RESPOND

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RAPID APPRAISAL REPORT ON HEALTH SYSTEM RESPONSIVENESS AND MENTAL HEALTH IMPACT ASSESSMENT, VERSION 1

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

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1. AIMS AND OBJECTIVES

The COVID-19 pandemic has been the dominant public policy issue, not only in Europe, but worldwide for the last year. Globally 2.5 million people have died directly from COVID during the pandemic, with many more hospitalised. Even more people are still living with the short-term and potentially longer-term consequences of the illness.

Sadly, the impacts of the pandemic go well beyond individuals who have contracted the illness and their families. COVID-19 has triggered a wider health crisis: health systems that have had to deal with the pressures of the pandemic have been unable to meet all routine demands for chronic and acute mental and physical care. Economies have also been buckling under the multiple pressures of significantly increased spending on COVID-related health measures at a time when economic output has experienced its greatest decline in modern history.

All countries have been affected by the pandemic, but the magnitude of mortality and morbidity impacts, including impacts on mental health and wellbeing have varied considerably. While many factors will contribute to these differences in country experiences, the ways in which health systems have responded to this public health crisis are likely to have played a major role.

This briefing report is the first in a series of rapid assessment reports that look at the potential impacts of COVID-19 on population psychosocial health across Europe, including ongoing examination of how immediate and changing policy responses to counter the pandemic may have protected and/or exacerbated risks to mental health and wellbeing. 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.

In this first report, we set out a framework to identify risk factors and determinants of mental health and wellbeing, as well as consider how these may be affected by the pandemic. This framework also sets out our approach to conducting ongoing mental health impact assessments on policies and practice that have been introduced within and beyond the health system to respond to the pandemic. The aim is to assess the extent to which resilience, wellbeing and mental health have been integrated into policy responses, what impacts they have had on inequalities in mental health as well as on the immediate and longer-term socio-economic costs of poor mental health. This is both for specific high-risk groups such as health/long-term care workers, as well as the general population.

In this first report we also set out a timeline of key policy measures that have been implemented over the last year to tackle the pandemic and also mitigate against some of its consequences, with a particular focus on how countries have responded to the need to protect the resilience, wellbeing and mental health. Here we focus on eight countries: Netherlands, Belgium, France, Germany, Italy, Spain, Sweden and the UK.

In all of these countries there are many different policy measures, some targeted at the general population and others concentrated on specific populations / settings where risks of disease spread are heightened. Most obviously these policy measures include various restrictions on freedom of movement and social distancing, as well as the closures of schools and non-essential business.

Policy measures have also been introduced to counter against some of the most egregious impacts of public health measures. These include measures to protect the resilience, wellbeing and mental health of frontline workers, including health and social care staff, as well as increased access to online help and support for mental health. At a macroeconomic level, countries have also adopted different social welfare protection measures to help maintain income and protect livelihoods of many who are unable to engage in their normal working activities.

This first report notes that there are many different determinants of mental health and that our COVID-19 policy timelines illustrate a broad range of policies that can have consequences for mental health. We look initially in this report at two specific areas that have been highlighted in the media and potential areas of concern. The first of these focuses on the particular challenges faced in the long-term care sector and the consequences for the mental health and wellbeing of care staff, families and people with long term care needs.

We also look at the potential impacts of the pandemic on self-harm and suicide and use this as an example to consider whether previous economic shocks might provide valuable lessons on how policy makers can mitigate against any potential increased risk of self-harm and suicide. We will be iteratively updating and expanding our rapid assessment reports to cover many issues; we also highlight briefly some of these other potential issues here.

Finally, one of the issues we are considering throughout the 3-year lifetime of RESPOND is the role of media messaging in influencing policy and practice around mental health concerns arising from the pandemic. The way in which COVID-related public health messaging is conveyed by mainstream and social media can also have consequences for public mental health. One potential example of this might, for example, be the undue fear associated with use of vaccines in some population groups. In this first report we briefly set out our approach to documenting the influence of media comments on the pandemic and policy responses, as well as mental health and wellbeing.

Ultimately using the approach set out in this first rapid report, with information collected on a recurring basis from different sources including analysis of policy documents, scientific advisory recommendations, behavioural-psychology informed public health communication strategies, print, social media, radio and broadcast media content analysis, as well as interviews with a range of stakeholders, our framework will be iteratively refined to highlight key steps and infrastructure to help adequately prepare health systems to respond rapidly to any future pandemic or similar public health shocks.

2. COVID-19 AND MENTAL HEALTH: DEVELOPMENT OF A FRAMEWORK FOR EXPLORING THE IMPACTS ON MENTAL HEALTH

RESPOND is focused on the potential impacts of COVID-19 on population psychosocial health across Europe, including ongoing examination of how immediate and changing policy responses to counter the pandemic may have protected and/or exacerbated risks to mental health and wellbeing.

A starting point looking at the potential impacts of COVID-19 on mental health is to understand what makes up the primary determinants of population mental health and then consider whether the COVID-19 pandemic and policy responses may affect the way in which these determinants will operate. We potentially can also learn by looking at the impacts on mental health of past major public health and economic shocks, including experience following the 2008-2009 global economic crisis. We then set out our framework for assessing the mental health impacts of COVID-19 and the policy response that we are using to look at potential impacts in detail continuously over the lifetime of RESPOND.

2.1. DETERMINANTS OF MENTAL HEALTH AND WELLBEING

It is well known that, beyond individual vulnerability, key social determinants play an important role on wellbeing and mental health, acting either as aetiological factors for the development of mental disorders (e.g., violence, deprivation and other contextual features that might increase psychological distress) or as protective factors (e.g., social capital, job and economic security and other factors that might buffer negative effects of adversity). Based on commonly identified social determinants of mental health (Lund et al., 2018), we will build our framework upon the assumption that the impact of the COVID-19 pandemic on mental health is strongly influenced by contextual factors that might increase the likelihood of exposure to potential risk factors on one hand, or the availability of protective factors that might increase resilience. Additionally, it is also well established that "[positive] mental health is a fundamental element in the resilience, health assets, capabilities and positive adaptation that enable people both to cope with adversity and to reach their full potential" (Friedli & World Health Organization, 2009), and that, therefore, mental health should be defined as a cross-cutting component of life, which interacts with all other dimensions in a bidirectional way, so that both impacts on and is impacted by whatever happens in other spheres of life (e.g., physical health, economic circumstances, participation in social life etc.). As a result, our framework is based on two fundamental principles:

1. *That even "a small improvement in population wide levels of wellbeing will reduce the prevalence of mental illness [and bring a number of] benefits associated with positive mental health" (Friedli & World Health Organization, 2009) and, as result, increase resilience and enhance people's ability to cope.*
2. *That although specific policy/interventions targeting mental health are needed/welcome, the importance of mental health as a driving force should be considered across all sectors and in all policy-making decisions, and that potential mental health impact of any policy should be considered before implementation.*

Before setting out how we will assess the impacts on mental health of COVID-19 and the subsequent policy response, we set out some key transitions in the life course, as well as in our socio-economic environments where the social determinants of mental health are particularly visible and briefly illustrate how these determinants may be further influenced by the pandemic. In doing this we want to highlight that while a lot of attention understandably is focused on the immediate risks for mental health of the pandemic, there are also potential consequences that may not be immediately visible but nonetheless have consequences for decades to come. This is perhaps most evident when we look at childhood and adolescence, a key developmental period during the life course when mental capital Is formed and accumulated (McDaid et al., 2020). Mental capital 'encompasses a person's cognitive and emotional resources, including their cognitive ability, how flexible and efficient they are at learning, and their 'emotional intelligence', such as their social skills and resilience in the face of stress (Government Office for Science, 2008).

2.2. LIFE COURSE TRANSITIONS, MENTAL HEALTH AND WELLBEING AND COVID-19

2.2.1. THE IMPORTANCE OF A GOOD START IN LIFE

We start by highlighting the importance of a having a good start in life. Our experiences in the early years of life can have a profound impact on our long-term mental health and wellbeing, as well as on critical life opportunities, such as educational attainment, employment, physical health and family relationships. These experiences begin with pregnancy itself; poor perinatal maternal mental health can have long-lasting adverse impacts for a child's emotional health, as well as for physical and cognitive development.

Early identification of perinatal depression coupled with ongoing support, for instance from health visitors, for mothers during the pre-natal period is recommended to counter this issue (McDaid, Hewlett, & Park, 2017). Some concerns have been raised that restrictions on support due to COVID-19 are having detrimental impacts of the mental health of mothers (de Arriba-García et al., 2021; Fallon et al., 2021). Moreover, access to family support networks, most likely from grandparents has also been limited by COVID-19 restrictions and guidance in all 8 countries in RESPOND. Fathers have also been prevented from attending the births of their children, and we do not know whether this also has any longer impact on infant-father bonding. That said, the pandemic restrictions have also meant that fathers, in particular, have been much more likely to be at home than might normally be the case, meaning that there is additional support available in the home environment.

The period beyond infancy until the time children start going to school is a critical time for cognitive and emotional development. This can be aided by participation in early years learning and play programmes where children develop a range of skills and also have an opportunity to learn how to socialise with other children. This can also help reduce the risk of conduct and other behavioural problems developing in children. These kindergarten, nursery and similar programs also provide an opportunity for parents to get a break from full time caring and protect their own mental health and wellbeing. Parenting programmes can help promote positive mental well-being and reduce the risk of poor emotional development. They can also help avoid some cases of child abuse and neglect. In the very long-term evaluations suggest that they can generate positive long-term economic benefits for children as a result for this better emotional health. Again, we need to consider the impacts of COVID on the provision of kindergartens, nurseries, parenting programmes and other supports that help with children development and family support. There will also be implications to be considered of the potential reduction in access to specialist mental health services for young children identified as having particular mental health needs.

2.2.2. SCHOOL-AGED CHILDREN

An area that continues to receive considerable attention at the moment is the disruptive impact of COVID-19 on schooling, with some earlier studies suggesting an adverse impact on mental health (Newlove-Delgado et al., 2021). The focus of this attention has been on the risks to educational development and ultimately educational attainment will have a major impact on the life chances of young people. But education attainment is also likely to be improved through better mental health, and we know that, in general, attending school is protective to mental health and wellbeing. Schools also present an ideal setting for the delivery of many interventions that can help support the mental health of young people and strengthen their mental health resilience and coping skills to deal with both anticipated and unexpected pressures. School closures mean a reliance on digital learning, however inequalities in access to digital learning that are seen in all countries in contrast, as well as uncertainties on exam and assessment processes may impact on mental health and wellbeing.

2.2.3. TRANSITION FROM SCHOOL TO EDUCATION OR EMPLOYMENT

Another critical period in early life is the transition from school either to higher education or directly to work. This transition from adolescence into adulthood is a period characterised by mental health challenges. The pandemic appears to have had a major impact on young people's experience in higher education, with many universities and colleges switching to online learning; in some countries students still have to pay university fees and accommodation costs despite this changed experience. The restrictions in the retail and hospitality sectors have also meant that access to part time jobs to help pay living costs while in education have been much more limited, and there is uncertainty about future career prospects. Some young people, particularly those who were not from the local country, may have found themselves very isolated during the pandemic, and unable to return home.

Youth unemployment rates have risen during the pandemic. Young adults who are not in employment, education, or training (NEET) are at risk of long-term economic disadvantage and social exclusion, including increased risks to their mental health (Rodwell et al., 2018). Youth is also the time-period when the onset of significant mental health problems including psychosis, whilst still rare, is greatest. Early intervention and support is again critical to life chances of young people who are at high risk of poor mental health. Again, support for young people will have been affected, with restrictions on face to face support programs, and closure of leisure facilities, youth and sports clubs that can also be protective to health.

