

**Adviesaanvraag**

Vraagsteller	Regeringscommissariaat Corona
Datum van adviesaanvraag	14/03/2022
Onderwerp	SWOT-analysis of the actual defense lines and overall pandemic preparedness

Adviesverstrekking t.a.v. het Overlegcomité

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Executive summary

a. Short term

- i. The epidemiological situation is deteriorating again in Belgium and many other countries due to the relaxation of measures, the further spread of the BA.2-variant in combination with influenza and other respiratory pathogens. This resurgence of COVID-19 and influenza is now spreading to older age groups, and causes high levels of absenteeism among health care workers at all levels of the health care sector. Taken together, this new wave has a significant impact on the health care system (albeit less pronounced at ICU-level).
- ii. Although this resurgence of cases was foreseeable, the actual situation warrants close monitoring, clear communication on the remaining risks for the population and calls for renewed promotion of preventive measures (e.g. awareness of the situation, testing when ill, respecting isolation, importance of ventilation, mask wearing when in large groups in ill-ventilated spaces, especially in presence of medically vulnerable persons, importance of booster immunization, consideration of additional boosters, ...)
- iii. As for the next OCC, we confirm the advice of the RAG to reinstall code orange ('RAG level 2') if the actual epidemiological situation remains the current one.

b. Mid-long term

- i. The visibility and coherence in pandemic preparedness in Belgium is still low, as highlighted in the Global Health Security Index and as noted in the International benchmark exercise. A dedicated and funded National Pandemic Preparedness structure is needed.
- ii. The last two years have taught us about the need to be able to scale-up significantly enough and fast enough the various defense lines. Significant advances have been made in all of these lines (i.e. testing, contact tracing, vaccination, ventilation, health care capacity, epidemic intelligence, mental wellbeing and health, communication) but important threats and working points remain, including:
 1. testing and contact tracing: (re)scaling up plans for the human resources needed for testing and contact tracing are complex but vital
 2. health care capacity: particular attention should be given to human resources in the health care system, which are actually facing both long term and short term absenteeism and for whom a genuine mid-long master plan is needed. In particular advanced training of potential ICU personnel (getting ex-ante vaccination agreements from current and potential ICU personnel would also help minimize absenteeism). Improved ex-ante inter-hospital ICU capacity sharing mechanisms would help too, in order to avoid crisis-time frictions.

3. ventilation: important pioneering steps have been taken, but urgently further steps in awareness, communication, legislation, financial support allowing implementation are required. An exhaustive cartography of the various geographical settings should be established in order to determine 'priority targets' where the introduction of ventilation systems is particularly cost-effective, with an associated ambitious implementation timetable.
4. vaccination planning: population motivation and timely implementation remain the Achilles heel, as well as further follow up of symptomatic disease in vaccinated as well as un-vaccinated people
5. epidemic intelligence and surveillance requires a solid long term consortium, transparent plan and sufficient funding
6. mental wellbeing and health requires investments in surveillance and integrated action plan to improve the population's resilience during long standing crises
7. communication requires maintained coordination and revision of the communication content and channels (website, science literacy,...)

1. **Actual epidemiological situation** (week of 21/3/2022):

As described in detail in the RAG-report dd. 23/3/2022, we actually observe for nearly all epidemiological indicators a **further increase**. The overall 14-day incidence in cases is 1192 (25/03/2022), corresponding to roughly 10,500 confirmed cases per day. The incidence of new cases is particularly high in Flanders (i.e. 1665), but is increasing in all regions: by 15% in Flanders, by 25% in Wallonia, and by 18% in Brussels. In addition, the number of influenza cases continues to increase as well.

Whereas this increasing trend has been first observed among school-aged children, adolescents and students, the increase is now most prominent among **40 - 64 & 65+ years old**. This leads to:

- (1) increased absenteeism at the workforce (see Paragraph 3) and
- (2) an increase in hospitalization of both patients 'for' and 'with' COVID-19-infection. Although the ICU-occupancy level has remained somewhat stable, the combination of increased number of cases of COVID-19 and influenza in the hospitals and increased absenteeism among health care workers leads to increasing organizational difficulties for numerous hospitals, and an increasing number of outbreaks in hospitals.

