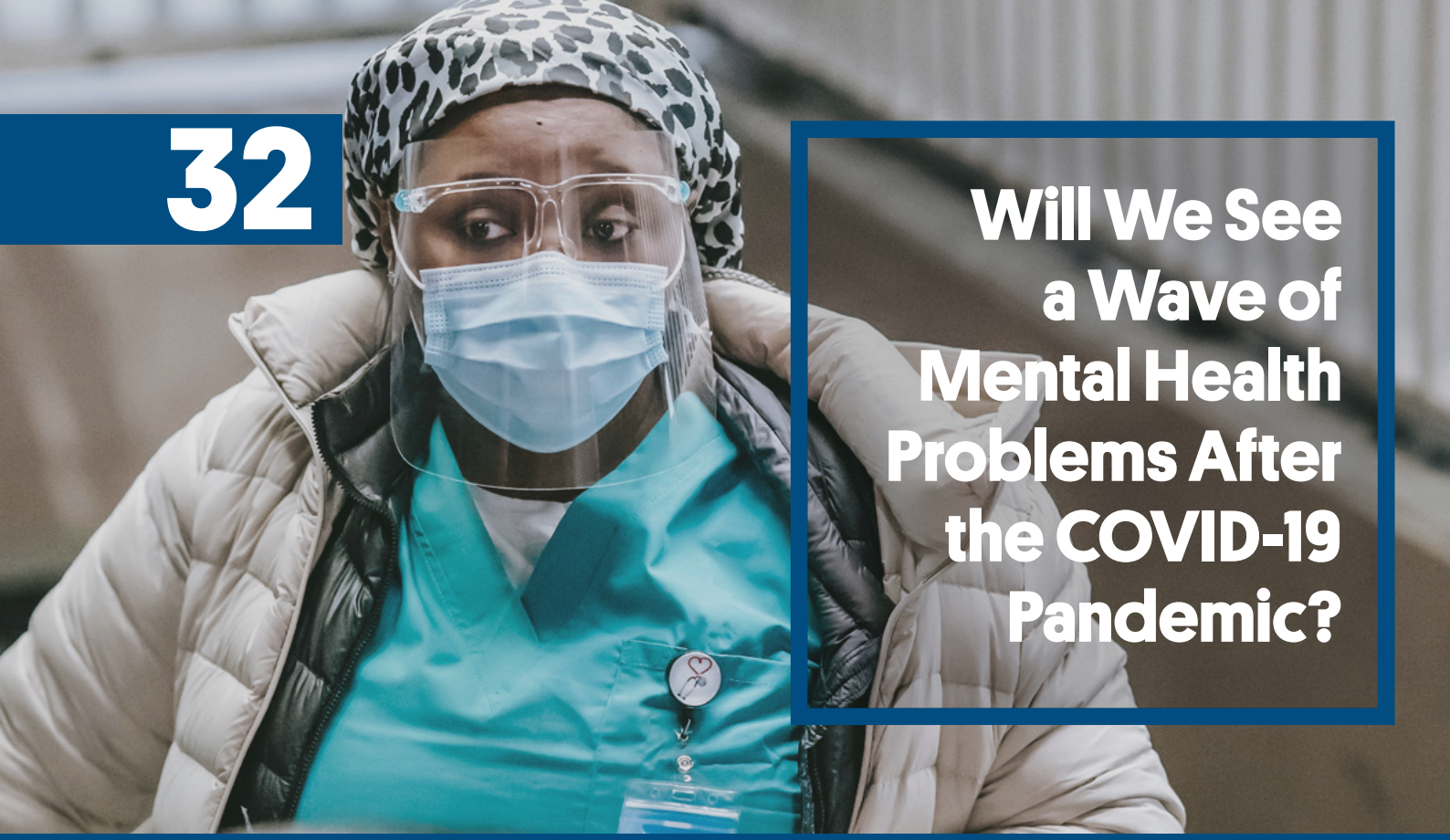

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Will We See a Wave of Mental Health Problems After the COVID-19 Pandemic?

