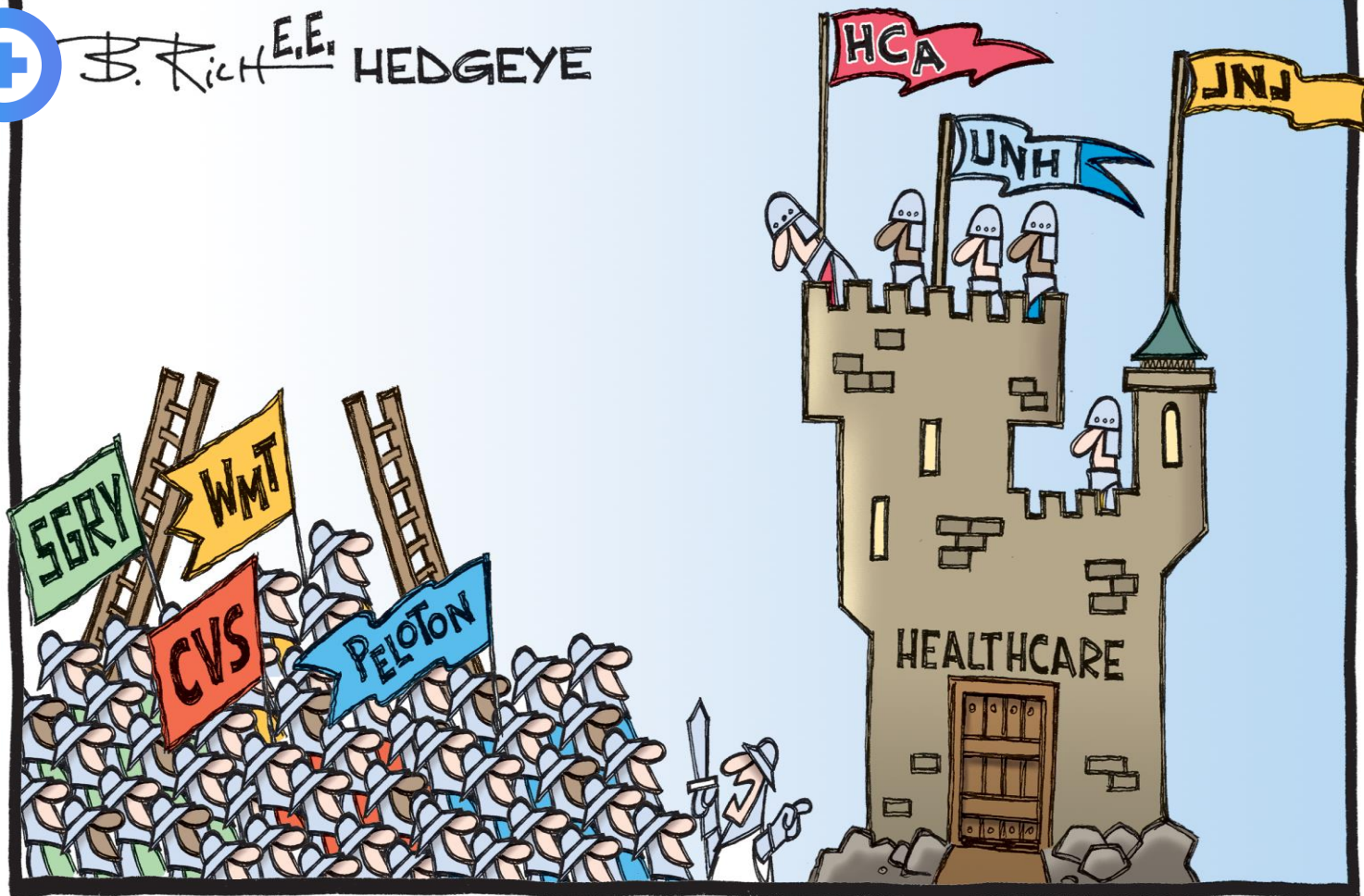
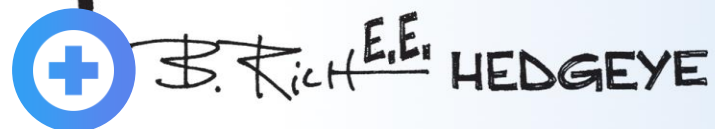


