.	Awareness of risk for pneumococcal infection	76
8.	Awareness of recommended schedule for polysaccharide pneumococcal immunization	77
9.	Had health care professional recommendation for pneumococcal immunization	77
	Future plans for polysaccharide pneumococcal immunization	82

# Introduction

Background on Canadian immunization programs. Immunization (vaccination) is a controlled way to trigger the body's natural immune system, to prevent or limit serious or life-threatening illnesses. Prior to the advent of vaccines, common illnesses caused great suffering and contributed to a vastly shorter life expectancy. Although vaccines were developed in the 19th century for diseases such as smallpox, rabies and plague, it has only been since the 20th century that global vaccination programs have contributed to the effective control or complete eradication of several major human diseases. Vaccines and clean water are widely considered to be the two interventions that have had the greatest impact on the world's health.<sup>1</sup>

Health officials have long identified the cost-effectiveness of providing vaccines for many diseases, compared to the costs of other prevention, screening and treatment interventions. Childhood immunization programs in Canada have been exceptionally successful in preventing many infectious diseases. Most adult immunization programs still follow the model of targeting only those most susceptible and to date have not achieved the same level of success as have childhood vaccination programs. However, it is important for disease prevention and control efforts that Canadians be made aware of, and encouraged to take part in, vaccination programs beyond the childhood years, as part of a lifelong health care process.

Study objectives. Until a network of immunization registries is fully operational across the country, Canadians must rely on sample surveys to provide accurate national population estimates of immunization coverage. Coverage data allow for monitoring of vaccine uptake levels and also serve as important health indicators. Public health interventions can be targeted

to populations identified as having low immunization coverage. The 2006 Canadian Adult National Immunization Coverage Survey (Adult NICS) provides estimates of immunization coverage among the non-institutionalized adult Canadian population for the following diseases: influenza, hepatitis A and B, tetanus (lockjaw), pneumococcal disease, pertussis (whooping cough) and varicella (chicken pox).

In addition to establishing the incidence of specific vaccinations, this type of study also provides valuable information on public knowledge, attitudes, behaviours and awareness of immunization programs that will inform communications strategies designed to increase and maintain vaccine uptake. The 2006 Adult NICS captures important information around immunization behaviours (e.g. circumstances, rationale) as well as general knowledge and attitudes about immunization (e.g. sources of information and types of messages being communicated). This is important because, as generations of Canadians age, those who have never in their lifetime witnessed the serious impacts of many of these diseases may have a tendency to resist or see no further need for immunization. This tendency may be more pronounced when combined with common misconceptions regarding vaccine safety and efficacy. Tracking such issues allows health policy-makers to reassess messaging for both the public and health care workers, to help maintain immunization coverage at appropriate levels.

The survey consists of telephone interviews conducted between April 27 and June 13, 2006 with a representative sample of non-institutionalized Canadians over the age of 18 in all 10 provinces and three territories.<sup>2</sup> During this interview period, oversampling of specific target groups was conducted: non-institutionalized

 $<sup>1\ \</sup> World\ Health\ Organization,\ The\ History\ of\ Vaccination,\ http://www.childrensvaccine.org/files/WHO-Vaccine-History.pdf$ 

<sup>2</sup> As the number of interviews conducted in the Territories is small, results are not reported separately for this region.

Canadians aged 65 and over living at home, and non-institutionalized Canadians aged 18 to 64 with chronic medical conditions (CMCs). An oversample survey of health care workers was conducted between May 31 and June 29, 2006, using special lists of individuals working in selected health care professions (these lists are described in the Methodology section of this report). All surveys were conducted in respondents' official language of choice (i.e. French or English).

Four provinces opted to purchase additional sample to accurately estimate immunization coverage for the following target groups within their jurisdictions: Newfoundland (those 65 years of age and over and health care workers), Quebec (those 65 years of age and over, 18-64 with chronic medical conditions and health care workers), Ontario (those 65 years of age and over, 18-64 with CMCs and health care workers) and British Columbia (those 65 years of age and over, and 18-64 with CMCs). These results are not provided here, but separately to the individual provinces.

Because target groups were oversampled and therefore did not reflect the proportions typically found in the general population, a nationally representative sample of 2,237 interviews was drawn from the total number of interviews conducted (n=5,590) according to known proportions by region, gender, age and chronic condition (the last of which used proportions identified in the 2001 PHAC adult *NICS* survey). The national sample included health care workers identified during the general survey, but excludes those contacted using

special lists (see Methodology section for information about health care worker occupation lists). As the health care workers identified in the general survey are not representative of this target population, the results for this group are drawn from a separate set of tables reflecting all interviews completed with health care workers (1,161).

The margin of sampling error for a national sample of 2,237 is plus or minus 2.1 percentage points (at the 95% confidence level). A more detailed description of the methodology for this study is provided at the back of this report, along with a copy of the questionnaire (in the Appendix).

This report begins with an executive summary outlining key findings, followed by a detailed analysis of the survey data, and a section giving conclusions and recommendations.

All results are expressed as a percentage, unless otherwise noted. Graphs and tables show percentages unless otherwise noted. The symbol "n" is used in tables and graphs to indicate the actual number of respondents who were asked a question. For example, if it was asked of only a subset of the population and not of the total sample of respondents, "n" reflects the number in this subset. The symbol " - " in tables indicates no response (0%). Subgroup differences that are discussed in the text are significant to at least the 95% confidence level (p<0.05) unless otherwise stated.

# **EXECUTIVE SUMMARY**

The 2006 Adult NICS provides a broad measure of coverage of six vaccinations among the non-institutionalized adult Canadian population. The results of this survey reveal that Canadians place a strong reliance on health care practitioners, both to recommend immunizations appropriate to their needs, and to provide vaccine-related information to them. The most commonly reported vaccination, tetanus, is generally administered as a result of treatment of a wound rather than as a preventative measure. Canadians 65 years of age or older are the most likely of the target groups to receive vaccine recommendations from medical practitioners, but there are significant missed opportunities for vaccinations, specifically when it comes to Canadians aged 18 to 64 years of age with chronic medical conditions. When specific vaccination coverage is examined by whether or not the recipient had received a recommendation from a health care practitioner, it is clear that such a recommendation is a major motivator in getting immunized. Thus, health care worker co-operation and education are crucial components of the public immunization process.

The following are key findings from the survey:

# General findings

- Canadians are most likely to get information about adult vaccinations from a health care facility (75% mention one of these as a source), notably their family doctor (52%), but a proportion (22%) also seek information from published sources, notably the Internet (12%).
- Adult Canadians are most likely to get an immunization from a health care facility rather than a special location clinic (such as a travel or occupational clinic). The vaccinations most associated with special location clinics are for hepatitis A (35%) and hepatitis B (41%).

- The majority of health care workers who have opportunities to provide information about vaccinations to clients say they are providing messages about vaccination promotion and encouragement (55%).
- Health care workers report that the vaccine-related questions their clients most frequently ask about possible side effects/complications (48%), and if the vaccine is necessary or effective (33%).

### Influenza

- Among the general adult population in Canada, 37 percent received an influenza immunization in the 2005-2006 influenza season.
- The national influenza immunization target for those 65 years of age or older is close to being achieved (70% currently being immunized, with 80 percent being targeted by 2010) but this is not the case for younger adults 18 to 64 years of age with chronic medical conditions (38% currently, 80% targeted).
- Influenza immunization coverage is quite high among health care workers (64%), especially among those reporting close contact with patients and among doctors, nurses and nurse's aids/orderlies. The national target to be achieved by 2010 is 80 percent among this population.
- Influenza immunization coverage is lowest among those 18 to 64 with no chronic condition (24%), who are the group least likely to feel that an influenza immunization is personally important to them. There is no specific national target set for this group and influenza immunization is not funded for them in many jurisdictions.

# Pneumococcal disease

- Polysaccharide pneumococcal immunization is highest among those 65 years of age and over (39%) and is half that rate for those aged 18 to 64 with chronic medical conditions other than asthma (17%). The national target for this immunization is 80 percent of those 65 years of age or older by the end of 2010.
- While all immunizations are positively linked to a medical recommendation, this is especially so in the case of pneumococcal immunization: 93 percent of those who had such a recommendation say they received a pneumococcal immunization.
- Less than a third (29%) of those in the two abovementioned target groups are aware of their increased risk for pneumococcal infection, and only one in ten (11%) is aware of the recommended vaccination schedule for pneumococcal immunization.

# Hepatitis A and B

- A quarter of adult (25%) Canadians have been immunized against hepatitis A but only half of these (51%) have received more than one dose. Three in ten (30%) have been vaccinated against hepatitis B and six in ten (58%) of these have received more than one dose.
- About four in ten (42%) of those who say they have travelled to endemic countries in the past 10 years report being vaccinated against hepatitis A.
- Half (52%) of adult Canadians indicating they have work exposure risk say they have been vaccinated

- against hepatitis B; seven in ten (70%) of these received more than one dose.
- Travel and work are the main reasons given for getting either a hepatitis A or hepatitis B immunization.

# Pertussis (Whooping cough)

- Pertussis immunization coverage among adult Canadians is the lowest of the vaccines covered, at four percent, and is not significantly higher for those in at-risk groups or who live in a household with an infant less than 23 months of age (5%). Coverage is highest among health care workers (10%).
- Two in ten (21%) pertussis immunizations have been administered since 2004.

# Varicella (Chicken pox)

- Over eight in ten (84%) Canadians aged 18 to 64 say they have had varicella (chicken pox).
- Only a small fraction (14%) of those who have not had varicella have been tested for immunity.

### Tetanus

- Close to half (47%) of adult Canadians received a tetanus immunization in the past 10 years.
- Tetanus immunization is most often reported by those who have had wounds treated in the past 10 years (78%).

# IMMUNIZATION COVERAGE

Immunization (vaccination) is a controlled way to trigger the body's natural immune system, to prevent or limit serious or life-threatening illnesses. Health officials have long identified the cost-benefit of providing vaccines for many diseases, compared to the costs of other prevention, screening and treatment interventions. In this section, we present tables summarizing vaccination coverage among the adult Canadian population. The sections that follow separately examine coverage rates for specific immunizations examined in the 2006 Adult *NICS* survey.

# Vaccination summary

The most common adult immunization is tetanus, followed by influenza.

Tetanus is the most commonly reported adult vaccination, with close to half (47%) of adult Canadians indicating they have had this immunization in the past 10 years. It is also the most common immunization among those aged 18 to 64, whether or not they have a chronic medical condition. This was expected to be a commonly administered vaccine, as its long period of efficacy – it lasts for 10 years – means that many Canadian adults have had an opportunity to be offered this immunization. Among those 65 years of age and older, and health care workers, influenza is the most commonly reported immunization, likely because influenza is recommended as an annual immunization.

TABLE 1
Overview of adult vaccination coverage
General Canadian population and health care workers June 2006

		GENERAL P	OPULATION		I
Adult vaccination	<b>Total</b> (n=2,237)	<b>18 - 64</b> WITH NO <b>CMC</b> (N=1,319)	<b>18 - 64 WITH CMC</b> (N= 395)	<b>65+</b> (N=287)	Health care workers (N=1,161)
Influenza	37.3	23.7	38.2	69.9	64.1
Hepatitis A	25.1	26.4	22.7	10.3	40.0
Hepatitis B	30.2	30.0	29.2	10.5	57.1
Pertussis	3.9	3.5	2.4	2.5	10.0
Tetanus	46.5	47.6	49.1	28.5	53.8
Pneumococcal*	(n=599)	-	(n=271)	(n=287)	(n=313)
	29.4		16.7	38.6	25.3
Varicella**	(n=1,933)	(n=1,319)	(n=395)	**	(n=1,066)
Had as child	84.1	83.8	82.1		89.7
Base: Not having as a child	(n=229)	(n=159)	$(n=52^{6})$		(n=102)
% immunized	13.8	13.3	14.0		22.5

n = unweighted (actual) base for the group

<sup>\*</sup> Questions about pneumococcal immunizations were asked of those 65 years of age or over and those 18-64 with a chronic condition other than asthma.

<sup>\*\*</sup> The question about varicella prevalence was asked only of those under 65 years of age; varicella immunization questions were subsequently asked only of those who did not report having varicella as a child.

 $<sup>\</sup>beta$   $\;$  Small base (  $\!<\!100)$  – caution is advised in interpreting results

TABLE 2
Overview of adult vaccination coverage
By province General Canadian population June 2006

Adult vaccination (n=2,237)	<b>Т</b> отаl (2,237)	<b>BC</b> (344)	<b>AB</b> (210)	<b>sκ</b> (59 <sup>β</sup> )	<b>мв</b> (76 <sup>в</sup> )	<b>ON</b> (911)	<b>QC</b> (457)	<b>ATL</b> (163)
Influenza	37.3	47.8	30.7	29.9	21.3	46.2	24.6	35.3
Hepatitis A	25.1	21.6	31.9	28.4	23.0	26.5	25.6	14.2
Base: HepA recipients	(573)	(80 <sup>B</sup> )	(68 <sup>8</sup> )	(16°)	(18°)	(249)	(115)	(24°)
More than one dose	50.5	54.1	42.8	56.4	55.2	48.5	52.6	58.7
Hepatitis B	30.2	22.8	34.3	35.2	28.2	32.4	33.7	15.4
Base: HepB recipients	(679)	(83 <sup>8</sup> )	$(72^{6})$	(20°)	(22°)	(300)	(151)	(27°)
More than one dose	57.7	50.2	55.5	75.1	55.3	54.5	60.1	83.9
Pertussis	3.9	2.6	3.7	5.2	3.6	3.5	6.1	0.2
Tetanus	46.5	39.5	47.4	50.2	41.4	51.0	44.6	43.0
Pneumococcal*	(n=599)	(n=153)	$(n=30^{\alpha})$	$(n=4^{\beta})$	$(n=5^{\alpha})$	(n=254)	(n=95)	(n=56 <sup>6</sup> )
	%	%	%	#	#	%	% 16.4	%
	29.4	38.2	46	_	(2)	30.4	16.4	21
Varicella**	(n=1,933)	(n=270)	(n=190)	$(n=57^{6})$	$(n=73^{6})$	(n=777)	(n=435)	(n=115)
Had as child	84.1	87.5	89.4	84.9	86.7	85.4	79.3	82
Base: Not having as a child	(n=229)	$(n=27^{\alpha})$	$(n=17^{\alpha})$	$(n=8\alpha)$	$(n=9^{\alpha})$	$(n=96^{6})$	$(n=55^{6})$	$(n=15^{\alpha})$
	%	%	#	#	#	%	%	#
Immunized	13.8	7.8	(2)	(2)	_	16.8	14.6	(2)

<sup>\*</sup> Questions about pneumococcal immunizations were asked of those 65 years of age or over and those 18-64 with a chronic condition other than asthma.

<sup>\*\*</sup>The question about varicella prevalence was asked only of those under 65 years of age; varicella immunization questions were subsequently asked only of those who did not report having varicella as a child.

 $<sup>\</sup>beta$  Small base (<100) – caution is advised in interpreting results

 $<sup>\</sup>alpha$  Very small base (  $\!<\!50)$  – extreme caution is advised in interpreting results

# Locations for adult immunizations

Canadians are most likely get an immunization at a health care facility. The immunizations most likely to be administered at a special location clinic are for hepatitis.

The majority of immunizations are given at some type of health care facility. Hepatitis vaccines are more likely than influenza or pertussis vaccines to be delivered in a special location, such as a travel or school clinic. The table below shows location of last immunization for each of the four vaccines about which this question was asked.

TABLE 3
Locations for adult vaccinations
General Canadian population – those receiving each immunization June 2006

	Influenza (N=835)	<b>Hepatitis A</b> (N=573)	<b>Hepatitis B</b> (N=679)	PNEUMOCOCCAL DISEASE** (N=168)
NET: Health care facility	70	62	56	89
Family doctor/general practitioner	40	26	22	56
Public health clinic or CLSC	19	27	23	18
Hospital or emergency room	4	5	6	7
Walk-in clinic	4	2	2	4
Health centre/unit/medical centre	1	1	1	3
Clinic/private/general	2	1	1	1
NET: Special location clinic	28	35	41	6
Seniors centre	2	_	_	4
Community centre or other public area	3	1	-	*
Travel clinic	_	12	8	*
Workplace clinic	16	7	10	*
School/university	3	14	23	_
Other	1	1	2	3
Don't know	*	2	1	2

<sup>\*</sup> Less than one percent

Q.15

Where did you go to get the flu shot?

Subsample: Those who received an influenza immunization between October 2005 and now

Q.24

Where did you go to get the vaccine for hepatitis A?

Subsample: Those who received a hepatitis A immunization

Q.27

Where did you go to get the vaccine for hepatitis B?

Subsample: Those who received a hepatitis B immunization

Q.47

Where did you go to get the vaccine for pneumonia?

Subsample: Those who received a pneumococcal immunization

<sup>\*\*</sup> Questions about pneumococcal immunizations were asked of those 65 years of age or over and those 18-64 with a chronic condition other than asthma

# Influenza

Close to four in ten Canadians received an influenza immunization in the 2005-2006 season. Seniors and health care workers are more likely than others to have been immunized against influenza.

Influenza (or flu) is a very contagious respiratory illness affecting millions of Canadians every year. An annual influenza immunization (commonly know as the "flu shot") can help prevent the infection or reduce the severity of the illness.

Canadians 18 years of age and over were asked a series of questions about the vaccine against influenza. This section discusses annual influenza immunization rates for the 2005-2006 influenza season.

# Influenza vaccination coverage among target groups

Annual influenza immunization programs were initially directed at high-risk groups: those 65 years of age and over, younger persons with serious chronic illnesses

that increase their susceptibility to influenza, and health care workers. At a 2005 consensus conference, a target vaccination rate of 80 percent was set for those 65 years of age or older, and for adults of any age with chronic medical conditions, to be achieved by 2010. In 2004, the Canadian Task Force on Preventive Health Care recommended that influenza immunization be extended to healthy adults and children, but this has not yet been implemented in all jurisdictions.

The 2006 Adult *NICS* study indicates that the overall influenza vaccination coverage rate among the adult population in Canada for the 2005-2006 influenza season is 37 percent. Coverage is 70 percent among the age 65 and over population, close to meeting the 2010 target set for this group, but coverage remains lower for those aged 18 to 64 with chronic health conditions (38%). Among the health care worker population, influenza coverage for the 2005-2006 season is 64 percent, which is on track to meet the national target of 80 percent by 2010.

TABLE 4
Influenza immunization coverage by target groups

Target group	GROUP BASE (ACTUAL)	GROUP BASE (WEIGHTED)	Weighted #	% of group	95% CI
			Immun	IZED AGAINST INFL	UENZA
Total population	2,237	2,237	834	37.3	± 2.1
Adults 65+	287	355	248	69.9	$\pm$ 5.8
Adults 18-64 with chronic medical condition (CMC)	395	373	143	38.2	± 4.9
Adults 18-64 with no CMC	1,319	1,276	302	23.7	± 2.7
All health care workers	1,161	1,161	744	64.1	± 2.9

Q.14

Did you receive a flu shot between October 2005 and now?

# Influenza vaccination coverage by demographics

Influenza coverage varies by region. It is significantly higher in Ontario (46%) and British Columbia (48%), compared to other regions where between a quarter and a third of the population is immunized. This reflects differences in influenza immunization policies and a higher proportion of 65+ residents in B.C. Ontario has been offering a universal influenza immunization program since 2000.

As observed in other studies, influenza vaccination coverage increases with age. It is lowest among those aged 18 to 24 (15%), and highest among those aged 75 and over (76%). Women are more likely (40%) than men (34%) to report having received an influenza immunization in the most recent influenza season, possibly reflecting the fact that a higher proportion of those 65 years of age and over are women.

TABLE 5
Influenza immunization coverage by demographics
June 2006

	GROUP BASE (ACTUAL)	GROUP BASE (WEIGHTED)	WEIGHTED #	% of group	95% CI
			Імми	NIZED AGAINST INF	LUENZA
otal population	2,237	2,237	834	37.3	± 2.1
REGION					
Atlantic	163	173	61	35.3	$\pm 7.7$
Quebec	457	551	135	24.6	± 4.6
Ontario	911	845	391	46.2	± 3.2
Manitoba	76	81	17 <sup>B</sup>	$21.3^{B}$	± 11.2
Saskatchewan	59	70	21 <sup>B</sup>	$29.9^{B}$	± 12.8
Alberta	210	216	66	30.7	$\pm$ 6.8
B.C.	344	295	141	47.8	$\pm$ 5.3
GE					
18-24	239	269	41	15.2	$\pm$ 6.3
25-34	390	388	96	24.7	± 5.0
35-44	539	496	161	32.4	± 4.2
45-54	494	430	149	34.8	± 4.4
55-64	271	279	123	44.2	± 6.0
65-74	174	208	138	66.3	± 7.4
75+	130	167	126	75.6	$\pm$ 8.6
ENDER					
Male	1,108	1,108	369	34.1	± 2.9
Female	1,129	1,156	466	40.3	± 2.9

 $\beta$  Small base (  $\!<\!100)$  – caution is advised in interpreting results

Q.14

Did you receive a flu shot between October 2005 and now?

# Influenza vaccination coverage by household composition

Among the Canadian population aged 18 to 64, annual influenza vaccination coverage does not increase significantly if there is someone with an age-related risk factor living in the household. For example, influenza immunization coverage is similar among those who live with someone aged 65 or over (35%) and those whose household does not include someone 65 years of age or over (30%). As well, coverage is the same among those with a child under the age of two in their home (31%) and those who do not (31%).

Canadians aged 18 to 64 were asked if they, or if someone else in their household, had any of nine specific types of chronic medical conditions (CMCs). The presence of a person with a CMC in the home does increase the likelihood that someone aged 18 to 64 will report having a recent annual influenza immunization (35%, vs. 27% of those whose household does not include someone with a CMC).

TABLE 6
Influenza immunization coverage by household composition
June 2006

	GROUP BASE (ACTUAL)	GROUP BASE (WEIGHTED)	WEIGHTED # % OF GROUP 95% CI
		IMMUNIZED AGAINST INFLUENZA	
Total population	2,237	2,237	834 37.3 ± 2.1
All adults 18 to 64	1,933	1,861	568 30.5 ± 2.2
Adults 18-64 in household with someone 65+	146	141	49 34.8 ± 8.1
Adults 18-64 in household without someone 65+	1,786	1,720	521 30.3 ±2.3
Adults 18-64 in household with child ≤23 months	171	169	53 31.1 ± 7.5
Adults 18-64 in household with no child ≤23 months	1,761	1,692	517 30.6 ± 2.3
Adults 18-64 in household with CMC	902	868	300 34.6 ± 3.3
Adults 18-64 in household with no CMC	1,031	994	$270$ $27.1$ $\pm 3.1$

Q.14

Did you receive a flu shot between October 2005 and now?

# Influenza vaccination coverage by medical recommendation

Having a recommendation by a medical professional, in an office, clinic or hospital setting, is a major factor influencing an adult Canadians' decision to receive an influenza immunization.

Those who saw a health care professional between October 2005 and the date they were interviewed (70% of the adult Canadian population) were asked if, when they consulted this medical professional, the vaccine for influenza was recommended to them. Four in ten (38%) had such a recommendation during this visit. Those who received such a recommendation are significantly more likely to actually have received the influenza vaccine than those who did not get a recommendation. Eight in ten (79%) of those who had an influenza vaccine recommendation from a health care professional since October 2005 say they were immu-

nized, compared to only a quarter (24%) of those who did not receive a recommendation during their visit.

Those who were in a hospital or emergency room between October 2005 and the date they were interviewed (16% of the adult Canadian population) were asked if, during that visit, a medical professional recommended an influenza immunization to them. Only one in ten (9%) had an influenza immunization recommended to them during a hospital or emergency room visit. The base of those receiving such a recommendation in a hospital or emergency room setting is very small (n=30) and caution is advised in interpreting these results. However, statistically those who had a recommendation while in hospital are more likely to report receiving their annual influenza immunization than those who did not get a recommendation.

TABLE 7
Influenza immunization coverage by medical recommendation
June 2006

	GROUP BASE (ACTUAL)	GROUP BASE (WEIGHTED)	WEIGHTED #	% OF GROUP	95% CI
	( ,	,	Visited health care practitioner		
Total population	2,237	2,237	1,561	69.8	± 2.1
			VISITED H	OSPITAL OR EMER SINCE OCT. <b>05</b>	
Total population	2,237	2,237	349	15.6	± 2.1
				EDICAL RECOMMEI ZA IMMUNIZATION	
Visited a health care practitioner	1,551	1,561	587	37.6	$\pm 2.5$
visited hospital or emergency room	339	349	32	9.0	$\pm$ 5.3
			Імми	INIZED AGAINST IN	FLUENZA
Total population	2,237	2,237	834	37.3	± 2.1
Visited health care practitioner since October 2005 and influenza immunization recommended	582	587	463	78.8	± 4.1
/isited health care practitioner since October 2005 and influenza immunization NOT recommended	946	951	229	24.1	± 3.2
Visited hospital or emergency room since October 2005 and influenza immunization recommended	30	32	27ª	84.9 <sup>a</sup>	± 17.9
Visited hospital or emergency room since October 2005 and influenza immunization NOT recommended	307	316	125	39.4	± 5.6
$\alpha$ Very small base ( $<$ 50) – extreme caution is advised in interpreti	ng results				

### Q.10

Have you visited a health care professional, for example a doctor or nurse, between October 2005 and now? This does not include emergency room visits.

### 0.11

When you consulted the health care professional, did they recommend you get a flu shot?

Subsample: Those who have visited a health care professional between October 2005 and now, not including ER visits

### Q.12

Were you hospitalized or did you visit an emergency room as a patient between October 2005 and now?

# Q.13

When you were in the hospital, did a health care professional such as a doctor or nurse recommend you get a flu shot? Subsample: Those who were hospitalized or who visited an ER as a patient between October 2005 and now

# Q.14

Did you receive a flu shot between October 2005 and now?

## Influenza vaccination coverage among health care workers

As previously noted, the health care worker population is almost twice as likely as the general population 18 years or age and over to report having received the annual influenza immunization in the 2005-2006 influenza season. Significantly higher influenza immunization rates in the last year are reported by health care workers having close personal contact with patients (70%) than by those who do not have such contact (55%). It is higher among nurses (77%), nurse's aids/orderlies (75%) and doctors (74%), than among other health care professionals (59%). The base of non-traditional health care workers is small (n=49) and thus caution should be used in interpreting these results, but their 2005-2006 influenza vaccination coverage (21%) is statistically lower than that of other health care workers.

**TABLE 8** Influenza immunization coverage of health care workers by patient contact and profession June 2006

GROUP	GROUP BASE (ACTUAL)	GROUP BASE (WEIGHTED)	WEIGHTED #	% of group	95% CI
			Імми	INIZED AGAINST IN	IFLUENZA
Total health care worker population	1,161	1,161	744	64.1	± 2.9
With close contact with patients	727	725	505	69.7	± 3.6
With no close contact with patients	429	429	234	54.5	± 4.7
PROFESSION					
Doctor	94	92	69 <sup>B</sup>	$74.3^{\text{B}}$	± 10.1
Nurse	213	185	141	76.5	± 6.7
Nurse aid/orderly	119	121	91	74.7	± 9.0
Non-traditional health care worker	49	38	8α	20.8α	± 14.0
First responder	16	25	16ª	63.3 <sup>a</sup>	± 24.5
Administration	123	112	63	56.3	± 8.8
Volunteer	76	145	98 <sup>B</sup>	67.2 <sup>B</sup>	± 11.2
Other health care workers	471	443	259	58.6	± 4.5

 $\alpha$  Very small base (<50) – extreme caution is advised in interpreting results

Q.14

Did you receive a flu shot between October 2005 and now?

## Pneumococcal disease

Close to four in ten non-institutionalized Canadians 65 and over have had a pneumococcal immunization, but coverage is less than half of that among those 18 to 64 years of age who have a chronic medical condition.

The Laboratory Centre for Disease Control (LCDC), Health Canada, organized a meeting of national and international stakeholders entitled "Preventing Pneumococcal Disease: A Canadian Consensus Conference" in Ottawa, from February 16 to 18, 1998. One of the recommendations of this conference was that each province and territory should purchase vaccine for all its population at high risk for pneumococcal disease. A one-time dose of polysaccharide pneumococcal vaccine was recommended for people 65 years or age or older, and for all individuals over five years of age with high-risk medical conditions.<sup>3</sup>

Following a 2005 national consensus conference, additional recommendations were made to decrease the incidence of invasive pneumococcal disease (IPD) in the

elderly and high-risk individuals and to increase coverage in these groups. The recommendations included:

- Achieving a sustained reduction of 40 percent in the incidence of IPD in Canadians 65 years of age or over (compared with 1998 incidence) by 2010.
- Achieving and maintaining age-appropriate immunization coverage with a single dose of pneumococcal polysaccharide vaccine in 80 percent of Canadians aged 65 years of age and older by 2010.
- All province and territories should continue to optimize their polysaccharide pneumococcal immunization programs for individuals at high risk for IPD as defined by National Advisory Committee on Immunization (NACI) guidelines.

Questions about polysaccharide pneumococcal immunization in this survey were asked only of those who are 65 years of age or older and younger Canadians who self-identified as having a chronic medical condition other than asthma.

<sup>3</sup> Public Health Agency of Canada. Preventing Pneumococcal Disease: A Canadian Consensus Conference, 16-18 February, 1998 Canadian Communicable Disease Report, Volume 25-04, February 1999. http://www.phac-aspc.gc.ca/publicat/ccdr-rmtc/99vol25/dr2504ea. html

# Polysaccharide pneumococcal vaccination coverage among target groups

Among persons with risk factors as defined by NACI for pneumococcal disease (those 65 + and those with chronic medical conditions – CMCs – other than asthma), the overall coverage rate is 29 percent. Polysaccharide pneumococcal immunization coverage is higher among the 65 + population (39%) than among those 18 to 64 years of age with a chronic condition other than asthma (17%).

