RESPOND

REPORT ON STRATEGIES THAT STAKEHOLDERS ARE PRIORITISING, TO MITIGATE AND RESPOND TO THE MENTAL HEALTH CHALLENGES OF THE COVID-19 OUTBREAK

DELIVERABLE D3.3

This project has received funding from the European Union's Horizon 2020 research and innovation programme Societal Challenges under Grant Agreement No 101016127.

Deliverable D3.3 – Report on strategies that stakeholders are prioritising, to mitigate and respond to the mental health challenges of the COVID-19 outbreak

RESPOND: Improving the Preparedness of Health Systems to Reduce Mental Health and Psychosocial Concerns Resulting from the COVID-19 Pandemic

Project Acronym: RESPOND

Grant Agreement No 101016127

Deliverable Information	
Project start date	01/12/2020
Duration of the project	3 years (until 30/11/2023)
Deliverable number and name	D3.3
Due date	31/05/2022
Delivery	31/05/2022
Work package	WP3
Lead partner for deliverable	Université catholique de Louvain (UCLouvain), London School of Economics and Political Science (LSE)
Approved by	WP3 Partners (LSE, UCLouvain)
Dissemination level	PU
Keywords	Health systems, responsiveness, policy measures
Reviewer	Marit Sijbrandij, Caroline O'Neill
Authors	Vincent Lorant, Katharina Seeber, Wagner Silva-Ribeiro Pablo Nicaise, Sara Evans-Lacko and David McDaid.

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1. AIMS AND OBJECTIVES

While the roll out of vaccinations have made a major difference to the risk of severe illness and mortality from COVID-19, the pandemic continues to be one of the most dominant public policy issues, alongside climate change, not only in Europe, but worldwide. The global excess mortality associated with COVID-19 was 14.91 million in the 24 months between 1 January 2020 and 31 December 2021, representing 9.49 million more deaths than those globally reported as directly attributable to COVID-19. In the WHO European region excess mortality over this time-period was 3.25 million [1]. Attention is also increasingly focusing on the mid to long-term consequences of the disease, including potential long term mental health impacts, not only on those who have experienced COVID, but also their families and wider society.

In most European countries, the COVID-19 pandemic has been addressed through a variety of measures intended to supress the spread of the virus, in order to not only to limit onward transmission and therefore avoid deaths but also to avoid the complete break-down of the health care system. Some of these policies potentially have had important side-effects that the RESPOND consortium has been exploring in the previous deliverables (D 3.1 and D3.2): in particular, suppression measures we have noted in our previous briefing reports have affected the mental health of populations and of younger age groups. We have noted that there was a sharp, albeit relatively short decline in national income across countries; this also affected labour force participation, but this varied by country. For example, in France, employment rates have rebounded quickly and in 2022 are greater than they were before the pandemic; in other countries employment rates have not fully recovered. Incomes were affected in all countries, but not all segments of the population were equally supported by various protection measures that were introduced by governments.

All countries experienced restrictions on freedom of movement and social activities. As the pandemic went on, these effects were no longer side effects but effects that had also to be included in the policy equation. For example, the reopening of schools after the first wave was strongly argued for in relation to the mental health of the youngest members of society, while many voices called for the reopening of non-essential activities such as the hospitality and leisure sectors to help support small business and prevent long-term job losses.

In addition, these policies trigged redistributive challenges between different groups within society, as the pandemic response measures had differing impacts on different population groups. For example, suppression measures that reduced contact were considered essential to help protect the health of older people and those with very vulnerable chronic disease; but they also potentially had some costs to younger age groups, particularly in relation to school closures, where opportunities for child development were more limited and the ability to receive adequate home schooling, depended on living circumstance, including sufficient space, privacy and access to laptops and other mobile technologies.

Suppression policies led also to redistributive concerns between women and men; even though both men and women may have been at home during lockdown, women were still more likely to be involved in home schooling. Healthcare workers, again dominated by women, would also have been fearful of spreading the virus to other family members. Women are also more likely to be involved in other sectors of the economy, such as retail, hospitality and leisure that have been most affected by the pandemic. Thus, it could be hypothesised that policies may have been redistributing wellbeing from young to old and from women to men. Again of course there is variation across Europe. For example, while total hours worked by people aged 20–64 fell by 18.5% in the Eurozone between Q4 2019 and Q2 2020, with the contraction for women (–19.4%) higher than that for men (–17.9%), in the first two quarters of 2020 women lost more hours than men in Spain and the Netherlands, but men were more affected in Belgium, while there was very little difference in hours worked by gender in France, Italy and Sweden [2].

A core job of policymakers when responding to the pandemic should have been to balance the different impacts of policies and to consider their potential redistributive effects. In European welfare systems progressive health and taxation systems ensure that income is redistributed income from the healthiest to the sick, and from the rich to the poor, while public support for childcare and education redistributes income from the working population to women and men who otherwise would have to provide all of this childcare. These are all very well documented and standard issues for policymakers to consider, but the pandemic threw up different and new challenges, all of which had to be confronted head on. It still remains unclear to what extent the decisions made reflected actual preferences of the policymakers given the different challenges that were at stake during the pandemic, as most decision had to be made at very short notice, with a strong priority given to protecting public health and saving lives, at a time when there were no vaccinations, nor even testing to determine whether individuals had contracted COVID.

In economic theory the principal-agent relationship occurs when an individual or an institution known as an 'agent' makes decisions on behalf of a wider population group (principal). Principal-agent theory might suggest that as long as policymakers act rationally, with full access to all necessary information to make decisions, they should be perfect agents of population preferences and wellbeing. However, agents do not always act in this way, for instance because not all necessary information is available at the time that decisions have to be made. Because the costs and the benefits of the suppression policies were not equally distributed across different group within society, it remains unclear to what extent policymakers preferences were shared by the general population. Moreover, decision making during the COVID-19 pandemic is more likely to have been concentrated and centralised thanks to the establishment of key advisory groups. This may have mean that regional and local authorities, as well as mental health specific stakeholders, were side-lined; national and/or federal structures more often calling the shots.

Impacts on mental health and wellbeing have varied considerably across European countries and while many factors will have contributed to differences in country experiences, the ways in which policymakers as agents in health systems have responded to the crisis are likely to have played a major role. This includes the knock-on impacts on routine demands for chronic and acute mental and physical care, as well as the longer-term consequences of broader measures to address the pandemic, such as lockdowns, school closures, financial support, travel restrictions and home working. There may also be many longer-term mental health impacts on workers in health, social care and other sectors which have borne an extremely intense and heavy workload during the different waves of the pandemic.

This briefing report focuses on how stakeholders in RESPOND countries have recognised and subsequently taken steps to mitigate the potential impacts of COVID-19 and the policy response on population psychosocial health across Europe. This work has been undertaken as part of the EU Horizon 2020 RESPOND project (P**RE**paredness of health **S**ystems to reduce mental health and **P**sychosocial concerns resulting from the C**O**VID-19 pa**ND**emic). Ultimately, RESPOND aims to improve the preparedness of European mental health care systems to meet the challenges of further waves of the current pandemic as well as future pandemics.

WP3 in RESPOND is committed to describing how "stakeholders select different strategies to contain COVID-19, to protect health care system resilience and to protect population mental health and wellbeing". The report therefore aims to describe policymaker trade-offs in the management of the COVID-19 pandemic, using a mixed-methods approach, involving qualitative and quantitative analytical techniques. The qualitative approach explores the reasoning behind decisions that were taken by policymakers during the early stages of the pandemic. The quantitative approach tests an experiment in which respondents have to make deliberative decisions about how different dimensions of health and wellbeing have to be prioritised/balanced against other considerations. This quantitative approach is performed using a technique known as a discrete choice experiment (DCE) which asks what trade-offs would policy stakeholders be willing to make for mental health during the management of the COVID-19 pandemic, as well as the potential mental health 'price' that stakeholders may be willing to pay to ensure the goal of protecting physical health.

Our aim has been broadly to understand to what extent mental health was indeed recognised as an issue by policy makers and how impacts on mental health were then considered when planning and implementing the policy response. We have also sought to understand what could be done to strengthen the mental health response when faced with any future pandemic or other major public health emergency.

2. METHODOLOGY

2.1. OVERVIEW

To achieve its aims, WP3 is carrying out a mixed-methods study, comprising a qualitative study and a discrete choice experiment. Both methods involve either interviews or surveys with national and local policymakers, public health experts and practitioners in different sectors of society that have had to react to and/or implement public health and other measures to protect the population against COVID. In the following sections we describe the methods that we have used.

2.2. STAKEHOLDER INTERVIEWS AND DOCUMENTARY ANALYSIS

Our qualitative analysis at its core has in-depth interviews with a range of stakeholders including selected public health and mental health policymakers, scientific advisors, worker and industry representatives from health and long-term care frontline workers and organisations representing vulnerable populations will be carried out. These interviews investigate the salience of mental issues, the beliefs held by stakeholders and describe how and when their interactions have affected the way mental health and wellbeing issues were taken on board during the COVID pandemic.

Our analysis also makes use of a theoretical approach known as the Advocacy Coalition Framework" (ACF) [3] which "was developed to provide a causal theory of the policy process" [4]. In summary, the ACF states that any policymaking process is a function of the "interaction of actors from different institutions who follow, and seek to influence, governmental decision[s] in a policy area" [4], and that such different actors, in the decision-making struggle, will defend/advocate for different beliefs, value priorities and ideologies. Therefore, our main goal in the qualitative study is to capture stakeholders' perspectives on the attention given to mental health in pandemic-related decision-making, particularly trying to understand the role of stakeholders' ideologies, world views, beliefs and interests played in the decision-making processes.

We have used a variety of mechanisms to identify potential individuals to be interviewed. An online survey using Qualtrics has been circulated to RESPOND partners requesting suggestions on specific individual stakeholders, as well as specific functions, e.g. key health system or education officials, that we might approach to be interviewed. In addition, we have used our own resources to identify stakeholders in different countries. A snowballing approach has also been used; potential interviewees have been asked for their suggested alternative interviewees if not available, and during the interviews they are also opportunities for participants to suggest additional interviewees. We have sought to identify a range of different interviewees, approaching key health policy makers (including elected politicians) and senior civil servants in national and local administrations, public health, social care, housing and education planners, scientific advisory group members, representatives of professional associations (e.g. teachers, nurses) and media representatives. We are interviewing between 5 and 10 stakeholders in each RESPOND country, although in some countries, notably the UK, where pandemic policy has been different across the four individual nations, the number of interviewees may be higher.

It is important to ensure that our qualitative methods are appropriate in order to maximise the richness of data that we are collecting. Therefore, to assess the appropriateness of our topic guide, we first carried out a pilot study in in which we interviewed stakeholders in Belgium and the United Kingdom. In Belgium 15 Belgian policy stakeholders were contacted in February, March, and April 2022. Five agreed to be interviewed in April and May 2022. Participants included two policy advisors, working for Belgian scientific expert committees at the federal level, one scientific crisis manager working for a scientific public health institute led by the federal Ministry of Health, one Walloon policymaker, and one policymaker working for a Walloon public health agency. Interviews were semi-structured and lasted for approximately one hour each. One was held in person and four interviews were held online via Teams, depending on the preferences and availabilities of the participants. Three interviews were held in French and two interviews were held in English. In the UK, we have invited 17 policymakers at national land regional level (across all four countries, of which 7 are being interviewed, all online via Teams). These include the leader of local government authority, senior public health official responsible for planning the COVID response at regional level, as well as the members of national advisory COVID committees and a senior health system official.

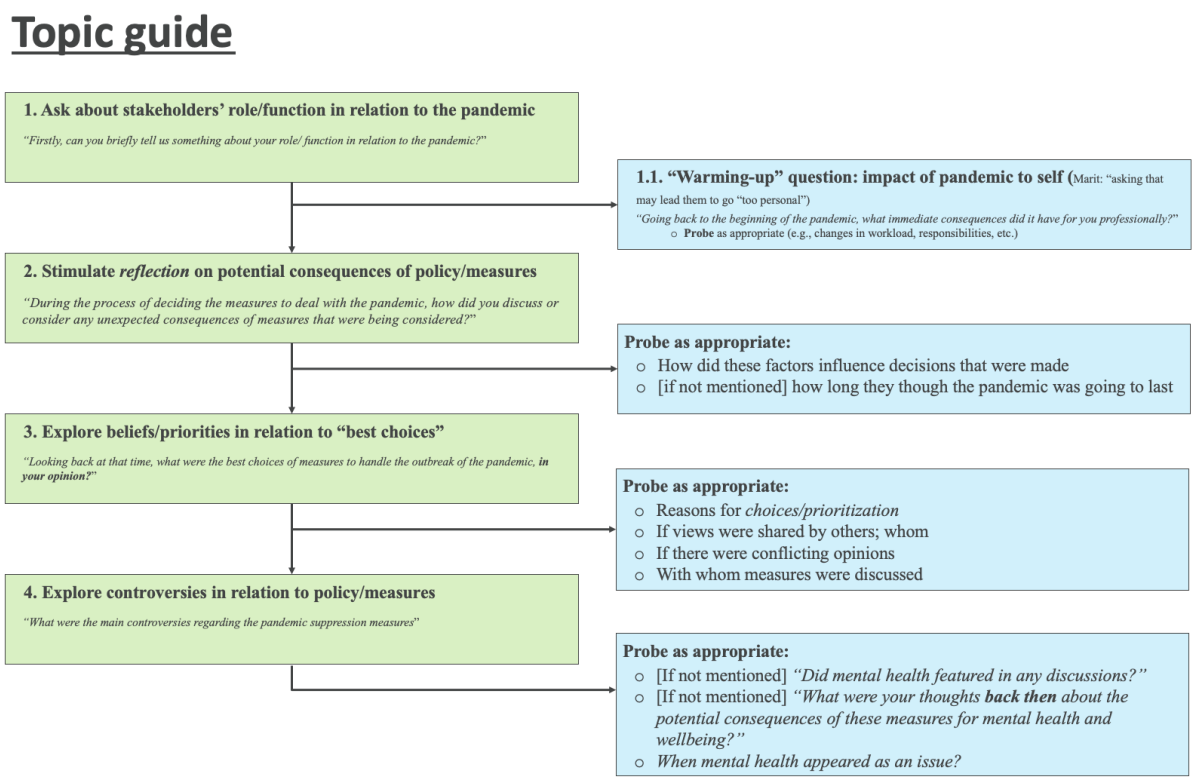
Our in-depth semi-structed interviews are based on a topic guide which we have developed. This is designed to stimulate participants to recollect their participation in the decision-making struggle at the beginning and/or other critical moments of the COVID-19 pandemic. Figure 1 sets out the topic guide aims. These are: (i) to ask about stakeholders' role/functions in relation to the pandemic; (ii) stimulate stakeholders' reflections on potential consequences of policy/measures; (iii) explore beliefs/priorities in relation to *best choices*; and (iv) explore controversies in relation to policy/measures.

All interviews (subject to interviewee consent) take place on Microsoft Teams (or potentially face to face if preferred) and are audio-recorded and transcribed. Transcription was first automated using the Microsoft Office 365 Word Transcription feature, and edited a-posteriori by a researcher to ensure accuracy. Interviews take place either in a local language or in English, depending on the language skills of the interviewer and interviewee. Ethical approval for interviews has been granted by both the London School of Economics and Political Science and the Université catholique de Louvain (UCLouvain). Interviews are intended to be up to 30 minutes in length although can go on longer if agreed to by participants.

A modified version of a six-step reflexive thematic analysis approach [5], informed by the Advocacy Coalition Framework approach to the policy making process, has been adopted. To ensure familiarity with data, interviews, transcribed verbatim, are being carefully read and re-read by two members of the WP3 team. This includes going through small batches of transcripts iteratively, and noting words that are representative of key concepts expressed by participants; these words are then be clustered to create codes. We have not sought to agree any initial codes but instead discuss our reasoning for clustering words. All initial codes could subsequently be used when coding transcripts.

We are doing this in an iterative manner; after each batch of transcripts is prepared we meet to discuss any additional codes put forward, as well as themes (and sub-themes). We will revisit transcripts as part of this process. Themes and sub-themes are being iteratively revised to ensure that they were genuinely reflective of interviews [6]. To help ensure credibility of study findings and support our analysis, we are also making use of triangulation when analysing and interpreting interviews, drawing on policy documentation, parliamentary reports and inquiries and public interviews given by relevant stakeholders to media related to mental health issues across RESPOND countries.

Figure1 : Stakeholder interview qualitative guide



2.3. DISCRETE CHOICE EXPERIMENT

In addition to this qualitative stakeholder analysis, we have also undertaken a quantitative analysis using a large-scale online survey. We now set out the approach we are using to implement our discrete choice experiment. Before setting out the methodological approach that is being used, we firstly and briefly set out our justification for making use of discrete choice experiments.

2.3.1. WHY USE DISCRETE CHOICE EXPERIMENTS?

We undertook a rapid scoping literature review; this indicated that discrete choice experiments can be a useful way to assess preferences and trade-offs in policy making choices, including those during the pandemic. Several studies have already been conducted in this regard, confirming that segments of the population have certain preferences regarding policies. (For more detailed information on these studies, see Table in Appendix 1.) These population preferences are important, as they help indicate to what degree individuals are likely to accept and follow policies [7].These preferences can vary across countries. For example, in the UK, using an online panel of more than 4,000 adults' preferences for and trade-offs between, type of lockdown restrictions, length of lockdown, postponement of routine healthcare, excess deaths, impact on the ability to buy things and unemployment were considered [8]. The study found that members of the general public were willing to have a higher excess death rate if this as accompanied by more time limited and less restrictive pandemic suppression measures.

Another discrete choice analysis demonstrated that the German adult population particularly considered the economic effects of lockdown measures, especially individual income decrease, as well as excess mortality rates and personal risk

of infection [7]. The length of restrictions, in particular, made a difference, with short-term restrictions preferable to longer-term restrictions; impacts on income were also of great importance, with respondents more willing to have an increased risk of contracting COVID if this meant that there would be less risk of a loss of income. This for instance, may imply, that policymakers need to invest in strong social welfare protection measures in order to help maintain public support for pandemic suppression measures.

A discrete choice experiment in Australia, where periods of lockdown in some Australian cities continued into 2022, found the public were overall in favour of measures that helped avoid Covid-related deaths, though they also favoured both lower unemployment rates and government spending [9]. The study also identified two distinct groups in the population, one that preferred the economy to remain open with some control measures, and the other for whom policies that reduced the risk of death were paramount. In the Netherlands a discrete choice experiment, involving more than 1,000 adults from an existing online panel, conducted as part of the EU funded INSPIRE project, also explored various trade-offs. Amongst its findings it noted that individuals were willing to sacrifice 15 new cases of chronic mental health problems for each fatality avoided [10]. It also noted that older people were reticent to sacrifice educational opportunities for the young even if this would reduce their risk of fatality.

