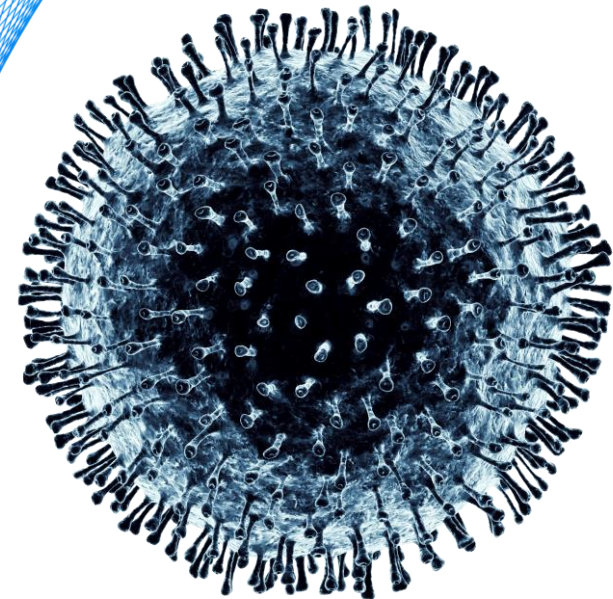


Alternate treatment sites for COVID-19 patients

April 2020

CONFIDENTIAL AND PROPRIETARY

Any use of these materials without specific permission is strictly prohibited. This deck does not constitute legal, medical, accounting, tax, or other regulated advice, such as professional advice normally provided by licensed or certified practitioners



Objectives and contents

Objective of this document

COVID-19 is, first and foremost, a global humanitarian challenge. Thousands of Mexicans have been infected by the virus, and thousands more are soon to follow. As hospitals run out of beds to treat patients, it will be of the essence to identify alternative treatment sites.

This document is meant to explain how to identify alternate treatment sites, including the potential restrictions and calculate the potential bed capacity for each alternative treatment site

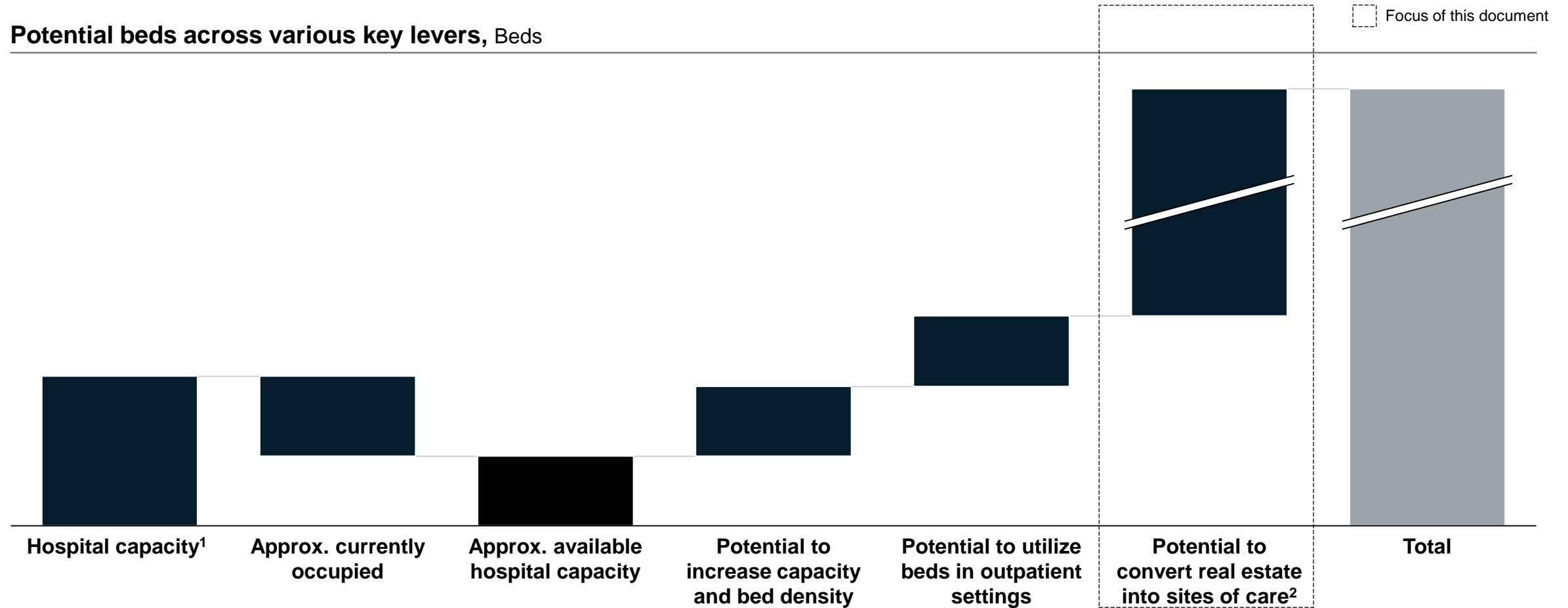
This document is focused on:

