

Supportive and Allied Healthcare Services: Vital Roles during COVID-19 and Beyond

Access the recording here:

https://www.youtube.com/

watch?v=d-dX BQ-A8s

Welcome: Shayne Brannman, ASPR TRACIE

Moderator: Audrey Mazurek, ASPR TRACIE

Presenters: Rich Branson, University of Cincinnati

David Green, Vitalant

Heidi Kosakowski, American Physical Therapy Association Jamie Wilcox, University of Southern California



March 15, 2022



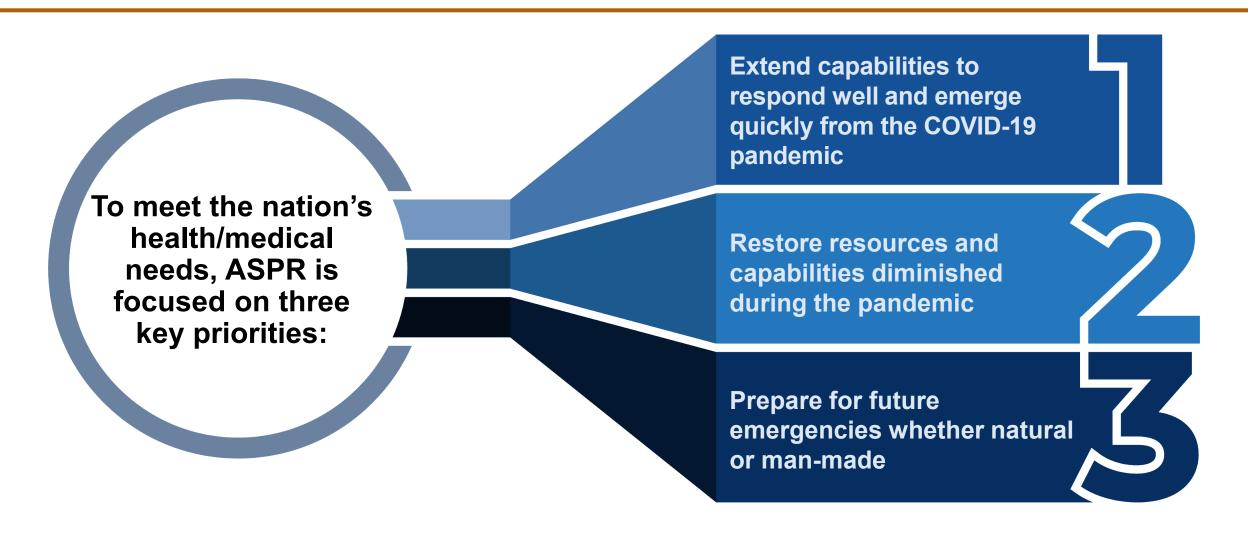
Welcome/Opening Remarks

Shayne Brannman, MS, MA
Director, ASPR TRACIE

Disclaimer

The views, opinions, and/or findings expressed are those of the author and should not be interpreted as representing the official views or policies of the U.S. Department of Health and Human Services or the U.S. Government.

ASPR Key Priorities



ASPR TRACIE: Three Domains



- Self-service collection of audience-tailored materials
- Subject-specific, SME-reviewed "Topic Collections"
- Unpublished and SME peer-reviewed materials highlighting real-life tools and experiences



- Personalized support and responses to requests for information and technical assistance
- Accessible by toll-free number (1844-5-TRACIE), email (askasprtracie@hhs.gov), or web form (ASPRtracie.hhs.gov)



- Area for password-protected discussion among vetted users in near real-time
- Ability to support chats and the peer-to-peer exchange of user-developed templates, plans, and other materials







Introductions

Audrey Mazurek, MS

Moderator
ICF TRACIE Program Director

Objectives & Setting the Stage

- Describe the traditional and non-traditional roles that ESF-8 supportive and allied health service partners played during COVID-19.
- Describe the innovations, lessons learned, and new trainings that were developed by these partners to quickly respond to the evolving and unique challenges of COVID-19.
- Describe how these partners can be fully integrated in healthcare preparedness, response, and recovery planning to support future emergencies/disasters.

