

**Appendix 1: Social Vulnerabilities Survey****A. Transportation**

1. Do you have a valid driver's license?  
 Yes  
 No
2. In the past month, how often did you drive?  
 6 or 7 days a week  
 4 or 5 days a week  
 1 to 3 days a week  
 1 to 3 days a month  
 Not at all in the last month
3. Do you or someone in your household own a car?  
 Yes  
 No
4. In the past month, which of the following other forms of transportation have you used? (*Check all that apply*)  
 Passenger in a motorized vehicle  
 Taxi  
 Public transportation  
 Calgary Handibus or Access Calgary Service  
 Cycling  
 Walking  
 Wheelchair or motorized  
 Other. Please specify:
5. What is your most common form of transportation?  
 Drive a motor vehicle  
 Passenger in a motor vehicle  
 Taxi  
 Public transportation  
 Calgary Handibus or Access Calgary Service  
 Cycling  
 Walking  
 Wheelchair or motorized cart  
 Other. Please specify:
6. How long does it take to get to your family doctor's office, using whatever form of transportation you usually use to get there?  
*(in minutes)*
7. How long does it take to get to a walk-in clinic, using whatever form of transportation you usually use to get there?  
*(in minutes)*
8. How long does it take to get to a lab to get blood tests done, using whatever form of transportation you usually use to get there?  
*(in minutes)*
9. In the past 1 year, have you had difficulty keeping an appointment with a health care provider, getting a lab test or x-ray done, or had difficulty getting the health care you needed because you had no way of getting there?  
 Yes

- No
- N/A: I have not needed to see a health care provider, or get lab tests or x-rays done in the past year

**B. Health Salience**

10. In the past 1 year, have you had difficulty following suggestions from a health care provider to make lifestyle changes (e.g. diet, exercise, smoking, alcohol use) because other circumstances took priority at that time?
- Yes
  - No
  - N/A: No lifestyle changes have been recommended
11. In the past 1 year, was there a time when you did not get blood, urine, or imaging tests done (and did not re-book them) because other circumstances in your life took priority at that time?
- Yes
  - No
  - N/A: No tests have been ordered
12. In the past 1 year, have you stopped any medications because other circumstances in your life took priority at that time?
- Yes
  - No
  - N/A: I am not on any medications
13. In the past 1 year have you skipped any appointments to see a health care provider because other circumstances in your life took priority at that time?
- Yes
  - No
  - N/A: I have not had any appointments
14. In your current circumstance, how important is your health to you?
- Not very important
  - Not important
  - Neutral
  - Important
  - Very important
15. How easy do you think it will be to find time and energy to try to keep healthy after you leave the hospital?
- Very hard
  - Hard
  - Neutral
  - Easy
  - Very easy
16. What areas in your life make it difficult to focus on your health? (*Check up to three*)
- No area makes it difficult
  - Worrying about money
  - Worrying about basic needs (e.g. food)
  - Housing situation is unstable
  - Worrying about job security
  - I have too many job responsibilities
  - I have too many household responsibilities
  - Worrying about school
  - Relationship issues or conflict
  - I am a caregiver for a friend/family member who is ill

Other. Please specify:

**C. Social Support**

17. If you needed it, how often is someone available to help you if you were confined to bed?
- None of the time
  - A little of the time
  - Some of the time
  - Most of the time
  - All of the time
18. If you needed it, how often is someone available to take you to the doctor?
- None of the time
  - A little of the time
  - Some of the time
  - Most of the time
  - All of the time
19. If you needed it, how often is someone available to prepare your meals if you were unable to do it yourself?
- None of the time
  - A little of the time
  - Some of the time
  - Most of the time
  - All of the time
20. If you needed it, how often is someone available to help you with daily chores if you were sick?
- None of the time
  - A little of the time
  - Some of the time
  - Most of the time
  - All of the time
21. If you needed it, how often is someone available to have a good time with?
- None of the time
  - A little of the time
  - Some of the time
  - Most of the time
  - All of the time
22. If you needed it, how often is someone available to turn to for suggestions about how to deal with a personal problem?
- None of the time
  - A little of the time
  - Some of the time
  - Most of the time
  - All of the time
23. If you needed it, how often is someone available who understands your problems?
- None of the time
  - A little of the time
  - Some of the time
  - Most of the time
  - All of the time
24. If you needed it, how often is someone available to love and make you feel wanted?