2.2.4. WORKPLACES AND THE LABOUR MARKET

Good work in well organised and supportive workplaces is associated with improved mental health and wellbeing. Orthodox thinking on mental health and work is fundamentally challenged by the nature of the pandemic. There are potential substantive inequalities in mental health related to occupation. There are the front-line professions, such as hospital cleaners, supermarket workers, bus, train and delivery drivers, as well as health and social care workers, teachers and police who have had to continue to work in conditions where they may be fearful of contracting COVID-19 and indeed passing it on to their more vulnerable family members.

At the same time there have also been other workers, especially in the service sector, who have been able to switch to home working relatively effectively, retaining income and perhaps even benefiting from the financial and time benefits of the reduced need to travel to work and spending more time with their families. For instance recent longitudinal analysis of more than 600 workers in the UK before and after the onset of the pandemic did not report any adverse impact on overall wellbeing although performance might be affected (Pelly, Daly, Delaney, & Doyle, 2021). The study noted that "Homeworkers feel more engaged and autonomous, experience fewer negative emotions and feel more connected to their organisations. However, these improvements come at the expense of reduced homelife satisfaction and job performance."

However, the need for social distancing in all countries has meant that some sectors of the economy have been decimated. This is not just the retail and hospitality, but also many cultural and sports related sectors, as well as travel and tourism. In many cases employees in these and other sectors have found themselves either temporarily or increasingly permanently out of work.

Financial support is not available to all of these workers; and even where it is, the uncertainty over how long the period of economic disruption will last may also have an impact on mental health and wellbeing. Some migrant workers, often young people, may have found themselves isolated without work, less knowledge about how to claim or even being entitled to welfare support and unable to return home due to travel restrictions. For individuals already living with conditions such as anxiety and depression related disorders the situation may be very acutely felt and there may be fewer opportunities to get into work as part of their recovery process. Instead risks to psychological health related to job insecurity and job loss as a result of the pandemic may be great. There is already a large literature indicating that risks to mental health among those who experience job insecurity and fear job loss may be as great as the risks identified for those who are unemployed (Kim & von dem Knesebeck, 2015; ten Have, van Dorsselaer, & de Graaf, 2015). In the past, employees who survive a workplace downsizing were also at increased risk of poor mental health (Brenner et al., 2014). For those who lose their jobs, many of the jobs that are available during the pandemic are also insecure, e.g. delivery drivers.

2.2.5. CARING RESPONSIBILITIES

Throughout life all of us will have different levels of caring responsibility. We have already highlighted the importance of parental caring for children and adolescents and recognised that the level of support available to these informal carers during the pandemic has been reduced. Other carers are also vulnerable during the pandemic. Some of these will be 'sandwich' generation carers, having responsibility to support and home-school their children as well as ageing parents who may be physically or cognitively frail. Others may have lifelong caring responsibilities supporting a loved one living with a physical or learning disability as well chronic mental health problems, including psychosis and severe depression. Respite from care is important to protect physical and mental wellbeing, but during the pandemic opportunities for respite have been curtailed, for instance with day care centres closed and restrictions on support provided by professional home carers. Carers may also be at heightened risk of emotional loneliness because of the restrictions on movement and fear of passing on the coronavirus if they do come into contact with others.

2.2.6. TRANSITION TO RETIREMENT AND OLDER AGE

The transition to retirement is another time when mental health can be challenged. Retirement can mean the loss of role, social status, income and social networks, all of which can be protective to mental health. At older ages, multi-morbidities, physical frailty and bereavement can also impact on mental health. At least 12% of older people are affected by clinically significant levels of depression at any one time (Briggs, Tobin, Kenny, & Kennelly, 2018; Wild et al., 2012). Loneliness has also been associated with depression in older people (S. L. Lee et al., 2020). Some of the key actions to protect mental health in older people including actions to increase participation in social activities; however, during the pandemic, given the high level of mortality from COVID in older age groups many of these social activities have been restricted, and older people are also more likely than younger age groups to have been recommended to stay at home as much as possible. The loss of connection with their families may also place a strain on mental health. Although digital participation in older age groups is increasing rapidly older people are still less likely to be connected to the internet; and many of the psychological supports, as well as practical support such as supermarket home delivery services are only available online. In addition, of course, some older people will be living in long term residential care facilities; in many countries the mortality rate from COVID in care home residents has been extremely high, making residents very fearful, while restrictions on the ability of loved one to visit people living in care homes again can negatively impact on their mental health. All of these factors make it imperative to look at the specific impacts of different policy responses to COVID on older people, including approaches taken to roll out vaccination programmes.

2.3. COVID-19 AND THE ENVIRONMENTAL DETERMINANTS OF MENTAL HEALTH AND WELLBEING

Many of the determinants of mental health and wellbeing can be associated with different life events and life transitions. The environments in which we all live will also have an impact – this is not just our physical environments but also our social and material environments. Some of the most discussed environmental factors are set out below.

2.3.1. FAMILY CIRCUMSTANCES

Family circumstances can have a bearing on mental health and wellbeing. We have already discussed the risks in households with significant caring responsibilities, but there are other risks, especially for children. For example, children are more vulnerable to poor mental health and long-term life chances if they are not living with their families. So called 'looked-after' children may not have access to the same emotional and social support as children in traditional family settings. These adversities may be heightened by changing supports during COVID-19. Living in a single-parent family, or a family where other individuals have significant mental or physical health problems can be associated with long term risks to mental health without adequate support from social welfare and other circumstances. This can include increased risks of domestic violence and abuse, as seen in the Netherlands where 14 per 1000 children were the victims of abuse, significantly higher than normally seen (Vermeulen, van Berkel, & Alink, 2021).

2.3.2. FINANCIAL SECURITY

Another important determinant of mental health and wellbeing is financial security. We know that there is a strong association between long term unemployment and poor mental health, and much of this will be due to increased risk of poverty and material deprivation due to unemployment. Poverty is not however restricted to the unemployed; many people will be working in insecure, low paid jobs, with limited sickness benefits and other employment rights. This includes workers in the so-called 'gig economy' who may have insecure or zero hours contracts. Inadequate social protection measures and social welfare safety nets to safeguard against the risks of poverty have been associated with poor mental health. The loss of income may also mean a risk of loss of housing tenure; individuals may be worried about eviction from their homes if they fall behind on rent or mortgage payments. We also know from the 2008-2009 economic crisis that unemployment and unmanageable debt were associated with very long-term risks to mental health, including the risks of suicide and self-harm many years after the worst of the crisis was over (McDaid, 2017).

The COVID-19 pandemic has increased awareness of the vulnerability of many people to financial insecurity. All eight countries in RESPOND have introduced extra social welfare measures, including some levels of income protection for workers, as a result of the pandemic, but not all groups will benefit from these protections. Countries also have introduced measures to protect against eviction, but again not all individual circumstances will be covered, and landlords also may in severe financial crisis. The self-employed and small business owners may be particularly vulnerable if financial supports do not cover them.

2.3.3. HOUSING AND LIVING CONDITIONS

Another determinant of mental health is housing/living conditions. Poor quality housing, for instance with high levels of noise and environmental pollution, as well as the consequence of fuel poverty, such as damp, can have detrimental impacts on mental and physical health. These challenges have been exacerbated by the pandemic. Inequalities in space has been a considerable issue. The experience of the pandemic is very different for a family living in a very small flat in a high-rise building compared to those living in houses with access to a garden. Students or young professionals living in a one-room apartment, may feel very isolated and confined. Many families are having to educate their children as well as working from home without sufficient space or fast internet connections.

2.3.4. ACCESS TO GREEN SPACE

A related issue is access to so-called green space. A growing body of evidence, albeit mainly from cross-sectional studies, indicates that green space is protective for the mental health of children and adults. For example, data from more than 95,000 adults in the UK Biobank found significantly lower rates of major depression in individuals living in areas with higher levels of vegetation (Sarkar, Webster, & Gallacher, 2018), while in cross-sectional analysis in the Netherlands, green space has also been associated with a lower level of suicide risk (Helbich, de Beurs, Kwan, O'Connor, & Groenewegen, 2018). During the COVID-19 pandemic many leisure facilities and services have not been available for long stretches of time, but most countries have permitted periods of outdoor exercise even during periods of lockdown. Individuals who live in settings with little access to parks, nature or other green space may be at risk of poor mental health.

3. MENTAL HEALTH IMPACT ASSESSMENT FRAMEWORK

As part of RESPOND we have developed a mental health impact assessment framework to look specifically at the additional impacts of COVID-19, either in exacerbating existing risks to the determinants of mental health, as well as documenting impacts that has arisen solely to conditions seen in the pandemic. We plan to explore the impact of COVID-19 on mental health taking account of the following four dimensions:

1. *Pre-pandemic environment - i.e., characterisation of countries considering key social determinants of mental health (e.g., Gini index of inequality; key proximal economic indicators, such as financial strain, unemployment, relative deprivation etc.; key contextual/community-level characteristics, such as safety and security/violence, infrastructure (including, e.g., access to relevant services, such health, education etc); and other relevant information such as Lund et als conceptual framework on "social and cultural determinants of mental disorders and the Sustainable Development Goals (Lund et al., 2018).*
2. *Direct Impact of COVID-19 on mental health/wellbeing (e.g., emotional, psychological, mental sequelae resulting from COVID-19 infection and/or pandemic-related mental health symptoms, such as fear/phobia, anxiety, depression and psychological distress).*
3. *Potential impact of lockdown and other pandemic containment measures on mental health/wellbeing, considering how such measures and their direct/indirect consequences (e.g., unemployment/job insecurity; economic strain; social isolation; etc.) might negatively affect mental health/wellbeing, and which measures could buffer such impacts and/or help promote resilience/positive mental health (e.g., provision of economic support to workers and/or employers to keep jobs during lockdown, etc.)*
4. *Specific measures to promote mental health/wellbeing and/or to prevent ill mental health outcomes resulting from the pandemic.*

Multiple sources of information used in populating the framework

We have worked to build on existing impact assessment approaches, including adopting steps considered by an existing mental health impact assessment framework in collating and assessing evidence. Our impact assessment framework therefore draws on multiple sources of evidence that are gathered in WP3 and follows a similar process to that outlined in the mental wellbeing impact assessment process, where our focus is on both mental health and mental wellbeing impacts. Steps involved in the impact assessment process include:

1. *Mapping out areas where known determinants of mental health and wellbeing are likely to be affected by COVID-19 and policy responses to COVID-19.*
2. *In addition to always considering if there is likely to be an impact on the general population, identifying specific population groups that may be particularly affected. This might be based on the size of the population group or on the likely impact on inequalities between specific population groups and the general population.*
3. *Population groups of interest selected may vary across countries and settings, and be influenced by stakeholder interest, and differences in policy responses and their strictness, informed by our evolving analysis of ongoing policy timelines.*
4. *Making use of multiple sources of information are being used to complete policy impact templates. The detail of these multiple sources is set out in Box 1.*

Box 1: Collation and interpretation of multiple sources of information in impact assessment process

This includes our **ongoing policy timeline mapping exercise** which summarises different measures that have been taken at different points during the pandemic, including information on how strict these measures are. We **are reviewing the literature**, generally for information on the impact of the pandemic on mental health in our eight countries, as well as for **evaluations of the impact of specific policy measures** in countries. Our review is also searching for COVID related information related to the **existing likely social determinants of mental health** across the life-course that we have briefly described. Another source of information are **scientific advisory group documents** on the impact of the pandemic in countries and **any relevant parliamentary or other inquiries** that have been undertaken on the handling of the pandemic. **Interviews with different stakeholders** are also being held in each of the 8 countries. We are also looking at documentation collated by various **academic networks**, for instance including the LTC-COVID network which is looking specifically at the impacts of the pandemic on the provision of long-term care services. We will also draw on information on the way in which the pandemic and its response are communicated and in particular the way in which mental health impacts are covered by both **traditional and social media**. More information on our approach to media analysis is set out later in this report. Our analysis will also iteratively be informed by and in turn will inform other work packages. In particular, we are looking at the **policy and practice implications of analysis of data sets** being explored in WP2, as well as **practical experience in implementing mental health supports** in WPs 4 and 5.

