

Living Document I: Belgian mental health (care) data repository version 7 16/06/2021

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Seventh Version

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) 94 studies remained. We are continuously monitoring new studies and since the last update, 22 studies have been added, bringing the total number of studies currently in the data repository to 116 studies. In the last two updates we analyzed the highest and lowest levels of evidence using an adapted version of the Oxford CEBM standard level of evidence. The adapted levels of evidence are, ordered by importance: longitudinal studies, cross-sectional panel studies representative of the population, cross-sectional panel studies with a convenience sample, Delphi methods, surveys (one-shot questionnaires) representative of the population, surveys (one-shot questionnaires) with a convenience sample, small datasets, and qualitative research. The previous analyses showed clear evidence that covid-19 has a negative impact on mental health and more specifically, our resilience. Even though the general Belgian population holds its ground, females, nursing home residents, health care workers, youngsters and individuals with a disability are more at risk for the development of long-term mental health problems. The development of these problems is subject to a complex interplay of different risk factors.

This is the **Seventh 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 be performing a systematic review of all 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 with emphasis on the studies that were not yet analyzed in the previous versions (<u>Version 4</u>





and <u>Version 5</u>). The rationale behind the different levels of evidence used and their definition can be found in <u>Version 3</u> (second update) of the Belgian Mental Health Data Repository. First, we will provide an overview of the newest insights from this updated analysis. Afterwards, a comprehensive and systematic analysis of the studies in each level of evidence will be provided. Lastly, a synopsis for each study is given.

ATTENTION:

If you yourself, have performed or are performing research on covid-19 and mental health in Belgium and are not yet in the data repository, please do feel free to fill in the Qualtrics for each of the research topics you are working on: <u>link to Qualtrics</u>

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

1. Newest insights for the highest and lowest levels of evidence

1.1 Highest levels of evidence

The newest studies in the highest levels of evidence corroborated the previous analysis from Version 4. Overall, it can be concluded that Covid-19 has a negative impact on the mental health of the population. New studies in the Belgian mental health also provided additional insights. First, individuals are less happy compared to their level of happiness in 2018. Moreover, since the start of the pandemic a clear trend keeps emerging with more mental health problems during periods of stricter measures (*i.e.* March and November) and less mental health problems over the summer associated with less strict measures. During the last month (May 2021), a decrease in mental health problems has been observed, which is again in line with this trend since measures are currently (as of June 2021) less strict. It was even found that the *perspective* of less strict measures already decreased psychological distress.

Additionally, some risk groups that appeared in the advices from the Superior Health Council but not through previous analyses of BHMDR, have now been identified:

- Technically and temporarily unemployed
- Parents with young children
- Patients at risk for Covid
- Elderly

In general, an increase in eating disorders has been observed since the start of the first lockdown in March 2020. Moreover, for youngsters, it was found that 1/3 15 to 21 year-olds suffered from (sub)clinical mental health problems and more psychological problems have been observed in 18-29 year-olds when compared to before Covid-19 (34% anxiety, 38% depression). For students starting school in September 2020, more anxiety was observed compared to June 2020. Currently the happiest age category is the 50–64-year-olds. On top of some positive effects mentioned in the previous analyses, it was also found that the quality of involvement in social contacts increased during Covid-19.

1.2 Lowest levels of evidence

For the lowest levels of evidence, the newly added studies also supported the findings from the previous analysis in Version 5. New results gave some additional insights related to the first





lockdown. Higher levels of stress, alcohol abuse and suicidal ideation were reported, as well as an increase in domestic violence. Moreover, for students it was found that they experienced more stress, increased workload and have more financial problems now compared to before the Covid-19 pandemic.

The main additional finding from the lowest levels of evidence pertains to health care workers being a group at risk for the development of mental health problems. They reported increased fatigue, increased feelings of being under pressure, sleep problems, acute stress, being less able to relax and even physical stress complaints like headaches and muscle stiffness.

In the previous analysis an increased efficiency and lower risk of burn-out was reported for teleworkers, irrespective of their job. However, for PhD students the risk of burn out is still very high or has even increased since the start of the Covid-19 pandemic. Self-employed individuals like journalists also fear losing their job significantly more compared to employees.

For ethnic minorities, it was found that not being fluent in the country's languages and having literacy issues formed barriers in getting the correct information. Moreover, these communities felt targeted by ethnic framing (for example, unjustified policing and media reports portraying them as particularly vulnerable) and reported feeling left behind by official instances.

Lastly, a new risk factor was also identified. Experiencing lower environmental satisfaction, defined as one's perception of the positive and negative value of environmental experiences and activities available in its environment, corresponds to more negative emotions.

3. Overview of studies within all levels of evidence

Not all studies currently in the Belgian mental health data repository have findings to report. The studies taken into account in the analysis are only the ones for which (1) results were available at the date of this update and for which (2) we received enough information from the authors.

This review will focus on 70 studies in the different levels of evidence, namely longitudinal (15), Cross-sectional studies with a population sample (3), Cross-sectional studies with a convenience sample (17), one-shot with a population sample (2), one shot survey with a convenience sample (24), small data sets (6), and qualitative research (3). These studies are listed below:

level of evidence	author (alphabetical per type of evidence)	study	contact details
longitudinal	Baten E., Vlaeminck F., Mues M., Desoete A., & Warreyn P. b	The impact of school strategies and home environment on learning during the COVID-19 pandemic, in children with and without developmental disorders	petra.warreyn@ugent.be
	Braet C. & Van Beveren M. b	Generation 2020: a follow-up study	caroline.braet@ugent.be
	Bruffaerts, R.	Leuven college surveys	ronny.bruffaerts@uzleuven.be
	Bruffaerts R., Mortier P., Voorspoels W., Vilagut A., Jansen L., De Vocht J. & Alonso J.	Mental health impact of COVID19 among healthcare professionals in Belgium. The Recovering Emotionally COVID (RECOVID) study.	ronny.bruffaerts@uzleuven.be
_	Cordonnier A. & Camille D.	Past and future thinking in Corona-times	aline.cordonnier@uclouvain.be
	Erbas Y., Adolf J., Dejonckheere E., De Vuyst H., Houben M., Kuppens P., Mestdagh M., Van der Gucht K., Verdonck S. & Walentynowicz, M. ^b	Corona Diaries - a daily diary study to examine the impact of the Corona crisis on well-being	marta.walentynowicz@kuleuven.be
	Galdiolo S., & Gaugue	Couple and parental relationships during lockdown	sarah.galdiolo@umons.ac.be
	Lorant V., Van den Broeck K. & Gandré C.	Impact of lockdown on psychological and social wellbeing of the population (COVID and I)	vincent.lorant@uclouvain.be





	٦	Study of racilians and landiness in youth (19.25	
	Marchini, S., Zaurino, E., Bouziotis, J., Brondino, N., Delvenne, V., & Delhaye, M.	Study of resilience and loneliness in youth (18–25 years old) during the COVID-19 pandemic lockdown measures	simone.marchini@ulb.be
	Pabst A., Bollen Z., Creupelandt C., Fontesse S., Pinon N., de Duve M., et al Ponnet K., Hardyns W., Anrijs S. &	The impact of the lockdown measurements on the consumation of alcohol and other substances Wellbeing and relations in corona times: findings from	pierre.maurage@uclouvain.be
	Schokkenbroek J. M. ^a	a survey in Belgium	koen.ponnet@ugent.be
	Vander Elst T, Vandenbroeck S, Godderis L.b	Impact of the coronacrisis on the mental wellbeing of working Belgians	sofie.vandenbroeck@kuleuven.be sofie.vandenbroeck@idewe.be
	Van Hoof E., De Laet H., Verhavert, Y. & Van den Cruyce N. et al.	impact of covid19 on the wellbeing of teachers	Elke.Van.Hoof@vub.ac.be
	Vullinghs, J., Vantilborgh, T. & Driver C. b	Impact of covid-19 lockdown on employees' work-family balance, social support, and burnout	
	Wagener A., Stassart C., & Etienne A.	Covid-19, environmental satisfaction and emotions	aurelie.wagener@uliege.be
cross sectional	Beutels P., Peperman K.s, Van Damme P., Hens N. & Neyens T. b	Big corona study	koen.pepermans@uantwerpen.be
population	Federaal Planbureau	Wellbeing indicators	jmf@plan.be info@sciensano.be
	Sciensano	6 waves	rana.charafeddine@sciensano.be
	Annemans, L. & Vandepitte., S. b Baudoin N., Dellisse S., Gigi M., Coertjens	Happy Belgians	sophie.vandepitte@ugent.be
	L., Galand B., Crépin F., Baye, A. & Lafontaine D.	Well-being and motivation of secondary students - rerturn post lockdown	noemie.baudoin@uclouvain.be sebastien.dellisse@uclouvain.be
	Bouchat P, Rimé B, Résibois M, DeSmet A, Páez D	How best to promote interpersonal relationships and social integration in the context of Covid-19 physical isolation?	pierre.bouchat@univ-lorraine.fr
	Gaugue J., Rossignol M., Ris L. et al. b	Home Stress Home	justine.gaugue@umons.ac.be laurence.ris@umons.ac.be mandy.rossignol@umons.ac.be
	Glorieux, A., P. te Braak, J. Minnen, B. Spruyt	PhD Survey VUB 2020:Analysis of the consequences of Covid-10 on PhD candidates at the VUB	anais.glorieux@vub.be
	Horlait D., Lambotte F. & Werbrouck K. ab	Internal communication experience of employees and management during the COVID-19 crisis	deborah.horlait@uclouvain.be francois.lambotte@uclouvain.be
	Insomnia team & COVID-19 of CHU Brugmann, VUB and ULB	Impact of the second lockdown on sleep	abernack@ulb.ac.be; olivier.mairesse@vub.be
cross sectional	Lits G., Heeren A., Hanseeuw B. & Cougnon L-A. ab	fake news and Covid-19: What is the impact on the citizens?	gregoire.lits@uclouvain.be
convenience	Minnebo J., Busschaert S. & Samyn W. ^b	Life choices at a later age of those not in need	wouter@indiville.be
	Peeters B., Demarest S., Doggen Kris., Vanhaecht K., & Claes S. ab	Power to Care	bart.peeters@sciensano.be kris.doggen@sciensano.be
	Schouteden M., Sofie V.& Godderis L. ^b	Mental health of the working population	martijn.schouteden@idewe.be lode.godderis@kuleuven.be
	Sciensano	3 waves covid and drugs	info@sciensano.be rana.charafeddine@sciensano.be
	Solidaris Vanhaecht K. Van Hoof E. et al	Yearly barometer on trust and well-being Care together Everyone ok	Delphine.ANCEL@solidaris.be kris.vanhaecht@kuleuven.be Elke.Van.Hoof@vub.ac.be
	Van Leuven S, Vanhaelewyn B, Schelpe F. & Raeymaeckers K. ^{ab}	Corona as a tipping point in the Flemish journalism sector: Findings of a survey among Flemish journalists from 8-19 April 2020	Bart.vanhaelewyn@ugent.be
	Vansteenkiste M, Soenens B, Vermote B, Morbée S, Waterschoot J, Klein O, Luminet O, Schmitz M, Van Oost P, and Yzerbyt V.	A questionnaire about well-being during the corona crisis	Maarten. Vansteenkiste@UGent.be
Survey one shot	Hompes T.,Foulon V. & Ceulemans M.	Mental health status of pregnant and breastfeeding women during the COVID-19 pandemic: A call for action	Michael.ceulemans@kuleuven.be
population	Van de Velde, S., Buffel, V., Wouters E.,	COVID-19 International Student Well-being Study.	sarah.vandevelde@uantwerpen.be
	Van Hal G., Bracke, P. & Colman, L. b Allaert A., Vanderhasselt M-A. & De Raedt	First results from Belgium Adaptive and maladaptive emotion regulation	
	R. ^b	strategies in response to COVID-19 related distress	jens.allaert@ugent.be
	Baert S., Lippens L., Moens E., Sterkens P., & Weytjens J. b	The COVID-19 Crisis and Telework: A Research Survey on Experiences, Expectations and Hopes	Eline.Moens@UGent.be
Curroy one -1	Baert S., Lippens L., Moens E., Sterkens P., & Weytjens J.	How do employees think the COVID-19 crisis will affect their careers?	Louis.Lippens@UGent.be
Survey one shot convenience	Bigot A., Banse E., Cordonnier A. & Luminet	Sociodemographic, Cognitive, and Emotional Determinants of two Health during SARS-CoV-2	alix.bigot@student.uclouvain.be
convenience	O.b	Outbreak: An Online Study among French-Speaking Belgian Responders during the Spring Lockdown	
convenience	O. ^b Blekic, W., Wauthia, E., Kandana Arachchige, K. Lefebvre, L. & Rossignol, M.		wivine.blekic@umons.ac.be





