



FIELDLAB

EVENEMENTEN

RESEARCH REPORT

CLUBS & NIGHTLIFE

Table of Contents

Management summary.....	3
Clubs & Nightlife.....	5
Desire for Events	5
Safety Measures.....	5
Building Blocks	6
Number of visitors and crew.....	6
Triage, tracking and tracing.....	6
Visitor Dynamics.....	8
Air quality	11
Risico analysis model.....	13
Impact of building blocks on risk	13
Recommendations	16
Matrix of measures	17

Management summary

Fieldlab Events has as its main goal to bring the event industry back to the old normal. The Fieldlab is a joint initiative from the events sector, united in the EventPlatform and the Alliance of Event Builders and the Government. The program is supported by the ministries of VWS, OCW, EZK and JenV.

A research program was developed to research the possibilities of organizing safe events, with the release of the 1.5-meter measure, and to collect data for this purpose.

In response to the results and approach of this program, Fieldlab Events has been requested to use its research methods for research into the risks of visiting a club.

The starting point was to map out the contacts and associated risks of contamination for this specific setting, taking air quality and visitor dynamics into account. In this document we present the data collected during the pilot.

We have made a risk analysis of visiting a club by means of the previously tested risk model that was developed for Fieldlab Events.

In collaboration with our research partners, Radboudumc, BUAS, TU Delft and supported by parties such as BBA Binnenmilieu, Close and DCM, we were able to collect relevant data and process this in the risk model.

Based on our data and the risk model, we draw the following conclusions for clubs and nightlife.

Clubs can receive the public, with the right set of measures, take place safely, with a low prevalence of SARS-CoV-2 or COVID-19. The generic measures, including the 1.5-meter distance, can be substituted within the site by access testing, capacity adjustment based on ventilation capacity and other recommended measures.

The risk model of the TU Delft shows that the risk per hour, under the Fieldlab safety measures, is in the range of the risk in social situations with home visits (without a test).

The proposal is for clubs to be able to receive public again, at the risk levels Vigilant, Worrisome and Severe, provided that the conditions of the following set of measures are met:

- Rapid test at a decentralized location, close to home
- Rapid test up to 24 hours after the end of the visit
- Using an app and ID check or other access control for a negative test result
- Occupancy rate depending on the ventilation level:
 - In the risk level Worrisome, visits based on a ventilation capacity of 24 m³ per hour per person are the basis
 - In the risk level Vigilant, visits based on a ventilation capacity of 24 m³ per hour per person are the basis
- For the risk level Very Severe, we would recommend to not allow visitors
- Active communication with visitors, for sharing relevant information and pointing out compliance with the measures

Based on the collected data and the risk model, we show that with these measures, supplemented by the recommendations at the end of this document, visits to clubs do not pose an additional risk of increasing the spread of the virus or hospitalizations. These measures are based on the building blocks as applied and described in the research approach **Pilots for 'Low-Contact Events'** of Fieldlab Events.

We request the ministries involved to treat this document with the results and the proposal and to submit it to the OMT for a request for advice, or to have it extensively evaluated and to go through the subsequent procedures, which also include social considerations and the consequences of implementation on a large scale.

We advise club owners to consider that the measures proposed to allow visitors during a pandemic are very drastic and require a lot of discipline. To keep the increased risk acceptable, strict compliance with the measures is necessary.

Steering Committee and Program Team

Fieldlab Events

Clubs & Nightlife

This document relates to research carried out at the request of the Municipality of Amsterdam, based on the research approach used for events as described in the document **Pilots for 'Low-Contact Events'**.

A pilot event was set up for the purpose of researching the possibilities of allowing visitors in Clubs in a safe, responsible, but also economically profitable manner:

- May 29 – Club Night in Shelter in Amsterdam

At the time of the pilots, the risk level was 'very severe' with a prevalence above 250 per 100,000.

Desire for Events

As the survey conducted in September 2020 showed, the desire for entertainment is high¹. 97.5% of visitors want to go to an entertainment event again. Eight out of ten indicated that they would like to go to an indoor concert or festival, a type IV event, again.

With more than 25,000 requests for the 500 tickets available for this pilot, it turned out that this is no different for clubs.

The visitors to the events have rated the experience in Shelter with an average of **9.3** and releasing the 1.5-meter measure during the visit does not seem to be a problem, as it rated with a **9.6**. So, people quickly feel safe again within the 1.5 meters.

Safety Measures

To make these pilots possible a number of precautionary and safety measures were used. These consist of:

- Antigen rapid test in advance, maximum 24 hours prior to the end of the event
- Triage questions
- Limitation of group size based on ventilation standard (670 people maximum, 2/3 of the maximum capacity of Shelter)
- Event logistics (good inflow and outflow and separation in arrival times)
- Antigen post-test on day 5 after visiting the event
- Refrain from visiting vulnerable groups up until 10 days after the event, or until receiving a negative test result after the test on day 5
- Exclusion of vulnerable groups
- Request to install CoronaMelder app
- Mandatory installation of CoronaCheck app

Because Testing for Access was in a transition to new providers, it is not possible to provide a conclusive picture of the number of positive pre-tests. 4 positive tests have been reported via the GGD. Contact tracing has shown that 2 of these infections may have occurred at the event.

