

iMPACT HTA

Improved methods and actionable tools for enhancing HTA

A toolbox on candidate cost-effective technologies for HTA producers and users

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Table of Contents

Introduction.....	2
1 – The discrete choice experiment as a discussion tool	3
2- A check list to document d-CEIs’ systematic consideration	4
3- A decision tree to guide d-CEI adoption	6
Conclusion	8
Appendix A: Impact HTA questionnaire on d-CEIs	9

Introduction

While evidence is growing on the cost-effectiveness of d-CEIs, as shown in task 1, there is still today a lack of guidance in HTA agencies on how to consider and legitimately adopt d-CEIs. The potential of d-CEIs is thus underexploited in all EU countries and more generally. The political economy report (PER - D.11.2) has inquired into the reasons for this underuse, offering different disciplinary contributions and methods. It has **addressed the following question: under what conditions will a decision-maker consider, and possibly adopt a d-CEI**. Based on these findings, recommendations were drawn in order to encourage d-CEIs' appropriate and acceptable use.

1 - Mainstreaming: when deciding about implementing a new intervention, decision-makers shall be encouraged to systematically consider d-CEIs as ethically licit and politically acceptable alternatives to usual care¹. The objective is to make d-CEIs 'mainstream', thereby ensuring that they are systematically considered when defining the range of alternative treatments. Decision-makers will be encouraged to pay attention to how different healthcare systems might condition their willingness to consider the implementation of d-CEIs. By doing so, they may better prevent decisional biases and improve their ability to reach inclusive and evidence-based decisions.

2– Inclusiveness and transparency: For a successful implementation of d-CEIs, decision-makers shall be encouraged to actively involve all stakeholders early on in the decision-making process. Discussing the objectives and potential benefits of adopting a d-CEI helps focusing on priority needs and on inequities to redress. Transparency in the deliberation that governs decisions is an important component in securing stakeholders' understanding, participation in documenting the stakes (e.g. disease experience), and possible adherence in case of adoption.

3 – Exhaustivity: All forms of d-CEIs should be considered, such as complementary non-pharmaceutical interventions or stepped care approaches, which imply that disease level should be monitored and treatment adjusted accordingly, stepping up when more intensive treatments are deemed necessary,

¹ Mainstreaming is inspired by WHO toolboxes for gender mainstreaming which aims at increasing awareness of existing biases in various situations/productions. A parallel can be made with d-CEIs which are not systematically considered when defining the set of alternatives and comparators for a given therapeutic objective.

stepping down where less intensive treatments become appropriate, stepping out when an alternative – possibly non-pharmaceutical intervention, or when watchful waiting, is appropriate.

4 – Social justice and ethics: Mainstreaming d-CEIs in the HTA process should provide an incentive to explicitly discuss the underlying value-judgements, ethical and social justice principles considered in the anticipated savings reallocation.

The three tools offered each cover a different stage in the decision-making process which may lead to adopting a d-CEIs. The first tool is the discrete choice experiment itself, which is instrumental in the discussion of the interplay of individual and collective preferences. The second tool, as a check-list, covers the next step, i.e. facilitating the systematic consideration of d-CEIs when defining the set of treatment alternatives. The third tool, as a decision-tree, covers the stage from consideration to adoption.

1 – The discrete choice experiment as a discussion tool

The different pilots and the workshop that were organized to discuss the discrete choice experiment (DCE) framework have shown that beyond its value in documenting decision-makers' preferences, it was also very useful in debating the interplay of individual and collective preferences. The way in which the DCE was designed, most importantly the fact that respondents were asked to act as a regional health officer, enables lay persons or students to participate in the experiment, even in the absence of any experience with health technology assessment or decision-making processes. This was made clear early on in the three DCE pilots and more recently in workshops organized with decision-makers.

Based on these findings, **the DCE is made available publicly so that it can be used as a tool to initiate the debate on d-CEIs within various settings, whether HTA agencies, Pricing and reimbursement committees or in teaching health economics.** The full questionnaire is available in the appendix. Any additional information on implementation can be obtained directly from the research team.

2- A check list to document d-CEIs' systematic consideration

A check-list has been defined, based on the findings of the three different tasks and the disciplinary inquiries in the PER (D.11.2). It aims to inform the appropriateness and acceptability of considering d-CEIs as part of the treatment choice set. It takes the form of additional information requirements, beyond that routinely documented when carrying out a HTA (see EUnetHTA's core model²). Questions can be ordered for each of the four main recommendations:

Questions and main recommendations	Yes	No
1 - Mainstreaming /exhaustivity		
<i>Q1 - Are all types of d-CEIs systematically identified in the literature and documented, with their respective level of evidence?</i>	<input type="checkbox"/>	<input type="checkbox"/>
2 - Inclusion of patients or prescribers' perspectives in the evaluation process		
<i>Q2: Are the patients concerned by the d-CEI clearly identified?</i>	<input type="checkbox"/>	<input type="checkbox"/>
➤ Q2bis: if so, can they document the consequences of the d-CEI on their experience of living with the disease?	<input type="checkbox"/>	<input type="checkbox"/>
<i>Q3: Are the prescribers treating those patients clearly identified?</i>	<input type="checkbox"/>	<input type="checkbox"/>
➤ Q3.bis: if so, can they identify the consequences of the d-CEI in clinical experience when treating patients living with the disease?	<input type="checkbox"/>	<input type="checkbox"/>

² <https://eunethta.eu/hta-core-model/>

3 – Transparency

Q4: Can patients or prescribers identify patients or other populations who will benefit of the reallocation and do they understand why?