	Collette F., Guillemin C., Muto V., Requier F., Reyt M. & Schmidt C.	Impact of lockdown on sleep, cognitive fatigue and memory	christina.schmidt@uliege.be	
	Crunelle, C. L., Vanderbruggen, N., Matthys, F., Van Laere, S., Zeeuws, D., Santermans, L. & Van den Ameele, S. Cruyt, E., De Vriendt, P., De Letter, M.,	Self-Reported Alcohol, Tobacco, and Cannabis Use during COVID-19 Lockdown Measures: Results from a Web-Based Survey	cleo.crunelle@gmail.com	
	Vlerick, P., Calders, P., De Pauw, R., Oostra, K., Rodriguez-Bailón, M., Szmalec, A., Merchán-Baeza, J. A., Fernández-Solano, A. J., Vidaña-Moya, L. & Van de Velde, D.	Meaningful activities in times of Covid-19	dominique.vandevelde@ugent.be ellen.cruyt@ugent.be	
	Damar, G., Blampain, S. & Madague C.	The year 2020 of families in Wallonia	geraldine.damar@ucm.be	
	De Leersnyder J. & Meeussen L. b	The impact of the school closure and home-schooling on the minority-majority achievement gap in education	loes.meeussen@kuleuven.be	
	De Pue, S., Gillebert, C., Dierckx, E., Vanderhasselt, M., De Raedt, R. & Van den Bussche, E.	The impact of the COVID-19 pandemic on wellbeing and cognitive functioning of older adults	sarah.depue@kuleuven.be	
	Geonet, M., Galdiolo, S. & Hubin, A.b	Intimate life of couples, in times of health crisis	marie.geonet@uclouvain.be	
	Keygnaert, I., De Schrijver, L., Nobels, A., Depraetere, J., Fomenko, E.,, Schapansky, E.,	Relationships, Stress and Aggression (RSA) during the first four weeks of Covid-19 lockdown	Ines.Keygnaert@UGent.be	
	Wuyts, E.,, De Moor, S. & Vandeviver, C.b	measures in Belgium.	Christophe.Vandeviver@UGent.be	
	Lambotte, D., De Koker, B., De Witte, N. & De Bruyne, N. b	Informal care in times of COVID-19: Lived experiences of informal carers in Belgium	benedicte.dekoker@hogent.be	
	Masciantonio, A., Bourguignon, D., Bouchat, P., Balty, M. & Rimé, B.	Don't put all social network sites in one basket: Facebook, Instagram, Twitter, TikTok, and their relations with well-being during the COVID-19 pandemic	alexandra.masciantonio@univ-lorraine.fr	
	Mouton A., Remacle M., Petitfrère Y. & Cloes M.	Covid survey and physical activity in young people	alexandre.mouton@uliege.be	
	Oomen, D., Nijhof, A. & Wiersema, R.	The impact of the Covid-19 pandemic on adults with Autism Spectrum Disorder.	danna.oomen@ugent.be	
	Roskam, I. & Mikolajczak, M.	The impact of lockdown on families and more specifically parents	isabelle.roskam@uclouvain.be	
	Sels L., Randall A. Verhofstadt L., Galdiolo S., Geonet M. & Gaugue J.	International study on the effects of a global stressor (covid-19) on couples	laura.sels@ugent.be	
	Service Disability/UN Convention - Unia	COVID and human rights: Impact on handicapped	info@unia.be	
	Severin M., Vandegehuchte M., Hooyberg A.,	people and their loved ones Effect of the Belgian coast on wellbeing during the	Marie-Ange.Vandecandelaere@unia.be	
	Everaert G., Raes F., Buysse A.	COVID-19 pandemic	marine.severin@vliz.be	
	Stassart, C. Van Daele T., Bernaert, S., Van Assche E.,	COVID-19 and children: emotional behavioral impact Use of online consultation technology	cstassart@uliege.be	
	Willems S., Belmont A. & De Witte N.A.J.	by mental healthcare professionals.	tom.vandaele@thomasmore.be	
	Bastin, C., Folville, A., Cheriet, N., Collette, F., Geurten, M., Guillemin, C., Muto, V., Requier, F., Reyt, M., Schmidt, C. & Willems, S.	autobiographical memory of adults and seniors	Christine.Bastin@uliege.be	
Small data set	Boterberg, S., Zanatta, A., Moerman, F., Schaubroeck, S., Siew, J., De Schryver, M. & Roeyers, H. b	The impact of COVID-19 measures on restricted and repetitive behaviours in pre-school children with autism.	sofie.boterberg@ugent.be	
	Chartier, S., Delhalle, M.; Baiverlin, A. & Blavier, A.	Parental peritraumatic distress and feelings of parental competence in relation to COVID-19 lockdown measures: What is the impact on children's peritraumatic distress?	Adelaide.Blavier@ulg.ac.be	
	Schrooyen, C., van Bakel, H., Hall, R., Roskam, I. & Mikolaiczak, M.	International Investigation of Parental Burnout	charlotte.schrooyen@ugent.be	
	Van Overmeire, R., Van Keer, R-L., Cocquyt,	Compassion fatigue of funeral directors during		
	M. & Bilsen, J. ^b	and after the first wave of COVID-19	roel.van.overmeire@vub.be	
	Van Praag L., Molenaar J., Loos J. & Theeten H.	Impact of covid 19 on vulnerable groups	Lore.VanPraag@Uantwerpen.be	
	Charles J. & Desguin S.	Aux cofins - Travail et foyer à l'heure du (dé)confinement	samuel.desguin@usaintlouis.be	
Qualtitative research	Kaelen S., van den Boogaard W., Pellecchia U., Spiers S., De Cramer C., Demaegd G., Fouqueray E., Van den Bergh R., Goublomme S., Decroo T., Quinet M., Van Hoof E. & Draguez B.	How to bring residents' psychosocial wellbeing to the heart of the fight against Covid19 in Belgian nursing homes—A qualitative study	sanne.kaelen@hotmail.com	
	Rotsaert, A., Vanhamel, J., Ronse, M., Masunga, Y., Van Landeghem, E., Reyniers, T., Gryseels, C., Manirankunda, L., Ddungu, C., Katsuva, D., Peeters, K. & Noestlinger, C.	qualitative rapid ethnographic assessment of etnic minorities in Antwerp	cnoestlinger@itg.be	
aStudies designed with multiple waves but currently only results available for one wave bNew studies not yet analyzed in previous versions of the BMHDR				

^aStudies designed with multiple waves but currently only results available for one wave ^bNew studies not yet analyzed in previous versions of the BMHDR





4. Systematic analysis of studies within all levels of evidence

For this systematic analysis, we describe the research findings for each level of evidence and then formulate a general conclusion. There are several studies in the Belgian Mental Health Data Repository that were designed with multiple waves of data collection but for which only the results for one wave are currently available. We analyzed these studies along with the one-shot survey population and convenience levels of evidence. However, in the study overview and the synopsis overview, they are still in their original level of evidence. In future updates, when more information is available, these studies will be analyzed in their corresponding level of evidence.

4.1 Longitudinal research (15 studies)

The research in the highest level of evidence, longitudinal research designs, clearly indicates that Covid-19 does have a negative impact on mental health. This negative impact can be seen both in the general population as in specific target groups. Especially, lockdown and strict preventive measures increase the risk of experiencing psychological distress. However, deconfinement generally releases the pressure, whereby, the majority of the population seems to recover quite naturally and fairly rapidly. In the last month, a new perspective on deconfinement has been introduced and this has again been shown in multiple studies to have a positive impact on well-being.

Throughout the sanitary crisis and until now, a significant group of people (approximately one out of 4 people) never reached the threshold of psychological distress. Nevertheless, certain subgroups do experience an increase of psychological distress related to covid-19 whereas the strain on society is not yet over. For younger age groups (18-25) a 5% rise in mental health care needs (first contact with a psychologist/psychiatrist, psychotropic drug, inpatient care in psychiatry department) is mentioned. Moreover, it was found that one third of people between the ages of 15 and 21 suffer from (sub)clinical mental health problems and both youngsters and students report more feelings of anxiety, depression, loneliness, and stress about Covid-19.

Vulnerable groups for which the risk of the <u>occurrence</u> of psychological distress increases, seem to be constituted around a variety of factors:

- having pre-existing mental health problems
- fixed factors: gender (female) and age (18-34)
- variable factors: isolation, low social support, low frequency of activities, being single, being temporarily unemployed, and non-teleworkers

It remains, however, pivotal to emphasize that the research stipulates that there is **no automatic link between experiencing psychological distress on the one hand and developing mental health (psychological or psychiatric) disorders on the other hand.** The results reject the idea that we have been experiencing a general mental decompensation as of this date (June 2021). The society, overall, seems to be quite resilient despite the abnormal and challenging Covid-19 context. Psychological distress can subsequently be considered to be a normal response to an exceptional situation. Some research, thereby, even find **positive effects from Covid-19 on mental health**. For example, for some, Covid-19 has also been an escape of the "rat race" of normal life. Couple satisfaction has increased and there has been an overall reduction in alcohol consumption (although there appears an increase in certain subgroups).





One study also focused on a specific subgroup – parents of children with developmental disorders – and found more stress and struggles for this group. This is in line with the findings from other levels of evidence. However, only one study on this topic is currently investigating this in the longitudinal level of evidence, so no general conclusion can be drawn within this level of evidence.

4.2 cross-sectional population (3 studies)

The Covid-19 crisis reduces our general wellbeing which has already been decreasing in Belgium since the financial crisis of 2008. Based on projections taking into account several key population indicators, the impact of Covid-19 on wellbeing is expected to be even larger than the impact of the financial crisis in 2008. The current crisis is also expected to have a detrimental impact on the capital needed to ensure the wellbeing of future generations.

The strain that covid-19 puts on society is, firstly, noticeable in a **rising feeling of dissatisfaction**. Especially younger age groups (18-44) are increasingly dissatisfied with their social contacts. In the last couple of months, this feeling of dissatisfaction with social contacts also extended to other groups: risk patients, individuals with a disability and parents with children. There is also a noticeable **increase in perceived lack of social support** and **a decrease in life satisfaction**. Secondly, feelings of **anxiety and depression fluctuate during the pandemic**. Anxiety levels seem to rise in correlation with rising infection numbers (in relation with an increased risk perception) whereas depression seems to be more related to the impact of the preventive measures taken. Wellbeing also follows a similar pattern with less wellbeing in times of stricter measure and increased wellbeing during (the perspective of) deconfinement. Moreover, more eating disorders have been reported since the start of the Covid-19 pandemic. Lastly, and especially worrisome, is the **rise in sleep problems**. Within the general population this number is rising up to 70%. The number of people with sleep problems remained the same over the summer and during the second lockdown.

Certain target groups are mentioned as being <u>less prone</u> to developing mental health disorders such as anxiety, depression, sleep disorders and suicidal tendencies, namely:

- people aged 65 and over
- people living in couple
- people with a higher education
- people who are (still) in paid employment

4.3 cross-sectional convenience sample (17 studies)

Studies in this level of evidence mention that there is a **fluctuating effect of Covid-19 on mental health**. Again, especially lockdowns have a negative effect, when deconfinement boosts moral quite rapidly. Depending on the Covid-19 situation and the timing within the pandemic, feelings of lassitude, anger, and fear and motivation seem to fluctuate. Sense of coherence has also been identified to be an important factor in being able to deal with stressful situations. Moreover, it was found that high levels of Covid-19 media exposure were related to information overload, stress, distress, and sadness.

The chance of developing mental health problems increase with the number of life areas that are affected by Covid-19 (e.g. work, income, health, future...), which means that there is





a multiplicator effect at play in the effect of covid-19 on mental health, as is the case regarding identified factors such as age ("younger" generation and elderly (60+)), gender (female), and profession (health care workers).

There are a number of worrisome points of attention. Again, these studies find that the occurrence of sleep problems is rising systematically throughout the general population. In addition, as resilience is decreasing and as the mental strain of Covid-19 remains, the risk of developing mental health problems increases. Moreover, drug use decreased during the first lockdown, but got back to the same or even higher (for some drugs) levels after deconfinement. Overall, happiness decreased in the general population. Some specific groups are also found to encounter more important difficulties. For instance, students are less happy compared to 2018, and report more sleep problems and less qualitative sleep. Also, their anxiety increased over the summer with the perspective of having to start school in a pandemic. For health workers a clear increase in different symptoms of chronic stress and acute stress was found. A multitude of different symptoms were reported including headaches, sleep deprivation but even physical complaints like muscle and joint pains.