A test has been carried out on location with a new testing technology. There were no positive cases in these on-site rapid tests.

¹ See Appendix 1 – Survey results

Building Blocks

As shown in the research plan drawn up for these pilots, the following building blocks for events were researched:

1. Behavior
2. Triage, Tracking and Tracing
3. Visitor dynamics
4. Air quality
5. Personal protection
6. Cleaning and disinfection of surfaces and materials
7. Vulnerable groups
8. Rapid tests

The research in Shelter investigated what data can be collected that can contribute to the risk model. The focus of the research is on the building blocks:

2. Triage, Tracking and Tracing
3. Visitor dynamics
4. Air quality

Number of visitors and crew

Based on the BBA indoor environment ventilation standard of 24m³ per person per hour and an inspection of the Shelter ventilation system, it determined that a maximum of 670 people could be admitted.

On the advice of GGD Amsterdam, it was decided to admit 500 visitors (50% of the regular capacity of 1,000 visitors). In addition, 60 employees and guests were planned.

Bubbles are not used in this pilot, due to the impossibility of maintaining them in the club. However, the visitors arrived in different time slots.

Triage, tracking and tracing

For the triage, tracking and tracing building block, it was researched whether it is possible to prevent people from coming to the event through good triage and how people can be found after a positive test result after the event.

Research questions

- Can we ensure that every visitor registers individually for the purpose contact tracing afterwards?
- How can a health check based on RIVM triage questions take place most efficiently?
- Do the working arrangements with the GGD also work for regular entertainment venues?
- Which values are important to test infectiousness on site?
- Can we encourage visitors to install the Corona Melder app?

We address these in the recommendations.

Result

Shelter, by properly organizing ticket sales and registration, ensured that we had contact details for all individual persons. The basic principle is that one person can purchase several cards, but then personalize the cards on an individual basis for communication purposes. Adding an app (in the case of the pilots the Close app) with which communication is set up on an individual basis has helped with this. As seen before at events, 99% of visitors installed this app.

- **99.0%** of all visitors install the communication app
- **100%** of the visitors are registered individually (including staff)

A health check based on the triage questions took place via the communication app four hours prior to the event. Due to privacy legislation, the data of the answers is not stored.

Recommendation

Triage

1. Entrance testing prior to visiting the clubs should be a requirement.
2. The advice is to include a rapid test close to home into the customer journey at the risk levels Vigilant and Worrisome, so that there is also a protective effect on the travel movements.
3. This test should be a maximum of 24 hours old when the club closes. After all, there is a socially active target group.
4. In the customer journey, the triage questions work as a reminder about four hours after the event, to make a well-informed choice whether to go out. We recommend this as part of the communication with the visitor.

Tracking

5. It is not allowed outside the scope of a research to track visitors to be able to perform a very detailed BCO in the event of contamination². We therefore recommend good agreements with local and national GGD for BCO.

Tracing

6. A call to download the Coronamelder app leads to an increase from **57%** to **66%** of the visitors who have downloaded this app³. We would recommend this in the communication towards visitors, to simplify BCO.
7. Offer from club owners to local GGD to email visitors as support for BCO. The basis for this protocol has already been developed by GGD and Fieldlab Events in collaboration with RIVM and GGD Amsterdam. The organizers of the events must have a good facility to be able to contact visitors at the request of the GGD for BCO.

² Research privacy Bureau Brandeis at the request of Fieldlab Events

³ Research data Close communications app

Visitor Dynamics

For the visitor dynamics building block, it was researched how many contact moments of which duration and at which distance are created when visiting a club.

Onderzoeksvragen

- How does the visitor move during the evening?
 - How much contact with others?
 - Are there peak moments and if so, where are they?
- What are the contact moments and what is the contact duration?
- What is the dynamic of a contact?

The study is based on six contact categories.

Contact categories	<1,5 m	1,5 – 10 m
<10 sec	N/A	N/A
10 sec – 1 min	1	N/A
1-5 min	2	N/A
5-10 min	3	N/A
10-15 min	4	N/A
>15 min	5	6

Categories 1 to 5 are always shown in the graphs. Category 6 is included in the risk model.

