In 2020, COVID-19 infection rates in Houston soared. As area hospitals neared capacity and public confusion increased, the Houston Health Department quickly stepped in to manage the crisis. Through aggressive, large-scale, community-based service provisions, the department provided exceptional, proactive advocacy to promote public health, worker safety and public safety. Their extensive and transparent public health information programs, along with a methodical, reliable workplace safety culture, provided credible information and services during a chaotic time.

The Houston Health Department developed its COVID-19 response strategy in line with the department’s vision to support self-sufficient families and individuals in safe and healthy communities. By partnering with 26 municipal departments, the county health department, six major healthcare systems, and over 40 external partners, their campaign effectively reached citizens with life-saving information. The department also integrated infection prevention into all operations, events, and daily life, an effort that affected 2.31 million Houstonians, covered 669 square miles, and included over 30,000 City of Houston employees.

These efforts made a huge impact on the city’s public health, economy, health care infrastructure and more. The operation required subject matter expertise, strong alliances, effective emergency response, well-timed advice and consultation, continuous marketing, and communication. The department’s safety leadership, epidemiologists, mass virus testing and vaccination operations, large-scale personal protective equipment and respiratory protection programs, procurement, public information, and other miscellaneous pandemic-related programs and services were deployed to stop the spread of COVID-19.

This includes:

- **Infrastructure:**
  - Implemented Incident Command System infrastructure for internal department operations, city-wide ICS task forces and subcommittees, and unified commands with the Houston Health Department and partnering agencies;
  - Instituted leadership roles in city-wide and county task forces and subcommittees.

- **Safety Planning, Preparedness, and Hazard Control:**
  - Planned and implemented exposure prevention protocols for all operations including congregation avoidance, physical separation, air circulation and filtration, social distancing, source control (mask use), hand hygiene, surface disinfection, contamination control zoning, and PPE and respirator use;
  - Created and validated over 200 safety plans for more than 100 organizations;
  - Developed leading indicator inspection checklists and provided over 530 schools and facilities with more than 1,0000 safety inspections;
Developed 10 leading indicator, hazard observation checklists and provided over 1,000 operations at more than 300 locations with 1,250 exposure prevention observations;

Logged over 1,000 near miss reports that led to improvements in all exposure prevention areas;

Safely contained and disposed of over 1 million pounds of hazardous biowaste;

Provided five assistance visits and over 100 planning hours for Houston-area jails;

Identified and validated over 500 sanitizers and disinfectants for effectiveness against COVID-19 for over 100 organizations;

Provided PPE inspection and validation for over 3 million items that facilitated the identification and removal of over 2 million counterfeit N95 masks;

Provided over 500 respiratory Fit Tests to numerous organizations;

Provided safety planning and oversight for hurricane and cold weather shelters during pandemic conditions for over 1,000 persons over eight days.

- **Public Health Operations:**
  - Planned and executed major public health operations and services to 2.31 million Houstonians, including:
    - Over 20 fixed COVID-19 testing sites administering up to 1,250 tests a day;
    - Six mobile COVID-19 testing locations each week, for a total of more than 300 locations, each administering up to 1,200 tests per day;
    - Over 382,000 vaccines administered at more than 30 sites providing up to 6,000 vaccines a day;
    - 39 wastewater treatment sites tested daily for COVID-19 viral loads;
    - Laboratory services for testing 1 million COVID-19 samples;
    - Comprehensive epidemiology and contact tracing operations.

- **Advocacy and Outreach:**
  - Achieved 2,500 community engagements and 146 million marketing impressions;
  - Communicated evidence-based data through a targeted outreach program to over 2,500 community partners and 71,000 individuals;
  - Completed over 2,300 assistance visits to schools, clinics, faith-based organizations, businesses and apartments;
  - Created or validated over 50 external organizational safety plans, facilitating over $500 million in Houston-area businesses and events;
  - Shared reliable infection prevention methodology through presentations with organizations such as the National Safety Council, the American Society of Safety Professionals, the Association of Occupational Health Professionals in Healthcare and the U.S. Department of Labor;
  - Featured in national publications with the NSC, ASSP, AOHP, and Industrial Safety and Hygiene News;
  - Safety resources shared with the NSC Government & Public Sector Division and the ASSP Healthcare Practice Specialty.