



## **Living Document I: Belgian mental health Paper repository version 8**

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### Eight version

Note from the authors: *As the acute crisis phase had passed, we changed methods. The core group monitors and reviews new available data and publications. As we move out the acute crisis phase, many researchers return back to their normal routine, no longer having extra time to spare to invest. We explicitly want to thank former co-authors for their support.*

### **Summary status until now:**

*We initially started with 169 studies in the Belgian Mental Health Data Repository (BMHDR). After applying the inclusion criteria described in version 3 (update 2) (which are: Belgian data, impact on mental health, non-intervention study, non-small data set study unless similar study with larger dataset available) 116 studies remained. In the previous update we performed a systematic review of all the studies in all levels of evidence - the longitudinal (i.e. several waves with the same individuals), cross-sectional (i.e. multiple waves with different individuals) with population and convenience samples, one-shot (i.e., which did not consist of several waves) surveys with population and convenience samples, qualitative data, and small datasets - currently in the Belgian Mental Health Data Repository. Taken all levels of evidence together, we concluded that overall Covid-19 has had a negative impact on mental health, whereby wellbeing fluctuated with more positive wellbeing during months of (perspective of) deconfinement. Nevertheless, no general collapse of mental health has been observed and it is important to keep in mind that not all people who currently report psychological distress will automatically develop (long-term) mental health disorders. Some demographics, risk factors and specific groups increase the risk of developing mental health disorders (cf. version 7). There is a multiplication effect present: the more factors, the higher the risk of developing mental health problems. Lastly, some gaps in research were identified: lack of intervention studies targeted at helping people at risk, lack of identification of individuals with multiple life areas affected by the pandemic and therefore a higher risk for developing mental health problems, lack of benchmarks for pre-covid time, lack of studies on how deconfinement in itself and the manner in which new ways of meaningful time management and participation which were developed during the pandemic impact mental health.*

This is the **Eight version** of the Belgian mental health (care) data repository of the Superior Health Council, commissioned by the Policy Coordination Working group on Mental Health. In this update, we will analyze new available data and compare the results with the findings of the systematic review of update 7. It is important to mention that it is very clear that we did not reach the data repository level. So as of this version, we will refer to the BMHDR as the Belgian Mental Health **Paper** Repository (**BMHPR**) as we work on the insights provided by the researchers or even published papers and not on raw data.



**ATTENTION:**

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If you know of any additional research performed by other researchers, please do put us in contact with them and send their contact information to the Superior Health Council using the following email address: [info.hgr-css@health.fgov.be](mailto:info.hgr-css@health.fgov.be)

1. New data identified

For this update, we contacted all the researchers within the data monitor for who we did not yet have sufficient data and we launched a new call to the research community in order to identify new research on the impact of the pandemic on mental health.

In total, an additional 10 new research studies or new waves of previously included studies were identified, belonging to different levels of evidence (cf. definitions used in version 3): 3 longitudinal, 1 cross sectional population, 4 one-shot survey convenience samples and 2 research studies on secondary data.

We will, firstly, describe the newly found results for each level of evidence. As the newly found data consists of a very small number of studies, we immediately provide the details of each individual study in the description.

1.1 Longitudinal

In total 3 new longitudinal study designs were identified. One of them focusing on a large number of participants, two others, however, with a very specific scope and small.

***Enquête sur le vécu des étudiants en temps de pandémie COVID-19 - Dekeyser, S., Glowacz, F., Klein, O., Luminet, O., Schmits, E., & Yzerbyt, O.***

The largest study focused on the impact of covid-19 on students age 18-25, comparing February-March 2021 (N=23.307) with a second measurement in June 2021 (N=9.010). Similar results were found in both time periods: +-50% anxiety and depression whereby women and individuals who identified themselves as non-binary were more at risk, +-60% sleep problems. However, researchers indicate that June is typically an exam period whereby the results might be influenced by this more stressful moment for students, leading to higher scores. There is a decrease in loneliness (61%-53%).