5. *Describing and documenting positive and negative impacts on mental health and/or wellbeing of selected aspects of COVID-19 and the policy response. Where possible in documenting impact providing additional guiding information for policy makers describing:*
    - *Sources of data (e.g. qualitative or quantitative) and robustness of evidence and documentation supporting any impact*
    - *Where feasible information on the magnitude of impact where feasible, including size of target populations affected and duration of impacts*
    - *Whether any past health or economic shock has led to similar impacts*
    - *Inequalities in impact between different population groups*
    - *What is reported on potential resource consequences and economic cost, and where feasible giving an indication of the overall magnitude of economic impact.*
    - *Updating information on impacts over the lifetime of RESPOND, including addition of additional impact assessment for themes / population groups as they emerge.*
    - *Making use of information in policy impacts to inform stakeholder analyses that will be undertaken in WP3, to help understand how policymakers weigh up different policy choices that have impacts on mental health and wellbeing during and after the pandemic.*

Figure A provides an illustration of an overview matrix that we are continually developing, with examples of issues and population groups that are part of the impact assessment process.

Examples of COVID-19 Policy response						
	Target populations					
		General Population		Specific Vulnerable Groups		
Example Policy actions	Measure	Mental Health Consequence		Measure	Mental Health Consequence	
General health policy: Test and trace policy	Introduction of testing and trace systems for COVID-19	Anxieties and worries about be labelled as having COVID-19 Worries about being unable to work due to positive COVID test result		Regular testing for care home residents, staff and visitors.	Reduced anxiety / depression in long term care workforce Reduced anxiety / depression in long term care residents and families	
General health: Screening / treatment	Protecting critical population screening services – e.g. cancer screening / eye health	Worries on serious illness being diagnosed too late because of COVID – e.g. Age-Related Macular Degeneration, Glaucoma, Cancer		Ensuring ongoing treatment for existing conditions e.g. cancer	Reduced anxiety and depression over delays to existing treatment	
Mental Health: Routine access to services	Increased online access to mental wellbeing and resilience services	Strengthening population resilience impacts on mental wellbeing, psychological distress, and subsequent self-harm.		Switch to remote delivery of mental health services for existing clients	Reducing risk of deterioration in mental health functioning.	
Mental Health: COVID specific mental health support	Remote delivery of mental health support for people with COVID-19	Strengthening mental wellbeing of individuals having to isolate with COVID-19. May also improve adherence to isolation restrictions		Remote delivery of psychological support for health care workers	Reducing risk of burnout and absenteeism due to strain of managing pandemic	
Public health restrictions	Restrictions on gatherings	Impacts of isolation and loneliness on population mental health		Closure of youth clubs	Impacts on emotional wellbeing of children	
Public health restrictions	School closure policies	Impacts on mid to long term child psychological development; immediate psychological impacts on children and their families		Keeping schools open for vulnerable children and keyworker children	Reduced strain on parents and families	
Fiscal policy	Social protection measures (wage protection etc)	Reduce levels of economic uncertainty which can adversely impact mental health and increase self-harm risks.		Additional financial support for informal carers	Mitigate additional risks to carer mental health	

Figure A: Illustrative overview of themes related to impact of policy responses on mental health /wellbeing

4. TIMELINE OF POLICY RESPONSE TO COVID ACROSS THE 8 COUNTRIES

This section discusses three policy timelines, each depicting the eight RESPOND partner countries. As we have noted in this report, the Covid-19 pandemic has created a multitude of policies in each country, including social distancing and quarantining, travel bans, school closures, policies related to employment and the economy, or the health and care sector, to name a few. The majority of these policies are likely to have an impact on individuals' mental health, even though they may not be directly targeted at mental health (as is the case with the provision of online mental health services, for instance). To illustrate the impact of distinct policies on the population's mental health, we decided to initially for this report analyse the following three policy timelines:

1. *School Closures,*
2. *Restrictions on Gatherings, and*
3. *Stay at Home Requirements.*

These three policies were purposefully chosen, the literature indicating that they likely have a strong and continuous impact on the vast majority of the population. On the other hand, other policies may impact a smaller portion of the population, but in an equal or worse manner. However, for the purpose of this initial report, it was decided that the former would serve as a better example.

In order to receive a better understanding of the policy timelines, this section will be split in the following manner: first, literature on the distinct policies and their effects on mental health will be reviewed1. Second, the data needed to create the policy timelines will be discussed. This will be followed by a descriptive analysis of the timelines. Lastly, future plans and projects as part of the WP3, and how these relate to the policies and their respective timelines, will be explained in further depth.

4.1. SCHOOL CLOSURES AND THE EFFECTS ON MENTAL HEALTH: LITERATURE REVIEW

Let us start by looking at school closures. As of mid-April 2020, UNESCO reported that 1.3 billion young people in 195 countries had been impacted by schools closing and partially switching to remote and online education (Unesco, 2020). Several concerns have previously been raised regarding school closures and their impact on pupils', parents'/guardians and teachers' mental health.

In a scientific evidence base review on school closures due to an influenza pandemic, Jackson and colleagues stress the importance of policies, which alleviate the stress of working parents, particularly those who cannot work from home, such as healthcare professionals (Jackson, Mangtani, Hawker, Olowokure, & Vynnycky, 2014). However, smaller influenza outbreaks are not comparable to the current covid-19 pandemic in terms of severity and outreach. Viner and colleagues highlight that education "is one of the strongest predictors of the health and the wealth of a country's future workers" (p. 402) in a rapid systematic review (Viner et al., 2020).

Generally speaking, scholars argue that school closures may lead to interrupted learning (Onyema et al., 2020; Viner et al., 2020), hunger and poor nutrition due to a lack of free or subsidised school meals (Hoffman & Miller, 2020; Van Lancker & Parolin, 2020), parents being unprepared to take up the role of teachers and coaches (Garbe, Ogurlu, Logan, & Cook, 2020), increased stress and anxiety in both teachers and pupils due to challenges with distance and e-learning

[1] It is important to keep in mind that this is a rapid literature review and therefore by no means exhaustive; new literature on the effects of the aforementioned three policies is published incredibly frequently. The literature review serves the purpose of providing an initial overview of why concerns about individuals' mental health due to the three policies are valid, as based on previous studies.

(Hoffman & Miller, 2020), increased exposure to violence and abuse of pupils spending an increasing amount of time in vulnerable situations at home (Abramson, 2020), as well as social isolation and loneliness (Garbe et al., 2020; Viner et al., 2020). Further empirical research is however required to confirm these initial concerns.

Parents, and in particular women, typically are more affected by school closures. Because of gender norms, women are more likely to take care of children who need to be home-schooled due to Covid-19 school closures (Sarker, 2020), even if both partners are working from home. In normal circumstances in situations where gender norms are strong women have tended to have less time available for their jobs, take more holidays to cope with the additional tasks of home-schooling, or switch to part-time work (potentially resulting in a loss of financial resources and independency, which can cause psychological distress). Moreover, if they decide to keep working , they may feel like they have to juggle several distinct tasks simultaneously, which can also lead to psychological distress (Heggeness, 2020). While researching the effects of the current pandemic on individuals' mental wellbeing, several studies have indeed demonstrated a gender difference in psychological distress between men and women (Gandré, Coldefy, & Rochereau, 2020; Traunmüller, Stefitz, Gaisbachgrabner, & Schwerdtfeger, 2020; Wang et al., 2020). Traunmüller and colleagues for instance argue that this is due to an increase in unpaid care labour, such as taking care of children at home, which today is still largely done by women (Traunmüller et al., 2020).

4.2. SOCIAL DISTANCING AND QUARANTINING AND THE EFFECTS ON MENTAL HEALTH: LITERATURE REVIEW

Two other major policy areas have been the restriction of social gatherings and stay at home orders. These have been common policy adopted by policy makers across much of Europe to slow the spread of the virus (Almeda, García-Alonso, & Salvador-Carulla, 2021). This has been done, for instance through complete and partial lockdowns, curfews, and the ability to only meet a very restricted number of individuals outside the household while having to keep strict sanitary guidelines. However, as already stressed by Umberson et al (p. 152), "Humans are wired for social connection. Without social ties, distress emerges and health fails." (Umberson, Crosnoe, & Reczek, 2010) While individuals nowadays have increasing opportunities to connect online through social media, or via call and text, it may be that the lack of person-to-person social contact resulting from quarantining and social distancing policies negatively impacts on individuals' mental wellbeing.

The literature suggests that the impact of social distancing and quarantine measures on individuals' mental health is complex. For instance, studies reported lower rates of mental health, higher rates of anxiety and depression and increased alcohol consumption in individuals during the very strict quarantine imposed in China due to the Covid-19 pandemic (Ahmed et al., 2020; Xiang et al., 2020). After studying the mental health of adults in Germany, one study found that a general increase of social restrictions led to lower life satisfaction, as well as an increase in psychosocial concerns and loneliness (Benke, Autenrieth, Asselmann, & Pané-Farré, 2020). Being unable to have the same level of social contact, coupled with an increase in perceived life changes due to public health policies and a negative perception of these policies, was positively linked with increased anxiety, depression, psychosocial distress and overall lower life satisfaction. The authors stressed that it was the perception of public health policy mandated social restrictions rather than the actual restrictions that impacted on adult mental health in Germany.

Loneliness is associated with increased risks to physical and mental health. This may be exacerbated due to social restriction measures and increase risks of mental health issues such as anxiety, depression and PTSD (González-Sanguino et al., 2020; Palgi et al., 2020). Additionally, particularly vulnerable individuals with pre-existing mental health issues are likely to have much reduced contact with their social support networks and the general communities during lockdowns, which may worsen their condition (Bu, Steptoe, & Fancourt, 2020). For example, Bu and colleagues indicated that individuals who were struggling with self-harm or suicidal thoughts were facing difficulties in accessing formal mental health support in the first month of the pandemic (Bu et al., 2020). On the other hand, by studying the initial month of UK lockdown and its impacts on adults' mental health, another study suggested that there was no relation between being vulnerable to the effects of the pandemic and mental health (White & Van Der Boor, 2020). Studies across Europe have reported lower rates of contact with mental health services and reduced levels of self-harm (see suicide and self-harm section of this report) in the first months of the pandemic and during initial periods of lockdown. Caution must however be taken in looking at these findings, as many individuals may not have been willing

to attend face to face services because of fear of contracting the virus. Indeed, the Bu et al study suggested that isolation due to the lockdown did indeed lead to poorer mental wellbeing overall. However, believing that there was a general increase in kindness led to a better state of mental health. Likewise, a study compared levels of loneliness in the Spanish population before and after the lockdown (Bartrés-Faz et al., 2021). Results indicate that individuals felt significantly less lonely than before the pandemic, particularly when it came to the feeling of exclusion, even when one was confined alone. The authors believe that the feelings of community, inclusion and belonging fostered at the beginning of the lockdown helped in this regard.