**TABLE 9**Polysaccharide pneumococcal immunization coverage by target groups
June 2006

	GROUP BASE (ACTUAL)	GROUP BASE (WEIGHTED)	<b>W</b> EIGHTED #	% OF GROUP	95% CI
			Імми	JNIZED AGAINST IN	IFLUENZA
Age 65+ or 18-64 with CMC (not asthma)	599	650	191	29.4	± 4.0
65+	287	355	137	38.6	± 5.8
18-64 with CMC (not asthma)	271	252	42	16.7	± 6.0

Q.44

Have you ever had a vaccine for pneumonia?

# Polysaccharide pneumococcal vaccination coverage by demographics

There is no gender difference in polysaccharide pneumococcal immunization coverage in the target risk factor groups (i.e. 65 + and Canadians 18-64 with CMCs), but as expected there are age-related differences. As is the case with influenza vaccination, pneumococcal immunization coverage rates are higher among those aged 65 and over than among those under age 65, and are highest among those aged 75 and over.

**TABLE 10**Polysaccharide pneumococcal immunization coverage by demographics June 2006

Group	GROUP BASE (ACTUAL)	GROUP BASE (WEIGHTED)	<b>W</b> EIGHTED #	% OF GROUP	95% CI
			Імми	JNIZED AGAINST IN	IFLUENZA
Age 65+ or 18-64 with CMC (not asthma)	599	650	191	29.4	± 4.0
REGION					
Atlantic	56	53	11 <sup>B</sup>	$21.0^{\beta}$	± 13.1
Quebec	95	122	20 <sup>B</sup>	16.4 <sup>β</sup>	± 10.0
Ontario	254	277	84	30.4	± 6.1
Prairies	39	49	19ª	38.8α	± 15.7
B.C.	153	148	56	38.2	± 7.9
AGE					
18-34	56	58	7 <sup>8</sup>	12.1 <sup>B</sup>	± 13.1
35-44	74	64	9 <sup>B</sup>	14.4 <sup>β</sup>	± 11.4
45-54	68	54	13 <sup>B</sup>	24.1 <sup>8</sup>	± 11.9
55-64	97	99	18 <sup>B</sup>	17.7 <sup>B</sup>	± 10.0
65-74	174	208	63	30.3	± 7.4
75+	130	167	81	48.7	± 8.6
GENDER					
Male	314	329	91	27.6	± 5.5
Female	285	321	100	31.3	± 5.8

 $<sup>\</sup>ensuremath{\mathtt{G}}$  Small base (  $\!<\!100)$  – caution is advised in interpreting results

Q.44

Have you ever had a vaccine for pneumonia?

 $<sup>\</sup>alpha$  Very small base (<50) – extreme caution is advised in interpreting results

# Polysaccharide pneumococcal vaccination coverage by medical recommendation

Among the population at risk for pneumococcal disease (i.e. 65 + and Canadians 18-64 with CMCs), a quarter (26%) say they have had a doctor or other health care professional recommend a pneumococcal immunization to them, and virtually all of those who had such a recommendation actually received the immunization (93%). In comparison, only seven percent of those who did not have a recommendation received a pneumococcal immunization.

Similarly, among all of those who received a pneumococcal immunization, the vast majority (81%) report having had a medical recommendation for this, while only three percent of those who did not receive a pneumococcal immunization have ever had a recommendation for one.

**TABLE 11**Polysaccharide pneumococcal immunization coverage by medical recommendation June 2006

GROUP	GROUP BASE (ACTUAL)	GROUP BASE (WEIGHTED)	<b>W</b> EIGHTED #	% OF GROUP	95% CI
			Immunized A	GAINST PNEUMOC	OCCAL DISEASE
Age 65+ or 18-64 with CMC (not asthma)	599	650	191	29.4	$\pm~4.0$
Had a medical recommendation	147	167	155	92.8	± 8.1
Did not have a medical recommendation	444	474	33	7.0	$\pm$ 4.7
			HAD A	MEDICAL RECOMM	ENDATION
Age 65+ or 18-64 with CMC (not asthma)	599	650	167	25.7	$\pm~4.0$
Had a pneumococcal immunization	168	191	155	81.2	$\pm 7.6$
Did not have a pneumococcal immunization	410	437	11	2.5	$\pm$ 4.8

Q.43

Has a doctor or any other health care provider ever recommended that you receive the vaccine for pneumonia?

0.44

Have you ever had a vaccine for pneumonia?

# Hepatitis A

One-quarter of adult Canadians have been immunized against hepatitis A, but only half of these received more than one dose.

Scientists have identified six hepatitis viruses, but three -A, B and C – cause about 90 percent of acute hepatitis cases in Canada. While Canada is considered an area of low prevalence for hepatitis, there are population segments considered at increased risk of infection. The hepatitis A virus (also known as HAV) is transmitted when people eat or drink contaminated material, which often occurs while travelling in endemic countries. Hepatitis B (HBV), the most prevalent hepatitis strain in the world, is spread by sexual contact or through blood and other body fluids.

All respondents were asked whether they have had vaccinations for hepatitis A or B. Those reporting having been immunized against both were asked questions about each separately.

# TABLE 12 Hepatitis A immunization coverage by target groups June 2006

Julic 2000					
	GROUP BASE (ACTUAL)	GROUP BASE (WEIGHTED)	Weighted #	% OF GROUP	95% CI
			Іммин	IZED AGAINST HEF	PATITIS A
Total population	2,237	2,237	562	25.1	± 2.1
Received more than one dose	573	562	284	50.5	± 4.1
Adults 65+	287	355	37	10.3	± 5.8
Received more than one dose	29	37	16ª	43.7α	± 18.2
Adults 18-64 with CMC	395	373	85	22.7	± 4.9
Received more than one dose	91	85	44 <sup>β</sup>	51.7 <sup>B</sup>	± 10.3
Adults 18-64 with no CMC	1,319	1,276	337	26.4	± 2.7
Received more than one dose	346	337	163	48.5	± 5.3
All health care workers	1,161	1,161	465	40.0	± 2.9
Received more than one dose	420	465	281	60.5	± 4.8

 ${\tt S}$  Small base (  $\!<\!100)$  – caution is advised in interpreting results

 $\alpha$  Very small base (<50) – extreme caution is advised in interpreting results

Q.21

Have you ever been vaccinated against either hepatitis A or hepatitis B?

0.22

Did you receive more than one dose of the vaccine for hepatitis A? Subsample: Those who have ever been vaccinated for hepatitis A

# Hepatitis A vaccination coverage among target groups

A quarter (25%) of Canadians report having been immunized against hepatitis A. Of those who have received this vaccine, nine in ten (89%, representing 22% of the total population) have been immunized against both hepatitis A and B, and the rest (11%, or 3% of the total population) have been immunized against hepatitis A only. Over half (54%) of adult Canadians have not been immunized against either form of hepatitis and one in seven (14%) do not indicate their hepatitis immunization status.

The probability of getting a hepatitis A vaccine is higher in the 18 to 64 age group (with or without a chronic medical condition) than among those 65 years of age and over. Health care workers are the target group most likely (40%) to report a hepatitis A vaccination. Half (51%) of hepatitis A vaccine recipients say they have received more than one dose.

TABLE 13 Hepatitis A immunization coverage by demographics June 2006

	GROUP BASE (ACTUAL)	GROUP BASE	WEIGHTED #	% OF GROUP	95% CI
	(ACTUAL)	(WEIGHTED)			
Total population	2 227	2 227	562	zed against hep 25.1	± 2.1
otal population	2,237	2,237	302	25.1	± 2.1
REGION					
Atlantic	163	173	24	14.2	$\pm 7.7$
Received more than one dose	24	24	14α	58.7°	$\pm 20.0$
Quebec	457	551	141	25.6	± 4.6
Received more than one dose	115	141	74	52.6	$\pm 9.1$
Ontario	991	845	224	26.5	$\pm 3.2$
Received more than one dose	249	224	109	48.5	$\pm 6.2$
Manitoba	76	81	19 <sup>ß</sup>	$23.0^{B}$	± 11.2
Received more than one dose	18	19	10°	55.2α	$\pm 23.0$
Saskatchewan	59	70	20 <sup>ß</sup>	$28.4^{\text{B}}$	± 12.8
Received more than one dose	16	20	11ª	56.4°	$\pm 24.5$
Alberta	210	216	69	31.9	$\pm$ 6.8
Received more than one dose	68	69	29 <sup>β</sup>	42.8 <sup>β</sup>	± 11.9
3.C.	344	295	64	21.6	± 5.3
Received more than one dose	80	64	35 <sup>β</sup>	54.1 <sup>B</sup>	± 11.0
AGE					
18-24	239	269	118	43.8	± 6.3
Received more than one dose	104	118	61	52.0	± 9.6
75-34	390	388	130	33.4	± 5.0
Received more than one dose	130	130	70	53.4	±8.6
35-44	539	496	117	23.7	± 4.2
Received more than one dose	130	117	58	49.7	± 8.6
15-54	494	430	102	23.8	± 4.4
Received more than one dose	123	102	53	52.1	± 8.8
55-64	271	279	53	19.1	± 6.0
Received more than one dose	53	53	23 <sup>B</sup>	42.5 <sup>B</sup>	± 13.5
55-74	174	208	29	14.0	± 7.4
Received more than one dose	23	200	14 <sup>a</sup>	14.0 47.4α	$\pm 7.2$ $\pm 20.3$
75+	130	167	13	7.5	± 8.6
Received more than one dose	10	13	5α	7.5 39.0°	± 30.1
	10	10		00.0	_ 00.1
GENDER					
Male	1,108	1,081	282	26.1	± 2.9
Received more than one dose	295	282	135	47.8	± 5.7
emale	1,129	1,156	280	24.2	± 2.9
Received more than one dose	278	280	149	53.2	$\pm 5.9$

 $\alpha$  Very small base (<50) – extreme caution is advised in interpreting results

Have you ever been vaccinated against either hepatitis A or hepatitis B?

# Hepatitis A vaccination coverage by demographics

Hepatitis A immunization coverage is highest among the youngest age group (those aged 18 to 24) and decreases with age, but there is no apparent gender difference. Coverage is lower in the Atlantic region (14%) than in other locations of the country (see Table 13 on the previous page).

# Hepatitis A vaccination coverage and travel to endemic countries

All respondents were asked if, in the past 10 years, they have travelled to countries other than the United States, Australia, New Zealand, Japan and Western Europe. Close to four in ten (38%) say that they have.

Six in ten (62%) of adult Canadians who have been vaccinated against hepatitis A say they have travelled to endemic countries in the past 10 years.

Travel to endemic countries — by hepatitis A immunization and dosage June 2006

	GROUP BASE (ACTUAL)	GROUP BASE (WEIGHTED)	WEIGHTED #	% of group	95% CI
				LED TO ENDEMIC (	
Total population	2,237	2,237	841	37.6	± 2.1
Not vaccinated against Hepatitis A	1,664	1,675	491	29.3	± 2.4
Vaccinated against Hepatitis A	573	562	350	62.3	± 4.1
More than one dose	292	284	191	67.2	$\pm$ 5.7
Not more than one dose	180	180	99	55.1	$\pm 7.3$

Q.21

Have you ever been vaccinated against either hepatitis A or hepatitis B?

Q.22

Did you receive more than one dose of the vaccine for hepatitis A? Subsample: Those who have ever been vaccinated for hepatitis A

Q.36

In the past 10 years, have you travelled to countries other than the United States, Australia, New Zealand, Japan and Western Europe?

# Hepatitis B

Three in ten Canadians have been immunized against hepatitis B; a majority received more than one dose. Almost six in ten health care workers have had a hepatitis B immunization; three-quarters received more than one dose. Coverage is positively linked to exposure risk.

### Hepatitis B vaccination coverage by target groups

Three in ten (30%) adult Canadians report having been immunized against hepatitis B. Of those who have received this vaccine, three-quarters (74%, representing 22% of the total population) have been immunized against both hepatitis A and B, and the rest (26%, or 8% of the total population) have been immunized against hepatitis B only. Over half (54%) of adult Canadians have not been immunized for either form of

hepatitis, and one in seven (14%) do not indicate their hepatitis immunization status.

Incidence of getting a hepatitis B vaccine is higher in the 18 to 64 age group – with (29%) or without (30%) a chronic medical condition) – than among those 65 years of age and over (11%). Health care workers are significantly more likely (57%) to report a hepatitis B vaccination than is the general public (30%). More information about hepatitis B coverage of health care workers is provided later in this section.

Six in ten (58%) hepatitis B vaccine recipients say they had more than one dose; health care worker vaccine recipients are the target group most likely to report having more than one dose (74%).

TABLE 15
Hepatitis B immunization coverage by target groups
June 2006

	GROUP BASE (ACTUAL)	GROUP BASE (WEIGHTED)	Weighted #	% of group	95% CI
			Immun	IZED AGAINST HER	PATITIS B
Total population	2,237	2,237	676	30.2	± 2.1
Received more than one dose	679	676	390	57.7	± 3.8
Adults 65+	287	355	37	10.5	± 5.8
Received more than one dose	30	37	11ª	28.2°	± 17.9
Adults 18-64 with CMC	395	373	109	29.2	± 4.9
Received more than one dose	113	109	59	54.2	± 9.2
Adults 18-64 with no CMC	1,319	1,276	383	30.0	± 2.7
Received more than one dose	385	383	212	55.5	± 5.0
All health care workers	1,161	1,161	663	57.1	± 2.9
Received more than one dose	636	663	489	73.8	± 3.9

Q.21

Now I am going to ask you a few questions about your experience with vaccines for hepatitis. Hepatitis A and B are serious liver diseases caused by viruses. Have you ever been vaccinated against either hepatitis A or hepatitis B?

Q.25

Did you receive more than one dose of the vaccine for hepatitis B? Subsample: Those who have ever been vaccinated for hepatitis B

**TABLE 16**Hepatitis B immunization coverage by demographics June 2006

	GROUP BASE	GROUP BASE (WEIGHTED)	W "	0/	050/ 01
	(ACTUAL)		WEIGHTED #	% OF GROUP	95% CI
Total population	2,237	2,237	676	30.2	±2.1
REGION	2,201	2,201	070	00.2	- 2.1
Atlantic	163	163	27	15.4	±7.7
Received more than one dose	27	27	22ª	83.9a	±18.9
Quebec	457	551	186	33.7	±4.6
Received more than one dose	151	186	112	60.1	±8.0
Ontario	911	845	274	32.4	±3.2
Received more than one dose	300	274	149	54.5	±5.7
Manitoba	76	81	23 <sup>B</sup>	28.2 <sup>B</sup>	±11.2
Received more than one dose	22	23	13°	55.3°	±20.9
Saskatchewan	59	70	25 <sup>B</sup>	35.2 <sup>β</sup>	±12.8
Received more than one dose	20	25	19ª	75.1°	±21.9
Alberta	210	216	74	34.3	±6.8
Received more than one dose	72	74	41 <sup>B</sup>	55.5 <sup>β</sup>	±11.5
3.C.	344	295	67	22.8	±5.3
Received more than one dose	83	67	34 <sup>B</sup>	50.2 <sup>8</sup>	±10.8
AGE					
18-24	239	269	176	65.3	±6.3
Received more than one dose	156	176	101	57.5	±7.8
25-34	390	388	156	40.1	±5.0
Received more than one dose	155	156	100	64.1	±7.9
35-44	539	496	135	27.2	±4.2
Received more than one dose	147	135	84	61.9	±8.1
45-54	494	430	107	24.8	± 4.4
Received more than one dose	128	107	60	56.3	±8.7
55-64	271	279	60	21.5	± 6.0
Received more than one dose	58	60	32 <sup>ß</sup>	53.5 <sup>β</sup>	± 12.9
Adults 65+	287	355	37	10.5	±5.9
Received more than one dose	30	37	11ª	28.2α	±17.9
GENDER					
Male	1,108	1,081	311	28.7	±2.9
Received more than one dose	321	311	164	52.7	±5.5
<sup>=</sup> emale	1,129	1,1156	365	31.6	±2.9
Received more than one dose	358	365	226	62.0	±5.2

ß Small base (<100) – caution is advised in interpreting results

# Q.21

Now I am going to ask you a few questions about your experience with vaccines for hepatitis. Hepatitis A and B are serious liver diseases caused by viruses. Have you ever been vaccinated against either hepatitis A or hepatitis B?

# Q.25

Did you receive more than one dose of the vaccine for hepatitis B? Subsample: Those who have ever been vaccinated for hepatitis B

 $<sup>\</sup>alpha$  Very small base (  $\!<\!50)$  – extreme caution is advised in interpreting results

## Hepatitis B vaccination coverage by demographics

As was the case with hepatitis A, hepatitis B immunization coverage is highest (65%) among the youngest age group (18 to 24) and decreases with age. There is no apparent gender difference. Coverage is lower in the Atlantic region (15%) than in other regions of the country (see Table 16 on the previous page).

# Hepatitis B vaccination coverage by work exposure potential

Adult Canadians, whether or not they identified as health care workers, were asked if, during the course of their work or volunteer work, they run the risk of coming into contact with other people's blood or bodily fluids, or if they run the risk of needle stick injury, surgical blade injury or human bite. About two in ten (18%) say that they do run this type of work exposure risk.

Hepatitis B vaccination coverage is twice as high among those who have such an exposure risk (52%) than it is among those who do not (26%). Those with work exposure risk are also more likely to have received more than one dose of hepatitis B vaccine (70%) than recipients of this vaccine who do not have work exposure risk (52%).

TABLE 17
Hepatitis B immunization coverage by work exposure potential
June 2006

GROUP	GROUP BASE (ACTUAL)	GROUP BASE (WEIGHTED)	WEIGHTED #	% of group	95% CI
			IMMUN	IZED AGAINST HEF	PATITIS B
Total population	2,237	2,237	676	30.2	± 2.1
With exposure risk	424	407	210	51.6	$\pm$ 4.8
Received more than one dose	214	210	148	70.2	$\pm 6.7$
Without exposure risk	1,806	1,823	465	25.5	$\pm 2.3$
Received more than one dose	464	465	243	52.2	$\pm$ 4.5
			Have w	ORK EXPOSURE P	OTENTIAL
Total population	2,237	2,237	407	18.2	± 2.1
Vaccinated against Hepatitis B	679	676	210	31.1	± 3.8
Not vaccinated against Hepatitis B	1,558	1,561	197	12.6	± 2.5

### Q.21

Now I am going to ask you a few questions about your experience with vaccines for hepatitis. Hepatitis A and B are serious liver diseases caused by viruses. Have you ever been vaccinated against either hepatitis A or hepatitis B?

### Q.25

Did you receive more than one dose of the vaccine for hepatitis B? Subsample: Those who have ever been vaccinated for hepatitis B

### 0.34

During the course of your work or volunteer work, do you run the risk of coming into contact with other people's blood, bodily fluids or do you run the risk of needle-stick injury, surgical blade injury or human bite?

TABLE 18
Hepatitis B immunization coverage among health care workers by region and profession
Health care workers June 2006

	GROUP BASE	GROUP BASE	Wesauten #	0/ 05 00005	OEO/ O
	(ACTUAL)	(WEIGHTED)	WEIGHTED #	% OF GROUP	95% C
				IIZED AGAINST HEF	
Health care workers	1,161	1,161	663	57.1	± 2.9
Received more than one dose	636	663	489	73.8	$\pm 3.9$
REGION					
Atlantic	224	119	56	47.1	± 6.5
Received more than one dose	102	56	53	94.6	± 9.7
Quebec	403	273	153	55.9	± 4.9
Received more than one dose	203	153	109	71.5	± 6.9
Ontario	400	426	260	60.9	± 4.9
Received more than one dose	251	260	190	73.0	± 6.2
Prairies	70	189	116 <sup>β</sup>	61.4 <sup>B</sup>	± 11.7
Received more than one dose	44	116	80α	68.9 <sup>a</sup>	± 14.8
3.C.	58	151	77 <sup>8</sup>	50.7 <sup>8</sup>	± 12.9
Received more than one dose	56	77	56 <sup>β</sup>	$73.5^{\text{B}}$	± 13.1
PROFESSION					
Doctor	94	92	83 <sup>ß</sup>	89.8 <sup>B</sup>	± 10.1
Received more than one dose	83	83	79 <sup>ß</sup>	$94.8^{\beta}$	± 10.8
Nurse	213	185	146	79.2	± 6.7
Received more than one dose	166	146	125	85.8	± 7.6
Nurse aid/orderly	119	121	73	60.5	± 9.0
Received more than one dose	58	73	48 <sup>β</sup>	65.1 <sup>B</sup>	± 12.9
Non-traditional health care worker	49	38	6α	15.8°	± 14.0
Received more than one dose	10	6	5α	91.0°	± 31.0
First responders	16	25	22α	88.6α	± 24.5
Received more than one dose	14	22	17ª	75.4°	± 26.2
Administration	123	112	54	48.4	± 8.8
Received more than one dose	51	54	28 <sup>β</sup>	51.4 <sup>B</sup>	± 13.7
/olunteer	76	145	40 <sup>β</sup>	27.8 <sup>B</sup>	± 11.2
Received more than one dose	25	40	21ª	51.4°	± 19.6
Other health care workers	471	443	238	53.7	± 4.5
Received more than one dose	229	238	166	69.9	$\pm 6.5$

 $<sup>\</sup>ensuremath{\mbox{\sc S}}$  Small base (  $\!<\!100)$  – caution is advised in interpreting results

# Q.21

Now I am going to ask you a few questions about your experience with vaccines for hepatitis. Hepatitis A and B are serious liver diseases caused by viruses. Have you ever been vaccinated against either hepatitis A or hepatitis B?

### Q.25

Did you receive more than one dose of the vaccine for hepatitis B? Subsample: Those who have ever been vaccinated for hepatitis B

 $<sup>\</sup>alpha$  Very small base (  $\!<\!50)$  – extreme caution is advised in interpreting results

# Hepatitis B vaccination coverage among health care workers

Close to six in ten (57%) health care workers have had a hepatitis B vaccination. A third of those immunized (35%, or 20% of the total health care worker population) have been vaccinated against hepatitis B only, while two-thirds (65%, or 37% of the health care worker population) have been vaccinated against both hepatitis A and B. Three in ten (31%) have not been vaccinated against either form of hepatitis and a further nine percent do not indicate their hepatitis immunization status. Three-quarters (74%) of health care workers who have been immunized received more than one dose, a considerably higher proportion than observed in the general population.

Across professions, hepatitis B vaccination coverage is highest among doctors (90%), nurses (79%) and, although the sample base is small (n=16), first responders (89%), and these groups are also very likely to have received more than one dose. Volunteers (28%) and non-traditional health care workers (16%) are the least likely to report being vaccinated against hepatitis B (see Table 18 on the previous page).

Hepatitis B inoculation is higher among health care workers who report having close patient contact (62%, vs. 50% without). Hepatitis vaccination is also positively linked to hepatitis B testing (80%, vs. 39% who have not been tested).

Just over six in ten (63%) health care workers have the risk of coming into contact with other people's blood or bodily fluids, or needle stick injury, surgical blade injury or human bite. As anticipated, this is a considerably higher proportion than reported in the general population (18%). Hepatitis B vaccination coverage is twice as high among health care workers who have an exposure risk (71%) than those who have no such risk (33%). Health care workers who have this work exposure risk are also more likely to report having received more than one dose of hepatitis B vaccine (79%) than those who do not have work exposure risk (55%).

TABLE 19
Hepatitis B immunization coverage among health care workers by patient contact and work exposure potential

June 2006

GROUP	GROUP BASE (ACTUAL)	GROUP BASE (WEIGHTED)	WEIGHTED # % OF GROUP 95% CI
			IMMUNIZED AGAINST HEPATITIS B
Health care workers	1,161	1,161	663 57.1 ± 2.9
With patient contact	727	725	446 61.5 ± 3.6
Received more than one dose	427	446	$334   74.9   \pm 4.7$
Without patient contact	429	429	216 50.2 ± 4.7
Received more than one dose	207	216	154 71.5 $\pm$ 6.8
With exposure risk	754	732	521 $71.2 \pm 3.6$
Received more than one dose	502	521	410 78.8 ± 4.4
Without exposure risk	407	429	142 33.1 $\pm$ 4.9
Received more than one dose	134	142	$78$ $55.2$ $\pm 8.5$

0.21

Now I am going to ask you a few questions about your experience with vaccines for hepatitis. Hepatitis A and B are serious liver diseases caused by viruses. Have you ever been vaccinated against either hepatitis A or hepatitis B?

Q.25

Did you receive more than one dose of the vaccine for hepatitis B? Subsample: Those who have ever been vaccinated for hepatitis B

# Hepatitis B testing among health care workers

In total, just over four in ten (43%) of health care workers report having been tested for hepatitis B. The professions most likely to have been tested are physicians (78%), nurses (57%) and nurse's aids/orderlies (50%). Although the sample size is small, and caution is advised in interpreting the results, it appears that a high proportion of first responders have also been

tested for hepatitis B. These are all occupations that are extremely likely to have patient contact. Testing for hepatitis B is statistically lowest among volunteers (13%) and non-traditional health care workers (23%), although it should be noted that the base for the latter group is small (n=49).

TABLE 20
Hepatitis B immunization testing among health care workers by region and profession
Health care workers June 2006

	GROUP BASE (ACTUAL)	GROUP BASE (WEIGHTED)	WEIGHTED #	% of group	95% CI
			TE	STED FOR HEPATIT	TIS B
All health care workers	1,161	1,161	499	43.0	± 2.9
REGION					
Atlantic	224	119	62	52.1	± 6.5
Quebec	403	273	117	42.7	± 4.9
Ontario	400	426	191	44.9	± 4.9
Prairies	70	189	78 <sup>β</sup>	41.3 <sup>β</sup>	± 11.7
B.C.	58	151	49 <sup>ß</sup>	$32.3^{\beta}$	± 12.9
PROFESSION					
Doctor	94	92	72 <sup>ß</sup>	77.7 <sup>B</sup>	± 10.1
Nurse	213	185	105	57.1	± 6.7
Nurse aid/orderly	119	121	60	49.8	± 9.0
Non-traditional health care worker	49	38	9a	23.0α	± 14.0
First responders	16	25	21ª	83.9 <sup>a</sup>	$\pm 24.5$
Administration	123	112	41	36.4	± 8.8
Volunteer	76	145	19 <sup>β</sup>	$13.4^{\beta}$	± 11.2
Other health care workers	471	443	172	38.8	± 4.5
			Імми	IIZED AGAINST HEI	PATITIS B
HEALTH CARE WORKERS	1,161	1,161	663	57.1	± 2.9
Those tested for Hepatitis B	517	499	400	80.1	± 4.3
Those not tested for Hepatitis B	598	617	240	38.9	± 4.0
S Small hase (< 100) – caution is advised in interpreting result	ts				

 $\ensuremath{\mathtt{S}}$  Small base (  $\!<\!100)$  – caution is advised in interpreting results

 $\alpha$  Very small base (<50) – extreme caution is advised in interpreting results

Q.52

Have you ever been tested for hepatitis B?

Subsample: Health care workers - volunteer or professional

Health care workers who have been tested for hepatitis B are significantly more likely (80%) than those who have not been tested (39%) to have been vaccinated against the disease. Again, this is likely linked to occupation, which in turn is linked to patient contact and exposure risk.

About half (48%) of health care workers who have close contact with patients indicate that they have been tested for hepatitis B, which is a significantly higher rate than among than those who do not have such contact (33%). As well, a higher proportion of those having exposure to bodily fluids in their work have been tested (55%) than those who do not (23%).

TABLE 21
Hepatitis B immunization testing among health care workers by patient contact and work exposure potential
June 2006

Group	GROUP BASE (ACTUAL)	GROUP BASE (WEIGHTED)	WEIGHTED #	% of group	95% CI
		Tested for hepatitis b			
Health care workers	1,161	1,161	499	43.0	± 2.9
With patient contact	727	725	351	48.4	± 3.6
Without patient contact	429	429	143	33.3	$\pm$ 4.7
With exposure risk	754	732	399	54.5	± 3.6
Without exposure risk	407	429	101	23.4	$\pm$ 4.9

Q.52

Have you ever been tested for hepatitis B?

Subsample: Health care workers – volunteer or professional

# Pertussis (Whooping cough)

Pertussis immunization coverage rate among adult Canadians is four percent; the rate is 10 percent among health care workers.

Acellular pertussis vaccines were licensed in Canada in 1997. The adolescent formulation, combined with diphtheria and tetanus and which contains lower levels of the pertussis antigen than the childhood formulation, was implemented in all provinces from September 1999 to September 2004. The acellular pertussis vaccine is habitually administered in combination with diphtheria and tetanus to children over seven years of age who have not been immunized, or to those (such as immigrants) whose immunization status is unknown.

In recent years, there has been an increase in the incidence of pertussis in Canadian adolescents and adults.<sup>4</sup> Because immunity is not lifelong, adults can develop

pertussis if exposed to the disease. Although symptoms are milder in adults than in smaller children, there is a risk of their infecting others, including infants, who are at higher risk of severe complications or death. The National Consensus Conference on Pertussis in 2002 concluded that pertussis in adults may be under-reported and there may be a lack of understanding and, therefore, a lack of appropriate action by some general practitioners, who may not realize that pertussis in adults should be taken seriously. The study also concluded that, while booster vaccinations given regularly throughout life would be the ideal strategy for reducing the burden of pertussis, this may not be feasible for reasons of cost in some jurisdictions and, therefore, vaccination of targeted groups, such as adolescents, adults in contact with infants and vulnerable adults with other health problems, is more likely to succeed.