- None of the time
- A little of the time
- Some of the time
- Most of the time
- All of the time

25. a) Do you live alone?

- Yes
- No

25. b) If no: What is your relationship with the people living with you? (*Check all that apply*)

- Spouse or partner
- Children
- Parents
- Extended family (e.g. grandparents, aunts, uncles, nieces, nephews, cousins)
- Friends or roommates
- Tenants
- Other. Please specify:

#### D. Financial Barriers

26. Do you have drug insurance?

- Yes
- No

27. What percentage of drug costs do you have to pay out-of-pocket?

- 0%
- 1-10%
- 11-20%
- 21-30%
- 31-40%
- 41-50%
- >50%

28. In the past 1 year, have you not filled a prescription because of cost?

- Yes
- No
- N/A: I have not been on any prescription medications in the past year

29. In the past 1 year, have you not skipped medication doses because of cost (to save money)?

- Yes
- No
- N/A: I have not been on any prescription medications in the past year

30. How much money do you pay out-of-pocket for your own medications, in total, over one year?

(*in Canadian dollars*)

31. How much money do you or your household pay out-of-pocket for the entire household's own medications over one year?

(*in Canadian dollars*)

32. In the past 1 year, have you missed an appointment with a health care provider, or didn't get a lab test or x-ray done, or didn't get the health care you needed because you could not financially afford to miss work?

- Yes
- No

N/A: I have not needed to see a health care provider, or get lab tests or x-rays done in the past year

33. a) Do you care, or help to care, for any dependants under 18 years of age?

Yes

No

33. b) If yes: In the past 1 year, have missed an appointment with a health care provider, didn't get a lab test or x-ray done, or didn't get the health care you needed because you could not find or afford child-care

Yes

No

N/A: I have not needed to see a health care provider, or get lab tests or x-rays done in the past year

**Appendix 2: Background Information Survey****A. Self-Rated Health**

1. How would you rate your health today?

- Excellent
- Good
- Fair
- Poor
- Bad

**B. Perceived Stress**

2. In the last year, how often have you felt that you were unable to control the important things in your life?

- Never
- Almost never
- Sometimes
- Fairly often
- Very often

3. In the last year, how often have you felt confident about your ability to handle your personal problems?

- Never
- Almost never
- Sometimes
- Fairly often
- Very often

4. In the last year, how often have you felt that things were going your way?

- Never
- Almost never
- Sometimes
- Fairly often
- Very often

5. In the last year, how often have you felt that difficulties were piling up so high that you could not overcome them?

- Never
- Almost never
- Sometimes
- Fairly often
- Very often

**C. Health Beliefs**

6. For most kinds of illnesses, it is the doctor who can help you the most.

- Disagree
- Neutral
- Agree

7. Home remedies are often much better than the drugs that doctors prescribe.

- Disagree
- Neutral
- Agree

8. You seem to get illnesses that doctors can't do much for.

- Disagree
- Neutral

Agree

9. If you follow a doctor's advice, you will have less illness in your lifetime.

Disagree

Neutral

Agree

10. Whenever you get sick, it seems to be very serious.

Disagree

Neutral

Agree

11. You get the kinds of illnesses that worry you a great deal.

Disagree

Neutral

Agree

12. In general, when you get sick, how much does it interfere with your usual activities?

Not at all

A little

A moderate amount

A great deal

#### **D. Baseline function**

13. In the past month, have you been able to walk:

Without help (except from a cane if needed)

