

**Adviesaanvraag**

Vraagsteller	Regeringscommissariaat Corona
Datum van adviesaanvraag	-
Onderwerp	Binnenplan
Vraag	Welke overwegingen worden gemaakt voor het uittekenen van het binnenplan?
Reden	-

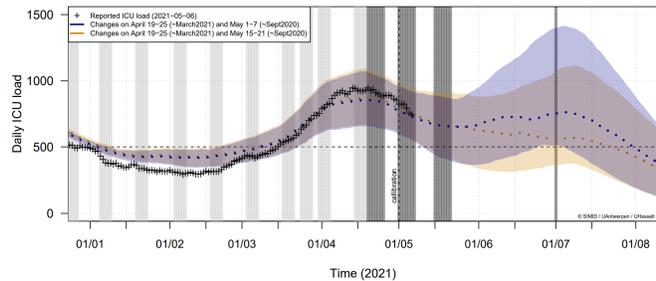
**Adviesverstrekking t.a.v. het Overlegcomité**

Datum van adviesverstrekking	07/05/2021
Dit advies werd opgesteld door	Leden van de GEMS: De volgende leden van de expertgroep Beheerstrategie: Isabelle Aujoulat, Philippe Beutels, Steven Callens, Bénédicte Delaere, Mathias Dewatripont, Lode Godderis, Niel Hens, Yves Kreins, Tinne Lernout, Romain Mahieu, Christelle Meuris, Geert Molenberghs, Karine Moykens, Céline Nieuwenhuys, Michel Thieren, Pierre Van Damme, Dimitri Van der Linden, Steven Van Gucht, Yves Van Laethem, Marc Van Ranst, Maarten Vansteenkiste, Erika Vlieghe, Dirk Wildemeersch



## 1. Epidemiological situation

There is still a lot of uncertainty on what the epidemiological situation will look like in early summer. Nevertheless, taking into account the current vaccination rollout plan and assuming behaviour similar to September 2020 due to relaxations, the Belgian long term scenario analyses of the SIMID-consortium<sup>1</sup> foresee a plateau in hospital admissions in May-June and a new wave with a peak at the beginning of July, as a result of increasing contacts in the context of the already planned relaxations (contact professions, schools, horeca, events and groups outdoor, private contacts).



These models assume the B.1.1.7 variant (British variant) to remain dominant. However, the B.1.617.2 variant (Indian variant), which has recently arrived in Belgium, has been estimated preliminarily to be 14% more transmissible than the B.1.1.7 variant. Although this is a worrisome finding, the most important question remains whether this variant has a mechanism for immune escape. To limit and delay the introduction of variants of concern as much as possible, we would like to refer to our **advice on international travel (GEMS\_021)**.

The recent evolution of the epidemic in Belgium has underscored that behaviour is still the driver of the course of the epidemic, which means that the decisions that will be made on the relaxations in June can be very impactful and should thus be considered with caution. Moreover, other countries, such as the UK, Israel, and Chili, have shown **if nonpharmaceutical interventions (NPI) are relaxed too soon, a resurgence of the epidemic is likely** (as observed e.g. in Israel and in Chili during their vaccination campaign). When the B.1.1.7 took hold in the UK, during the rapid roll-out of the vaccine, there was a resurgence of cases, leading to 14-day incidence in the London Region around 3000-4000 forcing the government to increase measures and reduce activities, thus postponing the “vaccine freedom” by weeks or even months.

A study published by Nature in April 2021 (Giordano et al, Nature Medicine April 2021) demonstrates that having NPIs in place during vaccine rollout has a large positive effect on reducing ICU occupancy and mortality. Their model predicted that for Italy, for the period between April 2021-January 2022, the number of COVID-19 deaths which would occur without vaccine and with weak measures (i.e. 298.000 death), could be reduced to 17% (i.e. 51.000) with fast vaccination uptake, to 10% (i.e. 30.000) with stricter NPI's (i.e. leading to a  $R_0=1.09$ ) and to 6% (i.e. 18.000 death) of the original number with a combination of rapid vaccination + stricter NPI's. They also show that, if intermittent open-close strategies are adopted, implementing a closing phase first could reduce deaths and healthcare system costs, without substantial aggravation of socioeconomic losses.

<sup>1</sup> [https://covid-en-wetenschap.github.io/assets/20210506\\_technical\\_note\\_SIMID.pdf](https://covid-en-wetenschap.github.io/assets/20210506_technical_note_SIMID.pdf)



## 2. Motivation and mental wellbeing (based on the Motivation Barometer, Great Corona Study, CoMix Samples) (see Annex 1)

- a. Individuals' volitional motivation to adhere to the measures has slightly increased in May compared to April, with 38% now being 'fully' and another 28% 'somewhat' motivated to continue adhering to the measures.
- b. The slow but steady increase in the number of close contacts (involving touching) observed since January has leveled off in May. Although differences in social contact behaviour have been observed, with an increasing frequency of outdoor contacts, a substantial proportion of people (38% in the Motivation Barometer ) state that they stick to the recommended number of close contacts (1 or 2).
- c. Overall mental wellbeing has slightly improved since April, but remains more affected for younger people, with students aged 16-25y reporting by far the worst impact on their mental wellbeing. There are some indications that vaccination and the prospect of vaccination is improving mental health in all age groups.
- d. The slight increase in mental wellbeing can be accounted for by the improved satisfaction of individuals' basic psychological needs for autonomy and the reduced insecurity in May compared to April. Especially vaccinated individuals report higher autonomy need satisfaction and lower insecurity.

## 3. Preliminary considerations for the indoor plan

Given the model prediction on how the situation will evolve, although uncertain, the GEMS recommends to allow the planned relaxations **only if the predefined thresholds are reached (i.e. vaccinated status and ICU saturation < 500 beds).**

As the government is planning a set of new relaxations, the GEMS would like to make the following considerations in the context of restarting **indoor** activities:

1. The importance of ventilation should be highlighted for all indoor activities, whether already allowed, relaxed further, or opened for the first time. Even though having good ventilation everywhere is a long-term objective, its implementation and enforcement is urgent also in view of efforts to minimise resurgence of SARS-CoV-2 in autumn and winter. In particular, the following considerations are made (minimum requirements versus nice to have):
  - a. Good ventilation systems are crucial long-term investments in infection control and (respiratory) health, and are a crucial pandemic preparedness measure.
  - b. The level of ventilation should be measured at all times when people are convening in public spaces using a CO<sub>2</sub>-meter so that the people present in the room are aware of it and may consequently act as necessary (refusing further entries, opening windows...). CO<sub>2</sub>-meters are obviously 'surrogate' markers of the indoor air quality, and should be seen as an intermediary step towards improved indoor air quality surveillance systems. The authorities should give clear guidance on which devices meet minimum quality requirements.
  - c. As not all buildings can be adapted on short term, at least a clear, concrete, and timely plan needs to be in place for each public building (possibly with a phased approach) to ensure good ventilation systems are installed.



- d. A compromise to allow “safe” reopening of certain sectors would be to open the establishments with good ventilation and financially compensate the ones that can’t reopen (yet).
    - e. The occupational health services could be involved in the monitoring of ventilation<sup>2</sup>.
  2. Relaxations should remain dependent on **epidemiological thresholds** (such as ICU load) in combination with vaccination coverage. This is important to (a) have sufficient buffer capacity in hospitals to absorb a possible resurgence and (b) avoid the need for closing sectors or prohibiting certain activities again if the epidemiological situation worsens. If the base of relaxations is a too low threshold of vaccination, a new wave (especially with a VOC) may be the risk.
  3. Between relaxation steps, a minimum period of at least 3 weeks is essential to evaluate the possible epidemiological impact, to adjust protocols and regulations,...
  4. Relaxations can only be carried out safely if the necessary other requirements are strictly in place (sufficient testing, quarantine/isolation, swift cluster and outbreak management, ventilation,...). This includes also testing and quarantine for incoming travelers from red zones as well as ensuring that existing travel bans are respected and even tightened (we refer to our note on International Travel). As relaxations will lead to more contacts between people hence increased risk for viral transmission, the solidity of these ‘randvoorwaarden’ will co-define the sustainable succes or failure of relaxations.