Time slots have been used to limit the number of contacts during inflow and outflow⁴:

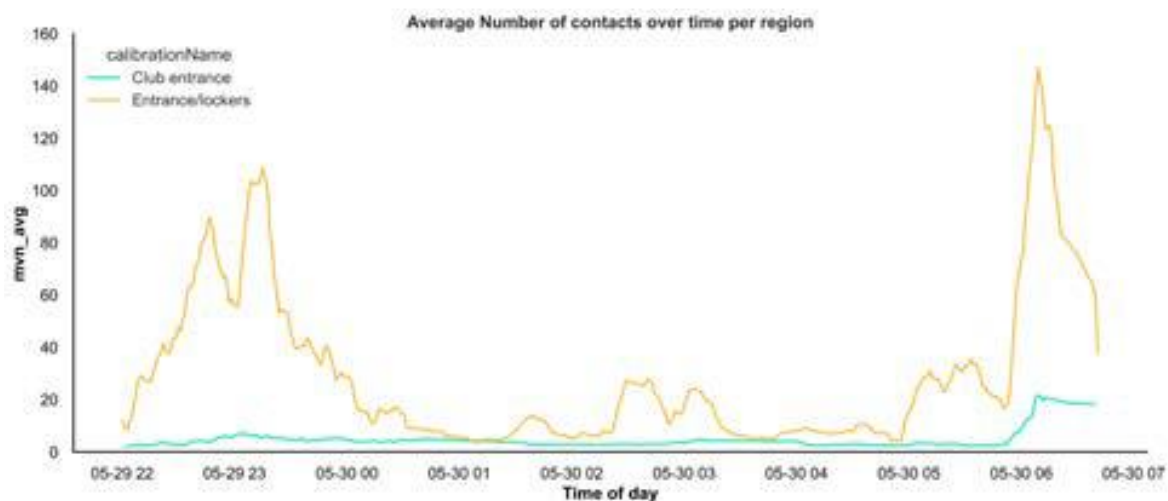
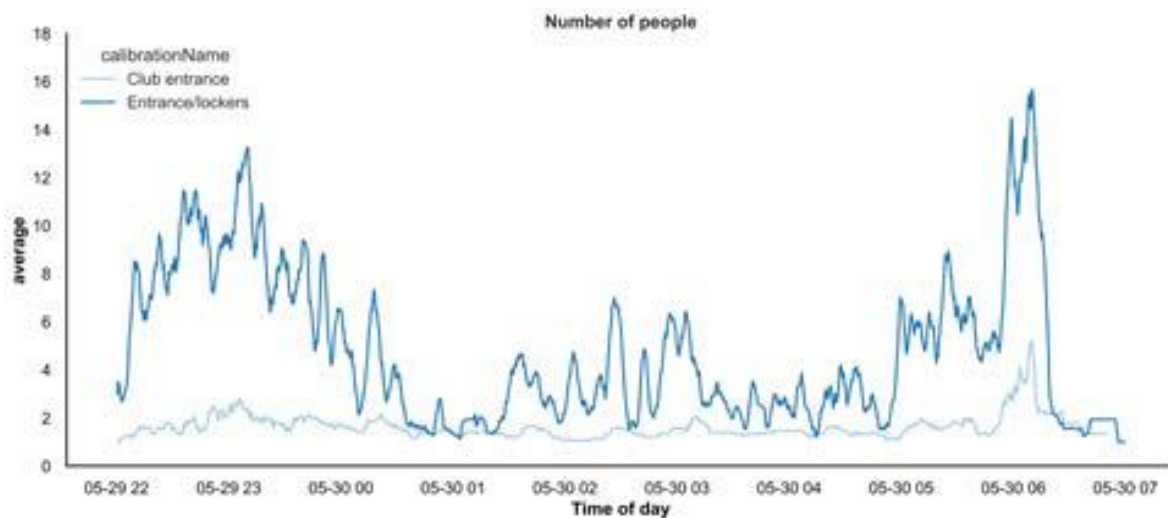
Time slot	Visitors
22.00h - 22.20h	100
22.20h - 22.40h	100
22.40h - 23.00h	100
23.00h - 23.20h	100
23.20h - 23.40h	100