With some help (from a person, walker, or crutches)

Completely unable to walk

14. In the past month, have you been able to eat:

Without help

With some help (need help with cutting, etc)

Completely unable to feed yourself

15. In the past month, have you been able to dress and undress:

Without help

With some help

Completely unable to dress or undress yourself

16. In the past month, have you been able to bathe or shower:

Without help

With some help (getting in and out of the tub, or need special attachments to the tub)

Completely unable to bathe or shower yourself

17. In the past month, have you been able to do your housework:

Without help

With some help (can do light housework but need help with heavy work)

Completely unable to do housework

18. In the past month, have you been able to prepare your meals:

Without help

With some help (can prepare some things but cannot cook full meals)

Completely unable to prepare any meals

**E. Health care use**

19. Do you have a regular family doctor?

- Yes  
 No

20. In the past 1 year, have you used mobile lab services (where you get lab tests done in your home)?

- Yes  
 No  
 N/A: I have needed to get any lab tests in the past year

21. a) Do you have home care publicly provided to you (for example, through Alberta Health Services)?

- Yes  
 No

21. b) If yes: What does home care help you with? (*Check all that apply*)

- Personal hygiene (bathing, grooming, oral care)  
 Dressing/undressing  
 Toileting and/or catheter maintenance  
 Mobilizing and transferring  
 Help with dining  
 Help with medications  
 Wound care  
 Other. Please specify:

22. a) Do you pay privately for home care or for a caregiver (excluding help with housework or preparation of meals)?

- Yes  
 No

22. b) If yes: What does home care help you with? (*Check all that apply*)

- Personal hygiene (bathing, grooming, oral care)  
 Dressing/undressing  
 Toileting and/or catheter maintenance  
 Mobilizing and transferring  
 Help with dining  
 Help with medications  
 Wound care  
 Other. Please specify:

23. In the past month, have you or your household paid for someone to do the housework in your home?

- Yes  
 No

24. In the past month, have you or your household paid for someone to prepare your meals?

- Yes  
 No

**F. Socio-demographics**

25. Are you a:

- Man  
 Woman

26. Is English the language that you speak best?

- Yes



No

27. a) Were you born in Canada?

Yes

No

27. b) If no: In what country were you born?

27. c) If no: What year did you come to Canada?

28. What is your cultural or ethnic background?

Aboriginal

Arab/West Asian (e.g. Armenian, Egyptian, Iranian, Lebanese, Moroccan)

Black (e.g. African, Haitian, Jamaican, Somali)

Chinese

Filipino

Japanese

Korean

Latin American

South Asian (e.g. Bengali, East Indian, Nepali, Pakistani, Sri Lankan)

South East Asian (e.g. Indonesian, Malaysian, Thai, Cambodian, Singaporean, Vietnamese)

White (Caucasian)

French-Canadian

Other. Please specify:

29. What is your age?

30. What is your marital status?

Married

Living common-law

Widowed

Divorced

Separated

Single, never married

31. What is your occupation?

32. Which statement best describes your work situation just before coming into hospital?

Currently working

Unemployed or looking for work

Stay at home spouse or parent

Student

Unpaid volunteer

Temporary leave of absence

Permanently unable to work

Retired

33. What is the highest level of education you completed?

Less than high school

High school graduate

Apprenticeship or trades certificate or diploma

Some post-secondary (college or university)

Post-secondary graduate

34. a) What is your best estimate of the total income, before taxes and deductions, of all household members from all sources in the past 12 months?
- Less than \$15,000
  - \$15,000 to less than \$25,000
  - \$25,000 to less than \$50,000
  - \$50,000 to less than \$75,000
  - \$75,000 to less than \$100,000
  - \$100,000 to less than \$125,000
  - \$125,000 to less than \$150,000
  - \$150,000 to less than \$175,000
  - \$175,000 to less than \$200,000
  - \$200,000 and over
  - Do not know
  - Do not wish to answer

35. How many people, including yourself, are dependent on this income?

36. MacArthur Scale of Subjective Social Status: Community

**Think of this ladder as representing where people stand in their communities.**

People define community in different ways; please define it in whatever way is most meaningful to you. At the **top** of the ladder are the people who have the highest standing in their community. At the **bottom** are the people who have the lowest standing in their community.