☐
☐

Q5: Are their contributions explicitly included in the evaluation process as a source of information?

☐
☐

- Q5bis: If so, are they associated more formally (vote, MCDA, ...)?

☐
☐

4 - Social justice and ethics

Q6: Are the objective(s) of considering a d-CEI explicitly defined?

1. Improving overall population health
2. Prioritising health needs of vulnerable populations
3. Improving the sustainability of the healthcare system
 - a. In routine care (reducing inefficient use of resources)
 - b. In case of shortages (drugs, vaccines)

☐
☐
☐
☐
☐
☐
☐
☐

Q7 - ex ante (behind the 'veil of ignorance'), is it possible for those involved in the assessment to agree that it can be fair to consider and possibly to adopt, based on pairwise comparisons of:

- One patient receiving the d-CEI with another patient with the same condition receiving the i-CEI;
- One patient receiving the d-CEI and a patient (or one individual) benefiting of the reallocation

☐
☐
☐
☐

Q8: - ex post, in case the patient has received the d-CEI, will this patient have access to the i-DCEI if experiencing unacceptable side-effects, or disease progression.

☐
☐

Q9: Are the social justice principles governing the reallocation of savings explicitly defined (Maximin principle, proportionate universalism)?

☐
☐

3- A decision tree to guide d-CEI adoption

The decision tree sketches the next stage in the pathway from consideration of d-CEIs to their adoption. It focuses on the three main attributes which have been found to be most influential in the discrete choice experiment, i.e. health loss, cost-savings and reversibility. The navigation involves answering a set of questions which should help ensure that **adoption is appropriate and acceptable**.

Before navigation can be started, preliminary information needs to be collected, as indicated in figure 2:

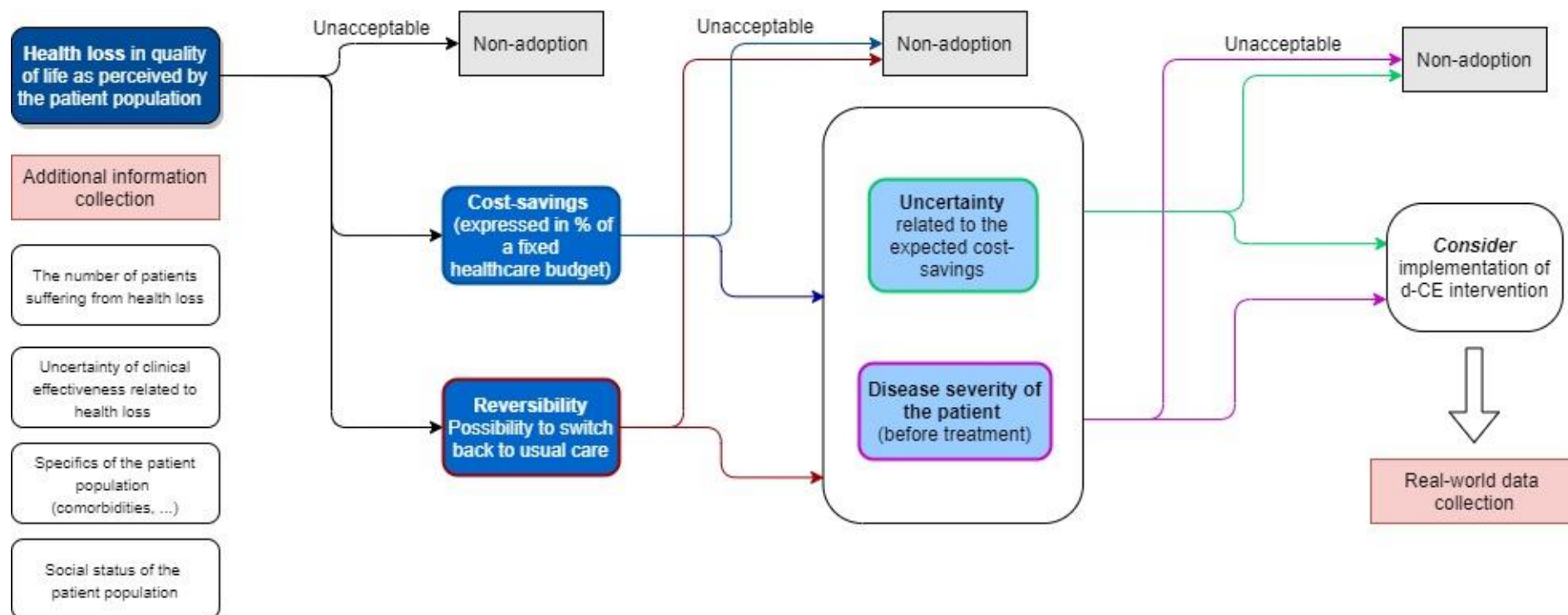
- c. What is the size of the d-CEI target population;
- d. Which are the main characteristics of the d-CEI susceptible to vary in real-life and how can they impact the choice to adopt?
- e. Which are the special characteristics of the d-CEI target patient population (comorbidities)?
- f. Which is the target population social status (vulnerability, ...)?

