APPENDIX
AS OF FEBRUARY 23, 2021
COVID-19 CASE GROWTH TREND

Monitoring threshold:
Threshold is exceeded by the occurrence of a positive 7-day average growth in % test positivity

Note: Public testing data for this chart may lag several weeks.

Data has been released through 2/13.

COVID-19 TESTING TRENDS FOR GREATER HOUSTON AREA

Data from Texas Department of State Health Services

- 7-day trend of % test positivity for COVID-19
- 7-day trend of daily # of tests performed

Note: DSHS released 13,622 older cases on 9/22/2020 impacting positivity trend

Source: TX Health and Human Services (https://dshs.texas.gov/coronavirus/AdditionalData.aspx)
Note: Excludes days with no tests reported
1. Austin, Brazoria, Chambers, Fort Bend, Galveston, Harris, Liberty, Montgomery and Waller
2. Test data on chart will have a 1-day lag

Reflects retroactive changes in testing data made by Texas Department of Health and Human Services on 6/9/2020

"TMC" refers to the group of systems that make up Texas Medical Center

This document is solely intended to share insights and best practices rather than specific recommendations. Individual institution data is shown as reported and has not been independently verified.
AVERAGE DAILY COVID-19 TESTING METRICS BY WEEK ACROSS GREATER HOUSTON AREA

Data from Texas Department of State Health Services

7-day trend of % test positivity for COVID-19  
7-day trend of daily # of tests performed

Note: Public testing data for this chart may lag several weeks.

Data has been released through 2/13.

Source: TX Health and Human Services (https://dshs.texas.gov/coronavirus/AdditionalData.aspx)

Note: Excludes days with no tests reported

Reflects retroactive changes in testing data made by Texas Department of Health and Human Services on 6/9/2020

This document is solely intended to share insights and best practices rather than specific recommendations. Individual institution data is shown as reported and has not been independently verified

1. Austin, Brazoria, Chambers, Fort Bend, Galveston, Harris, Liberty, Montgomery and Waller

"TMC" refers to the group of systems that make up Texas Medical Center
This document is solely intended to share insights and best practices rather than specific recommendations. Individual institution data is shown as reported and has not been independently verified.

**TOTAL TMC COVID-19 POSITIVE PATIENTS (ICU & MED SURG) IN HOSPITAL**

**Daily COVID-19 patients in ICU & Med Surg**

**7-day trend of COVID-19 patients in ICU & Med Surg**

**Current status:** -0.4% daily growth rate (averaged over 7 days) in COVID-19 patients in med surg and ICU combined

**Notes:**

While new daily cases may fluctuate for a variety of reasons (e.g., testing), the number of COVID-19 positive patients being treated in med surg and ICU shows an objective view of how COVID-19 impacts hospital systems.

Source: Internal data collected from the systems CHI Texas Division, Harris Health System, Houston Methodist, MD Anderson Cancer Center, Memorial Hermann, Texas Children’s Hospital, UTMB

“TMC” refers to the group of systems that make up Texas Medical Center

All guidelines should be in accordance with CDC guidelines
This document is solely intended to share insights and best practices rather than specific recommendations. Individual institution data is shown as reported and has not been independently verified.

Current status:
-1.4% daily growth rate (averaged over 7 days) in COVID-19 patients in ICU

Notes:
While new daily cases may fluctuate for a variety of reasons (e.g., testing), the number of COVID-19 positive patients being treated in ICU shows an objective view of how COVID-19 impacts hospital systems.

Source: Internal data collected from the systems CHI Texas Division, Harris Health System, Houston Methodist, MD Anderson Cancer Center, Memorial Hermann, Texas Children’s Hospital, UTMB

“TMC” refers to the group of systems that make up Texas Medical Center

All guidelines should be in accordance with CDC guidelines.
This document is solely intended to share insights and best practices rather than specific recommendations. Individual institution data is shown as reported and has not been independently verified.

Current status:

0.0% daily growth rate (averaged over 7 days) in COVID-19 patients in med surg

Notes:

While new daily cases may fluctuate for a variety of reasons (e.g., testing), the number of COVID-19 positive patients being treated in Med surg shows an objective view of how COVID-19 impacts hospital systems.