<sup>4</sup> Public Health Agency of Canada. *National Consensus Conference on Pertussis*, 2002. Canadian Communicable Disease Report, Volume 2953, April 2003. http://www.phac-aspc.gc.ca/publicat/ccdr-rmtc/03pdf/29s3e.pdf

# Pertussis vaccination coverage among target groups

Four percent of Canadians report ever being immunized against pertussis. Those most likely to be immunized are health care workers (10%); other target subgroups have a similar rate of immunization.

**TABLE 22**Pertussis immunization coverage by target groups
June 2006

GROUP	GROUP BASE (ACTUAL)	GROUP BASE (WEIGHTED)	Weighted #	% of group	95% CI
			Immunized against pertussis		
Total population	2,237	2,237	87	3.9	± 2.1
Adults 65+	287	355	9	2.5	± 5.8
Adults 18-64 with CMC	395	373	9	2.4	$\pm$ 4.9
Adults 18-64 with no CMC	1,319	1,276	45	3.5	± 2.7
Adults 18-64 in hh with child $\leq$ 23 months	171	169	9	5.2	$\pm 7.5$
All health care workers	1,161	1,161	116	10.0	± 2.9

Q.32

Now I will ask you some questions about the vaccine for pertussis. Pertussis, or whooping cough, causes prolonged coughing spells that can make it hard to eat, drink, or breathe. Have you ever received the vaccine for whooping cough as an adult?

# Pertussis vaccination coverage by demographics

There are few significant demographic differences or patterns in pertussis immunization coverage. Pertussis immunization coverage is lowest in the Atlantic region, and is statistically higher in Quebec than in B.C. or Ontario.

There are too few people who report receiving a pertussis immunization as an adult (n=84) to analyze these by demographic or other subgroups, or to examine

year of receipt by province. Two in ten (21%) received the pertussis immunization since 2004; one in six (17%) received it between 1998 and 2004; and three in ten (29%) received it before 1998. A third (33%) of recipients cannot say when they received the pertussis immunization. The majority of adults who had the pertussis immunization received it in the same province where they currently reside (84%).

**TABLE 23**Pertussis immunization coverage by demographics
June 2006

Target Group	GROUP BASE (ACTUAL)	GROUP BASE (WEIGHTED)	WEIGHTED #	% of group	95% CI			
					Immunized against pertussis			
otal population	2,237	2,237	87	3.9	± 2.1			
REGION								
Atlantic	163	173	1	0.2	± 7.7			
Quebec	457	551	34	6.1	± 4.6			
Ontario Ontario	911	845	29	3.5	± 3.2			
Manitoba	76	81	3 <sup>B</sup>	$3.6^{\mathrm{B}}$	± 11.2			
Saskatchewan	59	70	4 <sup>B</sup>	5.2 <sup>8</sup>	± 12.8			
Alberta	210	216	8	3.7	± 6.8			
3.C.	344	295	8	2.6	± 5.3			
AGE								
8-24	239	269	10	3.7	± 6.3			
25-34	390	388	24	6.1	± 5.0			
35-44	539	496	16	3.2	± 4.2			
15-54	494	430	11	2.6	$\pm$ 4.4			
55-64	271	279	16	5.7	± 6.0			
5-74	174	208	8	3.6	± 7.4			
75+	130	167	2	1.4	± 8.6			
GENDER								
Male	1,108	1,081	27	2.5	± 2.9			
- emale	1,129	1,156	60	5.2	± 2.9			

 ${\tt B}$  Small base (  $\!<\!100)$  – caution is advised in interpreting results

Q.32

Now I will ask you some questions about the vaccine for pertussis. Pertussis, or whooping cough, causes prolonged coughing spells that can make it hard to eat, drink, or breathe. Have you ever received the vaccine for whooping cough as an adult?

# Varicella (Chicken pox)

Over eight in ten adult Canadians have had varicella. The one in seven who have not had varicella have been tested for immunity; a similar proportion has been immunized. Health care workers are more likely than others to have been both tested and immunized.

The varicella vaccine was licensed in Canada in 1998 and implemented across the provinces and territories between September 2001 and January 2005. All provinces currently have a publicly-funded childhood varicella program, except for the Yukon, which is scheduled to implement a varicella program in January of 2007. Recommended usage is for adults at increased risk of varicella infections (for example, health care workers, susceptible women of childbearing age, susceptible household contacts). Two doses should be administered at least 28 days apart.

A question about whether one has had varicella (chicken pox) was asked only of 18- to 64-year-olds, and subsequent questions about testing for immunity and immunization against this disease were asked only of those who said they have not had varicella.

# Varicella immunity among target groups

Over eight in ten (84%) Canadians 18 to 64 years of age have had varicella, and the proportions are similar for those who have a chronic medical condition (84%) and those who do not (82%). Of those who have not had varicella, 14 percent report having been tested for immunity to it; testing is not significantly higher among those with a chronic medical condition (17%) than those without such a condition (10%).

TABLE 24
Varicella immunity by target groups
June 2006

Target Group	GROUP BASE (ACTUAL)	GROUP BASE (WEIGHTED)	WEIGHTED #	% of group	95% CI
			Prevalance of varicella		
Total population 18-64	1,933	1,862	1,566	84.1	± 2.2
With chronic medical condition	395	373	306	82.1	± 4.9
With no chronic medical condition	1,319	1,276	1,069	83.8	± 2.7
			Tested for immunity to varicella		
Total population 18-64 who have not had varicella	229	222	32	14.3	$\pm$ 6.5
With chronic medical condition	52	51	9 <sup>B</sup>	17.1 <sup>B</sup>	± 13.6
With no chronic medical condition	159	154	15	9.8	± 7.8
			Vaccinated against varicella		RICELLA
Total population 18-64 who have not had varicella	229	222	31	13.8	± 6.5
With chronic medical condition	52	51	7 <sup>8</sup>	$14.0^{\mathrm{\beta}}$	± 13.6
With no chronic medical condition	159	154	21	13.3	± 7.8

 ${\tt B}$  Small base (  $\!<\!100)$  – caution is advised in interpreting results

Q.33c

Have you ever had chickenpox, including as a child?

Subsample: Those under 65 years of age

Q.33d

Have you been tested to see if you're immune to chickenpox?

Subsample: Those under 65 years of age who never had chickenpox, or who are unsure or refused to answer

Q.33e

Have you received chickenpox vaccine (also called "varicella")?

Subsample: Those under 65 years of age who never had chickenpox, or who are unsure or refused to answer

Fourteen percent of those who have not had varicella (representing 2% of all people in the 18 to 64 age group) have received the varicella vaccine. This proportion is the same whether they have a chronic condition (14%) or not (13%).

## Varicella immunity by demographics

There is little variation in varicella prevalence by demographic subgroups, although it is higher in the 18 to 24 age cohort (89%) than among those aged 45 to 64 (80%). This could, however, be due to recall issues in the older age groups.

The base of respondents who have not had varicella is too small to provide a detailed analysis of varicella immunization coverage by most demographic subgroups. There is no apparent gender difference.

**TABLE 25**Varicella immunity by demographics
June 2006

	GROUP BASE (ACTUAL)	GROUP BASE (WEIGHTED)	WEIGHTED #	% of group	95% CI
			Pre	CELLA	
Total population 18-64	1,933	1,862	1,566	84.1	± 2.2
REGION					
Atlantic	115	127	104	82.0	± 9.1
Quebec	435	516	409	79.3	± 4.7
Ontario	777	673	575	85.4	± 3.5
Prairies	320	332	292	88.0	± 5.5
B.C.	270	207	181	87.5	± 6.0
AGE					
18-24	239	269	239	88.8	± 6.3
25-34	390	388	338	87.1	± 5.0
35-44	539	496	419	84.4	± 4.2
45-54	494	430	347	80.9	± 4.4
55-64	271	279	223	80.1	± 6.0
GENDER					
Male	955	896	716	79.9	± 3.2
Female	978	966	851	88.1	± 3.1
Vaccinated against Varicella					
			VACCIN	IATED AGAINST VA	RICELLA
arget group (18-64 who have not had varicella)					
GENDER					
Male	144	136	18	13.0	± 8.2
Female	85	86	13 <sup>B</sup>	15.1 <sup>B</sup>	± 10.6
S Small base (<100) – caution is advised in interpreting results			I		
, ,					

Q.33c

Have you ever had chickenpox, including as a child?

Subsample: Those under 65 years of age

Q.33e

Have you received chickenpox vaccine (also called "varicella")?

Subsample: Those under 65 years of age who never had chickenpox, or who are unsure or refused to answer

## Varicella immunity among the health care worker population

Nine in ten (90%) health care workers 18-64 years of age recall having had varicella disease during their lifetime. The rate is similarly high across most subgroups.

Those who have not had varicella were asked if they have ever been tested to see if they are immune. Just over a third (36%) say they have been tested, while the remainder either have not (62%) or cannot say (2%).

TABLE 26 Varicella immunity among health care workers June 2006 Under a quarter (23%, representing 2% of the health care worker population 18 to 64 years of age) say they have received a varicella vaccination.

The base of health care workers who have not had varicella is too small (n=102) to support detailed analysis of testing or vaccination incidence by occupational subgroups.

Target Group	GROUP BASE (ACTUAL)	GROUP BASE (WEIGHTED)	WEIGHTED #	% of group	95% CI
			Pre	VALENCE OF VARI	CELLA
Health care workers 18-64	1,066	966	866	89.7	± 3.0
REGION					
Atlantic	193	101	89	88.1	± 7.1
Quebec	385	236	202	85.4	± 5.0
Ontario	366	343	308	89.6	± 5.1
Prairies	64	159	144 <sup>B</sup>	$90.6^{\beta}$	± 12.2
B.C.	52	124	122 <sup>ß</sup>	$97.9^{\beta}$	± 13.6
AGE					
18-24	36	139	135°	97.4°	± 16.3
25-34	201	202	186	92.1	± 6.9
35-44	294	257	227	88.2	± 5.7
45-54	341	223	194	87.0	$\pm 5.3$
55-64	194	144	124	85.8	± 7.0
GENDER					
Male	290	248	217	87.5	± 5.8
Female	776	718	649	90.5	± 3.5
			Tested i	FOR IMMUNITY TO	VARICELLA
HCW population 18-64 who have not had varicella	102	76	27	36.2	±9.7
			Vaccii	NATED AGAINST VA	RICELLA
HCW population 18-64 who have not had varicella	102	76	17	22.5	± 9.7

ß Small base (<100) – caution is advised in interpreting results  $\alpha$  Very small base (<50) – extreme caution is advised in interpreting results

0.330

Have you ever had chickenpox, including as a child?

Subsample: Those under 65 years of age

Q.33d

Have you been tested to see if you're immune to chickenpox?

Subsample: Those under 65 years of age who never had chickenpox, or who are unsure or refused to answer

Q.33e

Have you received chickenpox vaccine (also called "varicella")?

Subsample: Those under 65 years of age who never had chickenpox, or who are unsure or refused to answer

## Tetanus

Close to half of adult Canadians received a tetanus immunization in the past 10 years, although only one-third recall being treated for a wound during that time.

Tetanus, an acute and potentially fatal disease that affects the central nervous system, is caused by bacteria in puncture wounds, but also in other wounds such as burns, ulcers, bites, surgery sites, injection sites, and umbilical cord stump. Tetanus causes painful tightening of the muscles, usually all over the body. It can lead to "locking" of the jaw so the victim cannot open his or her mouth or swallow.

Because widespread immunization has provided protection, serious cases of tetanus have because rare in developed countries. Tetanus deaths decreased dramatically in Canada when the tetanus vaccine was introduced in 1940. The tetanus vaccine is very safe, highly effective and provides long-lasting protection (10 years). While the need for a tetanus immunization for rusty nail wounds is well established in the public's

mind, less well known is that tetanus can be contracted through other means, such as animal scratches and bites, wounds resulting from arrows or bullets, frostbite or dental infections.

Tetanus vaccination is recommended every 10 years for adults. Since infection with tetanus does not confer protective immunity, adults who have recovered from this disease should continue actively seeking immunization.

## Tetanus vaccination coverage among target groups

Close to half (47%) of Canadians 18 years of age and over say they have had a tetanus immunization in the past 10 years. Those under age 65, regardless of chronic medical condition status, are more likely than those 65 years of age and over to report having had this immunization. Over half (54%) of health care workers are up-to-date with their tetanus immunizations (i.e. have been immunized in the past 10 years).

**TABLE 27**Tetanus immunization coverage by target groups
June 2006

	GROUP BASE (ACTUAL)	GROUP BASE (WEIGHTED)	<b>W</b> EIGHTED #	% of group	95% CI
			Імми	NIZED AGAINST TE	TANUS
Total population	2,237	2,237	1,041	46.5	± 2.1
Adults 65+	287	355	101	28.5	± 5.8
Adults 18-64 with CMC	395	373	183	49.1	$\pm$ 4.9
Adults 18-64 with no CMC	1,319	1,276	608	47.6	± 2.7
All health care workers	1,161	1,161	624	53.8	± 2.9

Q.30

## Tetanus vaccination coverage by demographics

There are no notable differences in tetanus immunization coverage by region or between urban or rural locations. However, there are differences by gender and age. Those immunized are most likely to be under age 55 (52%, vs. 36% of older Canadians) and men (51%, vs. 42% of women). There are also socio-economic factors linked to tetanus immunization. Having a tetanus

immunization in the past 10 years is reported more by those in higher household income brackets (53% of those above \$40,000, compared to 35% of those with lower incomes) and also among those who have more than a high school education (50%) than among those with high school or less (37%).

**TABLE 28**Tetanus immunization coverage by demographics
June 2006

Target Group	GROUP BASE (ACTUAL)	GROUP BASE (WEIGHTED)	<b>W</b> EIGHTED #	% of group	95% CI
			Імми	NIZED AGAINST TE	TANUS
Total population	2,237	2,237	1,041	46.5	± 2.1
REGION					
Atlantic	163	173	74	43.0	± 7.7
Quebec	457	551	246	44.6	± 4.6
Ontario	911	845	431	51.0	± 3.2
<i>M</i> anitoba	76	81	34 <sup>B</sup>	$41.4^{B}$	± 11.2
Saskatchewan	59	70	$35^{ m B}$	50.2 <sup>8</sup>	± 12.8
Alberta	210	216	102	47.4	± 6.8
3.C.	344	295	117	39.5	± 5.3
AGE					
18-24	239	269	130	48.4	± 6.3
25-34	390	388	204	52.5	± 5.0
35-44	539	496	250	50.5	± 4.2
45-54	494	430	220	51.1	± 4.4
55-64	271	279	124	44.3	± 6.0
65-74	174	208	71	34.2	± 7.4
75+	130	167	42	25.1	± 8.6
HOUSEHOLD INCOME					
< \$20K	185	197	61	30.9	± 7.2
\$20K - <\$40K	388	409	148	36.3	± 5.0
\$40K - <\$60K	383	393	184	46.7	± 5.0
660K - <\$80K	347	338	192	56.9	± 5.3
S80K +	625	572	318	55.6	± 3.9
3 Small base (<100) – caution is advised in inte	erpreting results				contin

Q.30

**TABLE 28** .... continued

Tetanus immunization coverage by demographics
June 2006

	GROUP BASE	GROUP BASE			
TARGET GROUP	(ACTUAL)	(WEIGHTED)	WEIGHTED #	% OF GROUP	95% CI
			Імми	NIZED AGAINST TE	TANUS
EDUCATION					
< High school	242	272	95	34.9	$\pm~6.3$
High school graduate	353	371	143	38.6	± 5.2
Technical/college	678	668	343	51.4	± 3.8
Some university	211	201	95	47.4	± 6.7
Completed university	438	432	216	50.1	$\pm$ 4.7
Post-graduate	303	281	144	51.0	± 5.6
GENDER					
Male	1,108	1,081	553	51.1	± 2.9
Female	1,129	1,156	488	42.2	± 2.9
LOCATION					
Urban	1,705	1,703	795	46.7	± 2.4
Rural	515	528	243	46.0	± 4.3

Q.30

## Tetanus vaccination coverage by treatment for wounds

Having received a tetanus immunization in the past 10 years is linked to having been treated for a wound or having stitches. Tetanus immunization is more often reported by those who had wounds treated (78%) than by those who did not (31%).

## Tetanus vaccination coverage by medical recommendation

Because having received a tetanus immunization is linked to wound treatment, it is also expected that getting immunized would be linked to a medical recommendation. Eight in ten (82%) of those who were immunized against tetanus in the past 10 years received a medical recommendation for this, and almost nine in ten (88%) of those who had a medical recommendation report having received a tetanus immunization.

Table 29
Tetanus immunization coverage by treatment of wound
June 2006

	GROUP BASE (ACTUAL)	GROUP BASE (WEIGHTED)	<b>W</b> EIGHTED #	% of group	95% CI
			Імми	IIZED AGAINST TE	TANUS
Total population	2,237	2,237	1,041	46.5	± 2.1
Treated for a wound	750	733	574	78.3	± 3.6
Not treated for a wound	1,479	1,497	465	31.1	$\pm~2.5$

Q.28

Now I will ask you some questions about your experience with the vaccine for tetanus. Tetanus, also known as lockjaw, is caused by a bacteria in wounds such as cuts, burns and bites. Within the last 10 years, have you been treated by a health care provider for a wound, or have you needed stitches to treat a cut?

Q.30

Have you had a vaccine for tetanus, either alone or in combination with another vaccine, in the last 10 years?

**TABLE 30**Tetanus immunization coverage by medical recommendation
June 2006

	GROUP BASE (ACTUAL)	GROUP BASE (WEIGHTED)	Weighted #	% of group	95% CI
			Імми	NIZED AGAINST TE	TANUS
Total population	2,237	2,237	1,041	46.5	± 2.1
Had a medical recommendation	990	970	856	88.2	± 3.1
Did not have a medical recommendation	1,205	1,227	169	13.8	± 2.8
			FOR 1	IEDICAL RECOMME ETANUS IMMUNIZ THE PAST <b>10</b> YEA	ATION
Total population	2,237	2,237	970	43.3	± 2.1
Had a tetanus vaccination	1,062	1,041	856	82.3	$\pm .3.0$
Did not have a tetanus vaccination	1,102	1,123	100	8.9	±.3.0

Q.29

Has a doctor or any other health care provider recommended that you receive a vaccine for tetanus in the last 10 years?

0.30

## KNOWLEDGE, ATTITUDES AND BEHAVIOURS

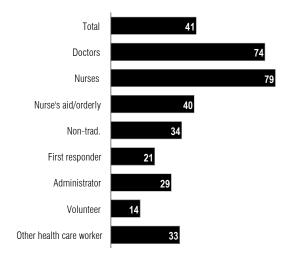
One benefit of a national immunization survey that cannot be obtained from the statistics contained in a vaccination registry is the opportunity to examine people's knowledge, attitudes and behaviours. The 2006 Adult NICS took advantage of this opportunity by going beyond simple coverage questions, asking why people did or did not get a specific immunization, where the immunization was obtained, and if they had a health care professional recommend certain vaccines to them. Health care workers were also asked about their interaction with clients and patients on the subject of vaccination information provision. This section examines the responses to these behaviour and attitude questions.

## Health care workers – provision of information

Four in ten health care workers have the chance to supply immunization information to clients; most of these say they promote vaccinations and address concerns about side effects, safety and efficacy.

Opportunity to provide vaccination information. Four in ten (41%) health care workers say they have the opportunity during the course of their work to provide information on vaccines to their clients. This is significantly higher among doctors (74%) and nurses (79%) than among any of the other health care professions (40% or less).

**GRAPH 1**Provide vaccine information to clients
Health care workers June 2006



Q.53
During the course of {your work/your volunteer work}, do you have the opportunity to provide information on vaccines to your clients?

Vaccination messages provided to clients. The majority (55%) of messages being shared by health care workers to their clients are vaccination promotion and encouragement, with most of these (42%) stressing the benefits or safety or to generally encourage the use of vaccines. About three in ten (29%) provide messages regarding the purpose of vaccinations, their risks or side effects. Of these types of messages, very few specifically mention discouraging patients from having vaccinations (1%). Three in ten (28%) mention providing

information about scheduling, advice or referrals, and two in ten (21%) mention providing other kinds of information or distributing brochures.

Nurses are statistically more likely to stress the benefits or to support vaccinations (57%) than are any professions other than doctors. Doctors are more likely than other professions to discuss with their clients aspects of hepatitis A/B tracking (18%).

TABLE 31
Messages shared with clients
Health care workers who share information with clients
June 2006

		PROFESSION					
	<b>T</b> otal (N=533)	Doctors $(N=69^{\beta})$	<b>N</b> urses (N=163)	Nurse Aid/ Orderly $(N=54^{\beta})$	Non-traditional $(N=21^{\alpha})$	Administrator $(N=45^{\alpha})$	
NET: Vaccination/promotion/encouragement	55	66	70	40	40	37	
Stress benefits/safety/general encouragement	42	43	57	27	26	26	
Promote flu shot/clinic campaign	9	8	9	12	_	9	
Get children vaccinated/newborn vaccinations	7	17	9	_	11	_	
Encourage those at risk (various)	7	8	13	2	3	3	
Encourage seniors	1	1	1	_	_	1	
NET: Vaccination information							
(purpose/side effects/risks)	29	30	35	18	60	19	
Side effects/complications/risks	12	6	18	6	35	10	
Role of vaccines in prevention/protection	10	4	13	8	_	6	
Purpose/what it does/protects against	9	3	10	3	23	9	
Hepatitis A/B tracking	5	18	1	1	_	1	
Discourage vaccinations (various)	1	_	*	_	29	-	
NET: Scheduling/advice/referrals	28	25	30	11	16	41	
Schedule/where to get vaccinated/cost	9	5	12	1	6	10	
Tell them what vaccines to get	8	6	10	2	_	20	
Advise to talk to doctor	5	1	5	_	11	_	
Travel vaccination advice	5	14	1	2	_	_	
Pneumococcal vaccine advice	3	5	2	4	_	3	
Refer to public health/ministry	2	-	1	4	_	11	
NET: Other mentions	21	20	18	20	8	31	
Information (other)	9	14	8	9	2	18	
Pamphlets/brochures	7	2	6	7	2	10	
Depends on client's health/condition	2	1	2	2	-	_	
Do not give personal opinion/let patient decide	2	1	3	_	4	3	
Vaccinate health care staff	1	*	2	_	_	2	
Other	3	3	*	1	_	_	
Don't know	8	9	1	32	11	13	

(May not add to 100% due to multiple mentions)

ß Small base (<100) – caution is advised in interpreting results

## Q.54

Please tell me, what messages about vaccinations do you share with your clients?

Subsample: Health care workers - volunteer or professional - who have the opportunity to provide information on vaccines to their clients

 $<sup>\</sup>alpha$  Very small base (  $\!<\!50)$  – extreme caution is advised in interpreting results

<sup>\*</sup> Less than 1%

Most common vaccination questions health care workers are asked. The most commonly mentioned questions about vaccines that clients ask of health care workers involve safety, side effects or risks of complications. Almost half (48%) of health care workers who provide information to clients are asked one of these questions. A third (33%) say they are commonly asked if the vaccine is necessary, effective or recommended, including 17 percent who ask if the immunization is necessary for

them personally. Fewer than two in ten (15%) report receiving questions about cost, availability or frequency of vaccinations, or other specific topics (12%) including questions related to the vaccination of children (5%) or travel issues (4%).

Doctors (54%) and nurses (59%) are the professions that most frequently report being asked about side effects, risk factors, safety issues or complications.

**TABLE 32**Questions asked about vaccinations

Health care workers who share information with clients June 2006

	<b>Total</b> (N=533)	<b>D</b> octors (N=69 <sup>β</sup> )	<b>N</b> urses (N=163)	Nurse Aid/ Orderly $(N=54^{\beta})$	Non-traditional $(N=21^{\circ})$	Administrator $(N=45^{\circ})$
NET: Safety risks/side effects/complications	48	54	63	32	13	34
Side effects/risks factors/safety issues/complications	45	54	59	28	13	29
Will it hurt	4	2	7	5	_	6
NET: If necessary/effective/recommended	33	43	28	26	57	34
Should I get one/is it necessary	17	19	12	21	41	25
Does it work/effectiveness of vaccine	12	14	14	3	15	9
Which vaccines are recommended	3	10	*	2	-	-
What is the shot for	2	_	3	4	-	_
NET: Cost/availability/frequency	15	16	20	4	9	23
When/how often to get shot/how long does it last	7	6	8	4	9	11
Is it covered/cost issues	5	11	5	_	-	3
Where to get it/availability	4	_	8	_	_	9
NET: Specific topics/issues	12	14	14	5	32	4
Child-related questions	5	10	5	2	14	1
Travel issues	4	6	5	1	_	_
Flu-related questions	2	3	1	1	_	_
Age-related questions	1	*	4	1	2	1
Varicella-related questions	1	_	_	_	16	_
Pregnancy-related questions	*	_	_	_	_	3
NET: Other mentions	3	_	_	2	20	12
Ask for personal opinions of health care worker/advice	2	_	_	_	20	2
Ask if respondent has been vaccinated	1	_	_	2	_	_
Where to get more information about shot	1	_	_	_	_	7
Other	*	_	_	_	_	3
Don't know	14	12	7	42	8	12

(May not add to 100% due to multiple mentions)

### Q.55

What is the most common question, or questions, you get asked about vaccines? Subsample: Health care workers — volunteer or professional

 $<sup>\</sup>ensuremath{\mathtt{G}}$  Small base (  $\!<\!100)$  – caution is advised in interpreting results

 $<sup>\</sup>alpha$  Very small base (  $\!<\!50)$  – extreme caution is advised in interpreting results

<sup>\*</sup> Less than 1%

## Missed opportunities for immunization

The majority of adult Canadians who get a medical recommendation for an influenza, tetanus or pneumococcal vaccine accept the advice and get the immunizations. There clearly are missed opportunities for such recommendations, particularly for pneumococcal vaccines.

For three vaccinations (influenza, tetanus, polysaccharide pneumococcal), respondents were specifically asked if they have received a medical recommendation, to see if there are missed immunization opportunities due to a lack of health care provider advice. The evidence is clear that the recommendation of a medical professional is a compelling factor in getting a vaccination, and that there are missed opportunities for preventive vaccination recommendations.

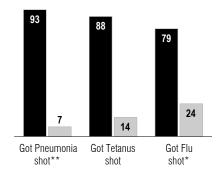
Influenza. Four in ten (38%) Canadian adults who visited a health care professional between October 2005 and when they were interviewed say they received an influenza immunization recommendation during that consultation. Eight in ten (79%) of those who had an influenza vaccine recommendation during a visit with their health care provider during the last influenza season say they received the influenza vaccine in that time frame, compared to only a quarter (24%) of those who did not get a recommendation. This is compelling evidence that, if health care workers recommend influenza vaccine to more of their patients, especially during routine medical visits, more patients will be immunized.

The opportunity may not exist during an emergency situation for an influenza vaccine recommendation, but if that recommendation is made, it appears that people will act on it. Only one in ten (9%) of those who visited a hospital or emergency room since October 2005 had a recommendation for an influenza immunization during that visit. However, over eight in ten (84%) of those who had such a recommendation when at the hospital say they received an influenza immunization during the last influenza season, compared to four in ten (40%) who did not receive a recommendation during their hospital visit.

#### **GRAPH 2**

# Vaccine coverage by medical recommendation

June 2006



- Had medical recommendation
- Did not have medical recommendation
- \* Those who visited a health care professional since October 2005 (n=1.551)
- \*\* Those 65 + and those 18 64 with chronic condition other than asthma (n=599)

#### Q.11

When you consulted the health care professional, did they recommend you get a flu shot?

Subsample: Those who have visited a health care professional between October 2005 and now, not including ER visits

Did you receive a flu shot between October 2005 and now? Q.29

Has a doctor or any other health care provider recommended that you receive a vaccine for tetanus in the last 10 years?

Have you had a vaccine for tetanus, either alone or in combination with another vaccine, in the last 10 years? 0.43

Has a doctor or any other health care provider ever recommended that you receive the vaccine for pneumonia?

Q.44

Have you ever had a vaccine for pneumonia?

Tetanus. Just over four in ten (43%) adult Canadians had a doctor or other health care professional recommend they get a tetanus immunization in the past 10 years. Of those who received such a medical recommendation, nine in ten (88%) report they were given a tetanus immunization in the past 10 years, compared to only one in seven (14%) who did not get a recommendation.

When medical recommendation for a tetanus immunization is examined by incidence of wound treatment, it is clear that health care professionals are largely recommending this immunization in connection with a medical necessity, rather than as a preventative measure. Over three-quarters (78%) of adult Canadians treated for a wound in the past 10 years say they had a health care provider recommendation for a tetanus

immunization in the same time period, compared to only a quarter (26%) of those who did not have a wound treated. It should also be noted that two in ten (20%) of those treated for a wound or who had stitches in the past 10 years claim they did not get a health care worker recommendation for a tetanus immunization (although it is possible that there are recall issues here).

Pneumococcal disease. Only a quarter (26%) of those with risk factors for pneumococcal disease<sup>5</sup> have had a polysaccharide pneumococcal immunization recommended to them by a medical professional, but almost all of these (93%) went on to get the immunization. Only seven percent of those who did not have a health care professional recommendation say they received the pneumococcal immunization.

<sup>5</sup> Those 18 to 64 years of age who have a chronic condition other than asthma or those 65 years of age and over.

## Immunization information sources

Three-quarters of adult Canadians prefer to obtain vaccination information from a health care professional, notably their family doctor. A majority of Canadians receive influenza vaccine information from these same sources.