Outside Europe these studies can also be found. For example the preferences of different groups of stakeholders, including Indian health workers, social workers, and academics, and citizens were explored at the beginning of the pandemic in April 2020 [11]. The study indicated slight differences between stakeholder groups, as well as between stakeholders and citizens overall. Generally, however, participants indicated preferences for availability of manpower, ventilators, and personal protective equipment in hospitals; controlling prices and ensuring delivery/availability of foods, medicines, and other essential items; social distancing, and lockdown measures (ibid.) Nevertheless, this study did not include the preferences of other crucial policy stakeholders, such as policymakers, experts, or media representatives.

Now two years into the pandemic, more evidence is becoming available regarding policies and their impact on the general population, particularly with regards to mental health. It has become increasingly apparent that several policies have strong, lasting effects on population wellbeing, leading to increased levels of stress, anxiety, and depressive symptoms. Consequently, this study aims to analyse policy stakeholders' and the general populations' preferences in terms of physical, and mental health, freedom, and economic growth, in a future pandemic like the Covid-19 pandemic, and in particular the trade-offs stakeholders and the general population would be willing to make when it comes to mental health. Furthermore, this study aims to analyse differences in attribute preferences between policy stakeholders and the general population, as well as determine how sociodemographic factors and political preferences may relate to these preferences.

2.3.2. DISCRETE CHOICE METHODOLOGY

Having noted the value of discrete choice experiments we set out the methodology used. We applied a discrete choice experiment using a conjoint analysis framework. This framework contains a number of different elements, including the decision-maker perspective, the specific decision framework, the attributes of the decisions, the levels of each attribute and the choice design. Here we define the perspective of a policymaker that has to vote for a plan to manage the pandemic. The full survey questionnaire is available in Appendix 2.

The question asked was "*Put yourself in the shoes of a policymaker voting for a plan to tackle a pandemic similar to the Covid-19 pandemic. Each plan varies on five criteria. We are going to propose to you eight alternatives and for every alternative you must vote as to whether Plan A or Plan B better suits your preference*. "

Five attributes we retained on the basis of the previous DCE studies identified. We aimed at covering physical health, the economy, mental health, freedom and social relationships. On the basis of the literature and our qualitative data, we chose five specific criteria, all with three levels with the exception of restrictions on social contacts:

- *Criteria 1. Weekly new covid-19 hospital admissions per 100.000 inhabitants: 1-low, 7-moderate, 14-severe.*
- *Criteria 2. Active population losing their job (%): 5%, 10%, 20%*
- *Criteria 3. Restriction of non-essential activities: no restriction, some restriction, complete restriction.*
- *Criteria 4. Restrictions on social contacts: no restriction, some restriction.*
- *Criteria 5. Increase in psychological distress in the general population: 10%, 25%, 50%*

We aimed at achieving what is known as "*D-efficiency*", a metric which can be simply thought of as a way of documenting the quality of a conjoint analysis design, by providing each respondent with eight alternatives, each with two plans. We added a ninth alternative in which plan B dominated plan A on three criteria and was similar to plan A on two others. This dominant scenario helps to assess how well respondents are understanding and providing logical responses to the evaluation. To increase D-efficiency we created two different blocks of eight alternatives. Each of these blocks was then duplicated to have two different version of our fifth criteria: "increase of psychological distress in the general population" vs "increase of psychological distress in the younger age group". One example of an alternative is given in Figure 2

Figure 2: Example of alternative decision choice

*Please vote for Plan A or Plan B for the **first** alternative..*

	Plan A	Plan B
Weekly new covid-19 hospital admissions per 100.000 inhabitants	1	7
Active population losing their job (%)	10	20
Restriction of non-essential activities	Some restrictions	Complete restrictions
Restrictions on social contacts	Some restrictions	No restrictions
Increase in psychological distress in the general population	50	10

Plan A ○ Plan B ○

The survey was designed and implemented using Qualtrics. It was then tested with 200 volunteers crowdsourced the "Amazon Mechanical Turk" online platform. Each participant was paid 4€ to complete the survey, which lasted on average 12 minutes.

3. RESULTS: STAKEHOLDER INTERVIEWS AND DOCUMENTARY ANALYSES

3.1. BACKGROUND

The Covid-19 pandemic, which was declared an international health crisis by the WHO on 11 March 2020, can be described as an unprecedented crisis, which impacts all aspects of society [12]. Policymakers worldwide faced the challenging task to balance population health, freedom, wellbeing, as well as ensuring that the economy stays intact. Strong suppression measures, including lockdowns, restrictions on gatherings, closures of schools and non-essential shops and activities, working from home measures, mask mandates, and travel bans, to name a few, were taken in order

to suppress the spread of the virus. In March 2022, two years after the pandemic started in Europe, the majority of EU countries are slowly witnessing a relaxation of suppression measures [13].

In the section of the report we focus on the themes that have emerged from stakeholder interviews, looking at the impact of the pandemic and pandemic response on mental health. We focus here on interviews conducted in Belgium and the UK where in depth narrative analyses have been conducted as part of pilot analyses. Later we will also supplement this work with clustered thematic analyses across all RESPOND countries where interviews take place. However, as we will show in this section our analyses already provide evidence of common challenges and the relatively low level of attention paid to mental health, particularly early in the COVID-19 pandemic.

3.1.1. AN UPDATE ON LEVEL OF POLICY RESTRICTIONS IN RESPOND COUNTRIES

Before looking at the results, it may be helpful to provide some brief update on the level of restrictions in RESPOND countries until 2022. When looking specifically at Belgium, the Covid-19 pandemic was marked by periods of high death to population ratios, and high case-fatality ratio, and relatively strict measures, particularly in spring and fall of 2020, and spring and winter of the following year [13, 14]. However, according to the OGRT (2022), which calculates a Containment and Health Index based on thirteen distinct containment and health policies* to assess the daily stringency of Covid-19 suppression and health measures, Belgium is classified as one of the more lenient countries, particularly in comparison to nations such as France, Italy, or Germany, which were considered relatively stricter [13]. Furthermore, it is worth mentioning that Belgium's pandemic crisis management has been complex and somewhat inefficient, mainly due to its federal structure, including three regions and three linguistic communities, in which competencies are often un-hierarchical and shared between the federal state and the respective regions [14-16].

Likewise, policy advice was also considered unstable, with expert committees often being dismantled, replaced, expanded, and/or downgraded [12]. Scholars of the University of Antwerp furthermore criticised the heavily medical approach to the Belgian pandemic management, in which mainly virologists and microbiologists were asked their thoughts and opinions on policies and other pandemic-related matters (ibid.). Moreover, criticism by famous virologists and the like on social media and in print media regarding a "wait-and-see" policy approach was made, which led to tensions between policymakers and experts, and additionally sent mixed messages to the population [12]. A change in the federal Government in the first year of the pandemic, widespread floods, growing levels of inflation, and the Ukrainian refugee crisis furthermore complicated the management of the pandemic.

The UK also has seen its management of the much-reduced pandemic in 2022 complicated by the wider economic crisis and geo-political tensions. The UK has had one of the most stringent responses to the pandemic, looking at policy stringency, we can take education as an example. In the UK for an initial six months schools were closed from March 2020 in England, and then again between December and March 2021. At this stage all primary schools reopened and secondary began a phased reopening. By 2022 the situation was much improved. Schools have started to increasingly open in all RESPOND countries. While Italy still required school closures in some of its regions until end of April, all other RESPOND countries had 'recommended' school closures from the start of the year under specific narrow circumstances. The Netherlands was the first of the eight RESPOND countries to end all school closures from mid-January onwards, followed

* * school closures; workplace closures; cancellation of public events; restrictions on public gatherings; closures of public transport; stay-at-home requirements; public information campaigns; restrictions on internal movements; international travel controls; testing policy; extent of contact tracing; face coverings; and vaccine policy.

by Sweden in mid-February. Belgium followed shortly after in mid-March, as well as France towards the end of March. Spain dropped all measures at the end of April, as did Germany shortly afterwards.

Social protection measures to support workers who had to stay at home in the UK were in place until October 2021. Workplace closures were still mandatory for some businesses in all RESPOND countries, except Sweden, where it was only 'recommended' at the beginning of 2022 until the end of January, when Germany also went towards 'recommended'. In some Italian regions, workplace restrictions became required again for everyone except key workers from end of January until the beginning of April. The Netherlands dropped all measures from the beginning of March, followed by the UK at the end of April, and Germany at the end of May. France and Belgium never dropped all measures, and neither did Spain.

At the beginning of 2022, all RESPOND countries except for the UK and Germany still banned international travel to high-risk regions. The UK and Germany were more lenient, allowing travel as long as it was followed by quarantine. Italy was the next to follow, in March 2022, allowing travel everywhere if travellers quarantined afterwards. Spain changed into a 'screening' phase at the beginning of April, where individuals were allowed to travel everywhere as long as they were tested upon return, as did Germany towards the end of April. The UK dropped all measures from mid-March onwards, as did Sweden at the beginning of April. Some regions in Belgium, France, and the Netherlands still ban travel to high-risk regions to this day, at the end of May 2022.

Finally, when looking at restrictions on gatherings at the beginning of 2022, the UK allowed gatherings between 10 and 100 people until the end of February, when all measures dropped. Belgium allowed gatherings between 10-100 people and dropped all measures towards mid-March. France and Italy had very light restrictions, allowing gatherings with over 1000 people. France however became stricter again from the end of January until March, where all restrictions were finally dropped. Italy dropped all restrictions from end of April. Germany was very strict, only allowing to meet 10 people or less until beginning of April, when all restrictions on gatherings were dropped, too. The Netherlands was stricter at first, only allowing very small gatherings until mid-February, when all measures were dropped, as well. This means it was the first country to drop all measures of the RESPOND countries. Similarly, Spain only allowed gatherings with 10 people or less until mid-March, when it then allowed bigger gatherings involving 10 to 100 people, which is the measure that stayed to this day in some of its regions, meaning it can be regarded as the strictest country, having never dropped all restrictions on gatherings. Interestingly, Sweden made more policy changes in this regard, only allowing very small gatherings until beginning of February, where it then switched to somewhat larger gatherings including 10-100 people, before dropping all measures at the end of February.

3.1.2. POLICY STRINGENCY AND MENTAL HEALTH

Regarding mental health, according to a recently updated systematic review on the impacts of the pandemic on Belgian population mental health, based on both quantitative (longitudinal and cross-sectional data) and qualitative studies made by the Belgian Mental Health Data Repository, a group of policy advisors led by leading Belgian scholars, the pandemic overall has had negative impacts on Belgian population wellbeing, with fluctuations in periods of deconfinement, or anticipated deconfinement [17]. Yet, these scholars also stress that "*no general collapse of mental health has been observed*", though some population groups will be more susceptible to develop mental health problems, such as young people, women, parents, individuals with a small living space, those that are (temporarily) unemployed, health care workers, those with pre-existing mental health issues, and those who lack (perceived) social support and/or meaningful activities (ibid.). Importantly, there is a multiplier effect, meaning that individuals indicating several of these factors will be more prone to develop mental ill health (ibid.).

Analysis in the UK has also pointed to enduring adverse impacts on the pandemic on mental health and explicitly made links with the stringency of pandemic suppression measures. Recent analysis in the UK compared differences in the

duration of lockdown measures in England and Scotland and their association with mental health [18]. Using a 'difference in difference' methods approach the study indicating that more rapid easing of lockdowns was associated with improvements in mental health, measured using the GHQ-12. This was equivalent to a 31% improvement in mental health status following the end of lockdown measures. The study also found that individuals with lower socioeconomic status in terms of education or financial situation benefited more from the end of the strict lockdown, whereas they experienced a larger decline in mental health where the lockdown was extended. More recently, longitudinal analysis across 15 countries, including several RESPOND countries, looking at policy stringency and mental health has found that more stringent policies were associated with poorer mental health [19].

Literature on the role of mental health in both Belgium and the UK during the management of the pandemic, and in particular with regards to Covid-19 suppression measures, remains unclear. A predominantly medical approach focus ed on infection control appeared to be dominant [12]. Therefore, this pilot study aimed to qualitatively assess whether and how mental health was considered during the pandemic through interviews with prominent policy stakeholders in both countries. Furthermore, the study aimed to test the topic guide, which will be used for the larger qualitative stakeholder analysis in the other RESPOND partner countries.

3.2. ILLUSTRATIVE ANALYSIS: BELGIAN STAKEHOLDERS

3.2.1. GENERAL CONTEXT

Overall, the Covid-19 pandemic in Belgium was felt as an unprecedented, stressful, urgent situation by all five stakeholders. Policymakers, as well as scientific advisors, reported an immense pressure on their shoulders:

> *"I mean, a lot of pressure, I think on yeah, from policymakers on the scientists to provide a bit more policy advice (…) But it has been really, really difficult actually. And I think one of the reasons why policymakers, I think, asked this, is because, of course, I mean, so much was unknown, so it's nobody's… Nobody knew what to do, I think. And so I think policymakers, politicians were also sometimes very much unsure about what should be the best practice, the best policy, etc. That's why they were relying so much also on scientists. Scientists who also had to deal with lots of uncertainty, of course, so I mean, especially in the beginning. (…) But it was a grey zone sometimes because the pressure was also on the content, but also time pressure and sometimes things had to go very, very fast."* (Stakeholder 4).

> *"During the first wave, we worked 82 days, day and night, nonstop."* (Stakeholder 3).

All stakeholders spoke of new unknown tasks, new responsibilities, as well as confusion in responsibilities between scientific committees and federal versus regional entities:

> *"The management of additional workforce, the management of staff being absent… Everything, everything, everything had to be discussed."* (Stakeholder 3).

> *"(…) those were all tasks we had never done before. (…) We really had to innovate with regards to the management of the crisis."* (Stakeholder 5).

> *"(…) and the GEMS (scientific expert committee) appeared, we see loads of new structures appear that were not defined previously, and that did not exist previously. (…) There was competition between (5 different expert committees). It was of an unprecedented complexity. (…) There were 36,000 calls in all directions, with tensions. We've never known this before."* (Stakeholder 5)

The complexity of the Belgian federal structure was also mentioned by all stakeholders. This significantly hampered decision-making, led to confusion and frustrations.

> *"But honestly, it's the eternal problem with this institutionalised country, with its (federal) lasagnes, which does not allow to utilise all resources as we'd wish at the right time."* (Stakeholder 5).

> *"But also considering this very complex health care structure in Belgium, we did a fairly good job, so that's maybe something to add, because it really doesn't help, this division of responsibilities and tasks and who is doing what? And, uh, it was completely, but very completely unclear. Who was responsible for which decision? (…) But it was a continuous battle and struggle and discussions to see, who will do this? Who is this? Who will decide about this and that… I think it didn't help in efficient crisis management, uh, decision making. I think we lost a lot of time. (…) I mean it's, if we take a handbook of crisis management, in terms of communication, decision making, et cetera et cetera, and you would put Belgium as an example, it would be mentioned as a very bad example on how not to deal with crises, I think."* (Stakeholder 4).

3.2.2. MENTAL HEALTH: POLICYMAKER PERSPECTIVES

There was a general difference in how mental health was understood between policymakers and scientific advisors. Policymakers mentioned that mental health was taken into consideration from the start of the pandemic. They stated that they provided financial means to the mental health sector. A large budget was supposedly made available, and the organisation of the sector, though time-consuming and intensive, was considered as having gone smoothly.

> *"Yes, yes, yes, it was taken into consideration from the start. And yes, even more than what is financed, which is already a big budget in Wallonia, in the first governmental note I believe, but on the first 110 113000000 euros, 10 were for mental health. (…) So yes, mental health was considered and it was considered during the whole process, we worked on the prevention of suicides, very, very quickly during the first wave…"* (Stakeholder 3).

> *"We actually took care of it (the mental health sector) from the start, we were the first to add budget to the mental health sector. I believe the federal came saying, "ah, what have you done for mental health?", and it was already all running smoothly on the ground."* (Stakeholder 5).

Other than financial means, policymakers would listen to individuals working in the mental health sector to understand what was needed on the ground. Policymakers would then mainly help out financially by investing in pilot projects, or providing a budget for protective equipment, new staff and staff training, etc. They also provided platforms in order to ensure different organisations could exchange practices and help each other.

Policymakers felt that they largely achieved their role in providing mental health support for the population, namely because they felt they did what was possible from the start. Ultimately dealing with (mental) health remained, according to some, an individual task in which policymakers were not able to help.

> *"This means that physical and mental health, it depends on the context of course, but it largely depends on the person, on their will to face their own needs to stay in good health. (…) Politicians give support, they give opportunities, they give means. It's not the politician who will stand behind each citizen, saying, you need to do this, you need to do that, etc."* (Stakeholder 5).

The two policymakers seemed somewhat irritated by some of the criticism on policymakers, both comparing the Covid-19 pandemic to other crises, arguing how much had been done in terms of help and assistance to the population. One policymaker repeatedly said, "*if you only knew what's been done…".* Another policymaker talked about a problem of

resilience, meaning that the population was no longer sufficiently resistant to everyday issues, and that work had to be done at an individual level to surpass certain problems by understanding that they were in fact not that bad.

> *"You have to be able to say, it's nothing, it'll be better tomorrow. (…) This comes back to collective versus individual resilience. (…) And honestly, we weren't in such bad conditions, either. I mean, I don't know, but in Ukraine, people in Odessa, I'd like us to put things in perspective. Sometimes we have people who have ideas of the rich. So the politicians try to respond, to compensate, but the politicians don't dare say, hey, guys, it's not ok, you also have to… Stop kidding. And by the way, the carelessness of the population with regards to people in the health care sector, is very telling in this regard, very egotistical. We have a very egotistical society and very focused on themselves."* (Stakeholder 5).

It was largely agreed that policymakers were more eager to relax suppression measures as time went on. Mental health was consequently occasionally used as reasoning to relax suppression measures, even if there were potential ulterior motives.

> *"As soon as we could reopen, relax measures… The very moment itself, we did it."* (Stakeholder 3).

> *"Politicians need arguments. And so all of a sudden, a certain number of politicians that have never in their career been preoccupied by mental health, started saying, one by one, we absolutely need to reopen cafes for mental health, for this and that, even though it had never been an issue they were particularly interested in beforehand. It had become like a sort of argument to defend certain political visions, but in return, it means this question was put onto the table, has been discussed on national news, and all of a sudden the issue was put into light, and all of a sudden, we could no longer ignore it."* (Stakeholder 2).

3.2.3. MENTAL HEALTH: SCIENTIFIC ADVISORS' PERSPECTIVE

Scientific advisors, on the other hand, mainly reported on the policy advice they observed or had given in relation to mental health. Generally speaking, it was mentioned that the longer the pandemic endured, the more mental health was brought to the table at the scientific level.