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<sup>2</sup> e.g. by providing advice via webinars, website, letters, etc.; answering (online) questions from companies, employers and employees; visiting companies (as part of a periodic company visit or explicitly at the request of the customer), here sectors could be targeted based on our analysis we produce 2-weekly; assessing risks (taking into account the specific circumstances); carrying out various measurements: CO<sub>2</sub>, ventilation flow rates, air quality, smoke test (air changes), draught flows, thermal comfort, etc.; conducting conformity checks on the guide from the task force ventilation until implementation plan; by certifying ventilation (systems) according to standards.



#### 4. Detailed recommendations for indoor activities and requested relaxations per sector

The table below gives an overview of the sectors that are still closed or activities that are still suspended along with the [GEMS advice of 23/02/2021](#) for each sector based on a multicriteria analysis. Based on this analysis and the current situation, the GEMS made some additional and updated recommendations.

Sectors	Measures in place and relaxations to consider	<a href="#">GEMS advice of 23/02/2021</a> and past advice	Specifications (06/05/2021)
<b>Work</b>	<ul style="list-style-type: none"> <li>• Compulsory telework: What about return occasions (<i>terugkeermomenten</i>)? (e.g. only going back to the office 1 or 2 days per week, rules)</li> <li>• Teambuilding/professional training with physical presence ?</li> </ul>	<ul style="list-style-type: none"> <li>• In early stages of relaxations, continued focus on telework wherever possible is essential to keep sufficient epidemiological budget for necessary other relaxations</li> <li>• Only in late stages of relaxation, consider to make telework again 'voluntary'</li> </ul>	<ul style="list-style-type: none"> <li>• Telework: In general, we recommend to plan the structured relaxation of telework ( i e for all employers) not before the end of June given slow epi-evolution and other relaxations in May which we expect to have negative impact on the epidemiology</li> </ul> <p>For selected vulnerable teleworkers, possibilities are available: cfr CLA (CAO149 art 15 chapter IV on telework which is currently already in place): <i>The employer shall take appropriate measures to maintain the connection between teleworkers to their colleagues and to the company, and to prevent isolation. Particular attention should be paid to vulnerable teleworkers. The employer may, among other things, plan well-organised and limited return moments that respect sanitary regulations.</i></p> <p>In any case, there should be a clear protocol for these 'terugkeermomenten' describing do's and don'ts (distance, masks, hand hygiene, ventilation), and highlight specific risks: carpooling, coffee corner, lunch moments,...</p>



			<ul style="list-style-type: none"> <li>Teambuilding with physical presence should be considered in a later step</li> </ul>
<b>Education</b>	<ul style="list-style-type: none"> <li>Socio professional training/adult learning</li> </ul>	<ul style="list-style-type: none"> <li>Adult education: importance to help lead socially vulnerable to the job market.</li> <li>Adult education: priority should be given to practical classes on site.</li> </ul>	<p>Currently, adult learning is ongoing in 'code red' with a minimum of on site activities. Priority should be given to vulnerable groups (basiseducatie, alfabetisering, ...) and trainings directly required to lead people to new employment</p>
<b>Shops</b>	<ul style="list-style-type: none"> <li>Shopping limited to max 30 min (unless on appointment)</li> <li>Shopping with 1 person same household or cuddle contact</li> <li>Ban on the sale of alcohol from 8 p.m. to 5 a.m. (except on terraces until 10 p.m.)</li> <li>Summer sale</li> </ul>	<p><i>No advice on 23/02/2021</i></p>	<ul style="list-style-type: none"> <li>30 min rule may be removed, but shopping should be kept as short as possible to reduce interactions and risk for transmission</li> <li>Keep shopping limited to 2 persons at least until the end of June, but not necessarily from the same household provided mask wearing and distance is respected</li> <li>Keep ban on sale of alcohol at least until end of June</li> <li>Start summer sale to be decided based on the epidemiological situation mid June, could be spread out over longer period</li> </ul>
<b>Horeca</b>	<ul style="list-style-type: none"> <li>Inside still closed</li> <li>Outside: expand number of people per table</li> <li>Casinos, amusement arcades and betting shops</li> <li>Nightclubs and dancings</li> <li>Festive and reception halls: indoors (see catering industry)</li> <li>No alcohol allowed from 8 p.m. to 5 a.m. (except on terraces until 10 p.m.)</li> </ul>	<ul style="list-style-type: none"> <li>Restart very gradually and not in first relaxation (only when sufficient contact budget available, as measured by epidemiological and vaccination thresholds): exclusively outdoors, tables of max. 4 p.</li> <li>Indoor only in a later phase with ventilation certificate, ventilation norms and status should be upgraded (and considered to make this a condition for reopening).</li> </ul>	<ul style="list-style-type: none"> <li>Outdoor horeca: don't increase size of tables too quickly, first feedback from reopening 8/5 required (3 weeks evaluation period is needed)</li> <li>Indoor horeca:             <ul style="list-style-type: none"> <li><b>Careful as this requires a lot of epidemiological budget, and probably not compatible with reopened schools + culture in May. Therefore only plan to reopen if epidemiological situation strictly</b></li> </ul> </li> </ul>



		<ul style="list-style-type: none"> <li>Facilities for large groups (e.g. feestzalen): to be considered only in much later stages (high risk assessment).</li> </ul>	<p>allows (= sustainable decrease of hospitalisation and PR, ICU &lt; 500 beds,...).</p> <ul style="list-style-type: none"> <li>Attention for protocol (NO PLEXI), table of 4p max from same household, stringent conditions of ventilation (+ also in toilets) as mentioned above.</li> <li>Nightclubs and dancings: not before the end of the vaccination campaign and depending on the epidemiological evolution</li> <li>Festive and reception halls: should follow horeca protocol + specific 'family party/wedding' protocol to be made (in line with protocols for religion, events, horeca and taking vaccination and testing into account), start with seated and distanced only</li> </ul>
<p><b>Sports</b></p>	<ul style="list-style-type: none"> <li>Fitness centres and indoor sports facilities</li> <li>Swimming pools: recreational and subtropical swimming pools</li> <li>Ski slopes, cross-country skiing tracks and ski centres</li> <li>Bowling alleys</li> <li>Snooker and billiard halls</li> </ul>	<ul style="list-style-type: none"> <li>In an early stage, outdoor training of non-contact sports may be considered in small groups (up to 10 p)</li> <li>Activities indoor and presence of audiences to be considered in later stages</li> </ul>	<ul style="list-style-type: none"> <li>Indoor sports: start with individual or no-contact sports first (e.g., tennis, yoga, climbing, pilates,..), team/contact/high-contact sports in a later stage (+ taking into account vaccination/testing?)</li> <li>Ventilation: strict norms, see above. Should be controlled and enforced!</li> <li>Communication of protocols and self-assessment tools for clubs, amateurs</li> <li>Professional sporters should adopt much more an exemplary function in prevention of transmission</li> <li>Audience: CIRM and CERM rules should apply</li> <li>Cafeterias: horeca rules should apply</li> </ul>



			<ul style="list-style-type: none"><li>● Restart competition: not before 70% of 18+ to is fully vaccinated avoid mixing people with no possibility of tracing contacts, and lots of social contact within the amateur sport competition</li><li>● Wellness and swimming pools: avoid mixing persons from different households in rooms, in particular where sufficient ventilation and disinfections between sessions cannot be guaranteed as well as need/possibility for contact tracing (e.g. hammam, non-private sauna)</li><li>● Fitness: norms for ventilation, consider repeated testing of staff as well as low-threshold sampling</li></ul>
<b>Services at home</b>	<ul style="list-style-type: none"><li>● Provision of services at home (principally non-medical activities other than hairdressing)</li><li>● Provision of goods on and in the home</li><li>● Door-to-door and peddling activities</li></ul>	<i>No advice on 23/02/2021</i>	<ul style="list-style-type: none"><li>● In general, important to respect the basic rules of masks and distance. Many already ongoing (gas, electricity, internet), refresher courses on safe working practices needed</li><li>● Idem for cleaning and other dienstencheque services: protection of workers (vaccination, testing, PPE, training) remains necessary</li><li>● Personal services with close contact at home (e g hairdressers, pedicure): suggest to wait until clients are fully vaccinated (especially vulnerable groups)</li><li>● Door to door: protocol made by NGOs is OK</li></ul>
<b>Contact professions</b>	<ul style="list-style-type: none"><li>● Wellness centres, including saunas, unattended tanning beds, jacuzzis, steam rooms and hammams</li></ul>	<i>No advice on 23/02/2021</i>	Steam cabins, hammams etc: see above



