Group of Experts on the Exit Strategy

7e Nota aan Eerste Minister en Kern ter voorbereiding van de Nationale Veiligheidsraad dd. 15/07/2020*

**Dit document bevat advies van de experten die deel uitmaken van de GEES. Het gaat daarbij onder meer om persoonlijke meningen die uit vrije wil en op vertrouwelijke basis worden verstrekt aan de federale regering.*

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1. Use of masks by the general public

The actual epidemiological situation in Belgium:

The actual epidemiological situation (as of 13 July 2020) in Belgium shows a fairly low but slightly increased reported incidence around 1/100.000. The Rt is now estimated to be above 1 (1.06 with 95% CI: 0.99-1.14) based on confirmed cases and 0.89 with 95% CI: 0.71-1.09 based on number of hospitalisations) and the effects of Phase 4 (as of July 1st) of the relaxation of the COVID19 measures are yet to be seen.

Certain municipalities have a higher than average incidence, with increasing figures, e.g. in southwestern Flanders, Antwerp, Brussels, Limburg,…with investigations ongoing. Over the last weeks, small scale clusters of cases in elderly homes and other collectivities have been notified across the country.

In several European regions, incidences have increased locally again, in part due to clusters linked to food industry (e.g. Germany, the Netherlands), living conditions of seasonal workers (Spain), or superspreading events (Serbia, Suisse). Widespread traveling of EU-citizens throughout the summer months, in particular to areas with high incidence rates, may contribute to further spread of the virus, including into Belgium. Traveling has been found to be a risk factor for viral resurgence in other countries e.g. Japan, Taiwan, and was probably one of the main drivers in the initial phase of the epidemic in Belgium in March 2020 (albeit with no preventive measures in place at the time).

In addition, with further societal relaxations as of June 8th and July 1st, more contacts among people are taking place indoor (e.g. horeca, shops, larger personal bubbles, cinema, theatre, fitness, …) and outdoor (e.g. markets, kermissen, small scale events) whereby compliance with physical distance measures seems to dwindle in many places.

The combination of these elements (low-level viral presence, increasing number of contacts, increased travelling and increasing incidences in several European countries, …) generates a clear risk in terms of viral resurgence.

What should be done:

1. Invest further in a low-threshold testing system and high-quality contact tracing, during which not only data on contacts are generated, but also more in-depth information on the context of the infection itself is collected which is vital to help detect clusters (e.g. work, free time activities, travel, school…)
2. Invest in continued promotion and convincing communication of the ‘6 golden rules’ and continued respect for all protocols and procedures; invest in communication for difficult-toreach groups.
3. Take pro-active measures to ensure that non-Belgians and non-residents, including tourists and migrants, are properly informed about preventive measures applicable in Belgium and

covered by testing and tracing services. Traveling and proximitiy, together with barriers to access health services, imply that these groups pose a particular risk in terms of accelerated virus resurgence in Belgium.

4. In addition, we believe there is now a role for the compulsory use of masks in specific settings notably:
    - **In shops and shopping centers (for customers and shop staff)**
    - **In cinemas, performance halls, conference centers, auditoria, places of worship and other indoor places where large numbers of people gather in a fixed setting for a longer period of time**
5. Masks use should remain compulsory at the work place when safe distancing cannot be respected, in public transport, at schools and for contact professions.
6. Masks remain highly recommended for outdoor settings where unforeseen crowding can occur (e.g. market, kermis, event, large sports events).
7. An exception can be made for children up to the age of 12 years for whom wearing a mask while sticking to the necessary hygienic precautions is considered too difficult. Similarly, a case by case medical evaluation and possible exception can be made for disabled and people affected by some particular and severe health conditions.

Rationale:

1. **Medical:**
   There is now ample scientific evidence that presymptomatic and asymptomatic spread of SARS-CoV-2 is substantial. By definition, these persons cannot be identified without testing. If the average number of (unprotected) contacts per person increases, the likelihood for spreading from such a pre- or asymptomatic case is high, especially in high-risk conditions, such as singing, dancing, shouting, mass events, crowded indoor gatherings. Therefore, it is important to reduce these superspreading events as much as possible. In addition, wearing masks in public at risk settings can help to further reduce the risk from the unknown asymptomatic superspreader. Also, the WHO endorses this advice in its latest recommendation.