> *"(…) so I believe, indeed, with time, when the lockdown became longer, it became more and more clear by what people were saying on the ground, that there was a problem and that it was something to be taken into consideration more explicitly. So, I believe, politicians had a change of mind with regards to this. And I believe you can see this with the GEMS (scientific committee), where a number of psychologists entered to be able to bring this aspect into the discussions."* (Stakeholder 2).

> *"I think, I think with… After the 1st and 2nd wave, I think there was more, uh, awareness of the need to take into account other elements. I, well, know (a stakeholder) from the GEMS, and I think the GEMS was again this multidisciplinary thing. So (a scientific committee at the beginning) was really very very much epidemiology focused."* (Stakeholder 4).

However, a general lack of indicators with regards to population mental health was considered an issue when it came to providing scientific evidence that could be translated into policy. Stakeholders felt unable to measure mental health accurately, with there apparently being no accurate and regular quantitative data on population mental health available. One stakeholder mentioned that if there were no numbers available, to policymakers, this meant that the problem was not there.

> *"There really is this difficulty to measure the phenomenon and when you cannot measure the phenomenon, to the politicians, the phenomenon "does not exist"."* (Stakeholder 2).

> *"I think its, I mean, people look at numbers, that's yeah, unfortunately, they look at budgets, numbers, hospitalisations, and that's what speaks to them, I think. But mental health is a very invisible thing."* (Stakeholder 4).

> *"And so, uh, those who say that mental health has been neglected. I think a lot of that is due to this problem: how do you measure mental health?"* (Stakeholder 1).

Another stakeholder argued that it was impossible to compare physical and mental health because they did not use the same measurements. Nonetheless, two stakeholders mentioned a general sympathy and awareness towards mental health awareness in the scientific committees, both naming one particular stakeholder who supposedly advocated for minority groups, those of a low socio-economic status and young people in particular.

> *"She was always pushing, and rightly so. The fact that there are already people who are very fragile, uh, for example, uh, who are, uh, illegal or whatever, or live in the street and so on. And so an additional shock for them can be a disaster. So let's try and help them and so on."* (Stakeholder 1).

3.2.4. MENTAL VERSUS PHYSICAL HEALTH DURING THE COVID-19 PANDEMIC

Furthermore, some stakeholders spoke about how the pandemic being a 'health problem' was still largely dealt with by 'health people,' and that this may be due to historical factors, where traditionally pandemics were managed on an epidemiological level.

> *"Uh, when you talk in evaluating the severity of the crisis, there is nothing that does follow up mental health, and the only thing there is, is these… (…) I think in saying we are in level 1,2,3 because that's still very, very much only considering how the health system is dealing with it. (…) And so the seven indicators, they're available everywhere. These seven indicators, it's first line, it's second line, it's positivity rate, but it's nothing else."* (Stakeholder 4).

> *"Again, if you look at the people managing these crises and at the level of the ministry, the SPF, et cetera. Uh, it's all scientists or crisis managers, it's doctors, it's nurses, it's lab people… When it really comes to deciding platforms, and I'm not talking about scientific platforms here, I think mental psychologists there are represented. But the really decisional levels, there is no single as far as I know, maybe I'm… I mean, I don't know all the diplomas of these people, but as far as I know, there is no mental health person at any high level, I think. (…) But really, when you talk about this Covid as a purely health crisis, is very much arranged by the typical health people, doctors, nurses, etc. And I don't know where psychologists are, actually. (…) Where are they? And and maybe again, because, again, it's historical, I think. Again, I mean, we cannot blame people because I think historically, health crises are managed by health people."* (Stakeholder 4).

This was also highlighted by the fact that stakeholders, and particularly policymakers, were generally afraid of the high infectious reproduction rate of the virus, and particularly of the fact that the health system could be overloaded. A general fear of too many deaths was also present, especially at the start of the pandemic. Stakeholders mentioned the deaths everyone saw on TV, and overcrowded hospitals, in China and Italy, and that stakeholders largely acted in this regard, namely out of fear, wanting to protect the population.

> *"Politicians were afraid, that is for certain, and they saw themselves, well, we've already had this with this huge flu, where they made sure to have refrigerated lorries to put on the street, to have the dead bodies inside… I*

think that was the vision. We will have dead people everywhere. How will we deal with this? And overcrowded hospitals. How will we take care of people with a heart attack? I mean, it's the health care system, making sure it is upkept… So mental health, it's true, it's crucial, but between dying and responding to someone's physical distress… I think it's the same, when there is a suicidal patient, you will first heal their body. We will first take care of what needs to be taken care of, and then we will take care of their mental health. We won't do it the other way around, because otherwise they'll be dead." (Stakeholder 5).

"Because the thing is… It's dumb, but you see people dying on TV. It's a… I mean, the images. I mean the, the image of a hospital. Uh, first in Italy and then also I think in Belgium with people dying, hospitals being overloaded in New York. (…) It's a very handsy visually, it's a very strong image and so I think also in the beginning, I mean people, everybody, I guess with time everybody knows somebody or knew somebody who got Covid and was hospitalised. Or maybe died. So that's a very strong element, and that's something that people see and understand. But mental health that's completely. Well, should not be, but that's more difficult to see because people don't speak about it either, and so that's… It's, you don't see it. I mean, you cannot show an image of somebody who is depressed. I mean vision a depressed person, an image of a depressed person will always lose from an image of hospital with people in astronaut suits." (Stakeholder 4).

Scientific advisors also spoke of a 'tough love' approach in the scientific committees, meaning that they were generally more cautious in terms of relaxation measures.

"And if you want to be negative against the (scientific committee), you can call it the alarmist line. (…) We are not being accused of being too soft." (Stakeholder 1).

3.2.5. MENTAL HEALTH: A COMPLEX, MULTIFACETED ISSUE

Stakeholders additionally generally spoke of mental health as a larger issue, and that it was related to physical health, and the economy in particular. Some of them believed it as being too simplistic to argue that the suppression measures were bad for mental health, since the circulation of the virus would have been just as detrimental to mental health, for instance by harming the economy, or by harming individuals' physical health. However, many of them also understood that suppression measures such as lockdowns were difficult on mental health, particularly on those that were feeling lonely, isolated, or were in difficult home situations.

"I think economists have understood by now that there is not trade-off between health and the economy, because letting the virus go around will just mean that people will be fearful and they will not consume." (Stakeholder 1).

"It's something complete, it's a whole… And it's extremely difficult to say, yes, great, mental health, it's more important than the economy or physical freedom, or… It's extremely complicated." (Stakeholder 3).

"I think some people found themselves very isolated. And that's, that's very sad. We really had to be attentive." (Stakeholder 5).

"The perception of mental health being something very specialised actually often took away responsibility of other actors, by saying, mental health, that's not us, that's the health (ministry), they're dealing with mental health. While actually, when it comes to something as big as (the pandemic) that concerns the entire society, it's just not manageable. We put in tens and tens of millions at the Walloon level. The federal level put 200

million on the table for a reform of the psychologists of first line, to have more staff at the hospital, paediatric liaisons, anyway, it goes on. (…) But we won't make it if there is not another paradigm, and I'm not saying it's the responsibility of the health sector, but it's the responsibility of the society as a whole, to imagine that mental health concerns, on the one hand, everybody, and that it's also the responsibility of everybody: from the general manager of a business, who perhaps has a manager that puts 30 people into burnout or boreout, to the education sector and the kindergarten teacher that does early detection, who may also have a crucial role to play." (Stakeholder 3).

However, it was also reported by one stakeholder that the mental health sector was already considered overloaded, and financially unstable. In Wallonia, it is supposedly based on old decrees, which require revising.

"On the one hand, the current state… The status of the sector from before, so for example in the Walloon region, the sector had not been refinanced or at least had stayed at a… The texts had not been revised in over 10, maybe 12 years. The mental health sector, if you take mental health services, the decree, the last decree, which we are currently revising is from 2009. (…) So there were texts that were no longer, are no longer, up to date, and the sector was clearly missing financial means. So I took reinforcement measures, I'd say generally speaking, with regards to them. Financial measures." (Stakeholder 3).

3.2.6. MENTAL HEALTH: POPULATION GROUPS DURING THE COVID-19 PANDEMIC

Children and adolescents were a group, which were considered particularly protected by Belgian policy stakeholders when it came to mental health during the Covid-19 pandemic. Indeed, the effort of keeping schools open to protect children and adolescents was repeatedly mentioned. Stakeholders reported the importance schools had on child and adolescent mental health, especially in terms of socialising. One stakeholder mentioned that children's loss of education could not be compensated for financially, which is why this measure had to be taken, even though epidemiologically speaking, it was not the most sensible option. Two stakeholders also mentioned that it remained a controversial measure to keep the schools open, since some parents were afraid of virus circulation at the school, and also considering that these children could easily transmit the virus to more vulnerable individuals, particularly in their families.

"(…) because we know of course that school closures are bad for pupils. Uh, and you cannot say, OK, we'll give them some money to compensate them for lost education. That means that it makes sense to discriminate in favour of schools, even though schools are dangerous. (…) And then there is a well-organised group, the paediatric task force, uh, who have been pretty vocal in saying, look, you know we need to protect these poor children and so on. Not only should schools be open, but on top of this, no mask and no limitations to the extracurricular activities and so on. OK. And children indeed are at a lower risk for COVID. (Sarcastically) They typically have parents and grandparents on average, and, you know, you also have to take that into account. But it's fair to say you cannot indeed compensate them financially for not going to school. So in that sense it makes sense to keep schools more open than what the pure virologic analysis would imply. And Belgium has done that." (Stakeholder 1).

However, it was agreed that providing psychological help was not enough, particularly for certain groups of the population, where mental health was still stigmatised and largely a taboo.

"I'm not the first one to be saying it, providing a psychologist, is not enough." (Stakeholder 5).

> *"The "all psychologists (approach)", that won't work. To reach out to individuals living in precarious situations by staying in a psychologists' cabinet, that won't work because, for having been in the sector, I recently discussed this with a psychiatrist, there is also a conception of the population. I mean, to certain types of populations, you'll tell them, go see a psychologist, never will they go see a psychologist. Because the word psychologist, talking about yourself, and so on, it's stigmatising, it's still a taboo, and so on, for some."* (Stakeholder 3).

3.2.7. SUPPRESSION MEASURES: CONTROVERSIES

Some suppression measures were heavily debated, such as the Covid Safety Ticket [which could be requested for instance by the police and travel services], and vaccination policies (which included an extra ethics committee), to name a few. The closure of nursing homes was considered particularly problematic, and in hindsight stakeholders believe they took the wrong decision to isolate older people from their families and loved ones in order to protect their physical health.

> *"We created something bad for something good. We wanted to avoid deaths by avoiding contaminations, for people who may have died two months later, that is for sure. And by wanting to preserve their lives, we hindered them to have relations with their families, to have normal lives, and that is certainly one of the measures that is most difficult to stand behind."* (Stakeholder 5).

However, it was generally argued that stakeholders had done their best with what was made available to them. And while it was agreed that some did a better job than others, it was believed that overall, given the newness and urgency of the situation, things were dealt with all right, and more-importantly that people should not be blamed for their decisions.

> *"Then maybe at times the pregnancy was difficult, but the baby is not so bad. So the outcome of Belgium, we should not be ashamed."* (Stakeholder 1).

> "*So the crisis was really, really difficult and not to blame the politicians. I think it's also a crisis that was beyond any dimension, I mean nobody knew what to do and so it was not only the politicians. I think everybody was lost basically, so…"* (Stakeholder 4).

However, this was only the case for the beginning. One stakeholder mentioned that now that the pandemic has calmed down, certain measures should have been better thought out.

> *"There hasn't been a genuine bettering (of thinking about new, more detailed ways to deal with the pandemic) over time, and it's true that, personally, that is something I have criticised previously, because indeed there has been a certain laziness of the system, which always comes back to the same big methods."* (Stakeholder 2).

3.2.8. DISCUSSION

The interviews with Belgian stakeholders drew a detailed first picture of the complexity and difficulties both scientific advisors and policymakers had to face during the pandemic, particularly at the beginning. In line with the findings of Easton and colleagues [12], stakeholders initially appeared to have taken a life sciences approach to pandemic measures. However, policymakers seemed relatively happy with the way mental health care has been dealt with, as they have financed the mental health care sector, and provided psychological help to those who needed it. This begs the question of mental health care overall, if policymakers believe policies can influence mental health (during and beyond the pandemic), as well as the question of whether mental health is perceived as an individual versus a collective matter.

While one policymaker suggested that mental health care ultimately lay in the hands of the individuals, and that politicians' role was to provide means, another argued that not all responsibilities should lie within the hands of the Health Ministry, and instead, mental health care should be a societal responsibility. However, further interviews are needed at this stage to receive a more detailed picture on the matter. Further interviews can also explore the extent to which the promotion and protection of mental wellbeing was considered; this is a different concept to the provision of mental health care.

Scientific advisors mentioned an increasing awareness and advocacy for mental health in scientific committees over time. However, it was also suggested that while mental and social health were discussed in scientific committees, the number of psychologists and individuals working in the mental health sector remained scarce, both in scientific committees and particularly at the decision level. Ultimately, the pandemic seemed to be considered a 'health issue' and was therefore largely handled by 'health people', which goes in line with findings of Easton and colleagues [12]. The further perceived lack of recurring, up-to-date population mental health data seemed to have further added to the problem, since stakeholders wished to have clear numbers in order to grasp the extent of the problem and to be able to intervene in the best way. The fear of deaths, overcrowded hospitals, and an overloaded health care sector as a whole mainly drove the pandemic, particularly at the beginning. This fear for physical health grew with explicit images on TV; mental health being largely invisible, often still a taboo, as well as perceived as complex and multifaceted, making stakeholders feel like it was difficult to grasp it, and therefore indeed tackle it. It was also hinted at the fact that physical health during a pandemic is prioritised also because it is more important overall, though this was said more and less explicitly by stakeholders.

With time, however, public opinion switched to pandemic fatigue, with mental health being increasingly discussed in the media; mental health appeared to then have been turned into an argument for the relaxation of suppression measures and the re-opening of shops and businesses in particular from some policymakers' perspectives.

Finally, our findings are in line with the literature, which suggests that Belgian's federal structure added complexity to the crisis management. Stakeholders felt frustrated, since tasks and responsibilities were not clearly defined, new structures appeared regularly, adding to a tense environment, which was already struggling with enormous urgency and (time) pressures. Nevertheless, this was a factor was considered by the majority of stakeholders, arguing that everyone had worked hard and tried their best, given the newness and extreme complexity of the Covid-19 pandemic, and that consequently, overall, Belgium had not done such a bad job after all.

3.3. ILLUSTRATIVE ANALYSIS: UK STAKEHOLDERS

At the time of writing this report we have interviewed three high-ranked stakeholders for the pilot study who were directly responsible for leading local-level efforts to implement the country's response to the COVID-19 pandemic; These interviews have been triangulated and supplemented with perspectives provided by policy makers that are already in the public domain. Two of these stakeholders also had national roles as part of various groups developing the policy response to COVID-19 at a national (English) level of these stakeholders are in England. In this preliminary analysis, we will list and discuss some of the key themes that emerged from the interviews with stakeholders and other policy maker perspectives.

3.3.1. FIRST CONCERNS ABOUT THE PANDEMIC

The interviews suggest that the pandemic first began to appear on stakeholders' radars way before the first measures were taken:

> "*it was from early January or February [2020], [when] an awful lot of kids [were coming] back from skiing holidays where there had been cases declared*", (E1)

> "*…from late December 2019…it was clear that something was happening…it was clear that it was spreading through China*" (E3).

However, the interviews suggest, until clear guidelines came from the central government, that there were conflicting reactions at local level:

> *"[even before the national lockdown] we stood people to work remotely where we could, to minimise infection risk and we used technology [to set up] a seven-day a week, 24-hour helpline phone number*" (E1)

whereas another stakeholder expresses a great deal of uncertainty about the potential severity of SARS-COV-2 virus

> *"you will watch the WHO…you know that [at some point] there will be a big one [pandemic], [but question] is this the big one? Or possible not? Because we identify thousands of novel pathogens every year and think it is just a roulette"(E3)*

> *"certainly into February 2020 it was very apparent it was kind of spreading pretty widely in Europe, thus you know it is going to reach the country*" (E3).

3.3.2. PREPAREDNESS

Stakeholders mentioned the existence of contingency plans in case a pandemic happened, but they seem to believe that it did not work properly either because it was ill-fitted:

> "*the playbook we had was based on pandemic flu, which served us moderately well in terms of the broad structure and governance… but [because] this was a coronavirus [which] played out differently [because its] dynamics were very different…that means some of the playbook that we have just did not work*" (E3),

> "*we had underestimated the virus's ability to mutate and create variants and…we were too much on a flu model*" (E1)

> "*[at the beginning] nobody knew what COVID was or how best to respond to it*" (E2)

3.3.3. ATTENTION [NOT] GIVEN TO MENTAL HEALTH

Stakeholders seem to believe that little to no attention was given to mental health at the beginning of the pandemic because there was a strong focus on public health infection control:

> "*we went into an infectious disease control handbook, and the thing that mattered was the control of the spread of the disease or de suppression of the disease….. [so that] ….in the early stages so much of what was coming out from [national guidance] was around infection control"* (E3).

> "*there was no kind of real discussion around that kind of slightly broad impact mainly because everybody was so overwhelmed with the operational tasks in front of them [but] there was that kind of national rhetoric…recognising that, once this was all over, there would be big mental health kind of consequences of it, and that… [however] there was no real time or headspace for thinking that through, because there were just too many immediate day-to-day things that needed sorting out*" (E2).

A very visible indication perhaps of the limited attention given to mental health at the start of the pandemic was the lower priority given to personal protective equipment for staff working in mental health services compared to those working in general hospitals.

> "*And then there was the kind of the concerns around our staffing and what did we need to do to kind of protect our staff whilst also asking them to work with people who had COVID and at that point in time we didn't know the kind of real risks in relation to COVID too. We're also trying to protect staff, but at the same time ask them to nurse or provide medical interventions to people who were unwell with suspected COVID. So putting themselves at risk. You have to remember, in the first… in one of the first iterations of the infection control guidance from NHS England around the use of PPE mental health services weren't included in that, so they had to……there was a kind of political lobbying for mental health services to be included as part of the infection control and PPE guidelines that were coming up from NHS England*" (E2).

The longer term potential impacts for mental health perhaps understandably were not in the foreground, but there is a recognition now that this will have longer term consequences.

> "*And being brutally honest there wasn't a huge amount of thought given to adverse consequences [for mental health] of the measures that we implemented both locally and nationally and we will, you know, rue that at our leisure and that will have ramifications and consequences for many years to come*" (E3).