As for positive aspects of Covid-19, the quality of involvement in social contacts increased during the pandemic.

Two studies focus on specific subgroups (1 on teachers and 1 on PhD students). As there is, currently, no comparison possible with other research on these specific target groups we decided to only take into account the general trends for now and not to go into specifics. Currently, there is no indication that these groups are impacted in a significantly different manner than the general population.

4.4 One-shot survey: Population sample (2 study)

There are currently only two studies in the one-shot survey population level of evidence, each pertaining to a specific subgroup of participants. During the first lockdown, an increased prevalence in depressive symptoms and anxiety for expectant and breastfeeding mothers was found. For students, it was found that they experienced an increase in stress and workload compared to before the Covid-19 pandemic. Furthermore, the number of students reporting financial problems has increased as well.

4.5 One-shot survey: Convenience sample (24 studies)

In line with other levels, in this level of evidence, it was found that the general well-being decreased when compared to before lockdown. It needs to be taken into account that all but two studies (specifically identified) discussed in this paragraph pertain to the first lockdown in March-June. First, we will discuss the first lockdown studies and afterwards the two studies pertaining to the second lockdown (which, in Belgium, started in November).

First lockdown

In the general population, **lower mental health and lower resilience** were found. In one study, 75% of the sample indicated an **increase in depression and anxiety symptoms** during the pandemic. In another study half of the population reported **mild to severe psychological distress**. Even more worrisome, reports of household abuse were higher compared to before the lockdown and less people sought help for this household abuse. Moreover, an increase in suicidal ideation was found. Different **risk factors** for lower mental health were identified





including being female, having children, smaller living space, being single, not engaging in meaningful activities, weaker environmental satisfaction, and intolerance to uncertainty.

Moreover, in the general population an **increase in consuming alcohol and smoking cigarettes** was found, compared to before the Covid-19 pandemic. However, no increase in cannabis use was observed. The main reasons reported for increase in consumption were feelings of boredom, lack of social contacts, loss of daily structure, reward after a hard-working day, loneliness, and conviviality.

Several studies also investigated the impact of Covid-19 on mental health in specific groups. The different groups that were identified were **specific age categories** (parents, children and elderly), the **employees**, and **precarious groups** (disabilities and dependencies). Since most of the time, only one study assessed one of these groups, it is difficult to draw general conclusions for each level of evidence. However, we can address their results in line with the ones pertaining to the already analyzed highest levels of evidence.

For about 30% to 36% of parents, **well-being increased** during the first lockdown because they were able to do things that they were not able to do before. However, 15% to 20% of parents reported an **increase in parental burnout**, depending on their perception of the impact of the health crisis and lockdown on their parenting. Moreover, a relationship was found between having more children at home and an increase in alcohol consumption. For children, it was found that the most frequently reported difficulties were worry, agitation, anxiety, sadness, loneliness, nervousness, arguing, anger, frustration, boredom, irritability, behavioral problems, and laziness. Furthermore, parents mentioned that Covid-19 had an impact on their family wellbeing. **Family well-being, age, and social contacts** before and during the lockdown were found to be explaining factors of various emotional and behavioral changes observed in children. For the elderly, Covid-19 had a severe impact on their **mental health**. After a couple of weeks in lockdown a **significant decrease** was found in **well-being, activity level and sleep quality**.

Regarding work, employees attributed mostly **positive characteristics to teleworking** such as an increased efficiency and a lower risk of burnout. However, it was also found that about 20% of employees feared losing their job and some expressed concern that teleworking could **reduce their opportunities for promotion and could weaken the bond** with colleagues and employer. PhD students, self-employed, and mental health care workers have reported a different experience during the pandemic. For PhD students it was found that even though the levels of burn out were already very high before the pandemic, this number increased even more since the start of the pandemic. Regarding self-employed, they feared losing their job significantly more than employees. As for mental health care workers, they indicated having **positive experiences** and a **high uptake of online consultations**. They did, however, have additional questions about the performance of online consultations. It was also found that being a health care worker is a **protective factor** against an increased alcohol consumption during lockdown compared to before lockdown.

People providing informal care, however, seem to be a group very much at risk for psychological problems due to the Covid-19 pandemic. For health workers in general a similar trend has been observed, in line with higher levels of evidence. Not only do they experience increased levels of fatigue, pressure, difficulties relaxing, sleep problems, concentration





problems and stress but even physical complaints have increased such as headaches and muscle pains.

Similarly, two studies looked into the effects of the lockdown on people with a disability. In general, it was found that individuals with a disability felt that their opinion was not considered in the measures taken. Another problem that arose was the **cancellation or cessation of care** due to the pandemic, which caused great psychological distress for the persons with disability. For individuals with autism spectrum disorder, it was found that these individuals **showed a greater increase in depression and anxiety symptoms** compared to the non-autism group. Informal cares also reported that the person they care for is more depressed and that they need more help now compared to before the pandemic.

Second lockdown

In contrast to results found for the first lockdown, during the second lockdown, parents indicated to be **more stressed**, **more tired and felt lonelier** when they had children under 18. Many parents expressed concerns about resuming their professional activities while their children remained in lockdown and no support from families or friends was allowed. Moreover, for secondary school students a decrease in physical activity was found.

4.6 Small data set (<500 participants) (6 studies)

One criterion used to decide upon the level of evidence was the sample size of the studies. The studies with small datasets have thus been grouped into one level of evidence, no matter what their methodology was, in order to compare whether they **support findings found in the other levels of evidence**. A first study found a **relationship between the children's and parent's peritraumatic stress**, with mothers being more affected than fathers by the lockdown. These findings support previously reported results of (**expectant**) **mothers having higher depressive and anxiety symptoms**. Similarly, well-being was also found to related to emotional and behavioral changes in children. A second study looked into the effects of lockdown on autistic children and also found an increase in difficulties, likewise previous findings of individuals with a disability experiencing more problems during Covid-19. In a small sample study on the elderly, it was found that their wellbeing was related to a decrease in valorizing and novel activities. This is once again in line with multiple studies identifying elderly and nursing home residents as a risk group.

4.7 Qualitative Research (3 studies)

There are three qualitative studies in the current data repository that focus on the impact of Covid-19 on mental health, both concerning the first lockdown. For nursing home residents, it was found that they experienced **more depressive**, **anxious**, **and frustrated feelings** as well as **decreased meaning and quality of life**. Staff of nursing homes also reported feeling unprepared to deal with the challenges of a lockdown. Another large-scale study investigated general well-being and the effects of lockdown on the working population. They found that a lot of people felt **deprived in different life areas**. They also observed that the most precarious employee groups (low income, atypical jobs, job seekers, students) have **lost more income** compared to other employee groups. For ethnic minorities, it was found that language and literacy formed a barrier for important information to reach vulnerable subgroups. Moreover, these groups felt target of ethnic framing and left behind by officials.

4.8 Conclusion from all levels of evidence





Taken all levels of evidence together, we can conclude that Covid-19 has had a negative impact on mental health, although wellbeing fluctuated over the months with more positive wellbeing during months of (perspective of) deconfinement. Overall, however, no general collapse of mental health has been observed. It is important to keep in mind that not all people who currently report psychological distress will automatically develop (long-term) mental health disorders. That being said, there is also a clear increase in mental health disorders and psychologists and psychiatrists already report an increase in new cases in their practices. The real magnitude of the impact of Covid-19 on mental health will probably only be visible once the world returns to (a new) normal. The most worrisome findings are the increase in sleep problems, suicidal ideation, and household abuse.

Some demographics, risk factors and specific groups increase the risk of developing mental health disorders, as was found across all different levels of evidence. It is important to keep in mind the interplay between these different factors and their influence on the development of mental health problems: The more factors, the bigger the risk of developing mental health problems.

- Demographic variables: age (Young people and elderly) and gender (Females)
- Household factors: (Single) Parents with young children, living space
- Work related factors: Technically and temporarily unemployed
- Health care workers and caregivers
- Individuals with a disability and risk patients
- Prior occurrence of mental health disorders
- Variable factors: Isolation, social support, low frequency of activities, environmental satisfaction, intolerance to uncertainty, sense of coherence

For elderly, mixed evidence was found. On the one hand they are identified as a risk group with poorer wellbeing compared to the general population while on the other hand it was found that they develop mental health problems less often. These findings indicate that even though they feel lonelier and are less satisfied with their life currently, the development of mental health problems remains similar to before the pandemic. In the long run however, elderly might be more at risk for the development of mental health problems.

Problems before the pandemic were also magnified during the pandemic in multiple different areas. This goes from individuals with mental health disorders before the pandemic being more at risk for mental health disorders during the pandemic and individuals with a disability experiencing more problems in getting the care they need to precarious groups tending to lose more income.

Not only were these findings corroborated in the different levels of evidence, they are also in line with the <u>first</u> and <u>second</u> advice from the superior health council and with the international literature on this topic. **This also indicates that the general findings from the international literature can be applied to the Belgian population even though different measures were taken across the world to combat Covid-19. However, studies show how this impact was a function of waves of Covid-19 or associated lockdowns. The timelines being different and with different groups receiving more or less support during these measures across countries, we can expect this impact to differentiate somewhat across countries. This remains to be further investigated.**





Lastly, we identified some gaps in the literature that more research should be focused on. So far, a lot of studies focused on what the different underlying factors of poor mental health were while less studies focused on what intervention or support structures could help for different risk groups. Moreover, it would be interesting to do more research into how to identify individuals with multiple life areas affected by the pandemic and thus more at risk for the development of mental health problems. Some studies did focus on the effects of the pandemic on children but, often, large age categories were grouped together while the effects might be different depending on more specific age categories. There is currently a group of researchers within the superior health council working on tightening this gap. Similarly, the self-employed received little attention in literature so far. Studies into journalists and funeral directors indicated that this group of people might be more at risk for mental health problems, but it is difficult to draw general conclusions since no study as of yet researched this topic specifically. Moreover, it is often difficult to draw general conclusions since very few studies had benchmark data collected before the start of the Covid-19 pandemic. Moreover, a lot of studies report an increase in psychological problems. However, it is not clear what the actual percentage of psychodiagnostics problems is since a multitude of different tools have been used. In addition, many of these studies are based on symptomatologic approaches – whereas this is debated in the literature as to whether this is a good measure for clinical issues – and were using online forms to acquire the date – creating a bias in the population reached through this method (more precarious or strained people might not engage in filling in such forms). Lastly, we are now evolving to deconfinement and maybe even towards the end of the Covid-19 pandemic. For a lot of people, this is the route to freedom, whereas others have difficulties with the idea of being in large crowds again. More research needs to be performed on how deconfinement will affect the mental health of the population. It will also be important to focus on meaningful use of time and participation in the future as this might have changed compared to before the pandemic and has shown to influence for example drug use.

In conclusion, different risk factors, vulnerability factors and protective factors have been identified. But more importantly, it is clear that a multiplicator effect is at play between these factors. The more life areas are affected, the bigger the risk of poor mental health. Rather than focusing resources on specific factors, it would be more interesting to focus on the number of life areas affected.

5 Synopsis for each study

We provide below the synopsis for each study included in our analysis as reported by (one of) the authors.

5.1 Longitudinal studies (15)

The impact of school strategies and home environment on learning during the COVID- 19 pandemic, in children with and without developmental disorders: Baten E., Vlaeminck F., Mues M., Desoete A., & Warreyn P.

This is a longitudinal study researching the impact of school strategies during the Covid-19 pandemic on children with developmental disorders. To this end they sent out a survey to parents of children with and without developmental disorders a three different timepoints. The first wave took place in April and 2328 parents participated. During the second wave in June, 1795 participants took part. Lastly, in December-January a survey was sent out again with 847 participants filling it out. Parents of children with a developmental disorder estimate that their child has fallen behind on schoolwork more often than parents of children without





developmental disorders. Parents of children with developmental disorders also spend more time helping their child with schoolwork, experience more stress about their child's schooling, and struggle more with helping their child than parents of children without developmental disorders. As far as we are aware, no future data collection is envisioned.

Generation 2020: a follow-up study: Braet C. & Van Beveren M.

This study is part of a larger long running project called Generation 2020 initiated in 2014. In this project a community sample of 1655 children between the ages of 8 and 13 were followed. Currently all these children are between the ages of 15 and 21. In April 2020 a new survey was sent out to the participants. The authors found that one in three adolescents between the age of 15 and 21 suffered from (sub)clinical mental health problems. The researchers are currently conducting further in-depth analyses on the data.

Leuven college surveys: Bruffaerts R.