- Understanding the suitability of alternate treatment sites
- Displaying for each category of alternative treatment site conversion rates to calculate the potential number of beds

Different actions can be taken to increase bed capacity

ILLUSTRATIVE



Potential beds across various key levers, Beds















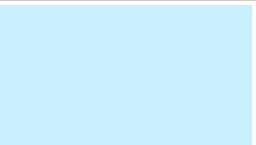
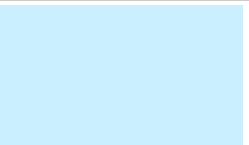
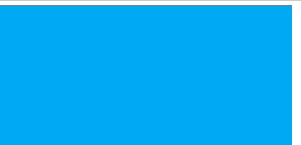

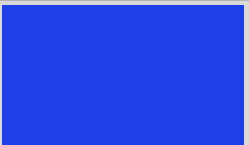
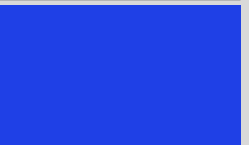
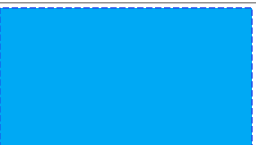
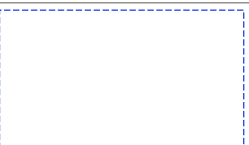


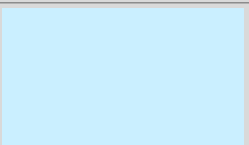
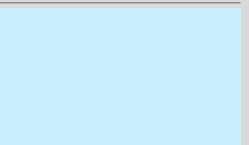


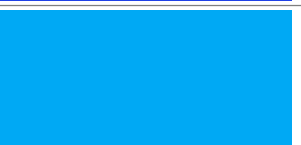

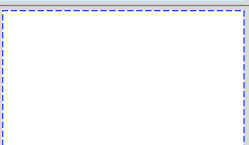
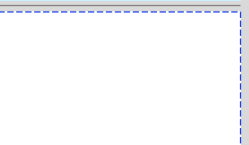
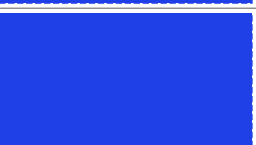





Each action will have different levels of feasibility and should take into account the speed at which these actions can be deployed; most outpatient and alternative sites of care will be best suited for lower acuity patients (both COVID-19 and non-COVID-19)

1. Includes XX ICU beds and XX med/surg beds; 2. ACS bed count is total capacity that could be selected from – realistic capacity will be lower and constrained by workforce and supplies
Note: Hospitals with higher percentage of non-elective cases could triage ED visits to alternate sites; select “elective” cases may remain such as oncology-related

Non- healthcare sites are applicable for low patient acuity ILLUSTRATIVE

 Site applicability, low to high  Focus of this document

Direct hospital supervision and operation ideal

Patient acuity	Shortage of beds vs. peak	Time to set up new site ¹	Rationale	Existing healthcare sites			Deployable	Repurposed non-healthcare sites	
				Hospital	Outpatient, current (e.g. urgent, office)	Outpatient, converted (e.g. SNF, ASC, LTAC)	Field hospital (e.g. ship, tent ²)	Undivided (e.g. convention center)	Divided (e.g. dorm, hotel, classroom)
Potential Capacity			Number of unoccupied beds	XX (Expandable to XX)	XX	XX	XX nationally	XX	XX
Non-COVID-19 (varying acuity)	XX	1-2 weeks	Diverse patient needs can be met by community PCPs and specialists, and varying site capabilities						
COVID-19 Mild (observation only)	XX	Hours-to-days	Minimal care management, low risk of disease progression						
COVID-19 Severe 1 (observation, oxygen support)	XX Med/surg	<1 week	Minimal care team ratios, minimal supplies, no telemetry						
COVID-19 Severe 2 (oxygen, vitals support)		<1 week	Minimal care team ratios, access to experimental treatments, potential for telemetry						
COVID-19 Severe 3 (intense vitals support)		1-2 weeks	Medium HCP to patient ratio, experimental treatment, anesth and respiratory on standby for intubation as needed						
COVID-19 Critical (ventilator, critical care)	XX ICU	2-4+ weeks	High HCP:patient ratio, equipment need (ventilators, telemetry); increased time to optimize sites/transfers						