In part this was due, at least early on in the pandemic when testing, let alone vaccination was not available, on the uncertainties around the balance of risk between infection control and other impacts:

> "*There's two sides, and the counterfactual kind of does matter in this one as well, so it was always a balance between maximum suppression versus the consequence of suppression. Both, you know mental and emotional health, but also lost school lost learning, and that's going to have [an impact on] wellbeing and life chance and those health consequences for generations to come. And but ….both were in the mix but early on it was very much about suppression and the wider consequences are…..don't think from memory were as much in our minds as perhaps they ought to have been*" (E3)

Local areas also had to source their own information early on related to the potential impacts of the pandemic on mental health:

> "It was clear that there were much, much wider consequences unmeasured, possibly unmeasurable. We had to go on what we could glean from various sources of scientific literature. Who was publishing what at the time, and what we knew from frontline intelligence" (E3).

3.3.4. LEADERSHIP AND CONFLICT

A common complaint among interviewees was that the decision-making process was too centralised and:

> "*moved to a very top-down kind of position*…….[if] "*at the start of the pandemic it provided some structure and…gave direction, as the pandemic went on there was a lot of frustration that [local authority] could not get on to do the things [they thought were] needed*." (E2)

> "*there were quite a lot of tension [between] regional structures and [the] national structure [because national government] thought they could tell us what to do*" (E1).

> "*[regional and national structures should] work together [but] they [national structure] did not have the skills, the culture, or, will, they did not have the capacity [and] in many ways their attitude to working with people at local level was still quite arrogant top-down*" (E1)

There wea a perception at the beginning the central structures were poorly prepared to coordinate activities with local government structures that were responsible for public health. This was believed to be because

> "*national government did not have the faintest idea what local government did… [for example], they did not know what regional directors did and they did not have a mailing list [of those in charge regionally*]" (E1).

There seems to be among stakeholders a sense that:

> "*the national government…did not really take the pandemic preparation seriously*" (E1)

and that it, somehow, undermined the health system's ability to deal with it because

> *"They cut public health infrastructure locally and nationally to the point where it was weakened, and they did not have the culture of understanding that"* (E1).
>
> *"[The health system was] hopelessly under resourced in terms of boots on the ground and public health response because government spent decades cutting public health services and some very talented professional both within [national and local level]"* (E3).

3.3.5. CONSEQUENCES OF PANDEMIC AND POLICY DECISIONS TO MENTAL HEALTH

The stakeholders we have interviewed so far seem to believe that the pandemic will have had huge consequences for mental health and wellbeing, for example, it was stated that :

> *"[it was expected that] as the COVID storm passed, [there would be a] kind of tsunami of referrals and things like that" (E2).*

Interestingly, they seem to believe that structural issues and the way policy was implemented were even more detrimental to the mental health of the general population and frontline workers than the pandemic and the measures per se. One stakeholder for example, acknowledges that

> "*[in a health emergency] the first responders are usually the only responders [and will have to] deal with it"* (E3)

This stakeholder goes on to say that that:

> "*[if the system were not under resourced, there would have been] less of a detrimental impact on staff's wellbeing because they would not be working all of the hours [they had to]"* (E3)

Additionally, there seems to be a sense that many frontline workers did not get the support they needed to carry out their work properly and safely with one commenting of an

> "*almost reckless disregard for [care home workers'] health and safety [and that they felt traumatised because of] a moral injury of the [inadequate] PPE they were given*" (E1).

From a population-level point of view, participants seem to believe that the emphasis was too much on a biomedical approach to dealing with the pandemic and not looking at a public health perspective as well as considering socio-determinants of mental health.

> "*Too much of a biomedical model"…and "over reliance on infectious disease control*" (E1)

This also led to important failures in the communication strategy where both local policy makers as well as citizens were expected just to robotically accept whatever they were told from the centre

> "*it felt like [government] expected citizens to be passive instruments receptive to what [authorities] said rather than being active participants in combating the virus*" (E1).
>
> "*the sense of urgency sometimes overtook the need to take a step back, be reflexive and have a degree of humility… [this] actually tended to destabilise and cause more panic rather than less panic, and more grief rather than less grief*" (E1).

Participants seem to believe that, as expressed by one policymaker

> "*we could have done better by building on the social psychology of social cure [and] behavioural sciences…if one gets the measures right and the motivation right and the support right, and basically turning people into heroes and participants and doing something, they could come out of it actually with their mental health at least intact, if not necessarily strengthened*." (E1)

One stakeholder also did acknowledge that the development of large scale regularly updated surveys during the pandemic, such as the REACT study, helped them realise the extent to which there was unmet need for mental health support:

> "*Demand dropped [for mental health services] and of course what we then later kind of found out which was the REACT [study]. I suppose it was the kind of known quantity was it wasn't that people weren't unwell, they were just kind of simply containing themselves, and so once wave one starting to come through and we were starting to unlock gently, slowly, on certain things that's when we discovered loads and loads of people who've been at home. All were being kind of contained at home by families and who were absolutely, very, very unwell in that the level of acuity was incredibly high so that they needed to come into hospital.*" (E2)

3.3.6. DISCUSSION

Our initial interviews in the UK have been used to test the appropriateness of our topic guide and procedures to capture stakeholders' perspectives on COVID-related decision-making process and on the consequences on mental health of both the pandemic and the measures to deal with it. In summary, our topic guide helped interviewees recollect their experiences with the implementation of policy in crucial moments throughout the pandemic and to reflect on how mental health was – or was not – taken onboard in the decision-making process that led to the definition and implementation of measures to suppress the spread of the virus.

It seems that, even when some level of discussion about mental health happened, the absolute priority given to the suppression of infection in a "biomedical model", with "over reliance on infectious disease control" impeded that any further consideration was given to mental health. But it also must be recognised that there were huge pressures on the system and the immediate risk to life was given paramount importance.

A recurrent theme emerging from participants' interviews is that structural difficulties (e.g., "under-resourced public health systems") and the way measures were implemented and/or communicated to the public may have had a greater detrimental effect on mental health than the pandemic and the suppression measures themselves. Such perceptions are still to be confirmed with additional interviews with a broader range of stakeholders.

Based on this pilot study, a few adaptations in the topic guide should be suggested – mostly by modifying the initial question ("firstly, can you briefly tell us something about your role/function during the pandemic") to one that leads the interviewers less to their individual roles and more to their initial perceptions, expectations and uncertainties at the very beginning of the pandemic (e.g., "going back at the beginning of 2020, when did COVID 19 first came into your radar"). There is also a need potentially to put more emphasis on the effectiveness of any solutions that were put forward to address the mental health impacts of the pandemic.

That said, we have been triangulating the perspectives put forward in interviews with public comments and analysis of policy documents in the UK. The views of stakeholders in the UK (and indeed in Belgium) are echoed by other public comments from key stakeholders. Critically we can point to multiple sources from these documents that the view of interviewees that the impacts of the pandemic response on mental health were not given sufficient attention early on the pandemic.

Most notably perhaps this is a view shared by England's Chief Medical Officer Professor Sir Chris Whitty, the leading apolitical medical advisor to the Prime Minister and Ministerial Cabinet who speaking at the Royal College of Psychiatrists in 2021 stated that at the beginning of the pandemic that:

"*The mental health elements of the lockdowns and public anxiety were often underplayed*" [20]

He also acknowledged the long-term impacts for mental health that the pandemic will have stating that:

"*Something that is different is the chronic nature of this pandemic. This has gone on now for 18 months and will continue…….This has provided a significant challenge to the provision of mental health services, and a very significant sense of exacerbating factors for previous mental health conditions*." [20]

Our interviewees also indicated that attention being given to mental health as a result of the pandemic had increased over time, with increased use of mental health arguments used by some politicians and business leaders to advocate for the lifting of many suppression measures. This included the 'Covid Recovery Group, a group of Conservative Party backbench MPs who opposed many of the measures that the government wished to reintroduce to tackle the pandemic in its later waves. They also began to put some emphasis on the economic costs of the pandemic. Writing in a national newspaper the Daily Telegraph, the leader of this group Mark Harper, MP, argued that:

"*Covid is deadly but we must give equal regard to cancer, dementia, heart disease, suicide, mental health and to the health implications of falling GDP. We call on Government to publish a full cost-benefit analysis of restrictions on a regional basis*." [21]

The increased focus on mental health over time in the UK, has also led to some notable policy developments, including specific plans to address the mental health and wellbeing impacts of the pandemic. They include Scotland's Transition and Recovery Plan [22] and the strategy and the Mental Health and Wellbeing Recovery Plan published in England [23]. Elsewhere in Northern Ireland Health Minister Robin Swann established the creation of a Mental Health Support Fund in response to the impacts of the pandemic acknowledging that:

"*The COVID-19 pandemic, and the necessary restrictions which have been put in place to prevent its spread, have exacerbated mental health problems across Northern Ireland during these past two years. Too many people have been struggling with mental ill health as well as feelings of isolation and loneliness, and they've found it difficult to get the help and support they need*" [24].

3.4. COMPARISON ACROSS COUNTRIES

In summary, our topic guide helped interviewees in both countries recollect their experiences with the implementation of policy in crucial moments throughout the pandemic and to reflect on how mental health was – or was not – taken onboard in the decision-making process that led to the definition and implementation of measures to suppress the spread of the virus.

Both in Belgium and the UK, even when some level of discussion about mental health occurred, the absolute priority was given to the suppression of infection in a biomedical/life science approach, particularly at the beginning of the pandemic. The general urgency of the Covid-19 pandemic and how it influenced decision-making was also mentioned in both jurisdictions. In both countries, mental health rose in prominence over time, and was also used indirectly as an argument by groups seeking to speed up the reopening of the economy.

One recurrent theme in both countries was the toll that the pandemic has had on the mental health and wellbeing of policymakers and service planners, with respondents speaking of working non-stop for months at a time, and with little support in place for their own mental health. Another recurrent theme emerging from both Belgian and UK participants' interviews is that structural difficulties made decision-making difficult and overly complex. This is understandable, given the different federal/decentralised health and other system structures in both countries. Such perceptions are still to be confirmed with additional interviews with a broader range of stakeholders, particularly from other regions/countries.

3.5. STRENGTHS AND LIMITATIONS

This qualitative study has both strengths and limitations. Being a pilot study, it only included eight interviews to test the topic guide. This is a small sample size, meaning results are to be taken with care. Saturation of data has not yet been reached, which is why further interviews are scheduled for the summer of 2022 in both countries, and perhaps beyond, should more interviews be required. Furthermore, stakeholders from the Flemish part of the country, and the German-speaking community are currently still lacking in Belgium, and from Northern Ireland, Scotland and Wales in the UK. Therefore, the policymaker perspective is heavily based on scientific advisors' perception of the federal state level, and on Walloon policymakers' perceptions in Belgium and solely on the views of English policymakers in the UK.

One major strength of this study is that all stakeholders were high-profile and influential, both in terms of scientific advice and policymaking. Therefore, while the sample was small, these were elite stakeholders, meaning they had a good grasp and understanding of Covid-19 crisis management and decision-making. However, particularly in terms of policymakers in Belgium, it may be argued that they will not always openly share details in interviews, to protect political discretion. Additional interview data is required at this stage to further explore this matter. In the UK this is perhaps less of a concern, as there is a culture of policy makers and others comfortably expressing their views under 'Chatham House' principles where comments made will not be attributed to any single individual. Another strength of the study is that this being the piloting stage, we now received a more granular picture of the topic guide, giving us ideas on how to perfect it for future interviews, which will hopefully lead to high quality qualitative data both in Belgium, the UK and other RESPOND countries.

4. RESULTS: ANALYSIS OF DISCRETE CHOICE EXPERIMENT

As noted in Section 2 of this report, the DCE was designed using Qualtrics and tested on volunteers who were crowdsourced using Amazon's Mechanical Turk Platform. The aim was for 200 volunteers; in fact 202 were crowdsourced. It should be stressed that this provides a convenience rather than representative sample and is purely used to determine whether responses to our survey are logical. Table 4.1 describes the socio-demographics of these respondents. This convenience sample was mostly with resident from the USA, middle-aged, highly educated and owning their accommodation. Male respondents are slightly overrepresented in this sample compared to female respondents.

Table 4.1: Characteristics of crowd-sourced respondents used to test DCE design

	N	*%*
Country of residence		
Brazil	3	1.5
Bulgaria	1	0.5
India	4	2.0
Italy	2	1.0
Micronesia	1	0.5
United Kingdom	1	0.5
United States of America	190	94.1
Age Group		
16-24	11	5.4
25-44	149	73.8
45-64	38	18.8
65-74	4	2.0
Gender		
Male	118	58.4
Female	84	41.6
Education level		
Primary	4	2.0
Lower secondary	2	1.0
Higher secondary	33	16.3
University (first degree)	121	59.9
University (post-graduate)	41	20.3
Prefer not to say	1	0.5
Other characteristics		
Homeowner	145	71.8
Not Homeowner	57	28.2
Employed	186	92.1
Student	1	0.5
Unemployed	8	4.0
Retired	3	1.5
Other	4	2.0

We noted that the first section of the questionnaire proposed a series of nine alternatives differing on five criteria as explained above. Because this section is central to the survey but is also potentially cognitively demanding, we tested whether the DCE format was reliable. To do so we performed several analyses: first we asked the respondents how

difficult that section was and gave them an opportunity to provide a short feedback (validation analysis 1); then we checked whether the COVID management plans that had more unfavourable outcomes were less likely to be chosen (validation analysis 2); and finally we estimated the proportion of respondents who did a poor job, with high levels of irrational responses and short time spent completing the experiment to see how it affected the overall results (validation analysis 3).

4.1. ANALYSIS 1. EASE IN COMPLETING THE DCE.

Table 4.2: Ease in completing the DCE

How easy was the DCE ?	***% (n=202)***
Very easy	29.7
Rather easy	45.5
Rather difficult	23.8
Very difficult	1.0

Turning first to our analysis on the challenges in completing the DCE, we found that most respondents (75%) stated that the DCE was easy or rather easy to complete with only 25% finding the task more difficult. However, the ease of difficulty may not reflect the criteria themselves but rather the alternatives proposed. As we asked for comments about the DCE, some respondents acknowledged some choices were difficult to make and they had to balance criteria, which is the aim of DCE. For instance, some respondents found it difficult to balance some factors and some took care to explain their reasoning.

> "*However, I generally thought that overall distress to the population was the biggest factor to avoid, because I feel with COVID that's lead to serious issues with society in general, and that's the biggest danger to everyone--the breakdown of society. Things like lost jobs are bad, but are more localised and transitory (*Respondent 28)."

On several occasions respondents said how difficult it was to balance the economic situation against psychological distress, particularly for the younger age groups:

> "*It was difficult because I wanted low restrictions and low job loss, but also didn't want young people to struggle. It was hard to balance those* (Respondent 78)".

Some particularly interesting and touching feedback came from one respondent who tried to make sense of the implicit information not available in the experiment

> "*Some of them [the DCE choices] were very hard decisions to make. It's hard to choose between people losing their jobs and psychological distress on young adults and children and people being hospitalised. I tried to tell myself that they were young and could bounce back, and people can always find another job. The age of the people being hospitalised, however, wasn't given. It didn't also state whether or not those who were hospitalised would live. I decided to make my decisions based on those who were hospitalised and try to keep that number down as opposed to worrying about restrictions and job loss. I wouldn't want to be the true person who has to make these decisions*." (Respondent 79)

DCE works best when respondents are willing to balance different attributes. Some respondents acknowledged that they tried to stick to one criteria (a profile we labelled "axiomatic"). One respondent for example in respect of hospitalisation mentioned that

> "*Generally I chose the one that caused the fewest hospital admissions, but when the other consequences were too high like 50% losing their job or high levels of distress, it became difficult to choose (Respondent 53)*".

But that axiomatic approach also applied to other criteria:

> "*The restrictions on social contacts is somewhat less is best criteria for me (Respondent 56)*"

> Or *"I rather see people losing their jobs less because its already hard on the economy with all those who can't make ends meet with some of the jobs they have now (Respondent 70).*"

Interestingly, one respondent was aware that hospitalisation was a proxy for other physical health dimensions:

> "*Less people needing to be hospitalised most likely means less deaths. I think preventing death is the most important thing when implementing a policy (something the US didn't do a good job of) (Respondent 17)*".

This also applied to the criteria of psychological distress where a respondent was aware that

> "*distress" is kind of an indicator of the effectiveness of the other things*" (Respondent 35).

Some respondents felt that some of the criteria, in particular the restriction of activities, did not apply equally well to all population groups or could be interpreted in multiple ways:

> "*The entire notion of restrictions was a scam as there [are] multiple interpretations depending on which group was engaging in an activity*" (Respondent 62).

Some respondents also felt that the lack of an explicit criteria on deaths made it difficult to make trade offs between the different plans:

> "*Some of these [Plans] were hard to judge because death rate was never a factor, just hospital admissions" (Respondent 90).*

On a few occasions, some plans were criticised for not being realistic or even impossible

> "*Some polices contradict each other, you can't have a policy that would lead to more patients and more job losses at the same time"* (Respondent 109).

Overall, though, responses were generally positive and we can point to some respondents who shared their enthusiasm about this survey:

> "*Quite thought provoking to be honest. Got me thinking about how policies here are so lacklustre"* (Respondent 188).

> "THE SURVEY WAS GOOD , AND VERY INTERESTING "(Respondent 197, upper case letters from the Respondent).

4.2. ANALYSIS 2: ASSESSING WHETHER THE DCE WAS EFFECTIVE

We then proceeded to test whether the DCE experiment was effective. There are several ways to check this. First, for each plan we created an index of 'pseudo-disutility' with 1 point scored for every additional value of each attribute

beyond the first level. For example a plan in which with 14/100,000 admissions per week (score of +2), 20% of job loss (+2) , no restriction in activities (+0), some restriction in social contact (+1) and 25% increase in psychological distress (+1) lead to a plan having a disutility of 6. If the respondents were making rational choices, on average the higher the disutility of the plan the lower the percentage of respondents that would pick that plan. Table 4.3 presents the results of responsibilities relative to their level of disutility.

Table 4.3 Level of disutility and level of plan selection by respondents.

Pseudo-disutility index of the plan	*Plan chosen*	
	%	*N*
0	69%	202
2	57%	484
3	58%	634
4	54%	922
5	41%	672
6	39%	338
7	56%	34
8	33%	282
9	29%	68

Plans with lower disutility were more frequently selected compared to plans with higher levels of disutility. The worst plan was selected by just 29% of the respondents whereas the best plan was selected by 69%. With one exception there is a monotonic decreasing (continuously decreasing) percentage of respondents selecting a plan as its disutility increases. The one exception is the plan with a disutility of seven, which is more frequently chosen in comparison with plans of disutility of 4, 5 and 6. This, however, may be due to the small size of the group (34) who had to make a choice which involved this plan. We also note that there was a negligible difference in the choice of plans with a disutility of 2 or 3.