⁴ See report BUAS

Result

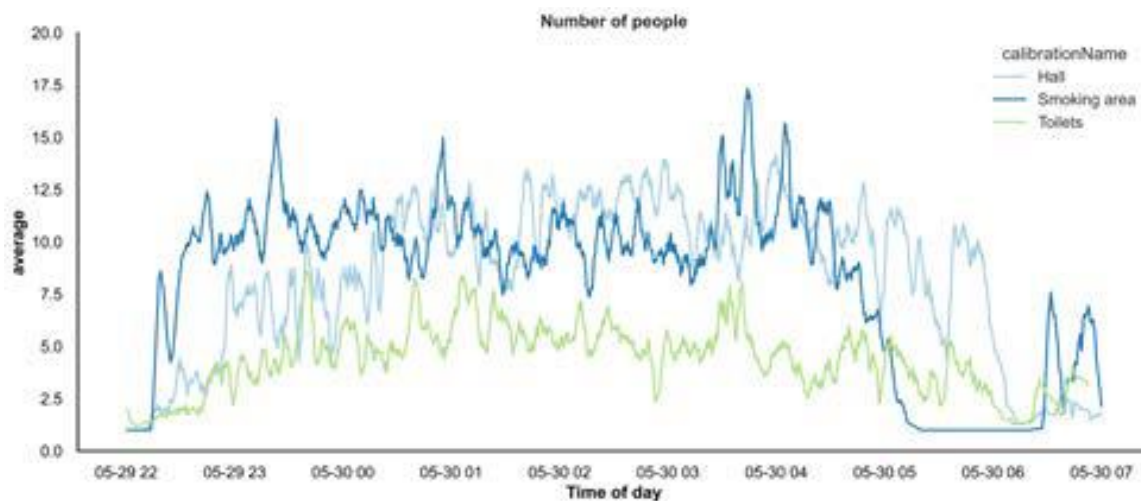
Analysis inflow and outflow

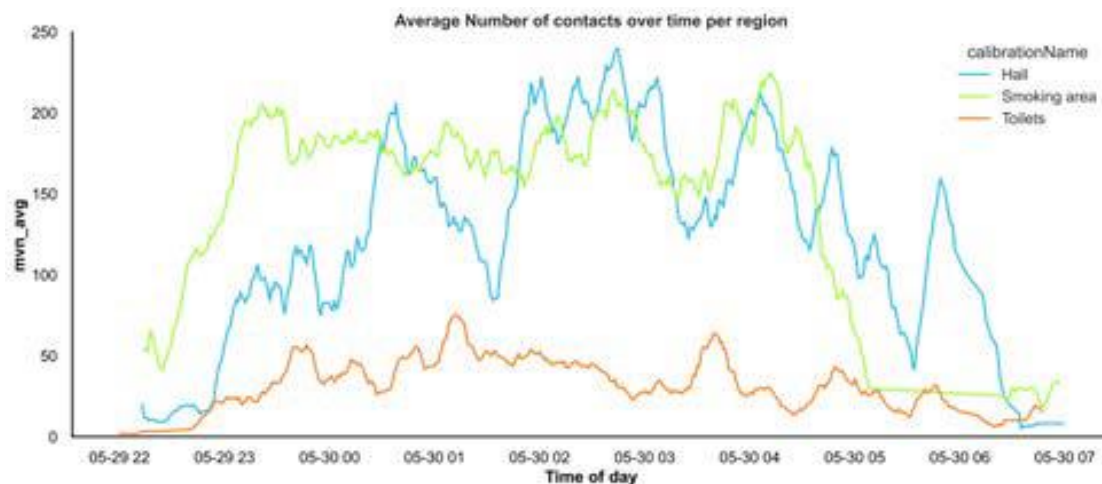
The number of contacts gradually increases throughout the evening/night, with most contacts taking place at the lockers.



Analysis dynamic areas

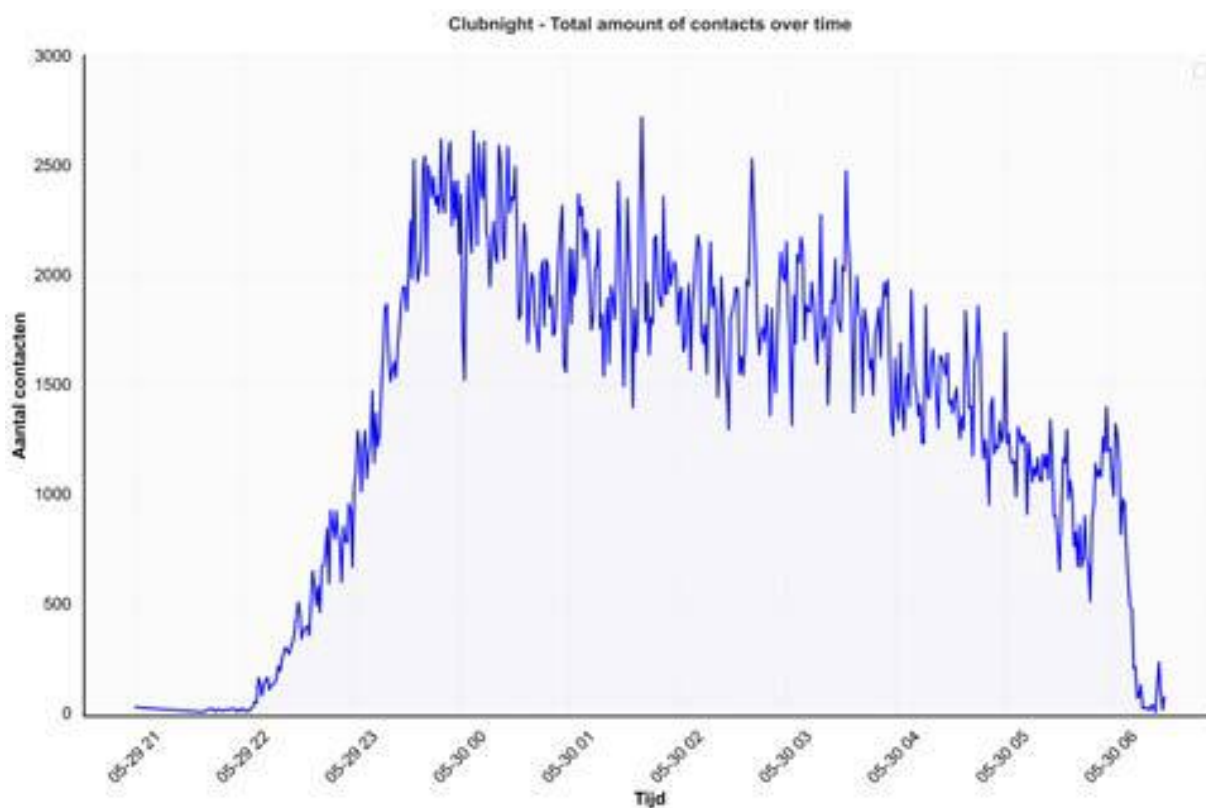
In the other areas, the total number of contacts is equally distributed over the evening and higher than for the in- and outflow.