Preferred source for adult immunization information. Canadians were asked where they prefer to obtain information about vaccinations for adults, given the choice; multiple mentions were allowed. It is not surprising that the vast majority (75%) prefer to obtain vaccination information from a health care professional, notably a family doctor or general practitioner (52%). Publications, media and the Internet are less likely to be mentioned as a source for this type of information: only two in ten (22%) make some mention of these. Only six percent mention receiving adult immunization information elsewhere, such as at work, from Health Canada or from family or friends.

These information preference are similar across all target groups, with the exception that health care workers have a broader range for information about vaccination, being more likely, for example, to give another source such as their workplace (7%) or Health Canada (4%).

There are only a few demographic differences of note when examining preferred sources of information about adult vaccinations. The greatest difference is age-related, with those in the 18 to 24 year age cohort more likely (19%) than Canadians 65 and over (2%) to seek immunization information on the Internet. In contrast, those aged 18 to 24 are the least likely to say they would prefer to get vaccination information from a family doctor or general practitioner (39%).

Looking across the country, reliance on a family doctor for this type of information is highest in Ontario (64%) and the Atlantic (61%), and lowest in Quebec (33%) and Alberta (39%). Residents of the latter two provinces are more likely than those in other regions to seek immunization information from other types of health care professionals (39% in Quebec and 23% in Alberta would do so).

**TABLE 33**Preferred sources for information about adult vaccinations
General Canadian population and health care workers June 2006

		GENERAL POPULATION						
	Total (N=2,237)	18-64 No CMC (N=1,319)	18-64 CMC (N=395)	<b>65+</b> (N=287)	HEALTH CAR Workers (N=1,161)			
NET: Health care professional	75	74	76	77	77			
Family doctor/GP	52	50	51	61	45			
Other health care professional	20	20	21	14	23			
Public health/CLSC	5	5	7	3	12			
Clinics (other)	2	2	2	3	3			
Health centre/station/unit	2	2	1	2	3			
Hospital	2	2	1	2	2			
Pharmacy/drug store	1	1	1	1	2			
NET: Publications/media/Internet	22	25	24	14	18			
Internet	12	15	15	2	11			
Television	4	5	4	3	2			
Newspapers	4	5	3	6	3			
Mail	3	3	4	2	1			
Radio	1	2	1	1	1			
Other media	2	2	1	3	4			
NET: Other sources	6	5	4	6	13			
At work	2	1	*	-	7			
Department of Health/Health Canada	1	1	1	3	4			
Family/friends/word-of-mouth	1	1	1	1	*			
Any other	2	2	2	2	5			
Don't know	5	5	5	6	2			

<sup>\*</sup> Less than 1%

Q.3

Given the choice, where would you prefer to get information about vaccinations for adults?

Usual source for influenza vaccine information. Canadians were asked where they usually get their information about the "flu shot." Not surprisingly, sources for influenza vaccine information largely echo the sources preferred for adult vaccination information in general. However, people are more likely to mention a source other than a health care professional for influenza immunization information, such as television (13%) or the workplace (12%), than give these as preferred sources for immunization information in general (4% and 2% respectively).

Again, influenza vaccine information sources are quite similar across target groups, with health care workers (29%) being the most likely to obtain such information in their workplace.

As was the case with general adult immunization information, Canadians under age 45 are more likely (7%) than older people (2%) to get information on the influenza vaccine from the Internet, while older Canadians turn to a health care professional or newspapers for this. Across the country, those least likely to get influenza vaccine information from publications, media or the internet are in Quebec (17%) and the Atlantic region (19%).

TABLE 34
Usual source for information about the influenza vaccine
General Canadian population and health care workers June 2006

	GENERAL POPULATION							
	<b>Total</b> (n=2,237)	18-64 No CMC (N=1,319)	18-64 CMC (N=395)	<b>65+</b> (N=287)	HEALTH CAR Workers (N=1,161			
NET: Health care professional	55	52	60	66	53			
Family doctor/GP	37	34	41	53	27			
Other health care professional	14	14	15	10	15			
Public health/CLSC	3	3	5	1	8			
Hospital	1	1	1	_	3			
Clinics (other)	1	1	*	2	2			
Pharmacy/drug store	1	1	1		1			
Health centre/unit/station	1	1	1	1	2			
NET: Publications/media/Internet	30	31	32	33	24			
Newspapers	13	12	12	21	9			
Television	13	13	13	12	9			
Radio	6	6	6	6	5			
Internet	5	5	7	*	5			
Pamphlets/flyers/brochures/newsletter	1	1	1	1	1			
Billboards/posters	1	1	1	1	2			
Mail	1	1	1	1	1			
Library/books/research papers	*	*	*	1	2			
Other	*	1	*	_	2			
NET: Other sources	21	22	17	8	37			
At work	12	12	9	*	29			
Family/friends/word-of-mouth	5	6	6	4	1			
School	2	2	1	_	2			
Department of Health/Health Canada	*	*	*	*	3			
Pharmaceutical company	*	_	*	_	1			
Other	2	2	2	3	2			
Don't know	6	7	4	4	3			
May not add to 100% due to multiple mentions) * Less than 1%					I			

<sup>\*</sup> Less than 1%

Q.4

Please tell me where you usually get your information about the flu shot.

# Influenza immunization knowledge, attitudes and behaviour

Influenza and the prevention efforts directed against it have been promoted heavily by health care workers and governments over the past few years, and as such it might be expected that the public would know more about this vaccine than about others. A series of questions assessing knowledge, attitudes and behaviours around the influenza immunization were included in the 2006 Adult *NICS* survey.

#### Importance of the influenza immunization to health

Canadians are more likely to think the "flu shot" is very important for preventing illness in others than for their own personal health. Members of the three target groups are the most likely to think this immunization is important to their health or the health of others.

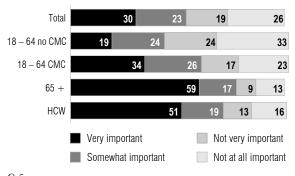
Canadians were asked how important the "flu shot" is to their own personal health, and also how important it is for them in order to protect other people with whom they have contact from getting sick. A four point scale was provided.

Importance of the influenza immunization to personal health. Half of adult Canadians think the influenza immunization is either very (30%) or somewhat (23%) important to their personal health, while a similar proportion feel it is either not very (19%) or not at all (26%) important. Those most likely to feel the influenza immunization is very important to them personally are those 65 years of age or over (59%), followed by health care workers (51%) and those under 65 with a chronic medical condition (34%), which follows as these are the groups to whom the influenza immunization has been most promoted as necessary. Those aged 18 to 64 with no chronic conditions are least likely to feel that the influenza immunization is personally important to them.

Those most likely to feel that the influenza immunization is very important to their personal health are women (34%, vs. 27% of men), and this is likely due to a higher proportion of those 65 years of age and over, and health care workers, being women. As well, the importance of the influenza immunization is highest among those in lower income households, which is likely linked to age and health factors. The influenza

# **GRAPH 3**Importance of influenza immunization to personal health

Canadian general population and health care workers June 2006



Q.5
How important is the flu shot to your own personal health?
Would you say it is very, somewhat, not very or not at all important?

immunization is considered very important mostly by residents of Ontario (37%) and B.C. (38%), the two provinces reporting the highest influenza immunization coverage.

Importance of the influenza immunization to preventing illness in others. Canadians are more likely to believe that the influenza immunization is important to keep others from getting ill than it is important to their own health. Seven in ten (69%) say the influenza immunization is either very (40%) or somewhat (29%) important for them, in order to prevent others with whom they are in contact from getting sick. Three in ten (30%) say this is either not very (14%) or not at all important (16%) for them. As is the case with personal health, those most likely to think the influenza immunization is very important to protect the health of others are 65 years of age and over (58%), health care workers (64%) and those under age 65 with a chronic medical condition (42%), rather than those who do not fall into one of these three target groups (31%).

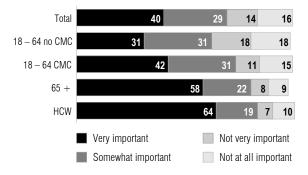
As is the case with importance of the influenza immunization personally, those most likely to feel it is very important for the health of others are women (46% vs. 35% of men). The importance of the influenza immunization for others is highest among those with lower incomes (47% of those with household incomes of \$40,000 and under, compared to 39% of those in higher income households), which as previously mentioned is likely linked to age and health factors.

Under ideal circumstances, those living in households with persons at risk (very young children, older people and those with chronic medical conditions) would be substantially more likely than others to say that influenza immunizations are very important to them in order to help keep others from getting sick. Those living with someone with a chronic illness are more likely (41%) than those who are not (34%) to say that the influenza immunization is very important to them to prevent illness in others. Those living with a child under the age of two (44%) are also more likely (p < .1) to say this than those without a child of that age (36%). However, those living with someone aged 65 or over (41%) are not statistically more likely to say this than are those without a senior in the home (36%).

#### **GRAPH 4**

# Importance of influenza immunization to prevent others from getting sick

Canadian general population and health care workers June 2006



Q.6
Using the same scale, please tell me how important is the flu shot for you, in order to protect other people with whom you are in contact from getting sick? Would you say it is very, somewhat, not very or not at all important?

## Safety and importance of the infuenza vaccine

Half of Canadians think the "flu shot" is important for pregnant women, but only three in ten agree that it is safe for this group. Health care workers are more likely than the general public to think the influenza vaccine is important for pregnant women.

As the influenza immunization is not a live virus vaccine, it is considered to be safe for those in high-risk groups and also for pregnant women. However, many people are not aware that pregnancy can affect the immune system and put extra stress on the heart and lungs, therefore increasing the risk for serious medical complications of influenza, such as pneumonia.

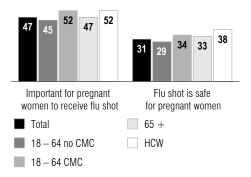
Canadians were asked if, from what they know about the influenza immunization, they think it is *important* for pregnant women, and also if they think it is *safe* for pregnant women. Canadians are more likely to feel the influenza immunization is important for pregnant women (47%) than safe (31%). Interestingly, health care workers are also more likely to think the influenza immunization is important for pregnant women (52%) than to think it safe (38%), and their opinion about its safety is not markedly different from that of other Canadians. Given their position as sources of influenza immunization information to others, it is clear that more specific promotion on the safety and efficacy of this vaccine is required for this group.

Those most likely to agree that the influenza immunization is important for pregnant women are young adults aged 18 to 24 (63%). Those with the lowest levels of education (high school or less) are more likely (54%) than others (44%) to think that the influenza immunization is important for pregnant women, but they are not significantly more likely to think it is safe. Influenza immunization is felt to be safe for pregnant women most by residents of the Atlantic region (38%) and Ontario (36%).

#### **GRAPH 5**

# Perceptions about influenza vaccine and pregnancy

Canadian general population and health care workers June 2006



#### *O.*7

From what you know about the flu shot, please answer yes or no to the following questions ... Do you think that it is important for pregnant women to receive the flu shot ... Do you think the flu shot is safe for pregnant women?

## Personal risk of influenza complications

Canadians in the three risk groups are the most likely to correctly identify themselves as being at greater personal risk for serious complications from the flu, but such awareness is not a majority view.

About two in ten Canadians (21%) consider themselves to be at greater risk than the average person to get serious complications from influenza. Eight in ten (78%) do not think they have an increased risk.

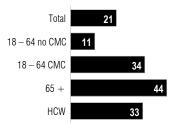
Perception of greater personal risk increases proportionately with age and is highest among those aged 65 and over (44%), and is also higher among those with a chronic medical condition (34%) and among health care workers (33%) than among Canadians aged 18 to 64 without a medical condition (11%). This is consistent with the traditional public service messaging around influenza vaccinations.

The perception of increased risk of influenza complications is also highest among those with less than a high school education (34%) and household incomes under \$20,000 (34%), socioeconomic factors that are also linked to those 65 years of age and over and to the chronically ill.

#### **GRAPH 6**

# At greater risk for serious complications from influenza

Canadian general population and health care workers June 2006



Q.8

Do you consider yourself to be at greater risk than the average person to get serious complications from influenza (that is, the f(u))

Awareness of recommended influenza immunization schedule

Three-quarters of adult Canadians know that the influenza vaccine should be received annually; younger people and those with lower education levels have less knowledge about the recommended schedule.

Influenza immunizations are administered annually during the fall and winter at the beginning of what is known as "flu season." Because different vaccinations have different schedules, the public can become confused about when it is safe and recommended that they obtain certain immunizations. To gauge awareness of the need for an annual influenza immunization, Canadians were asked how often people should receive the "flu shot."

Three-quarters of adult Canadians (73%) say the influenza immunization should be received once a year. One in ten (9%) think that the timing is either less than once a year (3%), more often (2%), or variable (4%), such as on an as-needed basis, or dependent on age and health conditions. Seven percent say people should never get an influenza immunization, and nine percent are unable to say how frequently people should get this immunization.

Awareness that the influenza immunization should be received annually is highest among the three target groups: those 65 years of age and over (82%), younger people with chronic medical conditions (79%), and health care workers (79%). Awareness of the annual schedule is statistically lowest among 18- to 64-year-olds with no chronic condition (68%), who are also the most likely to say they do not know the influenza immunization schedule (11%) or to think it should never be received (8%).

One would expect that increased awareness of the influenza immunization schedule would be related to perceived personal risk, and in fact this appears to be the case. Saying the influenza immunization is required annually increases proportionately with age and is highest among those aged 75 and over, the group with the highest perceived personal risk for getting serious complications from influenza. Those unable to indicate a schedule for the influenza immunization are most likely to have a high school level of education or less, or to be aged 18 to 24.

**TABLE 35**Awareness of recommended influenza immunization schedule General Canadian population and health care workers June 2006

	GENERAL POPULATION								
Once a year/annually	Total (n=2,237)	18-64 No CMC (N=1,319)	<b>18-64</b> <b>CMC</b> (N=395)	<b>65+</b> (N=287)	Health Care Workers (N=1,161)				
	73	68	79	82	79				
NET: Variable timing	4	5	3	2	4				
When you feel like it/when at risk	3	4	2	1	2				
Depends on age/health	1	1	1	1	1				
Less than once a year	3	3	2	1	1				
More than once a year	2	2	2	1	1				
Other	2	2	1	2	2				
Never	7	8	5	5	7				
Don't know	9	11	7	8	7				

0.9

How often should people receive the flu shot?

#### Location for influenza immunization

Seven in ten influenza immunization recipients obtain their vaccine at a health care facility, usually from a family doctor. Three in ten use special location clinics, notably workplace clinics.

Most Canadians (70%) report obtaining their 2005-2006 influenza immunization at a health care facility, notably the office of a family doctor or general practitioner (40%). About two in ten received their influenza immunization at a public health clinic or CLSC. Three in ten (28%) received their influenza immunization at a special location clinic, such as a workplace clinic (16%), a clinic at school or university (3%), at a community centre (3%), or at a mall or store (3%).

The target group most likely to report receiving their influenza immunization at the office of a family doctor are those 65 years of age and over (54% vs. 38% of younger recipients), while those most likely to have received the immunization at a public health clinic or CLSC are those 18 to 64 with a chronic condition (27%, vs. 17% of people the same age not reporting a medical condition). Health care workers are less likely than others to get their influenza immunization at their family

doctor (19%) and, understandably, are more likely to report getting it at a workplace clinic (37%).

There is no significant difference in location for influenza immunization by gender. As mentioned, older Canadians are more likely than younger ones to have obtained their 2005-2006 influenza immunization from a family physician. Those more likely to report receiving their influenza immunization at a workplace clinic have higher levels of household income (\$60,000 and over) and higher levels of education (technical school and over).

The highest reports of receiving an influenza immunization from a family doctor of are in the Atlantic region (69%) and Ontario (51%), while those in Quebec (39%) and Alberta (34%) are the most likely to have obtained their influenza immunization at a public health clinic. Canadians are more likely to report receiving an influenza immunization at a public health clinic if their household includes a child under age two ( $p \le 0.1$ ) (30% vs. 19% who do not), or someone 65 years of age or over (p < 0.05) (32% vs. 19% who do not).

TABLE 36
Location for influenza immunization
Influenza immunization recipients General Canadian population and health care workers June 2006

	GENERAL POPULATION					
	Total (N=835)	18-64 No CMC (N=328)	<b>18-64 CMC</b> (N=161)	<b>65</b> + (N=200)	Health Car Workers (n=691)	
NET: Health care facility	70	67	71	80	55	
Family doctor/GP	40	39	35	54	19	
Public health clinic or CLSC	19	17	27	18	24	
Walk-in clinic	4	6	3	3	2	
Hospital or emergency room	4	4	2	_	8	
Clinic (other)	2	1	1	3	2	
Health centre/medical centre	1	1	3	2	*	
IET: Special location clinic	28	31	28	19	42	
Workplace clinic	16	19	16	1	37	
School/university/college clinic	3	3	5	3	1	
Community centre	3	3	3	4	1	
Mall/store	3	2	1	4	1	
Seniors' centre (various)	2	1	1	3	*	
Pharmacy	2	2	1	1	1	
At work/work in hospital	_	_	_	_	3	
Other	3	3	3	4	2	

Q.15

Where did you go to get the flu shot?

Subsample: Those who received a flu shot between October 2005 and now

#### Payment for influenza immunizations

Governments paid for seven in ten influenza immunizations during the 2005-2006 season.

Most Canadians receiving influenza immunizations in the last influenza season did not pay out-of-pocket or through private insurance for this immunization. Seven in ten (71%) say their influenza immunization was paid by a government source, either through government/provincial health insurance (54%) or by saying it was free (16%). A quarter (24%) say their influenza immunization was funded through a non-government source, notably an employer (14%) or an individual (8%). Four percent are unable to say who paid for their influenza immunization.

As expected, those most likely to say their influenza immunization was government-funded are those 65

years of age and over (88%), and younger Canadians with chronic medical conditions (71%). Those least likely to report a government payment are those 18 to 64 with no medical condition (61%). Health care workers are significantly less likely (63%) than the general population to report government payment of their immunization. Also as expected, employer payment is higher among health care workers (28%) than those 18 to 64 without a chronic condition (16%). The latter is the most likely of all groups (16%) to say their 2005-2006 season influenza immunization was paid by an individual (self, family member or friend – 16%).

Government payment of the influenza immunization is highest in Ontario (79%), B.C. (70%) and the Atlantic region (70%) and lower in the Prairies (47%) and Quebec (66%).

TABLE 37
Who paid for influenza immunization
Influenza immunization recipients General Canadian population and health care workers June 2006

·							
	GENERAL POPULATION						
	Total (n=835)	18-64 No CMC (N=328)	<b>18-64 CMC</b> (N=161)	<b>65+</b> (N=200)	Health Care Workers (N=691)		
NET: Government	71	61	71	88	63		
Government/provincial health insurance	54	46	49	74	43		
It was free	16	15	22	15	20		
Health centre/clinic/hospital	*	*	-	-	1		
NET: Non-government	24	33	24	7	32		
Employer paid for it	14	16	15	1	28		
Individual (self/family member/friend)	8	16	8	3	3		
Private health insurance	1	1	1	2	1		
Doctor/nurse	1	1	_	1	*		
Other	1	1	1	1	3		
Don't know	4	5	4	4	2		
* Less than one percent							

Q.16

Who paid for your flu shot?

Subsample: Those who received a flu shot between October 2005 and now

## Reasons for getting an influenza immunization

Those who had a recent "flu shot" are most likely to have done so to prevent themselves from getting sick, while others cite a chronic disease or other medical reason, because it was recommended, or because it is available or free.

Canadians who received an influenza immunization in the 2005-2006 influenza season were asked why they chose to receive one; multiple mentions were permitted. A wide variety of reasons was given, each of which was then assigned to one of several broader categories to facilitate analysis (see the accompanying table for the proportions giving specific responses).

Three-quarters (76%) received their influenza immunization for a reason related to prevention, mostly to prevent themselves from getting sick (51%). Fewer cite other prevention-related reasons, such as preventing family or close contacts from getting sick (12%); working in a public place (6%), or among patients or nursing home residents (10%); protecting high-risk family members (8%); or that it is important or a good idea (3%). As expected, the majority of influenza immunization recipients age 18 to 64 with no chronic medical condition say they received the immunization for preventative purposes (83%). Those 65 and over are the group least likely to say that they received this immunization to protect someone else in their family (6%).

Two in ten (22%) give a reason relating to a chronic or other type of medical condition, whether unspecified (12%) or identified as being age-related (6%) or due to asthma/respiratory problems (1%). Some just say they need it or are at risk (a total of 7%). As expected, this type of reason is given most often by those 18 to 64 years of age who self-identify as having at least one chronic medical condition (41%), and is also cited more by those 65 years of age and over (29%) than those under 64 who do not have a condition (12%).

That the influenza immunization was recommended or mandatory was cited by one in six (17%). Very few say they received it because it was available or free (5%). People 65 years of age and over are the target group most likely to indicate they obtained the influenza immunization because it was recommended to them (24%).

The most important demographic factor in giving different reasons for having the influenza immunization is age. However, it should be noted that those most likely to say they received this immunization to protect the health of other family members are those with a child under age two in their home (31%, vs. 14% who do not). A significant difference is not apparent if there is someone 65 years of age or over in the home.

TABLE 38 Reasons for getting the influenza immunization Influenza immunization recipients General Canadian population and health care workers June 2006

		GENERAL	POPULATION		
	<b>Total</b> (n=835)	18-64 No CMC (N=328)	<b>18-64</b> <b>CMC</b> (N=161)	<b>65+</b> (N=200)	Health Care Workers (n=691)
NET: Prevention	76	83	64	68	90
To prevent me from getting sick	51	51	53	57	47
To prevent my family/close contacts from getting sick	12	17	13	6	13
My job as a health care worker/protect patients/					
residents from getting sick	10	2	1	_	52
To protect a family member at high risk	8	14	5	3	5
I work in a public place/with the public	6	10	3	1	9
It's important/good idea/believe in it	3	2	1	4	3
Work reasons (other)	2	4	3		3
Safety/prevent/stay healthy	1	1	1	3	1
I have been travelling/plan to travel	1	1	2	1	1
NET: Chronic/medical condition	22	12	41	29	12
Chronic condition (general)	12	4	35	12	5
My age	6	2	2	15	3
I am at risk (unspecified)	4	4	5	3	3
I think I need it	3	3	2	3	2
Asthma/respiratory problems	1	-	3	1	1
NET: Recommendation/requirement	17	15	14	24	12
Physician/med. professional's advice	14	12	12	21	7
Recommended by others	1	1	1	2	1
Neighbour/friend's advice	1	2	1	1	*
Mandatory/forced to/required	1	*	_	_	3
NET: Available/free	5	6	3	5	2
Get it every year/routine/habit	3	3	1	5	*
It's free	2	2	2	1	1
Available/offered/convenient	1	1	1	_	*
Role model/set example	-	-	-	_	1
Any other reason	4	7	2	4	4
(14					

(May not add to 100% due to multiple mentions) \* Less than one percent

Why did you get a flu shot? Are there any other reasons?

Subsample: Those who received a flu shot between October 2005 and now

Reasons for not getting an influenza immunization

Canadians are most likely to say they did not receive an influenza immunization because they felt it was not necessary for them or because of a personal reason or scheduling conflict. Over one in ten cite concerns about side effects or reactions.

Those who did not receive an influenza immunization were asked why not; up to three mentions were allowed. A wide variety of reasons was given, each of which was then assigned to one of several broader categories to facilitate analysis (see the accompanying table for the proportions of those giving specific responses).

The highest proportion (70%) respond with a reason indicating that they do not consider a "flu shot" to be necessary for them. This includes those who say they are healthy and do not think they need the immunization; general mentions of it being unnecessary; not thinking that it works; and believing it is only for people at risk.

A smaller proportion (19%) give a personal or scheduling-related reason for not obtaining the influenza immunization. This includes those who didn't think of it or didn't know about it; those who were too busy or forgot; and those unable to get to the immunization location.

Fewer (13%) say they did not receive an influenza immunization because of a reason related to side effects or reactions. Very few think they will get influenza

from the vaccine (2%); have a history of adverse reactions (3%) or know someone who has (3%); or have a history of other side effects (3%). One in ten (8%) give a reason related to other medical conditions as a barrier to the influenza immunization. Three percent say they did not receive an influenza immunization because it was not offered, suggested or recommended by a health care provider.

Those aged 18 to 64 with no CMC are more likely (74%) than those in the same age group with a CMC (57%) to say they did not receive an influenza immunization because they felt it was not necessary. Those without a medical condition are particularly likely to say they did not get the immunization because they are healthy and do not need it (42%). It is important to note that only two provinces currently offer the influenza vaccine free of charge to individuals under age 65 without a CMC.

Personal or scheduling issues are most frequently cited by those 18 to 64 with chronic medical conditions (25%) and health care workers (21%). In both cases, they are likely to say they had no time or were too busy or forgot, or that they didn't think of it or know about it.

Concerns about potential side effects or reactions are most likely to be expressed by those 65 years of age or older (21%), those aged 18 to 64 with a CMC (18%) and health care workers (16%) than by those 18 to 64 without a CMC (10%).

TABLE 39
Reasons for not getting an influenza immunization
Influenza immunization non-recipients General Canadian population and health care workers June 2006

		GENERAL I	POPULATION		
	OTAL 1,389)	18-64 No CMC (N=982)	18-64 CMC (N=234)	<b>65+</b> (N=83 <sup>β</sup> )	Health Care Workers (N=469)
NET: Not felt necessary	70	74	57	70	66
Healthy – don't think I need it	36	42	25	24	27
Not necessary (unspecified)	25	26	28	23	17
Don't think it works	9	8	9	15	13
Didn't want it (general)	6	6	3	13	10
Don't believe/trust vaccines/medicines	4	3	3	8	3
Only for people at risk	2	3	1	1	3
Never/seldom get flu/sick	1	1	1	1	1
No history/never had shot before	1	1	1	_	1
Took flu shot recently	1	1	1	_	*
NET: Scheduling/personal reasons	19	19	25	11	21
Didn't think of it/didn't know about it	9	9	10	9	7
No time/too busy/forgot	8	7	14	1	13
Unable to get to location	1	1	_	1	1
Work/family obligations	1	1	2	_	_
Cost	1	1	*	_	_
Availability/access/information issues	1	1	2	_	2
NET: Side effects/reactions	13	10	18	21	16
Afraid of other side effects	3	3	5	4	4
History of other adverse reactions/negative					
past experience with shot	3	2	5	3	3
Heard about others w/bad reaction	3	3	1	7	3
Afraid of getting flu from the vaccine	2	2	4	1	2
History of severe allergy to flu shot	1	1	2	3	2
Afraid it might contain harmful products	1	1	1	3	4
Taking other incompatible medications	1	*	1	3	*
NET: Reasons related to medical profession/					
other medical reasons	8	8	7	8	8
Doctor/health prof. didn't offer/suggest/recommend it/never asked		3	3	6	3
Afraid of/don't like needles	2	2	1	_	2
Prefer immune system fight it	2	2	2	1	3
Pregnant/breast feeding	1	1	1	_	1
Was already sick	*	*	1	_	1
Other	3	2	2	7	3
Don't know	2	2	2	3	1

(May not add to 100% due to multiple mentions)

Q.18

Why did you not receive a flu shot? Are there any other reasons?

Subsample: Those who did not receive a flu shot between October 2005 and now

 $<sup>{\</sup>tt R}$  Small base (<100) – caution is advised in interpreting results

<sup>\*</sup> Less than one percent

## Future plans for influenza immunization

About half of Canadians say they intend to get a "flu shot" during the next influenza season. Intention is highest among health care workers and seniors. Reasons given are largely preventive in nature and do not differ if the immunization was previously received or not.

Intention to get an influenza immunization in the next influenza season. Half (48%) of Canadian adults say they plan to obtain an influenza immunization in the next "flu season." About half (47%) say they will not receive the immunization. A small percentage (2%) say it is possible they might, depending on various factors, or do not know if they will receive it or not (2%). Reported intention to obtain an influenza immunization in the

future is highest among those 65 years of age and over (75%) and health care workers (72%), and lower among those 18-64 with a CMC (52%).

Future influenza immunization intention is highest in Ontario (57%) and B.C. (52%), and lowest in Quebec (34%). Expressed intention to obtain an influenza immunization in the next influenza season is almost universal among those who had this immunization in the past season (94%) but low (19%) among those who did not. While it is most pronounced among those with a chronically ill person in the household (47%, vs. 37% without), it is no different among those reporting a child under age two, or someone 65 years of age or over in residence and those who do not.

**TABLE 40**If planning to get an influenza immunization in the next influenza season General Canadian population and health care workers 
June 2006

	GENERAL POPULATION					
	Total (N=2,237)	18-64 No CMC (N=1,319)	18-64 CMC (N=395)	<b>65+</b> (N=287)	Health Care Workers (N=1,161)	
Yes	48	35	52	75	72	
No	47	59	42	20	25	
NET: Maybe/depends	2	2	2	2	1	
Type of flu/severity/type of vaccine/bird flu/epidemic	1	1	1	*	*	
Depends on my health/age	1	1	*	1	_	
Doctor's recommendation/general recommendation	1	1	1	1	*	
Maybe/depends (unspecified)	1	1	_	_	*	
Other	2	2	1	1	2	
Don't know	2	2	3	2	1	
* Less than one percent					I	

Q.19

Are you planning to get a flu shot in the next flu season (that is, next fall and winter)?

<sup>6</sup> As this is considerably higher than the proportion who report getting a influenza immunization in the previous influenza season, it is likely that there is some over-reporting of intention to obtain this immunization, as this is considered a socially desirable response.

Reasons for getting the influenza immunization in the future. Reasons given by those planning to obtain an influenza immunization in the future do not differ from the reasons of those who received it in the past, which is logical as a substantial portion of future intenders are

also past recipients. However it should be noted that reasons for planning a future influenza immunization do not significantly vary by whether one was received in the previous influenza season or not.