Table 4.4 Level of disutility and level of plan selection by respondents.

	Plan							
	A				*B*			
	Disutility		*Checked*		*Disutility*		*Checked*	
	Mean	*SD*	*Mean*	*N*	*Mean*	*SD*	*Mean*	*N*
Alternative								
1	4.77	0.72	65%	202	6.86	1.68	35%	202
2	4.69	1.49	50%	202	3.64	1.38	50%	202
3	4.00	0.00	64%	202	6.43	2.16	36%	202
4	3.86	1.68	44%	202	3.44	0.50	56%	202
5	4.47	1.46	64%	202	4.04	0.91	36%	202
6	4.30	1.19	46%	202	5.21	0.98	54%	202
7	3.13	0.99	55%	202	6.81	1.47	45%	202

	Plan							
	A				B			
	Disutility		Checked		Disutility		Checked	
	Mean	SD	Mean	N	Mean	SD	Mean	N
8	2.44	0.50	57%	202	4.00	0.00	43%	202
9	2.44	0.50	31%	202	0.00	0.00	69%	202

We repeated the same analysis but for each alternative individually (see Table 4.4). Note that only the alternative 9 is dominant in the sense that plan B was at better than plan A on two criteria and not worse on all the others. Out of the 9 alternatives, we found that 6 alternatives (those underlined and highlighted in green in the first column) have the better plan being more frequently chosen, while for alternative 2 there was no difference between choice of plans A and B. However, for two alternatives highlighted in red (5, 6), the worst plan (plan A for alternative 5 and plan B for alternative 6) was more frequently chosen. One possible reason for this may be that plan B job loss of 20%) more than counterbalanced the other three more favourable criteria of plan B (hospitalisation=1, no activities restriction, no social restriction). Table 4.5 shows these different criteria levels for the two plans for Alternative 5.

Table 4.5 Different criteria levels for plans A and B for the Alternative 5 scenario

Alternative	Plan	Hospitalisation rate per 100,000	Job Loss(%)	Activity restriction	Social restriction	Psychological Distress	Pseudo-disutility
5	Plan A	7	5	Complete restriction	Some restriction	25	5
5	Plan B	1	20	No restriction	No restriction	25	3

Yet the previous analysis has some flaws: it describes the utility of each plan, disregarding the two plans being compared. In conjoint experiments, we expect the respondent to choose the best plan within the alternative. We thus computed the difference between the (pseudo-)disutility of plan 1 minus the disutility of plan 2. If respondents are, on average rational, they are more likely to choose the plan 1 when the difference of disutility is more negative (in other words there is less disutility associated with plan 1 compared to plan 2. This is what Table 4.6 looks at. Again, when the disutility difference is negative (thus meaning plan 1 is better on average), plan 1 is more frequently chosen. As the level of disutility avoided increases the higher becomes the frequency of plan 1 chosen in comparison with plan 2.

Table 4.6 Choice of plan within the alternative and net levels of disutility

	Plan 1 chosen	
	%	***N***
Disutility of plan 1- disutility of plan 2		
-6	58%	88
-5	74%	34
-4	72%	194
-3	66%	122
-2	67%	378
-1	52%	168
0	52%	210
1	29%	80
2	40%	308
3	37%	156
4	21%	80

4.3. ANALYSIS 3: PROPORTION OF POOR DCE RESPONSES

Next, we attempted to identify the proportion of respondents who responses were poor. Table 4.7 provides descriptive statistics on three variables that we created:

1) "Bad-dominance" when the inferior plan A was unexpectedly chosen in alternative 9;

2) The number of times a plan was chosen when the comparison of utility would not support that choice (hereafter defined as an "irrational choice");

3) The duration for completing the questionnaire.

Table 4.7: Descriptive statistics on poor responses by respondents

Indicator of poor response	***Mean***	***Std***
Number of irrational choices	2.82	1.82
Not selecting the dominant plan	31%	46%
Very short comment	54%	50%
Straight lining policy block 1	5.4%	23%
Straight lining policy block 2	7.9%	27%
very low duration (less than 7min)	28%	45%

On average a respondent had 2.8 irrational choices, while 31% of respondents picked the inferior plan 1 in the 9th alternative and 28% of responses were of very low duration (less than 7 minutes) when the average duration for completion of the DCE was 13.8 minutes. We looked at the correlation between these variables, with the correlation coefficients suggesting that the number of irrational choices and the "bad-dominance" variables are very much correlated. However, duration was not a predictor of quality, neither in the continuous form or binary form (less than 7 minutes).

We also checked whether the DCE delivered promising results, in other words that the different criteria have a significant effect on choice and in the expected direction. To test whether this does apply we thus computed the odds ratio (OR) of choosing a plan according to the 5 criteria values using a multinomial conditional logit model. An OR<1 means the value of the criteria is associated with a lower preference. All OR were estimated with the lower value as the reference, implying we expect all OR to be below 1. Figure 3 provides the results with all the 202 crowdsourced sample meanwhile Figure 4 shows the results excluding respondents with poor performance.

Note that each criteria had three values with the exception of criteria 4 (social restriction). The reason for having three odds ratios instead of two is that the fourth value was used in the scope-test block for three attributes (hospitalisation, job loss and psychological distress), thus only for a fifth of the sample (40 respondents), which might explain the higher confidence interval for this OR. As Figures 3 and 4 show high risk of hospitalisation, more frequent job loss and more frequent psychological distress in the general population were associated with less frequent choice. As Figures 3 and 4 indicate, in contrast restrictions to social activities were however more likely to be chosen compared to no restriction at all. As Figure 4 shows restrictions on social contacts had significant lower OR when we removed respondents that performed poorly in the DCE. In Figure 4, the lowest OR were for a weekly hospitalisation rate of 14 per 100,00 population and for a 20% job loss rate. A dose response trend was not clear but would be seen if we ignored the scope test values (70 for psychological distress, 30 for hospitalisation).

In addition, Table 4.8 shows the resultant chi-square tests for effects. All criteria had a significant effect on the choice. Job loss was the criteria which was by far the most important for respondents, followed by the hospitalisation rate. Psychological distress in the general population had an intermediate effect whereas restrictions on non-essential activities and on social contacts had a rather lower effect. We also noticed that the interaction of psychological distress and younger age group was not significant, meaning that sub-group analysis distinguishing results between age groups may be of little use.

Figure 3: Odds Ratios of selecting criteria with a lower preference (all 202 respondents)

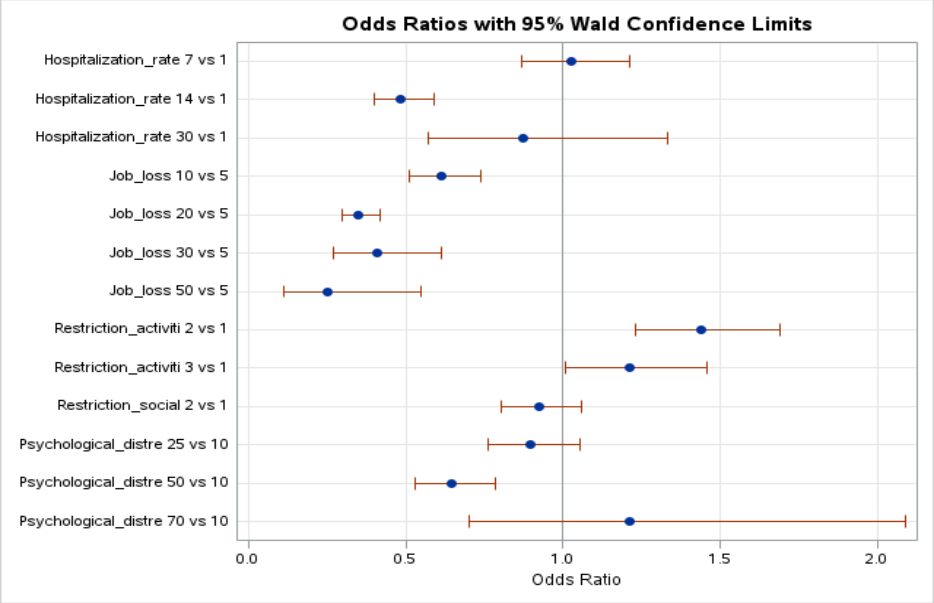


Figure 4: Odds Ratios of selecting criteria with a lower preference (respondents with poor response excluded)

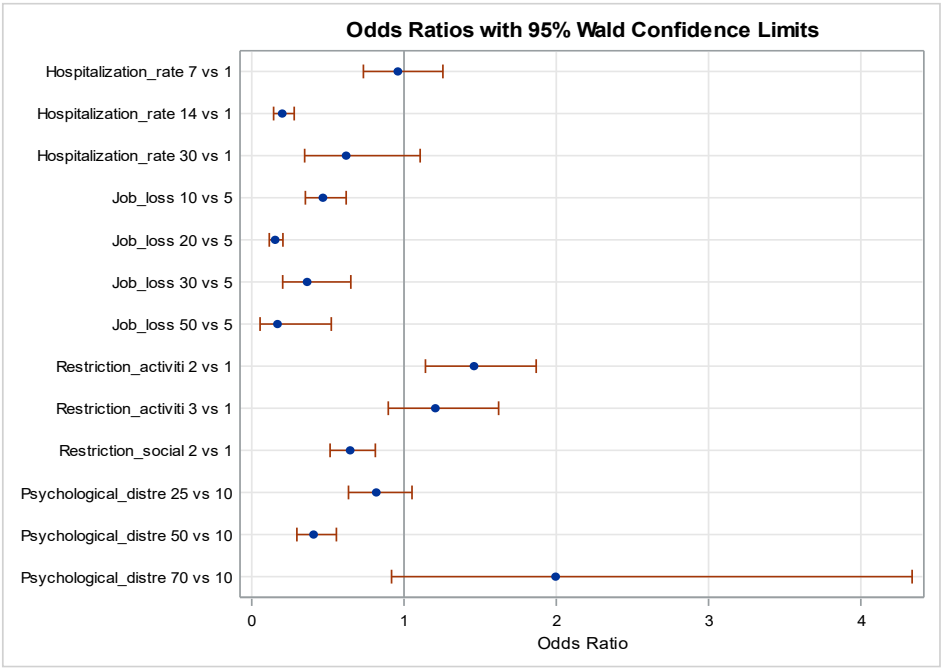


Table 4.8: Criteria analysis of effects

		Analysis of Effects	
Effect	***DF***	***Wald Chi-Square***	***Pr > ChiSq***
Hospitalisation rate	3	94.4503	<.0001
Job loss	4	173.8428	<.0001
Restriction of non-essential activities	2	9.0399	0.0109
Restrictions on social activities	1	14.0929	0.0002
Psychological distress in general population	3	36.6931	<.0001
Psychological distress*younger age group	2	0.2681	0.8745

Finally, we briefly analysed replies related to suppression policies (Table 4.9) and to pandemic support policies (Table 4.10). There was important variance across suppression policies and pandemic responses. Although the majority of the sample agreed that suppression measures had a bad or a very bad effect on the population mental, a third of the sample considered the suppression policies as having had a good or very good effect on mental health. Lockdowns, nursing home and hospital visit restrictions and higher education closures were deemed as the policies with the most negative effect on the population mental health. Mandatory working from home stood out as a suppression felt to be particularly positive for mental health; 53% of respondents felt that mandatory working from home was good or very good for mental health, with only 15% viewing this negatively.

Table 4.9: Respondent perception of impact of pandemic suppression measures on mental health

	Very good	***Good***	***Neutral***	***Bad***	***Very bad***
	%	***%***	***%***	***%***	***%***
Suppression policies:					
Lockdown	10.9	17.8	14.4	35.6	21.3
Restrictions on public gatherings	18.8	17.3	19.3	32.2	12.4
School closures (including home-schooling)	9.4	22.3	21.8	25.7	20.8
Non-essential shops closures	11.9	18.8	38.6	23.8	6.9
Closure of restaurants, pubs, bars	14.9	18.3	28.7	30.7	7.4
Mandatory working from home	19.8	34.7	30.2	11.9	3.5
International travel restrictions	17.8	22.3	35.6	18.3	5.9
Indoor sports venues closures	14.4	20.8	33.2	24.3	7.4
Cultural venues closures (museums, cinemas, theatres)	15.3	18.3	28.7	29.7	7.9
Higher Education closures	8.9	18.8	23.8	37.6	10.9
Restrictions on how many people you can meet privately	14.4	15.3	22.8	36.1	11.4
Nursing homes access restrictions	13.9	12.9	20.3	24.3	28.7
Hospital visits restrictions	7.9	19.8	13.9	24.8	33.7

As Table 4.10 indicates most measures were strongly endorsed as being good or very good for mental health by more than 70% of respondents; in contrast only 41% felt support for home schooling was good for mental health, compared with 27% who viewed this as having a negative impact.

Table 10: Respondent perception of impact of pandemic support measures on mental health

	Response				
	Very good	***Good***	***Neutral***	***Bad***	***Very bad***
	%	*%*	*%*	*%*	*%*
Support policy type:					
Income support policies	35.1	37.1	15.3	9.9	2.5
Furlough policies	17.8	34.2	30.2	14.9	3.0
Home-working policies	29.7	41.6	19.3	7.9	1.5
Online health and mental health services	28.2	43.1	18.3	6.4	4.0
Social support services	32.7	43.6	17.3	5.0	1.5
Home-schooling	14.4	25.7	32.7	19.8	7.4

In conclusion, the DCE experiment was effective in identifying the weight that the five criteria had on decision-making. The burden put on respondents was acceptable and on the whole respondents did a good job in completing the DCE. Yet, the odds ratio on criteria related to restrictions to non-essential activities did not always go in the expected direction and had a rather low weight on the decision-making, raising the question of whether we should keep it in the final version of the DCE questionnaire. Our analysis also suggests that there is no need to differentiate between the general population compared to the younger age groups in respect of the criteria of psychological distress.

We also realised that some respondents may stick to one overarching criteria, particularly the one related to hospitalisation which raises the need to identify and explain this behaviour. This may be because respondents may assume that hospitalisation increases the likelihood of COVID-related mortality, and they place more emphasis on the avoidance of the loss of life compared to any other criteria. Certainly, we have seen earlier in this report from stakeholder interviews that policymakers at least early in the pandemic, focused very heavily on the need to reduce the immediate risks to life caused by the pandemic. To explore this further we may need to add one additional question on whether or not the respondent has been directly or indirectly been exposed to COVID-19 either because a close relative or friend was hospitalised or because a close relative or friend died from COVID-19.

5. CONCLUSIONS

This third report (Deliverable 3.3) has set out the methodological approach we have adopted to explore the strategies that different stakeholders are using to counter the impacts of the pandemic, and the pandemic response on mental health and wellbeing across RESPOND countries. To do this we have adopted two complementary approaches, first a small series of in-depth interviews with stakeholders across RESPOND countries, triangulated with documentary and media analysis related to mental health policy, and secondly we have described an approach known as a discrete choice experiment which can be used to help assess how policy makers are making trade offs in the pandemic suppression

strategies, between the need to save life and slow the spread of infection, and the need to protect mental and physical health, as well as to limit the magnitude and duration of economic hardship and low levels of economic productivity.

We already know that key economic indicators such as economic growth and employment rates have rebounded quickly in all RESPOND countries, but we also know that specific population groups have been more adversely affected by the economic consequences of the pandemic across Europe. What we know less about is whether mental health concerns have in any way shaped the policy response or have been more of a secondary concern.

Piloting our stakeholder interviews we found that our interview approach was well received. We also see that mental health was not very visible at the highest levels of policy making early in the pandemic. But stakeholder interviews also make the unprecedented magnitude of the COVID pandemic abundantly clear. Moreover, as one interviewee put it 'the pandemic playbook' did not have a chapter on an infectious disease of this type. Much of public health thinking was still based on the influenza outbreak a century earlier, as well as experience from much more geographically concentrated experience with conditions such as MERS (Middle Eastern Respiratory Syndrome) and SARS (Severe Acute Respiratory Syndrome) that were largely confined to areas outside of Europe. Uncertainly and the need to protect life seem to understandably have led to an initial heavily biomedical approach to pandemic management.

One potential recommendation that may arise from this, is to have much more flexible pandemic planning arrangements in place that consider different types of scenarios with different types of pandemics. These plans should contain physical and mental health impact assessments, potentially using the approach to impact assessment that we set out in our previous report D3.2. There should also be more transparency in recognising that there are inevitable trade-offs to be made between suppression measures and wider impacts; our rapid scoping review also indicated that some of the early discrete choice experiments on pandemic policy indicated how much emphasis respondents placed on the avoidance of mortality.

Our interviewees were also frank in stating that at the beginning no-one was sure how long the pandemic would last; more certainty over the duration of the pandemic would probably have had some influence over the types of suppression measures that were taken. Our stakeholder interviews adopted an Advocacy Coalition Framework, meaning that we wanted to explore how decisions were made and who were involved in the decision-making process. It became clear quickly, across interviews, that there were challenges in both decision making and in the communication of decision- making.

In England, the top-down command and control system that was put in place meant that some of the innovative approaches that regional authorities wanted to put in place to protect all aspects of population health, including mental health, were not as visible as they could have been. Over time there was tension between central and local government over the duration of some suppression measures, and their impacts on individuals' mental health and wellbeing, as well as their wider economic impacts. Similar issues have been seen in a Belgian context, with complex administrative arrangements across the country. We will assess whether this pattern will appear in all RESPOND countries.

A further potential recommendation therefore is to carefully look at how organisational systems can be put in place to ensure an adequate response to pandemics, but also flexible enough to allow for local discretion and innovation which could benefit all. This was the case in England where innovative local public mental health practice was not as visible as it could otherwise have been. Trust is critical to public support for pandemic suppression measures; better and honest communication about what we do know and don't know stakeholder suggest can be helpful. Having readily available, and meaningful indicators, on mental health is also likely to make mental health more visible. These were quickly introduced in the UK through bi-weekly surveys that were publicly available, but this does not seem to have been the case in Belgium.

Going forward stakeholders have acknowledged that the pandemic will have enduring impacts on mental health. There are some good examples of cross-sectoral strategies that have been developed to protect mental health and wellbeing. These need however to be in place pre-pandemic, allowing them to be enacted quickly. In our earlier report D3.2 we indicated that not all of these measures do not need to be expensive – the value of making people aware of the importance of exercise for mental health, has been found to have beneficial impacts [25].