The Leuven college surveys have been running since 2012 and investigates the emotional wellbeing of students. During the first lockdown, a new survey was sent out with some additional questions about emotional wellbeing during lockdown. The researchers found 21% of the students to report a severe emotional impact of the COVID-19 pandemic. Around 54% reports a mild-to-moderate impact whereas one in four does not report an impact at all. No differences were found in stress levels, suicidality and depression in March 2020 compared to March 2019. The proportion of students meeting the criteria of anxiety disorders is however somewhat higher in 2020 compared to the 2012-2019 benchmark. This study will continue to collect data yearly.

Mental health impact of COVID19 among healthcare professionals in Belgium. The Recovering Emotionally COVID (RECOVID) study: Bruffaerts R., Mortier P., Voorspoels W., Vilagut A., Jansen L., De Vocht J., & Alonso J.

So far two waves of this study have been carried out in April-June 2020 and October-December 2020. Two additional waves are planned in April-June 2021 and October 2021. In the first wave, researchers found that lifetime mental disorders (ie disorders that already existed prior to the outbreak of the pandemic) were associated with a 2.8 odds of current mental disorders, that work-related risk factors (such as problems with work-life balance, shortage of professional equipment, conflicts with co-workers, or the need to perform professional tasks without proper education) were between 1.4 and 2.0 times more likely associated with current mental disorders, and that social support had an overall buffering effect against mental disorders.

Past and future thinking in Corona-times: Cordonnier A., & Camille D.

The aim of this study was to investigate emotions, memory and future thinking in Coronatimes. This study has two waves of data collection. First wave of data collection took place between March and April 2020 and the second wave of data collection was between May and June. 680 French speaking participants took part in both waves. In the first wave the researchers asked participant about events that would take place in the future. In the second wave, participants had to remember how these events happened. Results showed a clear optimism bias is present. No future data collection is envisioned.





Corona Diaries - a daily diary study to examine the impact of the Corona crisis on well-being: Erbas Y., Adolf J., Dejonckheere E., De Vuyst H., Houben M., Kuppens P., Mestdagh M., Van der Gucht K., Verdonck S. & Walentynowicz, M.

In this study 313 participants took part in a daily diary study that spanned over a period of four months. This study took place from April 7th to July 8th 2020 and participants were asked daily about their general well-being. There are currently no results available for this study. No future data collection is envisioned.

Couple and parental relationships during lockdown: Galdiolo S., & Gaugue J.

This study is part of a larger international study consisting of four waves between March and August 2020. In Belgium, about 350 Belgians took part in the study. Their findings showed a positive impact of the lockdown on couple satisfaction and more mitigated results for parental satisfaction. As far as we are aware, no future data collection is envisioned.

Covid and I: Lorant V., Van Den Broeck K., & Gandré C.

The "Covid and I" study is a longitudinal study consisting of four waves with the first wave starting only a couple of days after the announcement of the first lockdown. The other moments of data collection took place in April, June (during de-confinement) and November (start of the second lockdown). This study is a collaboration between UCLouvain and the University of Antwerp. 6337 people took part in all 4 waves. During March and April, 48% to 46% of individuals were at risk for psychological distress. In June the situation ameliorated and only 32% of individuals were at risk. However, in November when the measures became stricter again, the number of individuals at risk increased to 47%. Interestingly, 27% of respondents never reached the threshold of psychological distress while only 15% of individuals were in a psychological distress. The researchers also found a link between these changes in psychological distress and different subgroups of the population like women and young people. Moreover, they also identified other time-varying factors that had an impact on changes in psychological distress. Isolation, low social support and low frequency of activities explained 24% of the changes in distress while exposure to COVID-19 only explained 1%. As far as we are aware, no future data collection is envisioned.

Study of resilience and loneliness in youth (18–25 years old) during the COVID-19 pandemic lockdown measures: Marchini S., Zaurino E., Bouziotis J., Brondino N., Delvenne V., & Delhaye M.

This longitudinal study consisted of two waves. The first wave took place in April-May and the second wave in August-October. This study evaluated the risks and protective mental health factors in 825 young adults between the ages of 18 to 25 in Belgium and in Italy. Resilience, loneliness and social, and family context were explored to determine their specific role in coping with the emotional distress that spread worldwide during the coronavirus disease 2019 (COVID-19) pandemic. The researchers found that the group who experienced an increase in mental health care needs represented almost 5% of the assessed youth. Moreover, statistically significant differences were found in means of resilience oke! scale for adults total score and resilience scale for adults' perception of self. This study enlightens the possibly traumatic impact of the COVID-19 pandemic on at-risk youth's mental health. As far as we are aware, no future data collection is envisioned.

The impact of the lockdown measurements on the consumation of alcohol and other substances: Pabst A., Bollen Z., Creupelandt C., Fontesse S., Pinon N., de Duve M., et al





The aim of this longitudinal study was to investigate the alcohol misuse at early stages of lockdown. Participants had to report alcohol consumption during two timepoints during the first lockdown in the spring of 2020 and one after the first lockdown resulting in three waves. About 1700 French speaking participants took part. The researchers found that participants decreased their alcohol consumption after lockdown onset and returned to their initial alcohol consumption after lockdown offset without massive rebound effect on consumption. Younger individuals (18-30 years old) were more likely to decrease their consumption during the lockdown period compared to the periods preceding or following lockdown, especially if they presented hazardous or problematic drinking patterns before lockdown. We only observed a rebound effect after lockdown offset among young moderate drinkers. All participants kept their alcohol consumption stable during lockdown. As far as we are aware, no future data collection is envisioned.

Wellbeing and relations in corona times: findings from a survey in Belgium: Ponnet K., Hardyns W., Anrijs S. & Schokkenbroek J. M.

This study is a longitudinal study but there is currently only data from the first wave available. This first wave took place in April 2020. Data for the second wave was collected in April 2021. In the first wave 2889 participants took part. The goal of this study was to research the impact of Covid-19 on mental health, work and relations within different groups.

The researchers found that youngsters and students reported more feelings of anxiety, depression, loneliness, stress about covid-19 compared to other age categories. Both students and temporarily unemployed report more feelings of stress but only temporarily unemployed experience significantly more financial stress now and for the future. Within all age categories, females experience more stress and loss of concentrations related to their work or studies. Moreover, teleworkers experience less financial stress compared to non-teleworkers. As far as we are aware, no future data collection is envisioned.

Impact of the coronacrisis on the mental wellbeing of working Belgians: Vander Elst T, Vandenbroeck S, Godderis L.

This longitudinal study comprises of four waves for each month between March and June 2020. 9285 participants took part in at least one wave and 1111 participants took part in all 4 waves. With this study, the researchers looked concretely at the evolution of the psychosocial well-being of employees during the coronary crisis, more specifically the consequences on mental well-being, emotions, and job satisfaction. In addition, they examined which factors/stressors are related to this (such as work-life balance, job insecurity, boredom, loneliness) and by which resources this relationship is influenced (communication, family support measures, safety culture, ...). The researchers found slight improvements for general mental well-being as the measures became less strict. This also in line with their finding that participants felt less lonely in wave 4 (June). They also identified some groups at risk: technically unemployed and singles. As far as we are aware, no future data collection is envisioned.

Impact of COVID-19 on the wellbeing of teachers: Van Hoof E., De Laet H. Verhavert Y., & Van den Cruyce N.

This longitudinal study started in September 2019 and every two months a new survey was sent out. In total 6 surveys were sent out between September 2019 and July 2020 in Flanders. The researchers found that the risk for burn-out fluctuated over the different waves. At the start of the first wave there was a decrease in burn-out risk which might be related to "stepping out of the rat race". When online teaching started up, there was again an increase in risk for burnout.





Emotional exhaustion shows a slow increase leading up to the lockdown, but at the start of the first lockdown it decreases again to an ultimate low. The feeling of incompetence keeps on increasing during the lockdown even during the summer holidays. During the first lockdown, teachers indicated less need for recovery after a working day while later on in the lockdown and during the summer, the need for recovery increased to 60% of teachers indicating they are in need of recovery. A new survey was sent out in January and new surveys are planned to be send out again in March, May and July.

Impact of covid-19 lockdown on employees' work-family balance, social support, and burnout: Vullinghs J., Vantilborgh T. & Driver C.

In this study, a survey is filled out weekly by approximately 100 participants. In total they already collected the data for 60 waves. There are currently no results available for this study.

Covid-19, environmental satisfaction and emotions: Wagener A., Stassart C., & Etienne A.

The goal of this longitudinal study is to investigate the psychological impacts of COVID-19 on emotions and their regulation strategies, intolerance of uncertainty and environmental satisfaction. This study currently consists of two waves with a first wave in May 2020 and the second wave in November 2020 however only results for the first wave are available. A third wave will be carried out in May 2021 and the last wave will be in November 2021. On average approximately 1000 participants took part in these waves. The results showed that in May 2020 individuals experience higher levels of negative emotions along with lower levels of positive ones. They also tend to worry less and accept more. Further, environmental satisfaction appears weakened. With regards to this variable, it appears that environmental satisfaction is the most important predictor of both negative emotions and positive ones.

5.2 Cross sectional population studies (3)

Big corona study: Beutels P., Peperman K.s, Van Damme P., Hens N. & Neyens T.

The Corona study is a long running study that started in March 2020 with a questionnaire every Tuesday. At the moment, they are still gathering data every fortnight on Tuesday. Currently, the results of 36 waves are available. In total 2.9 million questionnaires have been filled out with approximately 20 000 individuals taking part in the last wave. This project is a collaboration between UAntwerpen, UHasselt and KU Leuven. The results show an overview of the mental health of Belgians since the start of the pandemic. In March and April, the mental health complaints were very high. As soon as the measures became less strict, a decrease in mental health complaints was visible and this decrease kept on going until the beginning of August. At the beginning of August, the number of mental health complaints were similar to 2018. However, from August until October, the number of complaints were again elevated and at the start of the second lockdown in November, they were again equally as high as in March and April. From April 2021 onwards, a decrease is again visible in the mental health complaints. This corresponds with the announcement of less strict measures in Belgium. This project will continue to collect date in the coming weeks.

Well-being indicators: Federal Planning Bureau

The federal planning bureau calculates different indicators including one for wellbeing based on the following determinants: health status, material deprivation, social life, work and education. Covid-19 is expected to have a direct impact on the most important determinants of wellbeing, especially on the health, social life and material deprivation component. The





projections made regarding the impact of covid-19, taking into account the economic projections and a number of lager surveys also represented in the data repository, indicate that the impact of covid-19 on wellbeing will be larger than the impact of the financial crisis in 2008 on wellbeing from which society has not yet fully recovered. The covid-19 crisis, thereby, reinforces a deterioration which was already at play since 2008. The current crisis will also have a detrimental impact on the capital needed to ensure the wellbeing of future generations. The federal planning bureau plans to continue to collect data for this project for the foreseeable future.

Sciensano

Sciensano sent out a survey at 6 different timepoints over the last year (Beginning of April, end of April, Beginning of June, end of September, beginning of December, 2020 and March 2021). A third of the participants took part in all six surveys. Currently the cross-sectional results for each wave are already present.

Over the different waves, the researchers found anxiety and depression to be very high in March at the start of the pandemic. In April and May it decreased but was still higher compared to before the pandemic. In September both anxiety and depression increased again but overall the numbers were still lower compared to March. In December the prevalence was again as high as it was in March but in March 2021 it was again a little bit lower compared to March and December 2020.

In the first wave, researchers found that the people most affected were women, people between ages 16-24, and ages 50 and up. Moreover, the risk of anxiety and depression correlates with level of education, type of household, work situation and remaining at work. The risk of anxiety and depression correlates positively with odds of being confronted with a Covid-19 diagnosis in the near or far social circle and support from family or friends reduces fear of Covid-19 and odds of depression. Lastly, the odds of anxiety and depression increase with number of life areas that are affected (eg. work, income, health, future...).

In the second wave they found that young people aged 18-24 years are particularly vulnerable, experiencing more negative emotions and less positive emotions. Women, having a lower education, and people living alone with or without children are also more at risk to experience many negative emotions and few positive emotions.

In the third wave, they found living as a couple, higher education and paid employment to be protective factors against emotional disorders. On the other hand, living alone or with a single parent, receiving social security benefits, experiencing financial loss or expecting financial loss in the future are unfavorable to mental health in the corona crisis. More people experience suicidal thoughts compared to 2018 and more often attempt suicide (0.4% vs. 0.2%) in the past 12 months. The majority of the population (72%) experience sleeping disorders, this is 2 to 3 times higher than normal. However, energy levels remain the same of even increase slightly, reflecting a state of alertness related to the stress of the crisis.