2. **Infection control:**
   Multiple experiments have demonstrated that appropriately worn face masks block the spread of respiratory droplets and reduce the burden of subsequent aerosolization of these droplets. Therefore face masks can provide an effective way of reducing transmission of COVD-19, especially in closed environments and crowded outdoor places. This risk reduction is however not 100% absolute, therefore wearing masks should always go hand in hand with adequate hand hygiene, good room ventilation and maintaining a safe distance of at least 11.2 m.

   The extent of aerosol creation and aerogenic transmission of COVID-19 is not yet fully understood, but evidence from small and experimental studies suggest that aerogenic transmission of COVD-19 can occur and may play a particular role in confined, indoor and poorly-ventilated settings where a large number of people are gathering. Reducing the number of droplets expelled through mask wearing may further reduce the volume of aerosols in the air. As such this may play a particular role over winter months with an increasing number of people gathering indoor, and even have a beneficial effect on

transmission of other upper respiratory tract infections (e.g. influenza). For this reason in particular, contrary to previous advice, we now advise to make masks compulsory in indoor places where larger numbers of people gather for longer periods of time, also when safe distance is being respected.

Even though randomized controlled trials (RCTs) are the gold standard in medicine to judge the value of interventions, they are impossible to set up in practice to demonstrate this in a relatively short period of time, for obvious reasons (ethical problems, many confounders, incomplete data, etc.), as is the case for many behavioral-based preventive measures (eg wearing a seatbelt, quit smoking, or improving eating or drinking habits). Therefore, evidence is per se limited to observational or case control studies.
This is especially the case in situations where the effect to be measured is not at the level of a study subject one could randomize (*i.e.* mask wearers or non-mask wearers) but at the level of a third party (*i.e.* people in the vicinity of the (non)-mask wearer over a set period of time). Therefore evidence is per se limited to observational or case control studies. Indeed apart from physical experiments showing exhaled clouds of droplets being reduced with masks (e.g. see Leung et al, 2020), observational studies can also offer insights by comparing different locations. One could for instance generally compare the situation in Hong Kong (1300 cases and 7 deaths in a population of 7,5 million), where wearing masks indoor has been the norm since the start of local transmission, with Belgium. More detailed observational studies are also emerging. In Germany, a comparison of different regions, where masks were introduced at different points in time, indicated that the cumulative number of registered Covid-19 cases reduced 2.3%-13% over a period of 10 days after masks became compulsory, which was summarized as face masks reducing the daily growth rate of reported infections by around 40%.(see Mitze et al, 2020). Another German study showed that mandatory mask wearing did not reduce community mobility (see Kovacs et al, 2020), indicating the adverse effect from this coercion is likely limited.

3. Psychosocial:

The 6 golden rules, including reducing the number of contacts and keeping a safe distance still apply, but may be forgotten or motivation to comply may drop as deconfinement progresses and infection rates/number of casualties go down. Wearing masks helps to keep awareness and a level of alert, and it will help to 'correct' when safe distances were not kept.

Wearing cloth and surgical masks protects mainly for 'outbound' spread of droplets, and much less so for 'incoming' droplets. Wearing masks in public should be therefore considered as an act of responsibility and respect towards each other ('*I wear a mask to protect you and vice versa'*). It is also a sign of respect towards all those who work to protect us, not least the heath care and elderly care workers, and are obliged to wear masks all day long, while experiencing high levels of stress.
The reasoning here is comparable with vaccination to create vaccine-induced group immunity, protecting the most vulnerable in society, who cannot enjoy direct protection from vaccination for medical reasons.

There is no evidence (observational, experimental or RCTs) suggesting people will adhere less to other hygienic principles if they wear a mask (see also Howard et al. 2020). A statement to the contrary seems more likely. Higher prevalence of masks increases

awareness and visually instills highly needed social norms in those less likely to adopt preventive actions.
In addition, universal use of masks (by healthy people, to protect others) is non-stigmatizing, in contrast to unique use by at risk patients.

4. **Public support and acceptance**:
Recent surveys have shown that compliance to mere recommendations is dwindling, including wearing masks in indoor public places such as supermarkets. Communication campaigns and role modelling could increase compliance, but a legal obligation is likely to have a stronger effect.

The UAntwerp's corona survey has been monitoring people's behavior and opinions about the COVID-measures. Since the beginning of June, more and more respondents –even though they may represent a more concerned group in society- indicate that they would like to see a face mask become mandatory in certain situations. This applies to customers (from 61 to 77%) and staff (from 75 to 83%) in supermarkets. In other stores, too, more respondents are in favor of a mask for customers (from 55 to 70%) and for staff (from 67 to 76%). Only in the work context and on the street there is a decrease, from 37% to 30%, and from 12% to 10%, respectively. Vulnerable people's wellbeing and feelings of isolation will be seriously affected if they are forced to buy essential supplies (eg food in supermarkets) in circumstances where they do not feel safe. Yet they will not have a choice.