Series | COVID-19 & response strategy

ISGlobal Barcelona Institute for Global Health

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[This document is a part of a series of discussion notes addressing fundamental questions about the COVID-19 crisis and response strategies. These documents are based on the best scientific information available and may be updated as new information comes to light.]

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Before the COVID-19 pandemic, the global economic costs associated with common mental health conditions raised up to U$S1 trillion per year[1]. Among all diseases, depression was already the second cause of global burden of disease and suicide was the second leading cause of death in young people aged 15-29[2]. However, countries spent, on average, **less than 2%** of their **health budgets on mental health**, and up to 85% of people with mental health conditions received no treatment in low- and middle-income countries[3].

The COVID-19 pandemic has affected people's health but also their personal goals, family dynamics, occupational roles and economic stability. In this sense, it constitutes an unprecedented global crisis that has impacted mental health through multiple mechanisms simultaneously, which calls for **urgent action** for intervention, prevention, and preparedness.

This policy brief aims to review the **different mechanisms** through which mental health has been affected during the COVID-19 pandemic taking into consideration **social determinants** such as economic context, inequalities, social support, and characteristics of the physical environment[4]. Based on this review, we propose a series of **policy recommendations** to be implemented in this and future similar crisis ●

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1. Our Experience of the Environment Affects Mental Health

"In light of the COVID-19 related mental health burden, it is of particular importance to consider how urban nature can increase resilience and help people to cope with stress."

The outbreak of the COVID-19 pandemic has had a deep impact on the way we behave and interact with others and with our surroundings. Entire populations have undergone **profound changes in their daily habits** to prevent the spread of the infection, following information from mass media to physically isolate and undertake hygiene measures such as facial masks and hand-hygiene. At the individual level, the compliance to these measures is largely guided by an increased perception of risk and threats associated with the infection. This perception may cause distress related to **fear of contagion** in a sizable proportion of people, which can lead to COVID-19 health anxiety and other forms of mental health conditions that have long-lasting and disabling impacts in the lives of those who suffer and of their families[5].

The pandemic has placed a renewed focus on the interrelation between nature and human health. The COVID-19 virus likely spread from animals to human beings. This so-called zoonotic transmission can occur because of human interference with nature and non-sustainable, unhealthy development of urban environments. Urban living is also associated with an increased risk of mental disorders compared to rural areas[6]. This "**city-related mental health risk**" may also be associated with our **disconnection from nature**. A number of studies suggest that children growing up without access to nature are at higher risk of cognitive and developmental disorders, while on the other hand interactions with nature seem to promote health and reduce risk of, for example, Attention Deficit Hyperactivity Disorder (ADHD)[7,8]. An even larger body of evidence indicates mental health benefits from access and exposure to urban nature among adults, including reduced risk of depression and schizophrenia. The reasons for these associations are not entirely clear, but current knowledge suggests that **nature reduces stress** and also **contributes to healthy behaviors**, such as physical activity and social interactions, which are intimately related to mental health.

In light of the COVID-19 related mental health burden, it is of particular importance to consider how **urban nature** can increase resilience and help people to cope with stress. Studies that have been conducted during the pandemic, suggest that individuals who have been able to visit nearby nature, have had access to a garden, or even just had views of trees from their window have better coped with challenges and distress related to the lockdown[9–11]. Many people also mention that they have experienced an increased awareness of their surrounding nature and felt a stronger connection to the natural world during this period of crisis ●

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2. Our Relationships at Home and Work Affect Mental Health

"Isolation has been put forward as a relevant factor influencing emotional states during the confinement. However, it is not only living alone, but also the emotional state of loneliness that has been consistently found to be associated with mental ill-health."

