

U.S. Adult Food Poisoning Outcomes Survey

Appendix 6. Discrete Choice Experiment Attributes and Levels

The Acute survey will have 5 choices using symptom descriptions as attributes and 5 choices using EQ5D attributes.

1.1 Each Acute symptom-based choice will have the 8 attributes presented in the table below. The levels of the attributes will differ across respondents in keeping with an optimal discrete choice experiment design.

Symptom-based attributes for choice sets (acute version).

Attribute	Levels
Vomiting	None
	Present
Stomach cramps	None
	Present
Diarrhea	None
	present, non- bloody
	present, bloody
Fever	none
	present
Headache	none
	present
Dr visit	None
	you visit your family doctor once, who tells you to rest, drink plenty of fluids and take Tylenol or ibuprofen for pain.
	you visit your family doctor twice, who tells you to rest, drink plenty of fluids and take Tylenol or ibuprofen for pain.
Duration	the illness lasts for 'x' days. (x=1,2,4,7,10,14 days) after which you are completely recovered.
Cost (\$)	Initial bids: 30, 50, 90, 150, 300 Follow up bids: are adjusted off of the initial bids with the follow up to a no at ½ the initial bid, follow up to a yes at 2x the initial bid

Each respondent will see 5 Choice Sets, Status Quo (SQ) (current health) + 1 (illness), with a follow up question (with higher/lower price)

Which option would you choose?		
	Option A. Get a food poisoning	Option B. Avoid food poisoning
Symptoms you experience	You develop vomiting and stomach cramps. You have little energy and no appetite. You develop diarrhea. You don't visit a doctor.	You stay in your current state of health
Length of symptoms	The illness lasts 2 days, after which you return to your pre-illness state of health.	N/A
Extra cost	\$0	\$30
Which one would you choose?	<input type="checkbox"/>	<input type="checkbox"/>
	[If A chosen] If option B costs \$15, would you still choose option A?	[If B chosen] If option B costs \$60, would you still choose option B?
	<input type="checkbox"/> Yes <input type="checkbox"/> No	<input type="checkbox"/> Yes <input type="checkbox"/> No

1.2. The Acute version EQ5D choices have 7 attributes, seen in the table below. These choices will be constrained to avoid illnesses that are less severe than the respondents' current health as indicated by their self-assessment using the EQ5D instrument early in the survey.

EQ5D attributes for choice sets (acute version).

Attribute	Levels
Mobility	1-5
Self-care	1-5
Usual activities	1-5
Pain/discomfort	1-5
Anxiety/depression	1-5
Duration	($x=1,2,4,7,10,14, 18$ days)
Cost	18, 25, 35, 40, 50, 60, 120, 230, 300. With cost of B < cost of C

Each respondent will see 5 Choice Sets, SQ (current health (C)) + 2 (illness options (A, B)), No follow up question:

Current health levels will be “piped in” from self-completed EQ5D-5L questions.

The DCE levels are constrained to ensure none of the 5 attributes in an Illness state (A, B) are better than the current health (C).

Which option would you choose?..

	<p>Option A. Get an infectious illness with these symptoms</p> <p>slight problems walking about</p> <p>slight problems washing or dressing yourself</p> <p>slight problems doing your usual activities</p> <p>moderate pain or discomfort</p> <p>no anxiety or depression</p> <hr/> <p>Illness lasts 10 days</p> <hr/> <p>Cost \$0</p>	<p>Option B. Get an infectious illness with these symptoms</p> <p>no problems walking about</p> <p>no problems washing or dressing yourself</p> <p>slight problems doing your usual activities</p> <p>slight pain or discomfort</p> <p>no anxiety or depression</p> <hr/> <p>Illness lasts 2 days</p> <hr/> <p>Cost \$30</p>	<p>Option C. Get an infectious illness but avoid symptoms</p> <p>your current health in EQ5D levels</p> <hr/> <p>Illness lasts 0 days</p> <hr/> <p>Cost \$60</p>
You have:			
I would choose	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

3. The Severe Outcome version of the survey will also have 5 choices using symptom descriptions as attributes and 5 choices using EQ5D attributes.

3.1. Each Severe/Chronic symptom-based choice will have 3 attributes (illness description, risk, cost) presented in the table below. The levels of the attributes will differ across respondents in keeping with an optimal discrete choice experiment design.

The Severe Outcome version has a narrative illness description as an attribute (Appendix 4). These descriptions are designed to reflect the kind of information medical professional provide to patients who are at risk for a particular illness. The descriptions include information on possible outcomes, their likelihood, health impact, and duration.

Symptom-based attributes for choice sets (severe outcome version).