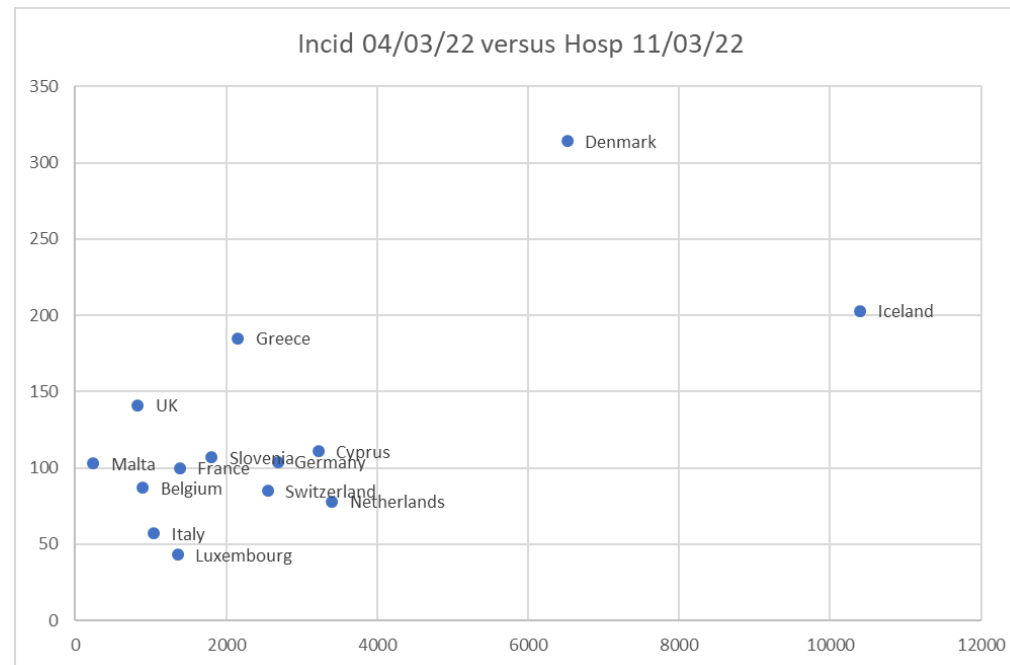
This surge in cases for both COVID-19 and influenza was predicted, based on the combination of the near release of all preventive measures, leading to a significant increase in personal contacts. Nevertheless, the impact on the health care system remains significant, and until date, it is unclear which pace this new wave will follow. Therefore this situation calls for close surveillance, as well as generating awareness among the general public and reinforcing prevention of transmission, particularly among the medically vulnerable.

We confirm the advice of the RAG to reinstall code orange ('RAG level 2') based on the actual epidemiological evolution.

2. **International epidemiological evolution:**

Also in many other European countries, a surge in cases is noted, often with very high 14- day incidences (and still increasing; situation 25/03/2022), e.g. Austria (6653) and Cyprus (5397). Increases are also noted in: France (1775); Greece (2824); Ireland (1370); Israel (1190); Italy (1464); Luxembourg (2219); Slovenia (1694); United Kingdom (1601). Some other countries have very high incidences, but without further increase, e.g., Germany (3217), Iceland (6786); Latvia (3416); Netherlands (4323); Switzerland (4256). The incidence in the Netherlands is of particular concern, especially because two of its provinces had the highest NUTS2-level incidences (apart from Iceland) and are bordering Belgium (ECDC; Week 2022/10), i.e. Limburg (NL) (7185) and Noord-Brabant (6904). In Week 2022/11, the incidences have somewhat improved: Limburg (NL) (6295) and Noord-Brabant (5368). Nevertheless, they remain among the highest incidences at NUTS2 level on the ECDC map, along with the Austrian regions and other Dutch provinces.

The fact that these very high 14-day incidences still lead to high numbers of hospitalizations in many countries (though less so to ICU admission), is clear from the following graphical representation (hospitalizations expressed as number of hospitalizations per week per million inhabitants).



3. Evolution in different economic sectors (based on RSZ-data, 2-weekly report, versions 30, Annex 1)

In version 30 of this 2-weekly report, describing the Covid-19 infections per sector for the period 08/03-21/03, one can observe that the numbers are rising rapidly in employees of nearly all sectors.

The mean 14-day incidence in the working population (n=1456 per 100,000) has increased by 39% compared to the period 22/02-07/03 (n=1051 per 100,000). The difference in incidences between the working and general population also continues to increase compared to the general population and is now 45% higher (n=1005).