In the fourth wave researchers found anxiety and depressive disorders increased between June and September among those working in the health sector, while the figures remained stable for other sectors. Moreover, mental disorders (anxiety, depression, sleep disorders and suicidal tendencies) occur less often among people aged 65 and older.

In the fifth wave, it was found that anxiety appears to correlate with the evolution of the number of infections, while depressive disorders appear to be more related to the restrictive measures taken against the spread of the virus. A high percentage of the population keeps reporting sleeping disorders.





In the last and sixth wave, the researchers found that 52% of the participant report anxiety or depression and 49% reported pain or discomfort. Moreover, approximately 30% of participants reported to be severely lonely and 63% is dissatisfied with their social contacts. In this wave they also focused more on the elderly and found that a third of the elderly (65+) have a lack of energy while only a quarter of elderly reported this in 2018. Young people between the ages of 18-29 report the most mental health problems while elderly (65+) report the least mental health problems. They also found that 12.5% of participants had suicidal thoughts in the past 12 months. Moreover, 0.6% of participants reported they had a suicide attempt in the last year. Another interesting finding is that 42% indicated to have an increased body weight since the start of the pandemic. Moreover, sedentary behavior of sitting for more than 8 hours a day has increased to 45% compared to 23% in 2018. Sciensano plans on collecting more waves in the future.

5.3 Cross-sectional convenience studies (8) Happy Belgians: Annemans L. & Vandepitte S.

This study on the happiness of Belgians currently has two waves. The first wave ran from February 2020 (before the start of the pandemic) until April 2020 with 4300 participants taking part and the second wave ran from November to December 2020 and included 1380 participants. Their results indicate that the second lockdown which started in November, was mentally more difficult for Belgians. Overall, the happiness was lower during the pandemic compared to before the pandemic. People between the ages of 50-64 were the happiest during the pandemic. Moreover, they also found that quality of involvement in social contacts increased during the pandemic and this turns out to be a protective factor against unhappy feelings. Another positive outcome of the Covid-19 pandemic is that individuals move more. As far as we are aware, no future data collection is envisioned.

Well-being and motivation of secondary students - return post lockdown: Baudoin N., Dellisse S., Gigi M., Coertjens L., Galand B., Crépin F., Baye, A. & Lafontaine D.

The goal of this study was to gain insights on secondary school students' wellbeing during the Covid-19 pandemic and to map out how the school system responded to the pandemic and the impact of this response on student motivation. This study consists of two waves with a survey in June 2020 and a second one in September 2020. In June, the researchers found that the temporary interruption of school is not necessarily linked to a decline in well-being and returning to school is not necessarily linked to an increase in well-being. To support student motivation, teachers support (both learning and emotional support) are important. Moreover, they also found that experiences are very different from one student to another.

In September, the researchers found that with the return to school, the stress of school work - particularly low in June - increased. Students' sense of happiness has also decreased. Not only is it less positive than in June, it is also lower compared to 2018. In the same vein, students report feeling more anger, anxiety, embarrassment, sadness, less joy, confidence and optimism than in June. Somatic symptoms of ill-being have also increased relatively. Between stress, evaluation pressure and despair, some students are really at risk for depression. As far as we are aware, no future data collection is envisioned.

How best to promote interpersonal relationships and social integration in the context of Covid-19 physical isolation? Bouchat P., Rimé B., Résibois M., DeSmet A., & Páez D.

This study consisted of 4 waves between the start of the first lockdown and right before the second lockdown. The results showed that between March and October 2020, the pandemic





had significant negative effects at the emotional and social level. However, results do not suggest a total psychological collapse. Negative affect increased between wave 1 and wave 2 (during the first Belgian lockdown), decreased before the summer and increased again even more between wave 3 and wave 4, before the second lockdown. Positive affect followed the opposite direction and decreased during the first lockdown, increased before the summer and decreased again even more before the second lockdown. Perceived solitude decreased a little during the first lockdown but increased again after the summer. Anger increased a lot during the first lockdown, and increased more between the third and fourth wave, before the second lockdown. Emotion of sadness varied a lot: it increased during the first lockdown, decreased before the summer but increased again before the second lockdown. Emotion of hope decreased, especially between wave 3 and 4. Finally, trust in institutions has decreased since the first lockdown, with little increase ever since. As far as we are aware, no future data collection is envisioned.

Home Stress Home: Gaugue J., Rossignol M., Ris L. et al.

This project consists of a self-care tool and a research project. Data is collected from the visitors of the tool and pertains to anxiety and depression. No results are shared yet. The authors will continue to collect data in the foreseeable future.

PhD Survey VUB 2020: Analysis of the consequences of Covid-19 on PhD candidates at the VUB: Glorieux A., te Braak P., Minnen J., & Spruyt B.

This study was already running before the start of the pandemic with the aim to research the satisfaction of PhD students over the years. A new survey was sent out between April and June 2020. About 730 participants took part in this wave of the survey. Most PhD students experience the consequences of the corona-measures to be negative, but they also try to stay flexible for data collection and contact with the promotor. Working from home also is experienced as having negative consequences and higher time pressure. Since this is a yearly survey, data collection will continue.

<u>Internal communication experience of employees and management during the COVID-19 crisis:</u> Horlait D., Lambotte F. & Werbrouck K.

This study currently consists of two waves. The first wave took place in March-June 2020 and the second wave took place from February until April-May 2021. About 550 participants took part in each wave. Currently only the data for the first wave are present. The goal of this study was to gain insights into the satisfaction of employees' and managers' internal communication in times of crisis. The results of the survey in the first wave highlighted good communication practices within companies during the crisis: clear and regular communication, transparent communication about the company's situation, regular consultation with employees and consideration of their realities, the use of effective communication channels, relevant content adapted to employees' needs. They also allowed the identification of different employee profiles (based on how the crisis has affected their work situation and their exposure to different types of risks) and to highlight their specific communication needs. As far as we are aware, no future data collection is envisioned.

Impact of the seconde lockdown on sleep: Insomnia team & COVID-19 of CHU Brugmann, VUB and ULB

The aim of this study is to look into the effects of covid-19 on sleep in a study consisting of two waves (April-June and October-January) in different European countries including





Belgium. They found that insomnia complaints are significantly increasing. In the second lockdown 29% of participants reported moderate to severe symptoms, compared to 19% during the first lockdown which was already an increase from 7-8% before the pandemic. Significant predictors of developing clinically significant insomnia complaints are depressive symptoms regarding lockdown strategies and Covid-19 contraction, stress related to Covid-19 contraction and lack of social and physical contacts with family and partners. As far as we are aware, no future data collection is envisioned.

fake news and Covid-19: What is the impact on the citizens?: Lits G., Heeren A., Hanseeuw B. & Cougnon L-A.

This study is an international and interdisciplinary study with 2 waves of data collection. The first wave took place between May and June and the second wave took place in November. In each wave approximately 1000 participants took part in Belgium. Currently only the results for the first wave are available. The goal of this study is to assess the evolution of psychological difficulties between June and November. In the first wave, the researchers identified the key role of "sense of coherence" in predicting common psychopathological symptoms in the face of adversity. People who have developed a strong sense of coherence over their life course have the capacity to effectively deal with stressful circumstances. Some of the main factors associated in this study with decreased psychological health in times of pandemic are female gender, younger age, discrimination, isolation, and lower adaptive capacity. Beyond these factors classically associated to PTSD, anxiety or depression during and after disasters (including pandemics), our study found that false beliefs, mistrust in authorities, and using social media or the close circle (e.g. family, friends, co-workers) as regular sources of information about COVID-19 may all shape negatively psychological responses to the pandemic. The relationships between using informal sources of information (e.g. social media and close circle) and psychological health were however strongly attenuated (and even disappeared according to models) when considering other stressor variables. Reporting a high level of information about COVID-19, in contrast, became a significant stressor in multivariable analyses. This latter observation suggests that it may not be the quality of the sources of information that matters most, but rather the quantity of sources used, which may lead in some cases to media overexposure, information overload and ultimately stress, distress, and sadness. As far as we are ware, no future data collection is envisioned.

Life choices at a later age of those not in need: Minnebo J., Busschaert S. & Samyn W.

This study is a comparative study between data from 2017 and 2020. In both waves, over 2000 participants filled out the survey. The goal of this study was to gain insights into the impact of Covid-19 on elderly (60 +). The researchers found that social isolation for elderly not in need for help has increased and half of all elderly feel lonely which is a slight increase compared to 2017. The increase is most prevalent in the population of 75-year old's and older. As far as we are aware, no future data collection is envisioned.

Power to Care: Peeters B., Demarest S., Doggen Kris., Vanhaecht K., & Claes S.

This is a two-wave study on the pressure experienced by health care workers and is a follow-up study of "De ZorgSamen-barometer" that consisted of 4 waves. The first wave of data collection took place in December 2020 and data for the second wave was collected in March 2021. Currently only data for the first wave is present. Over 3000 participants filled out the first survey. The researchers found an increase of different symptoms of chronic stress and acute stress in healthcare workers: feelings of fatigue, feeling of being under pressure, not being





able to relax, sleep deprivation, concentration disorders, being hyperalert, feelings of fear, muscle and joint pains, headaches and stomach problems. A clear increase was also visible in the number of healthcare workers who thought about quitting their job. As far as we are aware, no future data collection after the second wave is envisioned.

Mental health of the working population: Schouteden M., Sofie V.& Godderis L.

Every month data is collected on the mental health of the working population and yearly a report is made on this data. The data collection already started prior to the Covid-19 pandemic. This project is carried out by IDEWE (external service for protection and prevention at work) and they perform risks assessments regarding psychosocial wellbeing for his customers/companies. Approximately 15 000 individuals fill out the survey yearly. There are currently no results for this study present. The project will continue to collect data for the foreseeable future.

Sciensano

Sciensano carried out a study on drug use during the pandemic during three different waves in 2020 (April, May, October-November). In the first wave they found in general a decrease in substance use during the first lockdown. Mainly the use of cocaine decreased after the start of the lockdown. There was also a decrease found in the average amount of ecstasy/MDMA and amphetamines sold. The other substances remained the same. Before the lockdown, 6.5% of respondents were being treated for problems linked to drugs. After the start of the lockdown, this decreased to 2.8%. Besides the drug aspect, researchers also included some questions about general wellbeing. They found that 40% of respondents did not follow the measures strictly. Moreover, respondents indicated that work/education, free leisure activities and social life were most disrupted by the pandemic and a third of them feel socially supported to a limited extent. In the second wave they again found a general significant decrease in substance use except for weed and Hash. Most users that used a certain product before the lockdown, also used it after the lockdown except for cocaine users. For general wellbeing however, it was found that more men than women have a high negative emotion score. This score indicates psychological problems. They also found an increase in domestic violence since the start of the lockdown. In the third and last wave they found that although a decrease in substance use was visible in March and May, from September onwards the average substance use of cannabis and ecstasy/MDMA pills was again equal to before the pandemic. However, an increase in ecstasy/MDMA powder, alcohol, cocaine, and amphetamines was found during September to November compared to before the lockdown. The researchers also found an increase in anxiety and depressive disorders between September and November compared to between March and April. They also found this to be the highest in females. Sciensano plans on continuing to collect data on drug use in Belgium.

Yearly barometer on trust and well-being: Solidaris

This study started in 2015 and a survey is sent out yearly. This year, they sent out a first survey in May and a second one in September. They found that the main feeling people experience is the feeling of lassitude, felt by two thirds of the Belgians and which has increased by 15 points between the two waves. Between the two measurement times, the feeling of anger also increased by 9 points and is felt by 50% of the sample, while fear decreased by 5 points. The sample also indicated more exhaustion during the second wave (an increase of 10 points) and hope, felt by 60% in May, decreased to be felt by only 50% of the sample in September. This study will continue to collect data yearly.





Care together: Vanhaecht K.

"De ZorgSamen" survey, had 4 waves in 2020 (April, May, June and October). The researchers found personal negative symptoms to be the highest in April compared to May and June and the period before Covid-19. There is also an increase in negative professional symptoms during April, May and October in comparison to the period before covid-19. However, there are no major differences for the positive professional symptoms for Covid-19 in April, May and June while in October this score is the lowest. An increase in physical complaints was found in October compared to before Covid-19. The feeling of guilt is higher in May than in October. In terms of support, it was found that a conversation with a partner was often a positive experience while a conversation with the manager was more often experienced as negative. However, it is expected that the need for a meeting with the manager will be more prevalent in October. As far as we are aware, no future data collection is envisioned.