The interpersonal relationships among family members changed during the pandemic as a result of the new teleworking procedures, forced homeschooling, or even unemployment. These abrupt changes sometimes translated into **modifications of family roles**, which may result in high levels of stress over weeks or even months that can potentially lead to anxiety, depression, and other mental health conditions. Importantly, there were significant increases in the frequency and severity of intimate partner violence during the pandemic. Since the pandemic started, reports for domestic abuse have increased 30% in France, 25% in Argentina and up to 60% in Spain during the first month of confinement. **Domestic violence** is associated with a two- to three-times increased risk of depression and anxiety in women survivors[12], and is the most common factor associated with suicide in children[13].

Household composition can also impact mental health, and **isolation** has been put forward as a relevant factor influencing emotional states during the confinement. However, it is not only living alone, but also the emotional state of **loneliness** that has been consistently found to be associated with mental ill-health in pre-pandemic literature[14]. Loneliness can be experienced by individuals in a variety of living conditions. In this sense, self-perceived social support and capacity to cope with the different stressors are key characteristics that can help increase resilience. Social support can also be important for families coping with **mourning** and preventing pathological grief.

People who remained working at their regular workplaces were exposed to a higher risk of infection. This exposure can be accompanied with increased worries and fear of contagion and eventually lead to health anxiety. Being an **essential worker** triggered stigmatizing attitudes in communities and some workers faced bullying and rejection. In the case of **front-line healthcare professionals**, the situation was further complicated. In the initial days of the outbreak, they had to respond to a constant flow of patients presenting with a wide range of symptoms that could rapidly lead to death, especially due to lack of clear guidelines and absence of protocols and sometimes even Personal Protection Equipment. These situations can prompt a number of mental health problems such as burnout, depression, anxiety, post-traumatic stress disorder, and ultimately suicide

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3. COVID-19 Disease Directly Affects Mental Health

"Associations raise awareness of the close link between mental health conditions and COVID-19 that can involve both behavioral and neurobiological underpinnings."

About 30-60% of COVID-19 patients suffer **manifestations of the central and peripheral nervous system**, including alterations in or loss of consciousness. The impairments usually last from several days to about two weeks, but no study has reported transient brain damage so far. Delirium is the most common acute neuropsychiatric syndrome, followed by low mood and anxiety. A smaller proportion of people infected by COVID-19 also presents psychosis and catatonia[15]. Depressed mood and fatigue syndrome have been reported in the context of **long COVID**, defined as a persistence of symptoms for four or more weeks[16]. It is estimated that one in five COVID-19 patients suffers from symptoms during more than five weeks and some patients even present transient symptoms more than six months after the onset of the infection. Some of the reported symptoms are impaired memory/attention and sleep disorders.

Underlying neurological conditions and a previous history of mental health disorders increase the risk of experiencing severe COVID-19, suggesting a bidirectional association potentially linked to common inflammatory correlates[17]. Moreover, having **schizophrenia** is the second risk factor (after age) of mortality due to COVID-19 with a 2.7 times higher mortality risk due compared to controls[18]. These associations raise awareness of the **close link between mental health conditions and COVID-19** that can involve both behavioral and neurobiological underpinnings. It is possible that people suffering from severe mental health conditions and disabilities assume behaviors that put them in risk situations. It is also possible that shared pathological processes implicated in **pro-inflammatory mechanisms** underlie both the conditions. The **lack of mental health services** in spite of the progressively increasing numbers of patients during the COVID-19 pandemic should also be considered as a possible explanation.