Health losses have been ranked first in the experiment and they are, as a result, the first node of the decision tree. As can be seen in figure 2, provided the health losses in quality of life (as perceived by the patient) are not prohibitive, which would lead to an unacceptable decision (top arrow on the graph), adoption is next envisaged through two attributes (the size of cost savings and the possibility to switch back to usual care) which have been ranked equally important by respondents. At this stage, non-adoption can either result from a level of expected cost-savings that is too low or a length of time needed to switch back to usual care that is considered too high. Adoption is next envisaged by bringing two additional sensitivity attributes: uncertainty of the expected savings and disease severity before treatment. Depending on their respective levels, the outcome will either be non-adoption or adoption.

Finally, in the penultimate stage of the decision-making, complementary real-world data must be collected to ensure that all relevant information is available before adoption and to monitor implementation:

- a. Which real-world data or complementary evidence can be collected or exploited in order to monitor the cost-outcome combination in both d-CEI and in its incrementally cost-effective alternative?
- b. Has a reevaluation of the cost-outcome combination in the d-CEI and in its incrementally cost-effective alternative been planned?
- c. Are price negotiations susceptible to change the comparative assessments between the d-CEI and its i-CEI alternative?

Figure 2: The pathway from d-CEI consideration to adoption

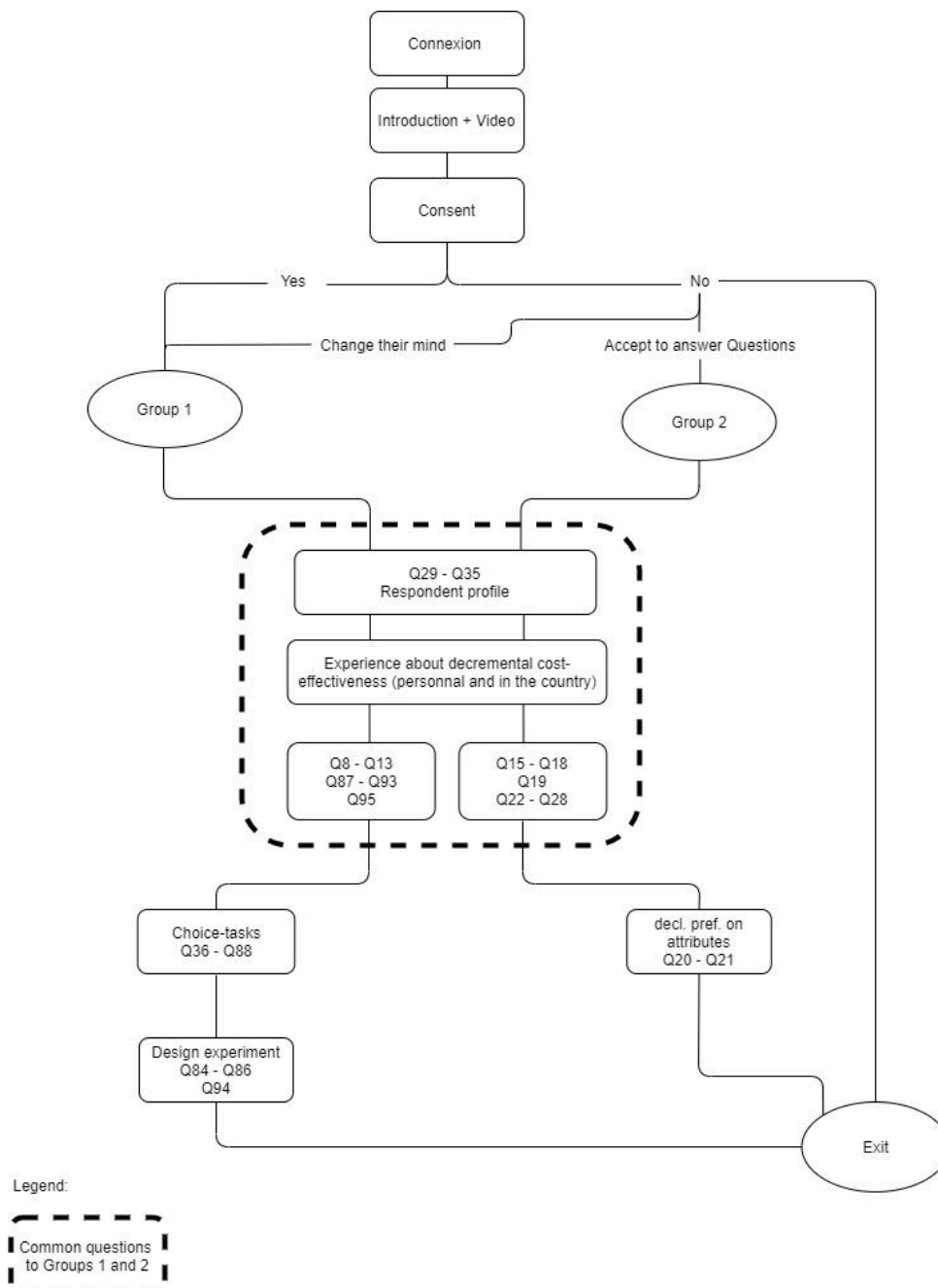


Conclusion

The three tools offered here cover different stages in the decision-making process, from discussion to consideration, and from there to the actual adoption of d-CEIs. The first tool is the DCE itself, which has been extensively used to foster discussions of the interplay of individual and collective preferences. The second tool, defined as a check-list, covers the next stage, i.e. facilitating the systematic consideration of d-CEIs when defining the set of treatment alternatives. The third tool, as a decision-tree, covers the stage from consideration to adoption. This last stage requires additional information collection at the onset of the adoption decision pathway and at the penultimate stage, in order to guarantee that **adopting a d-CEI will be both appropriate and acceptable to patients and more generally to society**.

Appendix A: Impact HTA questionnaire on d-CEIs

The structure of the discrete choice experiment in WP11 is the following; it intended to allow participants to choose between two routes, one involving for them to make trade-offs (choice tasks) and another to answer questions. All participants but a few took the first route (group 1):



Start of the Bloc 1 – Introduction

EU-2020 iMPACT HTA project: Adoption of decrementally cost-effective interventions.

The following survey is carried out by Hospinnomics, a research chair in health economics funded by AP-HP (Greater Paris University Hospitals) at Paris School of Economics. This survey is part of the Impact HTA research project, led by the London School of Economics and funded by the European Commission under the Horizon 2020 Research and Innovation Programme.

The survey aims to explore the barriers to adoption of *decrementally cost-effective interventions* and to identify potential conditions under which a public health decision-maker would consider adoption. It consists in a preference elicitation experiment, in which you will be asked to make choices among different scenarios, after being given essential background information in a short (6 minutes) video.