Select ASPR TRACIE Resources



Resources

- ASPR TRACIE COVID-19 Resource Page
- Exchange Issue 13: The Work of Hospital Allied and Supportive Care Providers During COVID-19
- The Role of the Physical Therapist in Pandemic Response
- Respiratory Therapy and COVID-19
- Occupational Therapy and COVID-19
- The Experience of Chaplains during COVID-19
- The Virtual Hospital at Home—Denver Health's Experience Treating COVID-19 Patients Remotely
- Home Care and Hospice during COVID-19: A Rural Perspective



Speaker Series Presentations

- Community Pharmacists' Role in COVID-19
- Role of Physical Therapists in Pandemic Response
- Role of Respiratory Therapists during COVID-19
- Poison Control Roles during the Pandemic
- Managing the Nation's Blood Supply during the COVID-19 Pandemic

Respiratory Therapy Response After Two Years of the SARS CoV-2 Pandemic

Richard Branson, MSc RRT

Professor, University of Cincinnati Editor in Chief *Respiratory Care* American Association for Respiratory Care







Role of the Respiratory Therapist

- Entry-level respiratory therapists possess a Bachelor's degree from an accredited university
- Licensed in 49 states
- Allied health professionals with a clinical/bedside focus on patient assessment, diagnostic evaluation and delivery of complex technology in the intensive care unit, clinic and home
- Focus on cardiopulmonary physiology and pathophysiology
- Practice includes all things mechanical ventilation, aerosolized medications, airway clearance, and monitoring and assessment of oxygenation and ventilation

Role of the Respiratory Therapist

- During the COVID-19 pandemic respiratory therapists:
 - Procured, set-up, managed, and monitored mechanical ventilators
 - Delivered non-invasive respiratory support including non-invasive ventilation, high flow nasal cannula, and CPAP
 - Provided endotracheal intubation and airway care
 - Worked collaboratively to provide prone position of patients
 - Developed improved methods of patient and caregiver protection
 - Faced ventilator, PPE, and personnel shortages

Early Myths and Miscommunications

- If you have COVID-19 and need a mechanical ventilator you will die
- Don't use HFNC or NIV for risk of aerosol generating procedure
- The U.S. will need 200,000 to 1 million additional ventilators
- We can make simple ventilators that are cheap and easy to manufacture by first time manufacturers
- Happy hypoxics low blood oxygen with no sign of distress
- One ventilator can treat up to 4 patients

Early Myths and Miscommunications

If you have COVID-19 and need a mechanical ventilator you will die



88% MORTALITY
RATE
!!!!

JAMA | Original Investigation

Presenting Characteristics, Comorbidities, and Outcomes Among 5700 Patients Hospitalized With COVID-19 in the New York City Area

Safiya Richardson, MD, MPH; Jamie S. Hirsch, MD, MA, MSB; Mangala Narasimhan, DO; James M. Crawford, MD, PhD; Thomas McGinn, MD, MPH; Karina W. Davidson, PhD, MASc; and the Northwell COVID-19 Research Consortium

Outcomes for Patients Who Were Discharged or Died

Among the 2634 patients who were discharged or had died at the study end point patients requiring mechanical ventilation (n = 1151, 20.2%), 38 (3.3%) were discharged alive, 282 (24.5%) died, and 831 (72.2%) remained in hospital.

Mortality rates for those who received mechanical ventilation in the 18-to-65 and older-than-65 age groups were 76.4% and 97.2%,

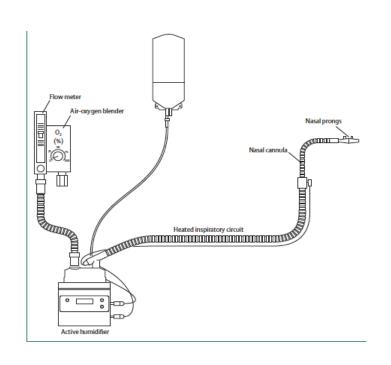
JAMA 2020;323;(20):2052-2059.

- HFNC and NIV could be used without increased risk to caregivers
- HFNC helped reduce the need for mechanical ventilation
- Prone positioning along with HFNC (not on a ventilator) helped improve oxygenation
- The SNS ventilators prevented ventilator rationing in the Northeast (NY, NJ and Mass)