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4. Changes in Healthcare and Economy Affect Mental Health

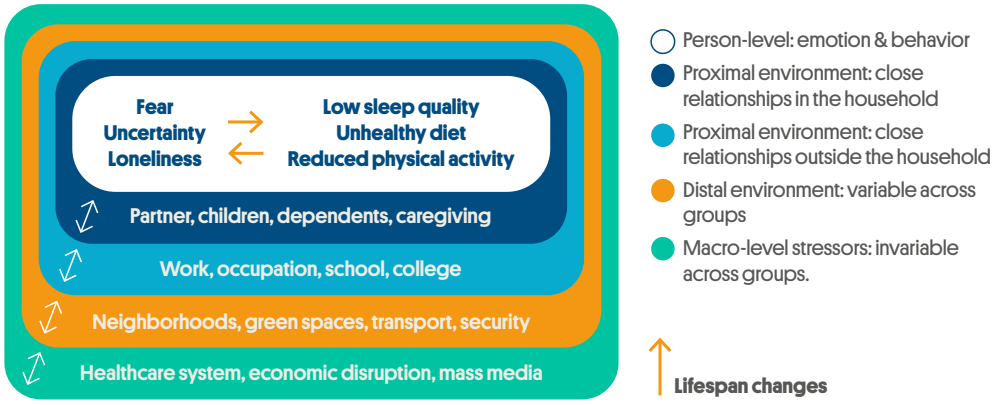
"The COVID-19 pandemic has disrupted or halted critical mental health services in 93% of countries worldwide while the demand for mental health support has increased, showing the devastating impact of COVID-19 on access to mental health services and underscoring the urgent need for increased funding."

Access to the healthcare system was altered due to adaptations following the new needs driven by the pandemic. This has resulted in **disruptions in treatment and support services** for individuals with pre-existing conditions or who wait for a diagnosis and treatment of mental health illness. According to a new WHO survey[19], the COVID-19 pandemic has disrupted or halted critical mental health services in 93% of countries worldwide while the demand for mental health support has increased, showing the devastating impact of COVID-19 on access to mental health services and underscoring the urgent need for increased funding. Among this already **vulnerable group**, these disruptions have caused further anxiety, uncertainty, and hopelessness. The situation can also result in negative mental health effects among **relatives of the patients**, for example those caring for elderly parents or children. Many changes have occurred to facilitate clinical practice during the several lockdowns. The design of such services should be done carefully without exacerbating existing disparities across populations as well as tailored to specific vulnerable groups (see *Table 1*).

The pandemic has also caused a profound **socio-economic disruption** that is expected to be particularly negative in low- and middle-income populations. This will increase the **financial strain** and deepen **health inequalities** that were already observed before the pandemic. The economic crisis affects an increasing number of people who face unexpected financial and unemployment concerns, resulting in feelings of hopelessness and despair in people in productive ages. This scenario can have profound effects on mental health of **marginalized populations** with pre-pandemic vulnerabilities and also the mental state of those **at risk of exclusion**. Previous research on the mental health state associated with prolonged economic crisis shows increased rates of suicide[4].

Figure 1. COVID-19 Has Represented a Profound Disruption.

Our mental health is not static. During the course of our lives, our mental health is shaped as we interact with different contexts and people. The COVID-19 has represented a profound disruption in the way we mode around, the way we dress, the way we behave in our homes and in our workplaces, and even the quality of the wider environment or the public policies that guide our social and economic system.



Source: Adapted from Bronfenbrenner's Ecological Systems Theory of Human Development.

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5. Some People Are Most at Risk of Mental Health Conditions

"Women were already overrepresented among patients with depression and anxiety in the pre-pandemic context. These estimates are expected to rise because women are also more commonly involved in roles and positions that were particularly affected during the pandemic."

Mental health can be affected in any person, regardless of their age, gender, or economic status. But **specific groups** of people have been affected by the pandemic in different ways, and the impact on their mental health is of **particular concern** and should be addressed properly:

• **Children:** When we are growing up, our brains and emotional health benefits from an enriched environment to develop to their full capacities. In the context of a pandemic, it is essential to warrant children's **right for education** and to protect them from victimization in the context of **domestic violence**. Focusing on the family as the target of prevention strategies can help enhance the impact of public health policies.