1. Average time to establish new site able to handle given acuity of patient, Speed to set up physical site – timeline to begin treating patients is contingent upon several factors including: labor, supplies, operator selection, funding ;
 2. Field hospitals can be set up using military DRASH tents

Non- healthcare sites have a specific conversion rate to calculate number of beds

#	Category	Conversion Rate
1	Public Schools	5 beds/professor
2	Private Schools	0.25 beds/pupil
3	Convntion Centers	15.6 sq meters/bed
4	Warehouses	15.6 sq meters/bed
5	Sport Venues	15.6 sq meters/bed

Category

COVID-19 patients

Conversion factors used to calculate potential beds:

- Public schools 5 beds/teacher
- Private schools 0.25 beds/student
- Convention centers 15.6 sq meters/bed
- Warehouses 15.6 sq meters/bed
- Sport Venues 15.6 sq meters/bed

Unique	Category	Name	State	City	Locality	Address	Longitude	Latitude	Potential beds	Distance to nearest hospital (km)	Nearest Hospital Name	Nearest Hospital Local
1	PUBLIC SCHOOLS	CENTRO 200 IMSS NU	AGUASCALIENTES	AGUASCALIENTES	AGUASCALIENTES	AVENIDA COM	-102.291221	21.865855	50	0.307709007	INSTITUTO MEXICANO DEL	AGUASCALIENTES
2	PUBLIC SCHOOLS	AGUSTIN MELGAR	AGUASCALIENTES	AGUASCALIENTES	AGUASCALIENTES	CALLE LIC. LU	-102.305797	21.848473	60	2.307410751	INSTITUTO MEXICANO DEL	AGUASCALIENTES
3	PUBLIC SCHOOLS	SECUNDARIA TECNICA	AGUASCALIENTES	AGUASCALIENTES	AGUASCALIENTES	CALLE JOSE F	-102.300813	21.876143	120	1.298158657	INSTITUTO MEXICANO DEL	AGUASCALIENTES
4	PUBLIC SCHOOLS	SECUNDARIA TECNICA	AGUASCALIENTES	AGUASCALIENTES	AGUASCALIENTES	CALLE JOSE F	-102.300813	21.876143	120	1.298158657	INSTITUTO MEXICANO DEL	AGUASCALIENTES
5	PUBLIC SCHOOLS	GENERAL DE DIVISION	AGUASCALIENTES	AGUASCALIENTES	ARELLANO	CALLE EMILIA	-102.274444	21.800833	60	6.403653779	SECRETARIA DE SALUD	AGUASCALIENTES
6	PUBLIC SCHOOLS	SECUNDARIA TECNICA	AGUASCALIENTES	AGUASCALIENTES	AGUASCALIENTES	CALLE FRIDA	-102.264957	21.918032	95	3.192654162	SECRETARIA DE SALUD	AGUASCALIENTES
7	PUBLIC SCHOOLS	SECUNDARIA TECNICA	AGUASCALIENTES	AGUASCALIENTES	AGUASCALIENTES	CALLE FRIDA	-102.264957	21.918032	95	3.192654162	SECRETARIA DE SALUD	AGUASCALIENTES
8	PUBLIC SCHOOLS	MARIANO JIMENEZ	AGUASCALIENTES	AGUASCALIENTES	AGUASCALIENTES	AVENIDA SIG	-102.265089	21.85384	60	1.009051268	SECRETARIA DE SALUD	AGUASCALIENTES
9	PUBLIC SCHOOLS	HUMBERTO RAMIREZ	AGUASCALIENTES	AGUASCALIENTES	AGUASCALIENTES	CALLE SAN PE	-102.244737	21.876116	60	0.972885228	INSTITUTO MEXICANO DEL	AGUASCALIENTES
10	PUBLIC SCHOOLS	CUAUHTEMOC	AGUASCALIENTES	AGUASCALIENTES	AGUASCALIENTES	AVENIDA IND	-102.29785	21.940167	60	2.154168455	INSTITUTO MEXICANO DEL	JESUS MARIA [EJIDO]
11	PUBLIC SCHOOLS	CENTRO DE ATENCION	AGUASCALIENTES	AGUASCALIENTES	AGUASCALIENTES	AVENIDA REV	-102.310733	21.846454	60	2.781869837	INSTITUTO MEXICANO DEL	AGUASCALIENTES
12	PUBLIC SCHOOLS	MIGUEL ANGEL BARB	AGUASCALIENTES	AGUASCALIENTES	AGUASCALIENTES	CALLE TRABA	-102.24613	21.870704	60	1.048507394	INSTITUTO MEXICANO DEL	AGUASCALIENTES
13	PUBLIC SCHOOLS	CONGRESO DE ANAH	AGUASCALIENTES	AGUASCALIENTES	AGUASCALIENTES	CALLE REPUB	-102.306164	21.869746	205	1.296852215	INSTITUTO MEXICANO DEL	AGUASCALIENTES
14	PUBLIC SCHOOLS	CONGRESO DE ANAH	AGUASCALIENTES	AGUASCALIENTES	AGUASCALIENTES	CALLE REPUB	-102.306164	21.869746	205	1.296852215	INSTITUTO MEXICANO DEL	AGUASCALIENTES
15	PUBLIC SCHOOLS	JESUS AGUILERA PAL	AGUASCALIENTES	AGUASCALIENTES	AGUASCALIENTES	CALLE JUAN J	-102.259047	21.914114	145	3.28221355	SECRETARIA DE SALUD	AGUASCALIENTES
16	PUBLIC SCHOOLS	JESUS AGUILERA PAL	AGUASCALIENTES	AGUASCALIENTES	AGUASCALIENTES	CALLE JUAN J	-102.259047	21.914114	145	3.28221355	SECRETARIA DE SALUD	AGUASCALIENTES
17	PUBLIC SCHOOLS	CENTRO DE ATENCION	AGUASCALIENTES	AGUASCALIENTES	AGUASCALIENTES	AVENIDA LICE	-102.288885	21.879509	60	1.574961197	INSTITUTO MEXICANO DEL	AGUASCALIENTES
18	PUBLIC SCHOOLS	JEAN PIAGET	AGUASCALIENTES	AGUASCALIENTES	AGUASCALIENTES	CALLE CERRO	-102.312138	21.923247	60	2.413313421	INSTITUTO DE SEGURIDAD	AGUASCALIENTES
19	PUBLIC SCHOOLS	SOLIDARIDAD	AGUASCALIENTES	JESÚS MARÍA	JESÚS MARÍA	CALLE LEONA	-102.348619	21.953631	60	4.137432615	INSTITUTO MEXICANO DEL	JESUS MARIA [EJIDO]
20	PUBLIC SCHOOLS	DR. PEDRO DE ALBA	AGUASCALIENTES	AGUASCALIENTES	AGUASCALIENTES	CALLE RICAR	-102.309272	21.877477	60	1.99729449	INSTITUTO MEXICANO DEL	AGUASCALIENTES
21	PUBLIC SCHOOLS	ISMAEL COLLAZO GA	AGUASCALIENTES	AGUASCALIENTES	AGUASCALIENTES	CALLE PALMA	-102.240983	21.862889	90	1.439203876	SECRETARIA DE SALUD	AGUASCALIENTES