Early Myths and Miscommunications

• Don't use HFNC or NIV for risk of aerosol generating procedure

HFNC and NIV could be used without increased risk to caregivers



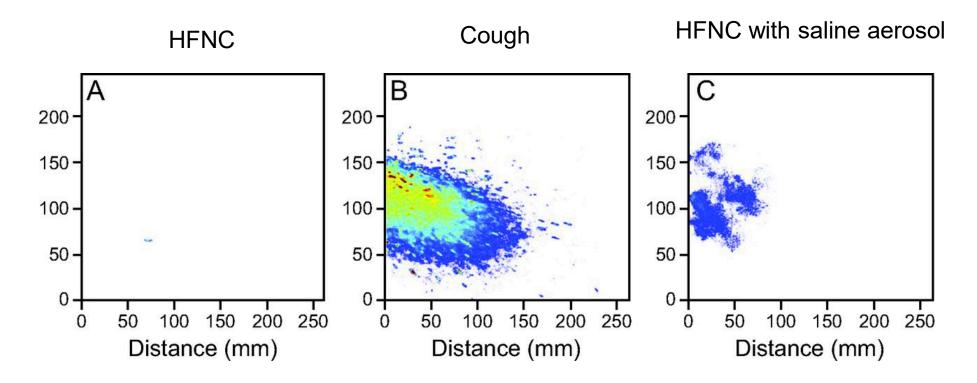


 Risk during HFNC and NIV is the subject with an intact airway during cough or sneeze



Reinout A Bem et al. Respir Care 2021;66:891-896

HFNC and NIV could be used without increased risk to caregivers



Reinout A Bem et al. Respir Care 2021;66:891-896

HFNC and NIV could be used without increased risk to caregivers

 Risk during HFNC and NIV is the subject with an intact airway during cough or sneeze



- Use a mask for the patient
- Appropriate PPE for caregivers

Early Myths and Miscommunications

- The U.S. will need 200,000 to 1 million additional ventilators
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Early Myths and Miscommunications

- We can make simple ventilators that are cheap and easy to manufacture by first time manufacturers
- Happy hypoxics low blood oxygen with no sign of distress
- One ventilator can treat up to 4 patients



- Silent hypoxemia has a physiologic basis
- Ventilators are complex devices that requires significant expertise
- Shared ventilation is inherently dangerous, was only accomplished in a small number of subjects and proved unnecessary

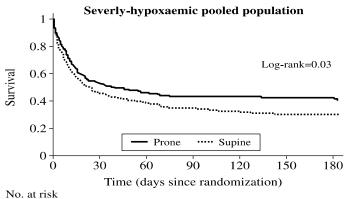
Branson et al CHEST 2021; 159(2):634-652 Bickler et al Anesthesiology 2021;134(2):262-269 Branson Respir Care 2021; 66(7):1173-1183

• Prone positioning along with HFNC (not on a ventilator) helped improve oxygenation









 No. at risk

 Supine
 226
 98
 80
 71
 41
 40
 40

 Prone
 260
 128
 140
 93
 55
 54
 54



Gattinoni L Minerva Anesthesiol 2012;76:448

- Staffing is the #1 problem
- Burnout has reached a high point
- Hospitals compete with staffing agencies for therapists driving up salaries and costs and promoting dissatisfaction

Staffing is the #1 problem

Coronavirus

COVID Shortage: Respiratory Therapists Are the Most In Demand

The health professionals are essential in the treatment of COVID-19 patients.

Dallas CEO Jan 2022

Burnout has reached a high point

Prevalence of Burnout Among Respiratory Therapists Amid the COVID-19 Pandemic

Andrew G Miller, Karsten J Roberts, Brian J Smith, Katlyn L Burr, Carl R Hinkson, Cheryl A Hoerr, Kyle J Rehder, and Shawna L Strickland

RESPIRATORY CARE • NOVEMBER 2021 Vol. 66 No 11

What this paper contributes to our knowledge

This study demonstrated a 79% prevalence of burnout among RTs. All centers reported a burnout rate of at least 53%. Significant associations were noted between burnout and the likelihood of missing work due to illness or missing work for any reason. The strongest predictors of burnout were burnout climate, RT staffing, and the inability to complete all work. Positive perceptions of leadership and not providing direct patient care were protective against burnout.

- Burnout associated with poor leadership
- Inadequate staffing
- Inability to complete assignment
- GOOD LEADERSHIP WAS PROTECTIVE

RESPIRATORY CARE • NOVEMBER 2021 Vol 66 No 11

Respiratory Therapists and COVID 19

- Respiratory therapists are at the forefront of treating a febrile respiratory illness (COVID-19) – HFNC, NIV, intubation, aerosol therapy, mechanical ventilation
- Nearly every therapy provided by respiratory therapists places them in close proximity to the airway
- Therapists doing research have helped guide effective and safe treatment of COVID-19
- Staffing shortages are rampant
- No increase in student enrollment
- The burden of COVID-19 moved some to retire or change careers

Heidi Kosakowski, PT, DPT, PhD Senior Practice Specialist, American Physical Therapy Association