Total contacts

The total number of contacts is also evenly distributed over the evening. It is clear to see that during the evening people left the club and the contacts decreased as a result. The number of category 5 risk contacts was on average 53 per person, with an occupation of 50% of the regular capacity. This is comparable to bubble 2 in Ziggo Dome at the Dance Event, which had an occupancy of 63%.



Recommendation

8. Based on the results, we recommend making a distinction between risk levels.
 - a. In the risk level Very Severe and Severe we would recommend not to allow public in the clubs due to the high number of contacts.
 - b. In the risk level Worrisome and Vigilant, visitors are possible, subject to conditions.
9. With a good inflow and outflow, no further measures are necessary in the club itself, because that makes little difference in the number of risky contact moments.

Air quality

Air quality is crucial for indoor locations. For this we refer to the ventilation guidelines as drawn up by BBA Indoor Environment. The Delta variant has already been taken into account in these guidelines.

The research by BBA is based on:

- The experiences gained from the Fieldlab pilots. For example, Shelter has shown that the assumption for the activity level of dancing visitors was higher than in reality.
- The introduction of the delta variant of the virus.
- Adjustment of government policy.
- Results of research by BBA on a recent outbreak in a night club.

As can be read in the ventilation guideline and the accompanying background document, BBA states:

In outline: in the new guideline, 24 m³/hour per person is still used as a guideline value. The requirements for the minimum amount of ventilation have been adjusted. For example, as a result of the recent outbreak, we have added a separate requirement for the situation in which those present often sing along. This type of event now requires at least 25,000m³/hour of ventilation (and thereafter 24 m³/hour per additional person over 1,100). In practical terms, the new requirements do not change for large event spaces (1,100 visitors or more) regardless of the type of event. For small event spaces, the requirements have also remained more or less the same when it comes to events where there is not continuous singing: trade fairs, conferences, etc. The new ventilation requirement for events where there is a lot of singing, such as a concert, are so high that it will be difficult for really small locations to meet the requirements.

A minimum of 24 m³/hour (6.5 l/s)³ must be ventilated per person, taking into account the intended maximum occupancy rate (maximum number of people present). If it concerns a relatively small room (< 1,100 persons), the following additional requirement applies: the total amount of fresh⁴ air supply in the room is:

- At least 1,500m³/hour at a passive (type I) event where visitors sit quietly or talk while standing.
- A minimum of 7,500m³/hour at an active (type II/type IV) event where visitors stand or dance and sing along for a maximum of 25% of the time. This includes Shelter.
- A minimum of 25,000m³/hour at an active (type II/type IV) event where visitors stand or dance and sing along almost 100% of the time.

This standard is now specific for Corona.

Results

Finally, with regard to the overall conclusion: when we look back at the Fieldlab events, there are two measures that have been applied at all events: 100% testing beforehand (as close as possible to home prior to traveling) and ventilation. With these measures (testing & ventilation) a sufficiently safe situation can be achieved because there have been no large-scale outbreaks, even though it is likely that infected persons have been inside during some of the events. Until now we were not sure whether this positive result was the result of a low number of infected people indoors (success of testing) and that only few people became infected per infected person or that ventilation played a role in this.

For the time being, the research in the nightclub indicates that ventilation is really an essential part of the prevention package and that testing alone is insufficient. In other words, if we had tested but not ventilated at the Field Lab events, it is very likely that we would also have had some large-scale outbreaks.

For a safe club night, two measures are necessary: testing 100% of the visitors and complying with the Ventilation Directive in terms of ventilation.

Recommendation

To ensure that there is actually sufficient ventilation during an event, the following steps are recommended⁵:

Om te waarborgen dat er tijdens een evenement daadwerkelijk voldoende ventilatie is, worden de volgende stappen aangeraden:

10. Before a club night, check whether the room has the correct ventilation facilities. For example, are there facilities for air supply and air extraction and is there sufficient flushing?
11. Check with measurements prior to a club evening whether the ventilation capacity in reality meets the requirements of Flowchart 1 from chapter 2.
12. On the club night itself, check whether the ventilation system is in the correct setting.
13. During the club night, check with CO2 measurements whether there is sufficient ventilation according to the method from chapter 3.

⁵ See Appendix report BBA Indoor Environment for references

Risico analysis model

Ultimately, the research of the Fieldlab Events pilots revolves around answering the main question: "How do we limit the residual risk that arises from events?"

