

GOOD PRACTICE GUIDANCE MARCH 2021

# Convention and Exhibition Centres as **Temporary** Vaccination Centres



This compact good practice guidance prepared by the International Association of Conventions Centres (AIPC), the International Congress and Convention Association (ICCA) and the Global Association of the Exhibition Industry (UFI) aims to help convention and exhibition centres and event and congress organizers called upon by health authorities to convert part or all of their venue into a temporary vaccination centre.

Introduction   2
How to Use This Guide   4
1   Good Practice: Initial Considerations   5
2   Good Practice: Considerations on Planning   7
3   Good Practice: Considerations on Staffing   12
4   Good Practice: Anticipating Likely Challenges   14
5   Appendices
Appendix 1   20 Routing Floorplan and Booth Positioning in Messe Frankfurt
Appendix 2   21 Routing Floorplan and Booth Positioning in RAI Amsterdam
Appendix 3   22 Messe Frankfurt Vaccination Centre Security Deployment Plan
Appendix 4   23 Orange County Convention Center Map for Drive-Thru Vaccination



#### A Letter from the Presidents:

Event venues are deeply embedded in the economic and social fabric of the cities and regions they are located in. The organized events taking place in these venues allow to generate economic growth and – increasingly – to address the challenges local communities are facing by creating synergies between local policies and the objectives of event organizers.

During the first phase of the COVID-19 pandemic, event venues demonstrated their commitment to their region in a very different way – by transforming themselves into health care facilities, in order to support struggling health system and to take away the pressure from overwhelmed hospitals.

Twelve months later we have arrived in a more hopeful phase: vaccinations have been created in record time and vaccination strategies are rolled out across the globe out, allowing us to navigate towards a next normal. And once again, event venues play a critical role by becoming vaccination centres.

The task of distributing vaccines in an efficient way is a colossal one and the complexity of becoming a vaccination centre should not be underestimated. It requires considerable planning, training and addressing of all kind of challenges – from simple logistics to security.

More than ever, it is now of key importance to share knowledge and expertise on how to do this. Because it concerns public health and the recovery of the global economy, including the world of organized events.

Our industry’s support to the vaccination effort also benefits our whole industry ecosystem: Rolling out vaccinations around the world in a fast and effective way will speed up the return of face-to-face events. We help to protect lives – and livelihoods, for society, for our customers, and for everyone in our industry.

Similar to the previous guides on dealing with the different phases of the pandemic, we are most thankful to all the persons who have contributed and shared their insights, lessons learned and knowledge – allowing venues worldwide to successfully address a critical hurdle towards a world where we can meet again.

On behalf of our respective associations – AIPC, the International Association of Convention Centres, ICCA, the International Congress and Convention Association and UFI, the Global Association of the Exhibition Industry – we are pleased to provide members with this resource.

**Aloysius Arlando** AIPC President | **James Rees** ICCA President | **Anbu Varathan** UFI President

# Introduction

From Q4 2020 through Q1 2021, a growing number of convention and exhibition sites across the world have started operations as a temporary COVID-19 vaccination site, getting anywhere from 500 to over 6,000 people vaccinated per day. From the Fiera Milano in Italy to the Bombay Exhibition Centre in India to the Raffles City Convention Center in Singapore to the RBC Convention Centre in Winnipeg, Canada to the Portland Expo Center in the United States, their number is rapidly growing as governments world-wide ramp up their vaccination delivery capacity.

Many of these same facilities have already served their community in other capacities during the depths of the COVID-19 crisis, notably as temporary hospitals, mass testing sites and food distribution and homeless shelters. As was the case with many of those temporary emergency uses, health authorities worldwide have found several advantages in using convention and exhibition centres as mass vaccination sites. These include:

- Central locations with good public transit access
- Purpose-designed mass visitor infrastructure
- Good logistical / supply delivery options
- Abundant, scalable floor space
- Experienced event staff
- High parking capacity

Anecdotal evidence collected from an increasing number of facilities in Q1 2021 indicates that on both sides of the vaccination centre realization equation – health authorities and venue managers – unforeseen challenges are being encountered in doing so, and that as a result practical guidance is called for. The International Association of Conventions Centres (AIPC), the International Congress and Convention Association (ICCA), and the Global Association of the Exhibition Industry (UFI), by means of this document, hope to contribute towards meeting this demand.

The good practice conveyed in this document was collected over February-March 2021 from a range of AIPC, ICCA and UFI member facilities, augmented by insights and information made available through their joint Safety & Security Task Force.

The use of convention and exhibition facilities as vaccination sites is still evolving, and this document should hence be viewed as a dynamic one, as new insights continue to emerge over time. Indeed, this dynamism is reflected in the diversity of names given to such sites serving as temporary vaccination centres by officials, the media and the public, from ‘community vaccination centres’ and ‘mass vaccination points’ to ‘large scale emergency vaccination clinics’ and ‘mega vaccination sites.’

The AIPC, ICCA and UFI stress that this guidance is just that: guidance based on examples. Exact local, regional and national health, safety, environmental, compliance and legal requirements differ vastly from country to country, service to service and vaccine to vaccine, and this guidance is not meant to represent or supplant this.

This document is the product of many hours’ hard work by a large team of AIPC, ICCA and UFI contributors, and we are grateful for all their contributions. Among key contributors:

## AIPC, ICCA, UFI Joint Safety & Security Task Force Members:

**Carlos Moreno Clemente** | Head of Mobility, Fira Barcelona

**Mark ten Oever** | Safety & Security Manager, RAI Amsterdam

**Sunil Govind** | Senior Director Facility Management & Operations, Bangalore International Exhibition Centre

**Darren Horne** | Senior Manager Security & Safety, Melbourne Convention Exhibition Centre

**Mark Laidlaw** | Operations Director, Scottish Event Campus

**Sethu Menon** | Senior Vice President Operations, Dubai World Trade Centre

**Michiel Middendorff** | General Manager, World Forum

**Robert Noonan** | Chief Information Security Officer, Boston Convention & Exhibition Centre | Massachusetts Convention Centre Authority

**Tomas von Tourtchaninoff** | Head of Unit, Safety & Security, Stockholmssmassan

**Muhammad Yusri** | Manager Venue Security, Crime Prevention and Operations, SingEx

Special assistance was received from AIPC, ICCA and UFI members – and other experts, notably:

**Ali AbdulQader** | Senior Director Engineering, Dubai World Trade Centre

**Fernanda Ascar de Albuquerque Oda** | Tourism Manager, São Paulo Turismo S.A.

**Cordelia von Gymnich** | Vice President Services, Messe Frankfurt

**Sandra Orth** | General Manager, Koelnmesse

**Enrico Pazzali** | Chief Executive Officer, Fiera Milano

**Alan Steel** | Chief Executive Officer, New York’s Javits Center

**Alan Wilson** | Owner, Crowd Control Guy, Australia

Coordination of the writing, editing, collection, vetting, and formatting of this guidance information was performed by Glenn Schoen of Boardroom@Crisis BV, based in The Hague, the Netherlands.

AIPC, ICCA and UFI management hope that the guidance provided will contribute to the successful operation of vaccination centres and contribute towards societal health, and in a larger perspective contribute to the recovery of the international meetings and events industry from the COVID outbreak.



# How to Use This Guide

The good practice information in this document is divided into five chapters:



The chapters aim to structure the input from the Task Force experts and other contributors into readily findable, usable sections that center on what to think about as you engage in the process of possibly becoming a vaccination site; matters to consider in planning and preparations; staff issues to consider; and problems or challenges to watch out for that other venue managers have encountered in recent months. As not all of the information provided can be clearly placed just into one chapter, there will by necessity be some overlap.

As the circumstances of individual convention or exhibition centres will vary widely, among other factors due to the different numbers of vaccinations to be given, different health agency players and different health authority requirements, and as centres themselves vary in size, make-up, location and services, the advisability, applicability and proportionality of various plans, procedures and concepts should be taken into account when considering their use.

Where documents or other resources are mentioned in the text, these should, in most cases, be directly retrievable via the 'live' link provided or otherwise by using an Internet search. All documents from AIPC, ICCA and UFI member organizations shown are used with their permission for the betterment of membership and the industry.