Wearing masks has become a normal, daily practice in the entire healthcare sector as well as in several private companies , in schools and at the public transport. In these settings, it has become part of the 'new normal' to allow as much as possible normal activities.

5. **Cost and feasibility**:
In contrast with 2 months ago, masks have become universally available now for the public, both commercially and distributed by the authorities. Using them can be considered as a low-cost intervention and wise use of earlier made investments.

Further reading (non-exhaustive):

- WHO, June 5th 2020. Advice on the use of masks in the context of COVID-19. https://www.who.int/publications/i/item/advice-on-the-use-of-masks-in-the-communityduring-home-care-and-in-healthcare-settings-in-the-context-of-the-novel-coronavirus-(2019ncov)-outbreak (consulted on July 7, 2020)

- Chu D et al., Physical distancing, face masks, and eye protection to prevent person-to-person transmission of SARS-CoV-2 and COVID-19: a systematic review and meta-analysis. Lancet 2020; 395: 1973–87

- Howard, J et al. Face Masks Against COVID-19: An Evidence Review. Preprints 2020, 2020040203 (doi: 10.20944/preprints202004.0203.v1).

- Leung, N. H. L., D. K. W. Chu, E. Y. C. Shiu, K-H. Chan, J. J. McDevitt, B. J. P. Hau, H-L. Yen, Y. Li, D. K. M. Ip, J. S. M. Peiris, W-H. Seto, G. M. Leung, D. K. Milton & B. J. Cowling (2020) Respiratory virus shedding in exhaled breath and efficacy of face masks, Nat Med 26, 676–680. https://doi.org/10.1038/s41591-020-0843-2
- Wenmackers, S. http://sylviawenmackers.be/documents/20200414-WenmackersClothMasks&Communication.pdf

- https://rs-delve.github.io/reports/2020/05/04/face-masks-for-the-general-public.html

- Timo Mitze Reinhold Kosfeld Johannes Rode Klaus Wälde. Face Masks Considerably Reduce COVID-19 Cases in Germany: A Synthetic Control Method Approach. IZA DP No. 13319 . The IZA Institute of Labor Economics, Germany, June 2020. https://www.iza.org/publications/dp/13319/face-masks-considerably-reduce-covid-19-cases-ingermany-a-synthetic-control-method-approach

- Kovacs, Roxanne and Dunaiski, Maurice and Tukiainen, Janne, Compulsory Face Mask Policies Do not Affect Community Mobility in Germany (June 12, 2020). Available at SSRN: https://ssrn.com/abstract=3620070 or http://dx.doi.org/10.2139/ssrn.3620070

- Prather KA, Wang CC, Schooley RT. Reducing transmission of SARS-CoV-2. Masks and testing are necessary to combat asymptomatic spread in aerosols and droplets. Science 368 (6498): 142224.

2. Audiences and seating arrangements

When taking the 'six golden principles' into account, and as mentioned in our 6th report dd. 24/6/2020, seating arrangements for cinema's concert halls, auditoria,… require a safe distance of 1.5 m around each seat. This has however a significant impact on the total number of people who can be allowed (i.e. about 25% of the original capacity) which does not seem sustainable from an economical and organizational point of view.

In addition, concerns regarding the accumulation of droplets and possibly aerosols in indoor settings with inadequate ventilation, with subsequent increased risk for viral transmission are rising. Therefore, the GEES advises the compulsory use of masks in the above mentioned indoor settings. Adequate ventilation and safe distance remain equally important, although with the use of masks the latter may be relaxed to 1-1.2 m. 'Bubble seating', i.e. bubbles of 2, 3, 4 (max 10), leaving 1-1.2 m around the entire bubble may lead to 40-50% of room filling.

It is important that masks are worn for the entire duration of the indoor event, performance or class, as well as when entering and leaving the room. However, it should be possible to remove masks briefly, e.g. for eating and drinking.

Maximum size of audiences (indoor/outdoor) set for July and August should continue to apply.

3. Large scale events from September onwards

Given the fragile epidemiological situation explained in Chapter 1, given the unknown effect of increased travelling during the holiday season and given in particular the risk of 'superspreading' events, the GEES advises the audiences for seated indoor and outdoor events to remain capped at 400/800 respectively for the month of September.