Impact of building blocks on risk

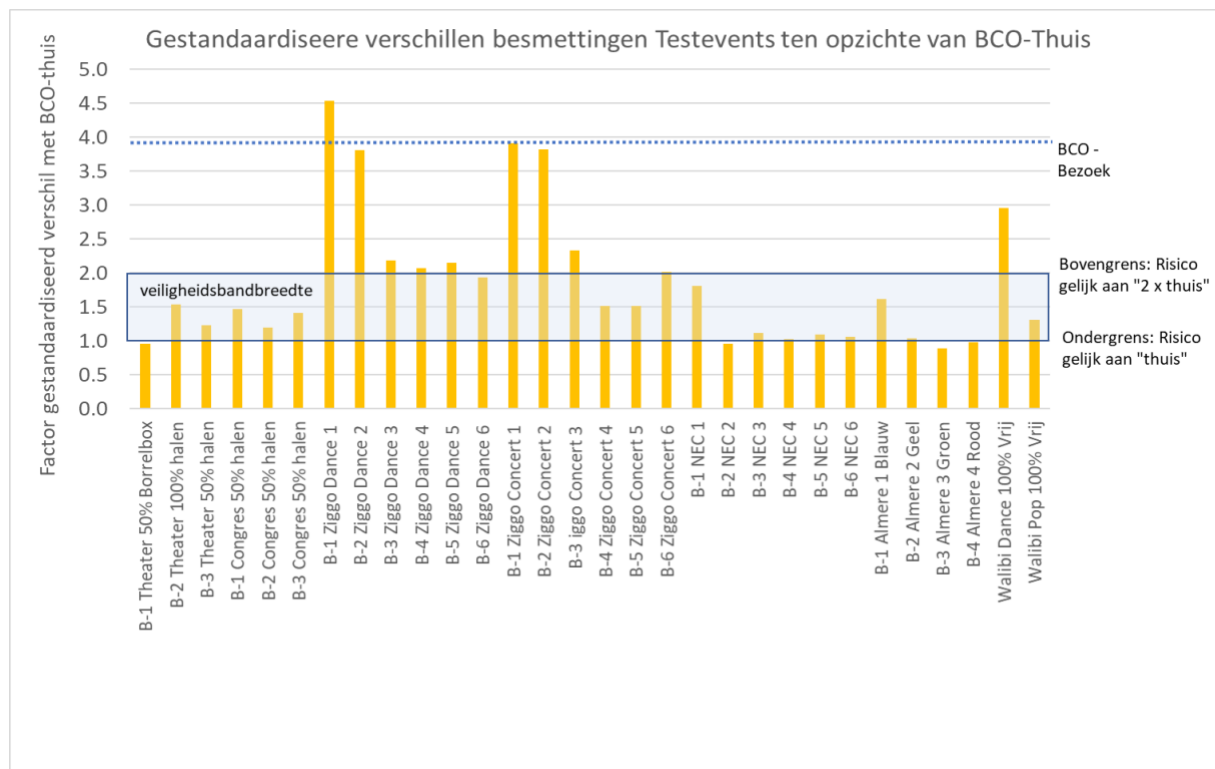
TU Delft has developed a risk analysis model⁶ for this, which answers this question based on the building blocks. To this end, the impact of the building blocks on infection risk and hospitalization risk per hour was initially compared with the BCO setting 'at home'.

Result

The risk model shows what impact the building blocks and measures taken during the events have on the chance of infection and hospitalization per hour. Where these probabilities are significantly higher in an event without measures, by a factor of 32 to 72 compared to the hypothesis, they improve significantly with measures.