We observe a strong increase in various sectors, first of all in the classic sectors where there is **close contact with patients and children**: such as hospitals, residential care centers, daycare centers and secondary education. In addition, we also see a **strong increase in many other sectors, industries and institutions**, including in the fire service and security services.

There is thus a rapid increase in infections among the working population and confirms the testimonials of a higher loss of personnel due to corona and other infectious diseases such as flu. **Additional measures and caution and stricter implementation of the measures from the generic guide are needed in all companies** to halt the increase. Increased vigilance is therefore necessary.

4. Mental wellbeing & health (Summary of the [MAG report - update 15/03, Annex 2](#)):

During the COVID-19 crisis, our society's mental health has been under pressure especially in periods with increasing restrictive measures and uncertainty, particularly among younger people. A recent scientific brief from the World Health Organization (WHO) presents current evidence regarding the impact of COVID-19 on our mental health. It was estimated that the pandemic has led to a 27.6% increase in cases of depressive disorders and a 25.6% increase in cases of anxiety disorders. Though data are mixed, younger age, female gender and pre-existing mental health conditions were often reported as risk factors. This international study is in line with the observations and conclusions we can draw from Belgian longitudinal data on well-being (Motivation Barometer and the Great Corona Study).

Although good follow-up data on mental disorders are lacking, we can estimate the impact of the crisis by using data from administrations (e.g. Sciensano, INAMI) and care providers. For children, young adolescents, and their families the agency "Opgroeien" provides consultations in crisis and where urgent care is needed. The **referral for crisis situations and consultations were significantly higher in 2021** compared to the previous years. Fortunately, the first data of 2022, seem to indicate a decrease in consultations. Nevertheless, consultations that involve treatment of mental health problems however, are still rising (+5%).

When looking at the working population, data from Group IDEWE suggest an impact of COVID-19 on the different indicators of well-being in workers. Hence, there seems to be a small increase in burn-out risk, while intention to stay and satisfaction seem to decrease. With increasing circulation of the virus, **more and more workers drop out**. When looking at data from ACERTA, the alarming signals about short sick leave in the healthcare sector are being supported by the numbers, with a noticeable peak in numbers since September 2021. This peak can be noticed across all sectors. Remarkably, we observed that since the first 'COVID-19-month' (March 2020, 4.51%), the percentage of short-term sick leave across all sectors has never been higher than in January 2022 (3.99%) and February 2022 (3.27%) (Figure 39). The same trend can be seen for the health care sector (peak in March 2020 5.76% and highest numbers in January and February 2022: 4.76% and 3.96%) (Figure 40). This might be due to the highly contagious Omicron-variant of the virus: **short term absenteeism is strongly correlated with the high levels of viral circulation**.

In this report we also included an analysis of medication data provided by Farmaflux and health expenditure data provided by RIZIV/INAMI. Taking all medication use together (psycholeptics and psychoanaleptics), the data indicate that in comparison to 2019, the average defined daily doses (DDD) per patient in 2020 increased, with a further increase in 2021. While the average DDD use, and the use per patient increased,

the number of unique patients (PAT) using psycholeptics or psychoanaleptics grew less strongly, stayed constant, or dropped. The higher medication use per patient can be explained by a **higher medication use for existing patients**, for example because they had more complaints because of the measures, or because of reduced psychiatric healthcare use as needed during COVID.

The total healthcare expenditures for psychiatrists and child psychiatrists fell below the figures from previous years during the periods April to July 2020 (first wave), and in November 2020 till March 2021 (second and third wave). This was also the case for consultations, visits and advice at doctors' offices. Looking in more detail, from March 2020 onwards there is a lower expenditure on therapies, psychotherapies, and pediatric psychiatric consultations in comparison with previous years. If distance consultations (which started in April 2020) are factored in, the gap stays apparent between March and June 2020. However, since March 2021 the expenditures rise above levels of previous years when taking into account the distance consultations.