Additionally, it is noteworthy that certain personal factors may increase vulnerability of developing mental health issues due to the effects of the pandemic. Indeed, being female, a student, having pre-existing health issues, a lower SES, and lower levels of education have been linked to higher risks of developing mental health disorders during the pandemic (Gandré et al., 2020; Institut français d'Edmr, 2020; Patel et al., 2020; Traunmüller et al., 2020; Wang et al., 2020; Zhu et al., 2020). The fact that women are particularly affected may be due to a higher risk of developing mental health issues such as depression, as well as due to the fact that they are more likely to face an increase of household chores, child rearing due to school closures, and other unpaid labour tasks, in addition to their own jobs (Traunmüller et al., 2020), as previously mentioned. As we have noted in our discussion of the determinants of mental health and wellbeing, socieconomic status and income play an important role. Individuals in lower socio-economic groups may be *particularly vulnerable as they may either have jobs which may be less easily performed at home, which may mean either that they have to contend with higher risks of contracting COVID-19 in the workplace or may be at increased risk of worklessness. They have a higher likelihood of experiencing COVID-related job loss, in addition to pre-existing issues such as , unstable working conditions, financial hardship, poorer health conditions (e.g. living in overcrowded areas) and poorer access to health care services (Patel et al., 2020).

As already mentioned, young people are also particularly affected by the effects of the quarantine, as well as school closures, since young people heavily rely on school and extra-curricular activities to meet with friends and peers (Crosnoe, 2000). During adolescence, friendships become increasingly crucial, with research suggesting that they become even more important than youngsters' relationship with parents. While a good relationship to one's parents evidently also plays a crucial role to adolescents' mental health, adolescents' identity formation has been indicated to rely on friendships with peers (Jones, Vaterlaus, Jackson, & Morrill, 2014). Any resulting increase social isolation, despite the maintenance of online connections, and a loss in daily structure (due to school closures, no longer being able to pursue hobbies outside, etc.) is likely to negatively impact on child and adolescent mental health (Imran, Zeshan, & Pervaiz, 2020; Power, Hughes, Cotter, & Cannon, 2020). This has also been found in preliminary research, studying the effects of Covid-19 on young people's mental health, as indicated by a systematic review by Nearchou and colleagues (Nearchou, Flinn, Niland, Subramaniam, & Hennessy, 2020).

Next to social distancing, being in longer periods of quarantining can bring other stressors, which may affect individuals' (both adults and youngsters') mental health. For instance, concerns have been raised that living in a small space (Luo et al., 2020; Ma et al., 2020), on living living in environments that are psychologically draining or have increased risk of interpersonal violence and abuse (J. Lee, 2020; Mazza, Marano, Lai, Janiri, & Sani, 2020; Sacco et al., 2020), being unable to revert back to coping mechanisms, such as sports or religious activities (Ammar et al., 2020), boredom and frustration (Serafini et al., 2020), and generally having to witness significant lifestyle changes (Usher, Bhullar, & Jackson, 2020), may lead to mental health issues during times of lockdown.

4.2.1. AIM

Having highlighted these three examples of policy responses to COVID-19, the broader objective of this project is to measure the impact of policies on mental health and wellbeing over time. In order to do so, the first step is to receive a general overview of what policies have been taken at what time. The description and analysis of these timelines will indeed help us get an initial grasp of timing and strictness in each respective country, as well as how they compare. This will be useful for more in-depth measures and analyses throughout the project.

4.2.2. DATA COLLECTION

The data to design the policy timelines was gathered from the Oxford Covid-19 Government Response Tracker (OGRT) a project made by researchers of the University of Oxford's Blavatnik School of Government (Hale et al., 2020a). The data and their respective sources are publicly available online here. It is also worth noting that there may be some inconsistencies in the data, due to coding flaws by the OGRT. We will further analyse the correctness of the data, and change as required, during the course of this project.

Data was usually collected on a national level (Hale et al., 2020b). However, as indicated by the OGRT, "A country is coded as 'required closures' if at least some sub-national regions have required closures."

The data collected by the OGRT for the aforementioned three policies are ordinal, meaning that they are measured in terms of their severity or strictness; a 0-3 scale was used for school closures and stay at home requirements, and a 0-4 scale was used for restrictions on gatherings. For all three policies, a score of 0 meant that there were no Covid-19 measures in place.

In the case of school closures, the distinct levels signified the following:

- *Level 1: recommendation to close schools or that all schools remain open with alterations (resulting in significant differences compared to non-Covid-19 operations).*
- *Level 2: only some tiers or categories require closing (e.g. just secondary schools (for older children), or just publicly funded schools).*
- *Level 3: all school levels are required to close.*

Regarding restrictions of gatherings, the levels are coded as follows:

- *Level 1: restrictions on very large gatherings (the limit is above 1000 people).*
- *Level 2: restrictions on gatherings between 101-1000 people.*
- *Level 3: restrictions on gatherings between 11-100 people.*
- *Level 4: restrictions on gatherings of 10 people or less.*

Finally, when looking at stay at home requirements, the scale is the following:

- *Level 1: it is recommended not to leave the house.*
- *Level 2: it is required not to leave the house with exceptions for daily exercise, grocery shopping, and 'essential' trips.*
- *Level 3: it is required not to leave the house with minimal exceptions (e.g. allowed to leave once a week, or only one person can leave at a time, etc.).*

As can be seen in the scale of the above-depicted policy timelines in Figures B, C and D, levels were translated into different colours; a very light blue represents a level '0', whereas a light/middle blue will represent '1', a middle blue will represent '2', a middle/dark blue will represent level '3', and a dark blue will represent a level '4'. This was done to give a clearer overview of the change in policy strictness, resembling a 'heat map'.

4.3. SCHOOL CLOSURE POLICY TIMELINE ANALYSIS

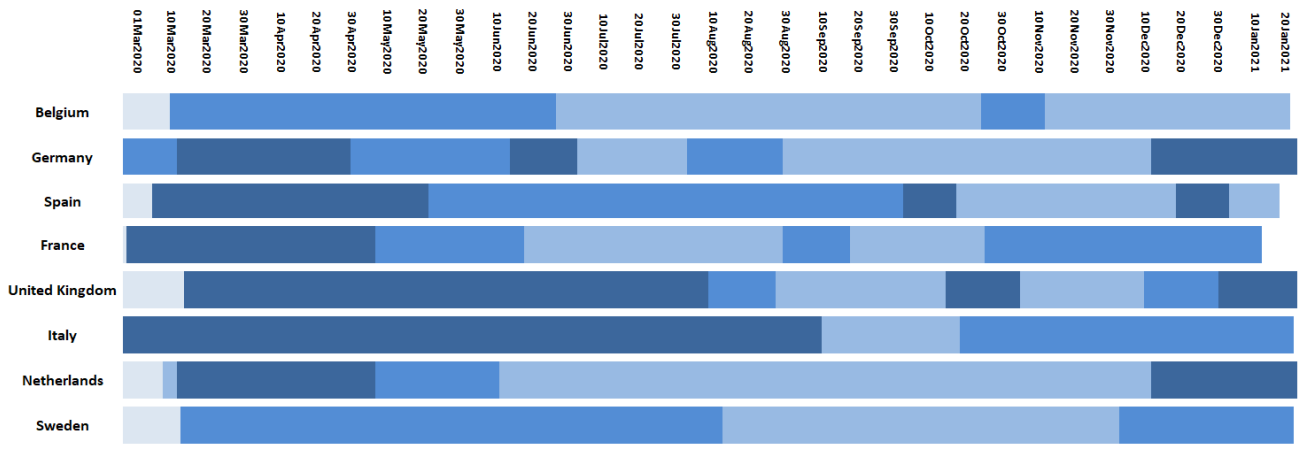
4.3.1. TIMING OF POLICIES

When looking at the school closures policy timeline (Figure B), one can see that all eight countries started closing down their schools approximately at the same time, i.e. in the period of late February-mid March.

It is also noticeable that all countries, with the exception of Belgium and Sweden, completely closed down schools around that time. Some countries, such as the Netherlands, Spain, Germany and France, however, only had relatively short periods of complete school closures. All four nations went back to only a partial closing of schools in the period of April-May. The UK and Italy, on the other hand, had much longer level 3 school closures, with the UK fully closing schools (although they continued to be used for vulnerable children and the children of key workers) for the rest of the academic year until the end of July/beginning of August before switching to a more lenient level 2.

Unlike the first wave, the 'second wave' of closing down schools proved different for all countries. Indeed, Spain and the UK were the first to close down all schools entirely again at the beginning of the 2020 autumn semester, between September and October. These full closures were however rather short, and both countries swiftly moved to level 1 closures afterwards. Germany, Spain, and the Netherlands started entirely closing down schools again shortly before Christmas. Spain, however, returned back to level 1 recommended closures in the new year of 2021. The UK started closing down its schools again after the 2020 winter holidays, and the Netherlands and Germany kept all schools closed, too. It is to date unclear how long schools will be fully closed in the Netherlands and Germany but all schools will reopen in England on March 8 2021, with some

Figure B: School Closure Policy Timeline



schools already open in Wales and Scotland. On the other hand, France never went back to fully closing schools. Italy also did not go back into full school lockdown after the summer break of 2020.

Belgium and Sweden are the only two countries, which never entirely closed down all schools. Instead, they persistently switched between level 2 and level 1 closures. Nonetheless, as will be further discussed in section 3, it is important to keep in mind that some pupils and their caretakers will be equally affected by level 2 and level 3 closures, depending on the policies at hand.

4.3.2. STRICTNESS OF POLICIES AND EFFECTS ON MENTAL HEALTH

Overall, Italy has had the strictest school closing policies, with all schools being required to close down for six months and three weeks, i.e. the entire spring/summer school term of 2020. Considering the aforementioned literature, this likely had a severe mental health impact on both students and parents, there being no easing of the policy until the start of the 2020 winter semester in September. Likewise, Italy only had a very brief period of recommended closures (level1), i.e. approximately 40 days, before going back to requiring to close down some levels or categories (level 2) at the beginning of October. However, Italy has since moved to more generous policies, only remaining between level 1 and level 2 school closures. This was also the case with France; after its short level 3 school closing period in the early spring of 2020, it began moving between level 1 and 2 closures from end of April onward.

It is worth noting that level 2 is already rather strict, and sometimes shows no differences to level 3. Indeed, some pupils may be equally affected by level 2 and level 3 school closures. In Sweden, for instance, level 2 school closings largely implied keeping lower secondary schools open (usually for adolescents aged 13-16), but closing upper secondary schools (adolescents between 16 and 18 or 19) [58]. Therefore, for upper secondary school pupils, the effects of level 2 and level 3 school closures are the same. Parents who have children in both upper and lower secondary school and those who only have one child or several children in lower secondary school may feel more relieved. The age of the child is also worth considering. It is for instance likely that parents with a child in upper secondary high school have generally less home-schooling and care duties than those with younger children at home. This means that even though their upper secondary school children must stay at home, the effects on parents' mental health is likely to be less severe than on those parents who have to take care of younger children at home.