Your participation will allow us to collect information on your preferences regarding this type of intervention and, ultimately, to offer guidance to decision-makers when considering substituting from usual care to decrementally cost-effective interventions.

No previous information or experience about decrementally cost-effective interventions is needed in order to take part in the experiment. All information provided is anonymous and will only be used for research purposes. The time to complete the experiment is approximately 20 minutes.

Please note that a few users reported difficulties with the Firefox web browser. For an optimal experience consider using other web browsers such as Safari or Google Chrome.

We thank you for taking the time to contribute with your answers.

Hospinnomics

(AP-HP / Paris School of Economics)

Lise Rochaix

Scientific director of Hospinnomics

End of the Bloc 1 - Introduction

Start of the Bloc 2 - Video / Script





What is a decrementally cost-effective intervention?

In healthcare, as in other publicly funded services, decision-makers have to allocate scarce public resources. They often face challenging priority-setting dilemmas urging them to choose the most effective interventions.

Decrementally cost-effective interventions imply both cost-savings and potential health losses, as perceived by the patient population, compared to usual care. Some of these decrementally cost-effective interventions have been found to be highly effective but are rarely adopted. **The objective of these interventions is not to save money per se, but rather to ensure the quality, inclusion and sustainability of our health care recourses.** The savings generated by substituting from usual care to

decrementally cost-effective interventions could be used to increase the overall health of the population.

Example of decrementally cost-effective interventions:

Option 1	Option 2	
		Prescribing physical activity as first-line treatment instead of medication for weight loss.
exercise	medication	
		Prescribing medication that has to be taken daily rather than weekly, but at a lower cost.
one time per day	once a week	

We have produced a six-minute video to give you all the information needed to complete the experiment. **For an optimal experience, we encourage you to watch the video before starting the experiment.** It will describe decrementally cost-effective interventions, the preference elicitation experiment used in this study and includes a warm-up example.

Link to access the video: <https://youtu.be/KwDggWSZYfs>

Please note that in the video we are referring to decrementally cost-effective interventions as "d-CE" interventions. If for any reason you cannot access the video, you will be able to read its full transcription. The script of the video is accessible at any time for you to come back to it if needed.

End of the Bloc 2 - Video / Script

Start of the Bloc 3 - Participation

Your participation in the study

Q1. To participate in the study, you must check the box below

- ☐ I am willing to participate in the IMPACT HTA study
- ☐ I am not willing to participate in the IMPACT HTA study

Q2. Could you tell us why you prefer not to participate?

- ☐ I do not feel comfortable with the concept of decrementally cost-effective interventions
- ☐ I do not feel comfortable with the format of the experiment
- ☐ I do not have time
- ☐ Other, please specify: _____

The objective of this experiment is for you to express your preferences regarding decrementally cost-effective interventions. No previous experience or information about decrementally cost effective interventions is required. Nor do you need to support decrementally cost-effective interventions to answer the experiment.

Q3. Given this, do you still prefer not to participate in this experiment?

- ☐ I changed my mind and I want to participate
- ☐ I still do not want to participate

Q4. Did you know about decrementally cost-effective interventions before watching the introduction video?