**A NOTE ON TERMINOLOGY:** Readers are asked to exercise a measure of flexibility when it comes to terms used in this document in that many people use different terms for the same thing. For example: health and safety vs. public safety, measures vs. controls, Coronavirus vs. COVID-19, and so on. Given the above, please apply flexibility towards the terminology used in this document when reading and using the guidance.

**DISCLAIMER:** AIPC, ICCA and UFI make every effort to ensure the accuracy of published material, but cannot be held liable for errors, misprints or out of date information in this publication. AIPC, ICCA and UFI are not responsible for any conclusions drawn from or actions taken on the basis of this publication.

# 1 GOOD PRACTICE: Initial Considerations

Good Practice in establishing and operating a vaccination centre in your venue, or in the case of an outdoor drive-through vaccination station on your venue parking/ driveway area, includes:

**1 | Review and use applicable insights in the AIPC-UFI 2020 Good Practice Guidance “Convention and Exhibition Centres as Temporary Emergency Facilities (TEFs).”** While this guidance does not specifically address use of venues for mass public vaccination purposes, it contains a wealth of useful information applicable to the issue at hand.

**2 | Temporary vaccination centres tend to be one of three types: an indoor site, an outdoor drive-through site, and a combination.** Across the world the preferred use of a convention/exhibition/event venue as a vaccination site appears to be as a spacious indoor facility that offers room and scalability for setting up tables or booths to vaccinate people on a large scale. Use of venues for so-called ‘drive-through vaccination’ where parking and driveway areas are used for people to drive up, receive a shot in the arm while still sitting in their vehicle, and drive off, is much less frequent. Still, it is done in a growing number of nations from Brazil to Qatar, and at some scale in a few countries, notably the United States. Finally, some sites do a combination of the two. Each of these three site use variants has its own planning and operational challenges.

**3 | Temporary vaccination centres tend to have three main (organizational) functional areas.** Organizers of vaccination centres in a broad range of countries tend to speak in terms of each centre having three main functional areas which generally serve as the basis of all lay-out planning:

- Check-in and Line-up Area
- Vaccination Area
- Recovery Area

A number of countries list a fourth area as a main functional area, namely the or a pre-vaccine shot medical check (area). As not all countries standard require such a pre-shot check, which usually consists of a doctor or other medical personnel inquiring about a person’s medical condition and whether or not that person has any known allergies, and many plans do not list it as such.



AIPC-UFI ‘Convention and Exhibition Centres as Temporary Emergency Facilities’, April 2020  
This document can be accessed [here](#).

## 2 GOOD PRACTICE: Considerations on Planning

### 4 | Data from over a dozen venues suggests it generally takes anywhere from 3 to 7 days to set up a temporary vaccine centre in a convention or exhibition centre.

There are exceptions on either side of this range, but early data suggests this is the approximate median, depending, upon other factors, on the size of the operation. Facilities that are already serving in a medical capacity, whether as an emergency hospital or a test site, have generally found that adding a vaccination operation is relatively easier because of health authorities' familiarity with their site, operations, and capabilities. Particularly when it comes to particulars like ventilation requirements, already having served as a medical site seems a big plus.

Notes Sethu Menon, Senior Vice President Operations at the Dubai World Trade Centre: "Serving as a hospital and being in close daily work contact with the UAE Ministry of Health and Prevention and the Dubai Health Authority means we had an excellent existing working relationship to build on when the vaccination centre request came. Command lines were short, authorities know the Dubai World Trade Centre through-and-through, and their planners could prepare plans in concert with our engineers and managers even before the formal request came. We were hence able to help realize their concept of two separate vaccination centres on-site, one for either authority (Ministry and the Health Authority), in just 48 hours. The combined operation serves some 3,000 people a day."

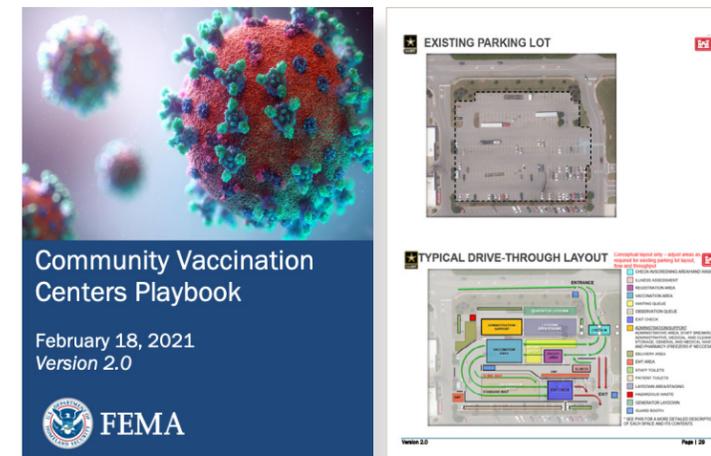
5 | At the start of the process, expect some level of confusion and challenges after receiving a government request to serve as a vaccination centre. Be flexible when engaging the government on the question of serving as a vaccination site as the process may prove less than clear or linear in the beginning. The main reasons are that the government may not yet have fully made up its mind to ask for a hard Yes or No, and that multiple government agencies may be involved in the asking.

Observes Head of Mobility Carlos Moreno Clemente from the Fira Barcelona: "Based on shared experience, a good advice is to get ready to do your own orientation on serving as a vaccination centre of your own accord, as it could not be clear for some time if you are going to be (formally) asked to serve your local community in this manner or not. So simply park the lack of a clear 'ask' and do some hard thinking for yourself on the best way to do it for when you do receive that 'ask.' Notes Tomas von Tourtchaninoff, Manager Safety & Security for the Stockholmsmässan: "Here in Sweden the national government delegated the task of setting up vaccination centres to regional governing authorities, who in turn delegated this to different local and city governments. As a result, despite everyone's best efforts, there was some confusion at the start as we were dealing with multiple officials representing different authorities and agencies at different levels. We got it sorted, but it took some time and patience to resolve. Realize all this is new for them, too."

6 | As needed or applicable, strive to get a signed contract in place for having your venue serve as a vaccination location. Ensure as part of this that there is clarity as to your responsibilities and the costs for your facility use, staff work, set-up time, equipment and materials use (booths), parking area use, insurance, and the term or duration of the contract. Also, consider clauses in relation to scalability or expansion of the effort, as it may be authorities will want to vaccinate larger numbers of people in the future, and either extend the size of the operation, or extend the operating hours. A growing number of contracts include clauses pertaining to the time period across which operations may be extended, offering venue management room to maneuver if vaccine requirements threaten to interfere with venue 're-opening for regular business' plans.

1 | Some countries have detailed plans to set up a vaccination centre, others do not. Where this is not the case, be prepared to help shape a plan yourself. Among the countries that have pre-prepared handbooks or playbooks on how to set up a vaccine centre from scratch is the United States. There the Federal Emergency Management Agency or FEMA, in concert with the US Army Corps of Engineers, has published an elaborate guide called the 'Community Centers Vaccination Playbook.' The document has detailed steps for setting up a vaccination facility from small locations to large, convention or exhibition-type venues known as Type 1 facilities capable of handling 6,000 vaccinations a day or more.

The guidance is also a leading global resource for setting up vehicle drive-through vaccination centres.



FEMA 'Community Vaccination Centers Playbook'  
February 2021, 2nd edition

[This document can be accessed here.](#)

Another widely used US government publication from the Centers of Disease Control is the 'Checklist of Best Practices for Vaccination Clinics Held at Satellite, Temporary, or Off-Site Locations'.

[This document can be accessed here.](#)

The Spanish-language version:

[This document can be accessed here.](#)

Guidance some venue managers have found highly useful to understand the planning and operating perspective of medical professionals is the British National Health Service (NHS) 'COVID-19 Vaccination Centres: Operating Framework,' version 1.1, 20 January 2021.

[This document can be accessed here.](#)

The World Health Organization (WHO) also maintains a variety of useful documents in its online library, including a number of dated but technically detailed reports and guidance documents made for generic vaccination clinic use (non- and pre-COVID focused) which touches on such issues as installing vaccine cold storage rooms.