Everyone ok: Van Hoof E. et al

This study is based on the results from visitors of the iedereenok.be website since March. So far, about 13 000 individuals filled out the questionnaire. The researchers found that the levels of toxic stress have significantly increased since the start of the lockdown. There was a drop in July and September, however, the stress levels rose again an remain higher compared to the levels found in 2019. The general resilience of working Belgians has declined compared to the pre-Covid-19 period. The 18–25-year-olds show higher levels of toxic stress compared to older generations. Women as well as men experience a significant rise of more than 10% in levels of high toxic stress. The study indicates an increased risk of people developing long-term problems, the risk is highest amongst 18–25-year-olds, also 1 in 5 of the working population in March 2020 and 1 in 4 of the working Belgians today. Resilience has clearly decreased from May 2020 onwards, with a flare up in July 2020. This is the reverse trend of high toxic stress, where we see an upwards movement from August 2020. The intervention on iedereenok.be is still ongoing and data will be continued to be collected.

Corona as a tipping point in the Flemish journalism sector: Findings of a survey among Flemish journalists from 8-19 April 2020: Van Leuven S, Vanhaelewyn B, Schelpe F. & Raeymaeckers K.

The goal of this study was to gain insight into the impact of Covid-19 on the journalism sector. To this end, two waves of data collection have been carried out. The first wave took place in April 2020 and the second wave in April 2021. Currently only results from the first wave are present. Over 600 individuals filled out the survey in the first wave. The researchers found that freelance journalists experienced a heavier drawback from the crisis, compared to employee staff journalists. As the number of assignments dropped (1 in 5 freelancers even stopped doing journalistic work), they experienced a substantial drop in income. Related to this, 65% of the freelancers worry about their job security (compared to 33% among employee staff journalists), and 73% fear the financial impact of the crisis (compared to 35% among employee staff journalists). As far as we are aware, no future data collection is envisioned.

A questionnaire about well-being during the corona crisis: Vansteenkiste M., Soenens B., Vermote B., Morbée S., Waterschoot J., Klein O., Luminet O., Schmitz M., Van Oost P., & Yzerbyt V.

This study already consists of more than 150.000 respondents. The researchers found that throughout the crisis, a systematic age effect was present for several critical parameters. First,





the satisfaction of individuals' psychological needs for autonomy, competence, and relatedness has been consistently more under threat among young adults (18-35 years) compared to older generations (36-54 years; 55+). Second, in terms of their motivation, a similar age pattern can be observed, with older generations being consistently more willingly motivated and experiencing the adherence to the measures less as a daunting duty. Also, younger generations report far more experiences of discouragement. Since the beginning of the lockdown, the well-being and motivation of the population has been ongoingly monitored within the motivation barometer. Across 57 waves, more than 150.000 individuals in varying age groups have filled in a brief on-line questionnaire. Throughout the crisis, a systematic age effect has been found for several critical parameters.

The motivation barometer includes 1) well-being indicators, 2) motivation types; 3) satisfaction of individuals' psychological needs. Indicators 2) and 3) are unique from this study. The data collection of this study will remain ongoing for the foreseeable future.

5.4 One shot survey: Population sample (2 studies)

Mental health status of pregnant and breastfeeding women during the COVID-19 pandemic: A call for action: Hompes T., Foulon V. & Ceulemans M.

The aim of this study was to investigate the maternal health status after a few weeks of lockdown. Therefore, an online survey was conducted in April-May 2020. In total, 5866 women completed the survey (i.e. 2421 pregnant and 3445 breastfeeding women). Overall, almost half of the (expectant) mothers experienced depressive or anxious symptoms. The prevalence of self-reported major depressive symptoms in pregnancy (25.3%) and postpartum (23.6%) was explicitly higher compared to estimates obtained in Belgium prior to the pandemic. The results of the study further revealed higher levels of generalized anxiety during the lockdown, with in total more than 40% of (expectant) mothers scoring ≥5 on the EDS subscale of anxiety. In addition, 14% met the criteria for high anxiety on the GAD-7 (≥10). In conclusion, our results point towards an increased likelihood of depressive symptoms and anxiety among (expectant) mothers during the Covid-19 lockdown, calling obstetricians upon action to safeguard perinatal mental health.

COVID-19 International Student Well-being Study. First results from Belgium: Van de Velde S., Buffel V., Wouters E., Van Hal G., Bracke P. & Colman L.

This study is an international study that took place in April and July of 2020. For Belgium, about 20000 students filled out the questionnaire. The researchers found that students experienced a lot of stress as a consequence of the first lockdown. Students report an increase in workload and unclear study expectations. 4/5 students are worried they might not finish the year successfully. Moreover, they indicated that the quality of educations decreased. Furthermore, an increase in students reporting financial problems has been found. Loneliness has increased for all students but even more so by female students, youngers students and students with limited social and economic capital. Moreover, many depressive complaints have been registered. Again, more by female students and students with lower-educated parents. However, some positive findings were found as well. A decrease in alcohol consumption, binge drinking, and smoking were found. In terms of changes in doing sports, students either started doing a lot more sport or decreased their exercise drastically.





5.5 One shot survey: Convenience sample (24 studies)

Adaptive and maladaptive emotion regulation strategies in response to COVID-19 related distress: Allaert A., Vanderhasselt M-A. & De Raedt R.

The goal of this study is to gain insights into the coping strategies used to cope with the psychological impact of Covid-19. The researchers collected data from March 2020 to December 2020 and 1114 individuals filled out the survey they sent out. There are currently no results available for this study.

The COVID-19 Crisis and Telework: A Research Survey on Experiences, Expectations and Hopes: Baert S., Lippens L., Moens E., Sterkens P., & Weytjens J.

This study took place in March 2020 and was filled out by 3821 participants. The goal of this study was to gain insights into how employees experience this current surge in teleworking. Notwithstanding this exceptional time of sudden, obligatory and high-intensity telework, the respondents mainly attribute positive characteristics to teleworking, such as increased efficiency and a lower risk of burnout. The results also suggest that the overwhelming majority of the surveyed employees believe that teleworking (85%) and digital conferencing (81%) are here to stay. In contrast, some fear that telework diminishes their promotion opportunities and weakens ties with their colleagues and employer.

How do employees think the COVID-19 crisis will affect their careers?: Baert S., Lippens L., Moens E., Sterkens P., & Weytjens J.

The goal of this study was to investigate the expected impact of the Covid-19 crisis on career outcomes and career aspirations. To this end, a survey was sent out to a relevant panel of Belgian employees in March 2020. 3821 participants filled out the online survey. The researchers found that about 21% of employees fear losing their jobs due to the Covid-19 crisis and 14% are concerned that they will even lose their jobs in the near future. In addition, 26% expect to miss out on promotions that they would have received had the Covid-19 crisis not occurred. This fear of a negative impact is higher in vulnerable groups, such as migrants. In addition, the researchers observed that many panel members believe they will look at the labor market differently and will have different work-related priorities in the future. In this respect, more than half of the panel members indicate that they have attached more importance to working conditions and work-life balance since the Covid-19 crisis.

Sociodemographic, Cognitive, and Emotional Determinants of two Health during SARS-CoV-2 Outbreak: An Online Study among French-Speaking Belgian Responders during the Spring Lockdown: Bigot A., Banse E., Cordonnier A. & Luminet O.

This study was carried out during March and April 2020 and more than 4000 participants took part. The researchers found that being more attentive/determined and frightened/anxious, along with scoring higher on health anxiety were related to a higher frequency of handwashing. In contrast, being enthusiastic/happy was related to lower adherence to limiting social contacts. Our results suggest that the type of predictors and the direction of associations depend on the type of health behavior considered. The role of specific emotional factors in addition to more classical predictors is discussed. The study offers new perspectives regarding the factors that are associated with the adherence to behaviors recommended to adopt when faced with a pandemic.





Intolerance to Uncertainty Influences Self-Reported Psychological Distress due to the COVID-19 Pandemic: Findings from an Online Survey in Belgium: Blekic, W., Wauthia, E., Kandana Arachchige, K. Lefebvre, L. & Rossignol, M.

This online survey study aimed to (1) measure self-reported distress in French-speaking Belgium after 6 weeks of strict application of lockdown and (2) explore the determinants of this distress by investigating a specific role of intolerance to uncertainty. To this aim, 548 participants completed a the online survey. Data collection began on the 27th of April 2020 and finished on the 4th of May 2020. The global Covid-19 Peritraumatic Distress Index score was of 33.41 and fifty-four percent of the sample reported mild to severe psychological distress. As hypothesized, psychological distress was only predicted by intolerance of uncertainty. Our results highlight the rapidity with which the containment situation caused psychological distress and discuss intolerance to uncertainty as a predisposed personality trait as well as an inherent consequence of the pandemic situation.

The mental health of PhD Students and post-doctoral researchers: breaking the silence.: Boone A., Vandenbroeck S. & Godderis L.

The goal of this study was to gain insights into the mental health of PhD students and post-doctoral researchers. To this end, a survey was sent out between October and December 2020 and filled out by 1124 participants. The researchers found that approximately one out of three early-career researchers is at risk for burnout and experiences sleeping problems. At the same time, 60% of the respondents reports high work-engagement. Main job demands are high workload and difficulty to maintain a healthy work-life balance. Main job resources are job control, professional development possibilities, meaningfulness, and social support from colleagues.

Impact of lockdown on sleep, cognitive fatigue and memory: Collette F., Guillemin C., Muto V., Requier F., Reyt M. & Schmidt C.

The goal of this study was to gain insights into the impact of Covid-19 on sleep in the Belgian population. The data collection took place from March until May 2020 and 680 people fille out the survey. There are currently no results to be reported.

Self-Reported Alcohol, Tobacco, and Cannabis Use during COVID-19 Lockdown Measures: Results from a Web-Based Survey: Crunelle C. L., Vanderbruggen N., Matthys F., Van Laere S., Zeeuws D., Santermans L. & Van den Ameele S.

This web-based survey assessed changes in alcohol, tobacco, and cannabis consumption and was administered in April, 2020. A total of 3,632 respondents completed the online survey. Overall, respondents reported consuming more alcohol and smoking more cigarettes than before the Covid-19 pandemic. No significant changes in the consumption of cannabis were noted. The odds of consuming more alcohol during the lockdown were associated with younger age, having more children at home, nonhealthcare worker, and being technically unemployed. The odds of smoking more cigarettes during the lockdown were associated with younger age, current living situation, lower education, and working situation related to Covid-19. Boredom, lack of social contacts, loss of daily structure, reward after a hard-working day, loneliness, and conviviality were the main reasons for consuming more of the various substances.

Meaningful activities in times of Covid-19: Cruyt E., De Vriendt P., De Letter M., Vlerick P., Calders P., De Pauw R., Oostra K., Rodriguez-Bailón M., Szmalec A., Merchán-Baeza J. A., Fernández-Solano A. J., Vidaña-Moya L. & Van de Velde D.





This study took place during the first lockdown between April 24 and May 4, 2020 and was administered to 1781 participants. The spread of Covid-19 has affected people's daily lives and the lockdown may have led to a disruption of daily activities and a decrease of people's mental health. The aim of the study was to identify correlates of adults' mental health during the Covid-19 lockdown in Belgium and to assess the role of meaningful activities in particular. A survey for assessing mental health, resilience, meaning in activities and demographics was conducted. The findings from the survey suggest that sociodemographic factors, resilience, and meaningful in activities were associated with reduced mental health. The extent of performing meaningful activities during the Covid-19 lockdown in Belgium is positively related to adults' mental health.

L'année 2020 des familles wallonnes : Damar G., Blampain S. & Madague C.

The aim of study was to evaluate how Walloon-based families with children under 18 were feeling after months of Covid-19 related restrictions and to get an objective look at the consequences on mental health and a sense of their intentions about the future. A survey was conducted among 2670 participants on November 30, 2020. Results showed that 3 in 4 parents reported they are tired at the end of 2020 and 62% are stressed. Almost one in five parents feel lonely. Regarding children, parents say that 44% of them are stressed, 33% are tired, 31% cannot take a hold of the situation and 16% are calm. These figures are less alarming than those of the parents but still remain quite negative. 60% of families will keep a negative memory of this year, 78% of Walloon families declare that they will respect the sanitary measures for the end of year celebrations, more than one in three families already thinks of not vaccinating anyone when the vaccine will be available, while four in ten don't know. Only one in ten families say that the whole family will be vaccinated, and one in ten families also thinks of vaccinating those at risk only. In conclusion, the study has shown that the impact of the social restrictions has a massive impact on the well-being of Walloon families with children under 18.

The impact of the school closure and home-schooling on the minority-majority achievement gap in education: De Leersnyder J. & Meeussen L.