Considering conversion rate, a number of additional beds can be offered

ILLUSTRATIVE



Preliminary

Potential Capacity by Real Estate Asset Class	Feasibility	Speed ²	Execution considerations
Hotels ¹		XX weeks	Private ownership could pose challenges; bedrooms provide natural compartmentalization which could limit co-infection
Public K-12 schools		X weeks	Typically limited capacity relative to other options; potential to take control quickly given public ownership
Convention centers		XX weeks	Typically centrally located; large open floor plans are conducive to running efficient operations (e.g., medical staff/patient ratio)
Private university dorms		X weeks	Private ownership could pose challenges; bedrooms provide natural compartmentalization which could limit co-infection
Private K-12 schools		X weeks	Typically limited capacity relative to other options; private ownership could pose challenges to accessing quickly
Public university dorms		X weeks	Potential to take control quickly given public ownership; bedrooms provide natural compartmentalization which could limit co-infection
Warehouse		X weeks	Challenging when HVAC is not in place; large open floor plans are conducive to running efficient operations
Community centers		X weeks	Speed to set up depends on floorplan (determining if site modifications are required) and ownership structure (public is preferable)
Sports venues		X weeks	Easier if enclosed with roof. Typically less contiguous square footage than a convention center, which could yield less efficient operations
Total			

NOTE: Data filters out 1) any site with less than 50 bed capacity, and 2) any site more than 10 miles away from a hospital; Location to facility is determined through geospatial analytics built into the model; Chart simply shows potential bed capacity, it does not make any commentary on prioritization of alternate care sites