As noted, many countries do not have or use such standard guidance documents. There, when you get an inquiry or a request to serve as a vaccination site, you can often expect officials to have a basic concept or formula about the process, supplies and staff required, but with little detail on how to place and fit out such an operation in large venues like a sports hall or convention or exhibition centre.

Observes Messe Frankfurt Vice President – Services Cordelia von Gymnich in Germany: "We have excellent relations with the city and state government, and were eager to help our community when the request came in December 2020. This noted, it was the Frankfurt health authority in the lead with the local Red Cross organization in cooperation with the Fire Department who were in charge of getting arrangements made. Like us, they were unfamiliar with the exact requirements for an operation that vaccinates 4,000 people a day, and has to be scalable. And there was time pressure. They were great and we worked it all out in the end, but we essentially had to start from scratch, without

any real kind of plan, and the concept kept changing in the beginning. Not a very efficient start.” Echoes Sandra Ohrt, General Manager of the Koelnmesse: “We too encountered such complexity, and one of the learning points was to pay particular attention, early, to identifying and fixing software systems issues. Where there is lack of compatibility and all manner of information flows including parts of the registration process to be connected, or aligned, the forthcoming problems can be significant. Address and plan the information flow part of the larger planning process early.



Messe Frankfurt In Use as a Vaccination Centre

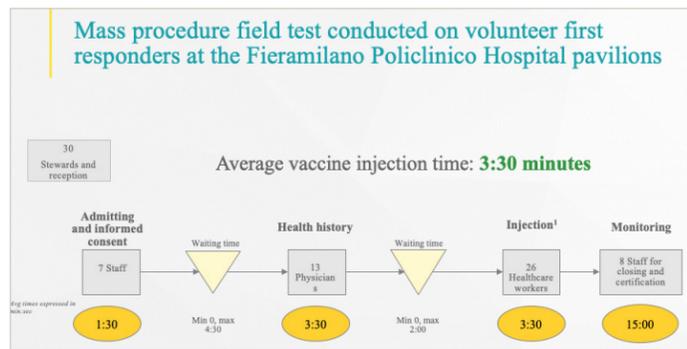
**2 | Make sure authorities use your event planning experience and are aware of the Customer Journey concept.** As part of the pre-planning ‘getting to know you process’ ensure that authorities come to recognize your event expertise (so they can put it to use rather than reinventing the wheel) and, to the extent they are unfamiliar with it, help them understand the concept of a Customer Journey. The last should help significantly with planning routes from one functional area to another. “It is essential you have a good event planner engaged with officials at the very start,” notes New York’s Javits Center CEO Alan Steel, “as you will likely be dealing with different government and possibly military authorities who have limited experience with event planning.”

The Scottish Event Campus or SEC in Glasgow had been operating as an emergency hospital (National Health Service or NHS Louisa Jordan Hospital) since Q2 2020 when in Q4 2020, authorities asked if they could use the adjoining SSE Hydro facility as a vaccination centre. The SEC support team aiding the NHS swiftly moved into action to provide the NHS a number of options in terms of use of space lay-outs and routes. States SEC Operations Director Mark Laidlaw: “It proved of major assistance to the NHS as it helped them work through and examine the viability of their own scenario’s for supporting a major vaccine operation, from staffing to logistics to people through-put calculations. It ended up saving everyone a lot of time, and the help we gave was much appreciated.”

The NHS have kindly made their entire 92-page “Hydro Vaccination Centre – Space Planning Option Studies” overview of February 2021 available for the benefit of AIPC-ICCA-UFU members. [This document can be accessed here.](#)

**3 | Start drawing up basic lay-out options for the vaccination operation as early as possible to help authorities with ideas about how your facility could best be used.** This may include options for different numbers of people to be vaccinated, different access and egress points, different internal routes, different booth (or ‘vaccination bay’) set-ups, and options for scaling the entire process should authorities decide more people need to be vaccinated in a short period of time.

The basis for planning used by many health authorities is the expected time it takes to give a person a vaccination based on set process steps (‘Average Vaccine Injection Time’), which depending on the country and local health authorities involved can vary considerably. Testing the actual time required can prove important for planning, as officials often make assumptions based on smaller numbers of people being vaccinated in clinics or hospitals rather than a large venue. An example of test results from such a timed process comes from tests performed by Italian medical authorities in the Fiera Milano in Milan, Italy in Q1 2021.



Field Test Results on Basic Vaccination Process, Fiera Milano

**4 | As part of the lay-out option planning process, think scalability from the start.** Whether authorities ask you to begin operating as a temporary vaccination centre serving 500 or 4000 people a day, in many cities and countries there exists the distinct possibility health officials will want to increase the vaccination rate at some point, perhaps drastically. There is no real or clear good practice insight yet on what the maximum capacity for vaccinations at a single site is, or how well things operate when a convention or exhibition facility, in extremis, is asked to operate on a 24/7, around-the-clock basis. This noted, a request for an increase when taken up in initial planning usually yields better results than considering it after the fact of setting up an initial operation. Hence, think about where in your facility you may want to start, and if it could then be logically extended to other halls / parts of the venue.

**5 | Principal tenets of emerging good practice as to lay-out design that are useful for incorporation into the planning process are:**

- A. Allow for plenty of room for long waiting lines outside and inside;
- B. Allow for plenty of room for an efficient at-desk registration process;
- C. If local authorities want it, sufficient space for an area where medical staff can perform a pre-vaccination health check before people get vaccinated;
- D. One- or unidirectional walkways – people process flows/routing;
- E. Uniform booths (or ‘bays’) adjacent to one another in set numbers of units;



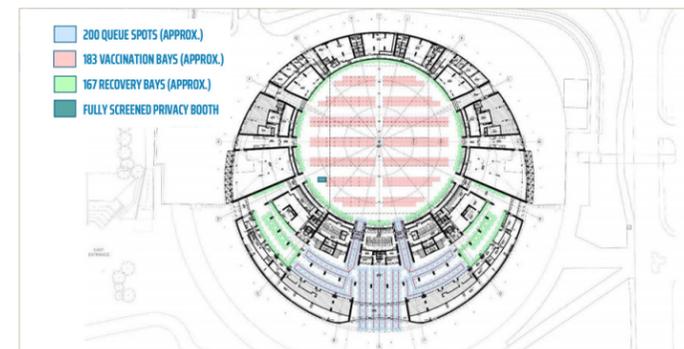
Registration Desk at the Dubai World Trade Centre

- F. Some level of privacy being designed in using walls, screens, and booth elements to limit any outside view towards the inside of vaccination booths / bays / rooms / areas;
- G. Post-vaccine shot waiting areas being set up near but apart from rows of vaccination booths;
- H. Considering if and where and how people need to get a vaccine certificate (or stamp or something else) after they get an injection (in vaccination booth? Outside vaccination booth before going into waiting area? In waiting area? After waiting area?);
- I. Considering where vaccine supplies are brought in, stored, and prepared;
- J. Arranging for medical waste disposal.

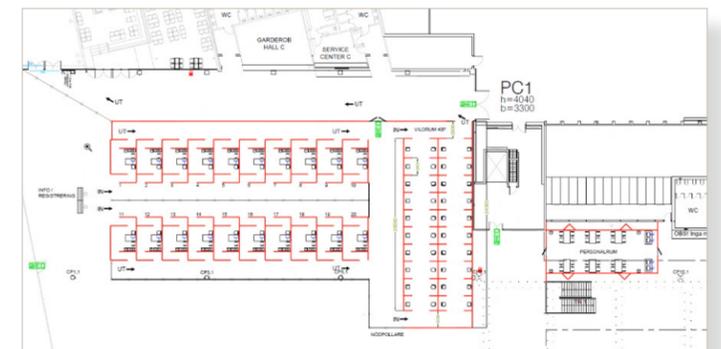
For two detailed examples of planning team and engineering assisted lay-outs of major venues, see pages 20 and 21:

Appendix 1 | Routing floorplan and booth positioning in the Messe Frankfurt.

Appendix 2 | Routing floorplan and booth positioning in the RAI Amsterdam.