	<ul style="list-style-type: none"> <li>Sex workers</li> <li>Jacuzzis, steam rooms and hammams insofar as their use is not private</li> </ul>	<p>On 24/03, representatives of the Covid-19 Commissariaat and consulted experts present during the meeting agreed there is no reason to differentiate sexworkers from other non-medical contact professions (such as hairdressers, massage salons etc.)</p>	<p>Avoid mixing households in saunas and wellness</p> <p>Sex work: we repeat our earlier advice to reopen the sector with the protocol, preferably once vaccinated or with repeated testing until vaccinated</p>
<b>Leisure activities</b>	<ul style="list-style-type: none"> <li>Nature reserves, zoos, amusement parks: indoor parts</li> <li>Indoor playgrounds</li> <li>Cinemas</li> </ul>	<ul style="list-style-type: none"> <li>In early stage of relaxations, consider to allow relaxations for 'low epidemiological impact' activities (e.g. outdoors in small groups, cultural heritage...), as well as socio-cultural activities for small groups of vulnerable people</li> <li>In second or third relaxations, activities for audiences and larger groups can be restarted with respect for strict protocols and prevention of crowding</li> </ul>	<ul style="list-style-type: none"> <li>Indoor parts: anti crowding measures cf. museums, wearing masks, distancing, ventilation norms</li> <li>Cinemas: could reopen together with small-scale cultural indoor events, CIRM and culture protocols should apply</li> </ul>
<b>Markets</b>	<ul style="list-style-type: none"> <li>Only annual fairs are still prohibited</li> </ul>	<p><i>No advice on 23/02/2021</i></p>	<ul style="list-style-type: none"> <li>Annual fair is an event, CERM rules should apply. Events with important international character not to be allowed so far</li> </ul>
<b>Religion and life moments</b>	<ul style="list-style-type: none"> <li>Religious service</li> </ul>	<ul style="list-style-type: none"> <li>Priority may be given early to increasing numbers in gatherings for funerals, provided strict protocols respecting the golden rules are adhered to. Additional rapid antigen testing can be considered for mitigation of risks</li> <li>When more large scale relaxations are considered, number of persons in organised religious ceremonies may be increased (in line with audiences for e.g. culture)</li> <li>Large family gathering associated with ceremonies (e.g. marriages,</li> </ul>	<ul style="list-style-type: none"> <li>Religious service → CIRM and CERM should apply</li> <li>Weddings and funerals: protocols underway together with sector</li> </ul>



		confirmations,...) are still to be avoided until at least all vulnerable groups have been vaccinated	
<b>Events</b>	<ul style="list-style-type: none"><li>● Activities organised by a club or association (<i>verenigingsleven</i>)</li><li>● Events, cultural and other performances and professional sports competitions</li><li>● Trade fairs already allowed, quid conferences ?</li><li>● Non-professional matches (amateur): indoors and outdoors</li><li>● Demonstrations limited to 50 persons</li></ul>	<ul style="list-style-type: none"><li>● Large scale and /or 'full contact' events are to be considered for later stages only, i.e. when at least 70% of the population is vaccinated and provided the epidemiological situation is sustainably under control. Even then, the strong international context is of concern as a risk factor for import and spread of novel variants.</li><li>● Smaller scale, local events where basic rules (distance, mask wearing, hand hygiene) can still be respected may be considered in periods with low viral transmission (i.e. high contact budget), preferably with already considerable protection of the vulnerable population (65+ and those with comorbidities) and guided by the CERM.</li></ul>	<ul style="list-style-type: none"><li>● Planning of events should be dependent on high vaccination coverage and sustained epidemiological control (e.g. ICU occupancy &lt; 500 and sustained decline in n hospitalisations for first relaxation, then &lt; 250 and &lt; 50 for medium-sized and large scale events respectively (as proxy of sustained epidemic control)</li><li>● During rollout of vaccination campaign and while epidemiological situation still worrisome: focus on outdoor, seated, distanced, masked, small audiences</li><li>● Re-open activities indoor only when the epidemiological situation allows (i.e. at least ICU occupancy &lt; 500 with sustained decline in n hospitalisations) + with strict respect for ventilation, seated, distancing, masked, small groups</li><li>● Infrastructures: CIRM should apply (including norms on ventilation, organisation, coordination)</li><li>● Careful with non-professional sector as highly diverse in awareness and application: rules for activities by a club or association (<i>verenigingsleven</i>) should be clearly communicated through diverse channels : CERM should always apply + validated sectorprotocols where applicable</li><li>● Careful with amateur competition, as not before 70% fully vaccination coverage of 18+ to avoid mixing people with no</li></ul>



			<p>possibility of tracing contacts, and lots of social contact within the amateur sport competition</p> <ul style="list-style-type: none"><li>● Trade fairs &amp; congresses (= not always seated but can be organized strictly distanced and masked): for later stages and depending on epidemiological evolution, cave crowd management and side-attractions (eating and drinking), already existing protocol, CIRM &amp; CERM should apply</li></ul>
<b>Private life</b>	<ul style="list-style-type: none"><li>● No gathering between 00h and 05h</li><li>● Gatherings limited to 10 people</li><li>● Cuddle contacts: further expansion (now limited to max 2 people in the house at the same time)</li></ul>	<ul style="list-style-type: none"><li>● The GEMS recommends to keep the number of private contacts indoors restricted to 1 in a first phase, and even in subsequent relaxations to increase this number only very gradually (e.g. not more than 2 in a next phase, and no more than 4 later on) <u>as these bring the highest risk.</u></li><li>● Once relaxations can be considered, contacts outdoors could be expanded to 8-10 people at a distance and with groups as homogenous over time as possible.</li><li>● Group numbers should correspond maximally with other outdoor activities e.g. small groups for sports training or youth work.</li><li>● In later stages, number of contacts indoor should correspond with table sizes in horeca (e.g. max. 4 p).</li><li>● Constructive communication and inspiration guides could support maintenance of safe yet meaningful social contacts in private life.</li><li>● Social mobilisation projects could be financed to support the comfort of</li></ul>	<ul style="list-style-type: none"><li>● Outdoor: groups of 10 people: do not increase for now (manageability)</li><li>● Indoor: close (cuddle) contacts should remain low while the epidemiological situation is still bad, number of persons to see should not differ between vaccinated vs unvaccinated (but lifting distance and wearing masks under consideration ⇒ see report GEMS+)</li><li>● number of allowed contacts indoor in private life and in horeca should be consistent</li></ul>



		<p>engaging in outdoor activities, social cohesion and relatedness among citizens.</p> <ul style="list-style-type: none"><li>● Family gatherings and parties are to be absolutely avoided as long as possible as they can have very high epidemiological impact.</li><li>● Curfews are an important tool to avoid unsafe private gatherings and are not to be released too soon.</li></ul>	
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## Annex 1. GEMS update on motivation, adherence and mental health (6th May 2021)

As of 4th May 2021, Sciensano reports about 35% of adults >18y to have received at least 1 Covid-19 vaccine dose, which is equivalent to about 29% across all ages. With 2 dose coverage at 9,5% and 7,6%, respectively, that implies that we are in a particularly precarious transitional period, in which immunity is still very far from sufficient levels to return to pre-pandemic contact behaviour, but people's and social media perceptions may think otherwise. It is important that people's expectations are in accordance with this reality. Although various relaxations have been announced and will be put in place in the coming weeks, the pressure on ICU remains fairly high. As a result, adherence to the current measures is still of utmost importance. At the same time, an increasing number of people will be invited for vaccination uptake in May and June. Given these various evolutions, an update on people's vaccination intentions, motivation and mental health is timely. This report brings together the findings of three long-standing studies during the COVID-19 crisis, that is, the Motivation Barometer study ([www.motivationbarometer.com](http://www.motivationbarometer.com)), the Great Corona Study ([www.corona-studie.be](http://www.corona-studie.be)) and the CoMix social contact study (<https://www.uhasselt.be/UH/71795-start/The-CoMix-study>). Several hopeful trends are presented in this report together with a number of worrisome findings. The take home messages and policy recommendations aim to summarize key findings which are presented in greater detail in the remainder of this report.