5. International benchmark on Pandemic Preparedness

A concise desktop search, in order to generate an international benchmark on pandemic preparedness structures, led to the conclusion that various international governmental administrations are planning to additionally invest into pandemic preparedness and to further strengthen the existing infrastructure:

- During the COVID-19 pandemic a new Dutch national 'zorgreserve' ([link](#)) has been set-up to maintain a reserve group of healthcare workers to be dispatched during crisis times. Furthermore, the Dutch government has already announced last year to invest further in existing infrastructure (more details can be found [here](#)).
- In a similar way, the US government has started updating their current biopreparedness policies ([link](#)) and will invest into the existing structures.
- Germany has facilitated cooperation with the WHO to create a hub for pandemic and epidemic intelligence in Berlin ([link](#)). This will be focused on enhancing international collaboration and sharing of data and tools whilst also focusing on improving the national and local response to possible outbreaks. The German Federal Ministry of Education and Research (BMBF) has recently seed funded, for €10m, academic and public health research consortia specifically on strengthening base modelling capacity.
- In the UK, The Health Protection Research Units (PHRU) are multidisciplinary centres of excellence to protect the public from health threats such as antimicrobial resistance, air pollution and infectious diseases. They have been base funded with an annual investment of about £10m per year since 2014, including a large part dedicated to data science, modelling and economics.
- In several countries, research facilities are adapted to focus on providing a scientific platform for the handling of pandemics.
 - In France, the ANRS-MIE was created from the fusion of two already existing structures ([link](#)) that will focus on the emergence of pathogens with pandemic potential.
 - In the Netherlands, a Pandemic & Disaster Preparedness center was opened in the Erasmus MC of Rotterdam ([link](#)).

- The University of Oxford in the United Kingdom has launched a pandemic science center initiative ([link](#)) to enable the creation of science-driven solutions for pandemic threats. Whether that will translate into an update of the health emergency plan of the UK is still unknown.
- The Roskilde university of Denmark also dedicates their PandemiX center ([link](#)) to further Covid-research but it is not yet known how this center will receive investments or start new initiatives for pandemic preparedness plans. Nevertheless these research facilities could provide valuable input into health emergencies and health emergency planning.
- According to the Global Health Security Index (GHS Index)¹ and based on publicly available information², Belgium scores low on the Pandemic preparedness axis (i.e. 22/195 countries assessed, and 14/43 European countries). The Global Health Security (GHS) Index is an assessment and benchmarking of health security and related capabilities across 195 countries. The GHS Index, which is developed in partnership by the Nuclear Threat Initiative (NTI) and the Johns Hopkins Center for Health Security at the Bloomberg School of Public Health, working with Economist Impact, was first launched in October 2019. In terms of methodology, the GHS index expert panel did not directly engage authorities responsible for emergency preparedness in their respective countries and other key stakeholders. Instead, the panel evaluated information provided by each country; this methodology has the potential to obscure crucial weaknesses in a country's capacity to confront outbreaks. For instance, although the US scored the highest (98.2) in the category of early detection and reporting of epidemics, the authors' findings indicate that in reality, countries such as Iceland and Luxembourg outperformed the US³. Obviously, there is a difference between knowledge, preparedness and performance, and especially the latter depends on political action and timing. Different components of preparedness may be present yet not clearly publicly communicated, and/or being developed over a short time. and the lack of scientific initiatives compared to other countries might cause further discoordination during new health emergencies. Nevertheless, this outcome is obviously worrisome and calls for **concerted national action to reach better pandemic preparedness in Belgium in the mid-long term, e.g. through the creation of a dedicated and funded Pandemic Preparedness centre.**

¹ <https://www.ghsindex.org/>

² https://www.ghsindex.org/wp-content/uploads/2021/11/2021_GHSindex_Methodology_FINAL.pdf

³ Abbey E et al, The Global Health Security Index is not predictive of coronavirus pandemic responses among Organization for Economic Cooperation and Development countries. PLoS One. 2020; 15(10): e0239398

6. SWOT/Gap-analysis of actual preparedness in different defense lines

SWOT	Strengths	Weaknesses	Opportunities	Threats
<p>Testing & contact tracing-strategy</p>	<p><u>Overall testing capacity</u> is available (laboratory network, consumables) of up to 100.000 PCR/day (max)</p> <p><u>Legal framework</u>: testing and contact tracing agreements (IMC)</p>	<p><u>Sampling capacity</u>: will be insufficient for new big wave, as test centers will close progressively and first line health care workers might not have sufficient capacity and will have other priorities. Although upscaling of the sampling capacity is being planned, it might take a while before it will be fully implemented</p> <p><u>HR</u>: staff contracts in laboratories, test centres, contact tracing,...are ending due to scaling down plans. Plans for scaling up again are underway (federated entities)</p>	<p>RAT and selftest have acquired a place for additional testing capacity (e.g. HRC)</p> <p>Plan for different surveillance methods (sentinel and syndromic surveillance in first and second line health care services, waste water,...) is being made (see below)</p> <p>Novel multiplex PCRs for different respiratory infections available, could be of additional value in sentinel surveillance and vulnerable populations (e.g. IPC and therapeutic consequences)</p>	<p>What-if number of PCR tests/day > 100,000/day)? (especially in the case if test performance of RAT is not sufficient for a new VOC)?</p> <p>Risk of critical delay in scaling up testing and contact tracing capacity if plans are not ready in time, or if not enough staff can be found</p> <p>Overall cost of testing strategy vs. non-reimbursement of testing for other respiratory infections (e.g. multiplex PCR in dedicated settings)</p> <p>Budget and plan for long term surveillance needs to be finalized</p> <p>Increasing test fatigue (incl self tests), in ILI patients, exposed persons and HCW. When the epidemic takes a turn for the worse, revamped communication on the usefulness of testing at that stage, is essential but likely more difficult than before (hybrid immunity built up may create new unwillingness to be tested)</p>