From October onwards, provided the epidemiological situation allows this, a further increase towards 800/1600 may be considered.

For 'beurzen', a separate protocol needs to be made.

Particulae attention needs to be given to the respect for procedures and protocols for already planned events and activities with audience.

4. Suggested cliquets to define and describe the epidemiological alert levels (yellow, orange, red)

Based on similar thresholds as used during the exit strategy (with the overall aim to avoid exponential growth of new infections and casualties and to safeguard hospital capacity), we define the following alert levels in terms of number of confirmed cases and number of new hospitalisations.

	Confirmed cases	New hospitalisations
Yellow	<2/100.000	<5/1.000.000
Orange	2/100.000 – 5/100.000	5/1.000.000-15/1.000.000
Red	>5/100.000	>15/1.000.000

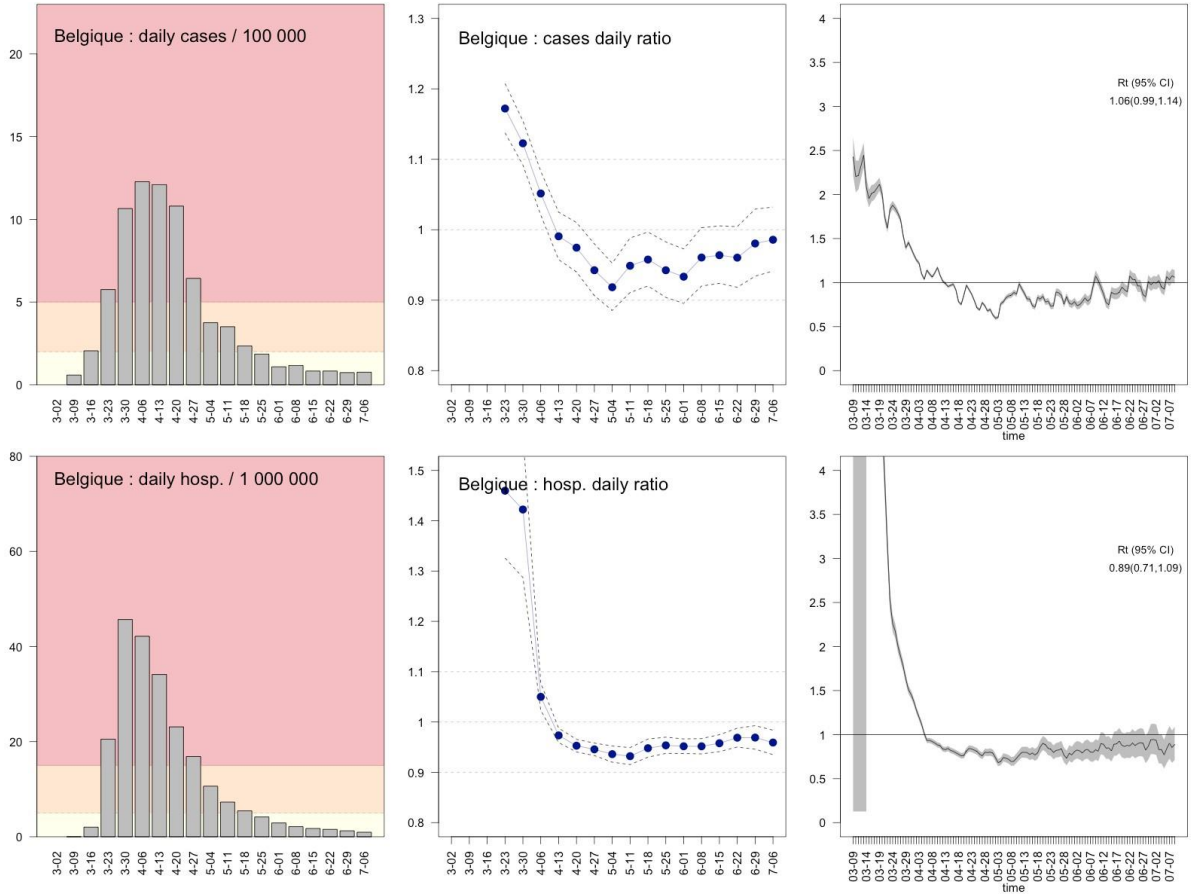
To avoid switching alert levels too quickly, we define the following rules based on the alert levels as defined above and the reproduction number estimated from the time series of confirmed cases and new hospitalisations:

- Switch to a higher level if Rt is significantly larger than 1 and provided that either the number of confirmed cases or the number of new hospitalisations indicate a higher alert level.
- Switch to a lower level if Rt is non-significantly different from 1 and provided that both the number of confirmed cases and the number of new hospitalisations indicate a lower alert level.