As well as stakeholder interviews, we have also developed a discrete choice experiment survey to collect data directly from policy stakeholders. These surveys can provide invaluable information on how people make decisions under real world conditions, often having to balance between decisions that will have unwanted side effects including impacts on mental health. We have tested how our survey works with more than 200 people; overall the survey as designed works well, although there are some areas where more clarification may be required, for instance on the use of hospitalisation rates and their link with excess mortality rates, as well as on the merits of inclusion of quite nebulous terms such as the restrictions on non-essential activities. There might also be some scope for looking at the duration of impact as another factor that respondents have to weigh up. Overall, however, choices that survey respondents were usually logical, usually favouring the least-worse choices. Importantly as well, we were able to demonstrate that respondents were able to provide helpful information on pandemic response and mitigation strategies and their impacts on mental health.

Although the majority of respondents felt that suppression measures had a bad or a very bad effect on the population mental, a third of the sample considered the suppression policies having had a good or very good effect on mental health. In particular, mandatory working from home, while labelled as a suppression measure, was actually seen as positive by many respondents for population mental health. Non-medical interventions to support mental health, such as income support policies were overwhelmingly seen as positive for mental health by respondents.

Going forward over the summer we will be able to use our discrete choice experiment survey to consider whether support for different pandemic suppression and mitigation strategies varies by different type of policymaker, as well as country context, making use of data we collate on the strictness of the policy responses. This will further inform the validated framework for assessing and improving health system preparedness for delivery of mental health and psychosocial support during future pandemics that we will also develop as part of RESPOND.

6. REFERENCES

1. World Health Organization. Global excess deaths associated with COVID-19, January 2020 - December 2021. Available at https://www.who.int/data/stories/global-excess-deaths-associated-with-covid-19-january-2020-december-2021. Geneva: World Health Organization, 2022 May.
2. Eurostat. Index of total actual hours worked in the main job by sex and age group. Available at https://ec.europa.eu/eurostat/databrowser/view/LFSI_AHW_Q__custom_2823725/default/bar?lang=en. Luxembourg: Eurostat 2022.
3. Sabatier PA. An advocacy coalition framework of policy change and the role of policy-oriented learning therein. Policy Sciences. 1988;21(2):129-68.
4. Jenkins-Smith HC, Sabatier PA. Evaluating the advocacy coalition framework. Journal of Public Policy. 1994;14(2):175-203.
5. Braun V, Clarke V. Using thematic analysis in psychology. Qualitative Research in Psychology. 2006;3(2):77-101.
6. Nowell LS, Norris JM, White DE, Moules NJ. Thematic analysis: Striving to meet the trustworthiness criteria. International Journal of Qualitative Methods. 2017;16(1). https://doi.org/10.1177/1609406917733847
7. Mühlbacher AC, Sadler A, Jordan Y. Population preferences for non-pharmaceutical interventions to control the SARS-CoV-2 pandemic: trade-offs among public health, individual rights, and economics. Eur J Health Econ. 2022. 10.1007/s10198-022-01438-w
8. Loría-Rebolledo LE, Ryan M, Watson V, Genie MG, Sakowsky RA, Powell D, et al. Public acceptability of non-pharmaceutical interventions to control a pandemic in the UK: a discrete choice experiment. BMJ Open. 2022;12(3):e054155. 10.1136/bmjopen-2021-054155
9. Manipis K, Street D, Cronin P, Viney R, Goodall S. Exploring the Trade-Off Between Economic and Health Outcomes During a Pandemic: A Discrete Choice Experiment of Lockdown Policies in Australia. Patient. 2021;14(3):359-71. 10.1007/s40271-021-00503-5
10. Chorus C, Sandorf ED, Mouter N. Diabolical dilemmas of COVID-19: An empirical study into Dutch society's trade-offs between health impacts and other effects of the lockdown. PLoS One. 2020;15(9):e0238683. 10.1371/journal.pone.0238683
11. Ahmad N, Hasan MG, Barbhuiya RK. Identification and prioritization of strategies to tackle COVID-19 outbreak: A group-BWM based MCDM approach. Appl Soft Comput. 2021;111:107642. 10.1016/j.asoc.2021.107642
12. Easton M, De Paepe J, Evans P, W.Head B, Yarnold J. Embedding Expertise for Policy Responses to COVID-19: Comparing Decision-Making Structures in Two Federal Democracies. Public Organization Review. 2022. 10.1007/s11115-022-00629-6
13. Blavatnik School of Government UoO. Oxford COVID-19 Government Response Tracker. 2022.
14. Desson Z, Weller E, McMeekin P, Ammi M. An analysis of the policy responses to the COVID-19 pandemic in France, Belgium, and Canada. Health Policy and Technology. 2020;9(4):430-46. https://doi.org/10.1016/j.hlpt.2020.09.002
15. Bouhon F, Jousten A, Miny X, Slautsky E. L'État belge face à la pandémie de Covid-19 : esquisse d'un régime d'exception. Courrier hebdomadaire du CRISP. 2020; 2446(1):5-56. 10.3917/cris.2446.0005
16. Bursens P. Federalism and the COVID-19 crisis: Reflections on competences, actors and party politics in Belgium. Revista" Cuadernos Manuel Giménez Abad". 2020(19):14-6.
17. Van Hoof E, De Laet H, Résibois M, Gérard S, Dekeyser S, Loix E, et al. Living Document I: Belgian mental health (care) data repository. 2021.
18. Serrano-Alarcón M, Kentikelenis A, McKee M, Stuckler D. Impact of COVID-19 lockdowns on mental health: Evidence from a quasi-natural experiment in England and Scotland. Health Econ. 2022;31(2):284-96. 10.1002/hec.4453

19. Aknin LB, Andretti B, Goldszmidt R, Helliwell JF, Petherick A, De Neve JE, et al. Policy stringency and mental health during the COVID-19 pandemic: a longitudinal analysis of data from 15 countries. Lancet Public Health. 2022;7(5):e417-e26. 10.1016/s2468-2667(22)00060-3
20. Nabavi N. Covid-19: Pandemic will cast "a long shadow" on mental health, warns England's CMO. Bmj. 2021;373:n1655. 10.1136/bmj.n1655
21. Harper M. Lockdowns cost lives - we need a different strategy to fight Covid-19. Daily Telegraph. 2020 10 November.
22. Scottish government. Mental Health – Scotland's Transition and Recovery. Available at https://www.gov.scot/publications/mental-health-scotlands-transition-recovery/documents/. Edinburgh: Scottish government; 2020.
23. H M Government. COVID-19 mental health and wellbeing recovery action plan. London: H M Government 2021.
24. Mental Health Support Fund making a real difference in communities – Health Minister [press release]. Belfast: Northern Ireland Executive,, 23 February 2022.
25. Lades LK, Laffan K, Daly M, Delaney L. Daily emotional well-being during the COVID-19 pandemic. Br J Health Psychol. 2020;25(4):902-11. 10.1111/bjhp.12450

7. APPENDIX 1: SUMMARY OF DCE STUDIES IDENTIFIED IN SCOPING REVIEW

A rapid literature review has indicated that discrete choice experiments can be a useful way to assess preferences and trade-offs during the pandemic. Several studies have already been conducted in this regard. Please see table below for a summary of these studies' aims, time period of data collection, method, attributes and levels included, participant perspective, other questions included in the survey, and findings (if available).

Article (see numbers below)	**Research aim(s)**	**Time period data collection**	**Participant perspective**	**Method**	**Attributes (and levels, if applicable)**	**Other questions included**	**Findings**
1	Rank strategies to handle Covid-19 pandemic based on their relative importance to stakeholders	Beginning of pandemic, 1 April 2020 – 15 April 2020	Stakeholders (health workers, social workers, academics, common citizens) / India	Multi-Criteria Decision Making, Best-Worst Method	1. Practicing social distancing 2. Availability of manpower, ventilators, and personal protective equipment in hospitals 3. Controlling prices and ensuring delivery/availability of foods, medicines, and other essential items 4. Financial support to poor, daily wagers, and unemployed 5. Timely providing the right information to the public for awareness and precautions 6. Precisely measuring the overall impact of Covid-19 7. Complete lockdown for a suitable time period 8. Digital Surveillance of infected/doubtful people and their movement in the community 9. Ensuring smooth functioning of economy 10. Support to banks, startups and MSMEs.	/	- For each group, the top four criteria are availability, distancing, controlling, and lockdown. - Health-workers: availability of medical professionals, ventilators, and PPE were most important 1st, social distancing 2nd, controlling prices and availability of daily needs 3rd. - Social workers: complete lockdown 1st, social distancing 2nd, availability of medical professionals, ventilators, and PPE 3rd - Academicians and others: social distancing and availability top two, lockdown third. - Business and economy are the two least important criteria chosen by all four groups.
2	How did people in the UK make trade-offs between features of	Ongoing	Public opinion / UK	Discrete Choice Experiment	- **Type of lockdown** (Green, Yellow, Amber, Red) - **Lockdown length** (3 weeks, 6 weeks, 10 weeks, 16 weeks)	- Questions to gauge understanding of the attributes' levels. - Additional repeated choice	Not yet published

	lockdown interventions? - The relative importance of pandemic response features. - Trade-offs respondents make between these features, for example, how much household spending are respondents willing to forgo to reduce excess deaths or what increase in job losses they are willing to accept for a decrease in the infection rate? - The impact of moral attitudes on preferences. - Preference heterogeneity based on individuals' circumstances, for example, age, gender, health status, economic security, country/region of residence, experience with COVID-19. - Intended compliance for defined lockdown interventions and consequences.				- **Postponement of usual non-urgent medical care** (All non-urgent care is postponed, Some non-urgent care is postponed, No urgent care is postponed) - **Excess deaths** (1 in 10000 additional people die, 4 in 10000 additional people die, 9 in 10000 additional people die, 13 in 10000 additional people die) - **Number of infections** (100 in 10000 people infected, 600 in 10000 people infected, 1300 in 10000 people infected, 2000 in 10000 people infected) - **Ability to buy things** (How much of the same amount of goods that respondents buy today (represented by a shopping trolley) will they be able to buy in a year's time.): You can buy 100% of trolley, You can buy 90% of trolley, You can buy 80% of trolley, You can buy 70% of trolley - **Job losses**: 0 in 100 loses job, 4 in 100 loses job, 15 in 100 loses job, 25 in 100 loses job	task as a consistency check, and ask respondents how likely they are to comply with the chosen scenario. - Socioeconomic characteristics (age, sex, education, ethnicity, economic insecurity, health status) - Experiences with COVID-19 and views on government handling on compliance. - Moral Foundation Questionnaire (MFQ20) to assess the role of moral attitudes in predicting Preferences.	
3	Trade-offs between health impacts, impacts on the economy, education, and personal income. Are the Dutch willing to trade health effects (such as	22 April 2020	Public opinion (adults) / Netherlands		- **Increase in number of deaths caused by the corona crisis directly or indirectly (e.g. due to postponed operations)** (levels: 8000, 11500, 15000, 18500) **- Increase in number of people with lasting physical**		- Most citizens are willing to trade-off health-related and other effects of the lockdown, implying a consequentialist ethical perspective. -The elderly are relatively reluctant to sacrifice

	avoiding fatalities) against other effects (e.g. on the economy), and if so, what would be their willingness to sacrifice economy- and education-related suffering for a reduction in fatalities and in pressure on the national healthcare system be?				**injuries caused by the corona crisis directly or indirectly (e.g. due to postponed operations)** (levels: 30000, 80000, 130000, 180000) - **Increase in number of people with lasting mental injuries caused by the corona crisis** (20000, 80000, 140000, 200000) - **Increase in number of children with lasting educational disadvantages caused by the corona crisis** (10000, 90000, 170000, 250000) - **Increase in number of households with net income loss of more than 15% for a period of more than 3 years caused by the corona crisis** (400000, 700000, 1000000, 1300000) - **One-off corona tax per household in 2023** (€1000, €2500, €4000, €5500) - **Work pressure in the health sector during the period May 1st 2020—January 1st 2021** (Same work pressure as before the coronavirus crisis, Work pressure lies between the current situation and the situation before the coronavirus crisis, Work pressure is the same as in the current situation, Work pressure is higher than in the current situation)		economic pain and educational disadvantages for the younger generation, to avoid fatalities. - So-called taboo trade-off aversion amongst a substantial share of the sample, being an aversion to accept morally problematic policies that simultaneously imply higher fatality numbers and lower taxes.
4	Explore the acceptability of different infectious disease control measures, and examine how	14 July – 7 August 2020	Public opinion / Australia	Discrete Choice Experiment	Eight attributes, based on three aspects of pandemic: 1) control measures, 2) burden of disease, 3)	(1) Demographic questions used for screening; (2) Questions about the difficulty in completing the choice tasks	In general, respondents had strong preferences for policies that avoided high infection-related

	respondents trade off between economic and health outcomes.				Economic consequences: - **Restriction level** (level A low level restrictions, level B medium-level restrictions, level C high-level restrictions, four areas: mandatory quarantine and self-isolation, staying at home, offices and schools, and stores and services). - **Duration of restrictions** (1 month, 3 months, 6 months, 12 months) - **Tracking of people** (three levels: mobile phone tracking, tracking bracelet (positive cases and new arrivals, no tracking) - **Number of people infected** (four levels, best-and worst case scenario, 10,000, 50,000, 100,000, 500,000) - **Total number of deaths** (four levels, 100, 500, 1000, 5000 - **Number of people that lose their job** (500,000, 1,000,000, 1,500,000, 3,000,000) - **Additional government spending** ($50 billion, $100 billion, $200 billion, $500 billion) - **Additional income tax levy for the next 3 years** (1%, 3%, 5%)	(3) Attitudinal statements about the risks of COVID-19, control measures and impact on the economy; (4) Questions relating to sociodemographics, labour and employment, self-reported health and experiences during the COVID-19 pandemic.	deaths, although lower unemployment and government expenditure were also considered important. Respondents preferred a shorter duration for restrictions, but their preferences did not vary significantly for the differing levels of control measures. In terms of tracking, respondents preferred mobile phone tracking or bracelets when compared to no tracking. Significant differences in preferences was identified, with two distinct classes: Class 1 (57%) preferred the economy to remain open with some control measures, whereas Class 2 (43%), had stronger preferences for policies that reduced avoidable deaths.
5	Trade-offs among public health, individual rights, and economics	October to November 2020	Public opinion/ Germany	Discrete Choice Experiment/Best-Worst Method	- **Excess mortality** (No excess mortality, 800 (+1%), 4000 (+5%), 8000 (+10%), 16,000 (+20%)|24,000 (+30%)) - **Individual risk of infection** (No infection risk, 5%, 10%, 15%, 25%)	- Sociodemographic questions	- The DCE showed, economic effect of non-pharmaceutical measures had a large impact on choice decisions for or against specifc lockdown scenarios.

					- **Decline in GDP** (No decline, 5% (2350 € pp), 10% (4700 € pp), 15% (7050 € pp), 20% (9400 € pp)|25% (11,750 € pp)) - **Decrease in individual income** (No decrease, 10%, 25%, 50%, 75|100%) - **Curfews** (No curfews, Closure of national borders, Domestic travel restrictions) - **Contact restrictions** (No restrictions, Max. 5 people, Max. 10 people, Max. 50 people, Max. 100 people, Max. 500 people, Max. 5000 people) - **Closure of facilities** (Kindergartens, Schools, Universities and colleges, Leisure and cultural activities, Non-system relevant businesses) - **Transmission of personal data** (No transmission, Health data, Contact data, Location data) - **Mandatory masks** (No mask requirement in public, Inside of buildings, Inside and outside of buildings, Public transportation)		Individual income decreases had the most impact. Excess mortality and individual risk of infection were also important factors infuencing choice decisions. Curfews, contact restrictions, facility closures, personal data transmissions, and mandatory masking in public had a lesser impact. - The BWS results showed that short-term restrictions were more likely to be accepted than long-term restrictions. According to WTA estimates, people would be willing to accept a greater risk of infection to avoid loss of income.
6	- Understanding of how the public responds to and values the trade-offs faced during and after pandemic. For example, is the public willing to accept a certain number of excess deaths to have restrictions eased?	29 October - 12 December 2020	Public opinion / UK adult population	A survey that included a discrete choice experiment. The survey design was informed using policy documents, social media analysis and input from remote think-aloud interviews with members of the public (n=23).	- **Type of lockdown** (Green, Yellow, Amber, Red) - **Lockdown length** (3 weeks, 6 weeks, 10 weeks, 16 weeks) - **Postponement of usual non-urgent medical care** (All non-urgent care is postponed, Some non-urgent care is postponed, No urgent care is postponed) - **Excess deaths** (1 in 10000 additional people die, 4 in	- Questions to gauge understanding of the attributes' levels. - Additional repeated choice task as a consistency check, and ask respondents how likely they are to comply with the chosen scenario. - Socioeconomic characteristics (age, sex, education, ethnicity, economic	- The majority of participants would accept higher mortality rates if this implied lockdowns, which are less strict, shorter and do not postpone routine healthcare. - Generally speaking, respondents in England were willing to accept a higher increase

					10000 additional people die, 9 in 10000 additional people die, 13 in 10000 additional people die) - **Number of infections** (100 in 10000 people infected, 600 in 10000 people infected, 1300 in 10000 people infected, 2000 in 10000 people infected) - **Ability to buy things** (How much of the same amount of goods that respondents buy today (represented by a shopping trolley) will they be able to buy in a year's time.): You can buy 100% of trolley, You can buy 90% of trolley, You can buy 80% of trolley, You can buy 70% of trolley - **Job losses**: 0 in 100 loses job, 4 in 100 loses job, 15 in 100 loses job, 25 in 100 loses job	insecurity, health status) - Experiences with COVID-19 and views on government handling on compliance. - Moral Foundation Questionnaire (MFQ20) to assess the role of moral attitudes in predicting Preferences.	in excess deaths to have less strict lockdown restrictions introduced compared to other UK nations. - In all four nations, one out of five respondents were willing to reduce excess deaths at all costs.

1. Ahmad, N., Hasan, M. G., & Barbhuiya, R. K. (2021). Identification and prioritization of strategies to tackle COVID-19 outbreak: A group-BWM based MCDM approach. Applied soft computing, 111, 107642.

2. Genie, M. G., Loría-Rebolledo, L. E., Paranjothy, S., Powell, D., Ryan, M., Sakowsky, R. A., & Watson, V. (2020). Understanding public preferences and trade-offs for government responses during a pandemic: a protocol for a discrete choice experiment in the UK. BMJ open, 10(11), e043477.

3. Chorus, C., Sandorf, E. D., & Mouter, N. (2020). Diabolical dilemmas of COVID-19: An empirical study into Dutch society's trade-offs between health impacts and other effects of the lockdown. PLoS One, 15(9), e0238683.

4. Manipis, K., Street, D., Cronin, P., Viney, R., & Goodall, S. (2021). Exploring the trade-off between economic and health outcomes during a pandemic: a discrete choice experiment of lockdown policies in Australia. The Patient-Patient-Centered Outcomes Research, 14(3), 359-371.