SWOT	Strenghts	Weaknesses	Opportunities	Threats
Ventilation & indoor quality	<p>Belgium acknowledged aerogenic transmission as an important route, was a pioneer in stressing the importance of ventilation/air purification/indoor air quality improvement as a major NPI to be invested in</p> <p>Track towards legislative framework is ongoing (on federal agenda)</p> <p>A dedicated indoor air quality unit at FOD Public Health has been activated to steer the work and concentrate expertise⁴</p> <p>Indoor air quality has been included in the barometer as a 'bonus criterion': those who invest now in indoor air quality, may be able to remain longer fully operational in case of a new large wave</p>	<p>Obtaining improved indoor air quality in short term is mostly through frequent opening of windows (which is in contradiction with energy-saving measures, see 'Threats')</p> <p>Indoor air quality requires a considerable investment cost, especially in existing buildings, and actually with significant 'voluntarism' (to be compared with transition into renewable energy: carrot and sticks required)</p> <p>Remaining lack of awareness and knowledge by many policy makers and general public on role of indoor air quality as a defense line for COVID-19</p> <p>Remaining scientific knowledge gaps, for which progressive insights will be needed, e.g., on air purification methods, role of humidity, thresholds, relative impact of ventilation versus different other NPIs, on role of relamay be confusing</p> <p>Indoor air quality is typically a long term prevention. Investments suffer from self-defeating prophecy ('prevention paradox')</p>	<p>Interest/concern for indoor air quality has grown among different sectors (e.g. horeca, cinemas)</p> <p>Translating insights into broader long-term public health objectives (infectious and non-infectious e.g. all indoor air pollutants)</p> <p>Communication: there is still room for improvement of in depth information and communication, including combination of interventions to reduce indoor aerosols (mask wearing, capacity reduction,...)</p> <p>New constructions: should comply immediately with indoor air quality requirements</p> <p>Workplace: in the case of spaces covered by CODEX, there is the possibility of enforcement with broad support from the employees and services and committees for prevention and protection at work</p> <p>Interest for 'indoor air quality vignette' e.g. in horeca, cultural venues, administrative buildings, workplace, etc,...</p> <p>Bottom-up initiative from movie theaters as inspirator</p>	<p>Awareness of the important role of ventilation is still too low among general public, in schools, care settings etc. In case of a new wave, this means additional preventive measures (e.g. masks) may need to be used again</p> <p>Energy prices rising considerably</p> <p>Legislative process is lengthy and may be put 'on hold'</p> <p>Actual other crises, attention quickly distracts – investments may be on the back burner, investments in preparedness may decrease</p>

⁴ <https://www.health.belgium.be/nl/ventilatie-zuiveringssystemen-strijd-tegen-covid-19>