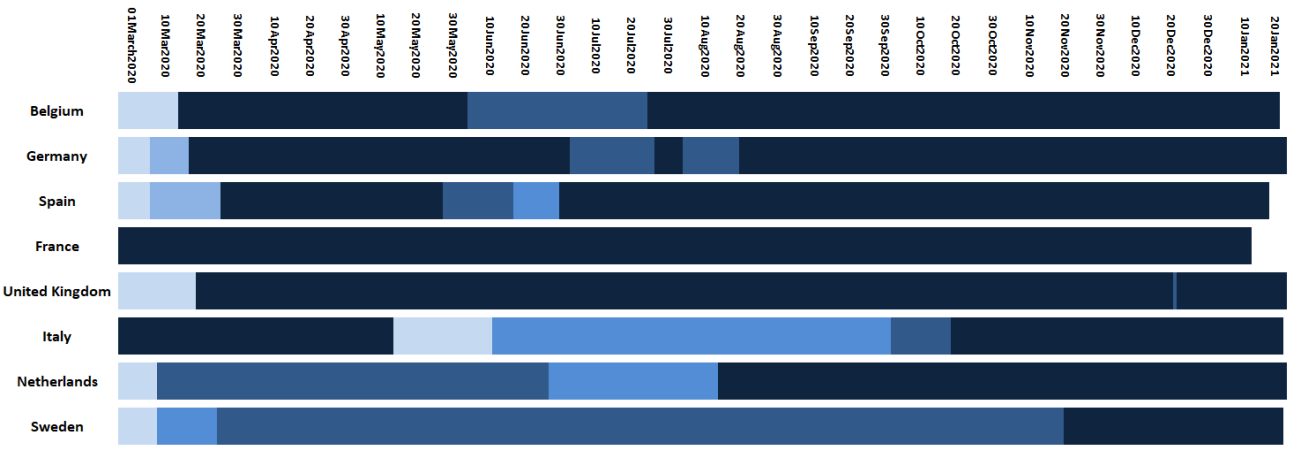
4.4. RESTRICTIONS ON GATHERINGS POLICY TIMELINE ANALYSIS

4.4.1. TIMING OF POLICIES

The majority of countries switched to level 4, i.e. restricting gatherings of 10 people or less, in mid-end March, with Italy and France being the first countries to do so at the end of February (23rd and 29th of February, respectively) (Figure C). Sweden and the Netherlands, however, are exceptions, switching to level 4 at a much later stage; the Netherlands went to level 4 restrictions at the beginning of August, and Sweden at the end of November.

Generally speaking, France has had the longest period of level 4 restrictions, followed by the UK. Belgium, Spain and Germany, have had similar lengths of periods when it comes to restricting gatherings of 10 or less individuals (level 4), restricting gatherings between 11 and 100 individuals (level 3) and restricting gatherings between 101 and 1000 individuals (level 2). Italy, surprisingly, was relatively lenient with the former (i.e. level 4); during spring, summer, and beginning of autumn 2020, the country switched between level 1, 2, and 3, with level 2, i.e. being able to have gatherings of between 101 and 1000 people, being the longest period with approximately three months and three weeks.

Figure C: Restrictions on Gatherings Policy Timeline



4.4.2. CHANGE OF POLICY STRICTNESS AND PUTATIVE EFFECTS ON MENTAL HEALTH AND INITIAL COMPARISONS TO SCHOOL CLOSURE POLICIES

As already indicated, Sweden and the Netherlands began their restrictions on gatherings later. This may have had positive effects on the population's mental health, especially of younger individuals. This requires further empirical evidence. Likewise, Italy having had a relatively long period of level 1, 2, and 3 policies during spring and summer before going back to level 4 restrictions in autumn may have helped people to cope with the stressors of life during the pandemic, too. While Germany, Belgium, and Spain had relatively long periods of strict restrictions, the three nations had little 'breaks' of strictness during the summer months of May-July. Though this period was relatively brief, this may have helped individuals cope with the stressors of long and strict previous restrictions on gatherings, particularly since they were the months of holidays. This, however, cannot be said for France, which did not alleviate its strict restrictions, likely having serious impacts on individuals' mental health. The UK maintained some severe restrictions but also introduced financial incentives to encourage families to 'eat out [in restaurants] to help out' while maintaining social distancing in August 2020. Restrictions on gatherings have however generally been strict in all eight nations, with fewer alterations in policy strictness as compared to school closures.

The fact that policies switched less frequently indicates that there was little easing on restriction of gatherings. The majority of countries, with the exception of the Netherlands and Sweden, had and still have long and persistent periods of restricting all gatherings of 10 people or less, i.e. the strictest level. With regards to school closures, while the majority of countries quickly went to closing all schools in March 2020, the majority went back to partially re-opening some school categories (level 2), or merely recommending closing rather than requiring it (level 1), after an initial strict level 3 closing period in the spring of 2020. This, however, is not necessarily the case with restrictions on gatherings. Indeed, while some countries had brief periods of easing level 4 restrictions to level 3 restrictions during the summer months of May-July, the periods of strict level 4 restrictions persevered the majority of the time.

Furthermore, it is crucial to remember that the difference in policy strictness on restrictions of gatherings is greater than school closures when it comes to mental health. This is because there are larger differences between the levels; for instance, whereas a level 2 and 3 in school closures might equally affect a vast number of pupils and their parents, level 3 and level 4 restrictions on gathering restrictions policies will have very distinct effects on individuals' mental health. A level 3 policy restricts gatherings between 11 and 100 people, which means that one is still able to gather with one's closest friends and family members, or at the very least with the majority, should one have larger circles of close friends and family members. Students, for instance, can also meet their close group of friends, which probably will not be much larger than 11 individuals. This may help them cope with potential school closures, for instance, since the negative effects on pupils' mental health due to school closures is, as indicated in the previous literature review, partially due to the resulting lack of social contacts. Evidently, if one is able to see 30, 40 or even 100 people, which still falls under level 3 restrictions, this implies being able to hold weddings, birthday celebrations, and funerals without any major restrictions or concerns.

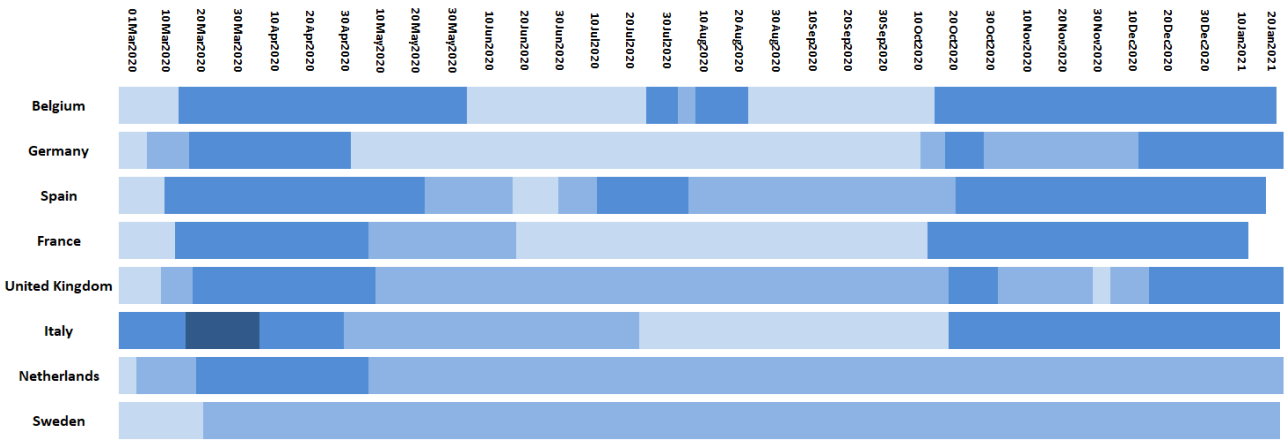
However, on the other hand, a level 4 restriction means being unable to see 10 people or less. The 'or less' is crucial in this case, since in the majority of countries the rule implies seeing less than 10 people. In Belgium, for example, the social bubbles since autumn 2020 usually allow meeting one additional person per household [59, 60]. There is likely to be a significant difference between being able to see one person per household, and being able to see 11, or even 100 additional individuals, on individuals' mental health. While being unable to hold large gatherings may indeed affect individuals' mental wellbeing, particularly when it comes to funerals, these events are 'acute' rather than continuous, and are consequently likely to both affect a smaller portion of the overall population, and depending on the event, also affect individuals to a lesser extent in general. Yet, being unable to have social relationships with one's closest friends and family members for a persistent period of time due to level 4 restrictions on gatherings is likely to heavily impact individuals' mental health and cause psychological distress. As the literature indicates, this is particularly the case with younger individuals, who require healthy social relationships with peers in order to develop emotionally and avoid psychological distress. This will be discussed in further depth at a later stage.

4.5. STAY AT HOME REQUIREMENT POLICY TIMELINE ANALYSIS

4.5.1. TIMING OF POLICIES

A general trend can be noticed in all countries with the exception of Sweden: countries required their citizens to stay at home (with very limited exceptions around the same time) from mid-March onward (Figure D). Some countries, such as the UK, the Netherlands, and Germany, first went through a short period of merely recommending lockdowns before moving into full lockdown. Italy, on the other hand, went from level 2 to level 3, prior to going back to level 2 at the beginning of April. Sweden only ever recommended not leaving the house rather than having a full lockdown, from mid-March onward. The Netherlands followed with the shortest period of level 2 lockdown, which lasted from mid-March to the end of April, before going back to level 1, i.e. merely recommending not to leave the house.

Figure D: Stay at Home Requirements Policy Timeline



All other countries, while having more lenient policies from May to October, went back to a second level 2 lockdown around the same time, i.e. around the 10th of October, only allowing essential trips and allowing daily exercise, etc. In this second lockdown period, Belgium, Spain, France, and Italy consistently stayed in a strict level 2 lockdown, whereas Germany and the UK had periods of alleviating the lockdown to purely recommending staying at home, to even a short period of no measures (only the UK: a short period at the end of November).

4.5.2. CHANGE OF POLICIES

In the period between spring 2020 and autumn 2020, Spain and Belgium were the two countries which most frequently switched between policies. Germany, France, and Italy were relatively lenient in the spring and summer months, the former having no lockdown measures in place between the end of April and the beginning of October. Though Germany may have had the longest period of no measures in that period of time, it is unlikely that there were major differences between Germany, Italy, and France in terms of mental health as a result of level 0 (no measures) vs. level 1 (recommend staying at home) lockdown policies. This will be further discussed in the next section.

4.5.3. STRICTNESS OF POLICIES AND PUTATIVE EFFECTS ON MENTAL HEALTH

With regards to stay at home requirements, it is worth pointing out that while level 3 (minimal exceptions to leaving house, e.g. only leaving house once a week, etc.) is undoubtedly stricter than level 2 (only leaving for 'essential' trips and daily exercise), it is likely that the difference between these two levels on individuals' mental health is smaller than

between level 1 (recommend not leaving house) and level 2. This is because level 1 remains relatively lenient, being a mere recommendation and ultimately gives people freedom. As already indicated, this therefore suggests that individuals living in France, Italy, and Germany lived similar lives in the period from late April until the summer, since the differences between level 0 and level 1 measures are likely to be less significant on people's mental health. When looking at the literature, level 2, on the other hand, may already be regarded as strict and potentially harmful to mental health. Therefore, while only Italy of the eight countries has had a short period of level 3 stay at home requirements, it may be argued that those countries with longer level 2 lockdown periods are likely to have seen more significantly affects on individuals' mental health. The stay at home requirement is also the only policy which frequently switched back to 'level 0', i.e. no measures. This is likely due to the severity of the policy.