**TABLE 41**Reasons for getting an influenza immunization in the next influenza season
General Canadian population intending to receive an influenza immunization June 2006

	Тотаl (N=1,062)	HAD INFLUENZA IMM. Last Season (N=782)	Did Not Have Influenza Imm. (N=271)
NET: Prevention	84	84	83
To prevent me from getting sick	62	63	58
To prevent family/close contacts from getting sick	16	15	20
Job as a health care worker/protect patients/residents	8	9	6
To protect a family member at high risk	6	6	4
Work-related reasons (other)	6	5	7
Good idea/effective in past/didn't get flu/right thing to do	2	2	2
Health reasons/strengthen immune system/lessen severity	2	2	1
Prevent contracting/spreading flu to public	1	1	1
To be safe/protect myself/prevention/safety	1	1	2
Pandemic predicted/flu outbreak/virus getting worse	1	1	2
NET: Chronic/medical condition	12	14	9
I have a chronic condition/have another chronic condition	5	7	*
My age	4	4	3
I think I need it	3	3	4
l am at risk (unspecified)	2	2	2
NET: Available/free	7	8	3
Get it every year/routine/habit	6	8	3
It's free	1	1	*
NET: Recommendation/requirement	7	7	6
Physician/medical professional's advice	6	6	3
Neighbour/friend's advice/recommended by others	2	*	2
Other	3	2	6
Don't know	1	*	2
(May not add to 100% due to multiple mentions)  * Less than one percent			

Q.20
Why are you planning
to get a flu shot next flu
season? Are there any
other reasons?
Subsample: Those who are
planning to get a flu shot
next flu season

## Hepatitis A and B immunization behaviour

While the majority of hepatitis A or B vaccine recipients obtained their vaccine at a health care facility, a notable number received it at a special location clinic. Travel and work are the top reasons for receiving either a hepatitis A or hepatitis B vaccine.

### Location for hepatitis A or B immunization

Recipients of the hepatitis A or hepatitis B vaccines were asked the location where they received each these immunizations (each vaccine was queried separately and multiple mentions were permitted). A substantial proportion of people who are immunized against either hepatitis A or hepatitis B have actually been immunized against both (89% of hepatitis A vaccine recipients; 74% of hepatitis B recipients). The locations where hepatitis vaccinations are obtained are similar for both strains.

Six in ten hepatitis immunizations (62% hepatitis A; 56% hepatitis B) are administered in a health care facility, notably a public health clinic or family physician's office. However, hepatitis immunizations are the most likely of all of the vaccines covered in this survey to be obtained at a special location clinic. School or university clinics are the location for one-quarter (23%) of hepatitis B immunizations, and this is the case whether the recipient has a chronic condition or not. Health care workers are more likely to cite a workplace clinic as the location for their hepatitis immunization (12% for hepatitis A, 19% for hepatitis B) than are other Canadians 18 to 64, with or without a chronic medical condition.

TABLE 42
Location for hepatitis A vaccine
Hepatitis A recipients General Canadian population and health care workers June 2006

	GENERAL POPULATION						
	<b>Total</b> (n=573)	18-64 No CMC (N=346)	18-64 CMC (N=91 <sup>B</sup> )	<b>65+</b> (N=29 <sup>α</sup> )	Health Care Workers (N=420)		
NET: Health care facility	62	62	68	62	63		
Public health clinic or CLSC	27	26	34	35	27		
Family doctor/general practitioner	26	28	25	23	23		
Hospital or emergency room	5	4	7	4	7		
Walk-in clinic	2	3	2	_	3		
Health centre/unit/medical centre	1	1	_	_	3		
Clinic/private/general	1	1	_	-	*		
NET: Special location clinic	35	36	29	35	33		
School/university/college clinic	14	16	16	7	10		
Travel clinic	12	13	11	20	10		
Workplace clinic	7	5	1	4	12		
Community centre	1	1	-	_	1		
Pharmacy	1	1	2	4	*		
Other	1	1	1	_	2		
Don't know	2	2	2	3	1		

ß Small base (<100) – caution is advised in interpreting results

### Q.24

Where did you go to get the vaccine for hepatitis A?

Subsample: Those who have ever been vaccinated for hepatitis A

 $<sup>\</sup>alpha$  Very small base (<50) – extreme caution is advised in interpreting results

<sup>\*</sup> Less than one percent

TABLE 43
Location for hepatitis B vaccine
Hepatitis B recipients General Canadian population and health care workers June 2006

		GENERAL I	POPULATION		
	<b>Total</b> (n=679)	18-64 No CMC (N=385)	<b>18-64 CMC</b> (N=113)	<b>65+</b> (N=30°)	Health Care Workers (N=636)
NET: Health care facility	56	55	63	53	57
Public health clinic or CLSC	23	23	27	26	25
Family doctor/general practitioner	22	22	25	23	20
Hospital or emergency room	6	5	8	4	6
Walk-in clinic	2	2	3	_	2
Health centre/unit/medical centre	1	1	1	_	1
Clinic/private/general	1	1	_	_	1
NET: Special location clinic	41	42	35	34	40
School/university/college clinic	23	24	25	10	16
Workplace clinic	10	7	3	13	19
Travel clinic	8	10	6	7	4
Pharmacy	1	1	1	4	1
Other	2	3	_	10	3
Don't know	1	1	2	3	1

 $\alpha$  Very small base (<50) – extreme caution is advised in interpreting results

Q.27

Where did you go to get the vaccine for hepatitis B?

Subsample: Those who have ever been vaccinated for hepatitis B

## Reasons for getting hepatitis A or B immunization

Recipients of the hepatitis A or hepatitis B vaccine were asked the reason why they received each these immunizations (each vaccine was queried separately and multiple mentioned were permitted). As mentioned, a significant proportion of people have actually been immunized against both (89% of hepatitis A vaccine recipients; 74% of hepatitis B recipients). Reasons given for getting a hepatitis immunization are similar for both strains. Travel (cited by 51% of hepatitis A and 36% of hepatitis B recipients) and work (21% hepatitis A; 28% hepatitis B) are the main reasons given for being immunized against either of the two forms of hepatitis. Given that school clinics are the location for a number of hepatitis B immunizations, getting the immunization as part of a school-based

program is mentioned more frequently by hepatitis B (21%) than hepatitis A recipients (13%).

There are few significant differences in reasons given for getting hepatitis immunizations by subgroups, including target groups. As expected, health care workers are more likely than other groups to say they obtained their hepatitis immunization for work reasons, for either hepatitis B (54% vs. 28% of the general public) or hepatitis A (34% of health care workers vs. 21% of others). Correspondingly, health care workers are less likely to say they received the hepatitis B immunization for travel-related reasons (17%, vs. 36% of the general public).

TABLE 44
Reasons for getting hepatitis A immunization
Hepatitis A recipients General Canadian population and health care workers June 2006

	GENERAL POPULATION				1
	Total (n=573)	18-64 No CMC (N=346)	18-64 CMC (N=91 <sup>B</sup> )	<b>65+</b> (N=29 <sup>α</sup> )	Health Care Workers (N=420)
NET: Prevention	89	90	84	86	86
Travel	51	54	47	72	42
Work	21	16	14	11	34
School-based program	13	14	16	_	10
Prevention/precaution/good idea	5	6	3	6	4
Routine Vaccination	3	3	6	_	1
Available/convenient	1	1	1	_	1
School reasons/related to school	*	*	_	_	1
Housing/location reasons	*	1	_	_	_
Annual check-up/in combination with other vaccines/part of booster	*	*	_	_	1
Worked in health care field	_	_	_	_	1
NET: Recommendation/requirement	7	7	9	8	8
Doctor's recommendation	6	6	7	8	7
Others recommended it	1	1	_	_	1
Mandatory/necessary	1	1	1	_	1
NET: Medical reason/condition	6	4	9	7	9
I think I need it	2	2	1	3	3
Was exposed to someone with disease	1	1	2	4	2
I am at risk (unspecified)	1	1	1	_	2
My age	1	*	2	_	1
I have a chronic condition/other chronic condition unspecified	1	-	4	_	1
Injury/illness/accident	*	*	_	_	1
Other	2	1	5	_	5
Don't know	2	2	3	_	1

(May not add to 100% due to multiple mentions)

Q.23

Why did you receive the vaccine for hepatitis A? Are there any other reasons?

Subsample: Those who have ever been vaccinated for hepatitis A

ß Small base (<100) – caution is advised in interpreting results

 $<sup>\</sup>alpha$  Very small base (  $\!<\!50)$  – extreme caution is advised in interpreting results

<sup>\*</sup> Less than one percent

Reasons for getting hepatitis B immunization
Hepatitis B recipients General Canadian population and health care workers June 2006

		GENERAL I	POPULATION		1
	<b>Total</b> (n=679)	18-64 No CMC (N=385)	18-64 CMC (N=113)	<b>65+</b> (N=30α)	Health Cari Workers (n=636)
NET: Prevention	88	88	85	94	89
Travel	36	41	37	62	17
Work	28	20	15	28	54
School-based program	21	21	26	_	19
Prevention/precaution/good idea	6	7	5	6	5
Routine vaccination/check-up/booster	2	2	6	_	2
Available/convenient	1	1	1	_	*
School reasons/related to school	*	*	_	_	1
Work in health care field	_	_	_	_	1
NET: Recommendation/requirement	5	4	8	11	6
Doctor's recommendation	4	3	5	11	4
Others recommended it	1	_	1	_	1
Mandatory/necessary	1	1	1	_	1
NET: Medical reason/condition	6	5	7	13	9
I think I need it	2	2	1	3	2
I was exposed to someone with it	2	2	2	7	2
I am at risk (unspecified)	1	1	3	-	3
My age	*	*	1	_	-
I have a chronic condition/other chronic condition unspecified	l 1	_	3	3	*
Injury/illness/accident	*	*	_	_	2
Other	2	1	2	_	3
Don't know	4	4	5	_	3
(May not add to 100% due to multiple mentions)					

(May not add to 100% due to multiple mentions)

Q.26

Why did you receive the vaccine for hepatitis B? Are there any other reasons?

Subsample: Those who have ever been vaccinated for hepatitis  ${\it B}$ 

 $<sup>\</sup>alpha$  Very small base (<50) – extreme caution is advised in interpreting results

<sup>\*</sup> Less than one percent

#### Tetanus immunization behaviour

The single most mentioned reason for getting a tetanus immunization is because of an injury; only about two in ten mention receiving it as a routine preventive immunization or booster. Preventive tetanus immunization is most common among health care workers.

Those reporting that they received a tetanus immunization in the past 10 years were asked the reason they received this immunization (multiple mentions were permitted). The results indicate that tetanus is predominantly a need-based immunization. The most mentioned single reason, cited by close to half (47%) was that they had sustained an injury. However, half (50%) also give a reason related to prevention; including a booster or routine vaccination (18%), that it was recommended by a doctor or other health care professional (11%), or wanted for work (9%) or travel reasons (8%).

Tetanus immunization recipients who are health care workers are the most likely to have received the vaccine for preventative reasons (64%), notably as a booster or

routine immunization (29%), and are the least likely to report getting it as a result of an injury (32%). Canadians 65 years of age and over (42%) and those 18 to 64 years of age with chronic medical conditions (47%) are no more likely than others (49%) to get preventive tetanus immunizations.

Those most likely to mention an injury as the reason for their tetanus immunization are men (58% vs. 34% of women), and injuries are also cited more by those in the Atlantic (67%) and Quebec (60%). Injury is most mentioned by those with lower levels of education (58% of those with a high school diploma or less vs. 49% of those with more education). Those with higher education levels are more likely to mention a prevention-related reason (54%, vs. 39% of recipients with a high school diploma or less).

Those most likely to mention a prevention-related reason are younger: six in ten (61%) of those under age 35, compared to just over four in ten (45%) of those 35 years of age or older.

TABLE 46
Reasons for getting a tetanus immunization
Tetanus vaccine recipients General Canadian population and health care workers June 2006

	GENERAL POPULATION					
	<b>Total</b> (n=1,062)	18-64 No CMC (N=634)	<b>18-64 CMC</b> (N=195)	<b>65+</b> (N=82 <sup>β</sup> )	Health Care Workers (N=581)	
NET: Medical requirement (injury/bite)	53	53	61	62	38	
Because of an injury	47	48	53	52	32	
Because of an animal bite	5	5	6	5	5	
Because I am at risk	2	1	2	4	2	
Taken together with other shots	*	_	_	_	1	
NET: Prevention	50	49	47	42	64	
Routine vaccination/booster/it had been 10 years since	last shot 18	18	16	13	29	
Doctor/health prof. recommendation	11	11	13	14	7	
Work	9	9	7	3	17	
Travel	8	8	8	10	10	
Preventative/health reasons (various)	5	4	4	6	7	
School-related	4	5	3	_	3	
Activities/likely to be wounded	*	_	*	1	1	
Believe it works/good idea	*	*	1	_	1	
Other	2	3	2	1	2	
Don't know	3	3	3	4	2	

(May not add to 100% due to multiple mentions)

 ${\tt B}$  Small base (<100) – caution is advised in interpreting results

#### Q.31

Why did you receive the vaccine for tetanus? Are there any other reasons? Subsample: Those who have ever had a vaccine for tetanus in the last 10 years

<sup>\*</sup> Less than one percent

## Pneumococcal immunization knowledge and behaviour

Questions about polysaccharide vaccine for pneumo-coccal disease were asked only of those who are 65 years of age or older, and younger Canadians who self-identified as having a chronic medical condition (CMC) other than asthma.

#### Awareness of risk of pneumococcal infection

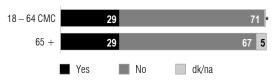
The vast majority of Canadians in the at-risk groups are not aware that they have an increased risk of getting pneumonia.

Canadians in the high-risk groups were asked if they would consider themselves to be at greater risk than the average person to "get pneumonia." Only three in ten (29%) of each risk group agreed this is the case, indicating a fairly low level of awareness. Awareness is highest in B.C. (37%) and lowest among Atlantic residents at risk (17%).

There are no significant gender, age or socio-economic differences in awareness of elevated risk among this population. Those most likely to agree that they are at increased risk are at-risk persons who also happen to come into contact with bodily fluids in the course of their work or volunteer work (49%, vs. 27% who do not).

## **GRAPH 7**Awareness of risk for pneumococcal

infection June 2006



\* Less than one percent

#### Q.4

And now I would like to ask you a few questions about your experience with the pneumococcal vaccine. This is the vaccine that protects against the complications of bacterial pneumonia. Would you consider yourself to be at greater risk than the average person to get pneumonia?

Awareness of polysaccharide pneumococcal immunization recommended schedule

Only one in ten of the at-risk population knows of the one-time schedule for the pneumococcal vaccine.

The recommended schedule for polysaccharide pneumococcal vaccine is not well known. Only one in ten (11%) Canadians in the at-risk population know this is a one-time inoculation (14% of those 65 years of age and over and 5% of those under 65 with a chronic condition). Close to half (45% of those 65 years of age and over, 50% of others) are unable to say how often adults should receive this vaccine. This lack of awareness spans demographic subgroups.

Medical recommendations for polysaccharide pneumococcal immunization

Only a quarter of at-risk Canadians say they have had a medical recommendation for a pneumococcal immunization; those most likely to have received a recommendation are 65 and older.

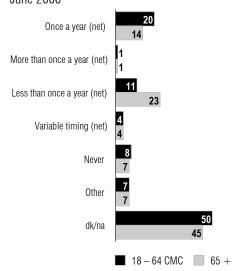
There appear to be a lot of missed opportunities for polysaccharide pneumococcal immunization. Only one-quarter (26%) of at-risk Canadians say they have received such a recommendation from a health care professional.

The incidence of having a pneumococcal immunization recommendation is significantly higher among those 65 years of age and over (34%) than among younger persons with chronic conditions (15%); the rate is higher among those age 75 and over (39%) than among those aged 65 to 74 (29%) ( $p \le 0.1$ ).

Recommendations by health care professionals are effective in encouraging immunization receipt: eight in ten (81%) pneumococcal immunization recipients say they had a recommendation for this vaccination, and almost all (93%) of those who had a recommendation went on to receive the immunization.

#### **GRAPH 8**

Awareness of recommended schedule for polysaccharide pneumococcal immunization June 2006

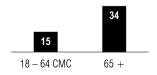


Q.42
As an adult, how often should you receive the vaccine for pneumonia?

#### **GRAPH 9**

Had health care professional recommendation for pneumococcal immunization

Yes June 2006



Q.43

Has a doctor or any other health care provider ever recommended that you receive the vaccine for pneumonia?

## Locations for polysaccharide pneumococcal immunization

Seniors are most likely to get a pneumococcal immunization from their doctor. Those with chronic conditions are more likely than seniors to get this immunization in a public health clinic or an emergency room, suggesting it was part of another medical intervention.

Most polysaccharide pneumococcal immunizations are administered at health care facilities. These are most likely to include a doctor's office, especially in the case of those 65 years of age and over (64%, vs. 35% of younger recipients). Those 18 to 64 years of age with chronic conditions are the most likely to report getting this immunization in a public health clinic or CLSC (30% vs. 15% of those 65 years of age and over), or in a hospital or emergency room (15% vs. 5%). This suggests that a significant proportion of younger persons with medical conditions are being given the pneumococcal immunization as part of a medical intervention other than a routine check-up. Only about five percent in either risk group say they received this immunization at a special location clinic, such as a community or seniors centre or a travel clinic.

The base of those reporting a pneumococcal immunization is too small to examine location by regional or other subgroups.

TABLE 47
Location for pneumococcal immunization
Pneumococcal vaccine recipients
18-64 with chronic conditions and seniors June 2006

	TARGET POPULATION		
	<b>18-64</b> wiтн <b>СМС</b> (N=47°)	<b>65+</b> (N=110)	
NET: Health care facility	88	92	
Family doctor/general practitioner	35	64	
Public health clinic or CLSC	30	15	
Hospital or emergency room	15	5	
Walk-in clinic	4	4	
Health centre/unit/medical centre	4	3	
Clinic/private/general	_	2	
NET: Special location clinic	5	5	
Community/senior's/religious centre	2	4	
Other public building	_	2	
Travel clinic	2	_	
Workplace clinic	2	-	
Other	3	2	
Don't know	4	1	

 $\alpha$  Very small base (<50) – extreme caution is advised in interpreting results

0.47

Where did you go to get the vaccine for pneumonia? Subsample: Those who have ever had a vaccine for pneumonia

## Payment for polysaccharide pneumococcal immunizations

Governments pay for the majority of pneumococcal immunizations given to Canadians with risk factors, but especially for seniors.

Those indicating they had received a polysaccharide pneumococcal immunization were asked who paid for it. For eight in ten (81%) of those 65 years of age and over, and two-thirds (65%) of younger recipients, this vaccine was funded by government. Those 18 to 64 years of age with chronic conditions (21%) are more likely than those 65 years of age and over (10%) to indicate that someone other than government paid for their pneumococcal immunization ( $p \le 0.1$ ).

The base of those reporting a pneumococcal immunization is too small to examine payment by regional or other subgroups.

TABLE 48
Payment for polysaccharide pneumococcal immunization
Pneumococcal vaccine recipients

18-64 with chronic conditions and seniors June 2006

	TARGET POPULATION		
	<b>18-64</b> with <b>СМС</b> (N=47°)	<b>65+</b> (N=110)	
NET: Government	65	81	
Government/provincial health insurance	50	74	
It was free	14	8	
NET: Non-government	21	10	
Paid for by an individual (self/family member/friend)	13	6	
Private health insurance	5	1	
Employer paid for it	3	1	
Other	2	2	
Don't know	13	7	

 $\alpha$  Very small base (<50) – extreme caution is advised in interpreting results

Q.45

Who paid for the pneumonia vaccine?

Subsample: Those who have ever had a vaccine for pneumonia

Reasons for getting polysaccharide pneumococcal immunization

A medical recommendation is a major reason for getting a pneumococcal immunization for both seniors and younger persons with chronic conditions.

Half (51%) of polysaccharide pneumococcal immunization recipients 65 years of age or over received this because of a medical recommendation or requirement. This is a less common reason (mentioned by 35%) for recipients who are 18 to 64 years of age with a chronic medical condition (CMC). Half of younger Canadians with a CMC (52%) say they obtained this immunization because of a chronic or medical condition (compared to 35% of those 65 and over) ( $p \le 0.1$ ). Canadians 65 years of age and over are more likely to mention their age (19%) as a contributing factor in getting a pneumococcal immunization.

The base of those reporting a pneumococcal immunization is too small to examine their reasons for doing so by regional or other subgroups.

TABLE 49 Reasons for getting a polysaccharide pneumococcal immunization

Pneumococcal vaccine recipients

18-64 with chronic conditions and seniors June 2006

	TAF POPUI	RGET LATION
	<b>18-64</b> with <b>СМС</b> (N=47°)	<b>65+</b> (N=110)
NET: Recommendation/requirement	35	51
Physician/med. professional's advice	35	49
Neighbour/friend's advice	2	2
Required for work/school	2	-
NET: Chronic/medical condition	52	35
My age	3	19
I have a chronic/other chronic condition	32	10
I am at risk (unspecified)	12	4
Had pneumonia before	4	4
I think I need it	3	_
Medical condition/surgery	2	2
Asthma/respiratory problems	4	_
General health reasons	2	_
NET: Prevention	34	26
To prevent me from getting sick	27	22
To prevent family/close contacts from getting sick	_	4
In combination with other vaccine	4	3
Safety/prevent/stay healthy/prevention/		
precaution/good idea	2	2
My job as a health care worker	2	-
NET: Available/free	_	2
It's free	_	1
Available/offered	-	1
Other	2	3
	2	2

 $\alpha$  Very small base (<50) – extreme caution is advised in interpreting results

0.46

Why did you receive a vaccine for pneumonia? Are there any

Subsample: Those who have ever had a vaccine for pneumonia

# Reasons for not getting a polysaccharide pneumococcal immunization

Those not planning to get a pneumococcal immunization are most likely to say it is not necessary for them.

Those who have not had a polysaccharide pneumo-coccal immunization and who do not plan to get one were asked their reasons for not getting it (multiple mentions were permitted). Not getting this immunization is mostly tied to people not believing it to be personally necessary (78% of those 65 years of age or over, and 87% of younger persons with a chronic medical condition).

Only a few (8%) cite a lack of a medical recommendation as a reason they would not get a pneumococcal immunization. As seen earlier, a medical recommendation for this vaccination is a significant motivator leading to immunization, especially among those 65 years of age and over.

Not thinking or knowing about this immunization is more cited younger persons at risk (30%) than by those 65 years of age and over (14%). Canadians 65 years of age and over are more likely (8%) than younger persons (2%) to express concern about side effects or reactions.

#### 0.49

What is the reason why you do not plan to get a pneumococcal shot? Are there any other reasons? Subsample: Those who have never had a vaccine for pneumonia, or who are unsure or refused to answer — and do not plan to get a pneumococcal shot in the future

#### TABLE 50

Reasons for not getting a polysaccharide pneumococcal immunization in the future 18-64 with chronic conditions and seniors who will not get a pneumococcal immunization in the future June 2006

	TAF	RGET LATION
	18-64 with CMC (N=152)	<b>65+</b> (N=127)
NET: Not felt necessary	87	78
Healthy – don't think I need it	37	36
Not necessary (unspecified)	28	22
Didn't think of it/didn't know about it	30	14
Not a target group/elderly/children/not at ris	k 2	5
Don't believe in vaccinations	4	3
Don't think it works	2	3
Don't want it	1	4
Never had/not worried about it	2	-
NET: Reasons related to medical profession/other medical reasons	10	14
Doctor/health professional didn't offer/		• • •
suggest/recommend it	8	9
Afraid of/don't like needles	1	2
Old age/too old/age-related	_	3
NET: Reasons related to		
side effects/reactions	2	8
Afraid of other side effects from vaccine	1	5
Afraid of getting pneumonia from it	_	2
Afraid it might contain harmful products	_	1
Would weaken immune system	1	_
Heard about people w/bad reaction	_	1
NET: Scheduling/personal reasons	3	4
Lack of information	3	3
No time/too busy/forgot	-	1
Other	2	4
Don't Know	3	6
(May not add to 100% due to multiple mentions)		

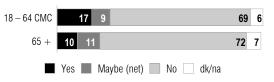
## Future plans for polysaccharide pneumococcal immunization

Overall, only one in seven people in the two risk groups say they plan to get a pneumococcal immunization in the future.

Those in the two higher risk groups who did not receive a polysaccharide pneumococcal immunization were asked if they plan to get this immunization sometime in the future. One in ten of those 65 years of age and over (10%) and one in six younger persons with a chronic condition (17%) say they will get this immunization, but the vast majority (70% of both groups) have no plans to do so. A further 10 percent might do so, depending in circumstances, the most mentioned being if a doctor or other health care professional recommends it (5%).

# **GRAPH 10** Future plans for polysaccharide

pneumococcal immunization
June 2006



Q.48

Do you plan on getting a pneumococcal shot some time in the future?

Subsample: Those who have never had a vaccine for pneumonia, or who are unsure or refused to answer

## CONCLUSIONS AND RECOMMENDATIONS

It is important to conduct surveys which provide immunization coverage estimates to measure program effectiveness and the proportion of children susceptible to vaccine-preventable disease. As is the case with all surveys of this type, the coverage measures in this survey are somewhat limited by issues of respondent recall. However, a major advantage provided by a general survey is the opportunity to learn about public levels of knowledge, attitudes and behaviours around vaccinations that would not be available through registry statistics.

The results from this survey indicate that the most frequently obtained adult vaccination is a tetanus immunization, the majority of which are received as the result of medical treatment for a wound. This was expected to be a commonly administered vaccine, as its long period of efficacy — it lasts for 10 years — means that many Canadians have had an opportunity to be offered this immunization.

The second most commonly administered vaccine is the annual influenza immunization. While the public's familiarity with the influenza vaccine appears to be relatively high, there are knowledge gaps surrounding issues of vaccine safety and the immunization schedule of this vaccine. It is particularly important to address these issues given that this vaccination is now being recommended for all Canadians.

Public knowledge and understanding about adult vaccinations other than influenza and tetanus vaccines remains low, and the polysaccharide pneumococcal vaccination in particular has a low level of awareness and coverage among the at-risk population. The survey also indicates that there are missed opportunities for vaccinations among the segments of the population with the greatest risk of contracting and developing serious

complications (those 65 years of age and over, and those aged 18 to 64 with chronic medical conditions).

Health care workers currently play a crucial role in the public vaccination process, and they should continue to proactively recommend vaccinations for their patients in at-risk groups. The research indicates that medical professionals are a trusted source for vaccination information, particularly among those 65 years of age and over, and a very high proportion of health care practitioner recommendations convert into immunizations. It is also noted that there are some vaccination coverage gaps among the health care worker population. In particular, not all health care workers reporting exposure risk are immunized against or tested for hepatitis B.

Based on the findings and conclusions of this research, the following recommendations are provided to Health Canada and the Public Health Agency of Canada for consideration:

#### Recommendations by vaccine

- Improved public awareness campaigns are needed to increase uptake of adult vaccines.
- Annual influenza vaccines for both high-risk and healthy adults should be encouraged.
- Hepatitis A, hepatitis B and tetanus are used more for high-risk, work- or travel-related activities. The majority who receive these immunizations do so for travel or, in the case of tetanus, because they have suffered an injury. The need for these vaccines should be reinforced among all target groups, but especially among those 65 years of age and over, who are the least likely to be immunized against any of the three.

- In general, the need for pneumococcal and pertussis immunizations are least understood. Health care workers should be encouraged to become increasingly involved and proactive in the promotion of these vaccines among high risk groups.
- Health care workers should also be encouraged to test their adult patients for varicella immunity where medical histories are unknown, and to offer immunizations to those who are not immune.

## Recommendations by target group

• Non-institutionalized 65+ – While the majority of those 65 years of age and over are receiving an influenza immunization, health care providers need to

- proactively advise their patients aged 65 and over of the need for other immunizations, notably the polysaccharide pneumococcal vaccine as a preventive measure.
- 18-64 with CMC There is an immediate need to stress the importance of pneumococcal and influenza immunizations among this population as coverage rates remain low in this group.
- Health care workers Vaccine uptake among doctors, nurses, nursing assistants/orderlies (personal care assistants) and first responder groups is good; but more effort may be needed to reach and educate workers in other professions, particularly around hepatitis B vaccine, to ensure a maximum uptake among those with exposure risk.

### METHODOLOGY AND RESPONDENT PROFILE

## **Objectives**

Until a national network of immunization registries is fully operational, Canadians must rely on sample surveys to provide accurate national population estimates of immunization coverage. Coverage data allows for monitoring of vaccine uptake levels and also serves as an important health indicators. Public health interventions can be targeted to populations identified as having low immunization coverage estimates. In addition to establishing uptake of specific vaccinations, these surveys provide valuable information on public knowledge, attitudes and awareness of vaccination programs that will inform communications strategies designed to increase and maintain uptake.

## Rationale for survey design

This survey was conducted using telephone interviews conducted with representative samples of Canadians, including individuals drawn from each of the three target populations (18 to 64 years of age with chronic medical conditions, 65 + and health care workers). This approach was deemed the most appropriate for fulfilling the survey objectives of generating accurate population estimates of immunization rates (and related attitudinal and knowledge data) at the national and provincial levels.

### Sampling strategy, source and frame

The strategy for this survey was to complete interviews with a representative sample of non-institutionalized adult Canadians (18 years plus) in all provinces and territories, with specific targets established for three specific sub-groups: a) non-institutionalized adults 65 years and older; b) adults 18 to 64 years of age with one of 10 specified chronic medical conditions; c) and health care workers.