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Vaccination	<p>Planning with 5 scenarios made⁵, adaptable to epidemiological evolution. Planning has been made to allow for fast response time when a new variant appears or as a function of the overall epidemiological evolution with waning immunity (including the planning for vulnerable population)</p> <p>Sufficient capacity (vaccines, space, volunteers,...) is available to apply the 4th dose to the target population</p> <p>Involvement of first line health care workers, Youth and Occupational Physicians in vaccination planning (cf. GEMS report n° 34⁶)</p>	<p>Intrinsic motivation for booster-vaccination has decreased (changing epidemiology and characteristics of omicron), unclear how mindset might be in 6 months or earlier when needed, clear communication on the necessity and added value of a second booster may be needed</p> <p>Limited success of primo-vaccination with non-mRNA vaccines in hesitant population</p> <p>'Ideal case'-scenario (A) includes late start of booster campaign, might be too late to stop/slow down autumn wave (cfr 4th wave)</p> <p>Involvement of first line health care workers may be logistically complicated (cf. experience in France); cold chain for COVID19 vaccines is still challenging for use of vaccines in universal programs via the first line.</p>	<p>Actual epidemiological evolution in 'zero-COVID-countries' highlights the importance of built-up immunity through high coverage with highly effective vaccines (e.g., New Zealand, Singapore vs. China, Hongkong) in the absence of natural immunity.</p> <p>Continue to illustrate and communicate the added value of primary and booster vaccination</p> <p>Tradition of annual influenza vaccine could help include target population for boosters and for primo-vaccination</p> <p>Moderna is producing a new combined vaccine (influenza + covid) available (although this might as well jeopardize the vaccination schedule as it might be either too early for influenza or too late for covid)</p>	<p>Waning motivation for repeated booster vaccination, clear communication on relevance and importance of booster vis à vis natural immunity is needed</p> <p>What-if scenario with VOC with major immune-evasion, requiring major new vaccination program for the entire population on short term</p> <p>Current procedure for decision making might be too slow in case of urgency (from NITAG, to Task Force, to IMC, ...to implementation in the respective regions of the country)</p> <p>Concern on influx of refugees with low vaccination coverage: intensive action for primo-vaccination in this group urgently needed</p> <p>Concept of CST politically and socially sensitive</p>

⁵ https://fdn01.fed.be/documents/9b0406ad2c1745b0a6e28bd9afd6403e/TaskForce_Vaccination%20strategy%20for%20the%20future_070322_NL.pdf

⁶ https://fdn01.fed.be/documents/ad58370d23b7c646e0fc25afbc96fe4d/GEMS_034_v20220131docx.docx.pdf

SWOT	Strengths	Weaknesses	Opportunities	Threats
Hospital capacity	<p>HTSC is a multidisciplinary committee with horizontal structure, significant expertise and good working relationship built up over 2 years⁷</p> <p>The hospital sector has shown to be very dedicated to patient care, creative and flexible</p>	<p>Lack of hierarchy in HTSC is also a weakness, in case of conflicting situations (regulation, dispatching, transfers,...)</p> <p>Adaptive planning within hospitals remains difficult, especially in transition periods (closing down pandemic structures while maximally resuming normal activities)</p> <p>Hospital networks still have steps to take towards further collaboration</p> <p>Actual financing structure does not stimulate hospitals to concentrate COVID-19 care within networks</p> <p>Infectious diseases specialists have been recognized in 2020, but additional nomenclature for their specific activities is lacking (in particular hospital wide activities). Also hospital infection prevention and control specialists are largely understaffed</p>	<p>Recent recognition of clinical infectiology, hospital hygiene and medical microbiology</p>	<p>HTSC-core team understaffed and overloaded with other work (e.g., Ukraine)-</p> <p>Workforce within hospitals/health care sector exhausted after 2 years, this also slows down large scale training programs. e.g., to upgrade knowledge on ICU-care (vicious circle)</p> <p>Important dropout in healthcare workers in periods of high circulation of the virus, but also increasing risk of long term sickness due to mental health problems</p> <p>Delay in other healthcare services due to Covid occupancy</p>

⁷ <https://kce.fgov.be/nl/hoer-kunnen-we-de-plotse-toestroom-van-ziekenhuispati%C3%ABnten-nog-beter-beheren-het-kce-trekt-lessen-uit>