As a whole, Belgium had the longest period of level 2 lockdown, totalling 7 months. Spain was similar , with 6 months and 2 weeks. As already mentioned, both Belgium and Spain had two longer periods of lockdown, first in spring of 2020, and then in autumn/winter of 2020 and 2021, as well as shorter periods of lockdown in summer 2020. These short periods of lockdown in the summer may have been particularly draining to individuals.

Italy and France had similar rates of level 2 lockdown; the former had a total of 5 months and 3 weeks of level 2 and level 3 lockdown, and the latter had 5 months and 1.5 weeks of level 2 lockdown. The UK had a total of 3 months and 2.5 weeks of lockdown, although some regions (e.g. Leicester) remained with high restrictions until the end of the year. Considering the severity of the policy, it may be argued that even a matter of two months of going between level 2, which is essentially already a full lockdown, and a level 1, which only recommends staying at home, may be significant to individuals' mental wellbeing. However, it has also been indicated by the literature that the timing of the lockdown plays a role. For instance, at the beginning of the lockdown in spring 2020, individuals generally still felt like they could cope, since a feeling of community and kindness led to better mental health [38, 39]. Whether effects on mental distress were more significant during the second lockdown, which also happened to start around colder and more difficult months, is currently unknown.

The most lenient countries are the Netherlands and Sweden, implying that individuals living in these countries may have had to deal with significantly less psychological distress as compared to those living in stricter countries.

4.6. CONCLUDING REMARKS

4.6.1. OVERLAP BETWEEN THE THREE POLICIES AND PUTATIVE EFFECTS ON MENTAL HEALTH

There are clear differences in timing patterns between the three policies. Whereas school closures started off strict, the majority of the countries (with the exceptions of Germany, the Netherlands, and the UK), went back to more lenient policies and stayed this way. Strict restrictions on gatherings began nearly simultaneously to school closures, but in comparison to school closures, stayed very strict for the vast majority of the time (with some exceptions in the summer months). Regarding stay at home requirements, policies started off strict in spring 2020, became more lenient in the summer, and became stricter again during the second wave in autumn 2020 (with the exception of the Netherlands and Sweden), similarly to school closure patterns in Germany, Spain, the UK, and the Netherlands.

In countries where tough school closures aligned with strict restrictions on gatherings, such as France, Italy, the UK, and to some degree Spain and Germany, in spring 2020, it is likely that younger students in particular struggled with psychological distress. All of these countries, with the exception of the UK, however moved to periods with more lenient policies at a later stage. Particularly France and Italy, with the former being especially strict on restrictions on gatherings, did not go back to entirely closing down schools, which may have helped pupils cope with the restrictions of gatherings, as the policy change enabled them to go to school.

Nonetheless, it should be pointed out that while policy makers can mitigate the lack of social gatherings resulting from restriction policies on young people by easing school closure policies, this is evidently not the case for their parents, particularly if they are working from home. It can therefore be argued that parents who struggle with the caretaking and home-schooling of their children due to strict school closure policies, and who additionally are unable to revert to the coping mechanism of social contacts because of strict restrictions on social gatherings and obligations for

teleworking, are potentially more likely to suffer from psychological distress than those who are allowed to have larger gatherings.

In terms of overlap, it is likely that individuals living in countries, which witnessed strict policies in all three domains simultaneously, would suffer more in terms of mental health and wellbeing than those living in countries where only one or two policies were particularly strict. However, it is worth mentioning that stay at home requirements are ultimately linked to restrictions on gatherings. All countries with at least a level 2 lockdown, i.e. required to stay at home with some exceptions, will also have strict restrictions on gatherings, i.e. level 4. This is also visible on the policy timelines. This is because level 2+ lockdowns' purpose is to restrict social gatherings; allowing larger social gatherings would therefore defeat their purpose. Nevertheless, in the case where staying at home is only recommended but not mandatory, and yet the country decided on having particularly strict policies on social gatherings, such as in Spain, the UK, and France, it may have been beneficial to younger individuals' mental health to be able to go to school in order to have social contacts. This was indeed the case in France, which at least allowed partial openings of schools again from the beginning of May onward, and even went to level 1 policies in the summer, as well as at the beginning of the 2020 autumn term in September-October. Spain in this case was somewhat stricter, though the UK was the strictest country. The latter closed down schools entirely (except for vulnerable children and the children of key workers) until the summer 2020 break, potentially making the spring/summer semester particularly difficult on youngsters, as they were very limited in their social contacts. Likewise, in countries with very strict lockdowns (and, consequently, strict restrictions on gatherings), opening schools may have helped those parents and other guardians who work from home to cope with the stressors of the lockdown better, since it took away the burden of having to home-school and take care of a youngster at home. This was for instance the case in Belgium, France, and Italy, during the second level 2 lockdown in autumn 2020; all three nations had level 1 or level 2 school closure policies during that time.

4.7. FURTHER ANALYSIS OF POLICY IMPACT

Within the framework of this work package, future research aims to focus on the following aspects:

To begin with, we are working on a theoretical framework, which will help us conceptualise the severity of each policy on distinct groups of the population, whether vulnerable or not. As already mentioned, the policy timelines will help indicate which countries may have been particularly affected (both positively and negatively) by the seriousness of these three policies, and where and at what time individuals may have had adverse experiences in particular.

Furthermore, the policy timelines will also be of use to our stakeholder analysis. Since we are hoping to understand the priorities of stakeholders when it comes to the mental health consequences of policies and specific mental health policies during the pandemic, the timelines will serve as a reference point in our analyses. Do the priorities match with the policies actually at place? If not, why not?

Finally, an analysis on whether and how the traditional and social media emphasises mental health issues and policies will be made. The media has previously been indicated to influence both the public and political agenda [61-64]. Though the relationship between these three factors is evidently more complex, depending on the nation studied, as well as the nature of the issue, the type of political agenda, as well as overall timing [65], research indicates that analysing the media, and in particular how it framed a particular issue [66], may be fertile ground to gain a better understanding of the political agenda setting (in this case, of mental health policies).

In order to do this so, an in-depth media analysis will be made through the means of a webcrawling platform, TalkWalker, which analyses social media platforms (e.g. Twitter and Facebook), as well as online newspapers and magazines. We thereby also hope to receive a broader understanding of the above-depicted policy timelines. For instance, when did the media raise issues related to the mental health of youngsters and/or school closures, and does this coincide with the easing of school closure policies? Are there differences in the importance of the media (and type of media) in the eight countries? How has mental health and wellbeing been framed over time? These questions can be answered through discourse analysis, which allows one to analyse discourse (whether in written or in speech form) in relation to its social context.

5. RISKS OF SUICIDE AND SELF-HARM DURING AND POST THE COVID-19 PANDEMIC. CAN WE LEARN FROM PAST ECONOMIC SHOCKS?

Non-fatal deliberate self-harm and completed suicide are often seen as important indicators of population mental health. Studies are now starting to emerge looking at patterns of self-harm and suicide after the onset of the pandemic. However, it is should be stressed that early studies of suicide patterns need to be treated very cautiously as it can take considerable time for any potential suicide to be formally investigated and cause of death to be determined; moreover there is often a substantial time lag in the release of suicide data by national statistical agencies. That said, peer reviewed early studies, for instance in England, suggest that so far there has been no substantive impact of the pandemic on suicide rates in Europe. Another example can be seen in analysis of suicide rates in one city, Leipzig, Germany, which also do not point to any change in long term suicide trends (Radeloff et al., 2021).

When looking at these data, potentially hospital-presenting self-harm will initially be of more use to policy makers. Such self-harm events often precede completed suicide and any increase in self-harm may be associated with an increase in the rate of suicide. Analyses of data from a number of hospitals in England suggest that during the first period of national lockdown in Spring 2020, that rather than an increase, a reduction was seen in rates of hospital-presenting self-harm (Chen et al., 2020; Hawton et al., 2021). Data from hospitals in the multicentre study of self-harm in Oxford and Derby found little change in self-injury presentations but marked reductions in poisoning-related presentations (Hawton et al., 2021). This is in line with a general drop in the use of both general and mental health specific services; partially down to lockdown restrictions, as well potentially fear of contracting COVID in a hospital environment (Carr et al., 2021). Similar findings of reduced rates of hospital presenting self-harm have also been reported in other European countries, including reduced levels of presentation to hospitals in Paris (Pignon et al., 2020), Madrid (Hernández-Calle et al., 2020) and Geneva (Ambrosetti et al., 2021). Trauma centres in both London and Milan that had to adapt to the COVID pandemic both however reported higher proportions of patients presenting as a result of traumatic self-injury during the early phase of the pandemic (Chevallard et al., 2021; Hay et al., 2021).

At casual glance these early data on suicide and self-harm might suggest that the COVID pandemic has had little impact, but we would stress that a longer time frame is needed to judge the impact. Studies already point to a detrimental effect of the pandemic on young people with a worrying increase in suicidal thoughts in young people in particular in one UK longitudinal analysis (O'Connor et al., 2020). Great care must however be taken in the way in which these possible risks and events are reported, as poor reporting on possible self-harm and suicide could in fact trigger suicidal behaviour (Knipe, Hawton, Siynor, & Niederkrotenthaler, 2021).

5.1. CAN WE LEARN FROM PAST ECONOMIC SHOCKS?

COVID-19 is a global economic as well as public health shock. While it is still too early to see how self-harm and suicide rates may have been affected by COVID-19 and the policy response, there is potentially much that we can learn from looking at how suicide rates changed during and after the end of previous economic shocks. A previous systematic review looked at what is known on how rapid economic change, including recessions, economic recoveries and economic uncertainty may impact on suicidal behaviour (McDaid, 2017). The review focused on identifying econometric or statistical analyses of the association between non-fatal suicidal behaviour and/or completed suicidal acts during times of economic recession (defined as two or more quarters of negative growth) or economic recovery following recession. Longitudinal studies, both individual- and aggregate-level, were eligible for inclusion.

5.1.1. UNEMPLOYMENT AND ECONOMIC SHOCKS

Several multi-country aggregate-level longitudinal studies in the review suggest that the link between suicide and the economy is important in most countries, but that a change in unemployment rates is just one of many risk factors. It is also important to remember that people with existing mental health problems may also be at increased risk of unemployment during an economic downturn. Analysis of data from 27 European countries suggests that during an

economic downturn, the gap in the rate of employment between those with and without mental health problems will widen (Evans-Lacko, Knapp, McCrone, Thornicroft, & Mojtabai, 2013).

At a macroeconomic level three different patterns of association between economic conditions and suicide have been identified: an interruption in the downward trend in suicide caused by the economic crisis followed by a period of stabilisation (as seen in France and the UK), a temporary interruption of a downward trend in suicides (Belgium, Spain and Sweden) or a reverse in the downward trend (Germany, Italy, the Netherlands) (Fountoulakis et al., 2014).

One analysis of eight western European countries, including France, Germany, the Netherlands, Spain, Sweden and the UK, modelled changes in the level of unemployment between 2008 and 2010, relative to unemployment rates in 2000 (Laanani, Ghosn, Jougla, & Rey, 2015). A 10% increase in a country's unemployment rate was associated with 2% increase in suicide in France and 1% increase in Germany and the Netherlands, adjusted to take account of the 2008-2010 economic crisis. An association between changes in unemployment rates and changes in male suicide rates between 2007 and 2011 was also reported for 20 EU countries, including all RESPOND countries except Belgium (Reeves et al., 2015). Overall, across all countries a significant 0.94% increase in completed suicides was observed for every 1% increase in unemployment. Each 1% increase in financial debt was also associated with a significant 0.54% increase in suicide.