These alert levels and cliquets can apply to national, regional as well as provincial levels and thus local interventions can be implemented when necessary.

Note that these rules need to be evaluated with a proper contextualization: e.g. if a sudden increase in cases and/or hospitalisations can be attributed to an isolated outbreak, shifting levels is deemed inappropriate.

For illustration purposes, the following figure shows these estimates on 13 july 2020 for Belgium.



Note that initial estimates of the daily ratio and reproduction number have been affected by underreporting and should therefore not be considered.

Finally, these suggested cliquets need to be harmonized with other already existing decision systems for alerting signals (Sciensano) and for travels abroad (Celeval/Sciensano); this can be done jointly ad at short notice within the Risk Management Group.

5. Lessons from Lockdown and Exit: key principles for epidemic resilience

1. Motivation

This short note builds on our three months of experience with the exit strategy to derive a set of 'key principles' which can help society's resilience in case of a new epidemic or a resurgence of the current one. They could serve, after appropriate operationalization, as a basis for regular monitoring exercises assessing the country's epidemic preparedness.

We distinguish investments to be made ahead of resurgence from crisis-management measures in case of resurgence. In our list, there are principles which were pretty clear to us from the start (like the need to ramp up testing and tracing and the importance of clear and honest communication), some which turned out to be successful ex post without much need to modify them (like the sequencing of reopening the economic sectors, or the importance of telework), some that needed adjustments over time (like the timing and modalities of school reopening, the rules for private interaction or the exact importance of masks), and some that need additional attention (like addressing the needs of fragile individuals, since the epidemic causes a lot of mental distress and can significantly aggravate inequality). Finally, and most importantly, work is needed to fine-tune the time-dependent and geographical dimension of reconfinement/deconfinement (to be made possible thanks to an improved information system on the detailed features of infections transmission), in order to avoid having to fight resurgence through a new general lockdown.

2. Investing in resilience in quiet times

Principle 1: Invest decisively in ***testing, tracing and resurgence management***. This requires: (i) maintaining sufficient (surgeable) testing capacity; (ii) an information system which allows to keep track of the specificities of positive cases (location, age, settings where they were infected, …); (ii) sufficient contact tracing capacity (manually and by app); (iii) a proper balance of rules and incentives to make sure most individuals do get tested and do disclose all relevant contacts (e.g. by offering PCR and serological tests, and foreseeing adequate financial compensation for their quarantine); (iv) (internationally benchmarked) KPIs on all the above. In addition, clear procedures and sufficient human resources should be foreseen for cluster detection, analysis and subsequent local (reconfinement) interventions.

Principle 2: Invest decisively in ***masks*** and ***other protective equipment***. As mentioned earlier in this report, masks are a key instrument to limit viral transmission. They are cost-effective and must be widely available whenever an epidemic starts, i.e. for health care workers as well as the general public., Everybody should have access to masks at very short notice. This is particularly true for at-risk persons, whether the risk comes from one's own age or health or from one's occupation)., Compulsory wearing

of masks in specific settings should be the very first public health measure to be enacted next to personal hygiene and social distancing.
For frontline health care workers involved in the care of possible and proven COVIDcases, the availability of sufficient personal protective material of good quality is essential; a national stock should be foreseen in sufficient quantities.

Principle 3: Vigorously encourage ***voluntary telework***, so as to make its scaling-up under virus resurgence easier and more efficient. Indeed, experience has shown that telework works, and will work even better now that we have tried it. Companies, state entities and other organizations are expanding it since it is popular with employees when offered part-time.[1] However, attention has to be given to the psychosocial dimensions of increased telework including challenges in work-life balance.

3. Ensuring sustainable reconfinement

Principle 4: Keep ***daycare centers***, ***kindergarden*** and ***primary schools*** open as much as possible, since evidence shows it is basically safe and it is important for children's wellbeing and development, but also since ***scaling up telework*** is not sustainable when parents need to take care of their children while teleworking. Closing daycare and schools should therefore only be done at the most acute level of a second wave, and reopening should be done in the very first phase of a subsequent exit. This means of course being ready to run them while adequately protecting teachers and staff.