5. Mühlbacher, A. C., Sadler, A., & Jordan, Y. (2022). Population preferences for non-pharmaceutical interventions to control the SARS-CoV-2 pandemic: trade-offs among public health, individual rights, and economics. The European Journal of Health Economics, 1-14.

6. Loría-Rebolledo, L. E., Ryan, M., Watson, V., Genie, M. G., Sakowsky, R. A., Powell, D., & Paranjothy, S. (2022). Public acceptability of non-pharmaceutical interventions to control a pandemic in the UK: a discrete choice experiment. BMJ open, 12(3), e054155.

9. APPENDIX 2: DISCRETE CHOICE EXPERIMENT SURVEY

Quantitative Stakeholder Analysis - VFinal

Start of Block: Consentement

Q1 **Welcome to the RESPOND Project!**
We are inviting you to participate in a survey on COVID-19 measures.
The survey is being carried out within the context of the RESPOND Project – a European Union Horizon-2020 funded research project.
In this study, you will be asked a serie of questions regarding policy preferences and overall public health beliefs.
The survey will be **anonymous**.
All information you provide will be treated in a **confidential** manner.

To be eligible to participate in the survey you should:
1) Be 18 years or older.

This study has received ethical clearance from LSE.
There are no specific risks to your health and wellbeing associated with participation in this study.

By starting the survey, you agree to have read the above information, are 18 years old or older, and are agreeing to participating in the survey.

Page Break

Q3 In the next question, put yourself in the shoes of a policymaker voting for a plan to tackle a pandemic similar to the Covid-19 pandemic. Each plan varies on five criteria:

Criteria 1. Weekly new covid-19 hospital admissions per 100.000 inhabitants: 1 (low), 7 (moderate), 14 (severe).
Criteria 2. Active population losing their job (%): 5%, 10%, 20%.
Criteria 3. Restrictions of non-essential activities: no restrictions, some restrictions, complete restrictions.
Criteria 4. Restrictions on social contacts: no restrictions, some restrictions.
Criteria 5. Increase in psychological distress in the general population: 10%, 25%, 50%.

In total, nine alternatives will be provided. For every alternative, you must vote for a preferred plan (Plan A or Plan B).

End of Block: Consentement

Start of Block: Scenario

S1A1 *Please cast your **first** vote for Plan A or Plan B*

	Plan A	**Plan B**
Weekly new covid-19 hospital admissions per 100.000 inhabitants	**7**	**14**
Active population losing their job (%)	**10**	**20**
Restrictions of non-essential activities	**Some restrictions**	**Complete restrictions**
Restrictions on social contacts	**No restrictions**	**Some restrictions**
Increase in psychological distress in the general population	**25**	**25**

○ *Plan A (1)*

○ *Plan B (2)*

S2A1 *Please cast your **first** vote for Plan A or Plan B*

	Plan A	**Plan B**
Weekly new covid-19 hospital admissions per 100.000 inhabitants	**1**	**7**
Active population losing their job (%)	**10**	**20**
Restrictions of non-essential activities	**Some restrictions**	**Complete restrictions**
Restrictions on social contacts	**Some restrictions**	**No restrictions**
Increase in psychological distress in the general population	**50**	**10**

○ *Plan A (1)*

○ *Plan B (2)*

X→ X→

S3A1 *Please cast your **first** vote for Plan A or Plan B*

	Plan A	**Plan B**
Weekly new covid-19 hospital admissions per 100.000 inhabitants	**7**	**7**
Active population losing their job (%)	**10**	**30**
Restrictions of non-essential activities	**Some restrictions**	**Complete restrictions**
Restrictions on social contacts	**No restrictions**	**Some restrictions**
Increase in psychological distress in those younger than 24 years	**25**	**25**

○ *Plan A (1)*

○ *Plan B (2)*

S4A1 *Please cast your **first** vote for Plan A or Plan B*

	Plan A	**Plan B**
Weekly new covid-19 hospital admissions per 100.000 inhabitants	**1**	**7**
Active population losing their job (%)	**10**	**20**
Restrictions of non-essential activities	**Some restrictions**	**Complete restrictions**
Restrictions on social contacts	**Some restrictions**	**No restrictions**
Increase in psychological distress in those younger than 24 years	**50**	**10**

- ○ *Plan A (1)*
- ○ *Plan B (2)*

S5A1 *Please cast your **first** vote for Plan A or Plan B*

	Plan A	**Plan B**
Weekly new covid-19 hospital admissions per 100.000 inhabitants	**30**	**14**
Active population losing their job (%)	**10**	**30**
Restrictions of non-essential activities	**Some restrictions**	**Complete restrictions**
Restrictions on social contacts	**No restrictions**	**Some restrictions**
Increase in psychological distress in the general population	**25**	**25**

- ○ *Plan A (1)*
- ○ *Plan B (2)*

End of Block: Scenario

Start of Block: Scenario 1

S1A2 Put yourself in the shoes of a policymaker voting for a plan to tackle a pandemic similar to the Covid-19 pandemic.

*Please cast your **second** vote for Plan A or Plan B*

	Plan A	**Plan B**
Weekly new covid-19 hospital admissions per 100.000 inhabitants	**14**	**7**
Active population losing their job (%)	**10**	**5**
Restrictions of non-essential activities	**Complete restrictions**	**No restrictions**
Restrictions on social contacts	**No restrictions**	**No restrictions**
Increase in psychological distress in the general population	**25**	**25**

○ *Plan A (1)*

○ *Plan B (2)*

Page Break

S1A3 Put yourself in the shoes of a policymaker voting for a plan to tackle a pandemic similar to the Covid-19 pandemic.

*Please cast your **third** vote for Plan A or Plan B*

	Plan A	**Plan B**
Weekly new covid-19 hospital admissions per 100.000 inhabitants	**1**	**14**
Active population losing their job (%)	**10**	**20**
Restrictions of non-essential activities	**Complete restrictions**	**Some restrictions**
Restrictions on social contacts	**No restrictions**	**Some restrictions**
Increase in psychological distress in the general population	**25**	**50**

○ *Plan A (1)*

○ *Plan B (2)*

Page Break

S1A4 Put yourself in the shoes of a policymaker voting for a plan to tackle a pandemic similar to the Covid-19 pandemic.

*Please cast your **fourth** vote for Plan A or Plan B*

	Plan A	**Plan B**
Weekly new covid-19 hospital admissions per 100.000 inhabitants	**14**	**1**
Active population losing their job (%)	**20**	**5**
Restrictions of non-essential activities	**No restrictions**	**Some restrictions**
Restrictions on social contacts	**Some restrictions**	**Some restrictions**
Increase in psychological distress in the general population	**10**	**25**

○ *Plan A (1)*

○ *Plan B (2)*

Page Break

S1A5 Put yourself in the shoes of a policymaker voting for a plan to tackle a pandemic similar to the Covid-19 pandemic.

*Please cast your **fifth** vote for Plan A or Plan B*

	Plan A	**Plan B**
Weekly new covid-19 hospital admissions per 100.000 inhabitants	**7**	**1**
Active population losing their job (%)	**5**	**20**
Restriction of non-essential activities	**Complete restrictions**	**No restrictions**
Restrictions on social contacts	**Some restrictions**	**No restrictions**
Increase in psychological distress in the general population	**25**	**25**

○ *Plan A (1)*

○ *Plan B (2)*

Page Break

S1A6 Put yourself in the shoes of a policymaker voting for a plan to tackle a pandemic similar to the Covid-19 pandemic.

*Please cast your **sixth** vote for Plan A or Plan B*

	Plan A	**Plan B**
Weekly new covid-19 hospital admissions per 100.000 inhabitants	**1**	**7**
Active population losing their job (%)	**20**	**10**
Restrictions of non-essential activities	**Complete restrictions**	**Some restrictions**
Restrictions on social contacts	**No restrictions**	**Some restrictions**
Increase in psychological distress in the general population	**25**	**10**

○ *Plan A (1)*

○ *Plan B (2)*

Page Break

S1A7 Put yourself in the shoes of a policymaker voting for a plan to tackle a pandemic similar to the Covid-19 pandemic.

*Please cast your **seventh** vote for Plan A or Plan B*

	Plan A	**Plan B**
Weekly new covid-19 hospital admissions per 100.000 inhabitants	**14**	**7**
Active population losing their job (%)	**5**	**50**
Restrictions of non-essential activities	**No restrictions**	**Some restrictions**
Restrictions on social contacts	**No restrictions**	**Some restrictions**
Increase in psychological distress in the general population	**50**	**10**

○ *Plan A (1)*

○ *Plan B (2)*

Page Break

S1A8 Put yourself in the shoes of a policymaker voting for a plan to tackle a pandemic similar to the Covid-19 pandemic.

*Please cast your **eighth** vote for Plan A or Plan B*

	Plan A	**Plan B**
Weekly new covid-19 hospital admissions per 100.000 inhabitants	**1**	**14**
Active population losing their job (%)	**10**	**5**
Restrictions of non-essential activities	**No restrictions**	**Some restrictions**
Restrictions on social contacts	**Some restrictions**	**No restrictions**
Increase in psychological distress in the general population	**10**	**25**

○ *Plan A (1)*

○ *Plan B (2)*

Page Break

S1A9 Put yourself in the shoes of a policymaker voting for a plan to tackle a pandemic similar to the Covid-19 pandemic.

*Please cast your **ninth** vote for Plan A or Plan B*

	Plan A	**Plan B**
Weekly new covid-19 hospital admissions per 100.000 inhabitants	**1**	**1**
Active population losing their job (%)	**10**	**5**
Restrictions of non-essential activities	**No restrictions**	**No restrictions**
Restrictions on social contacts	**Some restrictions**	**No restrictions**
Increase in psychological distress in the general population	**10**	**10**

○ *Plan A (1)*

○ *Plan B (2)*

End of Block: Scenario 1

Start of Block: Scenario 2

S2A2 Put yourself in the shoes of a policymaker voting for a plan to tackle a pandemic similar to the Covid-19 pandemic.

*Please cast your **second** vote for Plan A or Plan B*

	Plan A	**Plan B**
Weekly new covid-19 hospital admissions per 100.000 inhabitants	**1**	**7**
Active population losing their job (%)	**5**	**20**
Restrictions of non-essential activities	**Some restrictions**	**No restrictions**
Restrictions on social contacts	**Some restrictions**	**No restrictions**
Increase in psychological distress in the general population	**25**	**50**

○ *Plan A (1)*

○ *Plan B (2)*

Page Break

S2A3 Put yourself in the shoes of a policymaker voting for a plan to tackle a pandemic similar to the Covid-19 pandemic.

*Please cast your **third** vote for Plan A or Plan B*

	Plan A	**Plan B**
Weekly new covid-19 hospital admissions per 100.000 inhabitants	**7**	**1**
Active population losing their job (%)	**5**	**20**
Restrictions of non-essential activities	**Some restrictions**	**No restrictions**
Restrictions on social contacts	**No restrictions**	**Some restrictions**
Increase in psychological distress in the general population	**50**	**25**

○ *Plan A (1)*

○ *Plan B (2)*

Page Break

S2A4 Put yourself in the shoes of a policymaker voting for a plan to tackle a pandemic similar to the Covid-19 pandemic.

*Please cast your **fourth** vote for Plan A or Plan B*

	Plan A	**Plan B**
Weekly new covid-19 hospital admissions per 100.000 inhabitants	**1**	**7**
Active population losing their job (%)	**5**	**10**
Restrictions of non-essential activities	**Some restrictions**	**No restrictions**
Restrictions on social contacts	**Some restrictions**	**Some restrictions**
Increase in psychological distress in the general population	**10**	**25**

○ *Plan A (1)*

○ *Plan B (2)*

Page Break

S2A5 Put yourself in the shoes of a policymaker voting for a plan to tackle a pandemic similar to the Covid-19 pandemic.

*Please cast your **fifth** vote for Plan A or Plan B*

	Plan A	**Plan B**
Weekly new covid-19 hospital admissions per 100.000 inhabitants	**7**	**1**
Active population losing their job (%)	**5**	**20**
Restrictions of non-essential activities	**No restrictions**	**Some restrictions**
Restrictions on social contacts	**Some restrictions**	**No restrictions**
Increase in psychological distress in the general population	**25**	**50**

○ *Plan A (1)*

○ *Plan B (2)*

Page Break

S2A6 Put yourself in the shoes of a policymaker voting for a plan to tackle a pandemic similar to the Covid-19 pandemic.

*Please cast your **sixth** vote for Plan A or Plan B*

	Plan A	**Plan B**
Weekly new covid-19 hospital admissions per 100.000 inhabitants	**1**	**7**
Active population losing their job (%)	**5**	**20**
Restrictions of non-essential activities	**Complete restrictions**	**Some restrictions**
Restrictions on social contacts	**Some restrictions**	**Some restrictions**
Increase in psychological distress in the general population	**10**	**25**

○ *Plan A (1)*

○ *Plan B (2)*

Page Break

S2A7 Put yourself in the shoes of a policymaker voting for a plan to tackle a pandemic similar to the Covid-19 pandemic.

*Please cast your **seventh** vote for Plan A or Plan B*

	Plan A	**Plan B**
Weekly new covid-19 hospital admissions per 100.000 inhabitants	**14**	**7**
Active population losing their job (%)	**5**	**20**
Restrictions of non-essential activities	**No restrictions**	**Complete restrictions**
Restrictions on social contacts	**No restrictions**	**Some restrictions**
Increase in psychological distress in the general population	**10**	**50**

○ *Plan A (1)*

○ *Plan B (2)*

Page Break

S2A8 Put yourself in the shoes of a policymaker voting for a plan to tackle a pandemic similar to the Covid-19 pandemic.

*Please cast your **eighth** vote for Plan A or Plan*

	Plan A	**Plan B**
Weekly new covid-19 hospital admissions per 100.000 inhabitants	**1**	**7**
Active population losing their job (%)	**5**	**20**
Restrictions of non-essential activities	**No restrictions**	**Some restrictions**
Restrictions on social contacts	**Some restrictions**	**No restrictions**
Increase in psychological distress in the general population	**50**	**10**

○ *Plan A (1)*

○ *Plan B (2)*

Page Break

S2A9 Put yourself in the shoes of a policymaker voting for a plan to tackle a pandemic similar to the Covid-19 pandemic.

*Please cast your **ninth** vote for Plan A or Plan B*

	Plan A	**Plan B**
Weekly new covid-19 hospital admissions per 100.000 inhabitants	**1**	**1**
Active population losing their job (%)	**5**	**5**
Restrictions of non-essential activities	**No restrictions**	**No restrictions**
Restrictions on social contacts	**Some restrictions**	**No restrictions**
Increase in psychological distress in the general population	**50**	**10**

○ *Plan A (1)*

○ *Plan B (2)*

End of Block: Scenario 2

Start of Block: Scenario 3

S3A2 Put yourself in the shoes of a policymaker voting for a plan to tackle a pandemic similar to the Covid-19 pandemic.

*Please cast your **second** vote for Plan A or Plan B*

	Plan A	**Plan B**
Weekly new covid-19 hospital admissions per 100.000 inhabitants	**14**	**7**
Active population losing their job (%)	**10**	**5**
Restrictions of non-essential activities	**Complete restrictions**	**No restrictions**
Restrictions on social contacts	**No restrictions**	**No restrictions**
Increase in psychological distress in those younger than 24 years	**25**	**25**

○ *Plan A (1)*

○ *Plan B (2)*

Page Break

S3A3 Put yourself in the shoes of a policymaker voting for a plan to tackle a pandemic similar to the Covid-19 pandemic.

*Please cast your **third** vote for Plan A or Plan B*

	Plan A	**Plan B**
Weekly new covid-19 hospital admissions per 100.000 inhabitants	**1**	**14**
Active population losing their job (%)	**10**	**20**
Restrictions of non-essential activities	**Complete restrictions**	**Some restrictions**
Restrictions on social contacts	**No restrictions**	**Some restrictions**
Increase in psychological distress in those younger than 24 years	**25**	**50**

○ *Plan A (1)*

○ *Plan B (2)*

Page Break

S3A4 Put yourself in the shoes of a policymaker voting for a plan to tackle a pandemic similar to the Covid-19 pandemic.

*Please cast your **fourth** vote for Plan A or Plan B*

	Plan A	**Plan B**
Weekly new covid-19 hospital admissions per 100.000 inhabitants	**14**	**1**
Active population losing their job (%)	**20**	**5**
Restrictions of non-essential activities	**No restrictions**	**Some restrictions**
Restrictions on social contacts	**Some restrictions**	**Some restrictions**
Increase in psychological distress in those younger than 24 years	**10**	**25**

○ *Plan A (1)*

○ *Plan B (2)*

Page Break

S3A5 Put yourself in the shoes of a policymaker voting for a plan to tackle a pandemic similar to the Covid-19 pandemic.

*Please cast your **fifth** vote for Plan A or Plan B*

	Plan A	**Plan B**
Weekly new covid-19 hospital admissions per 100.000 inhabitants	**7**	**1**
Active population losing their job (%)	**5**	**20**
Restrictions of non-essential activities	**Complete restrictions**	**No restrictions**
Restrictions on social contacts	**Some restrictions**	**No restrictions**
Increase in psychological distress in those younger than 24 years	**25**	**25**

○ *Plan A (1)*

○ *Plan B (2)*

Page Break

S3A6 Put yourself in the shoes of a policymaker voting for a plan to tackle a pandemic similar to the Covid-19 pandemic.

*Please cast your **sixth** vote for Plan A or Plan B*

	Plan A	**Plan B**
Weekly new covid-19 hospital admissions per 100.000 inhabitants	**1**	**7**
Active population losing their job (%)	**20**	**10**
Restrictions of non-essential activities	**Complete restrictions**	**Some restrictions**
Restrictions on social contacts	**No restrictions**	**Some restrictions**
Increase in psychological distress in those younger than 24 years	**25**	**10**

○ *Plan A (1)*

○ *Plan B (2)*

Page Break

S3A7 Put yourself in the shoes of a policymaker voting for a plan to tackle a pandemic similar to the Covid-19 pandemic.

*Please cast your **seventh** vote for Plan A or Plan B*

	Plan A	**Plan B**
Weekly new covid-19 hospital admissions per 100.000 inhabitants	**14**	**7**
Active population losing their job (%)	**5**	**20**
Restrictions of non-essential activities	**No restrictions**	**Some restrictions**
Restrictions on social contacts	**No restrictions**	**Some restrictions**
Increase in psychological distress in those younger than 24 years	**50**	**10**

○ *Plan A (1)*

○ *Plan B (2)*

Page Break

S3A8 Put yourself in the shoes of a policymaker voting for a plan to tackle a pandemic similar to the Covid-19 pandemic.