The target population (except for health care workers) were identified through random-digit-dialling (RDD) sampling methodologies, because no panel or database currently exists that would provide the required level of population coverage.

The health care worker sample was identified in two ways:

- a) identified as part of the general population survey
- b) through a two-stage sampling process, described below.

The overall sample design for this target population was specified by the Public Health Agency of Canada (PHAC) in the Request for Proposal (RFP), and involved a nationally-representative sample (of 2,237), and additional samples of the target groups from four provinces who opted to purchase additional sample for provincial estimates.

The general population sampling method used random-digit-dialling (RDD) in order to maximize the probability that every non-institutionalized adult Canadian in the target population has an equal chance of being included in the survey.

Samples were generated using a database of active phone ranges (provided in this case by ASDE Survey Sampler, a leading Canadian provider of survey research sample). The sum of all the ranges represents a complete sampling frame for all of North America. National samples were thus readily generated by limiting the active phone ranges in the sampling frame to those valid within Canada; and regional samples generated by limiting the active phone ranges in the sampling frame to those for any desired region within Canada.

The sample was generated using stratified sampling procedures. Stratified sampling divides the population of sampling units into sub-populations called strata. For national samples, the sampling model relied on the stratification of the population by 10 provinces and by six community sizes - 1,000,000 inhabitants or more, 100,000 to 1,000,000 inhabitants, 25,000 to 100,000 inhabitants, 10,000 to 25,000 inhabitants, 5,000 to 10,000 inhabitants and under 5,000 inhabitants. Regional samples were stratified by community size and other geographic subdivisions relevant to the survey area. Stratification was based on the most recently available census data.

Health care workers. A different sampling approach was taken with health care workers, since locating them through RDD sampling would be prohibitively time consuming and costly. A proportion of this sample was identified through the general population sample selection but many were identified through list-based sample frames as follows. The first step involved defining this target sub-group in terms of professional occupations relevant to issues surrounding immunization. The starting point was the list of occupational roles identified in Question 52 of the draft questionnaire prepared by PHAC. Step two involved selecting cases from established lists of professionals (e.g. physicians) or health care organizations (hospitals, retirement homes) from which eligible respondents were then identified and selected for inclusion into the sample. In addition, Environics recommended that a monetary incentive be offered to respondents in some of the occupational categories (physicians and nurses) in order to achieve an adequate level of participation.

The sample source for *physicians* was MD Select (published by Scott's Info Medical). This source includes more than 57,000 practicing physicians and is recognized as the number one source of contact on physicians across Canada. This source is updated quarterly, and

provides listings by region, language, specialty and type of practice, from which it was possible to draw a representative sample (by regional quotas) of physicians and focus on those types of practice for whom this survey would be most relevant (e.g. general practitioners, emergency room physicians, respirologists), and then make direct contact with those selected for inclusion in the sample.

The source for health care organizations was Dun & Bradstreet Canada, which is the definitive provider of business and organization lists in Canada. D&B Canada's national database currently has over 1.25 million Canadian businesses and organizations, is updated quarterly, and covers approximately 95 percent of all health care institutions, medical practices, and alternative therapy practitioners (e.g. chiropractors, naturopaths). For this study, relevant organizations were drawn from the SIC two-digit code for health services (80, e.g. from 80490004 - midwives to 80919991 - health and allied services). Organizations with applicable health care workers were first selected into the sample (according to regional and occupational quotas), and then contacted to identify and recruit eligible respondents.

Target quotas were established for selected occupation groups to ensure the final health worker sample adequately covers occupations of interest within this overall target subgroup, nationally and by province where applicable (e.g. where provincial over-samples were collected). This approach ensured the target population could be defined and selected by occupations appropriate to this study.

The total planned distribution of the sample for the 2006 Adult *NICS*, including oversamples commissioned by the provinces of Newfoundland and Labrador, Quebec, Ontario and British Columbia, was as follows:

**TABLE 51** Original national sample targets

		I	GENERAL I	POPULATIO	N		HEALT	H CARE W	ORKERS	
JURISDICTION (% OF POP) <sup>1</sup>	Overall Total	Total	65+ LIVE AT HOME	18-64 CMC	18-64 NO CMC	Total	Doctor	Nurse	Nurses aid/ orderly*	OTHER**
Atlantic (7)										
NL (2)	50	43	7	7	29	7	0	1	2	4
NL oversample	586	393	393	_	_	193	18	38	57	80
NS (3)	80	70	10	10	50	10	1	2	3	4
PE (<1)	30	26	4	4	18	4	0	1	1	2
NB (2)	50	43	7	7	29	7	1	1	1	4
Total Atlantic	796	575	421	28	126	221	20	43	64	94
Quebec (24)	696	600	96	96	408	96	7	20	32	37
QC oversample	608	304	_	304	_	304	22	45	95	142
Total Quebec	1304	904	96	400	408	400	29	65	127	179
Ontario (39)	1,117	963	154	154	655	154	10	20	56	68
Ontario oversample	738	492	246	246	_	246	20	45	80	101
Total Ontario	1,855	1,455	400	400	655	400	30	65	136	169
Prairies (17)										
MB (4)	116	101	15	15	71	15	1	3	4	7
SK (3)	87	75	12	12	51	12	1	2	4	5
AB (10)	290	252	38	38	176	38	3	7	12	16
<b>Total Prairies</b>	493	428	65	65	298	65	5	12	20	28
B.C. (13)	390	336	54	54	228	54	5	8	15	26
B.C. oversample	692	692	346	346	_	_				
Total B.C.	1082	1,028	400	400	228	54	5	8	15	26
Territories (1)										
NU (<1)	10	8	2	2	4	2	1	0	0	1
NT (<1)	10	8	2	2	4	2	0	1	0	1
YT (<1)	10	8	2	2	4	2	0	1	1	0
Total Territories	30	24	6	6	12	6	1	2	1	2
CANADA INCLUDING OVERSAMPLES	5,560	4,414	1,388	1,299	1,727	1,146	90	195	363	498

<sup>1</sup> Population distribution based on Statistics Canada data issued in December 2005

<sup>\*</sup> Included Health Care Aide, Hospital Attendant, Long Term Care Aide, Nurse Aide, Nursing Attendant, Orderly, Patient Care Aide, Patient Service Associate, Psychiatric Aide, Personal Support Worker

<sup>\*\*</sup> Included Pharmacists, Lab technicians/technologists, Respiratory therapists, Ambulance attendant/paramedic, Medical sonographer, Radiation technician/technologist, Chiropractor, Naturopath, Homeopath, Volunteers

### Potential bias/error

In conducting the 2006 Adult *NICS* survey, Environics met quotas established by PHAC for the three target groups. In assessing the original data it was determined that the provincial oversamples of the populations from target groups should not be included in the final national general population survey tabulation. In the absence of certain weighting factors these could inflate the reported coverage of several key vaccines. A selection was made of these populations to create a final national sample that was as close as possible to how these groups actually fall in the general population. This selection was based on known proportions by region, age, gender and chronic medical conditions (CMCs). Proportions of CMCs were as identified in the 2001 Adult *NICS* survey.

The principal methodological challenge facing this type of coverage survey is to obtain an accurate measure of individual behaviour based on self-reports of previous events that may not be recent, salient, or well-understood. For any type of social research recall is an issue, and the literature has demonstrated that "the greater demands a question places on memory, the less accurate the respondents' answers and, all else being equal, the less accurate the survey estimates derived from them."<sup>7</sup>

Previous research on immunization coverage has confirmed that self-reported behaviour can be notably inaccurate, to the extent that: a) the vaccinations occurred in the distant past (particularly for those such as tetanus that are only required every 10 years); b) respondents have poor memories (e.g. elderly individuals in particular)<sup>8</sup>; c) there is limited understanding or confusion about which vaccinations are being given (especially for combinations such as a tetanus/diphtheria (Td) toxoid); and d) low salience (it is possible that some vaccinations, perhaps given as part of regular medical appointments, may not be memorable enough for some respondents to recall).

Extensive research has been conducted on parental reporting errors in childhood vaccination surveys in the U.S., but considerably less is known about reporting errors in adult vaccination surveys. It is known in general that memory recall error can be reduced by purposively limiting the length of the recall period. This finding seems to apply to adult vaccination surveys. MacDonald *et al.* (1999) found that self-reports of pneumococcal vaccination are less reliable than self-reports of influenza vaccination.<sup>9</sup> This is possibly due to the fact that administration of influenza immunization is recommended more often than is pneumococcal vaccination.

Another major challenge is that most adult Canadians do not have their own records of immunizations (also known as "shot cards"), and if they do they may not be up-to-date nor the information on them well-understood. Immunizations are given to adults by a myriad of providers including mass immunization clinics, emergency rooms, travel clinics, public health clinics and family doctors. These all use different record-keeping techniques, thus adding to difficulty of maintaining documentation of complete immunization.

There are also privacy concerns to be considered regarding personal health issues. Most of the vaccinations asked about in this survey would likely not cause respondents undue concern (e.g. influenza, pertussis, tetanus, pneumococcal disease), but others (i.e. hepatitis A or B) are linked to lifestyle issues and could possibly invoke sensitivities that might potentially lead to under-reporting. The results may also be subject to unit nonresponse bias; in any survey the weighting procedures employed may not completely eliminate any biases that may exist. <sup>10</sup>

<sup>7</sup> Tournageau, Rips & Raskinski, 2000. The Psychology of Survey Response. New York: Cambridge University Press.

<sup>8</sup> Murphy, Susan M. et al. Tetanus Immunity in elderly people. http://findarticles.com/p/articles/mi m2459/is n2 v24/ai 16999722

<sup>9</sup> MacDonald, R., Baken, L., Nelson, A., and Nichol, K.L. 1999. Validation of self-report of influenza and pneumococcal vaccination status in elderly outpatients. American Journal of Preventive Medicine, Volume 16, pp.173-177.

<sup>10</sup> Unit nonresponse occurs when a sampled unit (person or family) fails to participate in a survey. Unit nonresponse can occur, for example, because the sampled person cannot be located, refuses to participate, is too ill to participate, cannot participate because of language or hearing problems, or is away from the area for the period of the survey fieldwork.

#### Pre-test

The questionnaire used for this survey was developed by PHAC and pre-tested as presented. Prior to finalizing the survey for field, Environics conducted a pre-test with "live" respondents, audited by PHAC and Health Canada staff. Surveys were conducted with respondents from each of the target populations. The pre-test was conducted by telephone, with 30 respondents in English to assess the questionnaire in terms of question wording and sequencing, respondent sensitivity to specific questions and to the survey overall, and to determine the interview length. Potential changes were discussed following the pre-test and incorporated into the questionnaire. Following approval, Environics arranged for the final questionnaire to be translated into French using its own professional, experienced translators. PHAC approved the French version of the questionnaire prior to conducting any French interviews. A pre-test of the French version of the questionnaire was also conducted.

### Respondent selection

Environics started with a primary sample equal to the size of the projected completed sample. The DASH call management module of the Computer Assisted Telephone Interviewing (CATI) system monitored completion rates in each "call group." Only after numbers were depleted (not-in-service, residential or ineligible, refusal, incomplete interview or chronic no answer), were replacements introduced. In this manner, one sample point is representative of one potential respondent. By using this procedure, the application of probability statistics is both appropriate and valid. An accurate response rate can also be calculated.

Quotas were established for each community size stratum. The proportion of the total population residing in a particular stratum and the total sample for the study size determines the number of primary sampling units (PSUs). Subsequently, quotas were assigned to each community relative to its proportional contribution to the total stratum. The achievement of these quotas was monitored by computer throughout the study.

For this study, Environics first conducted the survey with the general population, and categorized respondents into the appropriate target sub-group (e.g. respondents 65 plus, health care workers, those aged 18 to 64 with specific chronic medical conditions). This stage filled some of the required quotas for low incidence groups. Following this, Environics continued to sample households and individuals but screened them up front to identify those fitting into specific quotas by target sub-group and province (as well by gender). Similarly, a revised introduction to the survey was used for the targeted health care worker population.

### Weighting factors

The final data were statistically weighted so that the national results accurately reflect the true distribution of the population, by region, age and gender. A similar weighting approach will be applied at the provincial level for participating jurisdictions.

The health care workers data were weighted by region and age factors but not by gender, as a number of the selected professions have a skewed gender representation.

<sup>11</sup> This response rate calculation is based on a new formula recently developed by MRIA in consultation with the Government of Canada (Public Works and Government Services).

## Completion results

The sample for this survey including provincial oversamples consisted of 5,590 interviews completed among non-institutionalized adult Canadians. The effective response rate for the survey is 12 percent. This is calculated as the number of responding (R) participants (completed interviews plus those disqualified because of quotas being filled) (10,191), divided by unresolved (U) numbers (e.g. busy, no answer) (24,734) plus inscope but non-responding households or individuals (IS) (e.g. refusals, language barrier, missed callbacks) (52,778) [R/(U+IS+R)]. The disposition of all contacts is presented in the adjacent table.

## **TABLE 52** Completion results

Total numbers dialled (general population + health care)	109,304
UNRESOLVED NUMBERS (U)	24,734
Busy	935
No answer	10,331
Answering machine	13,468
<b>RESOLVED NUMBERS</b> (Total minus Unresolved)	84,570
OUT OF SCOPE (Invalid/non-eligible)	21,601
Non-residential	1,943
NIS	16,989
Fax/modem	2,669
IN SCOPE NON-RESPONDING (IS)	52,778
Refusal - household	23,681
Refusal - respondent	7,119
Language barrier	2,105
Respondent not/never available	13,665
Callback appointment	5,847
Break-offs (interview not completed)	361
IN SCOPE RESPONDING (R)	10,191
Disqualified - not eligible/quota full	4,601
Completed interview	5,590
$\textbf{RESPONSE RATE} \; [R  /  (U  +  IS  +  R)]$	12%

TABLE 53
General public survey\*

	AC1	UAL %		HTED %
	<b>#</b> 2,237	100	<b>#</b> 2,237	10
<b>AGE</b> 18-24	220	10.7	060	10
	239	10.7	269	12.
25-34	390	17.4	388	17.
35-44	539	24.1	496	22.
45-54	494	22.1	430	19.
55-64	271	12.1	279	12.
65-74	174	7.8	208	9.3
75+	130	5.8	167	7.5
DUCATION * excl. No schooling				
Grade school or some high school	240	10.7	271	12.
Completed high school	353	15.8	371	16.
Tech/vocational post secondary	678	30.3	668	29.
Some university	211	9.4	201	9.0
Completed university degree	438	19.6	432	19.
Post graduate	304	13.6	281	12.
DK/REFUSED	11	0.5	12	0.5
CURRENT EMPLOYMENT STATUS * excl. DK/NA				
Working full time	1,027	45.9	970	43.
Working part time	221	9.9	221	9.9
Self-employed	219	9.8	203	9.
Currently not in work force	203	9.1	197	8.8
Attending school	100	4.5	110	4.9
Retired	366	16.4	434	19.
Other	85	3.8	85	3.9
	00	0.0	00	0.0
HOUSEHOLD INCOME	105	0.0	107	0.0
Under \$20,000	185	8.3	197	8.8
\$20,000 to under \$40,000	388	17.3	409	18.
\$40,000 to under \$60,000	383	17.1	393	17.
\$60,000 to under \$80,000	347	15.5	338	15.
\$80,000 to under \$100,000	231	10.3	218	9.7
\$100,000 or over	394	17.6	354	15.
REFUSED	309	13.8	327	14.
GENDER				
MALE	1,108	49.5	1,081	48.
FEMALE	1,129	50.5	1,156	51.
LANGUAGE OF INTERVIEW				
ENGLISH	1,801	80.5	1,711	76.
FRENCH	436	19.5	526	23.
RESPONDENT TYPE				
18-64 WITH NO CMC	1,504	67.2	1,455	65.
18-64 WITH CMC	429	19.2	407	18.
65+	304	13.6	375	16.
HCW*	236	10.5	232	10.
fincludes some health care workers identified as part of the general survey – doe		10.0	202	10.

TABLE 54  $\label{eq:Regional respondent profile} Regional\ respondent\ profile-by\ target\ group$ 

			1	TARGET GROUPS		
Age	National Population Proportion*	Survey Population	18-64 NO CHRONIC CONDITION	18-64 WITH CHRONIC CONDITION	65+	нсж
		ACTUAL=2,237 WEIGHTED=2,237	ACTUAL=1,319 WEIGHTED=1,276	ACTUAL = 395 WEIGHTED = 373	ACTUAL = 287 WEIGHTED = 355	ACTUAL=1,161 WEIGHTED=1,161
Atlantic provinces	7	7	8	3	11	10
Newfoundland	2	2	<1	<1	8	4
Prince Edward Island	<1	<1	1	<1	1	<1
Nova Scotia	3	3	4	1	3	3
New Brunswick	2	3	3	1	1	3
Quebec	24	25	26	38	10	24
Ontario	39	38	37	32	46	37
Prairie provinces	17	17	21	5	8	17
Manitoba	4	4	5	1	1	4
Saskatchewan	3	3	4	1	1	3
Alberta	10	10	12	3	6	10
British Columbia	13	13	8	23	25	13

Percentages are weighted

## APPENDICES

# Health Canada 2006 Adult National Immunization Coverage Survey

## **FINAL Questionnaire**

Intr	oduction
Grou beha prog	d morning/afternoon/evening. My name is and I am calling from Environics Research up, a public opinion research company. This evening we are conducting a survey on adult vaccinations of all of the Public Health Agency of Canada. The results of this survey will help to improve immunization grams across Canada. Your participation in this telephone survey is voluntary. Your answers will be keptly confidential. The survey should take only 10-15 minutes.
IF A	SKED: The results of this survey will be made publicly available once it has been completed.
IF A	SKED: This survey is registered with the National Survey Registration System, under the registration number $oldsymbol{\kappa}$
	ESPONDENT SAYS THEY HAVE NOT BEEN IMMUNIZED/VACCINATED: There are still questions in the ey that would apply to you even if you have not been vaccinated.
Α.	Participant Screening
Befo	pre we begin
1.	Since health concerns can sometimes be related to age, in what year were you born?
2.	(IF UNDER 18) Is there an adult 18 years of age or older at home?
	01 – Yes 02 – No 97 – Don't know 99 – REFUSE/NA
	NDER 18; ASK TO SPEAK TO SOMEONE IN HOUSEHOLD 18 OR OLDER:

### B. Opinion about Vaccines in General

I will start by asking your opinion on where to get information about vaccinations or immunizations, sometimes called "shots."

- 3. Given the choice, where would you prefer to get information about vaccinations for adults? DO NOT READ SELECT ALL THAT APPLY
  - 01 Family doctor/general practitioner
  - 02 Other health care professional (not family doctor)
  - 03 Family/friends
  - 04 Television
  - 05 Radio
  - 06 Newspapers
  - 07 Magazines
  - 08 Internet
  - 09 Billboards/posters
  - 10 At work
  - 11 Other (SPECIFY \_\_\_\_\_
  - 97 Don't know
  - 99 REFUSE/NA

#### C. Influenza

Now I would like to ask you a few questions about the flu shot or the influenza vaccine.

IF ASKED: The Flu shot protects against influenza.

- 4. Please tell me where you usually get your information about the Flu shot? DO NOT READ SELECT ALL THAT APPLY
  - 01 Family doctor/general practitioner
  - 02 Other health care professional (not family doctor)
  - 03 Family/friends
  - 04 Television
  - 05 Radio
  - 06 Newspapers
  - 07 Magazines
  - 08 Internet
  - 09 Billboards/posters
  - 10 At work
  - 11 Other (SPECIFY
  - 97 Don't know
  - 99 REFUSE/NA
- 5. How important is the Flu shot to your own personal health? Would you say it is very, somewhat, not very or not at all important?
  - 01 Very important
  - 02 Somewhat important
  - 03 Not very important
  - 04 Not at all important
  - **VOLUNTEERED**
  - 97 Don't know
  - 99 REFUSE/NA
- 6. Using the same scale, please tell me how important is the Flu shot for you, in order to <u>protect other people</u> with whom you are in contact from getting sick? Would you say it is very, somewhat, not very or not at all important?
  - 01 Very important
  - 02 Somewhat important
  - 03 Not very important
  - 04 Not at all important
  - **VOLUNTEERED**
  - 97 Don't know
  - 99 REFUSE/NA
- 7. From what you know about the flu shot, please answer yes or no to the following questions:
  - a) Do you think that it is important for pregnant women to receive the Flu shot?
  - b) Do you think the Flu shot is safe for pregnant women?
  - 01 Yes
  - $02 N_0$
  - 97 Don't know
  - 99 REFUSE/NA

1 100	illi Carlada – Addit National Illindrization Coverage Survey. TinAL Questionnaire – April 20-2000
8.	Do you consider yourself to be at greater risk than the average person to get serious complications from influenza (that is, the Flu)?
	01 – Yes 02 – No 97 – Don't know 99 – REFUSE/NA
9.	How often should people receive the Flu shot? DO NOT READ – CODE ONE
	01 – Once a year/annually 02 – Once every few years 03 – Only when you feel you need it/when at risk 04 – Once in a lifetime 05 – Never 98 – Other (SPECIFY) 97 – Don't know 99 – REFUSE/NA
10.	Have you visited a health care professional, for example a doctor or nurse, between October 2005 and now? This does not include Emergency Room visits.
	01 – Yes 02 – No SKIP TO Q.12 97 – Don't know SKIP TO Q.12 99 – REFUSE/NA SKIP TO Q.12
11.	(ASK IF YES TO Q.10) When you consulted the health care professional, did they recommend you get a Flu shot?
	01 – Yes 02 – No 97 – Don't know 99 – REFUSE/NA
12.	Were you hospitalised or did you visit an Emergency Room as a patient between October 2005 and now?
	01 - Yes 02 - No SKIP TO Q.14 97 - Don't know SKIP TO Q.14 99 - REFUSE/NA SKIP TO Q.14
13.	(ASK IF YES TO Q.12) When you were in the hospital, did a health care professional such as a doctor or

13. (ASK IF YES TO Q.12) When you were in the hospital, did a health care professional such as a doctor or nurse recommend you get a Flu shot?

01 – Yes

02 – No

97 – Don't know

99 - REFUSE/NA

14. Did you receive a Flu shot between October 2005 and now?		
	01 - Yes 02 - No SKIP TO Q.18 97 - Don't know SKIP TO Q.19 99 - REFUSE/NA SKIP TO Q.19	
15.	(ASK IF YES TO Q.14) Where did you go to get the Flu shot? DO NOT READ – CODE ONE ONLY	
	01 – Public Health clinic or CLSC 02 – Family doctor/general practitioner 03 – Walk-in clinic 04 – Workplace clinic 05 – University/college clinic 06 – As a patient in hospital or emergency room 07 – Pharmacy 08 – Travel clinic 09 – Other (SPECIFY) 97 – Don't know 99 – REFUSE/NA	
16.	Who paid for your Flu shot? DO NOT READ – CODE ONE ONLY	
	01 – Self/I paid for it 02 – It was free 03 – Private health insurance 04 – The government/Provincial health insurance 05 – Employer paid for it 06 – Other (SPECIFY) 97 – Don't know 99 – REFUSE/NA	
17.	Why did you get a Flu shot? DO NOT READ – SELECT ALL THAT APPLY; PROMPT: Are there any other reasons?	
	01 – Health care professional's (doctor or nurse) advice 02 – Neighbour/friend's advice 03 – To prevent me from getting sick 04 – To prevent family/close contacts from getting sick 05 – To prevent a family member who is at high risk (e.g. children < 2 years, persons 65 +, people with chronic medical condition) 06 – I think I need it 07 – I have been traveling/plan to travel 08 – My job as a health care worker/to protect patients/residents from getting sick 09 – It's free 10 – I have a chronic condition (e.g. diabetes, heart disease, etc) 11 – My age 12 – I am at risk (unspecified) 13 – I cull poultry/work with poultry 14 – I work in a public place/with the public 98 – Other (SPECIFY) 97 – Don't know 99 – REFUSE/NA	

18.	(ASK IF NO TO Q.14) Why did you not receive a flu shot? DO NOT READ – RECORD FIRST THREE MENTIONS IN ORDER; PROMPT: Are there any other reasons?			
	01 – Didn't think of it/didn't know about it 02 – Healthy – don't think I need it 03 – Not necessary (unspecified) 04 – Don't think it works 05 – Forgot 06 – No time/too busy 07 – Doctor/health professional didn't offer it/suggest it/recommend it 08 – Afraid of/don't like needles 09 – Afraid of getting the flu from the vaccine 10 – Afraid or other side effects from the vaccine 11 – History of severe allergy to flu shot 12 – History of other adverse reactions 13 – Heard about/know people who had a bad reaction 14 – Unable to get to location where flu shot was offered 15 – Afraid it might contain harmful products (e.g. preservatives, thimerosal) 16 – Other (SPECIFY) 97 – Don't know 99 – REFUSE/NA			
19.	Are you planning to get a Flu shot in the next flu season (that is, next fall and winter)?			
	01 – Yes 02 – No SKIP TO Q.21 VOLUNTEERED 03 – Maybe/Depends/Perhaps (SPECIFY) 97 – Don't know SKIP TO Q.21 99 – REFUSE/NA SKIP TO Q.21			
20.	(ASK IF YES OR MAYBE IN Q.19) Why are you planning to get a flu shot next flu season? DO NOT READ – SELECT ALL THAT APPLY; PROMPT: Are there any other reasons?			
	01 – Health care professional's (doctor or nurse) advice 02 – Neighbour/friend's advice 03 – To prevent me from getting sick 04 – To prevent family/close contacts from getting sick 05 – To prevent a family member who is at high risk (e.g. children under 2 years, persons 65 and over, people with chronic medical condition) 06 – I think I need it 07 – I have been traveling/plan to travel 08 – My job as a health care worker/to protect patients/residents from getting sick 09 – It's free 10 – I have a chronic condition (e.g. diabetes, heart disease, etc) 11 – My age 12 – I am at risk (unspecified) 13 – Other (SPECIFY) 97 – Don't know			

99 - REFUSE/NA

#### D. Hepatitis, Tetanus and Pertussis Vaccinations

Now I am going to ask you a few questions about your experience with vaccines for hepatitis. Hepatitis A and B are serious liver diseases caused by viruses.

IF ASKED FOR MORE INFORMATION ON <u>HEPATITIS A</u>: hepatitis A is usually spread by close personal contact and sometimes by eating food or drinking water contaminated with hepatitis A virus. Hepatitis A can cause mild "flu-like" illness, jaundice (that is, yellow skin or eyes), severe stomach pains, and diarrhea.

IF ASKED FOR MORE INFORMATION ON <u>HEPATITIS B</u>: The hepatitis B virus is spread through contact with contaminated bodily fluids such as blood or semen. It can cause short-term illness that leads to loss of appetite; diarrhea and vomiting; tiredness; jaundice; pain in the muscles, joints, and stomach. It can also cause long-term illness that leads to: liver damage; liver cancer; and death.

21. Have you ever been vaccinated against either hepatitis A or hepatitis B? IF RESPONDENT SAYS YES, CLARIFY IF BOTH OR WHICH

01 - Hepatitis A only

02 – Hepatitis B only SKIP TO Q.25

03 - Both hepatitis A and B

04 – Neither SKIP TO TEXT BEFORE Q.28

VOLUNTEERED

97 – Don't know SKIP TO TEXT BEFORE Q.28 99 – REFUSE/NA SKIP TO TEXT BEFORE Q.28

I will now ask you some questions about your experience with the vaccine for hepatitis A.

22. Did you receive more than one dose of the vaccine for hepatitis A?

01 - Yes

02 – No

**VOLUNTEERED** 

03 - Will be receiving another dose

97 – Don't know

99 - REFUSE/NA

23. Why did you receive the vaccine for hepatitis A?

DO NOT READ - SELECT ALL THAT APPLY; PROMPT: Are there any other reasons?

IF NECESSARY: Please be assured that all of your responses to this survey will remain strictly confidential.

- 01 Work reasons
- 02 Travel reasons
- 03 Routine vaccination
- 04 School-based program
- 05 Doctor's recommendation
- 06 I think I need it
- 07 I was exposed to a person with the disease
- 08 I have a chronic condition (e.g. diabetes, heart disease, etc)
- 09 My age
- 10 I am at risk (unspecified)
- 11 Other (SPECIFY \_\_\_\_\_
- 97 Don't know
- 99 REFUSE/NA

24.	Where did you go to get the vaccine for hepatitis A? DO NOT READ – CODE ONE ONLY
	01 – Public Health clinic or CLSC 02 – Family doctor/general practitioner 03 – Walk-in clinic 04 – Workplace clinic 05 – University/college clinic 06 – As a patient in hospital or emergency room 07 – Pharmacy 08 – Travel clinic 09 – School 10 – Other (SPECIFY) 97 – Don't know 99 – REFUSE/NA
IF F	IEPATITIS A ONLY, SKIP TO TEXT BEFORE Q.28
Nov	v I will ask you about your experience with the vaccine for hepatitis B.
25.	Did you receive more than one dose of the vaccine for hepatitis B?
	01 – Yes 02 – No VOLUNTEERED 03 – Will be receiving another dose 97 – Don't know 99 – REFUSE/NA
26.	Why did you receive the vaccine for hepatitis B? DO NOT READ – SELECT ALL THAT APPLY; PROMPT: Are there any other reasons?
	IF NECESSARY: Please be assured that all of your responses to this survey will remain strictly confidential
	01 – Work reasons 02 – Travel reasons 03 – Routine vaccination 04 – School-based program 05 – Doctor's recommendation 06 – I think I need it 07 – I was exposed to a person with the disease 08 – I have a chronic condition (e.g. diabetes, heart disease, etc) 09 – My age 10 – I am at risk (unspecified) 97 – REFUSED 98 – Other (SPECIFY) 97 – Don't know 99 – REFUSE/NA

- 27. Where did you go to get the vaccine for hepatitis B? DO NOT READ – CODE ONE ONLY
  - 01 Public Health clinic or CLSC
  - 02 Family doctor/general practitioner
  - 03 Walk-in clinic
  - 04 Workplace clinic
  - 05 University/college clinic
  - 06 As a patient in hospital or emergency room
  - 07 Pharmacy
  - 08 Travel clinic
  - 09 School
  - 10 Nursing station
  - 11 Special field clinics
  - 97 REFUSED
  - 98 Other (SPECIFY
  - 97 Don't know
  - 99 REFUSE/NA

Now I will ask you some questions about your experience with the vaccine for tetanus. Tetanus, also known as lockjaw, is caused by a bacteria in wounds such as cuts, burns and bites.