At country level, Ireland has a very detailed national self-harm registry, in addition to suicide data. Ireland was also badly affected by the global economic crisis, with severe austerity measures having to be introduced, and rates of unemployment rising to a peak of 15% in 2012. A positive association between suicide and the recession was found when comparing the periods 2000-2007 with 2008-2012 (Corcoran, Griffin, Arensman, Fitzgerald, & Perry, 2015). Male suicide rates increased 57% more than would have been expected if pre-recession trends had continued. There was also an age effect for men, with completed suicides being significantly higher in the 25-44 and 45-64 age groups only. Hospital presenting self-harm was also significantly higher than expected in women. Positive associations between non-fatal self-harm and rising unemployment in men were also reported after the onset of the 2008 economic crisis in Andalucia, Spain (Córdoba-Doña, San Sebastián, Escolar-Pujolar, Martínez-Faure, & Gustafsson, 2014). RESPOND is also looking at the situation in Australia; in the past analysis has reported that compared with 2006, the year before the financial crisis began in Australia, the risks of suicide in unemployed/ economically inactive men and women were also significantly higher by 22% and 19% respectively in 2008 (Milner, Niven, & LaMontagne, 2015).

While there is much to be learnt from the past, it is important to stress that not all studies in Europe and beyond conclude that there is evidence of a positive association between economic downturns and suicidal behaviour. For instance while most US analysis support this association analysis using national, state and county level data from all 50 states between 1976 and 2013 found that periods of economic recessions were associated with a small reduced risk of suicide which more than offset the increased risk of suicide that was found to be associated with increasing unemployment. No interpretation was made by the author of this finding, other than arguing for more research into better understanding of the local versus national impacts of recessions (Ruhm, 2015).

We can also look to the past to potentially consider the long-term impacts of the COVID-19 related economic downturn and eventual economic recovery. Risks of suicide and self-harm may remain higher in individuals who are 'left-behind' by economic recovery. An individual level study following more than three million Swedes who had been employed in 1990 indicates that suicide rates for those who lost their jobs in the economic crisis in the mid-1990s and were still unemployed when the country was recovering were at greater risk of suicide than during the crisis itself. These effects were more pronounced for unemployed men, who were 1.5 times more likely to have completed suicide in the period of economic recovery between 1997 and 2002 compared to those who were employed, compared to a 1.3 times increased rate of suicide for women (Garcy & Vagero, 2012; Garcy & Vågerö, 2013). Other studies found that the risks of suicide in Sweden and Denmark (men only) in those who had lost their jobs were almost double those of individuals who remained in employment for up to four years following job loss (Browning & Heinesen, 2012; Eliason & Storrie, 2009).

5.1.2. JOB INSECURITY AND ECONOMIC DOWNSIZING

We potentially can learn from the past not just about the impacts of rapid changes in unemployment, but also about other labour market impacts. One of the consequences of the COVID-19 pandemic is an increase in job insecurity arising from restrictions in economic activity. Some sectors of the economy have been particularly affected, with redundancies likely if and when additional government support for wages is phased out. Some business, such as retailers, have also started to downsize because of these public health restrictions. Risks to mental health among those who experience job insecurity may be as great as for those who are unemployed (Kim & von dem Knesebeck, 2015), as well as for employees who keep their jobs and 'survive' a workplace downsizing (Brenner et al., 2014).

5.1.3. UNMANAGEABLE FINANCIAL DEBT

Interviews in England with both employed and economically inactive individuals that self-harmed as a result of economic pressures document the profound levels of distress experienced as a result of unmanageable debt. Analysis of coroner records of nearly 300 people who died by suicide in England in 2010 and 2011 has also revealed that "4% of suicides entirely related to the recession, employment or financial-related difficulties and a further 9% where such difficulties contributed a lot to the suicide" (Coope et al., 2015). In Spain 90% of women and 84% of men in mortgage arrears and threatened with eviction had poor mental health compared with rates of 15% and 10% in the general population (Vasquez-Vera, Rodriguez-Sanz, Palencia, & Borrell, 2016). A Swedish study linked data on 23,000 court imposed rental eviction notices with use of mental health services and records of completed suicides or deaths of undetermined cause in the following 12 months (Rojas & Stenberg, 2016). After controlling for mental health, socio-economic status, receipt of social welfare benefits, having a criminal record and being a substance abuser, individuals who received an eviction notice were four times more likely to complete suicide than the general population.

5.2. DISCUSSION

The pandemic has had significant impact on mental health, but it is still too early to see if this will translate itself into a national rise in suicide/self-harm across countries. However, policy can potentially be informed by looking at the similarities and differences between the current crisis and previous economic shocks.

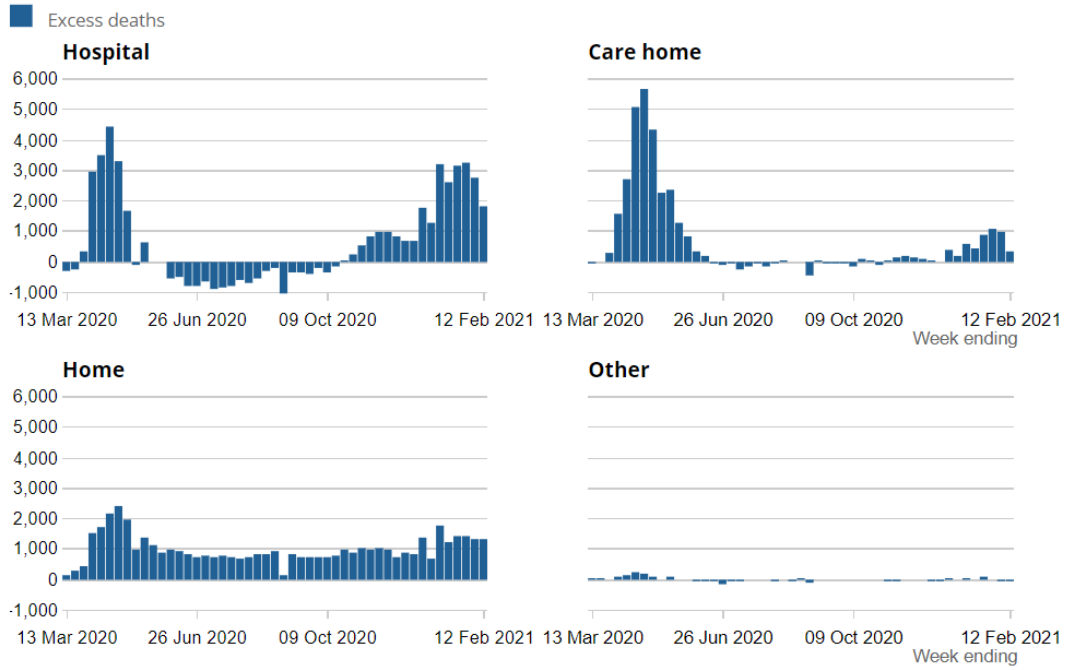
Much literature from Europe suggests that individuals experiencing socio-economic disadvantage during periods of economic change are at increased risk of suicidal behaviour. There can be an elevated risk of suicide when crises end, especially for individuals or communities whose economic circumstances do not recover. These increased risks can last for several years; potentially they may be further compounded if governments maintain austerity measures in the longer term beyond the end of any period of economic crisis. Involuntary part-time work, job insecurity and workplace downsizing can be important risk factors for suicidal behaviour. Individuals with pre-existing mental health problems may be particularly vulnerable to the risk of job loss. There is also empirical evidence that unmanageable debt is a risk factor for suicidal behaviour.

Like the economic crisis in 2008, this crisis appears to have the most severe economic impacts on young people; there is an evidence base on actions to alleviate the mental health impacts of economic crises (Wahlbeck & McDaid, 2012). We can potentially learn from how different countries responded to the previous economic crisis as part of RESPOND, for instance in terms of differences in social protection policy and other measures and impacts on self-harm and suicide, and examine how these measures may work in the current context.

6. COVID AND THE LONG-TERM CARE SECTOR

A second illustrative example we briefly highlight in this report is the long-term care sector. We highlight the care sector given that mortality rates from COVID-19 are highly correlated with age and care homes have been particularly vulnerable across Europe. In some European countries (Belgium, France, the Netherlands, Slovenia, Spain, Sweden and the UK) more than 5% of all care home residents have died from COVID-19. In England and Wales, for example, in the first wave of the pandemic, care homes were the most common place of excess deaths (Office for National Statistics, 2021). (See Figure E)

Figure E: Location of excess deaths in England and Wales post pandemic outbreak. Source: (Office for National Statistics, 2021)



Source: Office for National Statistics – Deaths registered weekly in England and Wales

6.1. PSYCHOLOGICAL IMPACTS OF THE PANDEMIC ON CARE SECTOR STAFF

High levels of mortality in long-term care residences, coupled with a fear among staff, visitors and residents of contracting and passing on the virus potentially create the conditions for substantial additional levels of psychological stress. This is in part because of the difficulties in supporting people who may have significant physical and behavioural difficulties, but it is also because of pre-existing factors that have meant that long term care workplaces tend to have elevated levels of psychosocial stress compared to many other health workers. These factors include less income, qualifications and status compared to their health care counterparts.

What do we know about the immediate psychosocial impacts on the pandemic on staff? Among the most robust peer-reviewed evidence from the current pandemic is a detailed survey of more than 1,000 residential and other long-term care workers undertaken in Northern Italy in June and July 2020, a time period after the end of the first COVID wave in the country (Riello, Purgato, Bove, MacTaggart, & Rusconi, 2020). More than 70% of all nursing residential care home in

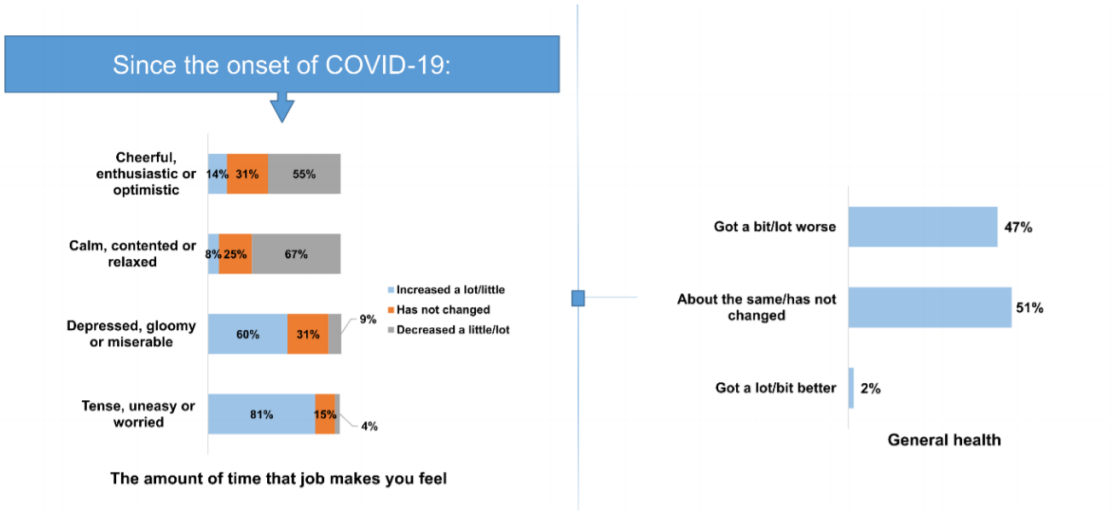
Italy are in this northern part of the country and the survey sample covered about one third of all nursing home staff in the area. 85% of workers surveyed were women.