SWOT	Strengths	Weaknesses	Opportunities	Threats
<p>Epidemic intelligence and surveillance</p>	<p>Several surveillance systems are in place for COVID-19 (laboratory surveillance, GP surveillance through barometer and sentinel network, hospital surveillance, waste water) and data collection can continue at the national level outside the Federal Crisis phase</p> <p>GEMS produced several national data sets to inform decisions, e.g. modelling, RSZ-data, MAG-reports. These data-collections should be followed-up with the support of the agencies involved</p>	<p>Long term surveillance (sentinel surveillance at different levels, wastewater surveillance, cohort studies,...) have been planned/proposed but (long term) financing unsure</p> <p>In RAG-management level 1 and 2, surveillance of COVID-19 infections relies to a large extent on laboratory data (number of confirmed cases, positivity rate,...), but this is dependent on the willingness of people to get tested</p> <p>During the COVID-crisis, the sentinel GP network lost participants (high workload for the GPs) and therefore also representativeness. It will take several months to build up the network again</p>	<p>Increased (semi) automated data extraction from laboratories and GPs (for the GP barometer) will allow to have also more real-time data collection for a larger number of data providers, which will allow faster signal detections (for future crises)</p> <p>Collaborations between Sciensano and universities to be further strengthened in the future and in line with what many other European countries have done or are planning to do (e.g., creating solid long term consortia)</p> <p>The necessary data to be collected at this stage need to be identified - this requires a retrospective look at the pandemic and the different data streams used / not to forget monitoring behaviour/contacts/perception when cases increase again</p>	<p>(Long term) financing of COVID-19 surveillance (and beyond) still unsure, including financing for actual data collections e.g. RSZ-data, MAG-reports,...</p> <p>If less testing, there are no data available at municipality level, to detect early increase of virus circulation</p>

SWOT	Strengths	Weaknesses	Opportunities	Threats
<p>Communication (including fighting desinformation)</p>	<p>Experience of repeated press conferences and communication (e.g. IMC, TF Vaccination,...) and information sessions by dedicated spokespersons</p>	<p>The website info-coronavirus.be needs to be restructured urgently, it is very difficult for overview and finding answers to very concrete (citizen) questions</p> <p>Communication by different channels and actors has been too often fragmented or contradictory</p> <p>The scientific and even numerical literacy gap in Belgian society was not well taken into account. Alternative, non numerical channels, need to be considered. Communication has been non- inclusive nor accessible enough to many sub-groups of the Belgian population (e.g., people with sensory barriers, or lower levels of health literacy). The diversity of needs and socioeconomic and cultural realities is not well enough taken into consideration</p> <p>Unmet need for more intensive pro-active debunking of fake news and dissemination of easy-to-find messages on actual measures and epidemiological forecast</p>	<p>The introduction of the corona barometer serves as an opportunity to further strengthen and streamline (visual) communication</p>	<p>End of federal phase may lead to fragmentation of communication efforts/groups</p> <p>The inconsistent use of the corona barometer as guide for future decisions may create confusion and result in fragmented and inconsistent communication by different stakeholders</p> <p>The fight against disinformation should be continued. Disinformation is a potential source of distrust and disruption</p>

SWOT	Strengths	Weaknesses	Opportunities	Threats
<p>Social services</p>	<p>The compilation of the different social implications of the covid crisis is useful material for anticipating blind spots for future crises</p> <p>Broad support of the affected sectors</p>	<p>Social matters are a federal and regional responsibility. In social matters (as in mental health), the decision-making process and planning on the basis of GEMS recommendations remains unclear</p> <p>Weak real-time monitoring of the socio-economic impact of the crisis on households, as well as too little data on the social, economic and ethnic profiles of the hospitalized and mortality due of COVID-19. This lack of data prevents a detailed analysis of the problems and tailor-made interventions and support (in certain sectors of work / certain neighborhoods / with certain populations)</p>	<p>The crisis has revealed the urgent need to put in place robust data collection systems on social, welfare and health inequality issues</p> <p>Taking into account the social difficulties linked to the management of the crisis has led to a reinforcement of the first social line through the implementation of projects aimed at combating covid but above all the causes of non-vaccination:</p> <ul style="list-style-type: none"> - setting up a mobile team (RAQ - CHW) to reach out to the public most distant from our institutions, to fight against the digital gap and the language barrier - neighborhood community projects (e.g. Bri-Co) to address the priorities of those most affected by the social consequences of COVID-19 - close cooperation with the municipalities to combine the strengths of public institutions and social services networks <p>These projects are an important basis for future crises as they create the link between vulnerable people, public institutions and the care (and vaccination) systems</p>	<p>As COVID measures have disproportionately affected the already most disadvantaged people while creating new socioeconomic vulnerabilities, the social health inequalities have risen, revealing an increased need for measures based on the principle of proportionate universalism, also as a means to prevent further deterioration of mental health</p>