In this study, the role of diversity approaches in the minority-majority achievement gap during the home-schooling period of the first Belgian covid lockdown was investigated. In the spring of 2020, 900 pupils from 5 different Belgian High schools filled out a survey. The researchers found that the more pupils perceived their teachers to use an intercultural approach, the higher their school belonging and the lower their school futility. Conversely, the more pupils perceived their teachers to use a colorblind approach, the higher their school belonging (no effects on school futility). In turn, both lower school belonging and higher school futility were shown to be risk factors for school dropout. These results all held for minority and majority pupils. Moreover, teacher colorblindness was shown to increase the school dropout risk of minority pupils. These results show that school diversity approaches play an important role in school outcomes for all students – as well as for the minority-majority achievement gap.

The impact of the COVID-19 pandemic on wellbeing and cognitive functioning of older adults: De Pue S., Gillebert C., Dierckx E., Vanderhasselt M., De Raedt R. & Van den Bussche E.

Covid-19 took a heavy toll on older adults. Using an online survey, this study established the impact of the Covid-19 pandemic on adults aged 65 years or older, and which factors moderate this impact. A total of 640 people participated in the survey, conducted between May 19 and June 22, 2020. Participants reported a significant decrease in activity level, sleep quality and





well-being during the Covid-19 pandemic. Depression was strongly related to reported declines in activity level, sleep quality, well-being and cognitive functioning. This study shows that the Covid-19 pandemic had a severe impact on the mental health of older adults. This implies that this group at risk requires attention of governments and healthcare.

Intimate life of couples, in times of health crisis: Geonet M., Galdiolo S. & Hubin A.

The goal of this study was to gain insights into the impact of Covid-19 on couples. This survey took place during November-December 2020 and approximately 1500 individuals filled out the survey. There are currently no results available for this study.

Relationships, Stress and Aggression (RSA) during the first four weeks of Covid-19 lockdown measures in Belgium: Keygnaert I., De Schrijver L., Nobels A., Depraetere J., Fomenko E., Schapansky E., Wuyts E., De Moor S. & Vandeviver C

An online self-report questionnaire on relationships, stress and aggression was administered during the first lockdown in April and May 2020 to participants of age 16 and older. 4047 participants were included in the analysis. In the first four weeks of the lockdown, the stress run high. Additional to higher levels of stress than normal (56%), alcohol abuse (43%), suicidal ideation (6%), one out of four participants reported at least one incident of domestic violence under lockdown (20% direct and 15% indirect victimization). Most of the participants who experienced direct violence, did not seek professional help (77%). In conclusion, Belgian households have been exposed to domestic violence and experienced lower mental health and wellbeing during the lockdown related to the Covid-19 pandemic. These findings highlight the possible need for public health measures and sociocultural changes preventing domestic violence and improving mental health during lockdown.

<u>Informal care in times of COVID-19: Lived experiences of informal carers in Belgium:</u> Lambotte, D., De Koker, B., De Witte, N. & De Bruyne, N.,

This study aimed to gain insights of the impact on informal care takers during Covid-19 in both Flanders and Walloon. A first survey was sent out in May 2020 to Flemish speaking informal caretakers and the same survey was sent out in French between June and August 2020. In total over 1000 participants filled out the survey. Results indicate that two-thirds of informal carers experience their caregiving role as more difficult than before the pandemic and that more than half spend more time on informal care. This is partly due to a reduction in professional help and support from 'secondary' informal caregivers or the social network. Informal caregivers more often than usual have the feeling of being under constant stress (56%) and having troubles sleeping or lying awake (45%). Informal caregivers notice that the person they care for is more depressed, that there are more memory problems, and that he or she takes up their time with requests for help. There is also the fear of becoming ill: just over 8 out of 10 informal caregivers are afraid that the person they are caring for will be infected with COVID-19. A quarter of informal carers with paid work experience the combination of care with their work as difficult during this period. However, the corona measures also gave a number of informal carers more peace and space to take care of themselves. Groups which reporting a higher burden and require specific attention are carers, co-resident caregivers, as well as persons caring for someone with psychological problems and for a handicapped person.

Don't put all social network sites in one basket: Facebook, Instagram, Twitter, TikTok, and their relations with well-being during the COVID-19 pandemic: Masciantonio A., Bourguignon D., Bouchat P., Balty M. & Rimé B.





This research examined the relationships between well-being and using various social media network sites like Facebook, Instagram, Twitter, TikTok during the Covid-19 pandemic. This study took place in April 2020. Social support and upward social comparison were considered. 1004 persons completed the survey. Results showed that passive usage of Facebook is negatively related to well-being through upward social comparison, whereas active usage of Instagram is positively related to satisfaction with life and negative affect through social support. Furthermore, active usage of Twitter was positively related to satisfaction with life through social support while passive usage was negatively related to upward social comparison, which, in turn, was associated with more negative affect. Finally, TikTok use was not associated with well-being. Results are discussed in line with social media networks' architectures and users' motivations.

Covid survey and physical activity in young people: Mouton A., Remacle M., Petitfrère Y. & Cloes M.

This study took place in January and February 2021 and the survey was filled out by 1922 pupils from 15 different secondary schools in Wallonia. The researchers found a decrease in the level of physical activity among students. Compared to before the start of the Covid-19 pandemic, nearly two-thirds of 'among them believe that they have reduced (24.83%) or even greatly reduced (34.20%) their level of practice. In terms of screen usage time, it is not surprising to see a relative increase in their school use during the first perceived lockdown in 61.45% of students, reaching even higher levels in February (71.98%). According to students, the time spent entertaining in a sedentary position (sitting or lying, without a screen) increased during confinement in 39.03% of students, and currently in 27.15% of them. While the amount of sleep reported by young people does not seem to have decreased significantly during the first confinement (26.28% report a reduced quality of sleep), the latter seems to be more affected in February (49.47%). Pupils currently report sleep durations mostly around 7 to 8 hours per night (33.43%) or even less (32.46%) during the week, and higher amounts on weekends with mostly 7 to 8 hours (15.94%) or 8 at 9 hours per night (24.35%).

The impact of the Covid-19 pandemic on adults with Autism Spectrum Disorder: Oomen D., Nijhof A. & Wiersema R.

This study collected quantitative and qualitative survey data from 1044 adults with and without autism across three European countries (BE, NL & U.K.). The study took place between April May 2020. The study found an increase in depression and anxiety symptoms in response to the pandemic for both the non-autism and the autism group, which was greater for adults with autism. Furthermore, adults with autism showed a greater increase in worries about their pets, work, getting medication and food, and their own safety/security. They felt more relieved from social stress yet experienced the loss of social contact as difficult. Adults with autism also felt more stressed about the loss of routines. Pleasant changes noted by adults with autism were the increase in solidarity and reduced sensory and social overload. Adults with autism frequently reported problems with cancellation of guidance due to the pandemic and expressed their wish for (more) autism-specific information and advice.

The impact of lockdown on families and more specifically parents: Roskam I. & Mikolajczak M.

"What is the effect of the coronavirus crisis and lockdown on parents?" To answer this question, the UCLouvain Institute for Research in Psychological Sciences surveyed 1212 French-speaking Belgian parents (90% mothers) between March and May 2020.





Their results show that the prevalence of parental burn-out (PB) has not changed compared to before the health crisis. The health crisis and the lockdown have therefore not had a deleterious impact on all parents. A closer look at these data shows that for some parents the health crisis and lockdown was an opportunity (30% of fathers; 36% of mothers). For these parents, the level of PB has decreased: there is less mental burden. Parents took the opportunity to do things they had wanted to do for a long time and seized the chance to spend more quality time with their children since they had to "run around" less, etc. Conversely, the health crisis and lockdown have caused more stress for some parents (15% of fathers; 20% of mothers). For the latter, the symptoms of PB increased.

In the context of lockdown, many parents are worried about resuming their professional activities (and therefore also about the workload) while most children remain locked down and support from the family or friends remains forbidden. What really influences the level of PB and the resulting child abuse is the parents' perception of the impact of the health crisis and lockdown on their parenting. These results give meaning to the psychological support/guidance of parents in a lockdown situation, with a view to prevention.

International study on the effects of a global stressor (covid-19) on couples: Sels L., Randall A. Verhofstadt L., Galdiolo S., Geonet M. & Gaugue J.

This study is an international study looking into the effects of Covid-19 on couples. In Belgium, data collection took place during May, June and July 2020 and approximately 1000 participants took part. There are currently no results available for this study.

COVID et droits humains: COVID and human rights: Impact on handicapped people and their loved ones: Service Disability/UN Convention - Unia

In order to investigate the impact of Covid-19 on persons with a disability, 865 participants were recruited and filled in an online survey from between April and June, 2020. Results showed that persons with disabilities and their families did not feel taken into account or heard in the decision-making process related to the health crisis. During the first lockdown, persons with disabilities testified about their sometimes dramatic situation and a general feeling of being abandoned. The cessation of care, therapy, support, and domestic help caused great psychological distress, and a regression or worsening of their state of health. They also shared their daily difficulties in doing their shopping, getting around, going out, studying and working.

Effect of the Belgian coast on wellbeing during the COVID-19 pandemic: Severin M., Vandegehuchte M., Hooyberg A., Everaert G., Raes F., Buysse A.

This study investigated whether access and visits to the coast were positively associated with well-being. During the first-wave lockdown of the Covid-19 pandemic in Belgium, access to the coast was restricted due to restraint in circulation. The emotions of awe and nostalgia were studied as potential mediators between coastal visits and well-being. A total of 687 Flemish adults took part in an online survey that was launched at the end of April until the beginning of June 2020. After controlling for covariates, results showed that access to the coast, but not visit frequency, was positively associated with well-being. More specifically, coastal residents reported less boredom and worry, and more happiness than inland residents. Awe and nostalgia were not associated with coastal visits, but awe was negatively correlated with boredom. The study suggests a potential buffer effect of residential proximity to the coast against negative psychological consequences of the Covid-19 pandemic, supporting the notion that the coast has a positive impact on well-being.





COVID-19 and children: emotional et behavioral impact: Stassart C.

This exploratory study assessed parents' perceptions of the emotional and behavioral impacts of the COVID-19 quarantine on their children. The total sample included 749 children, aged 4 to 13 years old (353 girls, 396 boys) and 524 parents took part. The emotional and behavioral changes observed during the quarantine, family coexistence, the impact of Covid-19 on family well-being, and the frequency of social contacts before and during the quarantine were investigated. The results show that the most frequently reported difficulties were worry, agitation, anxiety, sadness, loneliness, nervousness, arguing, anger, frustration, boredom, irritability, behavioral problems, and laziness. Family coexistence declined significantly during the quarantine, and parents mentioned that COVID-19 had an impact on family well-being. Various ordinal logistic regressions showed that family coexistence during quarantine, children's nervousness due to COVID-19, the impact of COVID-19 on family well-being, age, and social contacts before and during the quarantine seemed to explain the various emotional and behavioral changes observed in children during the quarantine.

<u>Use of online consultation technology by mental healthcare professionals: Van Daele T.,</u> Bernaerts S., Van Assche E., Willems S., Belmont A. & De Witte N.A.J.

This study investigated the uptake of online consultations provided by mental health professionals during the first wave of the Covid-19 pandemic from between March and May, 2020, with a specific focus on professionals' motivations, perceived barriers, and concerns regarding online consultations. The Unified Theory of Acceptance and Use of Technology (UTAUT) guided the deductive qualitative analysis of the results.

In total, 2,082 mental health professionals from Austria, Belgium, Cyprus, France, Germany, Italy, Lebanon, Lithuania, the Netherlands, Norway, Portugal, Spain, and Sweden were included. The results showed a high uptake of online consultations during the Covid-19 pandemic but limited previous training on this topic undergone by mental health professionals. Most professionals had positive experiences with online consultations, but questions about the performance of online consultations in a mental health context and practical considerations appear to be major barriers that hinder implementation.

5.6 Small data set sample (6 studies)

autobiographical memory of adults and seniors: Bastin C., Folville A., Cheriet N., Collette F., Geurten M., Guillemin C., Muto V., Requier F., Reyt M., Schmidt C. & Willems S.

This study took place during the first months of the first lockdown between March and May 2020. 225 participants took part. The researchers found that poorer well-being during lockdown was related to decrease in valorizing and novel activities, as well as to poorer richness of autobiographical memories. Additional results are still being written up.

The impact of COVID-19 measures on restricted and repetitive behaviours in pre-school children with autism: Boterberg S., Zanatta A., Moerman F., Schaubroeck S., Siew J., De Schryver M. & Roeyers H.