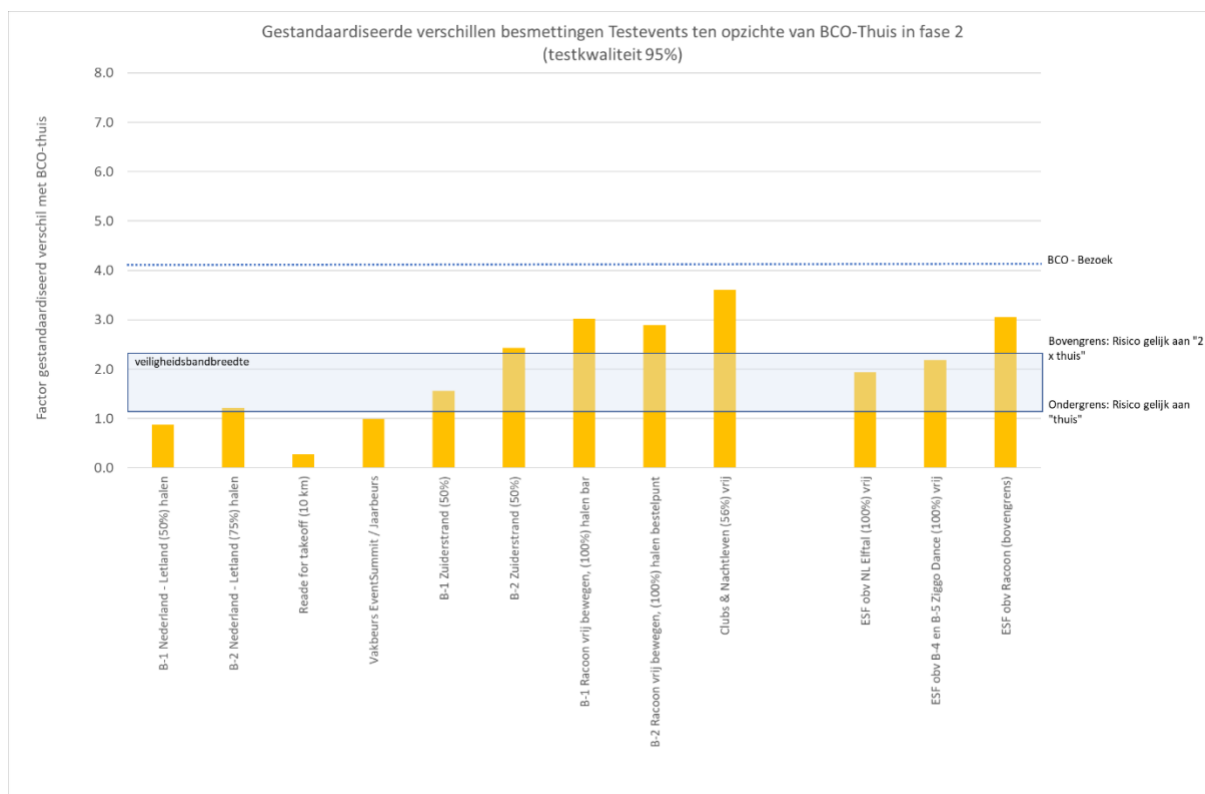
The greatest impact is achieved by a validated rapid test, with the additional impact of intelligent design and logistics of the event, allowing good inflow and outflow, and adequate ventilation or outside air.

Risk analysis of the different bubbles in the pilot events Phase 1



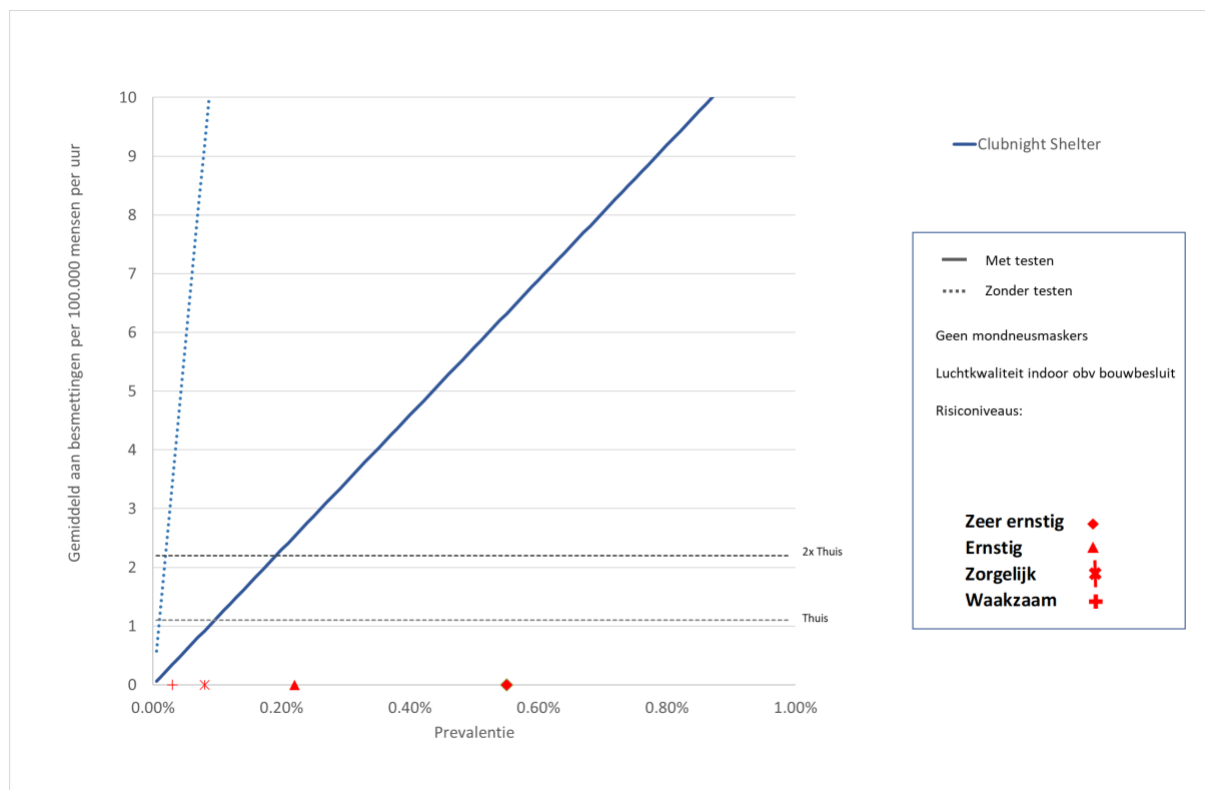
⁶ Risk model TU Delft

Risk analysis of the different bubbles in the pilot events Phase 2 + Club and nightlife



It is striking that Club & Nightlife with an occupancy of 56% is almost comparable to the risk level associated with the 63% bubble at the Dance Event in Ziggo Dome.