**Where would you place yourself on this ladder?**

Please place a large "X" on the rung where you think you stand at this time in your life, relative to other people in your community.



37. MacArthur Scale of Subjective Social Status: Society (Replace "United States" with "Canada")

**Think of this ladder as representing where people stand in the United States.**

At the **top** of the ladder are the people who are the best off – those who have the most money, the most education and the most respected jobs. At the **bottom** are the people who are the worst off – who have the least money, least education, and the least respected jobs or no job. The higher up you are on this ladder, the closer you are to the people at the very top; the lower you are, the closer you are to the people at the very bottom.

**Where would you place yourself on this ladder?**

Please place a large "X" on the rung where you think you stand at this time in your life, relative to other people in the United States.



Appendix 3: Hypothesized correlations between health salience questions and patient background characteristics

	Self-Rated Health	Perceived Stress	Societal SSS	Community SSS	Socio-demographics				
					Age	Income	Unemployed or Unable to work permanently or temporarily	Employed as stay-at-home parent or spouse	Regular family doctor
Q1: Difficulty making lifestyle changes	-1	+2	-1	-1	-1	-2	+2	0	0
Q2: Difficulty getting investigations	-1	+2	-1	-1	-1	-2	+2	0	0
Q3: Stopping medications	-1	+2	-1	-1	-1	-2	+2	0	0
Q4: Skipping appointments	-1	+2	-1	-1	-1	-1	+2	0	0
Q5: Importance of health	0	0	0	0	0	0	0	0	+1
Q6: Perceived difficulty maintaining health	-2	+2	-1	-1	+2	-2	+2	0	0
Q7: Worry about basic needs (housing, basic needs)	-2	+3	-2	-1	-1	-3	+2	0	-1
Q7: Worry about money	0	+2	-2	-1	-1	-2	+2	0	-1
Q7: Worry about domestic responsibilities and caregiving	0	+1	-1	-2	-1	-1	0	+3	0
Q7: Worry about school	0	0	0	0	-3	0	0	0	0
Q7: Number of areas of worry (1 vs 2+)	-1	+2	-1	-1	0	-2	+2	0	0

Where -2=moderate negative correlation; -1= small negative correlation; 0= no correlation; +1 = small positive correlation; +2=moderate positive correlation; +3= strong positive correlation