American Physical Therapy Association



- 100,000+ members of PTs, PTAs and students
- 18 Specialty Sections and 51 State Chapters
- Specialist Certification
 - Cardiovascular and Pulmonary
 - Clinical Electrophysiology
 - Geriatrics
 - Neurology
 - Oncology
 - Othopaedics
 - Pediatrics
 - Sports
 - Women's Health
 - Wound Management



Rehabilitation

Defined by the World Health Organization as "a set of interventions designed to optimize functioning and reduce disability in individuals with health conditions in interaction with their environment."

https://www.who.int/news-room/fact-sheets/detail/rehabilitation



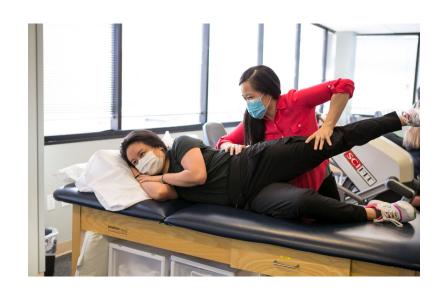
Physical Therapy



Physical therapy is a health care profession comprised of licensed physical therapists and physical therapist assistants who provide treatment and services to help individuals recover from and avoid injury, improve or prevent chronic disease, enhance fitness, and age well.



Physical Therapists



- Are movement experts
- They identify, diagnose, and manage movement problems in people of all ages and abilities
- They use the latest evidence to manage the care by designing treatment plans for each person's individual needs
- Education programs in the United States now require a doctor of physical therapy degree, or DPT, of students who graduate from accredited programs
- Physical Therapist Assistants (PTA) assist the physical therapist in the treatment of individuals under the direction and supervision of a PT



Vital Role of PT Services during COVID-19 & Beyond

- Cardiorespiratory management of acute COVID-19
- Early mobilization in the ICU
- Physical therapy involvement in post-COVID clinics
- Task shifting
 - Clinician roles
 - Continued and new adoption of telerehabilitation





Vital Role of PT Services during COVID-19 & Beyond

- APTA Centennial Celebration 1921-2021
- Expansion of scope: COVID-19 vaccine administration under state's dept. of health emergency orders
- Capacity training in telehealth best practices and evidence-based resources
- Advocacy and resources on long COVID





Burnout in the Physical Therapy Profession

APTA Fit for Practice Initiative

- 1. Movement, including strength and mobility.
- 2. Resiliency, including mental health and stress management.
- 3. Restoration, including sleep and nutrition.
- 4. <u>Practice health</u>, including professional development and practice management.



https://www.ncbi.nlm.nih.gov/pmc/articles/PMC8656566/

ASPR



Rehabilitation in Emergencies

PTs and PTAs have a Vital Role in All Phases of Disaster Management



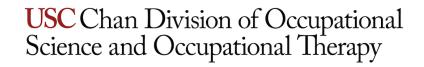
Early rehabilitation in conflict and disasters



Rehabilitation in Emergency Medical Teams

Photos from: https://www.who.int/activities/strengthening-rehabilitation-in-emergencies







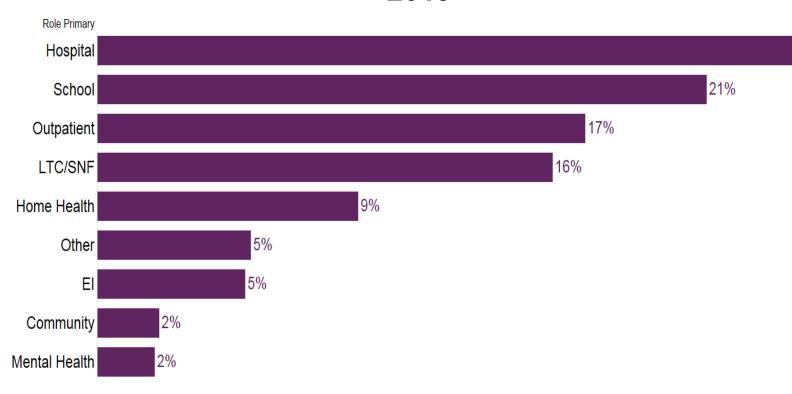
Jamie Wilcox, OTD, OTR/L Associate Professor of Clinical Occupational Therapy University of Southern California American Occupational Therapy Association



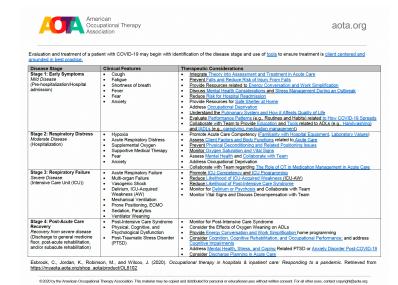


The American Occupational Therapy Association (AOTA)