The risk analysis is translated into the graph below with the average number of infections per 100,000 people per hour against the prevalence. From the Severe prevalence level, the number of infections with pre-testing is higher than the acceptable residual risk "2x at home".



Recommendation

14. Based on the risk model, club evenings are possible, also with the abandonment of generic measures, including 1.5 meters, at a level that is lower than 'Severe'. We recommend using the measures from the building blocks included in the risk model for the organization of this activity. Pre-testing, ventilation and intelligent organization of the event based on the location provide a sufficiently safe environment.

Recommendations

No and building block	Recommendation
1, 2 and 3. Triage	Mandatory COVID-19 test prior to the event. Using the current OMT advice of a rapid test at a maximum of 24 hours from the end of the club night. It is advisable to include a rapid test close to home in the customer journey, so that there is also a protective effect on the travel movements.
4. Triage	In the customer journey, the triage questions work as a reminder about four hours before the start, to make a well-considered choice whether or not to go out. This should be part of the communication with the visitor.
5. Tracking	Due to legal restrictions (privacy) on the exchange of detailed personal data, for very detailed BCO in case of contamination, we advise to make good agreements with local GGD (and through them nationally) to support BCO.
6. Tracing	As standard, immediately after purchasing an admission ticket, a call to download the Coronamelder app, to simplify BCO.
7. Tracing	<p>Establishing a protocol with the national GGD: discuss a protocol that includes: Ask about club visits. Check for CT values for old infections.</p> <p>Agreement between club owner and GGD to email visitors as support for BCO. The club owners must have a good facility to be able to contact visitors on the indication of the GGD for BCO.</p>
8. Visitor dynamics	<p>Based on the results, we recommend making a distinction between risk levels.</p> <p>1. In the serious or very serious risk level, we would recommend not to allow public</p> <p>1. 2. Occupancy is possible from worrisome on the basis of the ventilation directive, with measures as outlined in our proposal for the different phases of the opening plan.</p>
9. Visitor dynamics	With a good inflow and outflow, no additional measures are necessary here.
10 and 12. Air quality	Make sure to check the ventilation facilities before and during the club night
11. Air quality	Adjust the number of visitors to the standard of 24m ³ per person per hour, fresh air. In the risk level vigilant, the standard from the Building Decree applies with the minimum standard: A minimum of 7,500m ³ /hour at an active (type II/type IV) event where visitors stand or dance and sing along for a maximum of 25% of the time. A minimum of 25,000m ³ /hour at an active (type II/type IV) event where visitors stand or dance and sing along almost 100% of the time.
13. Air quality	Take measurements of the air quality on the evening itself.
14. Risk model	Based on the risk model, club evenings are possible, also with the abandonment of generic measures, including 1.5 meters, at a level that is lower than 'Severe'. We recommend using the measures from the building blocks included in the risk model for the organization of this activity. Pre-testing, ventilation and intelligent organization of the event based on the location provide a sufficiently safe environment.

Matrix of measures

Based on the matrix of measures as we have proposed it for events, we propose the following measures for clubs:

Step	Very Severe	Severe	Worrisome	Vigilant
Category Fieldlab	Club & Nightlife – in comparison with Type 2 events *			
	Pop- and dance clubs			
Pre-testing	No event	No event	Yes	Yes**
Health check	No event	No event	Yes	Yes
Communication-App	No event	No event	Yes	Yes
CoronaMelder	No event	No event	Yes	No
Individual registration	No event	No event	Yes	No
Bubbles	No event	No event	No	No
In-/outflow	No event	No event	Controlled by distance/time slots	No
Occupancy	No event	No event	100%	100%
Seating pattern	No event	No event	None	None
Facemask	No event	No event	In motion	No
Ventilation	No event	No event	24m ³ /hour/p.p.	Building Decree***
Generic measures	No event	No event	outdoor event	outdoor event

* In Very Severe phases, type 2 events are performed as Type 1 event (max 50% seated); in the Club & Nightlife setting this results in no events

** For the risk level Vigilant, testing for Type 2 Unplaced Events depends on various factors, including local situation, type of event, volume of audience.

*** Application of the Building Decree, taking into account a minimum ventilation in accordance with Corona Ventilation guideline for events:

- A minimum of 7,500m³/hour at an active (type II/type IV) event where visitors stand or dance and sing along for a maximum of 25% of the time. This includes Shelter.
- A minimum of 25,000m³/hour at an active (type II/type IV) event where visitors stand or dance and sing along almost 100% of the time.