- ☐ Yes
- ☐ No

Q5. Does your country adopt decrementally cost-effective interventions?

- ☐ Yes, regularly
- ☐ Yes, sometimes
- ☐ No
- ☐ I don't know

Q6. Do you have experience with adopting decrementally cost-effective interventions?

- ☐ A lot of experience
- ☐ Some experience
- ☐ No experience
- ☐ I don't know

Q7. Would you be willing to share your experience related to decrementally cost-effective interventions?

You are ready to participate in the experiment.

It is estimated to take around **20 minutes** to complete the experiment. The questionnaire saves your answers automatically. If you decide to close the web browser, you can at any time use the same link to continue where you left off.

To continue, please click on “Next”.

Choice-sets

This experiment contains 8 choice-sets. You can at any moment access the information provided in the video by clicking on one of the two boxes above: "Reminder of attributes" and/or "Video transcript".

As described in the video, **we ask you to play the role of a high-level civil servant serving as a local health officer** in charge of a population of 10.000 patients suffering from a specific condition. Acting as a local health officer, your mandate is to choose one of the two interventions presented in the choice-sets out of a set budget of €100 million per year. Once you have selected your preferred option, which you might not approve of, you have the possibility to decide whether or not to substitute usual care by the selected option. Potential cost-savings could be used to target other patient groups/populations.

Please note that this is a generic experiment for decrementally cost-effective interventions. We are not considering any particular disease or treatment.

End of the Bloc 3 – Participation

Start of the Bloc 4 - Opt-out

We understand that you are not willing to participate in the experiment. We have therefore included some additional questions in which you do not have to play the role of a local health officer and choose between competing scenarios. Instead, we like to hear your personal view regarding decrementally cost-effective interventions. Your opinion constitutes valuable input to offer guidance to decision-makers in their decisions to adopt.

Q8. Would you be willing to answer these questions?

☐ Yes

☐ No

Q9. Did you know about decrementally cost-effective interventions before watching the introduction video?

☐ Yes

☐ No

Q10. Does your country implement decrementally cost-effective interventions?

☐ Yes, regularly

☐ Yes, sometimes

☐ No

☐ I don't know

Q11. Do you have experience with adopting decrementally cost-effective interventions?

☐ A lot of experience

☐ Some experience

☐ No experience

☐ I don't know

Q12. Would you be willing to share your experience related to decrementally cost-effective interventions?

Q13. Please rank the elements in order of importance for you if deciding to substitute from usual care to a decrementally cost-effective intervention.

Drag and drop each item in order of importance

_____ Cost savings (expressed in % of a fixed healthcare budget)

_____ Possibility to switch back from decrementally cost-effective intervention to usual care (expressed in time)

_____ Health loss (as perceived by the patient population)

Q14. Would you reconsider the ranking if disease severity (before treatment) was MODERATE?

- ☐ Yes
- ☐ No
- ☐ I don't know
-

Q15. Would you reconsider the ranking if uncertainty about the expected cost-savings was HIGH?
Meaning that it is fairly possible that adopting a decrementally cost-effective intervention won't bring the expected cost-reduction.

- ☐ Yes
- ☐ No
- ☐ I don't know
-

Q16. Please rank the additional elements in order of importance for you if deciding to substitute from usual care to a decrementally cost-effective intervention.

Drag and drop each item in order of importance

- _____ The age of the patient population
- _____ The number of patients suffering from health loss
- _____ Uncertainty related to the clinical effectiveness of health loss
-

Q17. Is there any other attribute(s) not included in the above ones that would need consideration if deciding whether to substitute from usual care to a decrementally cost-effective intervention?
Please specify in the text box below:

Q18. For the following statements, indicate if you: 1. Strongly disagree / 2. Disagree / 3. Neither agree nor disagree / 4. Agree / 5. Strongly agree

	Strongly disagree	Disagree	Neither agree nor disagree	Agree	Strongly agree
Health care resources should be allocated with the objective of maximizing overall health of the population	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Decrementally cost-effective interventions may contribute to a better allocation of the health care budget	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
It is acceptable to consider decrementally cost-effective interventions in Health Technology Assessment Committees <i>Note: HTA Committees make evidence-informed recommendations on which health technologies should be made available.</i>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Savings generated through the adoption of decrementally cost-effective interventions could be reinvested to increase the overall health of the population. They could either be reinvested within the same disease area, across disease areas or for interventions outside healthcare (e.g. education).

Q19. Would you be willing to adopt decrementally cost-effective interventions if savings were reallocated to...

	Yes	Not sure	No
patients targeted by the decrementally cost-effective intervention?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
patients across disease areas?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
the general population, for interventions outside healthcare (e.g. education)?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Q20. Do you have any additional comment(s) regarding the possible reallocation of savings?

Q21. For the following statement, please indicate your level of agreement.

Would you say that the COVID-19 crisis has made you....

- ☐ more ready to adopt decrementally cost-effective interventions because money has become more scarce
- ☐ less ready to adopt decrementally cost-effective interventions as the crisis has shown that money can always be found when needed
- ☐ neither, please specify in the box below:

Q22. How do you think the COVID-19 crisis is affecting the acceptability of decrementally cost-effective interventions in your country?