AOTA Workforce Survey 2019



EI = Early Intervention, LTC/SNF = Long-term Care/ Skilled Nursing Facilities





Occupational Therapy in Hospitals & Inpatient Care: Responding to a Pandemic

April 2, 2020 COVID-19 and OT WebinarSeries #COVID19andOT



Planning for the Initial Surge of COVID-19



Guest Editorial

Occupational Therapy: Essential to Critical Care Rehabilitation

John L. Margetis, Jamie Wilcox, Chelsea Thompson, Nicole Mannion

The coronavirus disease 2019 (COVID-19) pandemic reshaped the health care landscape, leading to the reassignment of essential health care workers to critical areas and widespread furloughs of providers deemed nonessential, indiquip occupational therapy practitioners. Although multidisciplinary critical care teams often include occupational therapy practitioners, efforts to define, measure, and disseminate occupational therapy's unique contributions to critical care outcomes have been overlooked. This editorial provides recommendations to improve the occupational therapy profession's readiness to meet society's current and future pandemic needs. We propose a three-pronged strategy to strengthen occupational therapy clinical practice, education, and advocacy to illuminate the distinct value of occupational therapy in critical care.

ICU LIBERATION BUNDLE (A-F)

- Assess, prevent, and manage pain
- Both spontaneous awakening trials and spontaneous breathing trials
- Choice of analgesia and sedation
- Delirium: Assess, prevent, and manage
- Early mobility and exercise
- Family engagement and empowerment

ICU CONSIDERATIONS

- According to the COVID-D study, the two strongest predictors of delirium were benzodiazepine infusions (60% worse) and family visitation (30% better).
- Reduce light and noise to promote sleep.

DISCHARGE CONSIDERATIONS

- Plan transition of medications from hospital to home
- Develop anticoagulation plan
- Physical and occupational therapy evaluations
- · Discuss exercise plan
- Explain tubes, lines, and filters;
 plan for removal
- · Plan post-discharge follow-up
- Discuss common reasons for
- Discuss post-COVID-19 symptoms

readmittance

- Institution-Specific Planning
 - Hospital system surge capacity planning
 - Admission order set- early OT referral
 - Cross-trained OT department, across service lines & levels of care
 - Identified & trained core OT clinical team for COVID units
 - Interdisciplinary cross-training with other allied health services
 - Staggered staffing model to decrease exposure risk & prevent burnout
 - Transition of outpatient-based services to telehealth platforms

(Margetis, et al., 2021)

(SCCM, n.d.)



Response: Occupational Therapy on the Frontline of COVID-19

Surviving hospitalization

- Prolonged isolation
- Occupational deprivation
- Respiratory failure
- Delirium
- Fears and anxieties of unknown
- Acute changes in functional status

Recovery beyond hospital discharge

- Access to basic needs
- Self-manage persistent symptoms
- Caregiver support
- Home environment
- Community resources
- Newly acquired medical conditions without reliable follow-up care

Hospitals- early acute and critical care rehabilitation

Optimize hospital throughput

Multidisciplinary discharge planning and care coordination

Patient and caregiver training

Post-discharge follow-up care

(Esbrook, et al., 2020)

Recovery: Occupational Therapy for Post-COVID Syndrome

- Pervasive symptoms, 4 or more weeks after the initial infection, impacting all aspects of daily life
 - Perception of health
 - Return to work
 - Enduring fatigue
- Exacerbated by activity
- Unrelated to severity of initial infection
- New condition without clear diagnostics or treatments
- Navigating overburdened healthcare systems in search of care

COVID Recovery Clinics Outpatient Occupational Therapy

- Establishing symptom patterns and connection to activity
- Self-monitoring symptoms to guide gradual return to essential daily routines
- Optimizing control of chronic co-morbidities
- Coping with psychosocial consequences of prolonged disengagement
- Self-regulating symptoms within return to daily life
- Navigating healthcare systems and communication with providers
- Facilitating return to work timelines and reasonable accommodations

(Townsend, et al., 2021)

Occupational Therapy Contributions to Disaster Response and Emergency Preparedness

Planning

- Improve accessibility of resources for victims with physical or cognitive disabilities
- Design accessible environments and shelters
- Train frontline responders to assist
- Anticipate essential medical considerations for persons with chronic conditions

Response

- Support patient throughput in hospitals and post-acute care centers
- Establish safe and accessible return to home environments
- Restore sense of "normalcy" and control via adaptation to prolonged condition
- Build collaborative community programs to address unanticipated needs