HEDGEYE

Post-COVID: Health Care Will Never Be The Same

Capital, Labor & Technology

December 9, 2020



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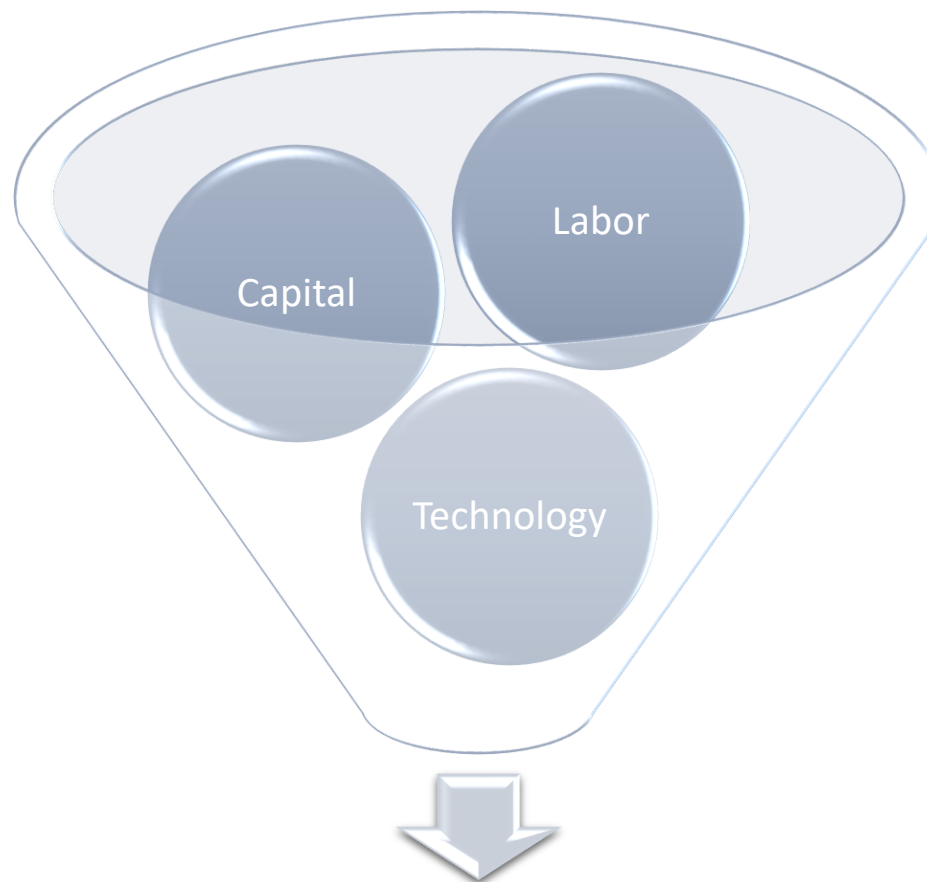
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Please submit questions* to
qa@hedgeye.com

*Answered at the end of the call

Top of the Funnel: Macro Drivers of Change

- The infusion of capital into the health system is unprecedented = \$490 Billion in 6 months
- Labor demand especially for nurses originates from a greater variety of sites than ever before, straining the system
- Technology to improve productivity and make the system more efficient is still in its infancy
- Deregulation will put more demands on innovation and productivity