### Description of samples

#### Description of the Motivation Barometer samples (UGent)

##### Cross-sectional waves (MBS)<sup>3</sup>

- Cross-sectional waves since March 2020
- N since December = 125.782
- Mean age = 49,51 years (64% female; 67% Dutch speaking; 25% master level)
- N vaccinated people: steadily increasing through the months, ranging from 0% in December till 27% in April.
- Status: 44% full time employed, 15% part-time employed, 8% unemployed, 7% student, and 26% retired

##### Longitudinal sample (MBS)

- Two wave study, with wave 1 taking place in November-January and Wave 2 taking place in April 2021 (4-5 months interval)
- N = 84.675 at baseline, from which 20 295 (24%) uniquely participants were contacted again and 8.422 (41%) participating at follow-up
- Mean age = 53 years (61% female; 84% Dutch speaking; 31% highly educated)
- N vaccinated people: 32 at T1 and 1.960 at T2, with 83% of vaccinated individuals working in the health care sector
- Status: 37,5% full time employed, 15% part-time employed, 10,2% unemployed, 4,3% student, and 33% retired

<sup>3</sup> The samples collected via the Motivation Barometer are convenience samples that are not representative for the socio-demographic distribution of the population. Yet, since December both Dutch-speaking and French-speaking participants have been recruited and the presented findings are weighted for age, region, educational level and gender to (partially) correct for the non-representative nature of the samples.

**Description of the Great Corona Study samples (UAntwerpen, UHasselt, KULeuven)****Cross-sectional waves (GCS)**

- Cross-sectional waves since 17 March 2020 (36 waves in total till 4/5/2021)
- N since 17 March 2020 = 2.974.265
- N since 1 December 2020 = 277.596
- N vaccinated people: steadily increasing through the months, ranging from 3% (February 6) till 42% on May 5th.

**Full GCS dataset (unweighted)**

- Mean age = 43,99 years (68% female; 94% Flanders region; 35% master level)
- Status: Employed 68%, Job seeker/sick leave/home work 10%, Student 8%, Retired 14%

**Dataset from 1 December 2020 (unweighted)**

- Mean age = 52 years (66,8% female; 95% Flanders region; 35% master level)
- Status: Employed 57%, Job seeker/sick leave/home work 9%, Student 3%, Retired 31%

*All results of the GCS are described after wave-specific weighting for age, gender, educational attainment and province of residence.*

More information on [www.corona-studie.be](http://www.corona-studie.be) ; <https://corona-studie.shinyapps.io/corona-studie/> ; <https://covid-en-wetenschap.github.io/2021/04/grote-coronastudie-kadering>

**Description of the social contact survey CoMix Samples (UAntwerpen, UHasselt)**

3 longitudinal survey panels each starting with about 1500 respondents, representative for the Belgian population (Ipsos)

- First panel over 8 waves (24th April till 30th July 2020), see full description at <https://www.nature.com/articles/s41598-020-78540-7>,
- Second panel from Wave 9 (12th Nov 2020 till 15th March 2021)
- Third panel from Wave 19 (at 30th March 2021), with last currently available Wave 20 (collected at 13th April 2021)
- Example regional representation Wave 9 Flanders – 59.6% Brussels - 8.2% Wallonia – 32.2% ; Wave 17 Flanders – 65.63% Brussels - 6.65% Wallonia – 27.77%

For more background information see <https://www.uhasselt.be/UH/71795-start/The-CoMix-study>



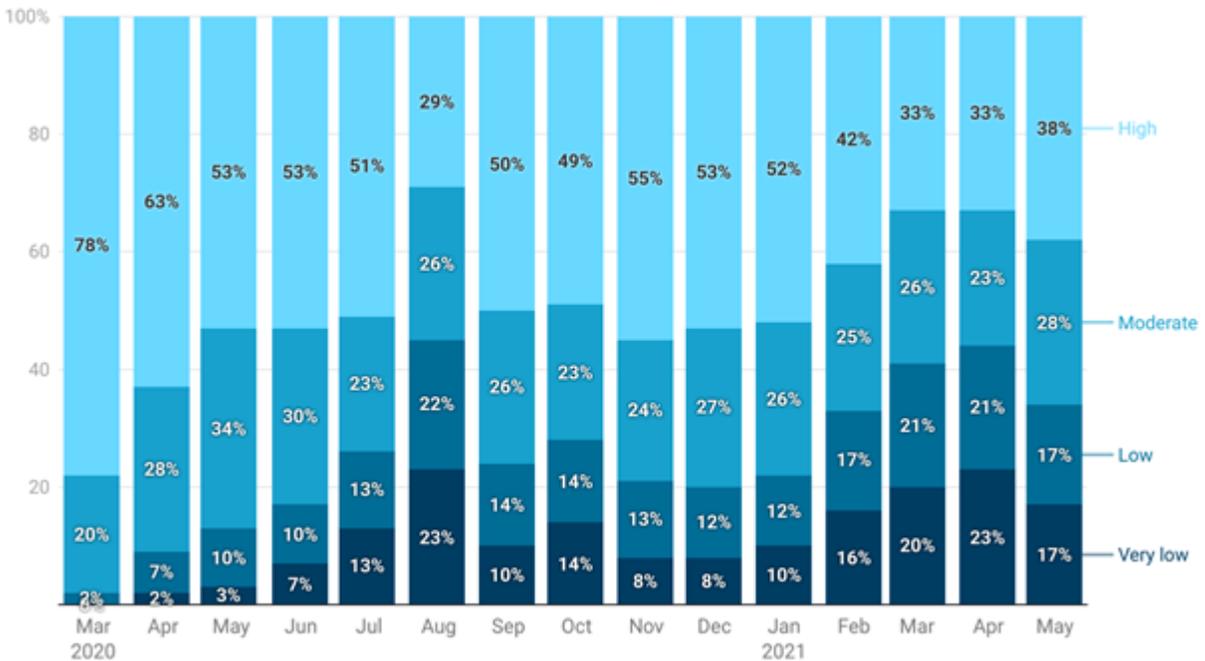
**Theme 1: Motivation for and adherence to the measures**

**Question 1: Did motivation to adhere to the measures change after the exit plan was announced?**

Overall shift: Not only an increasing vaccination coverage but also reaching critical virological thresholds would allow us to enjoy increasing relaxations over time. Therefore, the motivation for and adherence to the current corona measures remains critical. Figure 10 presents changes in volitional commitment (i.e., autonomous motivation) to the measures over time, since the beginning of the assessments, back in March 2020.

Two findings are noteworthy. First, a slight increase in motivation can be noticed in May compared to April 2021, with 38% being fully and 28% somewhat motivated to continue adhering to the measures. Second, when compared to other months in the pandemic, the motivation has been lower (e.g., Augustus 2020) but also higher (e.g., July 2020). As was the case last year, a further increase in motivation can be expected, given that more relaxed measures are easier to adhere to and allow people to meet their psychological needs for autonomy and relatedness.

**Figure 1 - Motivation to adhere to the measures across the pandemic**



- Role of vaccination: Vaccinated individuals are more volitionally motivated to adhere to the measures than non-vaccinated persons.
- Role of other socio-demographics: Several background variables relate to individuals' motivation, with older individuals, females, Dutch-speaking individuals, those with a co-morbidity and those having a partner being more motivated to adhere to the measures.