Recovery

- Rehabilitate victims to restore functional independence
- Foster coping skills to mitigate effects of prolonged stress on mental health
- Adapt to new ways of life following disaster event
- Empower victims to regain independence, and transition from victim to survivor

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Margetis, J. L., Wilcox, J., Thompson, C., & Mannion, N. (2021). Occupational therapy: Essential to critical care rehabilitation. *The American Journal of Occupational Therapy*, 75(2). https://doi.org/10.5014/ajot.2021.048827

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Townsend L, Dowds J, O'Brien K, Sheill G, Dyer AH, O'Kelly B, Hynes JP, Mooney A, Dunne J, Ni Cheallaigh C, O'Farrelly C, Bourke NM, Conlon N, Martin-Loeches I, Bergin C, Nadarajan P, Bannan C. Persistent Poor Health after COVID-19 Is Not Associated with Respiratory Complications or Initial Disease Severity. Ann Am Thorac Soc. 2021 Jun;18(6):997-1003. doi: 10.1513/AnnalsATS.202009-1175OC. PMID: 33413026; PMCID: PMC8456724.

Wilcox, J., & Frank, E. (2021). Occupational therapy for the long haul of post-COVID syndrome: A case report. *American Journal of Occupational Therapy*, 75(Suppl. 1), 7511210060.

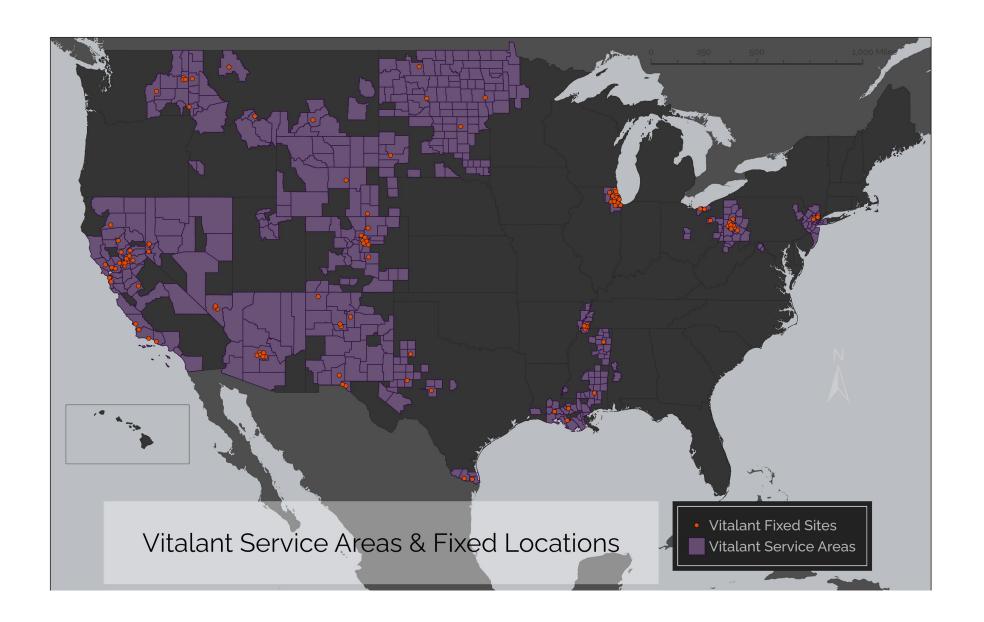






Vitalant Operational Scope

- Blood Collections
 - Nearly 120 blood donation centers, 60,000 annual community blood drives, 735,000 donors
 - 1.4M red blood cell, 344,000 platelet, 188,000 plasma donations
 - 2.2M total blood components (incl. recovered plasma and cryoprecipitate)
 - Serving patients in about 900 hospitals across 28 states
- Creative Testing Solutions
 - Joint Venture with American Red Cross and OneBlood testing 70% of Nation's blood supply
 - Joint business agreement operating Grifols' testing labs
- Financial and Operational Results
 - \$750 million in revenue
 - ~ 4,000 employees
- Extramural research funding of about \$30M annually, including primary COVID serosurveillance
- New Vitalant Innovation Center to support clinical trials, translational research & contract manufacturing
- Canyon State Insurance Company (domiciled in Cayman Islands)