IF ASKED FOR MORE INFORMATION: Tetanus is caused by a bacteria. A person infected with the tetanus bacteria experiences painful muscle contractions that begin in the neck and then continue down to involve the muscle of the whole body. It can lead to "locking" of the jaw so the patient cannot open his or her mouth or swallow, hence the popular name, "lockjaw."

- 28. Within the last 10 years, have you been treated by a health care provider for a wound, or have you needed stitches to treat a cut?
  - 01 Yes
  - $02 N_0$
  - 97 Don't know
  - 99 REFUSE/NA
- 29. Has a doctor or any other health care provider recommended that you receive a vaccine for tetanus in the last ten years?
  - 01 Yes
  - 02 No
  - 97 Don't know
  - 99 REFUSE/NA
- 30. Have you had a vaccine for tetanus, either alone or in combination with another vaccine, in the last 10 years? DO NOT READ

IF ASKED: Tetanus shots are sometimes given in combination with shots for diphtheria or pertussis (also know as whooping cough)

- 01 Yes
- 02 No SKIP TO TEXT BEFORE Q.32
- 97 Don't know SKIP TO TEXT BEFORE Q.32
- 99 REFUSE/NA SKIP TO TEXT BEFORE Q.32

31. (IF YES AT Q.30) Why did you receive the vaccine for tetanus?

DO NOT READ – SELECT ALL THAT APPLY; PROMPT: Are there any other reasons?

IF RESPONDENT SAYS THEY GOT THE SHOT TO PREVENT TETANUS OR LOCKJAW, PROBE FOR WHY THEY THOUGHT THEY WOULD GET TETANUS OR LOCKJAW

01 - 1	Because	of an	in	iurv
--------	---------	-------	----	------

- 02 Because of an animal bite
- 03 A routine vaccination/booster/it had been 10 years since my last
- 04 Work reasons
- 05 Travel reasons
- 06 Doctor/health professional recommendation
- 07 Because I am at risk (SPECIFY \_\_\_\_\_
- 98 Other (SPECIFY
- 97 Don't know
- 99 REFUSE/NA

Now I will ask you some questions about the vaccine for pertussis. Pertussis, or whooping cough, causes prolonged coughing spells that can make it hard to eat, drink, or breathe.

IF ASKED FOR MORE INFORMATION: These spells can last for weeks. It can lead to pneumonia, seizures (that is, jerking and staring spells), brain damage, and death. *Pertussis can affect people of all ages, but it is most severe in young children.* 

#### <u>INTERVIEWER:</u> PERTUSSIS = per-*tuss*-sis

32. Have you ever the vaccine for whooping cough as an adult?

IF ASKED: Pertussis shots are sometimes given in combination with shots for diphtheria or tetanus (also know as lockjaw)

01 – Yes

02 - No SKIP TO Q.33C

97 - Don't know SKIP TO Q.33C

99 - REFUSE/NA SKIP TO Q.33C

33a. (ASK IF YES TO Q.32) In what year did you receive the vaccine for whooping cough?

97 – Don't know

99 - REFUSE/NA

- 33b. In what province or territory did you receive the vaccine for whooping cough?

  DO NOT READ CODE ONE ONLY
  - 01 British Columbia
  - 02 Alberta
  - 03 Saskatchewan
  - 04 Manitoba
  - 05 Ontario
  - 06 Quebec
  - 07 Newfoundland and Labrador
  - 08 Nova Scotia
  - 09 New Brunswick
  - 10 Prince Edward Island
  - 11 Yukon
  - 12 Northwest Territories
  - 13 Nunavut
  - 14 Outside Canada
  - 97 Don't know
  - 99 REFUSE/NA
- 33c. (ASK IF UNDER 65 YEARS OF AGE) Have you ever had chickenpox, including as a child?
  - 01 Yes
- SKIP TO SECTION E
- 02 No
- 97 Don't know
- 99 REFUSE/NA
- 33d. (ASK IF NO / DON'T KNOW / REFUSED TO Q33C) Have you been tested to see if you're immune to chickenpox?
  - 01 Yes
  - 02 No
  - 97 Don't know
  - 99 REFUSE/NA
- 33e. (ASK IF NO / DON'T KNOW / REFUSED TO Q33C) Have you received chickenpox vaccine (also called "varicella")?

IF NECESSARY PROMPT: The vaccine has been available in Canada only since 1999, and you would have needed 2 doses, given a month apart).

- 01 Yes
- 02 No
- 97 Don't know
- 99 REFUSE/NA

#### E. Risk for contracting infections

Now I need to ask you some questions about your risk for contracting certain types of infections.

34. During the course of your work or volunteer work, do you run the risk of coming into contact with other people's blood, bodily fluids or do you run the risk of needle-stick injury, surgical blade injury or human bite? INTERVIEWER: FAMILY CONTACTS SHOULD NOT BE INCLUDED

IF ASKED: Bodily fluids include all fluids such as urine, semen, saliva, sweat, mucous, vomit, etc.

```
01 - Yes
```

02 – No SKIP TO Q.36 97 – Don't know SKIP TO Q.36 99 – REFUSE/NA SKIP TO Q.36

35. (ASK IF YES TO Q34) What puts you at risk?
INTERVIEWER: FAMILY CONTACTS SHOULD NOT BE INCLUDED

RECORD VERBATIM 97 – Don't know 99 – REFUSE/NA

- 36. In the past 10 years have you traveled to countries other than the United States, Australia, New Zealand, Japan and Western Europe?
  - 01 Yes
  - 02 No
  - 97 Don't know
  - 99 REFUSE/NA
- 37. Are you currently working or volunteering in a health care setting such as a hospital, clinic, ambulance service, a home-care setting or long term care facility such as a nursing home?

  INTERVIEWER: IN-HOME CARE OF FAMILY MEMBER SHOULD NOT BE INCLUDED
  - 01 Yes
  - 02 No
  - 97 Don't know
  - 99 REFUSE/NA

#### ASK Q38, 39, 40 IF UNDER AGE 65 - OTHERS TO SECTION F

38. To the best of your knowledge, do you, or does someone else living in your household, currently have or ever been diagnosed with any of the following conditions?

READ AND RANDOMIZE BUT KEEP A AND B TOGETHER IN THE SAME ORDER

FOR EACH ITEM IF RESPONDENT SAYS YES CLARIFY IF SELF ONLY, OTHER HOUSEHOLD MEMBER ONLY OR BOTH

FOR EACH ITEM IF RESPONDENT SAYS NO CLARIFY IF NEITHER SELF NOR OTHER HOUSEHOLD MEMBER

PERIODICALLY REMIND RESPONDENT THAT WE ARE ASKING ABOUT BOTH SELF AND OTHERS LIVING IN THEIR HOUSEHOLD.

- a) Asthma
- b) Another chronic lung disease such as emphysema, chronic bronchitis or cystic fibrosis
- c) A heart condition such as angina, high blood pressure, heart failure, heart attack
- d) Cancer
- e) Diabetes (IF NECESSARY: Type A, Type B or Juvenile)
- f) Liver cirrhosis (PRONOUNCED: cir-RHO-sis)
- g) Chronic kidney disease
- h) Immune disorder or immune suppression such as chemotherapy, steroid use or an organ transplant.
- i) Spleen problems or removal
- j) A problem with hemoglobin in the blood, sickle cell anemia or thalassemia (PRONOUNCED: tha-la-SEE-mi-a)
- 01 Self only
- 02 Other household member only
- 03 Both self and other household member
- 04 Neither
- 97 Don't know
- 99 REFUSE/NA
- 39. Is anybody in your household 65 years of age or older?
  - 01 Yes
  - 02 No
  - 97 Don't know
  - 99 REFUSE/NA
- 40. Is there a child 23 months of age or younger living in your household?
  - 01 Yes
  - 02 No
  - 97 Don't know
  - 99 REFUSE/NA

#### F. Pneumococcal Vaccination

ASK SECTION F IF RESPONDENT IS AGE 65 OR OVER *OR* IF ANY Q38 B–J IS SELF OR BOTH OTHERS TO SECTION G IF APPLICABLE OR TO SECTION H IF NOT

And now I would like to ask you a few questions about your experience with the pneumococcal vaccine. This is the vaccine that protects against the complications of bacterial pneumonia.

```
INTERVIEWER:
PNEUMOCOCCAL = new-moe-CAW-cal
```

- 41. Would you consider yourself to be at greater risk than the average person to get pneumonia?
  - 01 Yes
  - 02 No
  - 97 Don't know
  - 99 REFUSE/NA
- 42. As an adult, how often should you receive the vaccine for pneumonia? DO NOT READ CODE ONE
  - 01 Once a year
  - 02 Once every few years
  - 03 When you feel you need it/when at risk
  - 04 Once in a lifetime
  - 05 Never
  - 98 Other (SPECIFY \_\_\_\_\_
  - 97 Don't know
  - 99 REFUSE/NA
- 43. Has a doctor or any other health care provider ever recommended that you receive the vaccine for pneumonia?
  - 01 Yes
  - 02 No
  - 97 Don't know
  - 99 REFUSE/NA
- 44. Have you ever had a vaccine for pneumonia?
  - 01 Yes
  - 02 No SKIP TO Q.48
  - 97 Don't know SKIP TO Q.48
  - 99 REFUSE/NA SKIP TO Q.48

45.	(IF YES TO Q.44) Who paid for the pneumonia vaccine? DO NOT READ – CODE ONE ONLY
	01 – Self/I paid for it 02 – It was free 03 – Private health insurance 04 – The government/Provincial health insurance 05 – Employer paid for it 06 – Other (SPECIFY) 97 – Don't know 99 – REFUSE/NA
46.	Why did you receive a vaccine for pneumonia? DO NOT READ – SELECT ALL THAT APPLY; PROMPT: Are there any other reasons?
	01 – Physician/medical professional's advice 02 – Neighbour/friend's advice 03 – To prevent me from getting sick 04 – To prevent family/close contacts from getting sick 05 – To prevent a family member who is at high risk (e.g. children under 2 years, persons 65 and over, people with chronic medical condition) 06 – I think I need it 07 – I have been traveling/plan to travel 08 – My job as a health care worker/to protect patients/residents from getting sick 09 – It's free 10 – I have a chronic condition (e.g. diabetes, heart disease, etc) 11 – My age 12 – I am at risk (unspecified) 98 – Other (SPECIFY) 97 – Don't know 99 – REFUSE/NA
47.	Where did you go to get the vaccine for pneumonia? DO NOT READ – CODE ONE ONLY
	01 – Public Health clinic or CLSC 02 – Family doctor/general practitioner 03 – Walk-in clinic 04 – Workplace clinic 05 – University/college clinic 06 – As a patient in hospital or emergency room 07 – Pharmacy 08 – Travel clinic 09 – Other (SPECIFY) 97 – Don't know 99 – REFUSE/NA
48.	(ASK IF NO, DON'T KNOW OR REFUSED AT Q44) Do you plan on getting a pneumococcal shot some time in the future?
	01 – Yes SKIP TO SECTION G IF APPLICABLE 02 – No VOLUNTEERED 03 – Maybe/Depends/Perhaps (SPECIFY) SKIP TO SECTION G IF APPLICABLE 97 – Don't know SKIP TO SECTION G IF APPLICABLE

- 49. (ASK IF NO AT Q.48) What is the reason why you do not plan to get a pneumococcal shot? DO NOT READ SELECT ALL THAT APPLY; PROMPT: Are there any other reasons?
  - 01 Didn't think of it/didn't know about it
  - 02 Healthy don't think I need it
  - 03 Not necessary (unspecified)
  - 04 Don't think it works
  - 05 Forgot
  - 06 No time/too busy
  - 07 Doctor/health professional didn't offer it/suggest it/recommend it
  - 08 Afraid of/don't like needles
  - 09 Afraid of getting pneumonia from the vaccine
  - 10 Afraid or other side effects from the vaccine
  - 11 History of severe allergy to pneumonia shot
  - 12 History of other adverse reactions
  - 13 Heard about/know people who had a bad reaction
  - 14 Unable to get to location where pneumonia shot was offered
  - 15 Afraid it might contain harmful products (e.g. preservatives, thimerosal)
  - 16 Other (SPECIFY \_\_\_\_\_
  - 97 Don't know
  - 99 REFUSE/NA

#### G. Health Care Workers

ASK SECTION G IF YES TO Q37 - OTHERS TO SECTION H

Now I will ask you about your experiences as a health care worker.

50. What is your role as a health care worker (for example, nurse, doctor, orderly, volunteer, etc.) DO NOT READ – CODE ONE ONLY

IF RESPONDENT SAYS NURSE OR REGISTERED NURSE PLEASE PROBE FOR WHERE THEY WORK, IN A HOSPITAL, DOCTOR'S OFFICE ETC.

- 01 Physician/GP/doctor
- 02 Pharmacist
- 03 Nurse in a hospital
- 04 Nurse in a doctor's office
- 05 Home care nurse
- 06 Public health nurse (INTERVIEWER: E.G. FOR A MUNICIPALITY OR A SCHOOL BOARD)
- 07 Community health nurse (INTERVIEWER: E.G. FOR A COMMUNITY CENTRE OR WELL BABY CLINIC)
- 08 Nurse's aid/registered nursing assistant/RNA
- 09 Orderly
- 10 Lab technician/technologist
- 11 Respiratory therapist
- 12 Ambulance attendant/paramedic
- 13 Midwife
- 14 Medical sonographer
- 15 Radiation technician/technologist
- 16 Administrator
- 17 Non-traditional health care worker (chiropractor, naturopath, homeopath, etc.)
- 18 Volunteer
- 19 Other (SPECIFY \_\_\_\_\_
- 97 Don't know
- 99 REFUSE/NA
- 51. During the course of (IF NOT VOLUNTEER AT Q50: your work/IF VOLUNTEER AT Q50: your volunteer work), do you have any close contact with patients or people living in a residential health care facility?
  - 01 Yes
  - 02 No
  - 97 Don't know
  - 99 REFUSE/NA
- 52. Have you ever been tested for hepatitis B?
  - 01 Yes
  - 02 No
  - 97 Don't know
  - 99 REFUSE/NA
- 53. During the course of (IF NOT VOLUNTEER AT Q50: your work/IF VOLUNTEER AT Q50: your volunteer work), do you have the opportunity to provide information on vaccines to your clients?
  - 01 Yes
  - 02 No SKIP TO SECTION H 97 – Don't know SKIP TO SECTION H
  - 99 REFUSE/NA SKIP TO SECTION H

54. (ASK IF YES TO 53) Please tell me, what messages about vaccinations do you share with your clients?

RECORD VERBATIM

97 – Don't know

99 - REFUSE/NA

55. What is the most common question, or questions, you get asked about vaccines?

RECORD VERBATIM

97 – Don't know

99 - REFUSE/NA

## H. Respondent Characteristics

Finally, before I go, I just need to ask you a few questions that will help us in our statistical calculations. Your answers will be kept anonymous and confidential.

56. What is the highest level of formal education that you have completed? DO NOT READ - CODE ONE ONLY 01 – Some elementary (Grades 1-6) 02 - Completed elementary (Grade 7 or 8) 03 – Some high school (Grades 9-11) 04 - Completed high school (Grades 12 or 13 or OAC) 05 - Some community college, vocational, trade school (or some CEGEP) 06 - Completed community college, vocational, trade school (or complete CEGEP) 07 – Some university (no degree) 08 - Completed university (Bachelor's Degree) 09 - Post graduate/professional school (Master's Degree, Ph.D., etc.) 10 - No schooling VOLUNTEERED 97 – Don't know 99 - REFUSE/NA 57. What is your current employment status? Are you...? READ LIST - CODE ONE ONLY 01 – Working full-time (35 or more hours per week) 02 – Working part-time (less than 35 hours per week) 03 – Self-employed 04 - Currently not in the work force 05 - Attending school 06 - Retired 07 - Volunteer **VOLUNTEERED** 08 - Other (SPECIFY \_\_\_ 97 – Don't know 99 - REFUSE/NA 58. Which of the following categories best describes the total income of all the people living in your household for 2005, before taxes? READ - STOP WHEN REACH APPROPRIATE CATEGORY IF NECESSARY SAY: This is for classification purposes only. 01 - Under \$20,000 02 - \$20,000 to under \$40,000 03 – \$40,000 to under \$60,000 04 - \$60.000 to under \$80.000 05 - \$80,000 to under \$100,000 06 - Or \$100,000 or over 97 - Don't know 99 - REFUSE/NA

59. What is the six digit postal code for your home?

**SPECIFY** 

97 – Don't know

99 - REFUSE/NA

60. GENDER

ASK <u>ONLY</u> IF UNSURE: And finally, this may seem like an odd question but we have to ask, are you male or female?

01 - Male

02 - Female

This concludes the survey. Thank you for taking the time to speak with me tonight.

If you would like more information about the vaccines that are recommended for you as an adult, please consult your family doctor or local public health clinic.

#### **RECORD**

60. LANGUAGE OF INTERVIEW

01 – English

02 - French

61. Province

01 - NL

02 - PE

03 - NS

04 - NB

05 - QC

06 – ON

07 – MB

08 - SK09 - AB

10 - BC

# Santé Canada Sondage national de 2006 sur la couverture vaccinale auprès des adultes

# **Questionnaire DÉFINITIF**

Introduction				
rech com prog	Bonsoir. Je m'appelle et je travaille pour Environics Research Group, une société de recherche sur l'opinion publique. Nous faisons ce soir un sondage au sujet de l'immunisation des adultes pour le compte de l'Agence de santé publique du Canada. Les résultats de ce sondage contribueront à l'amélioration des programmes d'immunisation au Canada. Votre participation à ce sondage téléphonique est volontaire. Vos réponses demeureront strictement confidentielles. Il faudra de 10 à 15 minutes pour répondre au sondage.			
SIE	DEMANDÉ : Les résultats de ce sondage seront rendus publics lorsque l'étude sera complétée.			
SIE	DEMANDÉ : Ce sondage est enregistré auprès du Canadian Survey Research System sous le numéro xxxx			
	E/LA RÉPONDANT(E) AFFIRME NE PAS ÊTRE IMMUNISÉ(E)/VACCINÉ(E) : Même si vous n'avez pas été ciné(e), il y a des questions du sondage qui vous concernent tout de même.			
	Sélection des participants  ant de commencer			
1.	Puisque les préoccupations de santé sont parfois liées à l'âge, en quelle année êtes-vous né(e) ?			
	Année NON SUGGÉRÉ 97 – Refus/ND			
2.	(SI MOINS DE 18 ANS) Est-ce qu'il y a un adulte âgé de 18 ans ou plus à la maison ?			
	01 – Oui 02 – Non 97 – Ne sait pas 99 – REFUS/ND			
SIN	MOINS DE 18 ANS, DEMANDER À PARLER AVEC UNE PERSONNE DU FOYER ÂGÉE DE 18 OU PLUS			

SI JOINT UN AUTRE INDIVIDU, REPRENDRE L'INTRODUCTION ET LES QUESTIONS À PARTIR DE Q.1

# B. Opinion au sujet des vaccins, en général

Je débuterai en vous demandant quelle est votre opinion sur la façon d'obtenir de l'information au sujet de la vaccination ou de l'immunisation.

- Si vous en avez le choix, où préférez-vous obtenir de l'information au sujet des vaccins pour adultes ?
   NE PAS LIRE CHOISIR TOUTES LES RÉPONSES QUI S'APPLIQUENT
  - 01 Médecin de famille/omnipraticien
  - 02 Autre professionnel de la santé (pas le médecin de famille)
  - 03 Famille/amis
  - 04 Télévision
  - 05 Radio
  - 06 Journaux
  - 07 Magazines
  - 08 Internet
  - 09 Panneaux-réclame/affiches
  - 10 Au travail
  - 11 Autre (PRÉCISER \_\_\_\_\_
  - 97 Ne sait pas
  - 99 REFUS/ND

#### C. L'Influenza

À présent, j'aimerais vous poser des questions au sujet du vaccin contre la grippe ou vaccin antigrippal.

- SI DEMANDÉ: Le vaccin contre la grippe protège contre l'influenza.
- 4. Veuillez s'il vous plaît me dire où vous préférez obtenir votre information au sujet du vaccin contre la grippe ? NE PAS LIRE – CHOISIR TOUTES LES RÉPONSES QUI S'APPLIQUENT
  - 01 Médecin de famille/omnipraticien
  - 02 Autre professionnel de la santé (pas le médecin de famille)
  - 03 Famille/amis
  - 04 Télévision
  - 05 Radio
  - 06 Journaux
  - 07 Magazines
  - 08 Internet
  - 09 Panneaux-réclame/affiches
  - 10 Au travail
  - 11 Autre (PRÉCISER
  - 97 Ne sait pas
  - 99 REFUS/ND
- 5. Dans quelle mesure le vaccin contre la grippe est important pour votre propre santé individuelle ? Diriezvous qu'il est très, assez, pas très ou pas du tout important ?
  - 01 Très important
  - 02 Assez important
  - 03 Pas très important
  - 04 Pas du tout important
  - NON SUGGÉRÉ
  - 97 Ne sait pas
  - 99 REFUS/ND
- 6. À l'aide de cette même échelle, veuillez s'il vous plaît me dire dans quelle mesure le vaccin contre la grippe est important pour vous, dans le but de <u>protéger d'autres personnes</u> avec lesquelles vous êtes en contact pour ne pas qu'elles soient malades ? Diriez-vous qu'il est très, assez, pas très ou pas du tout important ?
  - 01 Très important
  - 02 Assez important
  - 03 Pas très important
  - 04 Pas du tout important
  - NON SUGGÉRÉ
  - 97 Ne sait pas
  - 99 REFUS/ND
- 7. À partir de ce que vous savez au sujet du vaccin contre la grippe, veuillez s'il vous plaît répondre par oui ou par non aux questions suivantes :
  - a) Pensez-vous qu'il est important que les femmes enceintes reçoivent le vaccin contre la grippe ?
  - b) Pensez-vous que le vaccin contre la grippe est sans danger pour les femmes enceintes ?
  - 01 Qui
  - 02 Non
  - 97 Ne sait pas
  - 99 REFUS/ND

8.		ètre personnellement plus à risque qu'une personne ordinaire de subir des complications e l'influenza (c'est-à-dire la grippe) ?
9.		e une personne devrait-elle recevoir le vaccin contre la grippe ? ODER UNE RÉPONSE
	03 – Seulement qu 04 – Une fois au c 05 – Jamais	les deux ou trois ans uand vous en ressentez le besoin/quand vous êtes à risque
10.		n professionnel de la santé, par exemple un médecin ou une infirmière, entre le mois aujourd'hui ? Cela n'inclut pas les visites à l'urgence.
	01 – Oui 02 – Non 97 – Ne sait pas 99 – REFUS/ND	PASSER À Q.12 PASSER À Q.12 PASSER À Q.12
11.		Q.10) Quand vous avez consulté ce professionnel de la santé, est-ce qu'il ou elle a vous receviez un vaccin contre la grippe ?
	01 – Oui 02 – Non 97 – Ne sait pas 99 – REFUS/ND	
12.	Avez-vous été hos et aujourd'hui ?	pitalisé(e) ou avez-vous visité l'urgence à titre de patient(e) entre le mois d'octobre 2005
	01 – Oui 02 – Non 97 – Ne sait pas 99 – REFUS/ND	PASSER À Q.14 PASSER À Q.14 PASSER À Q.14
13.		Q.12) Pendant que vous étiez à l'hôpital, est-ce qu'un professionnel de la santé tel qu'un firmière a recommandé que vous receviez un vaccin contre la grippe ?
	01 – Oui 02 – Non 97 – Ne sait pas 99 – REFUS/ND	

14.	Avez-vous reçu le vaccin contre la grippe entre octobre 2005 et aujourd'hui ?	
	01 – Oui 02 – Non PASSER À Q.18 97 – Ne sait pas PASSER À Q.19 99 – REFUS/ND PASSER À Q.19	
15.	(POSER SI OUI À Q.14) À quel endroit êtes-vous allé(é) pour recevoir ce vaccin contre la grippe ? NE PAS LIRE – CODER SEULEMENT UNE RÉPONSE	
	01 – Clinique de la santé publique ou CLSC 02 – Médecin de famille/omnipraticien 03 – Clinique sans rendez-vous 04 – Clinique en milieu de travail 05 – Clinique de l'université/du collège 06 – En tant que patient(e) dans un hôpital ou une salle d'urgence 07 – Pharmacie 08 – Clinique de voyage 09 – Autre (PRÉCISER) 97 – Ne sait pas 99 – REFUS/ND	
16.	Qui a payé votre vaccin contre la grippe ? NE PAS LIRE – CODER SEULEMENT UNE RÉPONSE	
	01 – Moi-même/J'ai payé 02 – C'était gratuit 03 – Régime privé d'assurance-santé 04 – Le gouvernement/Régime provincial d'assurance-santé 05 – L'employeur a payé 06 – Autre (PRÉCISER) 97 – Ne sait pas 99 – REFUS/ND	
17.	Pourquoi vous êtes-vous fait(e) vacciner contre la grippe ? NE PAS LIRE – CHOISIR TOUTES LES RÉPONSES QUI S'APPLIQUENT; SONDER: Est-ce qu'il y a d'autres raisons?	
	01 – Avis d'un professionnel de la santé (médecin ou infirmière) 02 – Avis d'un voisin/ami 03 – Pour me protéger contre cette maladie 04 – Pour prévenir la maladie chez les membres de ma famille/des proches 05 – Pour prévenir la maladie chez un membre de la famille qui est fortement à risque (p.ex. enfants < 2 ans personnes 65 +, personne qui souffrent déjà d'une maladie chronique) 06 – Je pense que j'en ai besoin 07 – J'ai voyagé/je prévois voyager 08 – Mon emploi à titre de travailleur(euse) de la santé/pour prévenir la maladie chez les patients/résidents 09 – C'est gratuit 10 – J'ai une maladie chronique (p.ex. diabète, maladies du coeur, etc.) 11 – Mon âge 12 – Je suis à risque (non précisé) 13 – J'abas de la volaille/travaille dans un poulailler 14 – Je travaille dans un endroit public/avec le public 98 – Autre (PRÉCISER	

(POSER SI NON À Q.14) Pourquoi ne vous êtes-vous pas fait(e) vacciner contre la grippe ? NE PAS LIRE – INSCRIRE LES TROIS PREMIÈRES MENTIONS DANS L'ORDRE; SONDER: Est-ce qu'il y a d'autres raisons?		
08 – Peur/n'aime pas les piqûres 09 – Peur d'avoir la grippe à cause 10 – Peur des autres effets second 11 – Historique d'allergie grave au 12 – Historique d'autres effets indé 13 – A entendu parler/connaît quelc 14 – Incapable de me rendre à l'en	as en avoir besoin  (e) a santé ne l'a pas offert/suggéré/recommandé  du vaccin aires du vaccin vaccin contre la grippe sirables qu'un qui a eu un effet indésirable droit où le vaccin était offert uits dangereux (p.ex. agent de conservation, thimérosal)	
Prévoyez-vous recevoir le vaccin contre la grippe pour la prochaine saison de grippe (c'est-à-dire l'automne et l'hiver prochain) ?		
	PASSER À Q.21  Dessible (Préciser)  PASSER À Q.21  PASSER À Q.21	
prochaine saison de grippe?  NE PAS LIRE – CHOISIR TOUTES d'autres raisons?  01 – Avis d'un professionnel de la s 02 – Avis d'un voisin/ami 03 – Pour me protéger contre cette 04 – Pour prévenir la maladie chez 05 – Pour prévenir la maladie chez personnes 65 +, personne qui 06 – Je pense que j'en ai besoin 07 – J'ai voyagé/je prévois voyager 08 – Mon emploi à titre de travaillet 09 – C'est gratuit 10 – J'ai une maladie chronique (p. 11 – Mon âge 12 – Je suis à risque (non précisé) 13 – Autre (PRÉCISER	maladie les membres de ma famille/des proches un membre de la famille qui est fortement à risque (p.ex. enfants < 2 ans, souffrent déjà d'une maladie chronique) . ur(euse) de la santé/pour prévenir la maladie chez les patients/résidents ex. diabète, maladies du coeur, etc.) PRÉCISER	
	NE PAS LIRE – INSCRIRE LES TE a d'autres raisons?  01 – N'y a pas pensé/n'était pas au 02 – En bonne santé – Ne pense p 03 – Pas nécessaire (non précisé) 04 – Ne pense pas qu'il fonctionne 05 – Oublié 06 – Manque de temps/trop occupé 07 – Le médecin/professionnel de l 08 – Peur/n'aime pas les piqûres 09 – Peur d'avoir la grippe à cause 10 – Peur des autres effets second 11 – Historique d'autres effets indé 13 – A entendu parler/connaît quele 14 – Incapable de me rendre à l'en 15 – Peur qu'il contienne des produ 16 – Autre (PRÉCISER	

## D. Vaccins contre l'hépatite, le tétanos et la coqueluche

À présent, je vais vous poser quelques questions au sujet de votre expérience des vaccins contre l'hépatite. L'hépatite A et l'hépatite B sont des maladies graves du foie causées par des virus.