Source: Internal data collected from the systems CHI Texas Division, Harris Health System, Houston Methodist, MD Anderson Cancer Center, Memorial Hermann, Texas Children’s Hospital, UTMB

“TMC” refers to the group of systems that make up Texas Medical Center

All guidelines should be in accordance with CDC guidelines

February 23, 2021
This document is solely intended to share insights and best practices rather than specific recommendations. Individual institution data is shown as reported and has not been independently verified.

### TMC CAPACITY PLANNING PROTOCOL

#### Definitions

- **Phase 1 Intensive Care Beds**
  - ICU bed configuration and staffing under non-pandemic situations

- **Phase 2 Intensive Care Beds**
  - Builds on ICU capacity using our existing plans - through increasing staffing levels and ratios, mobilizing additional Intensive Care equipment & utilizing additional beds

- **Phase 3 Intensive Care Beds**
  - Further planned utilization of Phase 2 levers of surge capacity to provide additional temporary Intensive Care capacity

#### Capacity planning

- Our hospitals are **very experienced at operating at near 100% capacity** and are able to flex up and down when needed (e.g., with additional staffing)

- We have proactively developed our surge plans and are **able to add extensive capacity when needed** (e.g., by adding additional staff, additional equipment, additional beds, and increasing densification)

- Additionally, we **can moderate intake of non-COVID 19 patients**, based on the clinical needs of the elective portion of these patients. **Non-COVID 19 patients today represents the vast majority of our patients.**
This document is solely intended to share insights and best practices rather than specific recommendations. Individual institution data is shown as reported and has not been independently verified.

**OVERVIEW OF TMC BED STATUS**

- **Phase 1 Intensive Care Beds (1330 beds)**
  - ICU bed configuration under non-pandemic conditions

- **Phase 2 Intensive Care Beds (1703 beds)**
  - Planned additional Intensive Care capacity for the duration of pandemic

- **Phase 3 Intensive Care Beds (2207 beds)**
  - Planned temporary Intensive Care surge capacity
  - Ability to further increase Phase 3 through conversion of non-Intensive Care beds

---

**COVID-19 – Intensive Care Beds usage**

<table>
<thead>
<tr>
<th>Phase</th>
<th>Intensive Care Beds in use</th>
<th>Medical/Surgical beds in use</th>
<th>Empty beds</th>
</tr>
</thead>
<tbody>
<tr>
<td>Phase 1 ICU</td>
<td>387</td>
<td>1,049</td>
<td>6,110</td>
</tr>
<tr>
<td>Phase 2 Intensive Care</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Phase 3 Intensive Care</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Non-COVID-19 – Intensive Care Beds usage**

<table>
<thead>
<tr>
<th>Phase</th>
<th>Intensive Care Beds in use</th>
<th>Medical/Surgical beds in use</th>
<th>Empty beds</th>
</tr>
</thead>
<tbody>
<tr>
<td>Phase 1 ICU</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Phase 2 Intensive Care</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Phase 3 Intensive Care</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Non-COVID-19 – Medical Surgical Beds usage**

<table>
<thead>
<tr>
<th>Phase</th>
<th>Intensive Care Beds in use</th>
<th>Medical/Surgical beds in use</th>
<th>Empty beds</th>
</tr>
</thead>
<tbody>
<tr>
<td>Phase 1 ICU</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Phase 2 Intensive Care</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Phase 3 Intensive Care</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**COVID-19 - Medical Surgical Beds usage**

<table>
<thead>
<tr>
<th>Phase</th>
<th>Intensive Care Beds in use</th>
<th>Medical/Surgical beds in use</th>
<th>Empty beds</th>
</tr>
</thead>
<tbody>
<tr>
<td>Phase 1 ICU</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Phase 2 Intensive Care</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Phase 3 Intensive Care</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Current available (unused) beds**

<table>
<thead>
<tr>
<th>Phase</th>
<th>Intensive Care Beds in use</th>
<th>Medical/Surgical beds in use</th>
<th>Empty beds</th>
</tr>
</thead>
<tbody>
<tr>
<td>Phase 1 ICU</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Phase 2 Intensive Care</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Phase 3 Intensive Care</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Additional capacity (if needed)**

<table>
<thead>
<tr>
<th>Phase</th>
<th>Intensive Care Beds in use</th>
<th>Medical/Surgical beds in use</th>
<th>Empty beds</th>
</tr>
</thead>
<tbody>
<tr>
<td>Phase 1 ICU</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Phase 2 Intensive Care</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Phase 3 Intensive Care</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

---

1. Intensive Care
2. Total bed availability may fluctuate over time, given ongoing planning and operational considerations. On June 28th and 29th, the total unoccupied beds should have been 3,506 and 3,565, respectively. These data updates did not change ICU or med-surg occupancy and did not change ICU capacity percentages reported on any date.