Principle 5: In terms of the ***economy***, the sequence of exit phases chosen in Belgium in the last 3 months has proven to be successful: first B2B (where social partners and their members can monitor sanitary protocols), then B2C (including the use of compulsory masks), then bars and restaurants, then sportive and cultural events (with masks when appropriate).[2] This would plead for taking a 'reverse approach' from this exit plan when reconfinement is needed. At all stages, attention has to be given to strict adherence to all procedures and decisions.

Principle 6: On ***private interaction***, the 6 'golden rules'[3] have proved pretty robust. Next to principles that remain valid throughout the epidemic (outside is better than inside, keep your distance, think in terms of bubbles, wash your hands and be cautious with at-risk people), they moreover allow to vary the intensity of interactions by playing on a single number, i.e. the maximum number of people one can meet at any given time even with social distancing, and within a week without social distancing.

[1] See evidence discussed in GEES' mobility workstream note on "Mobility and public transport in the exit strategy", June 4, 2020.

[2] For a detailed discussion, see GEES' "Second note to the Prime Minister and Deputy Prime Ministers In preparation of the National Security Council", April 24, 2020, and especially its pages 2-9.

[3] See GEES' "Fifth note to the Prime Minister and Deputy Prime Ministers In preparation of the National Security Council", June 3, 2020, page 2.

Principle 7: in addition to the financial support provided to temporarily unemployed workers and to firms and entrepreneurs affected by confinement, minimize the 'collateral damage' of the epidemic for ***fragile individuals***, by: (i) ensuring as much as possible the continuity of non-covid healthcare, including for mental health; (ii) setting up secure conditions for continued visits for the elderly and people in institutions (disabled, minors); (iii) providing IT equipment to help e-learning by poor students (especially in secondary schools and higher education when they are providing online teaching); (iv) providing support for people living in very precarious conditions in the best sanitary conditions possible.

Principle 8: Optimize the ***geographical dimension*** of confinement. Once information systems deliver information of sufficient granularity, one can aim for confinement which is as targeted as possible. Even when the epidemic has spread beyond purely localized settings (a company, a school, a market), national reconfinement measures may not be justified if some regions have significantly higher incidence than others. On the other hand, having different measures for excessively small areas may lead to significant confusion on how to behave in, and move around, different parts of the country. The provincial level could provide a good compromise between differentiated measures and ease of communication, in case there is sufficiently different incidence at the province level to justify having different measures. For some of them, such as closure of horeca or shops in one province but not in others, displacement effects should be taken into account and addressed. The green, yellow, orange or red status of the province may be evaluated on a weekly basis, but the definition of criteria should not make them too sensitive to weekly fluctuations, such as to prevent having too frequent changes in corresponding measures. Here too, the province aggregation level ensures a lower variability in incidence and growth metrics than smaller units that would be more subject to small numbers variations.

Principle 9: Maximize buy-in by citizens and all stakeholders of society, through wideranging but rapid and targeted ***consultation*** and clear ***communication*** which stresses the nature, and limit, of scientific evidence and promotes an approach of solidarity and collective responsibility. This will maximize acceptance and respect for rules which are admittedly intrusive and go against individual freedom in pursuit of collective wellbeing.

Annex 1. Reply to punctual questions from cabinets Muylle-Ducarme

- **Discotheken en dancings**:
  negative advice to re-open as long as the epidemic is active. They have been shown to be the ideal places for transmission hence several superspreading events (cfr Japan's 3 c's: closed

spaces, crowded places, close contact settings: https://www.mhlw.go.jp/content/10900000/000615287.pdf).
Following the same reasoning, the GEES advices against re-opening of dancing parties and collective dancing.

- **Jacuzzi's, stoomcabines en hammams:**
  Similar reasoning, the GEES does not recommend their re-opening as long as the epidemic is active

- **Beurzen**:
  Re-opening this sector could be considered, provided a professional and corona-proof organization (preventing crowding; eating and drinking facilities strictly adhering to horecaprotocols) along a protocol which follows very similar requirements as markets, kermissen, large shops and shopping centres.

- **Kansspelinrichtingen:**
  The GEES recommends similar closing hours as for horeca for reasons of consistency and clear communication.

- **Recepties en banketten met privékarakter:**
  The GEES does not recommend to increase numbers of guests beyond what is already foreseen (n = 100 in August), and advices strictly against the re-opening of dancing parties for the reasons mentioned above. Strict adherence to the available protocols (i.e. seated, close contact only with table company, no dancing) is of extreme importance to prevent these gatherings from becoming superspreading events.

- **Social restrictions**:
  The GEES dos not recommend to enlarge the personal bubbles given the volatile epidemiologic situation