Subsector Analysis

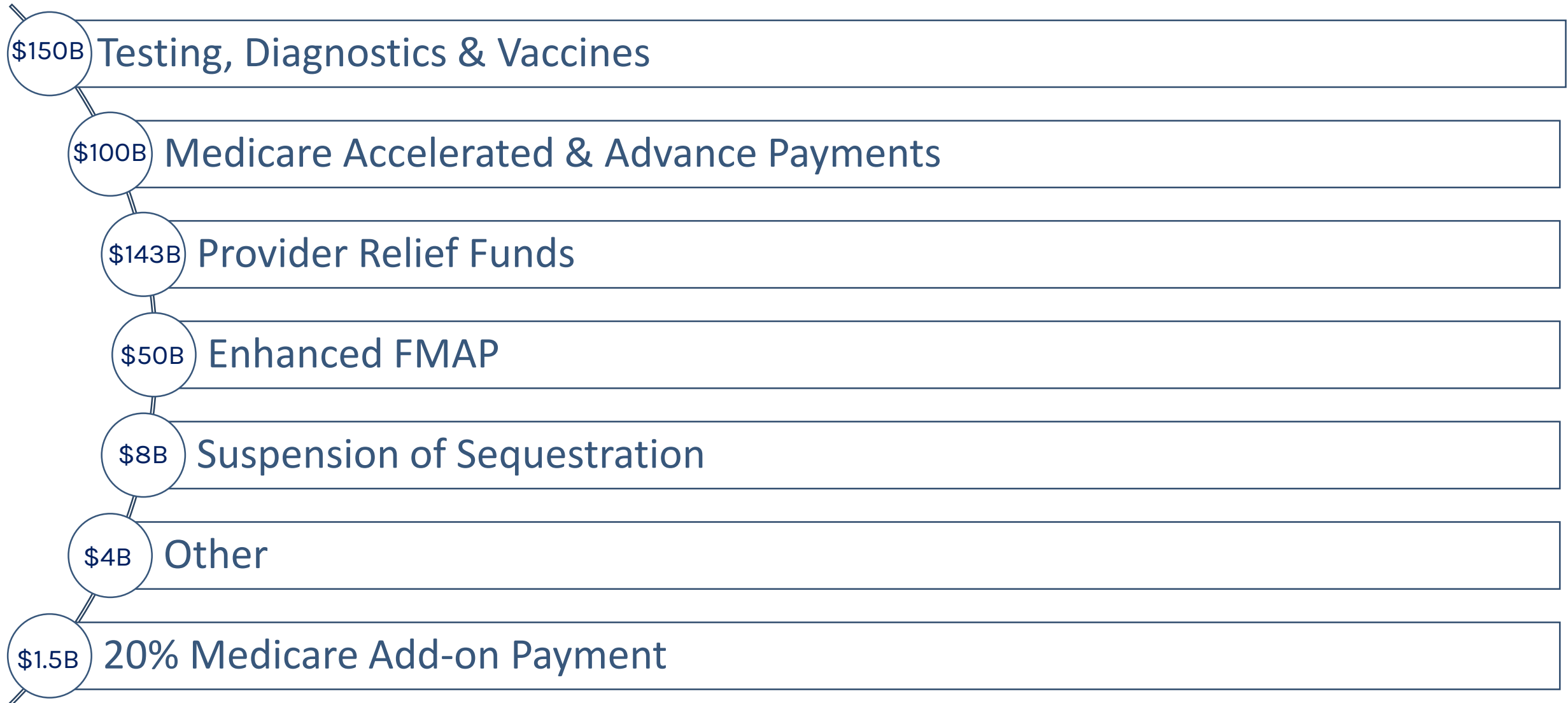
Capital



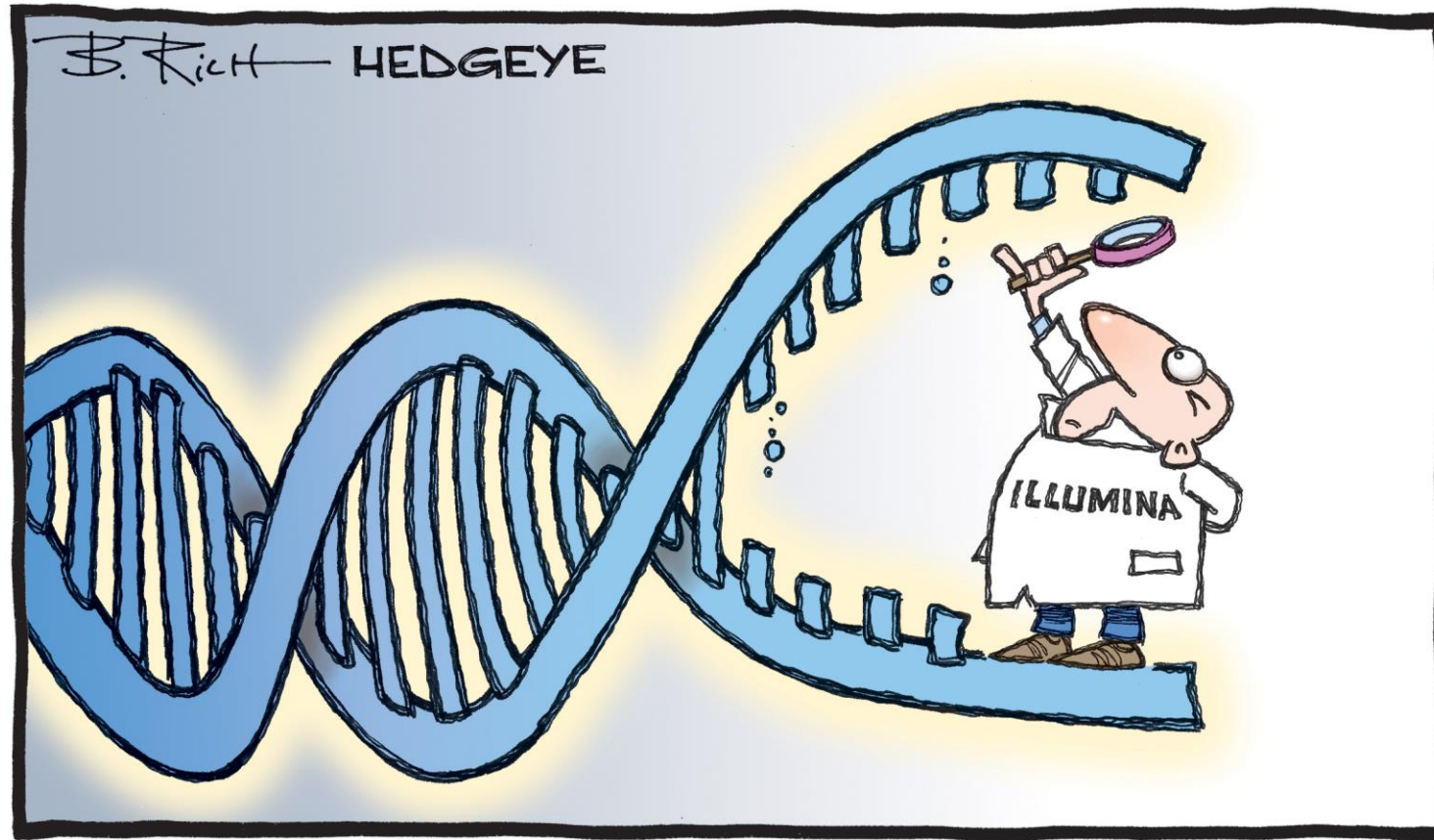
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Federal Capital Infusion = \$490 Billion