SEC | Example of a SSE Hydro Vaccination Centre Planning Option



Example of Routing Floorplan and Booth Positioning at the Stockholm Massan

**6 | For booth design, a simple one-way in, another way-out appears to be the emerging global norm.** Health officials in a growing number of countries are insisting that the booths (or ‘bays’ or ‘pods’) in which people have their vaccine shot are unidirectional in terms of the flow of people (one entrance and one exit), and so designed that they protect people’s privacy by being visually screened off from onlookers outside the booth.



Vaccination Booth Design in the Stockholmssmässan in Sweden

As part of your booth design and back office planning, please consider drawing up and deploying appropriate signage to help people find their way around. A good practice example of vaccination centre signage was made available to the AIPC, ICCA and UFI by the Koelnmesse in Germany.

This document can be accessed [here](#).

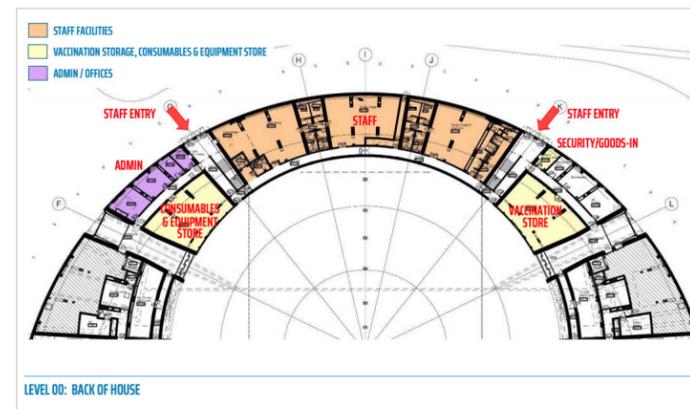


Koelnmesse Vaccination Signage

**7 | As part of your planning process, give special care to what support or back office rooms and other spaces will be needed.** Local government healthcare officials doing the actual vaccinating can or will likely want to use and plan for spaces like:

- Storage rooms to keep vaccines and other supplies
- Administration and vaccine preparation area
- Pharmacy area (vaccine reaction drugs)
- Lunch/staff room

As part of this effort, make sure you have more rooms or areas available to use as vaccination preparation areas in case the number of vaccines used expands. “It is likely over time that you will be working with more than one vaccine, and important here is that you plan for more vaccine preparation areas where pharmacists can work,” stated Koelnmesse General Manager Sandra Ohrt. “You have to plan this carefully, as such areas usually have special requirements in terms of hygiene, ventilation, light, power, etc.”



Example of Back Office Area Planning for UK NHS Vaccination Site

**8 | Make a separate Security Plan for the vaccination operation.** Unless the authorities take over all security duties at your venue, which appears to be a rare occurrence worldwide, most security responsibilities will devolve to venue management. This means you are the ones supposed to know the risks, and plan for them. With service as a vaccination centre come a few standard challenges:

- Not having the vaccines robbed or stolen
- Not having the vaccines tampered with
- Keep (long) lines of people under control
- Managing outbursts of anxiety or panic
- Controlling any protests by anti-vaccination activists

“Make a plan for it. It does not need to be long or complicated,” notes RAI Amsterdam Safety and Security Manager Mark ten Oever, “but it should cover what you see as the main threats or risks, what measures you plan to take to control these, what resources you will need for this, and how you will deploy these. This has proven really useful for staff and in our interaction with police and vendors, as everyone now knows what is going on, how things have been set up and arranged, and what to do and who to contact if something happens.” The RAI security plan has a separate section on ‘Protocols – What to Do In Case Of’

As part of your Security Plan, include a site map that helps people orient on where you have which security resources positioned. “It’s important to remember you are dealing with different parties and agencies when you set up a vaccine centre,” notes Vice President Cordelia von Gymnich of Messe Frankfurt, “and then it helps when people can visualize what is where. So as part of our basic event plan, we’ve included sheets that explain the security operation to everyone, notably where people are positioned, and what they are doing there.”

For a detailed example of a security staff deployment plan at a vaccination centre, see page 22:

Appendix 3 | Messe Frankfurt Vaccination Centre Security Staff Deployment Plan.

**9 | Review and adjust business continuity and crisis management plans to take into account risks associated with operating a vaccination operation.** Many of these risks are in many ways akin to operating as a mass test site, and, to a lesser extent, an emergency hospital, from health safety compliance and security issues to getting rid of toxic medical waste. Point is, review, adjust and update your plans preparing you to deal with a mishap or crisis. If you get the opportunity, conduct exercises on related scenario’s.

**10 | As part of your emergency plans, carefully consider evacuation procedures.** When vaccinating large groups of older people, for instance, you may have a much larger percentage of people present who need assistance getting out in an emergency than your venue is used to. Having enough people to assist them, and thinking through possible means to facilitate a rapid evacuation, like having a good number of wheelchairs on hand, is critical.



RAI Security Plan and Protocol for Threat Responses (in Dutch)

# 3 GOOD PRACTICE: Considerations on Staffing

**1 | For management and overall control purposes, appoint someone to be the overall program manager on the part of your organization.** In some places, difficulties have arisen as authorities engage different managers on different issues: prevent lack of coordination by having one overall manager of your own, and having everyone else report to that person.

**2 | Look for opportunities in the contract negotiation phase to engage/employ as many of your staff as possible to support local authorities** and use their event management and venue experience help provide a positive contribution. Having a core part of at least your own management team assisting in the planning and operation not just helps with meeting payroll and contributing to your community, but the more people at work at the centre who know the site and its operations intimately, the more effective authorities can be in fulfilling their mission.

Typical tasks that venue staff can perform in support of a vaccinate centre operation include:

- Registration and administrative duties
- Assisting the elderly in moving around
- Queue/line waiting management
- Set-up and booth construction
- Building system management
- Kitchen (make meal packages)
- Medical waste handling
- Parking management
- Call centre support
- Moving supplies
- IT support
- Cleaning
- Security

If you have medically trained staff, these may potentially be engaged in more medically oriented duties, including First Aid trained staff who can look after and monitor just-vaccinated persons in a waiting area (in most countries, people have to wait 10-15 minutes in the vaccination centre before they can leave to check that they do not have any serious adverse reaction to the vaccine).

**3 | Use emerging vaccination centre personnel requirement assumption ratios to help you with your own (venue) staff planning.** The British National Health Service is one authority to have developed a standard of sorts for calculating the number of total staff needed to properly assist different numbers of people to get vaccinated on a 12-hour basis. Its three key assumptions are:

- To get 1,000 people vaccinated in 12 hours requires 20 staff;
- To get 5,000 people vaccinated in 12 hours requires 100 staff;
- To get 10,000 people vaccinated in 12 hours requires 200 staff

Another resource on staffing requirements are the Appendices A3, A4 and A5 Appendices 'Force Packages and Equipment/Supplies' in the American Federal Emergency Management Agency (FEMA) 18 February 2021, 2nd edition 'Community Centers Vaccination Playbook.' See earlier reference to this playbook for the link to the document.

The challenge then becomes calculating where alongside government workers (and possibly, volunteers) your own convention or exhibition centre staff might find a role, and, where possible, codifying this in the contract.

**Type 1 - 6,000 doses a day**

**Facility Dimensions**

- Minimum of 15,000 sq. ft
- **Site Command and Control (5):** Team Lead and Deputy (2), Clinical Coordinator (1), Operations Section Chief (1), Logistics Section Chief (1)
- **Total Personnel:** 245 fixed site / 269 drive-through (156 clinical, 84 non-clinical [108 drive-through], 5 C2)

Clinical Staff		Non-Clinical Staff	
Position	Per site	Position	Per site
Vaccinators	80	Security	20
Vaccine Preparers	20	Traffic Control* ("drive through sites require more traffic control personnel – site dependent)	10 **+20
Pharmacist	1	Safety* ("drive through sites require more safety personnel – site dependent)	2 **+4
Pharmacy Techs	5	Supply Manager	2
Medical Screeners	20	IT Support	5
Clinic Flow/Reviewer	5	Forms (VIS) Distribution staff	1
Recovery Area Manager	3	Orientation/Information	2
Clinic Manager	2	Language translation and ASL and language interpretation services	TBD
Patient Exit Area/Exit Review	1	General Staff	20
RN	15	External Affairs/Community Relations	1
Advanced Life Support Ambulances (two ambulances with crew of 2 each)	4	Administrative Staff	20
		Volunteer Coordinator	1

From FEMA Playbook: Example of Staff Requirements for Type 1 Site

**4 | As part of the contract negotiating process, look for opportunities for your own staff to be vaccinated.**

In some countries, health authorities insist on non-government staff who will be continuously present to be vaccinated, while in other nations this will not be the case, and such staff will simply have to wait their turn in whatever national program is being implemented.