• **Adolescents and young people:** They are a vulnerable group that is commonly forgotten but deserve special consideration. 50% of the **initial symptoms of mental health conditions** show before the age of 14, and up to 75% before the age of 25. During the pandemic, this already vulnerable group has increased concerns regarding their future, their families and their social connection that has translated in increased demands towards specific mental health treatment. In Catalonia alone, according to data from Generalitat de Catalunya government and the ACAB (Catalan Association Against Anorexia and Bulimia), the number of patients checked in with an **eating disorder** has increased 105%, consultations via phone calls augmented 97% and incoming emails 563% more in comparison to 2019. Specific policies aimed at this age group can largely benefit from mental health perceptive and include both education, social and work-related aspects.

• **Women:** Women were already overrepresented among patients with **depression** and **anxiety** in the pre-pandemic context. These estimates are expected to rise because women are also more commonly involved in roles and positions that were particularly affected during the pandemic. For example, **essential workers** are more commonly women working in healthcare, education and cleaning and hygiene services. Likewise, the increment of **intimate partner violence** will affect women more frequently, adding to previous high rates of victimization among women. Finally, **pregnancy** in the context of the pandemic can further impact the mental health of women. It is therefore imperative that the policies are implemented using a gender-sensitive approach.

• **Older adults and people with pre-existing health conditions: Fear** and **isolation** during the pandemic among the older adults, along with **reduced physical activities** and other risk factors, have increased the risk of mental health disorders in this group of people. Although associated to different circumstances, people with pre-existing health conditions have experienced similar difficulties due to obstacles in access to care and prevention from abusive behaviors in the face of adversity. Priority should be given to protection of **basic rights**, warrant **access to healthcare**, and **promotion of community action** that lead to social cohesion and reduces loneliness.

• **Migrants and refugees:** Before the outbreak, 1 in 5 people in conflict settings had a mental health condition[20]. The transmission of the infection by SARS-CoV-2 in these settings is usually unpredictable, as are **interpersonal conflicts** and **access to healthcare services**. These characteristics increase the risk of mental health conditions among migrants and refugees. In these settings, emergency mental health interventions are key to prevent further increases of severe conditions.

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• **Frontline and essential workers: :** Essential workers and especially those in the frontline of response had to cope with extreme situations specially during the start of the pandemic. Many times, they had to take **hard decisions** in a context of complete uncertainty and lack of control. They also suffered **stigmatization** association with the fear of contagion, which in some cases led to bullying and other types of interpersonal violence. These group of workers can benefit from proven interventions that help cope with **stress** and **trauma**. The support offered by the healthcare centers to their workers need to include a perspective of mental health first aid, which is largely informed from past emergency and humanitarian crisis •

Table 1. Mental Health Conditions Most Commonly Reported by Age Group During the COVID-19.

Children and adolescents 	Depression, anxiety, cognitive and developmental disorders, Attention Deficit Hyperactivity Disorder (ADHD). Anxiety and depression induced by domestic abuse. Anorexia. Sleep disorders.
Adults 	Depression, anxiety, schizophrenia. Anxiety and depression induced by domestic abuse in women. Pathological grief. Burnout, post-traumatic stress disorder. Delirium, Psychosis and Catatonia. Fatigue syndrome. Sleep disorders.
Elderly 	Depression, anxiety. Pathological grief. Delirium, Psychosis and Catatonia. Fatigue syndrome. Impaired memory and attention. Sleep disorders.

6. Recommendations for Policy-makers

"Consider putting more efforts into the integration of mental health services into general health care; and further develop community mental health services, particularly for vulnerable populations."

The monumental mental health costs of COVID-19 are not inevitable. These are some measures that could be taken and promoted immediately:

- **Include mental health services as essential services** even when strict lockdowns and measures apply, by safe delivery of services and adopting innovative ways, such as telemedicine, teletherapy interventions, hotlines and ad-hoc training for health care providers. Also, carefully consider the restoration of services (when and how), as well as measures to monitor changes in service availability, delivery and utilization at the country level.