Testing, Diagnostics & Vaccines

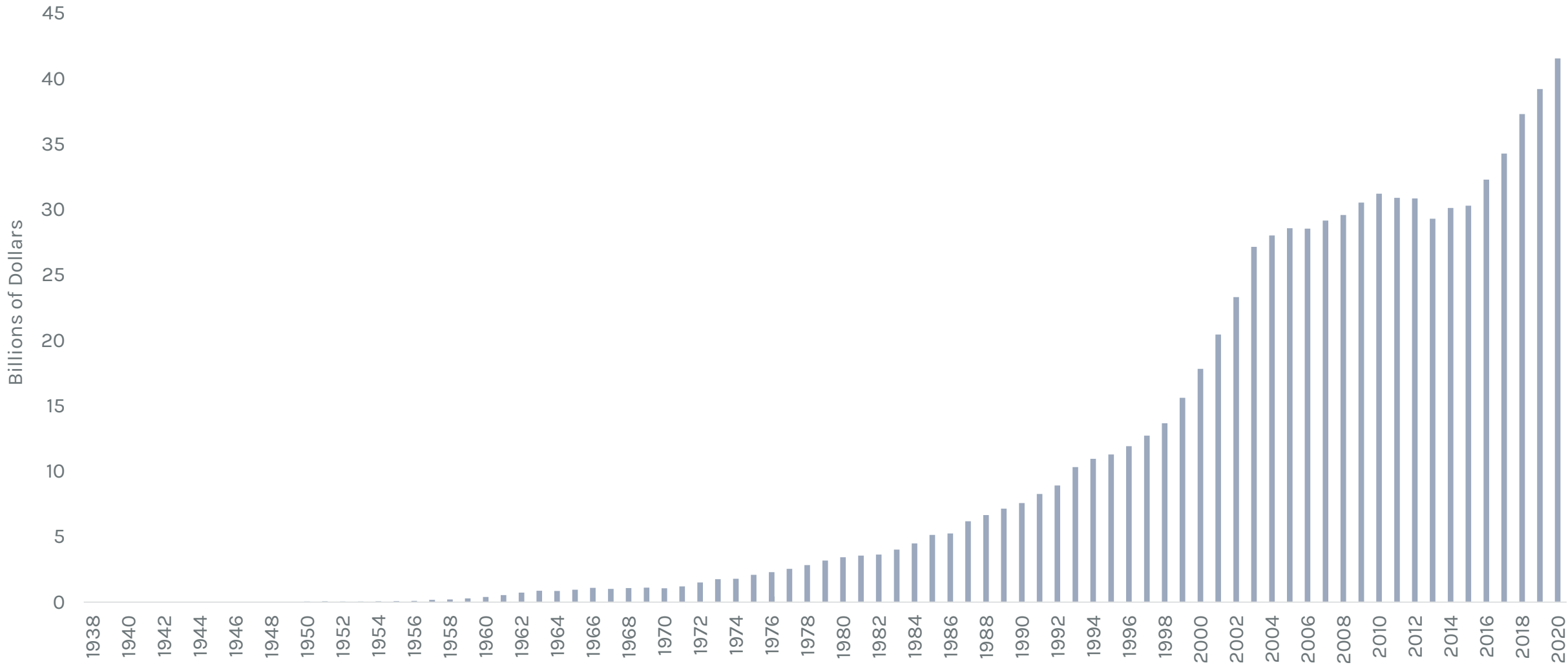


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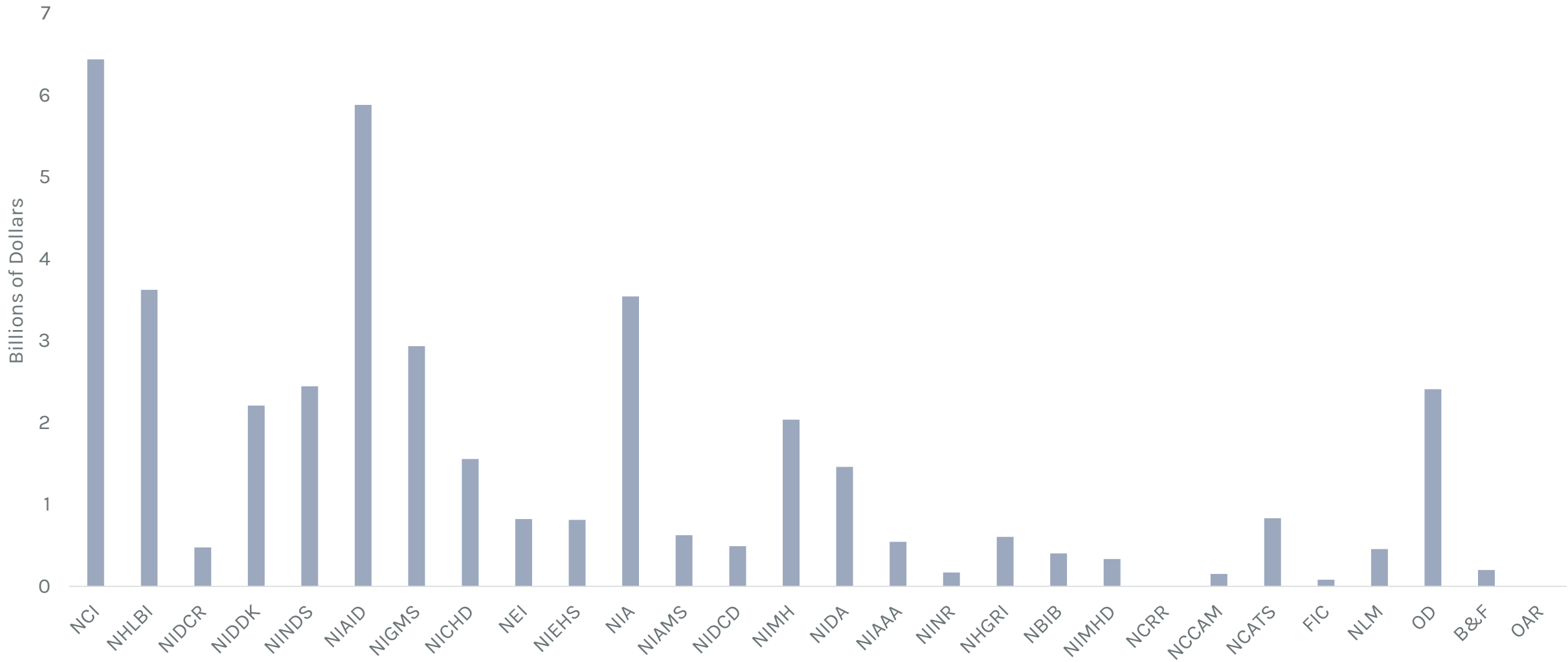
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The NIH “Wall of Money”