Attribute	Levels
<i>Illness description</i>	<i>Sepsis, appendectomy, IBS, GBS, HUS, Reactive arthritis, permanent kidney failure, meningitis, H. colitis, hospitalization for GI illness, vision impairment. See Appendix 4 for illness descriptions.</i>
<i>Baseline risk over 5 years</i>	Baseline risk is illness specific. See Appendix 4 illness descriptions. Risk reductions: 0.75, 0.5, 0.25, 0.1 times the baseline health risk over 5 years
<i>Cost (\$)/year.</i>	Hospitalized without complications: <i>Initial bids: 20, 30, 60, 120, 250, 300</i> <i>Follow up bids: are adjusted off of the initial bids with the follow up to a no of 0.5 the initial bid, follow up to a yes of 2x the initial bid</i> Hospitalized with complications or resulting in long-term health impacts: <i>40, 80, 150, 240, 400, 500, 750, 1000</i> <i>Follow up bids: are adjusted off of the initial bids with the follow up to a no at ½ the initial bid, follow up to a yes at 2x the initial bid</i>

Each respondent sees 5 Choice Sets, SQ (baseline risk) + 1 (reduced risk) with a follow up question (with higher/lower price):

HUS

In the next 5 years you get an infectious illness. As a result, you have a **2 out of 1000** chance of being hospitalized for HUS.

Cause:

- infection damages kidneys' ability to clean waste from blood and produce urine.

Hospitalization:

- most people are hospitalized
- stay 3-15 days
- treatment:
 - includes intravenous fluids, blood transfusions, antibiotics, and medication to control blood pressure and prevent blood clotting
 - 30% of patients need dialysis
 - dialysis draws blood from arm, filters out waste mechanically, and pumps cleaned blood back into body

Recovery:

- most recover at home
- back to normal in a few weeks to a month

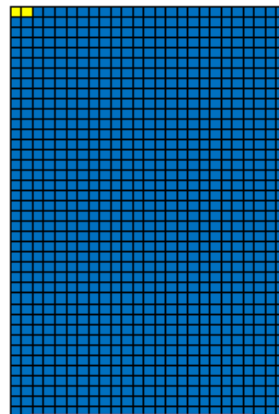
Which of the two options below would you choose?

Chance of being hospitalized with HUS due to an infectious illness over the next 5 years, if you ...

Cost to you per year
(Total over 5 years)

I would choose

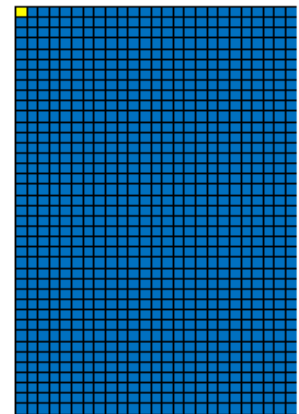
A. Do nothing



2 out of 1000
over 5 years

\$0
(no cost over 5 years)

B. Pay to reduce risk



1 out of 1000
over 5 years

\$30 per year
(total cost \$150 over 5 years)

[If A chosen]
 If option B cost \$15 per year (\$75 total over 5 years), would you still choose Option A?

[If B chosen]
 If option B cost \$120 per year (\$600 total over 5 years), would you still choose Option B?

Yes
 No

Yes
 No

3.2. The Severe/Chronic version EQ5D choices have 8 attributes, seen in the table below. Again, these choices will be constrained to avoid illnesses that are less severe than the respondents' current health as indicated by their self-assessment using the EQ5D instrument early in the survey.

EQ5D attributes for choice sets (severe outcome version).

Attribute	Levels
<i>Mobility</i>	1-5
<i>Self-care</i>	1-5
<i>Usual activities</i>	1-5
<i>Pain/discomfort</i>	1-5
<i>Anxiety/depression</i>	1-5
<i>Risk (x out of 1000)</i>	Baseline risk: 26, 17, 10, 8, 4, 2, .26, .08 out of 1000 Risk change (for options B and C): 0.75, 0.5, 0.25, 0.1 of the baseline health risk over 5 years
<i>Duration</i>	5 days, 1 week, 2 weeks, 3 months, 6 months, 1 year, 2 years, 3 years, 5 years, 8 year, 10 years, permanent
<i>Cost</i>	20, 30, 60, 120, 225, 250, 300, 400, 500, 600, 750, 1000. With cost of B < cost of C

Each respondent will see 5 Choice Sets, SQ (current health (C)) + 2 illness options (A, B), No follow up question:

Current health levels piped into Option C from self-completed EQ5D-5L questions

The DCE levels from the experimental design are constrained to ensure none of the 5 attributes in an Illness state (A, B) are better than the current health (C)

Which option would you choose?			
Option	A. do nothing	B. <u>pay</u> for partial protection	C. pay for full protection
Impact of complication	<p>slight problems walking about</p> <p>slight problems washing or dressing yourself</p> <p>slight problems doing your usual activities</p> <p>moderate pain or discomfort</p> <p>slight anxiety or depression</p>	<p>slight problems walking about</p> <p>slight problems washing or dressing yourself</p> <p>slight problems doing your usual activities</p> <p>slight pain or discomfort</p> <p>no anxiety or depression</p>	<p>current health [pipe in EQ5D levels from responses on page].</p>
Complication lasts	4 months	2 weeks	0 days
Chance of a complication from an infectious illness over the next 5 years	3 of 1000	2 of 1000	0 of 1000
Cost to you per year (Total over 5 years)	\$0 per year (\$0 over 5 years)	\$1000 per year (\$5000 over 5 years)	\$2000 per year (\$10,000 over 5 years)
I would choose	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>