### Question 2: Do we stick to the recommended number of physical contacts nowadays?

**Diary approach:** CoMix is a series of diary based observational studies, specifically designed to study the evolution of contact behaviour. These studies indicate there are subtle changes in contact behaviour that are determined by age and circumstance of contacts (e.g., indoors versus outdoors, location of contact). In CoMix, contacts are defined as being made between 5 am the day preceding the survey and 5 am of the day of the survey. A contact was defined as an in-person conversation of at least a few words, or a skin-to-skin contact. Participants could report individual contacts or (from wave 3 onward) contacts with a group of individuals. For every individual contact, participants filled in the age and the gender of the contacted person, whether the contact included skin-to-skin touching, the duration of the contact and the frequency with which they usually contact this person. Information on the location was collected using pre-specified locations (home, work, school, leisure activities, other places) and specifying whether the contact took place in open air or indoors.

**Figure 2 - CoMix contact frequency by age and whether contacts occurred indoors and outdoors (CoMix waves 12 to 20, Dec 2020-April 2021)**

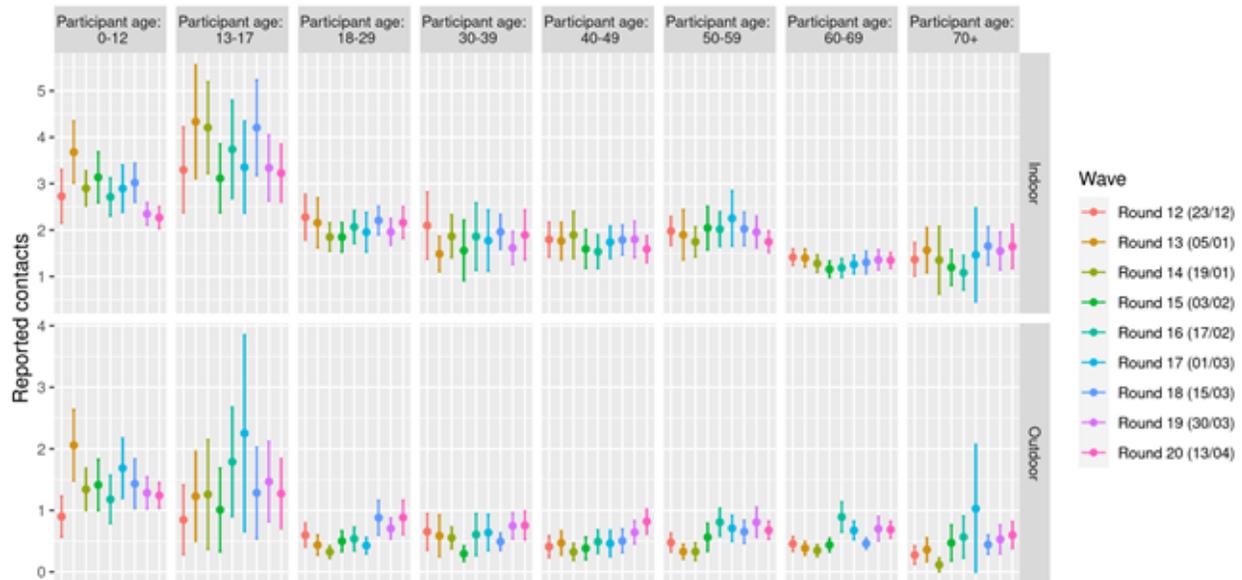
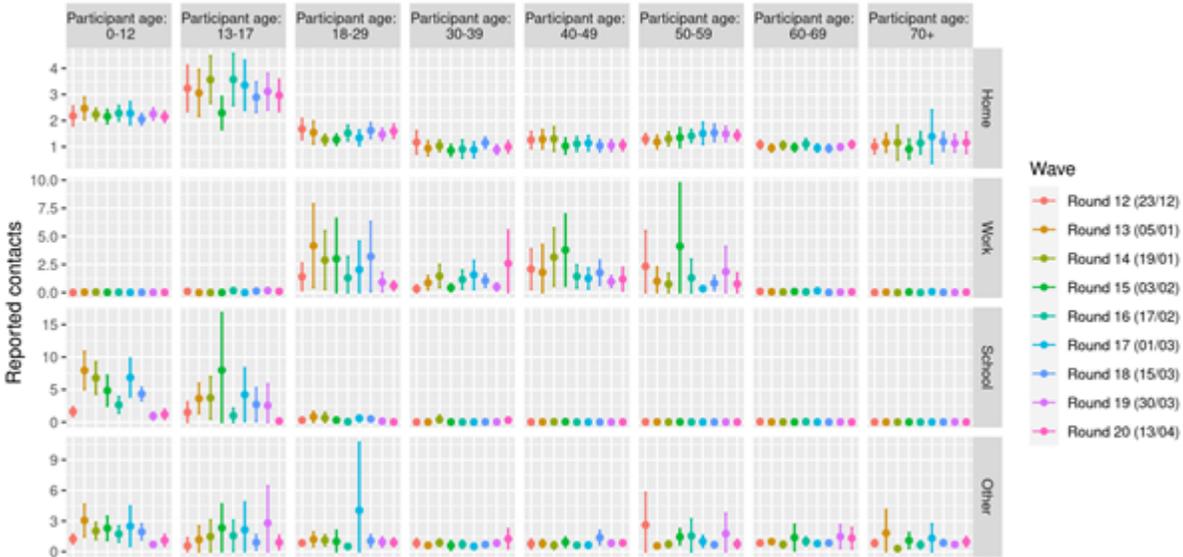




Figure 3 - CoMix contact frequency by age and location of contacts (CoMix waves 12 to 20, Dec 2020-April 2021)



**Handshake or kiss:** The GCS also contains questions on adherence, including a standardized question about touching someone outside of the household. It shows the percentage of people (survey respondents, weighted for gender, education and province, and categorized by age group) reporting such contacts has crept up since its low point in early November 2020 to levels that are comparable to mid-July 2020 (although not quite as high for the youngest group, aged 18-35 years).

Figure 4 - Percentage of persons of different age groups giving a handshake of kiss to someone outside of their household (Great Corona Study)



Both the GCS and CoMix show no sudden change point of increased contacts over the last months, but there seems a general tendency of overall growing contact frequency (see GCS figure), especially in outdoor settings (see CoMix figure).



**Close contacts:** In the MBS, the percentage of individuals that report adhering to the recommended number of close contacts has steadily decreased since November. As illustrated in figure 14, in May 38% of individuals indicate sticking to the recommended number of close contacts (i.e., 0 or 1). On the positive side, the steady increase in these close contacts since January has leveled off.

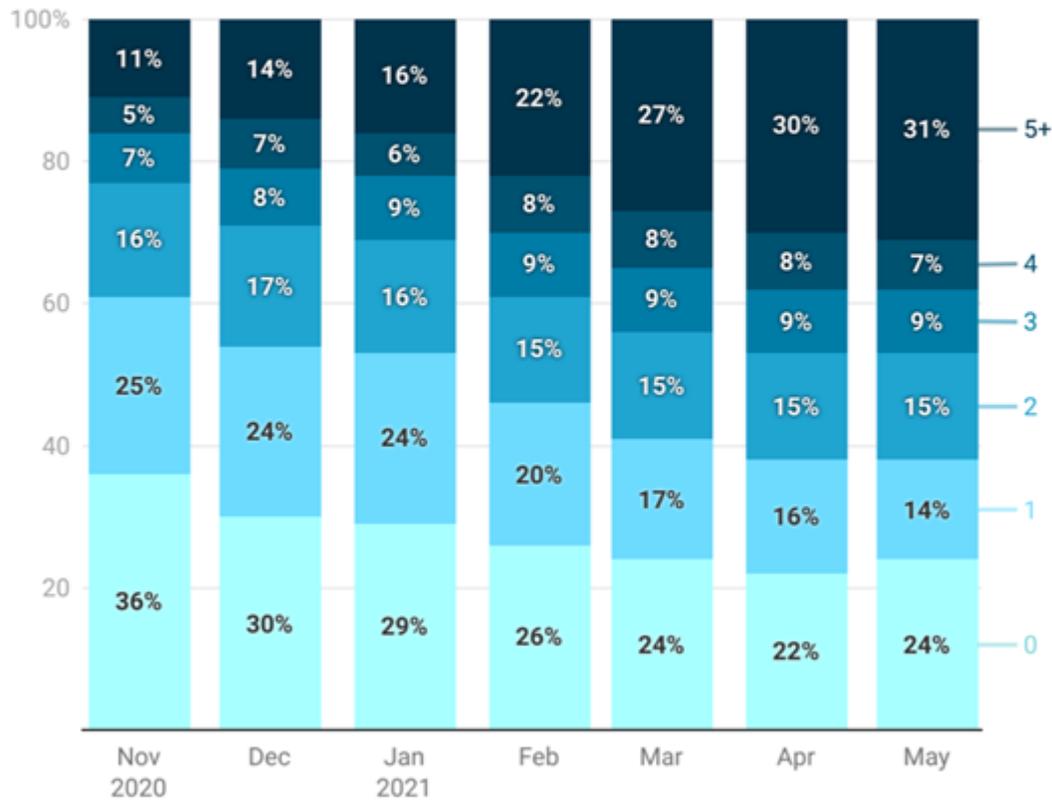
The associations with motivation observed for the various background variables are also evident for individuals' adherence. Specifically, individuals who were older, female, Dutch-speaking, more highly educated, have a life partner, or have an underlying chronic disease have fewer close contacts.