---

TMC leaders are actively managing, and can adjust, elective procedures to ensure sufficient capacity for COVID-19 needs.
# TMC Expected PPE Needs

<table>
<thead>
<tr>
<th>Item</th>
<th>Average daily burn rate¹</th>
<th>Estimated days available</th>
<th>Status</th>
</tr>
</thead>
<tbody>
<tr>
<td>N95 respirator masks</td>
<td>3,665</td>
<td>430</td>
<td></td>
</tr>
<tr>
<td>Surgical face masks</td>
<td>114,402</td>
<td>183</td>
<td></td>
</tr>
<tr>
<td>Eye protection</td>
<td>3,770</td>
<td>1,081</td>
<td></td>
</tr>
<tr>
<td>Gowns</td>
<td>46,402</td>
<td>180</td>
<td></td>
</tr>
<tr>
<td>Gloves</td>
<td>844,537</td>
<td>53</td>
<td></td>
</tr>
</tbody>
</table>

¹ Calculated using trailing 2-week average burn rate

Source: Internal data collected from the systems CHI Texas Division, Harris Health System, Houston Methodist, MD Anderson Cancer Center, Memorial Hermann, Texas Children’s Hospital, UTMB

---

**Monitoring threshold:**
30-day supply of critical PPE items

**Current status:**
All critical PPE items within range

**Note:**
Data shown represents all TMC institutions and might vary from institution to institution

---

**February 23, 2021**

---

This document is solely intended to share insights and best practices rather than specific recommendations. Individual institution data is shown as reported and has not been independently verified.
### TMC Testing Capacity

**PCR tests, (#/day)**

<table>
<thead>
<tr>
<th>Current capacity</th>
<th>Expected capacity (2-4 weeks)</th>
<th>Expected capacity (4-6 weeks)</th>
</tr>
</thead>
<tbody>
<tr>
<td>5,000</td>
<td>10,000</td>
<td></td>
</tr>
<tr>
<td>15,329</td>
<td>17,479</td>
<td>17,564</td>
</tr>
</tbody>
</table>

**Monitoring threshold:**

5,000-10,000 PCR tests per day available for hospital patients and healthcare worker surveillance (with <24 hour turnaround time)

**Notes:**

Capacity is dependent on critical supplies (reagents)

---

1. Austin, Brazoria, Chambers, Fort Bend, Galveston, Harris, Liberty, Montgomery and Waller

Source: Internal data collected from the systems Baylor College of Medicine, CHI Texas Division, Harris Health System, Houston Methodist, MD Anderson Cancer Center, Memorial Hermann, Texas Children’s Hospital, UT Health, UTMB

"TMC" refers to the group of systems that make up Texas Medical Center
TMC DATA COLLECTION PROCESS

Clinical data
Previous day’s clinical data submitted by each hospital system by 4p.m. daily
Bed capacity data regularly confirmed with each hospital system as individual surge capacity plans evolve

Houston MSA COVID-19 cases
New daily COVID-19 case data for Houston MSA collected from TX DHS (Data captured on publication date, but reflects data from the previous day)

Houston MSA COVID-19 tests
New daily testing data for Houston MSA collected from TX DHS (Data captured on publication date, but reflects data from 2 days prior)

Dashboard compilation
Hospital clinical data and Houston MSA data analyzed and aggregated into dashboards by TMC

Leadership Review
Compiled dashboards reviewed and finalized by TMC leadership

TMC dashboard publication
Finalized dashboard published on tmc.edu website

1. System-wide clinical data collected from CHI Texas Division, Harris Health System, Houston Methodist, MD Anderson Cancer Center, Memorial Hermann, Texas Children’s Hospital, UTMB. TMC institutions represent ~70-80% of licensed beds in the 9 Houston MSA counties
2. Houston MSA includes 9 counties: Austin, Brazoria, Chambers, Fort Bend, Galveston, Harris, Liberty, Montgomery and Waller
3. Source: txdhs.gov

This document is solely intended to share insights and best practices rather than specific recommendations. Individual institution data is shown as reported and has not been independently verified