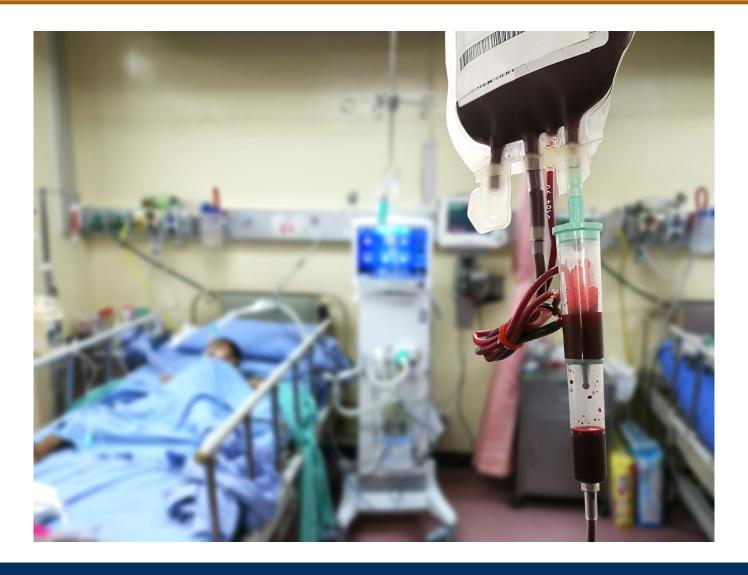
Mission

Improving lives by making transfusion medicine and biotherapies safe, available, and effective worldwide.

Vision

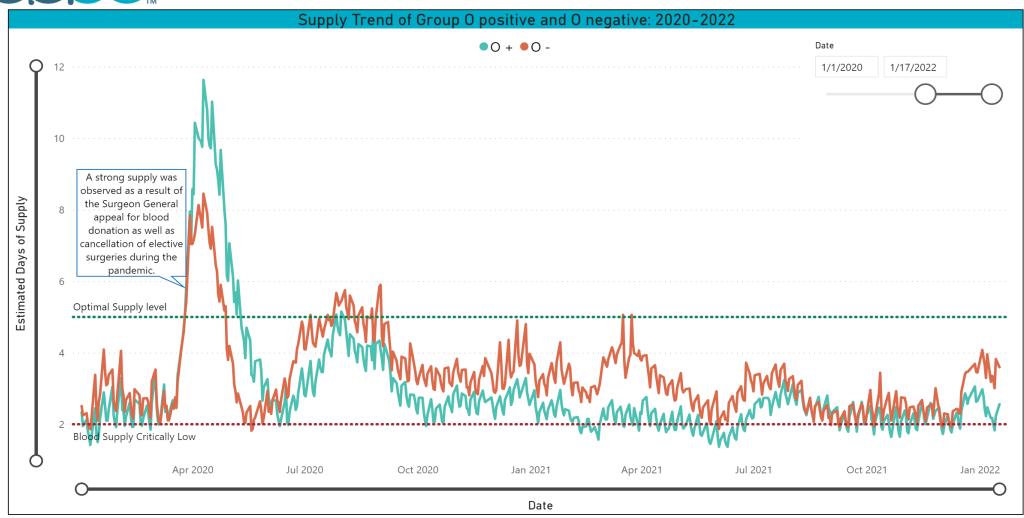
A connected community dedicated to advancing transfusion medicine and biotherapies. From donor to patient. From lab to bedside.

Challenges with the Blood Supply









Blood Supply Chain: Vulnerabilities

- Supplies used to manufacture blood components are manufactured offshore or are produced by one manufacturer
- Challenges obtaining supplies, such as personal protective equipment (PPE), saline, reagents, and vaccines
- Challenges with transporting blood products and testing samples if commercial flights and courier services are disrupted

COVID-19 Convalescent Plasma



Workforce Challenges

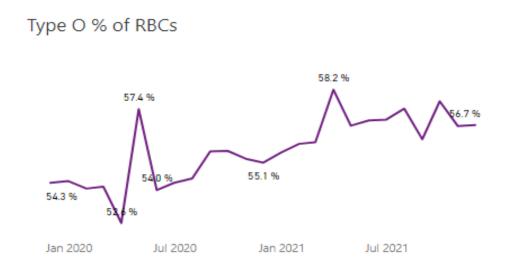


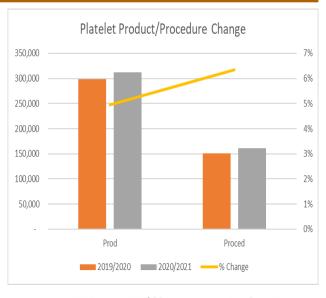
ENABLERS



Transform Direct Marketing



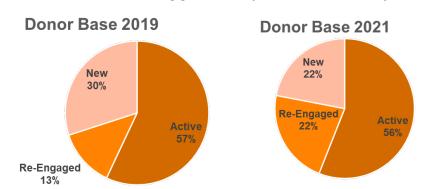




Frequency- Last 12 Months (vs 13-24 months ago) Whole Blood 180 13-24 Mo Ago: 1.57 (+14.6%)