*Please cast your **eighth** vote for Plan A or Plan B*

	Plan A	**Plan B**
Weekly new covid-19 hospital admissions per 100.000 inhabitants	**1**	**14**
Active population losing their job (%)	**10**	**5**
Restrictions of non-essential activities	**No restrictions**	**Some restrictions**
Restrictions on social contacts	**Some restrictions**	**No restrictions**
Increase in psychological distress in those younger than 24 years	**10**	**25**

○ *Plan A (1)*

○ *Plan B (2)*

Page Break

S3A9 Put yourself in the shoes of a policymaker voting for a plan to tackle a pandemic similar to the Covid-19 pandemic.

*Please cast your **ninth** vote for Plan A or Plan B*

	Plan A	**Plan B**
Weekly new covid-19 hospital admissions per 100.000 inhabitants	**1**	**1**
Active population losing their job (%)	**10**	**5**
Restrictions of non-essential activities	**No restrictions**	**No restrictions**
Restrictions on social contacts	**Some restrictions**	**No restrictions**
Increase in psychological distress in those younger than 24 years	**10**	**10**

○ *Plan A (1)*

○ *Plan B (2)*

End of Block: Scenario 3

Start of Block: Scenario 4

S4A2 Put yourself in the shoes of a policymaker voting for a plan to tackle a pandemic similar to the Covid-19 pandemic.

*Please cast your **second** vote for Plan A or Plan B*

	Plan A	**Plan B**
Weekly new covid-19 hospital admissions per 100.000 inhabitants	**1**	**7**
Active population losing their job (%)	**5**	**20**
Restrictions of non-essential activities	**Some restrictions**	**No restrictions**
Restrictions on social contacts	**Some restrictions**	**No restrictions**
Increase in psychological distress in those younger than 24 years	**25**	**50**

○ *Plan A (1)*

○ *Plan B (2)*

Page Break

S4A3 Put yourself in the shoes of a policymaker voting for a plan to tackle a pandemic similar to the Covid-19 pandemic.

*Please cast your **third** vote for Plan A or Plan B*

	Plan A	**Plan B**
Weekly new covid-19 hospital admissions per 100.000 inhabitants	**7**	**1**
Active population losing their job (%)	**5**	**20**
Restrictions of non-essential activities	**Some restrictions**	**No restrictions**
Restrictions on social contacts	**No restrictions**	**Some restrictions**
Increase in psychological distress in those younger than 24 years	**50**	**25**

○ *Plan A (1)*

○ *Plan B (2)*

Page Break

S4A4 Put yourself in the shoes of a policymaker voting for a plan to tackle a pandemic similar to the Covid-19 pandemic.

*Please cast your **fourth** vote for Plan A or Plan B*

	Plan A	**Plan B**
Weekly new covid-19 hospital admissions per 100.000 inhabitants	**1**	**7**
Active population losing their job (%)	**5**	**10**
Restrictions of non-essential activities	**Some restrictions**	**No restrictions**
Restrictions on social contacts	**Some restrictions**	**Some restrictions**
Increase in psychological distress in those younger than 24 years	**10**	**25**

○ *Plan A (1)*

○ *Plan B (2)*

Page Break

S4A5 Put yourself in the shoes of a policymaker voting for a plan to tackle a pandemic similar to the Covid-19 pandemic.

*Please cast your **fifth** vote for Plan A or Plan B*

	Plan A	**Plan B**
Weekly new covid-19 hospital admissions per 100.000 inhabitants	**7**	**1**
Active population losing their job (%)	**5**	**20**
Restrictions of non-essential activities	**No restrictions**	**Some restrictions**
Restrictions on social contacts	**Some restrictions**	**No restrictions**
Increase in psychological distress in those younger than 24 years	**25**	**50**

○ *Plan A (1)*

○ *Plan B (2)*

Page Break

S4A6 Put yourself in the shoes of a policymaker voting for a plan to tackle a pandemic similar to the Covid-19 pandemic.

*Please cast your **sixth** vote for Plan A or Plan B*

	Plan A	**Plan B**
Weekly new covid-19 hospital admissions per 100.000 inhabitants	**1**	**7**
Active population losing their job (%)	**5**	**20**
Restrictions of non-essential activities	**Complete restrictions**	**Some restrictions**
Restrictions on social contacts	**Some restrictions**	**Some restrictions**
Increase in psychological distress in those younger than 24 years	**10**	**25**

○ *Plan A (1)*

○ *Plan B (2)*

Page Break

S4A7 Put yourself in the shoes of a policymaker voting for a plan to tackle a pandemic similar to the Covid-19 pandemic.

*Please cast your **seventh** vote for Plan A or Plan B*

	Plan A	**Plan B**
Weekly new covid-19 hospital admissions per 100.000 inhabitants	**14**	**7**
Active population losing their job (%)	**5**	**20**
Restrictions of non-essential activities	**No restrictions**	**Complete restrictions**
Restrictions on social contacts	**No restrictions**	**Some restrictions**
Increase in psychological distress in those younger than 24 years	**10**	**50**

○ *Plan A (1)*

○ *Plan B (2)*

Page Break

S4A8 Put yourself in the shoes of a policymaker voting for a plan to tackle a pandemic similar to the Covid-19 pandemic.

*Please cast your **eighth** vote for Plan A or Plan B*

	Plan A	**Plan B**
Weekly new covid-19 hospital admissions per 100.000 inhabitants	**1**	**7**
Active population losing their job (%)	**5**	**20**
Restrictions of non-essential activities	**No restrictions**	**Some restrictions**
Restrictions on social contacts	**Some restrictions**	**No restrictions**
Increase in psychological distress in those younger than 24 years	**50**	**10**

○ *Plan A (1)*

○ *Plan B (2)*

Page Break

S4A9 Put yourself in the shoes of a policymaker voting for a plan to tackle a pandemic similar to the Covid-19 pandemic.

*Please cast your **ninth** vote for Plan A or Plan B*

	Plan A	**Plan B**
Weekly new covid-19 hospital admissions per 100.000 inhabitants	**1**	**1**
Active population losing their job (%)	**5**	**5**
Restrictions of non-essential activities	**No restrictions**	**No restrictions**
Restrictions on social contacts	**Some restrictions**	**No restrictions**
Increase in psychological distress in those younger than 24 years	**50**	**10**

- ○ *Plan A (1)*
- ○ *Plan B (2)*

End of Block: Scenario 4

Start of Block: Scenario 5

S5A2 Put yourself in the shoes of a policymaker voting for a plan to tackle a pandemic similar to the Covid-19 pandemic.

*Please cast your **second** vote for Plan A or Plan B*

	Plan A	**Plan B**
Weekly new covid-19 hospital admissions per 100.000 inhabitants	**14**	**30**
Active population losing their job (%)	**10**	**5**
Restrictions of non-essential activities	**Complete restrictions**	**No restrictions**
Restrictions on social contacts	**No restrictions**	**No restrictions**
Increase in psychological distress in the general population	**25**	**25**

○ *Plan A (1)*

○ *Plan B (2)*

Page Break

S5A3 Put yourself in the shoes of a policymaker voting for a plan to tackle a pandemic similar to the Covid-19 pandemic.

*Please cast your **third** vote for Plan A or Plan B*

	Plan A	**Plan B**
Weekly new covid-19 hospital admissions per 100.000 inhabitants	**1**	**14**
Active population losing their job (%)	**10**	**30**
Restrictions of non-essential activities	**Complete restrictions**	**Some restrictions**
Restrictions on social contacts	**No restrictions**	**Some restrictions**
Increase in psychological distress in the general population	**25**	**70**

○ *Plan A (1)*

○ *Plan B (2)*

Page Break

S5A4 Put yourself in the shoes of a policymaker voting for a plan to tackle a pandemic similar to the Covid-19 pandemic.

*Please cast your **fourth** vote for Plan A or Plan B*

	Plan A	**Plan B**
Weekly new covid-19 hospital admissions per 100.000 inhabitants	**14**	**1**
Active population losing their job (%)	**30**	**5**
Restrictions of non-essential activities	**No restrictions**	**Some restrictions**
Restrictions on social contacts	**Some restrictions**	**Some restrictions**
Increase in psychological distress in the general population	**10**	**25**

○ *Plan A (1)*

○ *Plan B (2)*

Page Break

S5A5 Put yourself in the shoes of a policymaker voting for a plan to tackle a pandemic similar to the Covid-19 pandemic.

*Please cast your **fifth** vote for Plan A or Plan B*

	Plan A	**Plan B**
Weekly new covid-19 hospital admissions per 100.000 inhabitants	**30**	**1**
Active population losing their job (%)	**5**	**30**
Restrictions of non-essential activities	**Complete restrictions**	**No restrictions**
Restrictions on social contacts	**Some restrictions**	**No restrictions**
Increase in psychological distress in the general population	**25**	**25**

○ *Plan A (1)*

○ *Plan B (2)*

Page Break

S5A6 Put yourself in the shoes of a policymaker voting for a plan to tackle a pandemic similar to the Covid-19 pandemic.

*Please cast your **sixth** vote for Plan A or Plan B*

	Plan A	**Plan B**
Weekly new covid-19 hospital admissions per 100.000 inhabitants	**1**	**30**
Active population losing their job (%)	**30**	**10**
Restrictions of non-essential activities	**Complete restrictions**	**Some restrictions**
Restrictions on social contacts	**No restrictions**	**Some restrictions**
Increase in psychological distress in the general population	**25**	**10**

○ *Plan A (1)*

○ *Plan B (2)*

Page Break

S5A7 Put yourself in the shoes of a policymaker voting for a plan to tackle a pandemic similar to the Covid-19 pandemic.

*Please cast your **seventh** vote for Plan A or Plan B*

	Plan A	**Plan B**
Weekly new covid-19 hospital admissions per 100.000 inhabitants	**14**	**30**
Active population losing their job (%)	**5**	**50**
Restrictions of non-essential activities	**No restrictions**	**Some restrictions**
Restrictions on social contacts	**No restrictions**	**Some restrictions**
Increase in psychological distress in the general population	**70**	**10**

○ *Plan A (1)*

○ *Plan B (2)*

Page Break

S5A8 Put yourself in the shoes of a policymaker voting for a plan to tackle a pandemic similar to the Covid-19 pandemic.

*Please cast your **eighth** vote for Plan A or Plan B*

	Plan A	**Plan B**
Weekly new covid-19 hospital admissions per 100.000 inhabitants	**1**	**14**
Active population losing their job (%)	**10**	**5**
Restrictions of non-essential activities	**No restrictions**	**Some restrictions**
Restrictions on social contacts	**Some restrictions**	**No restrictions**
Increase in psychological distress in the general population	**10**	**25**

○ *Plan A (1)*

○ *Plan B (2)*

Page Break

S5A9 Put yourself in the shoes of a policymaker voting for a plan to tackle a pandemic similar to the Covid-19 pandemic.

*Please cast your **ninth** vote for Plan A or Plan B*

	Plan A	**Plan B**
Weekly new covid-19 hospital admissions per 100.000 inhabitants	**1**	**1**
Active population losing their job (%)	**10**	**5**
Restrictions of non-essential activities	**No restrictions**	**No restrictions**
Restrictions on social contacts	**Some restrictions**	**No restrictions**
Increase in psychological distress in the general population	**10**	**10**

- ○ *Plan A (1)*
- ○ *Plan B (2)*

End of Block: Scenario 5

Start of Block: Avis sur scenario

A1 Tell us how you found the previous questions in which you had to pick a Plan to vote for.
How easy were they to answer?

- ○ *Very easy (1)*
- ○ *Rather easy (2)*
- ○ *Rather difficult (3)*
- ○ *Very difficult (4)*

A2 Do you have any thoughts or comments on these questions?

_____

_____

_____

_____

_____

End of Block: Avis sur scenario

Start of Block: Politic

P1 In politics, people sometimes talk of 'left' and 'right'.
Where would you place yourself on a scale from 1 to 11 where 1 means extreme left and 11 means extreme right?

	Extreme left (1)	2 (2)	3 (3)	4 (4)	5 (5)	6 (6)	7 (7)	8 (8)	9 (9)	10 (10)	Extreme right (11)
(1)	○	○	○	○	○	○	○	○	○	○	○

Page Break

P2 Here are policies to control the pandemic.
Please rate on how impactful you think they were to the general populations' mental health

	Very good (1)	**Good** (2)	**Neutral for mental health** (3)	**Bad** (4)	**Very bad** (8)
1) Lockdown (P2_1)	○	○	○	○	○
2) Restrictions on public gatherings (P2_2)	○	○	○	○	○
3) School closures (including home-schooling) (P2_3)	○	○	○	○	○
4) Non-essential shops closures (P2_4)	○	○	○	○	○
5) Closure of restaurants, pubs, bars (P2_5)	○	○	○	○	○
6) Mandatory working from home (P2_6)	○	○	○	○	○
7) International travel restrictions (P2_7)	○	○	○	○	○
8) Indoor sports venues closures (P2_8)	○	○	○	○	○
9) Cultural venues closures (museums, cinemas, theatres) (P2_9)	○	○	○	○	○

10) Higher Education closures (P2_10)	○	○	○	○	○
11) Restrictions on how many people you can meet privately (P2_11)	○	○	○	○	○
12) Nursing homes access restrictions (P2_12)	○	○	○	○	○
13) Hospital visits restrictions (P2_13)	○	○	○	○	○

Page Break

P3 Looking at the same list of policies, which one policy **would you avoid the most** because it can be considered too harmful on the general population's mental health ?

- ○ *Lockdown (1)*
- ○ *Restrictions on public gatherings (2)*
- ○ *School closures (including home-schooling) (3)*
- ○ *Non-essential shops closures (4)*
- ○ *Closure of restaurants, pubs, bars (5)*
- ○ *Mandatory working from home (6)*
- ○ *International travel restrictions (7)*
- ○ *Indoor sports venues closures (8)*
- ○ *Cultural venues closures (museums, cinemas, theatres) (9)*
- ○ *Higher Education closures (10)*
- ○ *Restrictions on how many people you can meet privately (11)*
- ○ *Nursing homes access restrictions (12)*
- ○ *Hospital visits restrictions (13)*

Page Break

P4 Here are some policies aiming to provide support to the population during the Covid-19 pandemic.
How impactful do you think they were to the general populations' mental health ?

	Very good (1)	**Good** (2)	**Neutral** for mental health (3)	**Bad** (4)	**Very bad** (5)
1. Income support policies (P4_1)	○	○	○	○	○
2. Furlough policies (P4_2)	○	○	○	○	○
3. Home-working policies (P4_3)	○	○	○	○	○
4. Online health and mental health services (P4_4)	○	○	○	○	○
5. Social support services (P4_5)	○	○	○	○	○
6. Home-schooling (P4_6)	○	○	○	○	○

End of Block: Politic

Start of Block: Health

H1 To what extent do you agree or disagree with the following statements ?

People with psychological or emotional health problems ...

	Totally agree (1)	Tend to agree (2)	Tend to disagree (3)	Totally disagree (4)	I don't know (5)
are unpredictable (H1_1)	○	○	○	○	○
constitute a danger to others (H1_2)	○	○	○	○	○
never recover (H1_3)	○	○	○	○	○
have themselves to blame (H1_4)	○	○	○	○	○

Page Break

H2 *Please answer the following questions about yourself.*

	Yes (1)	No (2)	I don't know (3)
Are you currently living with, or have you ever lived with, someone with a mental health problem? (H2_1)	○	○	○
Are you currently working with, or have you ever worked with, someone with a mental health problem? (H2_2)	○	○	○
Do you currently have, or have you ever had, a neighbour with a mental health problem? (H2_3)	○	○	○
Do you currently have, or have you ever had, a close friend or family member with a mental health problem? (H2_4)	○	○	○

End of Block: Health

Start of Block: AboutYourself

Y1 In which country do you currently reside?

▼ Afghanistan (1) ... Zimbabwe (1357)

Page Break

X→ X→

Y2 What is your age ?

- *0 - 15 (1)*
- *16 - 24 (2)*
- *25 - 44 (3)*
- *45 - 64 (4)*
- *65 - 74 (5)*
- *75+ (6)*

Page Break

X→ X→

Y3 With what gender do you identify most ?

- ○ *Male (1)*
- ○ *Female (2)*
- ○ *Prefer not to say (3)*

Page Break

X→ X→

Y4 What is your highest level of education ?

- ○ *None (1)*
- ○ *Primary (2)*
- ○ *Lower secondary (3)*
- ○ *Higher secondary (4)*
- ○ *University (bachelor) (5)*
- ○ *University (post-graduate) (6)*
- ○ *Prefer not to say (7)*

Page Break

X→ X→

Y5 Do you own your own house or apartment ?

- *Yes (1)*
- *No (2)*
- *Prefer not to say (3)*

Page Break

X→ X→

Y6 What is currently your employment status ?

- ○ *Employed (1)*
- ○ *Student (2)*
- ○ *Unemployed (3)*
- ○ *Retired (4)*
- ○ *On sick leave (5)*
- ○ *Other: please specify (6)* _____
- ○ *Prefer not to say (7)*

End of Block: AboutYourself

Start of Block: Employed

O1 On the whole, during the Covid-19 pandemic, have you been involved in Covid-19 policymaking, decision-making, advocacy, lobbying, or other policy-related/Covid-19 management-related activities?

- ○ *Yes (1)*
- ○ *No (2)*

End of Block: Employed

Start of Block: Final

F1 Do you have any final comments and remarks regarding the role of mental health during Covid-19 policymaking and/or mental health during policymaking of future pandemics ?

_____

_____

_____

_____

_____

Page Break

F2 Should you wish to receive the results of our study, please provide us with your e-mail address.

_____

End of Block: Final

Start of Block: CheckIfHumain

CheckIfHumain Humain ? Check the case please

End of Block: CheckIfHumain

Start of Block: Decisionnaire

O2 Please tick your current occupation/role

- ○ *Researcher/Expert (1)*
- ○ *Interest group member (2)*
- ○ *NGO staff (3)*
- ○ *Clinician/social worker (in contact with patients) (4)*
- ○ *Civil servant (5)*
- ○ *Policymaker/politician (6)*
- ○ *Other: please specify (7)* _____

Page Break

O3 During the Covid-19 pandemic in the years 2020 and 2021, to what extent have you been involved in the following activities ?

	Not at all (1)	Somewhat (2)	Importantly (3)
Research and expertise about the Covid-19 pandemic and/or its consequences (O3_1)	○	○	○
Advice to the authorities (O3_2)	○	○	○
Participate in policy decision-making (O3_3)	○	○	○
Interest group advocacy/lobbying (O3_4)	○	○	○
Implementing policies on the ground (O3_5)	○	○	○

O3_6

	(1)	(2)	(3)
Other : Please specify (O3_6)	○	○	○

Page Break

O4 How would you rate your influence on policymaking in relation with the management of the Covid-19 pandemic ?

- *Not at all influential (1)*
- *Slightly influential (2)*
- *Somewhat influential (3)*
- *Very influential (4)*
- *Extremely influential (5)*

End of Block: Decisionnaire