Figure 5 - Evolution in number of close contacts over time

## How many people have you been in close contact in the previous week?

"Close contact = interaction with other(s) taking longer than 15 minutes within the distance of 1.5 meters and without face covering."

The Motivation Barometer



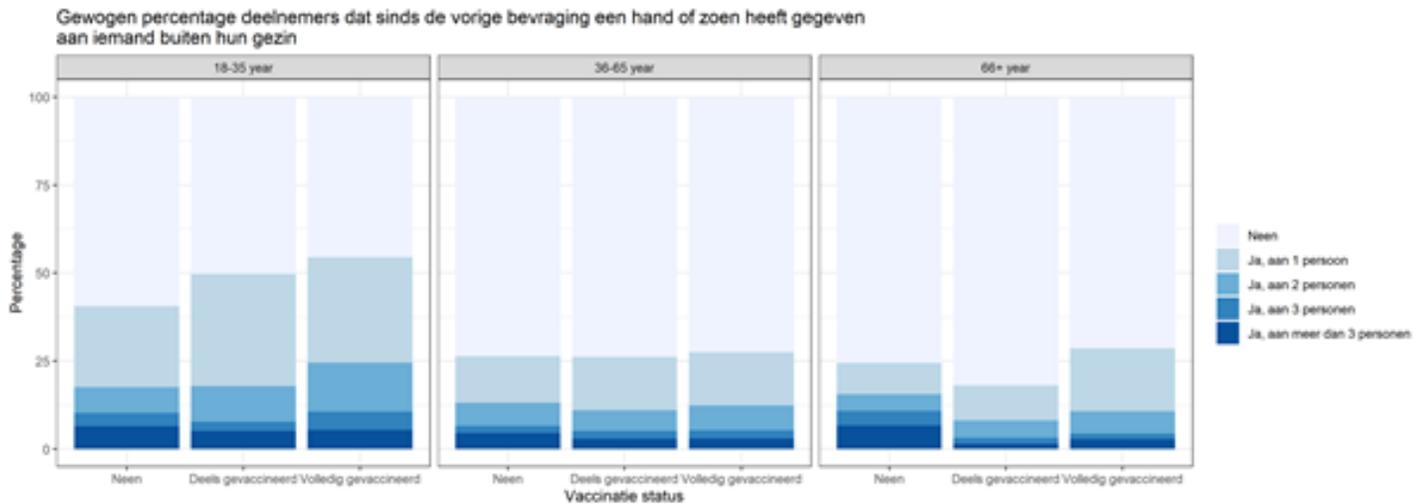
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### Question 3: Do we adhere differently to the measures as function of vaccination status?

Differences in contact behaviour between vaccinated and unvaccinated persons start to appear, where especially among younger age groups there seems a tendency towards having more contacts. This is illustrated first using GCS data.

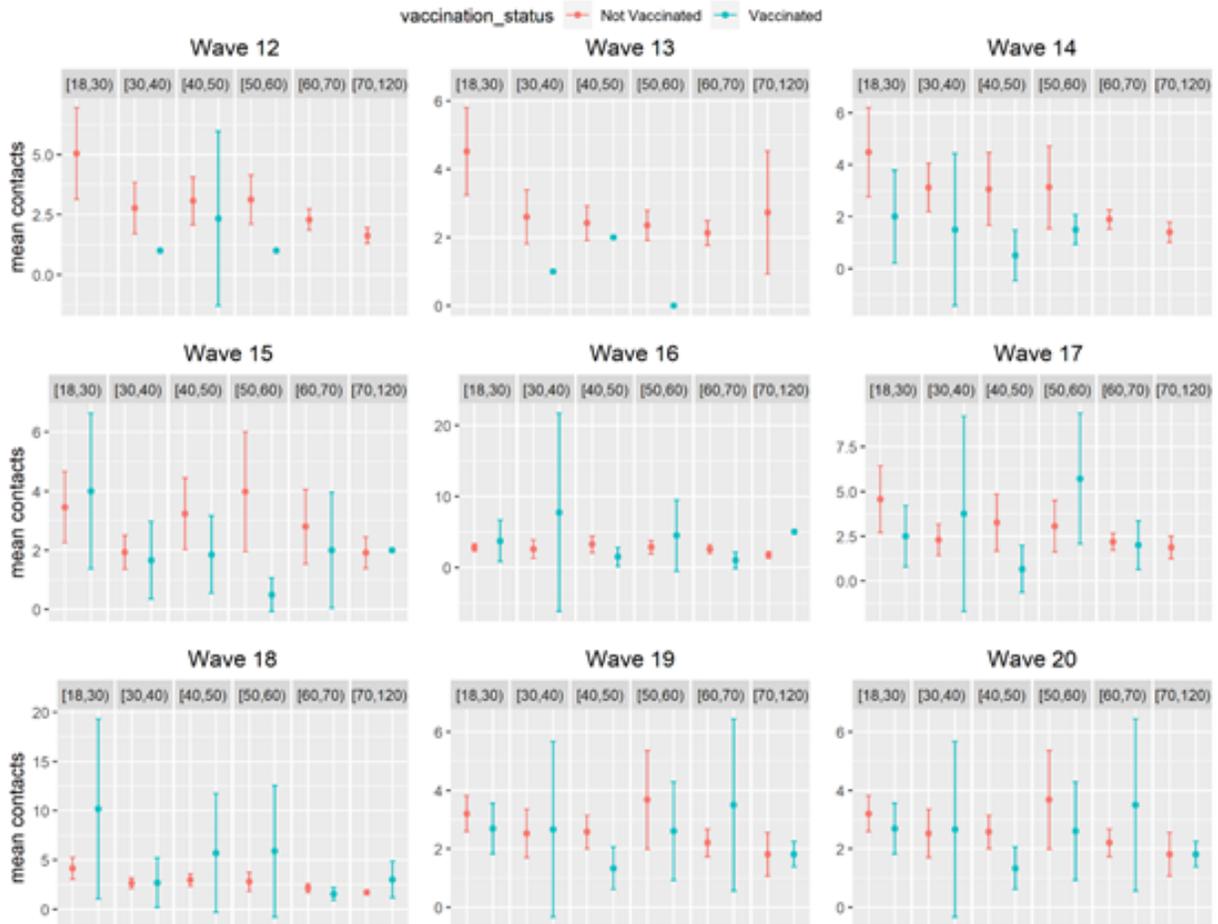
**Figure 6 - % (weighted for age, gender, education level and province) giving a kiss or handshake to someone outside their household according to vaccination status (Great Corona Study (GCS) wave 36, 4<sup>th</sup> May 2021)**



- Most vaccinated persons (78% after one dose; 63% after two doses in GCS Wave 36) indicate that they continue to adhere to the measures as strictly as before their vaccination. Younger vaccinees, lower educated vaccinees, and vaccinees from central cities more often indicate that they are following the measures less strictly.
- Of the vaccinees indicating that they follow the measures less strictly, the GCS-36 indicates that many (64%) do so indoors, some (11%) in professional situations and also many (39%) outside with others (multiple options per respondent were possible). In half (50%) of these situations, the people with whom vaccinees apply these measures more loosely, are always or almost always vaccinated, implying also, of course that in half of these situations, they are not, or respondents are not sure/don't know about the vaccination status of their contacts.
- In the CoMix study there was no evidence of important changes in social contact behavior, both by comparisons of cross sectional observations of contacts by vaccination status (with 19% respondents vaccinated with at least 1 dose in CoMix Wave 20, see comparisons in figure below) and longitudinal analyses by means of a generalized linear mixed model.