SI ON DEMANDE PLUS D'INFORMATION SUR <u>L'HÉPATITE A</u>: l'hépatite A se transmet par contact personnel direct et parfois en consommant des aliments ou de l'eau contaminés par le virus de l'hépatite A. L'hépatite A peut causer une maladie ayant des symptômes légers « s'apparentant à la grippe », la jaunisse (c'est-à-dire la peau ou les yeux jaunes), des douleurs à l'estomac et la diarrhée.

SI ON DEMANDE PLUS D'INFORMATION SUR <u>L'HÉPATITE B</u>: le virus de l'hépatite B peut causer une maladie à court terme débouchant sur une perte de l'appétit, la diarrhée et des vomissements, de la fatigue, une jaunisse, des douleurs musculaires, articulaires et de l'estomac. Il peut aussi causer une maladie à long terme entraînant : des dommages au foie, le cancer du foie et le décès.

21. Avez-vous déjà été vacciné(e) contre, soit l'hépatite A ou l'hépatite B ?
SI LE/LA RÉPONDANT(E) RÉPOND « OUI », PRÉCISER S'IL S'AGIT DES DEUX TYPES OU DE LEQUEL
DES DEUX TYPES.

01 – hépatite A seulement

02 – hépatite B seulement PASSER À Q.25

03 - les deux, hépatite A et B

04 – ni un ni l'autre PASSER AU TEXTE PRÉCÉDANT Q.28

NON SUGGÉRÉ

97 – Ne sait pas PASSER AU TEXTE PRÉCÉDANT Q.28 99 – REFUS/ND PASSER AU TEXTE PRÉCÉDANT Q.28

Je vais maintenant vous poser quelques questions au sujet de votre expérience du vaccin contre l'hépatite A.

22. Avez-vous reçu <u>plus d'une dose</u> du vaccin contre <u>l'hépatite A</u>?

01 – Oui

02 - Non

NON SUGGÉRÉ

03 – Recevra une autre dose

97 – Ne sait pas

99 - REFUS/ND

23. Pourquoi avez-vous été vacciné(e) contre l'hépatite A?

NE PAS LIRE – CHOISIR TOUTES LES RÉPONSES QUI S'APPLIQUENT; SONDER: Est-ce qu'il y a d'autres raisons?

AU BESOIN : Veuillez avoir l'assurance que toutes les réponses que vous donnez au cours de ce sondage demeureront strictement confidentielles

01 - Raisons liées au travail

02 – Raisons liées aux voyages

03 - Immunisation de routine

04 - Programme scolaire

05 - Recommandation du médecin

06 – Je pense en avoir besoin

07 – J'ai été en contact avec une personne atteinte de la maladie

08 – J'ai une maladie chronique (p.ex. diabète, maladies du coeur, etc.)

09 – Mon âge

10 – Je suis à risque (non précisé)

11 – Autre (PRÉCISER

97 – Ne sait pas

Jan	te Canada — Condage national aupres des addites sur la couverture vaccinale Questionnaire DET invitir — Le 3 mai 2000
24.	À quel endroit êtes-vous allé(é) pour recevoir le vaccin contre l'hépatite A ?  NE PAS LIRE – CODER SEULEMENT UNE RÉPONSE  01 – Clinique de la santé publique ou CLSC 02 – Médecin de famille/omnipraticien 03 – Clinique sans rendez-vous 04 – Clinique en milieu de travail 05 – Clinique de l'université/du collège 06 – En tant que patient(e) dans un hôpital ou une salle d'urgence 07 – Pharmacie 08 – Clinique de voyage 09 – École 10 – Autre (PRÉCISER) 97 – Ne sait pas 99 – REFUS/ND
SLE	HÉPATITE A SEULEMENT, PASSER AU TEXTE PRÉCÉDANT Q.28
Je i	vais maintenant vous poser quelques questions au sujet de votre expérience du vaccin contre l'hépatite B.
25.	Avez-vous reçu <u>plus d'une dose</u> du vaccin contre l'hépatite B ?
	01 – Oui 02 – Non NON SUGGÉRÉ 03 – Recevra une autre dose 97 – Ne sait pas 99 – REFUS/ND
26.	Pourquoi avez-vous été vacciné(e) contre l'hépatite B ? NE PAS LIRE – CHOISIR TOUTES LES RÉPONSES QUI S'APPLIQUENT; SONDER: Est-ce qu'il y a d'autres raisons?
	AU BESOIN : Veuillez avoir l'assurance que toutes les réponses que vous donnez au cours de ce sondage demeureront strictement confidentielles.
	01 – Raisons liées au travail 02 – Raisons liées aux voyages 03 – Immunisation de routine 04 – Programme scolaire 05 – Recommandation du médecin 06 – Je pense en avoir besoin 07 – J'ai été en contact avec une personne atteinte de la maladie 08 – J'ai une maladie chronique (p.ex. diabète, maladies du coeur, etc.) 09 – Mon âge 10 – Je suis à risque (non précisé)

97 - REFUS

97 – Ne sait pas 99 – REFUS/ND

98 – Autre (PRÉCISER \_\_

- 27. À quel endroit êtes-vous allé(é) pour recevoir ce vaccin contre l'hépatite B ? NE PAS LIRE CODER SEULEMENT UNE RÉPONSE
  - 01 Clinique de la santé publique ou CLSC
  - 02 Médecin de famille/omnipraticien
  - 03 Clinique sans rendez-vous
  - 04 Clinique en milieu de travail
  - 05 Clinique de l'université/du collège
  - 06 En tant que patient(e) dans un hôpital ou une salle d'urgence
  - 07 Pharmacie
  - 08 Clinique de voyage
  - 09 École
  - 10 Poste de soins infirmiers/Infirmerie
  - 11 Cliniques spéciales dans un milieu spécifique
  - 97 REFUS
  - 98 Autre (PRÉCISER \_\_\_\_\_\_
  - 97 Ne sait pas
  - 99 REFUS/ND

À présent, j'aimerais vous poser quelques questions au sujet de votre expérience relative au vaccin contre le tétanos. Le tétanos est causé par la présence d'une bactérie dans des plaies telles que coupures, brûlures et morsures.

SI ON DEMANDE PLUS D'INFORMATION: Le tétanos est causé par la présence d'une bactérie. Une personne infectée par la bactérie du tétanos subit des spasmes musculaires douloureux qui commencent dans le cou puis s'étendent à tout le corps. Il peut entraîner la « rigidité » de la mâchoire de telle sorte qu'un patient ne peut ni ouvrir la bouche ni avaler

- 28. Au cours des 10 dernières années, avez-vous reçu des soins d'un professionnel de la santé pour traiter une plaie ou, encore, avez-vous eu besoin de points de suture pour traiter une coupure ?
  - 01 Oui
  - 02 Non
  - 97 Ne sait pas
  - 99 REFUS/ND
- 29. Est-ce qu'un médecin ou un autre professionnel de la santé a déjà recommandé que vous soyez vacciné(e) contre le tétanos au cours des 10 dernières années ?
  - 01 Oui
  - 02 Non
  - 97 Ne sait pas
  - 99 REFUS/ND
- 30. Au cours des 10 dernières années avez-vous reçu un vaccin contre le tétanos, soit seul ou combiné avec un autre vaccin ?

**NE PAS LIRE** 

SI ON DEMANDE : Le vaccin contre le tétanos est souvent donné en combinaison avec un vaccin contre la diphtérie ou la coqueluche.

01 – Oui

02 – Non PASSER AU TEXTE PRÉCÉDANT Q.32 97 – Ne sait pas PASSER AU TEXTE PRÉCÉDANT Q.32 99 – REFUS/ND PASSER AU TEXTE PRÉCÉDANT Q.32 31. (SI OUI À Q.30) Pourquoi avez-vous reçu le vaccin contre le tétanos ?

NE PAS LIRE – CHOISIR TOUTES LES RÉPONSES QUI S'APPLIQUENT; SONDER: Est-ce qu'il y a d'autres raisons?

SI LE/LA RÉPONDANT(E) AFFIRME AVOIR ÉTÉ VACCINÉ(E) AFIN DE PRÉVENIR LE TÉTANOS, SONDER POUR SAVOIR POURQUOI ILS CROYAIENT QU'ILS SERAIENT ATTEINTS DU TÉTANOS.

- 01 En raison d'une blessure
- 02 En raison d'une morsure d'animal
- 03 Un vaccin de routine/rappel/mon dernier vaccin remontait à 10 ans
- 04 En raison du travail
- 05 En raison des voyages
- 06 Recommandation d'un médecin/professionnel de la santé
- 07 Parce que je suis à risque (PRÉCISER
- 98 Autre (PRÉCISER \_\_\_\_\_
- 97 Ne sait pas
- 99 REFUS/ND

Maintenant, je vais vous poser quelques questions au sujet du vaccin contre la coqueluche. La coqueluche provoque des quintes de toux graves qui peuvent durer pendant des semaines

SI ON DEMANDE PLUS D'INFORMATION: Ces quintes de toux peuvent durer pendant des semaines. Cela peut conduire à la pneumonie, des convulsions (c'est-à-dire des épisodes de secousses où le regard est fixe), des lésions cérébrales et la mort. La coqueluche peut toucher des personnes de tous âges, mais elle touche le plus gravement les jeunes enfants.

32. Avez-vous déjà reçu un vaccin contre la coqueluche à l'âge adulte ?

SI ON DEMANDE : Le vaccin contre la coqueluche est souvent donné en combinaison avec un vaccin contre la diphtérie ou le tétanos.

01 – Oui

02 – Non PASSER À Q.33C 97 – Ne sait pas PASSER À Q.33C 99 – REFUS/ND PASSER À Q.33C

33a. (POSER SI OUI À Q.32) En quelle année avez-vous reçu le vaccin contre la coqueluche?

97 – Ne sait pas

- 33b. Dans quelle province ou territoire avez-vous reçu le vaccin contre la coqueluche ? NE PAS LIRE – CODER SEULEMENT UNE RÉPONSE
  - 01 Colombie-Britannique
  - 02 Alberta
  - 03 Saskatchewan
  - 04 Manitoba
  - 05 Ontario
  - 06 Québec
  - 07 Terre-Neuve et Labrador
  - 08 Nouvelle-Écosse
  - 09 Nouveau-Brunswick
  - 10 Île-du-Prince-Édouard
  - 11 Yukon
  - 12 Territoires du Nord-Ouest
  - 13 Nunavut
  - 14 À l'extérieur du Canada
  - 97 Ne sait pas
  - 99 REFUS/ND
- 33c. (POSER SI ÂGÉ(E) DE MOINS DE 65 ANS) Avez-vous déjà au la varicelle, même quand vous étiez enfant ?
  - 01 Oui PASSER À SECTION E
  - 02 Non
  - 97 Ne sait pas
  - 99 REFUS/ND
- 33d. (POSER SI NON / NE SAIT PAS / REFUS À Q33C) Avez-vous déjà eu un test pour vérifier votre immunité à l'égard de la varicelle ?
  - 01 Oui
  - 02 Non
  - 97 Ne sait pas
  - 99 REFUS/ND
- 33e. (POSER SI NON / NE SAIT PAS / REFUS À Q33C) Avez-vous déjà été vacciné(e) contre la varicelle ?

SONDER AU BESOIN : Le vaccin est seulement disponible au Canada depuis 1999 et il aurait été nécessaire que vous receviez deux doses du vaccin, à un mois d'intervalle chacune.

- 01 Oui
- 02 Non
- 97 Ne sait pas
- 99 REFUS/ND

# E. Risques de contracter des infections

À présent, je dois vous poser quelques questions au sujet de vos risques de contracter certains types d'infections.

34. Dans le cadre de votre travail ou de vos activités bénévoles, courez-vous le risque d'entrer en contact avec le sang ou les liquides organiques d'autres personnes ou courez-vous le risque d'être blessé(e) par une aiguille, une lame chirurgicale ou une morsure humaine ?

INTERVIEWEUR(EUSE) : LES CONTACTS AVEC LES MEMBRES DE LA FAMILLE NE DOIVENT PAS ÊTRE INCLUS.

SI DEMANDÉ : Les liquides organiques comprennent des liquides tels que l'urine, le sperme, la salive, la transpiration, le mucus, les vomissures, etc.

01 – Oui

02 – Non PASSER À Q.36 97 – Ne sait pas PASSER À Q.36 99 – REFUS/ND PASSER À Q.36

35. (POSER SI OUI À Q34) Qui <u>sont les personnes qui vous placent</u> dans cette situation à risque ? INTERVIEWEUR(EUSE) : LES CONTACTS AVEC LES MEMBRES DE LA FAMILLE NE DOIVENT PAS ÊTRE INCLUS.

**INSCRIRE TEL QUEL** 

97 - Ne sait pas

99 - REFUS/ND

36. Au cours des 10 dernières années, avez-vous voyagé dans d'autres pays que les États-Unis, l'Australie, la Nouvelle-Zélande, le Japon et l'Europe occidentale ?

01 - Oui

02 - Non

97 - Ne sait pas

99 - REFUS/ND

37. Est-ce que vous travaillez ou travaillez bénévolement dans un environnement de soins de santé tel qu'un hôpital, une clinique, un service ambulancier, le milieu des soins à domicile ou un établissement de soins de longue durée tel qu'un foyer de personnes âgées?

INTERVIEWEUR (EUSE) : LES SOINS À DOMICILE PRODIGUÉS À UN MEMBRE DE LA FAMILLE NE DOIVENT PAS ÊTRE INCLUS

01 – Oui

02 - Non

97 – Ne sait pas

## POSER Q38, 39, 40 SI ÂGÉ DE MOINS DE 65 ANS - LES AUTRES PASSER À LA SECTION F

38. Au meilleur de votre connaissance, est-ce que vous ou une autre personne vivant dans votre foyer êtes atteints présentement ou avez déjà été diagnostiqués comme atteint d'une des maladies ou d'un des problèmes de santé suivants ?

LECTURE ET VARIATION ALÉATOIRE DE L'ORDRE, MAIS CONSERVER A ET B ENSEMBLE DANS LE MÊME ORDRE

POUR CHAQUE ÉLÉMENT, SI LE/LA RÉPONDANT(E) RÉPOND « OUI », PRÉCISER S'IL S'AGIT DU/DE LA RÉPONDANT(E) PROPREMENT DIT(E), D'UN AUTRE MEMBRE DU FOYER OU LES DEUX. POUR CHAQUE ÉLÉMENT, SI LE/LA RÉPONDANT(E) RÉPOND « NON », PRÉCISER QU'IL S'AGIT NI DU/DE LA RÉPONDANT(E) PROPREMENT DIT(E) NI D'UN AUTRE MEMBRE DU FOYER.

DE TEMPS À AUTRE, RAPPELER AU/À LA RÉPONDANT(E) QUE NOUS POSONS LA QUESTION TANT POUR LUI-MÊME/ELLE-MÊME QUE POUR LES AUTRES PERSONNES VIVANT DANS SON FOYER.

- a) Asthme
- b) Une autre maladie pulmonaire chronique telles que l'emphysème, la bronchite chronique ou la fibrose kystique
- c) Un problème cardiaque tel que l'angine, l'hypertension, l'insuffisance cardiaque, un infarctus
- d) Cancer
- e) Diabète (AU BESOIN : Type A, Type B ou juvénile)
- f) Cirrhose du foie
- g) Maladie rénale chronique
- h) Trouble du système immunitaire ou immunosuppression tel que chimiothérapie, utilisation de stéroïdes ou greffe d'organe.
- i) Ablation ou trouble de la rate
- j) Un problème lié à l'hémoglobine dans le sang, l'anémie drépanocytaire ou thalassémie
- 01 Seulement le/la répondant(e)
- 02 Seulement un autre membre du fover
- 03 À la fois le/la répondant(e) et un autre membre du foyer
- 04 Ni un ni l'autre
- 97 Ne sait pas
- 99 REFUS/ND
- 39. Est-ce que quelqu'un dans votre foyer est âgé de 65 ans ou plus ?
  - 01 Oui
  - 02 Non
  - 97 Ne sait pas
  - 99 REFUS/ND
- 40. Est-ce qu'il y a un enfant âgé de 23 mois ou moins qui vit dans votre foyer?
  - 01 Oui
  - 02 Non
  - 97 Ne sait pas
  - 99 REFUS/ND

## F. Vaccination contre le pneumocoque

POSER LA SECTION F SI LE/LA RÉPONDANT(E) EST ÂGÉ(E) DE 65 ANS OU PLUS *OU* SI LA RÉPONSE À <u>I'</u>UNE OU L'AUTRE DE Q38 B-J EST LE/LA RÉPONDNT(E) OU LES DEUX. LES AUTRES PASSER À LA SECTION G SI CELA S'APPLIQUE, SINON À LA SECTION H

À présent j'aimerais vous poser quelques questions au sujet de votre expérience du vaccin contre le pneumocoque. Il s'agit du vaccin qui protège contre les complications de la pneumonie bactérienne.

#### <u>INTERVIEWEUR(EUSE)</u>: PNEUMOCOQUE = pneu-mo-coque

- 41. Vous considérez-vous être personnellement plus à risque qu'une personne ordinaire d'être atteint(e) d'une pneumonie ?
  - 01 Oui
  - 02 Non
  - 97 Ne sait pas
  - 99 REFUS/ND
- 42. À l'âge adulte, à quelle fréquence devriez-vous recevoir le vaccin contre la pneumonie ? NE PAS LIRE – CODER UNE RÉPONSE
  - 01 Une fois l'an
  - 02 Une fois toutes les deux ou trois ans
  - 03 Quand vous en ressentez le besoin/quand vous êtes à risque
  - 04 Une fois au cours de sa vie
  - 05 Jamais
  - 98 Autre (PRÉCISER \_\_\_\_\_
  - 97 Ne sait pas
  - 99 REFUS/ND
- 43. Est-ce qu'un médecin ou un autre professionnel de la santé a déjà recommandé que vous receviez un vaccin contre la pneumonie ?
  - 01 Oui
  - 02 Non
  - 97 Ne sait pas
  - 99 REFUS/ND
- 44. Avez-vous déjà reçu le vaccin contre la pneumonie ?
  - 01 Oui
  - 02 Non PASSER À Q.48
  - 97 Ne sait pas PASSER À Q.48
  - 99 REFUS/ND PASSER À Q.48

45.	NE PAS LIRE – CODER SEULEMENT UNE RÉPONSE
	01 – Moi-même/J'ai payé 02 – C'était gratuit 03 – Régime privé d'assurance-santé 04 – Le gouvernement/Régime provincial d'assurance-santé 05 – L'employeur a payé 06 – Autre (PRÉCISER) 97 – Ne sait pas 99 – REFUS/ND
46.	Pourquoi avez-vous été vacciné(e) contre la pneumonie ? NE PAS LIRE – CHOISIR TOUTES LES RÉPONSES QUI S'APPLIQUENT; SONDER: Est-ce qu'il y a d'autres raisons?
	<ul> <li>01 – Avis d'un médecin/professionnel de la santé</li> <li>02 – Avis d'un voisin/ami</li> <li>03 – Pour me protéger contre cette maladie</li> <li>04 – Pour prévenir la maladie chez les membres de ma famille/des proches</li> <li>05 – Pour prévenir la maladie chez un membre de la famille qui est fortement à risque (p.ex. enfants de moins de 2 ans, personnes 65 +, personne qui souffrent déjà d'une maladie chronique)</li> <li>06 – Je pense que j'en ai besoin</li> <li>07 – J'ai voyagé/je prévois voyager</li> <li>08 – Mon emploi à titre de travailleur(euse) de la santé/pour prévenir la maladie chez les patients/résidents</li> <li>09 – C'est gratuit</li> <li>10 – J'ai une maladie chronique (p.ex. diabète, maladies du coeur, etc.) PRÉCISER</li> <li>11 – Mon âge</li> <li>12 – Je suis à risque (non précisé)</li> <li>98 – Autre (PRÉCISER</li></ul>
47.	À quel endroit êtes-vous allé(é) pour recevoir le vaccin contre la pneumonie ? NE PAS LIRE – CODER SEULEMENT UNE RÉPONSE
	01 – Clinique de la santé publique ou CLSC 02 – Médecin de famille/omnipraticien 03 – Clinique sans rendez-vous 04 – Clinique en milieu de travail 05 – Clinique de l'université/du collège 06 – En tant que patient(e) dans un hôpital ou une salle d'urgence 07 – Pharmacie 08 – Clinique de voyage 09 – Autre (PRÉCISER) 97 – Ne sait pas 99 – REFUS/ND

48. (POSER SI NON, NE SAIT PAS OU REFUS À Q44) Prévoyez-vous recevoir un vaccin contre la pneumonie à un autre moment dans l'avenir ? 01 – Oui PASSER À SECTION G SI CELA S'APPLIQUE 02 - Non NON SUGGÉRÉ 03 – Peut-être/tout dépend/c'est possible (PRÉCISER \_\_\_\_\_\_) PASSER À SECTION G SI CELA S'APPLIQUE PASSER À SECTION G SI CELA S'APPLIQUE 97 – Ne sait pas 99 - REFUS/ND PASSER À SECTION G SI CELA S'APPLIQUE 49. (POSER SI NON À Q.48) Pour quelle raison ne prévoyez-vous pas recevoir un vaccin contre la pneumonie ? NE PAS LIRE - CHOISIR TOUTES LES RÉPONSES QUI S'APPLIQUENT; SONDER: Est-ce qu'il y a d'autres raisons? 01 – N'y a pas pensé/n'était pas au courant 02 - En bonne santé - Ne pense pas en avoir besoin 03 – Pas nécessaire (non précisé) 04 – Ne pense pas qu'il fonctionne 05 - Oublié 06 – Manque de temps/trop occupé(e) 07 – Le médecin/professionnel de la santé ne l'a pas offert/suggéré/recommandé 08 – Peur/n'aime pas les pigûres 09 – Peur d'être atteint d'une pneumonie à cause du vaccin 10 - Peur des autres effets secondaires du vaccin 11 – Historique d'allergie grave au vaccin contre la pneumonie 12 – Historique d'autres effets indésirables 13 – A entendu parler/connaît quelqu'un qui a eu un effet indésirable 14 – Incapable de me rendre à l'endroit où le vaccin contre la pneumonie était offert

15 - Peur qu'il contienne des produits dangereux (p.ex. agent de conservation, thimérosal)

16 – Autre (PRÉCISER

97 – Ne sait pas 99 – REFUS/ND

#### G. Travailleurs de la santé

POSER LA SECTION G SI OUI À Q37 - LES AUTRES PASSER À LA SECTION H.

À présent, j'aimerais vous poser quelques questions au sujet de vos expériences en tant que travailleur(euse) de la santé.

50. Quel est votre rôle à titre de travailleur(euse) de la santé (par exemple, infirmier(ière), médecin, préposé(e) aux bénéficiaires, etc.)

NE PAS LIRE - CODER SEULEMENT UNE RÉPONSE

SI LE/LA RÉPONDANT(E) RÉPOND INFIRMIER(IÈRE) OU INFIRMIER(IÈRE) AUTORISÉ(E), VEUILLEZ S'IL VOUS PLAÎT SONDER POUR SAVOIR S'IL/SI ELLE TRAVAILLE DANS UN HÔPITAL, UN BUREAU DE MÉDECIN, ETC.

- 01 Médecin/Omnipraticien
- 02 Pharmacien(ne)
- 03 Infirmier(ière) dans un hôpital
- 04 Infirmier(ière) dans un bureau de médecin
- 05 Infirmier(ière) du secteur des soins à domicile
- 06 Infirmier(ère) de la santé publique (INTERVIEWEUR(EUSE) : P.EX. POUR UNE MUNICIPALITÉ OU UNE COMMISSION SCOLAIRE)
  - 07 Infirmier(ière) en santé communautaire (INTERVIEWEUR(EUSE) : P.EX. DANS UN CENTRE COMMUNAUTAIRE OU EN SANTÉ MATERNELLE ET INFANTILE (PÉRINATALITÉ)
  - 08 Infirmier(ière) auxiliaire / infirmier(ière) auxiliaire autorisé(e) /I.A.I.
  - 09 Préposé(e) aux bénéficiaires
  - 10 Technicien(ne) de laboratoire/technologue
  - 11 Inhalothérapeute
  - 12 Ambulancier(ière)/ ambulancier(ière) paramédical(e)
  - 13 Sage femme
  - 14 Technologue en ultrasonographie
  - 15 Technicien(ne)/technologue en radiologie
  - 16 Gestionnaire
- 17 Travailleur(euse) de la santé dans le secteur des médecines douces (chiropraticien(ne), naturopathe, homéopathe, etc.)
  - 18 Bénévole
  - 19 Autre (PRÉCISER \_\_\_\_\_)
  - 97 Ne sait pas
  - 99 REFUS/ND
- 51. Dans le cadre de (SI AUTRE QUE BÉNÉVOLE À Q50 : votre travail/SI BÉNÉVOLE À Q50 : votre travail bénévole), êtes-vous en contact étroit avec des patients ou des personnes dans un établissement de soins de longue durée?
  - 01 Oui
  - 02 Non
  - 97 Ne sait pas
  - 99 REFUS/ND
- 52. Avez-vous déjà passé un test de dépistage de l'hépatite B?
  - 01 Oui
  - 02 Non
  - 97 Ne sait pas
  - 99 REFUS/ND

53. Dans le cadre de (SI AUTRE QUE BÉNÉVOLE À Q50 : votre travail/SI BÉNÉVOLE À Q50 : votre travail bénévole), avez-vous l'occasion de donner à vos clients de l'information sur les vaccins ?

01 – Oui

02 – Non PASSER À SECTION H 97 – Ne sait pas PASSER À SECTION H 99 – REFUS/ND PASSER À SECTION H

54. (POSER SI OUI À 53) Veuillez s'il vous plaît me dire quels sont les messages sur la vaccination que vous partagez avec vos clients ?

**INSCRIRE TEL QUEL** 

97 - Ne sait pas

99 - REFUS/ND

55. Quelle est la question ou quelles sont les questions qu'on vous pose le plus souvent au sujet des vaccins ?

INSCRIRE TEL QUEL

97 - Ne sait pas

# Caractéristiques du/de la répondant(e)

Pour terminer, j'ai quelques dernières questions à vous poser dont les réponses nous aideront dans nos calculs statistiques. Vos réponses demeureront anonymes et confidentielles.

56. Quel est le niveau de scolarité le plus élevé que vous avez complété ? NE PAS LIRE – CODER SEULEMENT UNE RÉPONSE 01 – Partie du niveau primaire (1<sup>re</sup> – 6<sup>e</sup> années) - (1<sup>e</sup> – 5<sup>e</sup> année au Québec) 02 – Niveau primaire complété (7<sup>e</sup> ou 8<sup>e</sup> année - (6 ou 7<sup>e</sup> année au Québec) 03 – Partie des études secondaires (9<sup>e</sup> – 11<sup>e</sup> années) - Au Québec secondaire III ou IV 04 – Études secondaires complétées (12° ou 13° année ou OAC) - Au Québec Secondaire V 05 – Une partie du cours collégial, professionnel, école de métier (une partie du CEGEP) 06 – Complété le cours collégial, professionnel, école de métier (terminé le CEGEP) 07 – Une partie du cours universitaire (sans diplôme) 08 - Niveau universitaire complété (baccalauréat) 09 – Études supérieures /école de profession (Maîtrise, Doctorat, etc.) 10 - Aucune scolarité NON SUGGÉRÉ 97 – Ne sait pas 99 - REFUS/ND 57. Quel est votre statut d'emploi à l'heure actuelle ? Êtes-vous...? LIRE LA LISTE - CODER SEULEMENT UNE RÉPONSE 01 – Travailleur(euse) à temps plein (35 heures ou plus par semaine) 02 – Travailleur(euse) à temps partiel (moins de 35 heures par semaine) 03 – Travailleur(euse) autonome 04 - Présentement pas dans la population active 05 – Aux études 06 – Retraité(e) 07 – Bénévole NON SUGGÉRÉ 08 – Autre (PRÉCISER \_\_\_\_\_ 97 - Ne sait pas 99 - REFUS/ND 58. Laquelle de ces catégories correspond le mieux au total des revenus de tous les membres de votre foyer en

2005, avant impôts?

LIRE – ARRÊTER UNE FOIS LA CATÉGORIE APPROPRIÉE ATTEINTE.

AU BESOIN, DIRE: Cela est à des fins de classification seulement.

```
01 - Moins de 20 000 $
02 - 20 000 $ à 40 000 $
03 - 40 000 $ à 60 000 $
04 - 60 000 $ à 80 000 $
05 - 80 000 $ à moins de 100 000 $
06 - Ou 100 000 $ ou plus
97 – Ne sait pas
99 - REFUS/ND
```

59. Quels sont les six caractères du code postal de votre foyer?

PRÉCISER

97 – Ne sait pas

99 - REFUS/ND

60. SEXE

POSER <u>SEULEMENT</u> SI INCERTAIN(E): Finalement, ceci peut sembler une drôle de question, mais nous devons la poser, êtes-vous de sexe masculin ou féminin?

01 - Masculin

02 – Féminin

Ceci met fin au sondage. Merci d'avoir pris le temps de répondre à mes questions ce soir.

Si vous souhaitez obtenir plus d'information au sujet des vaccins qui sont recommandés pour vous, en tant qu'adulte, veuillez s'il vous plaît consulter votre médecin de famille ou votre clinique locale de la santé publique.

#### **INSCRIRE**

#### 60. LANGUE DE L'ENTREVUE

01 - Anglais

02 - Français

#### 61. Province

01 - NL

02 - PE

03 - NS

04 - NB

05 – QC

06 - ON

07 - MB

08 - SK

09 - AB

10 - BC