***Home confinement during the COVID-19: day-to-day associations of sleep quality with rumination, psychotic-like experiences, and somatic symptoms - Simor et al.***

Another study focused on sleep experiences during home confinement. The number of participants in the study was very small (N=166 over three countries, including Belgium) and over short time period (two weeks) in a specific setting, i.e. home confinement. Results show that daily reports of country-specific COVID-19 deaths predicted an increase in negative moods, psychotic-like experiences and somatic complaints during the same day, and decreased subjective sleep quality the following night. The findings illustrate a clear impact of covid-19 on sleep quality and illustrates that night-to-night changes in sleep quality further predict how individuals cope the next day with daily challenges during home confinement.



***The impact of resilience and loneliness during COVID-19 pandemic on youth's (18–25 years old) mental health - Reis et al.***

The last study followed a group of young people between 18-25 (N=855 in Belgium and Italy) during lockdown in Spring 2020 and in Summer 2020 when restrictive measures were loosened to investigate the impact on their mental health. The research indicates that covid-19 and its associated restrictive measures cause a negative impact on youth's mental health, particularly among already vulnerable individuals. Resilience and social contacts are identified as protective factors.

1.2 Cross sectional population based

***Grote Corona Studie - Beutels Philippe, Pepermans Koen, Van Damme Pierre, Hens Niel, Neyens Thomas***

Since the previous version the BMHDR, 5 new questionnaires have been sent out within the corona barometer project. Due to a significant loss in participants, the study design has switched from a fortnightly to a monthly design in September and will now be transformed in a three monthly setup which means the next results are planned for December.

Overall, a positive summer effect is noticeable. The research indicates a steep decrease in mental health problems in June and July, whereby a plateau is reached with values for mental health problems that are the lowest recorded since the start of the pandemic. Physical contact shows a steep increase far surpassing the number of people indicating they had physical contact in the summer of 2020. This increase is noticeable amongst fully vaccinated people as well as in people who do not intend to get vaccinated, and also in young people. There is also a steep decrease in the number of people working from home and many people spent their summer holidays abroad where most people found it easy to adhere to the local corona measures. 20% were even better able to adhere to the rules while 30% indicated that the measures were not complied with. This was mainly the case in the Netherlands.

At the end of the summer holiday (august), almost all people are willing to share their vaccination status mainly when they are vaccinated. While vaccinated people tend to have physical contact with family and friends, non-vaccinated people indicate having a more liberal approach to physical contact including contact in all age categories with friends and strangers alike. The number of people teleworking keeps decreasing even further, and even more so, the research indicates that far less safety precautions are taken on the work floor.

70% of participants in the study believe that our society will not return to the way it was before the pandemic and believes that some fundamental changes will occur.

1.3 One shot survey convenience sample

4 additional oneshot surveys with a convenience sample were found, 3 of these focused on the general population in the time period of the first lockdown and come to similar research findings, 1 focused on healthcare workers.

***Meaningful activities during COVID-19 lockdown and association with mental health - Peter Vlerick  
Changes in alcohol use during the COVID-19 pandemic: Impact of the lockdown conditions and  
mental health factors - Schmits, E., & Glowacz, F.***

***Psychological distress during the COVID-19 lockdown: the young adults most at risk - Glowacz, F.,  
& Schmits, E.***



For the general population, research indicated that the variance in mental health can to a degree be explained by specific variables, most importantly: gender, having children, living space, marital status, health condition, and resilience. Loss of meaningful activities was strongly related to mental health and seems to have an incremental explanatory value on top of the other variables. Young adults report lower levels of living space, occupational activity, social contact and alcohol use, but higher anxiety, depression and uncertainty than older participants. Mixed findings can be found about alcohol intake depending on a combination of factors. However, research findings indicate that those individuals who increased their alcohol consumption during the lockdown are often older, working from home, more likely to have children, higher educated, and consume alcohol more frequently and in higher quantities. These people also tend to have a greater proximity to contamination and higher levels of anxiety and depression.