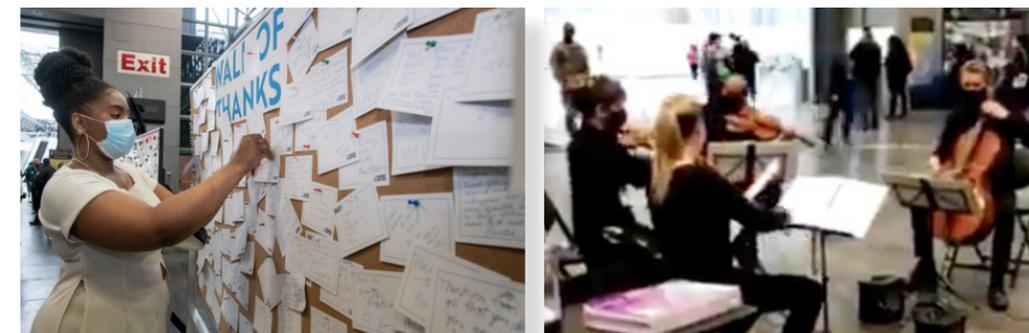
**5 | Anticipate you might need more staff to perform support functions than officials first expect.** Observes Alan Steel, CEO of the Javits Center in New York: "One lesson learned is your staff will be working in part in a busy environment, and where you plan for 100 people to support 100 vaccination stations, you will find out quickly you might need as many as 140 as people take breaks, go for lunch, need to help someone else get around, and so on – so go in over- rather than understaffed."

**6 | Prepare for people to work in two shifts.** States Koelnmesse General Manager Sandra Orth: "We found that vaccines often get delivered two hours or more before the official opening, and that when you run a full-day program, with lots of little things to do at the end of the process as well, it comes down to needing two shifts, as opposed to the one on paper that you anticipated beforehand."

**7 | Keep your staff well informed about developments.** Seek to maintain a steady information flow to all your people on- and off-site as well as possible. Changes in operations may occur or need to occur on short notice, such as adding another type of vaccine to be administered, requiring a different registration system and or new lines to new vaccination booths/bays. One frequently used tool to do this is closed WhatsApp groups.

**8 | Remember to look after the well-being of your own staff, particularly if your facility has not served in any medical or emergency role during the COVID crisis before, like a hospital or test site.** For many people, helping run a vaccination site offers a strong sense of contribution as they assist their community and fellow citizens to defeat a global health threat. This noted, there can be long hours, moments of high emotion, incidents where things go wrong – including a bad reaction to a vaccine – and demanding, pushy people to deal with. In brief, looking after your staff's mental well-being and keeping people properly supported and motivated is important, now as ever. A number of facilities are using practical yet innovative measures to support staff which are also often appreciated by visitors coming in to get vaccines.

But three examples from the Javits Center in New York, are the central placement of a 'Wall of Thanks' board to encourage everyone to leave messages of gratitude for everyone engaged in the vaccination effort; a 'celebration moment' with press when a milestone is reached (like vaccination number 100,000); and organizing small, calm, live music performances to create a pleasant working atmosphere and demonstrate a level of hospitality to visitors at the same time.



Wall of Thanks and the Victoria Paterson String Quartet playing in the Javits Center

# 4 GOOD PRACTICE: Anticipating Likely Challenges

A number of different venues have encountered similar problems in setting up or operating as a vaccination centre, particularly around issues of routing people, directing people, and instructing people. This section outlines a number of issues that multiple locations have experienced challenges around, and how these might be addressed in pre-emptive fashion.

## 1 | Engage health authorities on what options exist for pre-registration or reduction in onsite registration steps, and them help them communicate the chosen set-up.

While many countries use a form of pre-registration in which a person to be vaccinated receives a time slot to appear and get a shot, the actual on-site registry process varies widely, from people receiving a paper with bar code to be scanned to use of an App and QR code all the way to the use of 'good old pen and paper'. Whatever system ends up being used, seek to support government messaging using your own means, from social media to your convention or exhibition centre website. This so vaccination visitors headed for your venue know what to expect, have an added opportunity to properly prepare and can get registered smoothly.

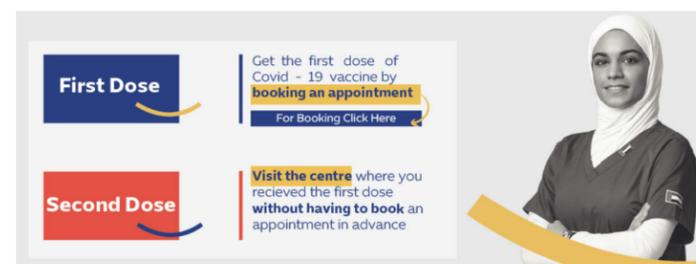


Excel London Website Page Explaining Operations for Visitors

## 2 | Do not be surprised to be asked to support vaccination operations using multiple vaccines, and be exacting in how you support them when asked.

The Dubai World Trade Centre for instance helps with the administration of three types of vaccines. "The exacting part there is you have to starting thinking early about how you ensure the right people get the right type, and in the case of a second dose, that they get the proper one, which means top quality administration and facilitation," states Dubai World Trade Centre Senior Director Engineering Ali AbdulQader. "While health officials may have primary responsibility in how they run the larger administrative process, there are still points

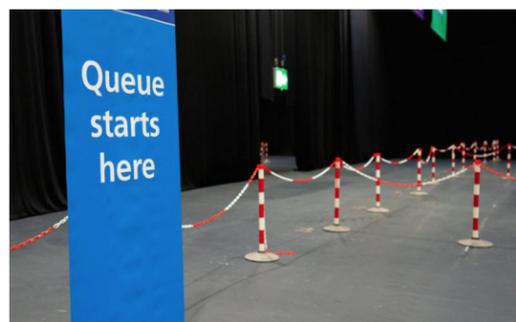
where you as the enabler have to make certain you support the government with such matters. In practical terms, for us it has meant keeping the lines for different vaccines clearly separated, adjusting and refining our signage, and ensuring clear messaging at the start of the Customer Journey, beginning with clear explanations of how things work on our website." It is also good to bear in mind that the use of different vaccines in one venue requires different preparation and administrations time for each, so queues need to be adjusted appropriately.



Dubai World Trade Centre Website, Giving Details on Multi-Dose Vaccination

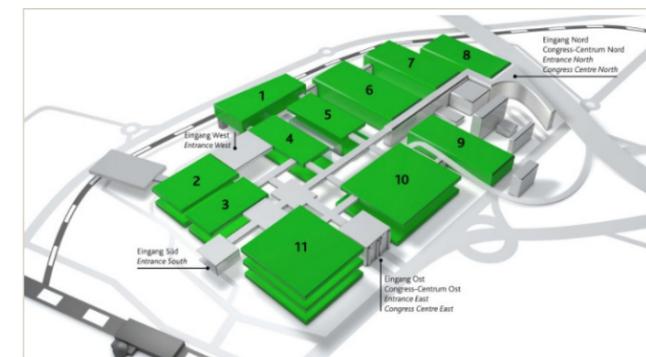
## 3 | Pay special attention to queuing or in-line waiting.

People will be entering your venue to get vaccinated against COVID-19 (and or a variant), and for some this may cause anxiousness. Combine this with the standard requirement to maintain a proscribed physical distance between people, and the fact that a substantive number of people (whether given a time slot or not) are likely to be converging on the location early, and that some may be tired, and the importance of good line or queue management is evident. Good in this case means safe, controlled, and efficient: a certain through-put rate should be maintained.