The survey used self-report measures to determine the prevalence of post-traumatic stress disorders (PTSD) and anxiety disorders. 43% of workers had moderate to severe symptoms for one of these conditions; 18% of workers had both conditions. The prevalence of PTSD was almost double that of anxiety disorders. The study also reported that female workers were twice as likely to have moderate-to-severe symptoms of PTSD or anxiety as men. Workers in recent contact with other workers suspected of having COVID-19 were 1.7 times more likely to have moderate symptoms of PTSD or anxiety.

The authors of this study did not find any difference in prevalence of mental health problems related to differences in access to personal protective equipment (PPE), hours worked in previous two weeks or rules on family visits. This is in contrast to studies in the US and Poland, where less access to PPE was linked to significantly higher rates of depression, anxiety and PTSD in nursing home staff (Arnetz et al., 2020; Senczyszyn et al., 2020). While the authors were careful to note that they did not have any information on prevalence of PTSD or anxiety disorders in these workers prior to the pandemic, so the results must be treated cautiously, they do point to potential substantive increased risks to psychological wellbeing following the first major wave of the pandemic. This would suggest brief psychological interventions, including those being examined in RESPOND, are appropriate for these long-term care workers.

Elsewhere a survey of nearly 300 frontline care workers from across the UK was also conducted in summer 2020 (Hussein et al., 2020). This survey found that 56% of these had increased their working hours and 81% had increased their workload as a result of the pandemic. This is partly because of the large number of care staff who stopped working during the pandemic. Moreover, nearly 20% of staff who had to self-isolate or stop working because of COVID-19 received no pay. The survey also asked about carer psychological wellbeing, with substantial numbers indicating that their jobs made them feel depressed, gloomy or miserable as well as being tense, uneasy or worried (Figure F). Service users that they are supporting may also become distressed by pandemic restrictions which also has an adverse impact on the working environment.

Figure F: Self-reported changes in UK long term care worker psychosocial health after onset of the pandemic. Source: (Hussein et al., 2020)



6.2. EVIDENCE OF PSYCHOLOGICAL DISTRESS AMONG CARE HOME RESIDENTS AND THEIR FAMILY MEMBERS

There is also growing evidence of adverse psychosocial impacts for people living in care homes and their relatives attributed to some of the measures adopted to try to reduce the risk of COVID-19 infections and deaths. The restrictions on family visits over a long period of time have been a particularly difficult issue, but other measures such restrictions of the movement of residents within the care home and staff wearing PPE may have also played a role, particularly as some residents may not be able to understand why some of these measures are in place or with the disruption in well-established routines.

An international review of evidence and policies in relation to visiting restrictions during the pandemic found accumulating evidence of severely negatively impacted mood and behaviour of care home residents, resulting in a significant increase in psychotropic medication use (Low et al., 2021). It also found evidence suggesting that visiting bans increased feelings of guilt, fear, worry and isolation in residents' families.

Meanwhile, experience in the Netherlands suggests some of the adverse psychosocial impacts can be resolved. A qualitative study across 26 nursing homes reported overcoming pandemic restrictions is associated with positive improvements in the wellbeing of both staff and residents when family visits were permitted under strict guidance (Verbeek et al., 2020). This also reduced the guilt and disquiet that staff had felt when they previously had to deny access to families to visit very frail relatives.

6.3. IMPACTS ON UNPAID CARERS

We have focused in this section on long term care staff and residents, but briefly we also can indicate that there may be risks for informal carers. A recent rapid review of evidence on the impact of the COVID-19 pandemic on unpaid care found that, as well as other financial, care commitment and physical health impacts, a large proportion of cares, in several countries, have experienced increased stress related symptoms, more social isolation and loneliness and worsened depression and anxiety (Lorenz-Dant & Comas-Herrera, 2020).

6.4. CAN WE LEARN FROM PAST INFECTION OUTBREAKS?

Unlike the example looking at suicide and self-harm, where there may be much to learn from past economic shocks, there may be fewer parallels with previous events. One option is to look at very early experience with the current pandemic in countries such as China, but is it possible to look at the psychological impacts of previous infectious disease outbreaks, such as SARS? A recent rapid review looked at the potential impact of infection outbreaks on the psychological state of long-term care staff identified six previous studies on this topic (Embregts, van Oorsouw, & Nijs, 2020). Two of these were from RESPOND countries, Sweden and the UK, while another was from Australia, but all were very small-scale studies. All identified fear of illness and infection, workplace tension and stress as concerns. A larger study of nearly 400 residential care workers in Norway identified included in the review looked at the impacts of an MRSA outbreak (Thorstad, Sie, & Andersen, 2011). Although this study did not use validated instruments to assess psychological health, fear and anxiety associated with being infected or becoming a carrier, as well as restrictions on social life because of infection were reported by more than 75% of survey participants.

7. CONCLUSIONS

This is the first report of RESPOND WP3, whose overarching aim is to provide an ongoing and evolving assessment of policy responses to the wellbeing and mental health impact of the COVID-19 pandemic. These responses are being investigated for the general population and high-risk groups. Below we briefly provide a first conclusion of our preliminary findings.

Mental health in all policies

This first report (Deliverable 3.1.) first sets out a framework to analyse the effect of policies on mental health and relies on some important assumptions. First, the principle of mental health in all policies is the starting point of any policy analysis: the mental health impact of any policy, including suppression measures should be considered before any implementation. This principle is important as, retrospectively, very few countries have selected or argued for implementing covid-19 measures that display the lowest negative impact on mental health. This is in addition to our core focus on analysis of policy intended to specifically address mental health care challenges during the pandemic.

Mental health across the life-course: children, young adults and families

The COVID-19 effect on mental health also has to be analysed from a life-course perspective. Motherhood-fatherhood, birth, infancy, starting school, moving from primary to secondary school or from secondary school to university are critical life stages known to affect cognitive skills and mental health vulnerabilities. Thus, the framework needs also to consider a developmental or a socialisation approach to assess and to select policies avoiding both short-term and potentially long-term impacts that spill over the lifecourse. For this reason, school closure is a particularly critical policy that needs serious assessment. On the one hand some modelling analysis shows this policy is among the most effective in controlling the spread of COVID-19, but on the other hand this policy jeopardises the short term and long term mental health of children and young people, parents and other guardians.

Young adults are also in bind on this perspective. While some universities, such as those in the Netherlands are going to introduce reductions, many universities have not reduced their tuition fees meanwhile they have moved courses online, drastically reducing social support for these young adults. At the same time this group has seen short term job opportunities disappearing, potentially increasing the financial strains they face. The closing of leisure, sport and other cultural activities, as well as the prohibition of outdoor gatherings, have removed the limited social safety nets this group could rely still have relied on to help maintain mental health status.

Finally, families with young children or the sandwich generation of those having to care for young children and their older parents are potentially highly exposed groups that are affected cumulatively by multiple suppression measures: working at home, caring for children, looking after their elderly relatives. Women are likely to bear an important share of this burden as the gender division of household labour generally disfavours women.

Policies to lessen the effect of the pandemic crisis on mental health

Mental health is vulnerable to financial and housing factors, as shown by several meta-analysis and quasi-experimental studies, including those of the 2007-08 financial crisis. In that respect, unemployment benefit and other social protection policies (such as furloughs), including those for the self-employed or those working under precarious contracts, and the prohibition of housing eviction have been positive policies to lessen the detrimental effect of the Covid-19 pandemic on mental health. However, these policies were somewhat more restrictive in some countries than in others, in part because of the initial structure of the welfare system.

A framework to assess the impact of the COVID-19 pandemic on mental health

WP3 proposes a four-legged framework to assess the effect of the covid-19 pandemic: the first leg is the preparedness of the health system to cope with such a crisis and include for example the strength of the welfare net to protect the citizens. The second leg is the severity of the pandemic itself as some countries have been much more affected than

others. The third leg is the extent and duration of those suppression policies that are likely to dampen social life and thus the mental health of the population. Finally, the fourth leg includes specific policies to promote and protect mental health. These four steps are to be assessed with a vertical equity lens: assessing their effect on the general population and on vulnerable groups who, because of Covid-19 exposure or because of pre-existing vulnerabilities, have borne a heavier burden during the pandemic.

Three policy response cases studies

We looked at three policy responses that are particularly important: school closure, gathering restrictions and stay at home instructions. These policies were chosen because they affect a large share of the population (horizontal equity), they are likely to hit vulnerable groups harder (vertical equity), they were more strictly imposed where the covid-19 pandemic was more severe (second leg) and finally they strongly affect the social life and thus mental health status of individuals (third leg). The policies were tracked with Oxford Covid-19 Government Response Tracker (OGRT) for the eight countries reviewed in this report. We found first that different countries had different levels of restriction (ranging from level 1 (minor) to level 4 (severe) and also that these restrictions changed over time between March and December: Belgium and Sweden had somewhat less strict policies in comparison with Italy and the UK. Also, some policies began with very stringent enforcement; they were relaxed later on (school closure) whereas other policies (restrictions on gatherings) were strictly implemented and remained strict for the rest of 2020, thus offering possibilities to assess the differential effect of these policies on mental health. Stay at home instructions had an intermediate situation: they started off strict, were relaxed during the summer and then implemented again at the beginning of the second wave. The objective of the next analysis will be to measure the impact of these policies on mental health and wellbeing over time. As these policies overlap, we may hypothesise that the countries which had the longest, stricter and overlapping policies may witness the greatest effect on mental health. Using the policy timeline and media information, we expect the media to be keener to raise mental health issues of the general population and of young people in countries and over time where these policies were more strictly implemented.

Preliminary analyses from Belgium, China, UK, US and other European countries certainly indicate that the prevalence of psychological distress or of poor mental health increased during the lockdown period. Yet, the effect of these policies on mental health will need to be ascertained during the RESPOND project.

Highlighted themes

We also examined in this first report two issues that have been discussed much in the media in relation to the pandemic: risks of suicide and self-harm and mental health impacts in the long-term care sector, to provide a brief summary of what is actually known in peer-reviewed publications, and also consider whether policy and practice can be informed from past public health or economic shocks. These will be further considered in ongoing impact assessment.

Suicide and self-harm

Suicide is negative indicator of mental health and is also considered as an indicator of mental health system performance. Suicide has decreased in most EU countries over the last decade by about 20%. It is thus important to assess whether suicide was affected by the Covid-19 pandemic. The results from the few available studies form Europe and the US do not show an increase in suicide or in self-harm. Yet, despite this overall downward trend, more sophisticated analyses over a longer time frame are needed to monitor whether there is an impact. As the pandemic may lead to an economic crisis, past economic shocks suggest that there could be longer term increased risks of self-harm and suicide even when the crisis has ended. This needs to be determined. In future work we will look at the experience of specific groups in the current pandemic and past economic shocks, e.g. people with existing mental health problems or young people.

Long-term care

We highlight the long-term care sector, given the high levels of mortality in long-term care residents, and the pre-existing vulnerability to elevated levels of psychosocial stress in long-term care workplaces. We note that evidence remains limited, but experience in Northern Italy in particular, suggests that levels of PTSD and anxiety were very high in care workers after the first COVID-19 wave. There is also emerging review evidence from across Europe suggesting

that the pandemic may lead to a severe deterioration in the mood and behaviour of care home residents, with potential increased use of psychotropic medication use. Unlike suicide and self-harm, there appears to be much more limited evidence from past public health or economic shocks that could inform policy thinking.

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