This study took place between April and May 2020 and the survey was filled out by 245 parents of young (2.5-6 year old) children with autism. The researchers found a significant increase in stereotypic, self-injurious, compulsive and ritualistic behavior, and restricted interests after implementation of COVID-19 restrictions. The presence of a co-occurring condition such as language impairments or intellectual disability was associated with more self-injurious and





stereotypic behavior. The present study indicated no effect of the home environment. Further, 47 to 65% of the children showed increases in internalizing and/or externalizing behavior. Increases in inattention were associated with more ritualistic and stereotypic behavior, and restricted interests while decreases in hyperactivity were related to more restricted interests. Importantly, in a subset of children (10-22%), behavioral difficulties were also reported to decrease due to COVID-19 restrictions.

Parental peritraumatic distress and feelings of parental competence in relation to COVID-19 lockdown measures: What is the impact on children's peritraumatic distress?: Chartier S., Delhalle M., Baiverlin A., & Blavier A.

The goal of this study was to research what the impact of the lockdown was on parents' and children's' peritraumatic stress. To this end, the researchers sent out a questionnaire that was filled out by 287 parents and 161 children between the ages of 8 and 18 during the months of May, June, July, and August. The results of our study indicated that there is a significant association between the parents' and the children's peritraumatic stress. We also found a significant relationship between the sense of parental competence and the trauma suffered as a result of the lockdown. We also showed that people who usually felt more stressed have lower peritraumatic distress. In addition, the data indicated that mothers were more affected than fathers by the lockdown, whereas there was no difference between girls and boys in the sample of children. The peritraumatic feelings appeared to be more related to the difficulty of combining teleworking with the daily management of children than to the fear of the virus itself. All these results bear witness to the differences in the experience of lockdown between mothers and fathers, and the impact on their children's well-being.

<u>International Investigation of Parental Burnout: Schrooyen C., van Bakel H., Hall R., Roskam I. & Mikolajczak M.</u>

This study is part of an international study and was carried out in May and June 2020 in Flanders. In Belgium 272 mothers and 163 fathers took part. There are currently no results available for this study.

Compassion fatigue of funeral directors during and after the first wave of COVID-19: Van Overmeire R., Van Keer R-L., Cocquyt M. & Bilsen J.

This study consists of two wave and each wave about 100 funeral directors filled out the questionnaire. The first wave of data collection took place in April 2020 and the second wave in June 2020. The researchers found that burnout increased from in June compared to April, while compassion satisfaction and secondary trauma decreased. In April, only age and gender were found to be significantly associated with secondary trauma. In June it was found that having more work experience is associated with having a higher burnout and secondary trauma scores.

Impact of covid 19 on vulnerable groups: Van Praag L., Molenaar J., Loos J. & Theeten H.

This study is still in the preparation stages and so far, no data has been collected. The COVINFORM project will draw upon intersectionality theory and complex systems analysis in an interdisciplinary critique of Covid-19 responses on the levels of government, public health, community, and information and communications. The project will conduct research on different levels: Within 15 target countries, documentary sources on the national level and in at least one local community per country will be analyzed and in 10 target communities, primary empirical research will be conducted, utilizing both classical and innovative





quantitative and qualitative methods (e.g., visual ethnography, participatory ethnography, and automated analysis of short video testimonials). Promising practices will be evaluated in target communities through case studies spanning diverse disciplines (social epidemiology, the economics of unpaid labour, the sociology of migration, etc.) and vulnerable populations (Covid-19 patients, precarious families, migrating health care workers, etc.). The project will culminate in the development of an online portal and visual toolkit for stakeholders in government, public health, and civil society integrating data streams, indices and indicators, maps, models, primary research and case study findings, empirically grounded policy guidance, and creative assessment tools.

5.7 Qualitative Research (3 studies)

Aux cofins - Travail et foyer à l'heure du (dé)confinement : Charles J. & Desguin S.

An online questionnaire was sent via social media and newsletters to the French-speaking Belgian population to be completed between May 18 and May 31,2020. The aim of the study was threefold: 1) To analyze the impact of the lockdown on the experience of work, 2) To identify how these measures impact on non-work life 3) To support individual reflections and contribute to public debate. 1450 people filled in the questionnaire.

Results showed that people, confined to their homes from 18 March, were drawn into a series of unprecedented experiences; withdrawal from daily life and home, new consumption habits, almost intimidating freedom, and boredom that seems to increase. The lockdown brings its share of suffering (distance from loved ones, fear and loss of reference points, etc.) and its share of benefits (regained time, perspective on life, more focus on family...). Deprivation was experienced and it felt like to step back from the previous life, which was unsatisfactory in various ways.

Focusing on the "neglected groups" in the general working population, 32% of respondents claim to have lost part of their income, for an average amount of \in 665 for the duration of the lockdown. 5% of the sample said they had reduced their expenses, for an average amount of \in 434. Atypical workers (temporary, freelance, self-employed) declare more than double (73% against 32% in the general population) to have lost income, and 15 times more likely to declare not to have had any income at all during the lockdown period. People with a net monthly income of less than \in 1,500 lose in 32% of cases, or almost 1.5 times more frequently than people with incomes above \in 2,500. Changes in working conditions give rise to new difficulties for 93% of respondents. For people teleworking (62% of workers before lockdown), the lack of social contact appears to be mainly problematic (first with colleagues, then with customers and users). For those who have continued to work in their usual place of work (25% of workers before lockdown), fatigue and worries for the future predominate.

The measures taken by the government to slow down the spread of the Covid-19 virus have left some of the population in poverty and exposed the boundaries of our social protection system as a safety net. Social law measures, in particular the collective solidarity system, have largely demonstrated their role as a shock absorber and pacification by allowing many workers not to bear the brunt of the effects of Covid-19, even if it has proved insufficient by places. The protections that social law will not have been able to ensure during confinement are those intended for those who were previously neglected by our social protection system: women, atypical workers, creators, volunteer workers, beneficiaries, social assistance, single-parent families, ...They observe that the populations who were already the most precarious are more "losers": low income, atypical jobs, job seekers, students, etc. We are thus witnessing a strengthening of income inequalities in the post-Covid society.





How to bring residents' psychosocial wellbeing to the heart of the fight against Covid19 in Belgian nursing homes—A qualitative study: Kaelen S., van den Boogaard W., Pellecchia U., Spiers S., De Cramer C., Demaegd G., Fouqueray E., Van den Bergh R., Goublomme S., Decroo T., Quinet M., Van Hoof E. & Draguez B.

This qualitative study aimed to better understand the psychosocial and mental needs of nursing home residents in times of Covid-19 and how staff could respond accordingly. The study was conducted in June 2020 within the first wave and lockdown phase in Belgium. Eight focus groups with direct caring staff and 56 in-depth interviews with residents were conducted in eight nursing homes in Brussels. Thematic content analyses showed that nursing home residents experienced losses of freedom, social life, autonomy, and recreational activities that deprived them of their basic psychological needs. This had a massive impact on their mental well-being expressed in feeling depressed, anxious, and frustrated as well as decreased meaning and quality of life. Staff felt unprepared for the challenges posed by the pandemic: lacking guidelines, personal protective equipment and clarity around organization of care. They were confronted with professional and ethical dilemmas, feeling 'trapped' between IPC and the residents' well-being. They witnessed the detrimental effects of the measures imposed on their residents.

Qualitative rapid ethnographic assessment of etnic minorities in Antwerp: Rotsaert A., Vanhamel J., Ronse M., Masunga Y., Van Landeghem E., Reyniers T., Gryseels C., Manirankunda L., Ddungu C., Katsuva D., Peeters K. & Noestlinger C.

This study identifies transversal information and prevention needs among ethnic minority groups and explores the impact of, and the community response to COVID-19 within the superdiverse city of Antwerp, Belgium. An ethnographic, phenomenological study was conducted during the first lockdown and subsequent exit phase. Online key informant interviews, in-depth interviews and one group discussion took place with representatives from African, Moroccan/Turkish, and Orthodox Jewish communities between March-July 2020. In total, 55 participants took part. The researchers found that language and literacy barriers prevented mainstream information to reach particularly vulnerable sub-groups within the investigated communities. Respondents informed themselves mainly through international TV channels, home country-media and social media. The latter also was used for misinformation to spread (eg. on vaccination). The closure of prayer houses negatively impacted people's social and spiritual lives. Perceived psychosocial consequences included fear of infection, of being fined, social isolation and chronic stress related to uncertainty. Respondents felt not at higher infection risk than the general population. However, they felt targeted: respondents reported ethnic framing and discriminatory practices, i.e. unjustified policing and media reports portraying them as particularly vulnerable. The measures' strongest indirect effects pertained to loss of income in informal economies, thus not qualifying for COVID-related support and discontinuation of social services. Immediate community responses emerged using pre-existing networks, filling the gap that officials left behind: e.g. translation and promotion of the measures through community outreach, helplines for mental support, and social and material support such as food aid.

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If you yourself, have performed or are performing research on covid-19 and mental health in Belgium and are not yet in the data repository, please do feel free to fill in the Qualtrics for each of the research topics you are working on: <u>link to Qualtrics</u>

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

DISCLAIMER:

This Belgian mental health data 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 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 nr 9610 Psychosocial care during the Covid-19 pandemic: revision 2021 https://www.health.belgium.be/nl/node/38685
- Advice nr 9589 Mental health and covid-19 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 Data 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 data 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 data 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 data repository.

Olivier Luminet was involved in the conceptualization, data interpretation, supervision and review editing of all updates in this data repository.

Maxime Resibois involved in the creation of the Belgian Mental Health Data Repository, the research question, the research design & the conceptualization, additional studies identification and data collection, cross-checking, data cleaning and interpretation, supervision and review editing of all updates in this data repository.





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

Evelien Phillips and Sylvia Snoeck were involved data collection, data cleaning and analyses of data and technical support for the updates in this data repository.

Dekeyser, Sarah and Zamira Maratovna Safiullina were involved in data collection and data cleaning and technical support for all the updates in this data repository.

De Koker, Benedicte; De witte, Nicco and Lambotte, Deborah were involved in collecting data and data cleaning in update 4.

Van den Broeck, Kris was involved in collecting data and data cleaning and the review of update 4 and next.

Cruyt, Ellen; Van de Velde Dominique were involved in the qualitative data analysis in update 4.

Blavier, Adelaïde and Godderis, Lode were involved in the review of update 4 and next.





Non-responders list:

The authors in the list below have been contacted at least three times but we have not yet received a response. Please contact info.hgr-css@health.fgov.be if you have more information about these studies.

authors	title
Mathys F.	Psygitaal: impact of teleconsultations during COVID-19 on professionals (psy and psychiatrists) and patients
Nyssen, A.S., Bilsen, G., & Steenhout, I.	ACADE-COVID: Work and welfare among academic staff within the university
Nyssen, A.S., Bilsen, G., & Steenhout, I.	ACADMIN-COVID: Work and welfaire among administrative and technical staff within the University
Cauberghe V., Van Wesenbeeck I., De Jans S., Hudders L., and Ponnet K.	How Adolescents Use Social Media to Cope with Feelings of Loneliness and Anxiety During COVID-19 Lockdown
Vlaeyen, J, D'Agostini, M, Carra, G, & Walentynowicz, M	Exploratory study on the impact of COVID-19 outbreak on the well-being, work, and work-related social interactions of PhD Students in Belgium
Scheveneels S.	Covid and the sec. wave
Eerdekens A.	COVID and Birth
Thunus S, Nicaise P, Mahieu C, Darcis C, De Winter M, & Schoenaers F.	Mes réunions au virtuel.
Schaefer A, Su TT, Douilliez C, Shee D, Kei CJ.	Condition socio-économique, cognition et santé pendant la crise COVID-19
Duprez V. , Vansteenkiste, M. Vermote B., Verhaeghe R. , Eeckloo K., Van Hecke A., Malfait S.	Coronacrisis legt motivatie van studenten verpleegkunde voor de job sneller dan ooit bloot
Engels, N., & Strijbos, J.	Welbevinden op school
Vandekerckhove, M.	Hoe beïnvloedt de coronacrisis ons existentieel welbevinden?
Vlaeyen, J, D'Agostini, M, Carra, G, & Walentynowicz, M	Exploratory study on the impact of COVID-19 outbreak on the well-being, work, and work-related social interactions of PhD Students in Belgium
Fraser, S., Lagacé, M., Bongué, B., Ndeye, N., Guyot, J., Bechard, L., Garcia, L., Taler, V., Adam, S., Beaulieu, M., Bergeron, C. D., Boudjemadi, V., Desmette, D., Donizzetti, A. R., Éthier, S., Garon, S., Gillis, M., Levasseur, M., Lortie-Lussier, M.,	
Wittich, W.	Ageism and COVID-19: What does our society's response say about us?