Excel London Queue Sign

"A special point to pay attention to as regards people in line is the fact that you as a venue do not always control the predictability of the flow," notes Koelnmesse General Manager Sandra Orth in Cologne, Germany. "It starts with possible disruptions in the daily delivery, as vaccines do not always arrive on time in the numbers promised. Next, we notice that sometimes, and it may be related to the type of vaccine being made available, there are 'No Show's,' which can have a knock-on effect. Furthermore, there are times when problems around software compatibility impact the speed of queues as well. These are among the more challenging variables that have come into play for us, and anticipating them early certainly helps in their management."



Koelnmesse | Germany's Third Largest Vaccination Site

To address the matter of exhausted or elderly people having difficulty standing in line, a number of facilities have switched from the concept of walking or standing lines to more comfortable sit-down chair waiting areas or 'chair lines'. Observes Dubai World Trade Centre Senior Director Engineering Ali AbdulQader: "Particularly when we noticed waiting in line to get registered or to actually be called



Waiting Lines Using Chairs at Dubai World Trade Centre

forward to be vaccinated sometimes took quite some time, we quickly looked at how to improve service and comfort levels. Accordingly, we introduced the concept of waiting in chairs to be called up to replace the need for people to actually stand in line. Much more comfortable and relaxed, and clients are very happy with the set-up." Adds Javits Center CEO Alan Steel: "Where you can, particularly if you know your venue will be vaccinating a lot of elderly people, double-size or place extra chairs side by side, as most elderly people come with someone to support them."

Alan Wilson is an Australian expert on queue management who in the course of his career has supported hundreds of prestigious venues and events from the US and UK

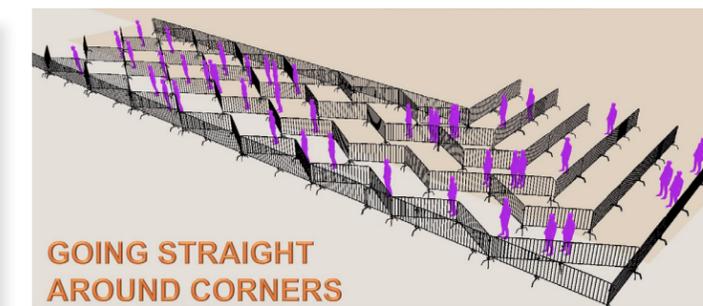


Image courtesy Alan Wilson Copyright | CrowdcontrolGuy.com

to Saudi Arabia and Australia. He notes that: "A lot more goes into smart queuing and crowd control than many people realize, and a big aspect of this is efficiency of through-put. Realize you have a growing body of Good Practice material to draw on to increase safety effectiveness and through-put efficiency, much of it free and immediately applicable. Particularly here on the vaccination question where we're often dealing with a diverse group of people from a wide range of ages and backgrounds, applying management principles is important."

To the extent your venue has not already done so as part of its efforts to prepare for a return to normal business eventually, think through how you will place, operate and monitor your queues. Do you need fences, ropes, poles, cones? Do you have enough signs, tape, stickers? Is there enough staff to monitor the queues? Cameras? A system for moving people past or ahead in a queue if they arrive late for their time slot?

Alan Wilson is but one of the international experts who have made much of their material publicly available and accessible, including a growing body of cutting edge research on line and space optimization such as the Chevron Queuing System invented by Wilson in 2020. The model, which helps with the distribution of people to optimize use of space, has found wide application in COVID-19 testing facilities, and more recently, increasingly, in vaccine facilities.

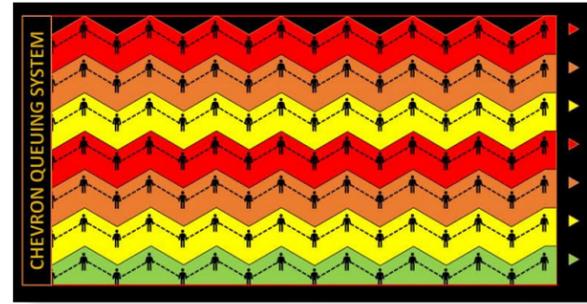


Image courtesy Alan Wilson Copyright | CrowdcontrolGuy.com

**4 | Carefully consider your vehicle queuing requirements, both for regular parking, for the use of drop-off points, and for running a drive-through vaccination centre.**

Extend the planning to nearby streets, as quite often, long lines of vehicles can come to ‘snake around’ a neighborhood surrounding a venue. There are a growing number of vehicle line, routing, and parking planning resources available to assist with this process. One thing not to forget: if lines are long, place portable toilets along the route.

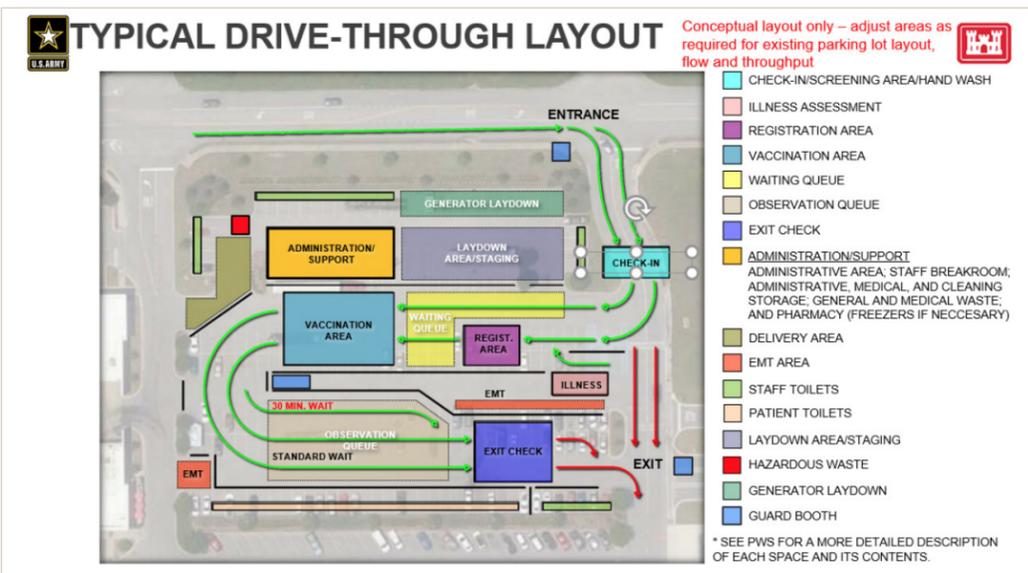
As part of this vehicle management planning process, dedicate energy to effective communication to the public on the proper routes to take in and out, starting with your website. A good example of a sample map provided for people on the website of local authorities and on that of the Florida, USA Orange County Convention Center, see page 23.

**Appendix 4 | Orange County Convention Center Map for Drive-Thru Vaccination**

One of the very few national government planning documents to offer a range of vehicle routing options and suggestions is the FEMA ‘Community Centers Vaccination Playbook’ mentioned elsewhere in this guidance.

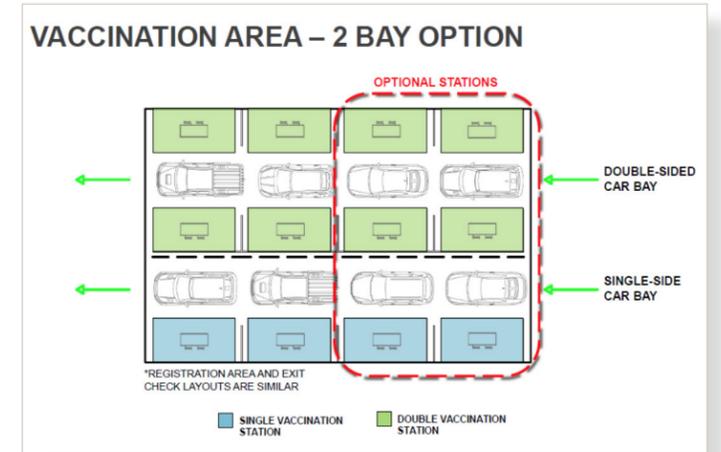


Image courtesy Alan Wilson Copyright | CrowdcontrolGuy.com



From FEMA ‘Community Centers Vaccination Playbook’

**5 | If you are planning a drive-in vehicle vaccination operation, pay special attention to requirements for one-person (one side) versus two-person (two sides) set-ups.** Early experience dating from December 2020 in the United States indicates that it can be quite difficult and time consuming to change lay-outs for large in-vehicle vaccination operations, and that it pays to spend extra time up-front to come to an optimal site design. Among the challenges uncovered: plans being made based on assumptions about who would show up as part of a two-person team in a vehicle versus reality, resulting in loss of vaccines, problems with registrations, and inefficiency in two-person lanes.