Please specify in the text box below:

End of the Bloc 4 - Opt-out

Start of the Bloc 5 - About you

About you

Before submitting your answers, we would like to know a bit more about you...

Q23. What is your country of residence?

▼ Afghanistan ... Zimbabwe

Q24. What is your current position?

If you are no longer active or have retired from your position, please indicate the most relevant position in relation to the topic.

- ☐ Health technology assessment (HTA) professional
 - ☐ Member of health technologies' pricing and reimbursement committee
 - ☐ Officer of government organizations (e.g. OECD)
 - ☐ Officer of non-government organizations (e.g. WHO)
 - ☐ Representative of citizens or consumer / Patient advocacy group
 - ☐ Clinician
 - ☐ Health Economist
 - ☐ Student / in training
 - ☐ Other, please specify in the text box below: _____
-

Q25. What is your training? (multiple answers are possible)

- ☐ Medicine
 - ☐ Pharmacy
 - ☐ Public health
 - ☐ Economics
 - ☐ Public Policy
 - ☐ Other, please specify in the text box below: _____
-

Q26. Gender

- ☐ Female
 - ☐ Male
 - ☐ Non-binary
 - ☐ Prefer not to say
-

Q27. Age

- ☐ 18 to 35
 - ☐ 36 to 55
 - ☐ 56 to 65
 - ☐ Older than 65
 - ☐ Prefer not to say
-

Q28. Do you have any additional comments before submitting your answers?

Please note that once you click on "next" you will not be able to return to the questionnaire.

End of the Bloc 5 - About you

Start of the Bloc 6 - CT1

CHOICE SET 1

The intervention relies on the following criteria being fulfilled and unchanged for all the choice sets:

- A reference treatment exists for the 10.000 patients suffering from a specific condition, and we refer to it as usual care. The two options presented in the choice-sets should be considered as decrementally cost-effective alternatives to usual care.
- The scenarios do not include patients experiencing end of life care.
- Disease severity of the patient (before treatment) is **LOW**
- Uncertainty related to the expected cost-savings is **LOW**

	OPTION 1	OPTION 2
HEALTH LOSS (as perceived by the patient population)	Small	Very small
POSSIBILITY TO SWITCH BACK TO USUAL CARE (expressed in time)	Possible, at anytime	Hardly possible due to long delay
COST-SAVINGS (expressed in % of a fixed 100M€ healthcare budget)	10%	10%

Q29. Which option would you choose?

- ☐ Option 1
- ☐ Option 2

Q30. Would you be ready to substitute usual care by the option you selected?

- ☐ Yes
- ☐ No

Q31. Please explain why you made the above choice:

End of the Bloc 6 - CT1

Start of the Bloc 7 - CT2

CHOICE SET 2

The intervention relies on the following criteria being fulfilled and unchanged for all the choice sets:

- A reference treatment exists for the 10.000 patients suffering from a specific condition, and we refer to it as usual care. The two options presented in the choice-sets should be considered as decrementally cost-effective alternatives to usual care.
- The scenarios do not include patients experiencing end of life care.
- Disease severity of the patient (before treatment) is **LOW**.
- Uncertainty related to the expected cost-savings is **LOW**

	OPTION 1	OPTION 2
HEALTH LOSS (as perceived by the patient population)	Very small	Significant
POSSIBILITY TO SWITCH BACK TO USUAL CARE (expressed in time)	Hardly possible due to long delays	Possible, at anytime
COST-SAVINGS (expressed in % of a fixed 100M€ healthcare budget)	5%	15%

Q32. Which option would you choose?

- ☐ Option 1
- ☐ Option 2

Q33. Would you be ready to substitute usual care by the option you selected?

- ☐ Yes
- ☐ No

Q34. Would you be ready to substitute usual care by the option you selected if disease severity of the patient (before treatment) changes to MODERATE?

- ☐ Yes
- ☐ No

<p>Q35 Explain why you would substitute (optional)</p> <p>_____</p> <p>_____</p>	<p>Q36 Explain why you would not substitute (optional)</p> <p>_____</p> <p>_____</p>
<p>Q37 Would you be ready to substitute usual care by the option you selected if uncertainty related to the expected cost-savings changes to HIGH?</p> <p><i>Uncertainty indicates the possibility that the decremental cost-effective intervention won't bring the expected cost-saving.</i></p> <p><input type="checkbox"/> Yes</p> <p><input type="checkbox"/> No</p>	
<p>Q38 Explain why you would substitute (optional)</p> <p>_____</p> <p>_____</p>	<p>Q39 Explain why you would not substitute (optional)</p> <p>_____</p> <p>_____</p>

End of the Bloc 7 - CT2

Start of the Bloc 8 - CT3

CHOICE SET 3

The intervention relies on the following criteria being fulfilled and unchanged for all the choice sets:

- A reference treatment exists for the 10.000 patients suffering from a specific condition, and we refer to it as usual care. The two options presented in the choice-sets should be considered as decrementally cost-effective alternatives to usual care.
- The scenarios do not include patients experiencing end of life care.
- Disease severity of the patient (before treatment) is **LOW**.
- Uncertainty related to the expected cost-savings is **LOW**

	OPTION 1	OPTION 2
HEALTH LOSS (as perceived by the patient population)	Significant	Very small
POSSIBILITY TO SWITCH BACK TO USUAL CARE (expressed in time)	Possible, at anytime	Possible, after some delay
COST-SAVINGS (expressed in % of a fixed 100M€ healthcare budget)	5%	15%

Q40. Which option would you choose?