- **Consider putting more efforts into the integration of mental health services** into general health care; and further develop community mental health services, particularly for vulnerable populations.

- **Devoting resources to implement mental health services and community interventions** as an integral component of COVID-19 response and recovery plans.

- **To prevent structural damage** to the economy, governments have approved a series of measures, including unemployment and social protection schemes (e.g. Minimum Income Schemes), guaranty of basic utilities supplies, delay of deadlines to pay taxes, mortgages or house rents for vulnerable population, and funding for social services to support families in need. **Public policies** should continue in this direction coupled with a close monitoring on their impact on mental health.

- The realization that **mental health and exposure to nature** are interconnected must be translated into policy actions for an optimal recovery both aimed at tackling climate change as well as combatting the mental health crisis. Such actions would include **investments in high-quality urban natural spaces**, especially in deprived areas where multifaceted interventions must be implemented. It is time to extend the concept of Health in All Policies (HiAP) to incorporate also the health of natural environments in order to develop cities where humans can live and thrive alongside healthy ecosystems that support mental, as well as physical and social, wellbeing.

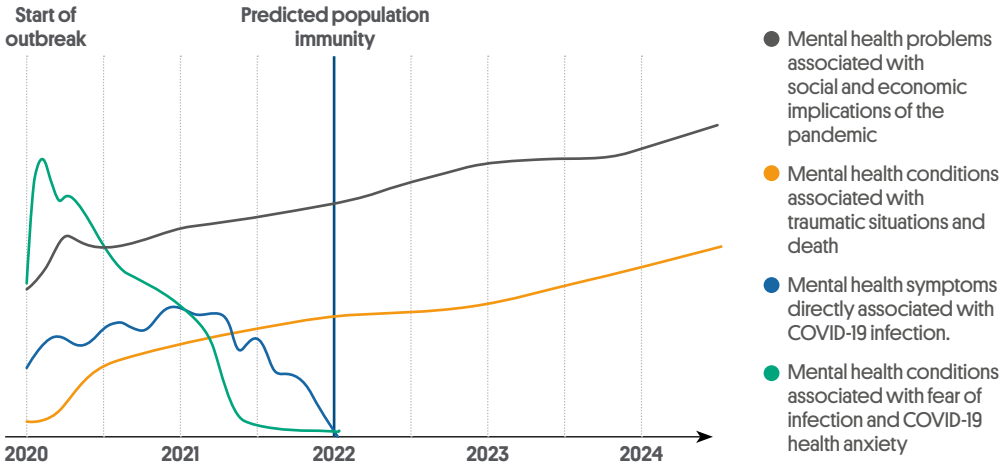
- **Research and innovation stakeholders** should commit to prioritize and coordinate essential and **policy-relevant psychological, social, and neuroscientific research** to ensure that any investment is efficiently targeted at critical mental health science questions addressed as the pandemic develops.

- **Efforts should be made to enhance the current surveillance system** to inform mental health service delivery, intervention and policy. To adequately conduct research in these areas, **novel approaches** are needed to facilitate large-scale data collection using common registries and interoperable electronic records that allow the collection analysis and **dissemination of findings** capable of informing future evidence-based policy making.

- Given the transformations in clinical practice that have resulted from COVID-19, there is an **urgent need for rigorous evaluation of new programs** and patient outcomes. Research opportunities should take advantage of natural experiments that have resulted from responses to the COVID-19 crisis, such as quasi-experimental studies of mental health outcomes based on changes in use of **tele-health**

Figure 2. The Burden and Course of Mental Health Conditions after the Start of the COVID-19 Pandemic Will Vary with Different Risk Factors.

Mental health problems directly related to the infection will decrease as the control of the spread advances. However, mental health conditions that are associated with trauma and socioeconomic impact of the pandemic will increase even after population immunity is achieved.



Source: Own elaboration based on the review made for this document.

TO LEARN MORE

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