One and Two-Person In-Vehicle Vaccination Planning

**6 | If authorities do not make it for you, produce a short Handbook or Guidebook-for staff and other partners to guide and orient them on the vaccination operation.** Once operating you will probably need to offer new staff, contractors and others coming in who are unfamiliar with the vaccination effort quick insight and orientation on how it works and who is doing what and which rules apply. A brief, clear, concise ‘briefing book’ type document can help smooth that process. This is particularly true if your facility is likely to expand in the future, and hundreds of new support staff are going to use your event site to vaccinate (tens of) thousands more people per day. Such a Handbook / Guidebook / Playbook / Briefing book could consist of no more than 4-10 pages and may include:

- How the vaccination process works here
- What is located where at this facility
- COVID-19 and other hygiene rules
- General safety and security rules
- Guidance on what to do ‘in case of’

- Many people, despite receiving repeated specific instructions by mail, email, WhatsApp, website and even radio and TV on where to go, will get it wrong. Whether they arrive by car, bicycle, bus, tram, taxi or on foot, some will get it wrong. Where do I park? Which entrance do I go to? They will need guidance.



Example of Directional Signage

**7 | Ensure sufficient support staff are available to support vaccination visitors who need help entering and registration.** Information and queuing management is a key component of this. Lessons learned at different facilities so far include:

- Many people will arrive early, including very much too early, for their assigned time slot. Never mind what you want and how you plan it; this will happen. This may cause 1) congestion around parking areas; 2) long lines at the entrance(s) by opening time, and 3) overflow around indoor registration areas.

- As a result people are often found to need:
  - Lots of signs of different kinds (stand-up, on screens, on walls, etc.) telling them exactly where to go: big, bright, and clear, the more the better.
  - Good, tight parking management by staff directing people where to go.
  - Sufficient support staff monitoring matters and waving and guiding people on near entrances: “This way, please!”
  - Sufficient support staff to help those in need enter the facility. Among good practice here: having several empty wheelchairs available to help the elderly and or infirm get

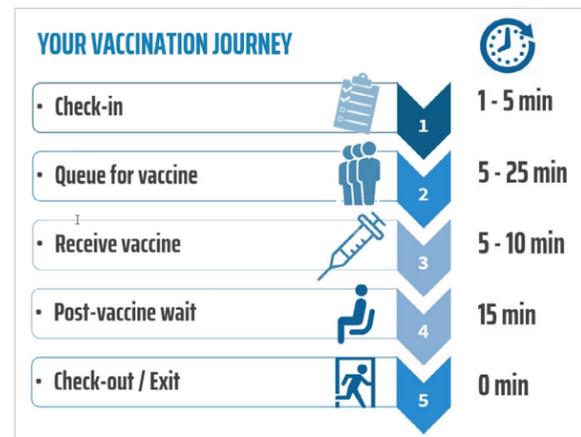
around; having umbrellas ready to give to people standing in line in the rain; and organizing a people drop-off point where the ‘escort’ of the person to be vaccinated can drop him/her off at the entrance and go park. A growing number of facilities set up tents outside their entrances so people waiting in line are shielded from the rain, snow, and sun.



Tight Drive-in and Parking Management at RAI Amsterdam

**8 | Think about signage showing the vaccination process (or steps) for the benefit of the public not knowing what the process is they are about to go through.**

Never mind that somebody should have informed those entering about how it is supposed to work, a lot of people will not know what to expect. Helpful for many people is a simple 1-2-3-4-5 kind of outline of what will happen, like “Register, Get Your Vaccine Shot, Get Your Vaccination Certificate, Wait 15 Minutes, and Leave.” For some people, it has proven especially important to post these near entrances to help them conceive what is about to happen, so limiting anxieties.



UK NHS Graphic Outlining Vaccination Process

**9 | Contemplate whether vaccine transports can be safely and securely delivered directly to an indoor hall parking area on your site, and safely stored there.** At many venues, vaccines that are temperature-controlled like the Pfizer Vaccine will arrive by truck in a special refrigeration unit. In some cases, that unit will be semi-permanently placed in an outdoor area on the site, like a parking lot, to be hooked up to a generator and permanently guarded. The idea is that every few days, new vaccines arrive and the stock is replenished, with small batches brought indoors to be prepared and used each day.

Alternatively, where temperature control is not a major factor, as with several other vaccines, the supplies are often brought in vehicles in smaller batches, often dropped off under guard expressly at a back door, to be placed in a storage area, or even moved directly to the vaccination hall(s) for immediate use.

In either set-up, there where vaccine supply runs can be driven directly into a shielded off, closed, interior bay, hall, or more secure covered/indoor area, the better, as this offers extra security from thieves, robbers, or activists who might want to harm or contaminate supplies. Hence, consider if and where supplies can be delivered onsite directly into an indoor area by vehicle. Illustrative, while not set up for this same purpose, is the February 2021 use of trucks parked inside of convention centre halls to store medical waste.



Newspaper Article on Use of Cooling Trucks to Temporarily Store Medical Waste On Venue Site.

**10 | Think through your post-vaccine shot waiting area.** Ensure that in addition to chairs, you have at least several beds available in the post-injection waiting area where people wait to check they do not have a negative reaction to the virus. This because for some people, including some elderly, it is more comfortable to wait while lying in a restful position, and because if someone does have a seriously adverse reaction, it is often easiest for First Aid personnel

or doctors to start treating that person while they are laying down. Observes Messe Frankfurt Vice President Cordelia von Gymnich: “We were able to use them on day one. We only thought about them last moment before the test run-through, added them in, and as soon as we started with the vaccinations, which included a group of elderly persons, we found we needed them.”

**11 | Carefully consider ventilation requirements.** Medical authorities in different countries are paying increased attention to the ventilation of vaccination centres as people entering the venue to get a vaccination shot are still seen to be a (potential) COVID risk. Ensure your Building Management System engineers responsible for ventilation and airflow are engaged in the process from the start, and have them specifically inquire about ventilation requirements. Many venues such as the Dubai World Trade Centre and the Scottish Event Campus (SEC) that have operated as emergency hospitals previously, or still are, have found the prior work done in this area of great advantage in meeting officials’ requests. The SEC operates as the NHS Louisa Jordan Hospital, which has now been extended with the NHS Louisa Jordan Vaccine Centre.

A leading reference from the British government on vaccination ventilation issues is the September 2020 document ‘SO789 Role of Ventilation Controlling



NHS Louisa Jordan Vaccine Centre at the SEC in Scotland

SARS-CoV-2 Transmission’ drawn up by the Environmental and Modelling Group (EMG) of the Scientific Advisory Group of Emergencies, or SAGE.

This document can be accessed here.

The website of the UK SAGE and its EMG with other reference documents on controlling COVID and ventilation:

Can be accessed here.