Abbreviations: Q- question number, SSS – subjective social status

## Appendix 4: Frequency of missing data

Question	Missing data N=406 n(%)
1. Do you have a valid driver's license?	9 (2.2)
2. In the past month, how often did you drive?	110 (27.1)
3. Do you or someone in your household own a car?	9 (2.2)
4. In the past month, which of the following other forms of transportation have you used?	41 (10.1)
5. What is your most common form of transportation?	10 (2.5)
6. How long does it take to get to your family doctor's office, using whatever form of transportation you usually use to get there?	52 (12.8)
7. How long does it take to get to a walk-in clinic, using whatever form of transportation you usually use to get there?	51 (12.6)
8. How long does it take to get to a lab to get blood tests done, using whatever form of transportation you usually use to get there?	26 (6.4)
9. In the past 1 year, have you had difficulty keeping an appointment with a healthcare provider, getting a lab test or x-ray done, or had difficulty getting the health care you needed because you had no way of getting there?	9 (2.2)
10. In the past year, have you had difficulty following suggestions from a healthcare provider to make lifestyle changes (e.g. diet, exercise, smoking, alcohol use) because other circumstances took priority at the time?	164 (40.4)
11. In the past 1 year, was there a time when you did not get blood, urine, or imaging tests done (and did not re-book them) because other circumstances in your life took priority at that time?	66 (16.3)
12. In the past 1 year, have you stopped any medications because other circumstances in your life took priority at that time?	10 (2.5)
13. In the past 1 year have you skipped any appointments to see a health care provider because other circumstances in your life took priority at that time?	10 (2.5)
14. In your current circumstance, how important is your health to you?	13 (3.2)
15. How easy do you think it will be to find time and energy to try to keep healthy after you leave the hospital?	14 (3.5)
16. What areas in your life make it difficult to focus on your health?	15 (3.7)
17. If you needed it, how often is someone available to help you if you were confined to bed?	10 (2.5)
18. If you needed it, how often is someone available to take you to the doctor?	10 (2.5)
19. If you needed it, how often is someone available to prepare your meals if you were unable to do it yourself?	10 (2.5)
20. If you needed it, how often is someone available to help you with daily chores if you were sick?	12 (3.0)
21. If you needed it, how often is someone available to have a good time with?	269 (66.3)
22. If you needed it, how often is someone available to turn to for suggestions about how to deal with a personal problem?	11 (2.7)
23. If you needed it, how often is someone available who understands your problems?	11 (2.7)
24. If you needed it, how often is someone available to love and make you feel wanted? <sup>a</sup>	11 (2.7)
25. Do you live alone?	10 (2.5)
26. Do you have drug insurance?	10 (2.5)
27. What percentage of drug costs do you have to pay out-of-pocket?	42 (10.3)
28. In the past 1 year, have you not filled a prescription because of cost?	35 (8.6)
29. In the past 1 year, have you not skipped medication doses because of cost (to save money)?	35 (8.6)
30. How much money do you pay out-of-pocket for your own medications, in total, over one year?	50 (12.3)
31. How much money do you or your household pay out-of-pocket for the entire household's own medications over one year?	164 (40.4)
32. In the past 1 year, have you missed an appointment with a health care provider, or didn't get a lab test or x-ray done, or didn't get the health care you needed because you could not financially afford to miss work?	18 (4.4)
33. Do you care, or help to care, for any dependants under 18 years of age?	345 (85.0)

## Appendix 5: Factor loadings of social vulnerability questions – With imputation of missing ordinal and continuous data

Question	Factor 1: Social Support	Factor 2: Salience of health	Factor 3: Drug coverage	Factor 4: Transportation barriers	Factor 5: Drug costs
Do you have a valid driver's license?				-0.536	
Do you or someone in your household own a car?					
How long does it take to get to your family doctor's office, using whatever form of transportation you usually use to get there?				0.619	
How long does it take to get to a walk-in clinic, using whatever form of transportation you usually use to get there?				0.680	
How long does it take to get to a lab to get blood tests done, using whatever form of transportation you usually use to get there?				0.767	
In the past 1 year, have you had difficulty keeping an appointment with a health care provider, getting a lab test or x-ray done, or had difficulty getting the health care you needed because you had no way of getting there?					
In the past 1 year, was there a time when you did not get blood, urine, or imaging tests done (and did not re-book them) because other circumstances in your life took priority at that time?		0.644			
In the past 1 year, have you stopped any medications because other circumstances in your life took priority at that time?		0.704			
In the past 1 year have you skipped any appointments to see a health care provider because other circumstances in your life took priority at that time?		0.783			
In your current circumstance, how important is your health to you?					
How easy do you think it will be to find time and energy to try to keep healthy after you leave the hospital?					
What areas in your life make it difficult to focus on your health? (2 or more items checked)		0.560			
If you needed it, how often is someone available to help you if you were confined to bed?	0.877				
If you needed it, how often is someone available to help you to take you to the doctor?	0.837				
How often is someone available to prepare your meals if you were unable to do it yourself?	0.922				
How often is someone available to help you with daily chores if you were sick?	0.898				
If you needed it, how often is someone available to turn to for suggestions about how to deal with a personal problem?	0.818				
How often is someone available who understands your problems?	0.808				
How often is someone available to love and make you feel wanted?	0.761				