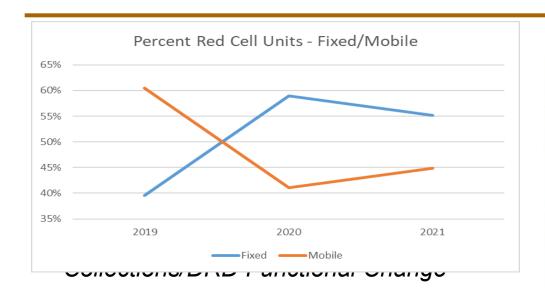




Who Will You Help? Ask Vitalant Staff for Details CANCER PATIENTS Donation Type: Platelets



Donor Services Evolution/Adjust Mobiles



Standardized/

Centralized

▶ 1 National Contact Center

1 Standard Structure

Planning & Scheduling

Centralize Back Office

National MarComm

Virtual Blood Drives



Signups, Donations, Appts, Drives BY WEEK Drives Signups Appts Donations 1000 0 2012/27/1 1000 1

Coordinator Marketing

Building a Team to Inspire Others

Assemble 2 to 4 team members who can:

Recruit and communicat

- Distribute company/group emails and texts, and post on social media (suggested distribution is 4 weeks, 2 weeks and 1 week out)
- Create information/display tables and hang signage to promote the drive
- Engage leaders of your organization to help motivate others to give blood
- Tip for Success: The best way to encourage others to give blood is with a personal, face-to-face invitation

Help with logistics and online scheduling

- · Secure room or bus parking area plus parking for Vitalant staff
- Secure and ensure optimal hours for a successful drive
- Complete any necessary forms and obtain proper authorization
- · Use our online appointment scheduling system
- Log appointments and notify recruitment team of any open slots; maintain a list of back-up donors who could fill empty slots

COMMITTEE				
Role	Name	Phone	Email	

Effective ways to publicize your blood drive:

- Request messaging from CEO, organizational leadership, plant manager, community leader, etc. to use in publicity and recruitment statements
- · Meet with your newsletter editor or community newspaper for pre-blood drive coverage
- Plan an "event" on Facebook making Vitalant a co-host
- Leverage the power of social media and encourage your team, employees or organization's members to help spread the word about the blood drive to friends and family





ASPR

De-Centralized

Geo-Marketing

Many Contact Centers

Multiple DRD Structures

"Business Resources"

Diverse Collections Back Office

Unclassified

AABB Convened the Blood Community Throughout the Pandemic

- Engaging with the national media to highlight challenges with maintaining the blood supply.
- Rallying the blood community to help maintain the blood supply.
- Partnering with private-sector organizations to help people identify local blood collectors.
- Providing educational programs, updates on regulatory developments and resources related to blood utilization.
- Facilitating communication and coordination between blood collectors and hospitals.



AABB Interorganizational Disaster Task Force

Purpose

- Helps ensure that blood collection efforts resulting from domestic disasters and acts of terrorism are managed properly.
- Delivers clear and consistent messages to the public regarding the status of America's blood supply.

COVID-19 Pandemic Response

- Activated in March 2020 when blood center in Washington state reported that blood supply was threatened.
- Contacted and coordinated with blood centers across the nation to help avoid a shortage in the impacted area.
- Public-private composition enabled community to quickly come together and identify opportunities to support the nation.
- Issued multiple public messages appealing for blood donors and supporting the safety of blood donation.
- Responded to several other events that limited ability of donors to travel to donate, created transportation difficulties and complicated the ability to transport blood to hospitals.



Opportunities to Improve the Resiliency of the Blood Supply and Strengthen the Nation's Preparedness and Response Capabilities

- Integrate blood collection establishments, the AABB
 Interorganizational Disaster Task Force, and considerations related to the safety and availability of the blood supply into federal, state and local pandemic and disaster preparedness and response policies.
- All preparedness and response efforts should incorporate monitoring and communicating changes in blood availability and utilization.
 - Local blood collectors
 - AABB Interorganizational Disaster Task Force
 - Hospitals' plans should include strategies that address the risk for blood shortages
- Better leverage the blood community's expertise and proven capabilities in surveillance, screening and testing for infectious disease agents.
- Raise awareness about the importance of blood donation.



Panel Roundtable and Q&A



Contact ASPR TRACIE







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