***Mental Health Outcomes in Healthcare Workers in COVID-19 and Non-COVID-19 Care Units: A Cross-Sectional Survey in Belgium - Julien Tiete, Magda Guatteri, Audrey Lachaux, Araxie Matossian, Jean-Michel Hougardy, Gwénoél Loas and Marianne Rotsaert***

The survey on healthcare workers indicated a high prevalence of burnout, insomnia, depression, and anxiety among participants. The results showed higher levels of burnout, insomnia, and anxiety among nurses in comparison to physicians. Being a nurse, young, isolated, with an increased workload were risk factors for worse mental health outcomes. The researchers indicate that some precaution is warranted in linking these results solely to the pandemic, as the mental health of the tested sample, before the outbreak, is unknown. Moreover, the study design provides no information on the evolution of the mental health outcomes over time.

#### 1.4 secondary data

***Mental health expenditures -Lode Godderis & Isabelle Boets***

***Mental health medication consumption during COVID-19 pandemics' - Lode Godderis & Isabelle Boets***

Two studies on secondary data were identified, focusing on the use of mental health care services and medication use. Based on data from the national institute for sickness and disability insurance and the FarmaFlux database it can be concluded that the covid-19 pandemic and the measures taken to contain it have harmed the physical and mental health of the Belgian citizens. Firstly, the total healthcare expenditures for psychiatrists and child psychiatrists fell below previous years from April to July 2020 (first wave), in October 2020 and January 2021 (second and third wave). This was also the case for consultations, visits and advice at doctors' offices. Secondly, taking all medication use together (psycholeptics and psychoanaleptics) the results indicate that in 2020 the average defined daily doses (DDD) per patient increased for all age categories and genders. Hence, less patients consumed more medication in 2020 compared to 2019.

## 2. Conclusion

Overall, the findings in the different levels of evidence are in line with the results found in the previous updates of the Belgian mental health paper repository. They also corroborate the advices from the superior health council Covid-19 and mental health working group and lastly also the international literature (Van Hoof et al., 2022). The cross-sectional studies and longitudinal studies support once again that in the summer of 2021 when the restrictions were looser, mental health problems decreased in the general population to the lowest point



it has been since the start of the pandemic. Most individuals reporting psychological distress during lockdowns, did not develop (long-term) mental health disorders. However, there is also a clear increase in mental health disorders as reported by psychologists and psychiatrists as well as the secondary data. The previously found sleep problems are corroborated in this update but more so it is now found that sleep problems also significantly impact the degree of coping with covid-19 consequences the following day.

In this update, it was again found that certain demographics and specific groups have an increased risk of developing mental health disorders. A couple of risk factors were defined within the studies. There is also a multiplier effect at play: the more factors present in an individual/group, the higher the risk of developing mental health problems. Not all elements or risk factors stated in earlier updates were mentioned, however, no new risk factors were found and neither were already defined risk factors contradicted:

- Demographic variables: age (Young people) and gender (Females)
- Household factors: Parents with children, living space
- Work related factors: Technically and temporarily unemployed
- Health care workers
- Variable factors: social support, low frequency of meaningful activities

The findings of the 10 newly identified research studies which were added in this update did not bring about new research findings. Moreover, the results are also still in line with the international literature on the topic. This is an indication that we have in fact reached saturation within the Belgian Mental Health Paper repository. New studies might give slightly different perspectives on the same problems but it is unlikely that truly new insights will be gathered. We clearly know who the most vulnerable groups are and what the most important risk factors are, action is needed to specifically target these groups while also taking into account the interplay between different risk factors. More research focusing on interventions and support structures for these groups at risks is needed (cf. update 7).

It is also noticeable that research on the impact of Covid-19 on mental health has taken a back seat again. We identified a multitude of studies and had a high spontaneous response from researchers at the beginning of this project, while now only 10 new studies were identified and/or reported by researchers themselves. Could this diminished response also be an indication that research studies have returned to their usual subjects of research?