Figure 7 - CoMix contact frequency by age and vaccination status (CoMix waves 12 to 20, Dec 2020-April 2021)

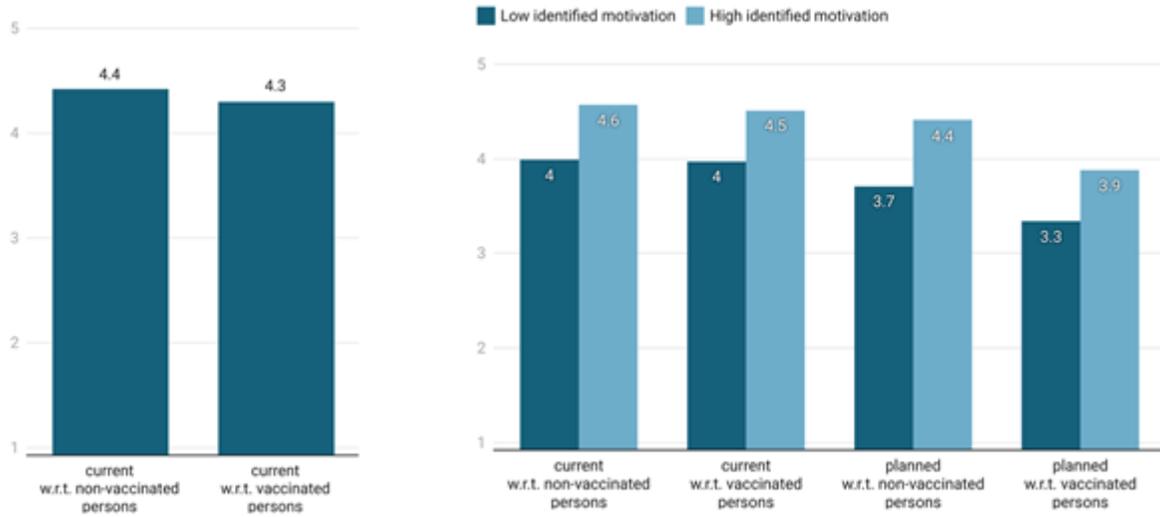


- Findings from the MBS also indicate that the changes in adherence to the measures among vaccinated persons is minimal. Vaccinated individuals report adhering somewhat less to the measures when interacting with other vaccinated, relative to non-vaccinated, individuals (figure 17, left panel).
- Similarly, when non-vaccinated individuals are asked for their planned adherence to the measures, non-vaccinated respondents in the MBS intend to reduce their adherence to the measures in relation to vaccinated individuals after vaccination while they plan to preserve their current adherence in relation to non-vaccinated individuals. Regardless of the vaccination status of their interaction partner, the motives for being vaccinated play a critical role. Individuals who are prosocially oriented and volitionally committed to get vaccinated intend to adhere more to the measures (figure 17, middle panel). In contrast, those who perceive vaccination as a route to personal freedom intend to adhere less to the measures, regardless of the vaccination status of the interaction partner (figure 17, right panel).

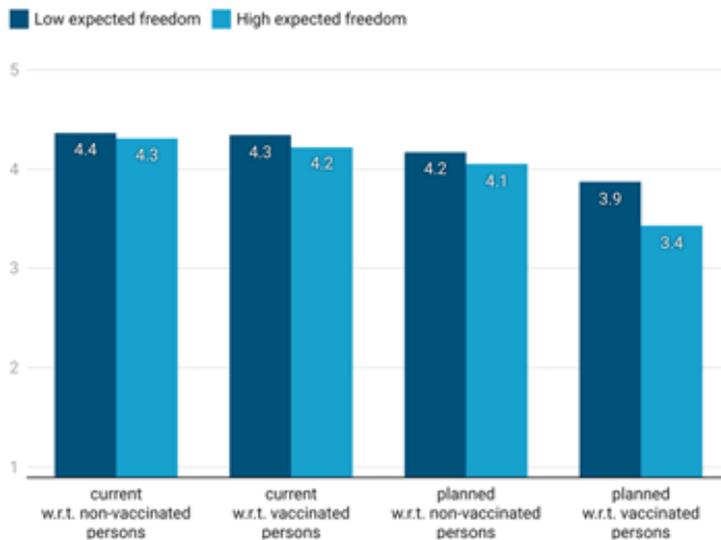


**Figure 8 - Adherence as a function of vaccination status of interaction partner and motives for vaccination**

(a) current adherence of vaccinated people by interaction partner (b) adherence of non-vaccinated people by time and interaction partner by identified motivation



(c) adherence of non-vaccinated people by time and interaction partner by expected freedom



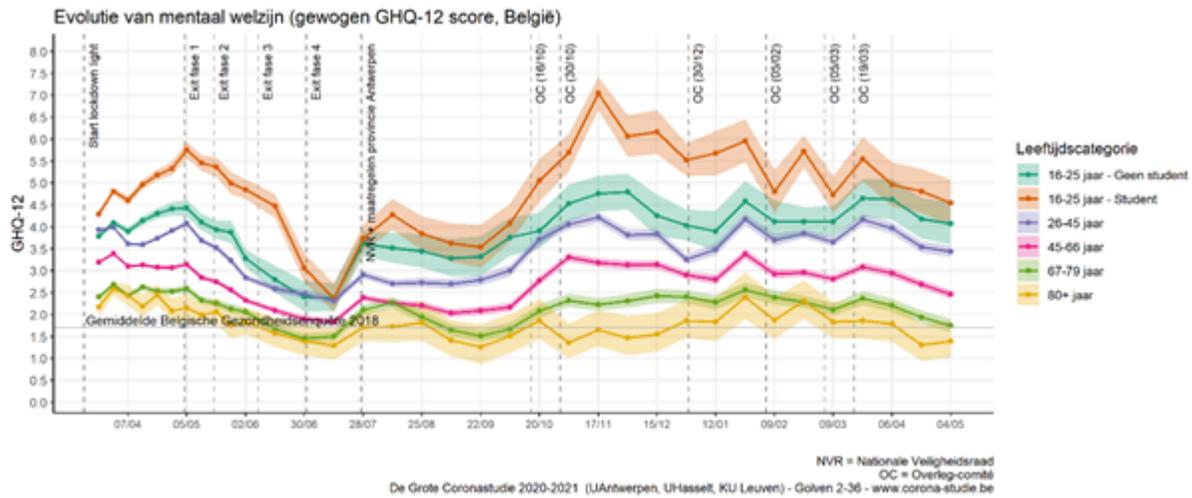


## Theme 2: Mental health and psychological need satisfaction

### Question 4: Has our mental health improved since the exit plan was announced?

The GCS is monitoring various aspects of mental health, including the GHQ-12 score on mental wellbeing (scores between 0-12, the higher the score the worse, see also our previous mental health reports). A score of 2 or more is considered an indication of a risk of mental discomfort, while a score of 4 or more indicates a risk of mental health problems. As shown in figure 9 below, GHQ-12 has generally evolved for the better since mid-March 2021.