- ☐ Option 1
- ☐ Option 2

Q41. Would you be ready to substitute usual care by the option you selected?

- ☐ Yes
- ☐ No

Q42. Please explain why you made the above choice:

End of the Bloc 8 - CT3

Start of the Bloc 9 - CT4

CHOICE SET 4

The intervention relies on the following criteria being fulfilled and unchanged for all the choice sets:

- A reference treatment exists for the 10.000 patients suffering from a specific condition, and we refer to it as usual care. The two options presented in the choice-sets should be considered as decrementally cost-effective alternatives to usual care.
- The scenarios do not include patients experiencing end of life care.
- Disease severity of the patient (before treatment) is **LOW**.
- Uncertainty related to the expected cost-savings is **LOW**

	OPTION 1	OPTION 2
HEALTH LOSS (as perceived by the patient population)	Small	Very small
POSSIBILITY TO SWITCH BACK TO USUAL CARE (expressed in time)	Possible, after some delay	Possible, at anytime
COST-SAVINGS (expressed in % of a fixed 100M€ healthcare budget)	10%	10%

Q43. Which option would you choose?

- ☐ Option 1
- ☐ Option 2

Q44. Would you be ready to substitute usual care by the option you selected?

- ☐ Yes
- ☐ No

End of the Bloc 9 - CT4

Start of the Bloc 10 - CT5

CHOICE SET 5

The intervention relies on the following criteria being fulfilled and unchanged for all the choice sets:

- A reference treatment exists for the 10.000 patients suffering from a specific condition, and we refer to it as usual care. The two options presented in the choice-sets should be considered as decrementally cost-effective alternatives to usual care.
- The scenarios do not include patients experiencing end of life care.
- Disease severity of the patient (before treatment) is **LOW**.
- Uncertainty related to the expected cost-savings is **LOW**

	OPTION 1	OPTION 2
HEALTH LOSS (as perceived by the patient population)	Small	Very small
POSSIBILITY TO SWITCH BACK TO USUAL CARE (expressed in time)	Possible, after some delay	Possible, at anytime
COST-SAVINGS (expressed in % of a fixed 100M€ healthcare budget)	10%	10%

Q45. Which option would you choose?

- ☐ Option 1
- ☐ Option 2

Q46. Would you be ready to substitute usual care by the option you selected?

- ☐ Yes
- ☐ No

Q47. Please explain why you made the above choice:

End of the Bloc 10 - CT5

Start of the Bloc 11 - CT6

CHOICE SET 6

The intervention relies on the following criteria being fulfilled and unchanged for all the choice sets:

- A reference treatment exists for the 10.000 patients suffering from a specific condition, and we refer to it as usual care. The two options presented in the choice-sets should be considered as decrementally cost-effective alternatives to usual care.
- The scenarios do not include patients experiencing end of life care.
- Disease severity of the patient (before treatment) is **LOW**.
- Uncertainty related to the expected cost-savings is **LOW**

	OPTION 1	OPTION 2
HEALTH LOSS (as perceived by the patient population)	Small	Significant
POSSIBILITY TO SWITCH BACK TO USUAL CARE (expressed in time)	Hardly possible due to long delays	Possible, at anytime
COST-SAVINGS (expressed in % of a fixed 100M€ healthcare budget)	15%	5%

Q48. Which option would you choose?

- ☐ Option 1
- ☐ Option 2

Q49. Would you be ready to substitute usual care by the option you selected?

- ☐ Yes
- ☐ No

Q50. Please explain why you made the above choice:

End of the Bloc 11 - CT6

Start of the Bloc 12 - CT7

CHOICES SET 7

The intervention relies on the following criteria being fulfilled and unchanged for all the choice sets :

- A reference treatment exists for the 10.000 patients suffering from a specific condition, and we refer to it as usual care. The two options presented in the choice-sets should be considered as decrementally cost-effective alternatives to usual care.
- The scenarios do not include patients experiencing end of life care.
- Disease severity of the patient (before treatment) is **LOW**.
- Uncertainty related to the expected cost-savings is **LOW**

	OPTION 1	OPTION 2
HEALTH LOSS (as perceived by the patient population)	Very small	Small
POSSIBILITY TO SWITCH BACK TO USUAL CARE (expressed in time)	Possible, after some delays	Hardly possible due to long delays
COST-SAVINGS (expressed in % of a fixed 100M€ healthcare budget)	5%	15%

Q51. Which option would you choose?

- ☐ Option 1
- ☐ Option 2

Q52. Would you be ready to substitute usual care by the option you selected?

- ☐ Yes
- ☐ No

Q53. Would you be ready to substitute usual care by the option you selected if disease severity of the patient (before treatment) changes to MODERATE?