1. Does not include small B&Bs and small motels; 2 Speed to set up physical site – timeline to begin treating patients is contingent upon several factors including: labor, supplies, operator selection, funding

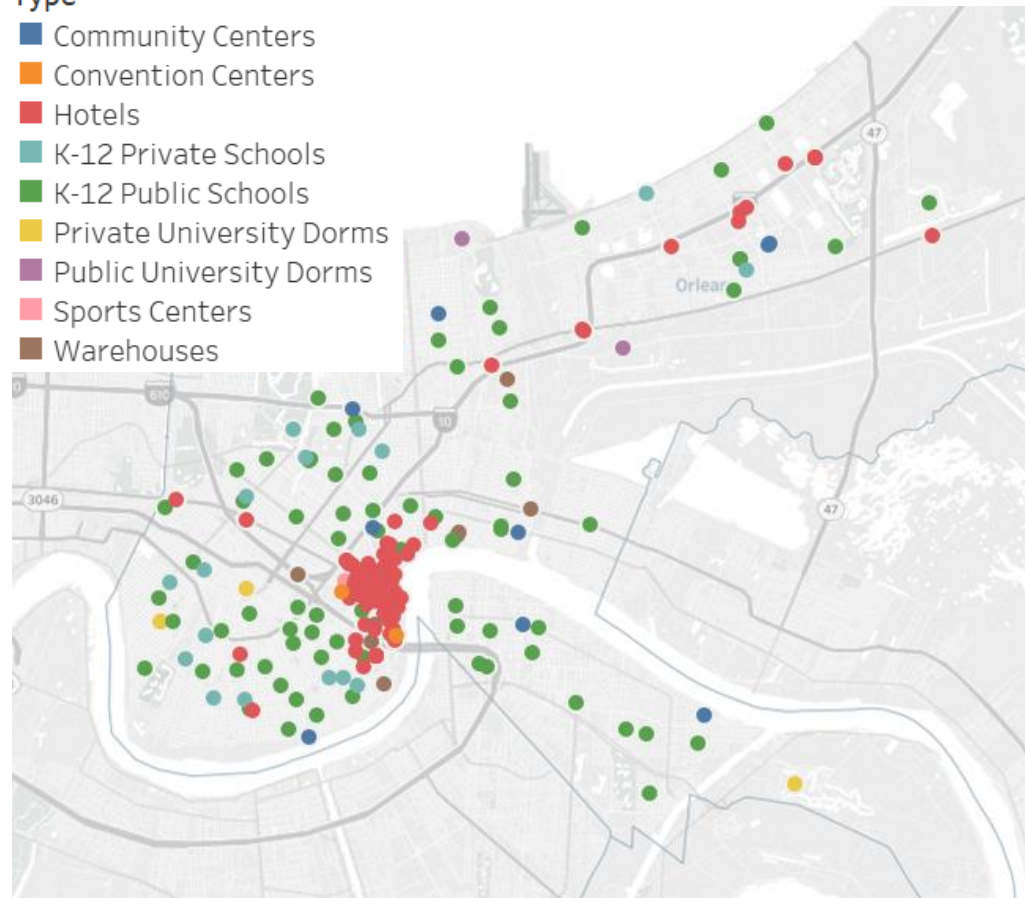
Example analysis: What large potential alternate care sites exist in Orleans Parish or have volunteered?

ILLUSTRATIVE

Potential non-healthcare sites

Type

- Community Centers
- Convention Centers
- Hotels
- K-12 Private Schools
- K-12 Public Schools
- Private University Dorms
- Public University Dorms
- Sports Centers
- Warehouses



Name	Type	Potential capacity
Convention Center	Convention center	11,210
University 1	Private university dorm	3,660
University 2	Public university dorm	1,440
University 3	Private university dorm	1,350
University 4	Private university dorm	1,340

Hotels volunteered as of 3/31/20¹

Hotel 1	1,622
Hotel 2	1,333
Hotel 3	693

Facilities can rapidly be evaluated against a suitability assessment

ILLUSTRATIVE

Name University 1

Site Description

Student housing units licensed to support up to 1,440 individuals. Options of 1, 2, and 4 bedroom units, each with at least one bathroom per unit.

Facility Type Public university dorm

Level of Care Non-acute

State Louisiana

County Orleans Parish

City New Orleans

Address TBC

Coordinates X, Y

Site Area 1,444 beds

Flood Zone No

Water Yes

Sewer Yes

Electric Yes

Fire Hydrant Yes, w/ sprinklers

Natural Gas In kitchens

Telecom Yes

Ingress/Egress

Buildings have entrances suitable for ambulances and gurneys. Each building has at least one elevator.