SWOT	Strenghts	Weaknesses	Opportunities	Threats
Mental wellbeing and health	Creation of MAG-reports is a unique compilation of available data relative to mental health ⁸	<p>In spite of frequently reported very high needs in mental wellbeing and mental health, the decision making process and further mental health planning based on MAG-, GEMS and other recommendations remains unclear</p> <p>MAG reports showed repeatedly that adolescents and people with vulnerabilities were at increased risk of developing mental health issues. Also mental health and social disparities increased during the crisis. This needs to be addressed, to prevent long-term negative consequences</p> <p>Limited sources for MAG-reports as long term studies are fading out; there is a need for long-term solid data collection, e.g., are longitudinal studies being set up, to look at long term mental health consequences of NPIs?</p>	<p>Mental health should be an integral and more explicit part of public health. Optimal organization of mental health care according to the model of stepped care. Also an exercise on preparedness on mental health should be made for future waves or new pandemics</p> <p>Permanent maintenance of regular 'state of the nation' MAG reports based on dedicated research would be an asset to inform balanced policy making, also when we reach the post- pandemic stage in the future</p> <p>Ideal momentum to invest further in preventive means to avoid emergence of mental health problems and strengthen people's resilience and mental health. Moodspace (https://moodspace.be/nl), a platform on mental health for students in higher education serves as an excellent example as it contains psycho-educational material, testimonies, e-health interventions, podcasts etc.</p>	<p>Insufficient base funding for research into this area</p> <p>Additional support for health care workers to avoid drop out in the sector</p> <p>Several national and international 'lessons learned' and reflection sessions revealed the need for more and pro-active attention to mental and social health. This requires continued and upgraded surveillance, along with strengthening of prevention and health promotion services (outreach)</p>

⁸ <https://www.info-coronavirus.be/nl/celeval/>

7. Concluding remarks and recommendations

a. Short term

- i. The epidemiological situation is deteriorating again in Belgium and many other countries due to the relaxation of measures, the further spread of the BA.2-variant in combination with influenza and other respiratory pathogens. This resurgence of COVID-19 and influenza is now spreading to older age groups, and causes high levels of absenteeism among health care workers at all levels of the health care sector. Taken together, this new wave has a significant impact on the health care system (albeit less pronounced at ICU-level).
- ii. Although this resurgence of cases was foreseeable, the actual situation warrants close monitoring, clear communication on the remaining risks for the population and calls for renewed promotion of preventive measures (e.g. awareness of the situation, testing when ill, respecting isolation, importance of ventilation, mask wearing when in large groups in ill-ventilated spaces, especially in presence of medically vulnerable persons, importance of booster immunization, consideration of additional boosters, ...)
- iii. As for the next OCC, we confirm the advice of the RAG to reinstall code orange ('RAG level 2') if the actual epidemiological situation remains the current one.

b. Mid-long term

- i. The visibility and coherence in pandemic preparedness in Belgium is still low, as highlighted in the Global Health Security Index and as noted in the International benchmark exercise. A dedicated and funded National Pandemic Preparedness structure is needed.
- ii. The last two years have taught us about the need to be able to scale-up significantly enough and fast enough the various defense lines. Significant advances have been made in all of these lines (i.e. testing, contact tracing, vaccination, ventilation, health care capacity, epidemic intelligence, mental wellbeing and health, communication) but important threats, and working points remain, including:
 1. testing and contact tracing: (re)scaling up plans for the human resources needed for testing and contact tracing are complex but vital
 2. health care capacity: particular attention should be given to human resources in the health care system, which are actually facing both long term and short term absenteeism and for whom a genuine mid-long master plan is needed. In particular advanced training of potential ICU personnel (getting ex-ante vaccination agreements from current and potential ICU personnel would also help minimize absenteeism). Improved ex-ante inter-hospital ICU capacity sharing mechanisms would help too, in order to avoid crisis-time frictions.
 3. ventilation: important pioneering steps have been taken, but urgently further steps in awareness, communication, legislation, financial support allowing implementation are required. An exhaustive cartography of the various geographical settings should be established in order to determine 'priority targets'

where the introduction of ventilation systems is particularly cost-effective, with an associated ambitious implementation timetable.

4. vaccination planning: population motivation and timely implementation remain the Achilles heel, as well as further follow up of symptomatic disease in vaccinated as well as un-vaccinated people
5. epidemic intelligence and surveillance requires a solid long term consortium, transparent plan and sufficient funding
6. mental wellbeing and health requires investments in surveillance and integrated action plan to improve the population's resilience during long standing crises
7. communication requires maintained coordination and revision of the communication content and channels (website, science literacy,...)

8. Annexes (separate documents)

Annex 1. RSZ-report dd. 25/3/2022, version 30

Annex 2. MAG-report dd. 23/3/2022