**Anhembi será ponto de vacinação drive-thru em São Paulo**

Por Luis Orsolon - 4 de fevereiro de 2021



**12 | Do not overlook effective branding and marketing opportunities, particularly as regards the local news.**

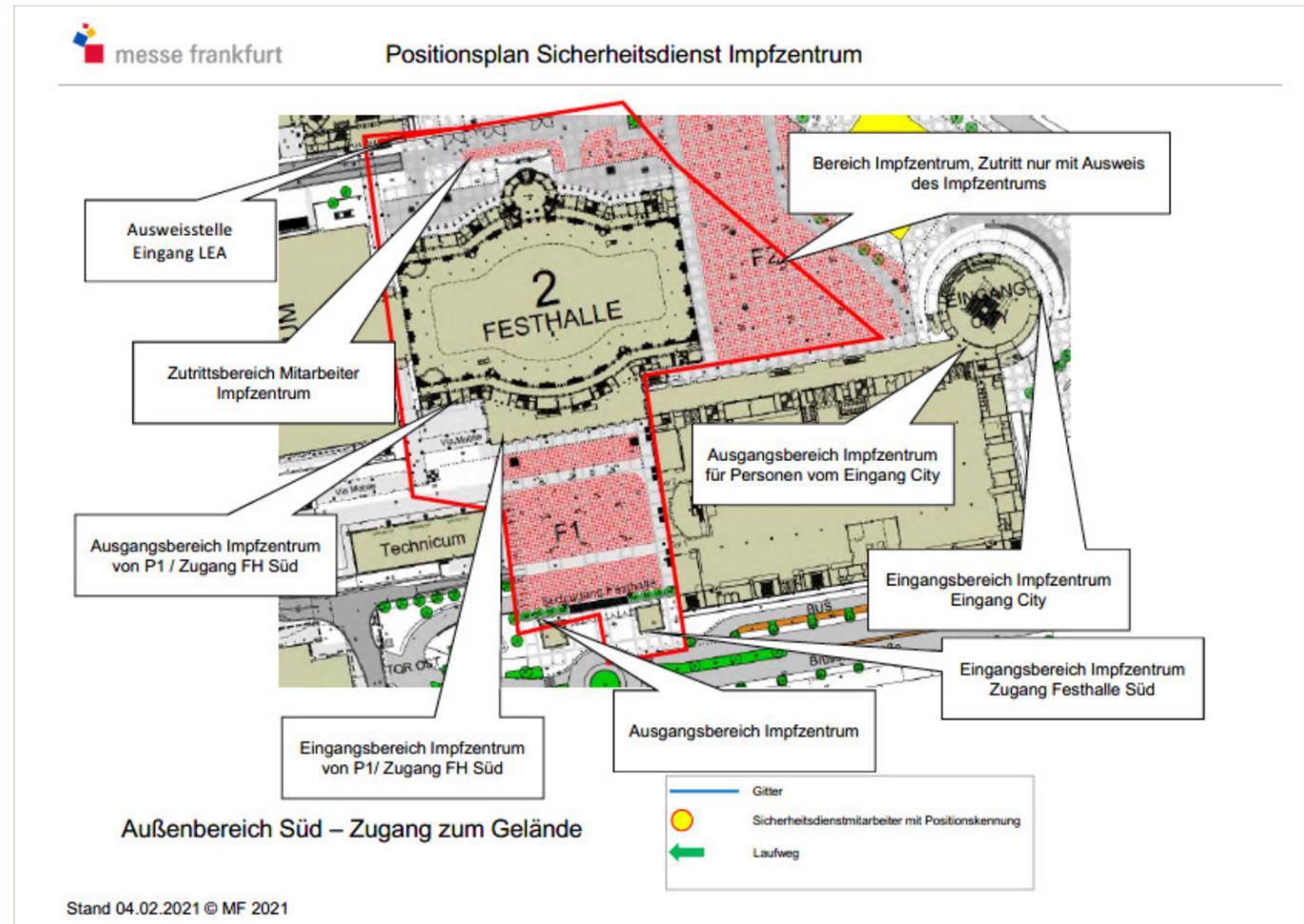
As you serve your community and country, take the time to think through all the opportunities that might present themselves for strengthening your brand name as you do this. The process of getting ready to serve as a vaccination centre may offer such opportunities in particular, as it is generally ‘news’ when your venue a) becomes a vaccination centre; b) announces the days and times in which it will be in operation; c) has its opening; and d) hits milestones, like “50,000 vaccinations completed” or “all nurses and doctors in the city vaccinated” or “all seniors over 65 now immunized” or some such. Most vaccine locations serve their own local community first and foremost, so there is an inherent public interest and public service aspect story relevant for local media. A core theme: your facility’s vital positive contribution to your community.

But two examples of stories – one as an information bulletin on the website, one in a regional newspaper – on the Anhembi Convention Centre in Sao Paulo, Brazil, which opened a new drive-through vaccination service in February 2021.



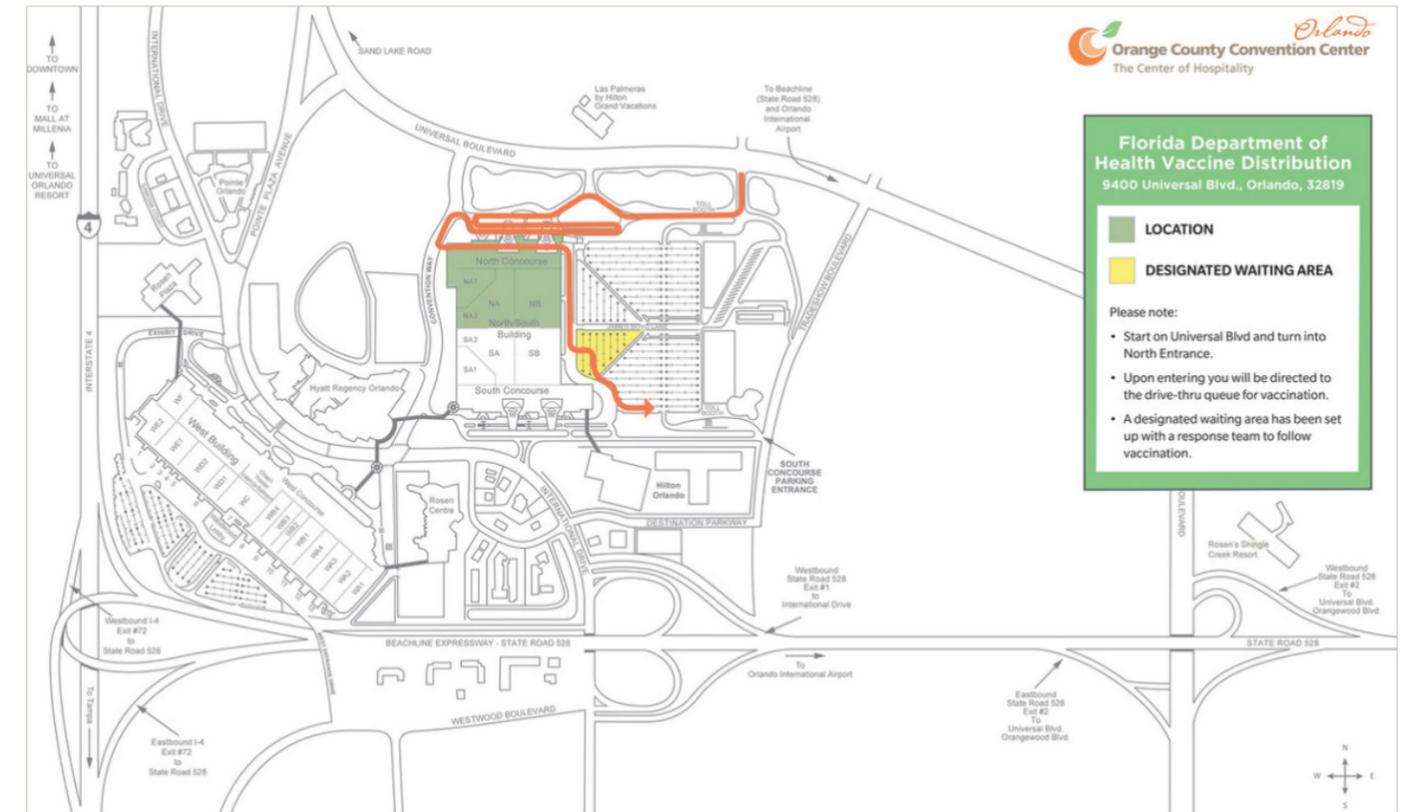
APPENDIX 3 |

Messe Frankfurt Vaccination Centre Security Staff Deployment Plan.



APPENDIX 4 |

Orange County Convention Center Map for Drive-Thru Vaccination.





[www.aipc.org](http://www.aipc.org) | [secretariat@aipc.org](mailto:secretariat@aipc.org)

[www.iccaworld.org](http://www.iccaworld.org) | [icca@iccaworld.org](mailto:icca@iccaworld.org)

[www.ufi.org](http://www.ufi.org) | [info@ufi.org](mailto:info@ufi.org)