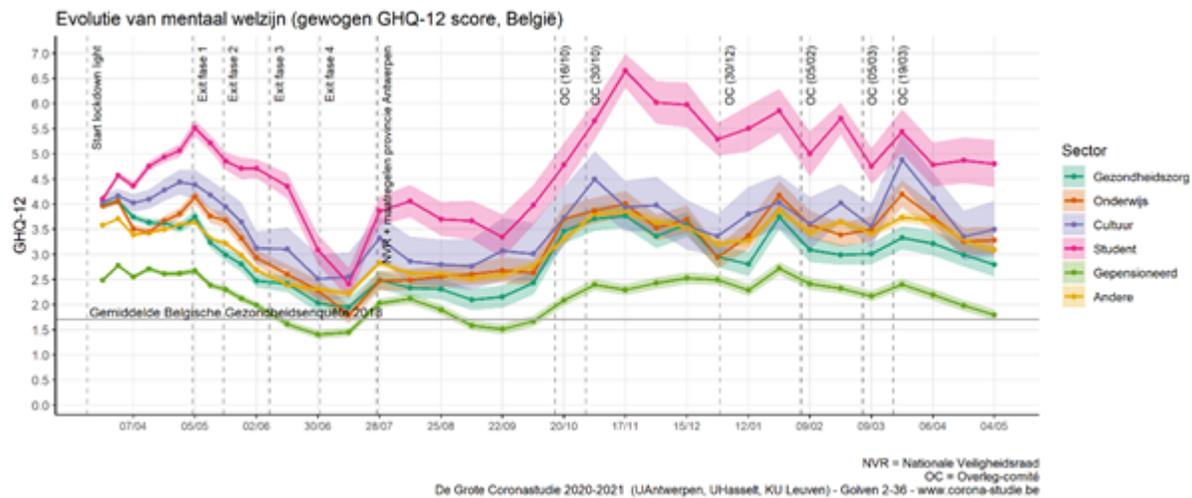
Figure 9 - Evolution of weighted GHQ-12 score by age group while distinguishing students from non-students in the youngest age group (Great Corona Study, Waves 2-36)



The overall improvement is presumably mainly due to the prospect of vaccination and relaxations. This might be supported by the fact that people aged 60-79 years and over 80 years report the best GHQ scores since September 2020. As reported numerous times before by the GCS, students incur by far the greatest impact on mental wellbeing, and experience now a long duration of 7 months of average scores on GHQ-12 of more than 4.5. Also people working in the culture and event sector score badly.



Figure 10 - Evolution of weighted GHQ-12 score by sector (Great Corona Study, Waves 2-36)



The GCS has documented correlations in mental wellbeing and willingness to be vaccinated, implying there are two way associations between these.

**Question 5: Have our psychological needs been better met since the exit plan was announced?**

Evolution over time: Since May, an improvement of the satisfaction of different psychological needs, but especially autonomy, can be observed. Also, feelings of insecurity decreased, which helps to explain the improved mental health (figure 20). Yet, psychological needs are still less satisfied compared to May and especially June-July 2020, when a greater number of relaxations was put in place.

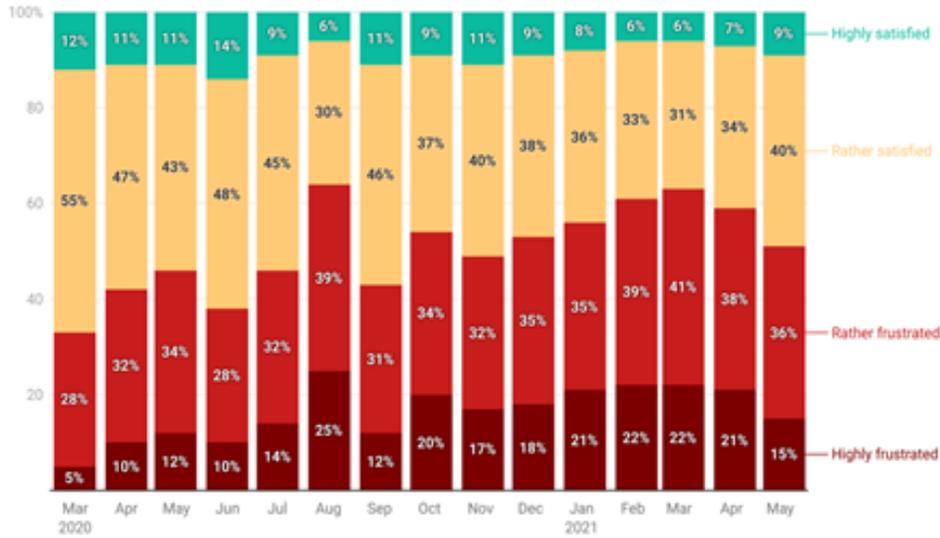
Vaccination status: Compared to non-vaccinated individuals, vaccinated persons report an improvement in life satisfaction over time, which is due to their reduced insecurity and especially improved autonomy need satisfaction over time. Such findings are promising as they indicate that vaccination may be a route to improved mental health.

Other socio-demographics: As for other socio-demographics, more lowly educated individuals and older individuals experienced greater psychological need satisfaction and lower security. Females reported both greater need satisfaction and higher insecurity compared to males.

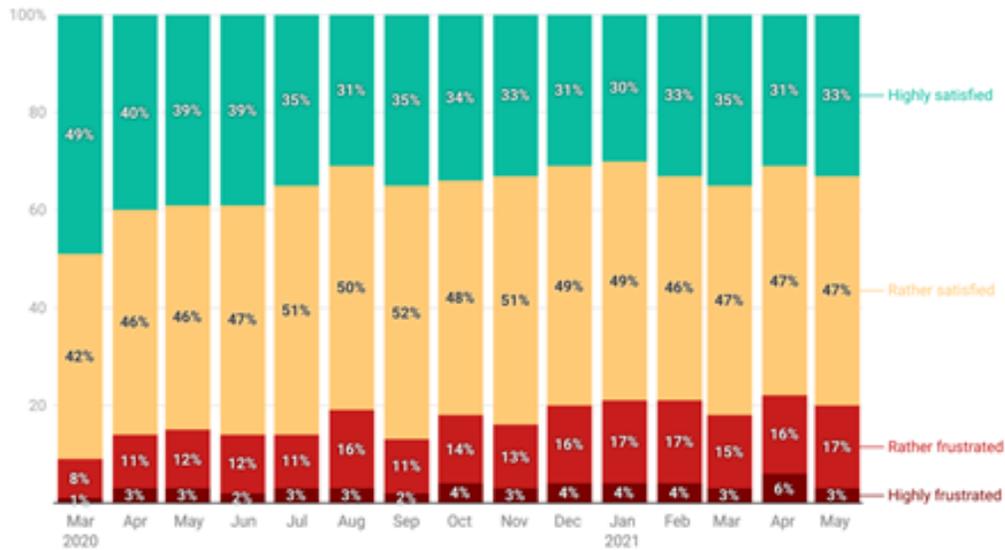


Figure 11 - Evolution of psychological needs and uncertainty across the pandemic

(a) Need for autonomy

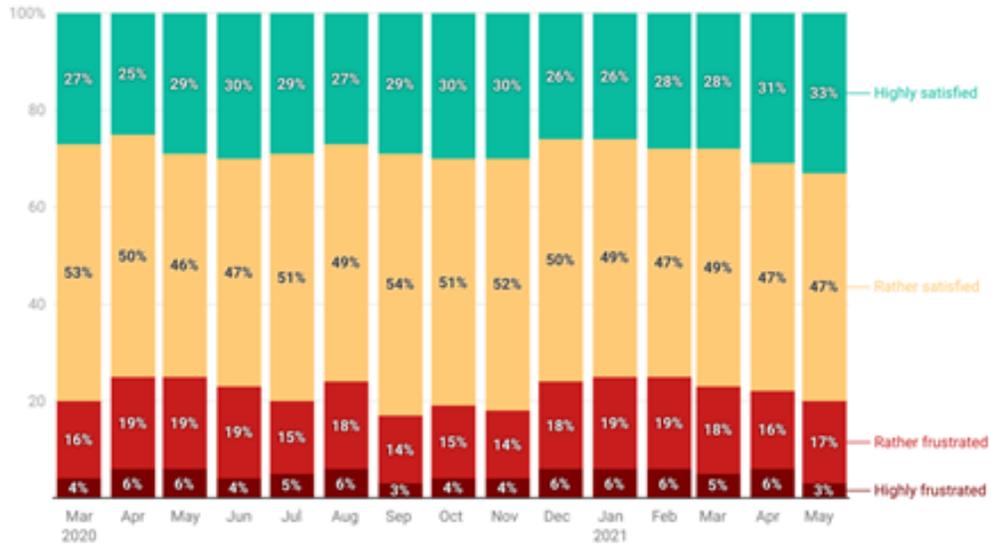


(b) Need for relatedness





(c) Need for competence



(d) Uncertainty