In conclusion, we have reached saturation within the Belgian mental health paper repository and the focus within the research community needs to shift from doing research on what the impact is onto how we can diminish the impact for the specific risk groups that need it. Moreover, the methodology identified by the working group to write the first advice within the Superior Health Council appears to have been a good one. Indeed, since that first advice only minor adaptations had to be done. This had important implications for future pandemics. It is possible to respond efficiently to a viral pandemic with regard to mental health. Stating that first we need to avoid deaths is no longer acceptable as we now have a clear approach to identify possible needs and pro-actively address these needs with regard to mental health.



*Reference: Van Hoof E\*, De Laet H\*, Hochrath S, Philips E, Van den Cruyce N (2021) Unravelling the impact of COVID-19 on mental health: a scoping review on traumatogenic events using the phases of response to disaster model. Arch Community Med Public Health 7(3): 218-237. DOI: <https://dx.doi.org/10.17352/2455-5479.000165>*

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**DISCLAIMER:**

*This Belgian mental health paper repository is part of the advice of the workgroup 'mental health & covid-19' of the Superior Health Council. It was created on the demand of the Minister of Health as well as the Policy Coordination Working group 'Mental health' in order to provide insight of the impact of the pandemic on the Belgian mental health.*

Do also take a look at the already published advices by the group :

- Advice 9673 Psychosocial support during COVID-19: double diagnoses (october 2021): [https://www.health.belgium.be/sites/default/files/uploads/fields/fpshealth\\_theme\\_file/21021021\\_css-9673\\_covid\\_sm\\_dd\\_vweb.pdf](https://www.health.belgium.be/sites/default/files/uploads/fields/fpshealth_theme_file/21021021_css-9673_covid_sm_dd_vweb.pdf)
- Advice 9662 Mental health & covid: children and youngsters (July 2021): [https://www.health.belgium.be/sites/default/files/uploads/fields/fpshealth\\_theme\\_file/20210715\\_css-9662\\_enfants\\_et\\_jeunes\\_vweb.pdf](https://www.health.belgium.be/sites/default/files/uploads/fields/fpshealth_theme_file/20210715_css-9662_enfants_et_jeunes_vweb.pdf)
- Advice 9640 Belgian Mental Health Monitor covid-19: [https://www.health.belgium.be/sites/default/files/uploads/fields/fpshealth\\_theme\\_file/20210713\\_css-9640\\_belgian\\_mental\\_health\\_monitor\\_vweb.pdf](https://www.health.belgium.be/sites/default/files/uploads/fields/fpshealth_theme_file/20210713_css-9640_belgian_mental_health_monitor_vweb.pdf)
- Advice nr 9610 Psychosocial care during the Covid-19 pandemic: revision 2021 (February 2021) <https://www.health.belgium.be/nl/node/38685>
- Advice nr 9589 - Mental health and covid-19 (May 2020) [https://www.health.belgium.be/sites/default/files/uploads/fields/fpshealth\\_theme\\_file/20200520\\_shc-9589\\_covid-19\\_and\\_mental\\_health\\_vweb\\_0.pdf](https://www.health.belgium.be/sites/default/files/uploads/fields/fpshealth_theme_file/20200520_shc-9589_covid-19_and_mental_health_vweb_0.pdf)

**Scientific Acknowledgements and personal contributions:**

**Elke Van Hoof** was involved in the creation of the Belgian Mental Health Paper Repository, the research question, the research design & the conceptualization, identified studies and



data collection, data cleaning, performed all analyses, interpreted the obtained data and was responsible for supervision of the team. She reviewed and edited all updates included in this paper repository.

**Nele Van den Cruyce** was involved in the research design & the conceptualization, the recruitment of studies and data collection, cross-checking, analyses, interpretation, supervision and drafting of all updates in this paper repository.

**Hannah de Laet** was involved in the research design & the conceptualization, the recruitment of studies and data collection, cross-checking, cleaning, analyses, interpretation, drafting of all updates in this paper repository.

**Sylvie Gerard** was involved in research design & the conceptualization, contacting participants, data cleaning, analyses and provided the scientific secretariat for the paper repository group.

**Evelien Philips; Sophie Hochrath and Paula Horczak** were involved in data cleaning, analyses and technical support for the updates in this paper repository.