<b>Question</b>	<b>Factor 1: Social Support</b>	<b>Factor 2: Sallience of health</b>	<b>Factor 3: Drug coverage</b>	<b>Factor 4: Transportation barriers</b>	<b>Factor 5: Drug costs</b>
Do you have drug insurance?			-0.906		
What percentage of drug costs do you have to pay out-of-pocket?			0.916		
In the past 1 year, have you not filled a prescription because of cost?		0.581			
In the past 1 year, have you skipped medication doses because of cost (to save money)?		0.654			
Do you live alone?	-0.526				
How much money do you or your household pay out-of-pocket in total for the entire household's medications over one year?					0.880
How much money do you pay out-of-pocket for your own medications in total, over one year?					0.857
In the past 1 year, have you missed an appointment with a health care provider, or didn't get a lab test or x-ray done, or didn't get the health care you needed because you could not financially afford to miss work?		0.569			

Empty cells represent factor loadings <0.5

## Appendix 6: Factor loadings of social vulnerability questions – Using raw data without imputation

Question	Factor 1: Social Support	Factor 2: Salience of health	Factor 3: Drug coverage	Factor 4: Transportation barriers	Factor 5: Drug costs
Do you have a valid driver's license?				-0.526	
Do you or someone in your household own a car?					
How long does it take to get to your family doctor's office, using whatever form of transportation you usually use to get there?				0.724	
How long does it take to get to a walk-in clinic, using whatever form of transportation you usually use to get there?				0.654	
How long does it take to get to a lab to get blood tests done, using whatever form of transportation you usually use to get there?				0.843	
In the past 1 year, have you had difficulty keeping an appointment with a health care provider, getting a lab test or x-ray done, or had difficulty getting the health care you needed because you had no way of getting there?					
In the past 1 year, was there a time when you did not get blood, urine, or imaging tests done (and did not re-book them) because other circumstances in your life took priority at that time?		0.628			
In the past 1 year, have you stopped any medications because other circumstances in your life took priority at that time?		0.690			
In the past 1 year have you skipped any appointments to see a health care provider because other circumstances in your life took priority at that time?		0.724			
In your current circumstance, how important is your health to you?					
How easy do you think it will be to find time and energy to try to keep healthy after you leave the hospital?					
What areas in your life make it difficult to focus on your health? (2 or more items checked)		0.534			
If you needed it, how often is someone available to help you if you were confined to bed?	0.882				
If you needed it, how often is someone available to help you to take you to the doctor?	0.810				
How often is someone available to prepare your meals if you were unable to do it yourself?	0.871				
How often is someone available to help you with daily chores if you were sick?	0.838				
If you needed it, how often is someone available to turn to for suggestions about how to deal with a personal problem?	0.708				
How often is someone available who understands your problems?	0.688				
How often is someone available to love and make you feel wanted?	0.709				



<b>Question</b>	<b>Factor 1: Social Support</b>	<b>Factor 2: Saliience of health</b>	<b>Factor 3: Drug coverage</b>	<b>Factor 4: Transportation barriers</b>	<b>Factor 5: Drug costs</b>
Do you have drug insurance?			-0.823		
What percentage of drug costs do you have to pay out-of-pocket?			0.845		
In the past 1 year, have you not filled a prescription because of cost?		0.676			
In the past 1 year, have you skipped medication doses because of cost (to save money)?		0.702			
Do you live alone?	-0.526				
How much money do you or your household pay out-of-pocket in total for the entire household's medications over one year?					0.905
How much money do you pay out-of-pocket for your own medications in total, over one year?					0.910
In the past 1 year, have you missed an appointment with a health care provider, or didn't get a lab test or x-ray done, or didn't get the health care you needed because you could not financially afford to miss work?		0.504			

Empty cells represent factor loadings <0.5