- ☐ Yes
- ☐ No

Q54 Explain why you would substitute (optional)

Q55 Explain why you would not substitute (optional)

Q56 Would you be ready to substitute usual care by the option you selected if uncertainty related to the expected cost-savings changes to HIGH?
Uncertainty indicates the possibility that the decremental cost-effective intervention won't bring the expected cost-saving.

☐ Yes

☐ No

Q57 Explain why you would substitute (optional)

Q58 Explain why you would not substitute (optional)

End of the Bloc 12 - CT7

Start of the Bloc 13 - CT8

CHOICE SET 8

The intervention relies on the following criteria being fulfilled and unchanged for all the choice sets:

- A reference treatment exists for the 10.000 patients suffering from a specific condition, and we refer to it as usual care. The two options presented in the choice-sets should be considered as decrementally cost-effective alternatives to usual care.
- The scenarios do not include patients experiencing end of life care.
- Disease severity of the patient (before treatment) is **LOW**.
- Uncertainty related to the expected cost-savings is **LOW**

	OPTION 1	OPTION 2
HEALTH LOSS (as perceived by the patient population)	Significant	Small
POSSIBILITY TO SWITCH BACK TO USUAL CARE (expressed in time)	Hardly possible due to long delays	Possible, after some delays
COST-SAVINGS (expressed in % of a fixed 100M€ healthcare budget)	10%	10%

Q59. Which option would you choose?

- ☐ Option 1
- ☐ Option 2

Q60. Would you be ready to substitute usual care by the option you selected?

- ☐ Yes
- ☐ No

End of the Bloc 13 - CT8

Start of the Bloc 14 - Additional questions

Q61. Additional questions You are now done with all the choice-sets. Before answering a few final questions about you, we would like to get your feedback on 10 additional questions related to the experiment.

Please click on "Next" to continue.

Q62. In this experiment, you have been asked to make decisions acting as a local health officer in charge of a patient population. In your country, how would you translate this role? Please specify in the box below:

Q63. For the following statements, indicate if you: 1. Strongly disagree / 2. Disagree / 3. Neither agree nor disagree / 4. Agree / 5. Strongly agree

	Strongly disagree	Disagree	Neither agree nor disagree	Agree	Strongly agree
The experiment was technically easy to follow	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Acting as a local health officer in charge of a patient population was easy for me	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Acting as a local health officer, I found it easy to choose between options	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Acting as a local health officer, I found it easy to decide when to substitute (or not) usual care with my selected option	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
This experiment changed my opinion on decrementally cost-effective interventions	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
As a patient, I may accept a decrementally cost-effective option if it was offered to me by my doctor as a suitable replacement for usual care	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Q64. Please rank the elements in order of importance for you if deciding to substitute from usual care to a decrementally cost-effective intervention

Drag and drop each item in order of importance

_____ Cost savings (expressed in % of a fixed healthcare budget)

_____ Possibility to switch back from decrementally cost-effective intervention to usual care (expressed in time)

_____ Health loss (as perceived by the patient population)

Q65. Please rank the additional elements in order of importance for you if deciding to substitute from usual care to a decrementally cost-effective intervention

Drag and drop each item in order of importance

- _____ The age of the patient population
 _____ The number of patients suffering from health loss
 _____ Uncertainty related to the clinical effectiveness of health loss

Q66. Is there any other attribute(s) not included in the above ones that would need consideration if deciding whether to substitute from usual care to a decrementally cost-effective intervention? Please specify in the text box below:

Q67. For the following statements, indicate if you: 1. Strongly disagree / 2. Disagree / 3. Neither agree nor disagree / 4. Agree / 5. Strongly agree

	Strongly disagree	Disagree	Neither agree nor disagree	Agree	Strongly agree
Health care resources should be allocated with the objective of maximizing overall health of the population	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Decrementally cost-effective interventions may contribute to a better allocation of the health care budget	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
It is acceptable to consider decrementally cost-effective interventions in Health Technology Assessment Committees <i>Note: HTA Committees make evidence-informed recommendations on which health technologies should be made available.</i>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Q68. Savings generated through the adoption of decrementally cost-effective interventions could be reinvested to increase the overall health of the population. They could either be reinvested within the same disease area, across disease areas or for interventions outside healthcare (e.g. education).

Would you be willing to adopt decrementally cost-effective interventions if savings were reallocated to...

	Yes	Not sure	No
patients targeted by the decrementally cost-effective intervention?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
patients across disease areas?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
the general population, for interventions outside healthcare (e.g. education)?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Q69. Do you have any additional comment(s) regarding the possible reallocation of savings?

Q70. Acting as a local health officer, would you say that the COVID-19 crisis has made you....

- ☐ more ready to adopt decrementally cost-effective interventions because money has become more scarce
- ☐ less ready to adopt decrementally cost-effective interventions as the crisis has shown that money can always be found when needed
- ☐ Neither, please specify in the box below :

Q71. Acting as a local health officer, do you have any additional thoughts on how COVID-19 crisis might have influenced your choices?

Q72. Personally, do you think the COVID-19 might affect the acceptability of decrementally cost-effective interventions in your country? If so, how? Please specify in the text box below:

End of the Bloc 14 - Additional questions