Funding has re-accelerated after 21st Century Cures Act and COVID

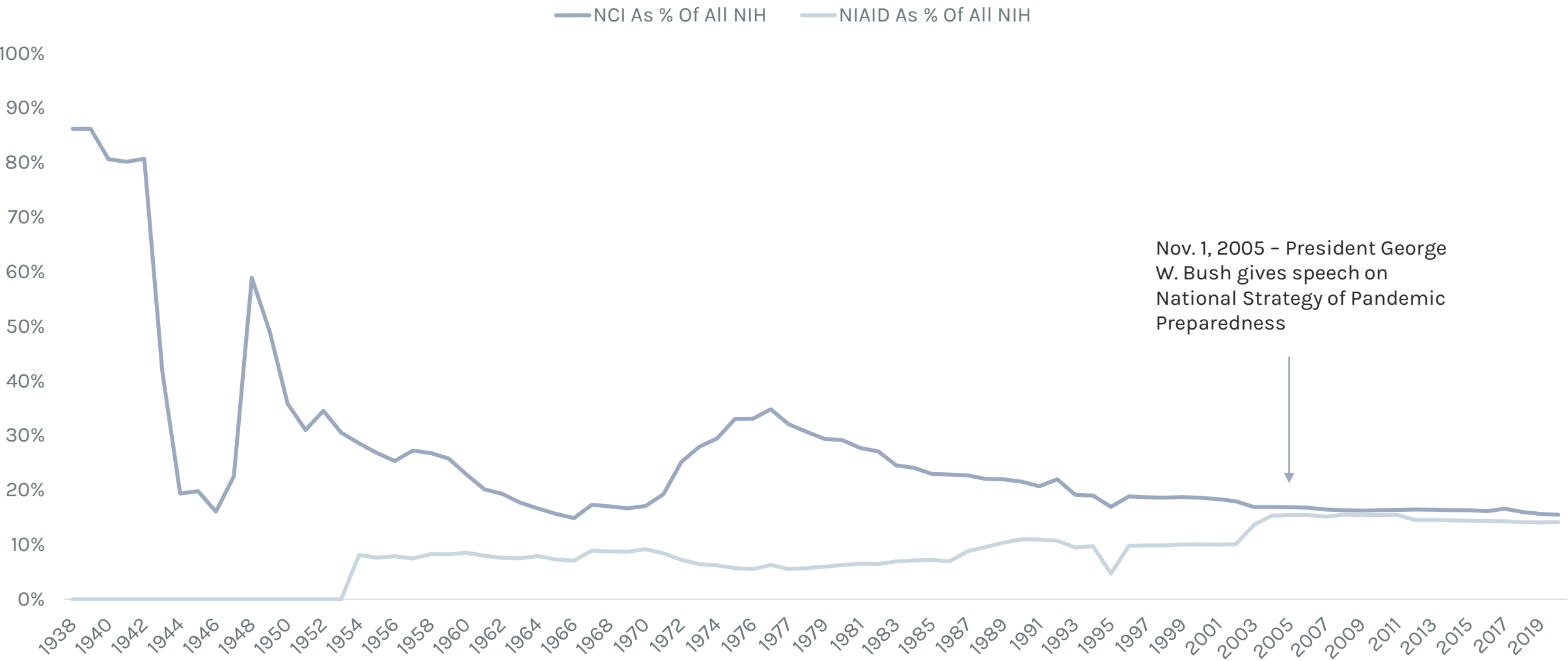


FY2020 NIH Funding by Institute

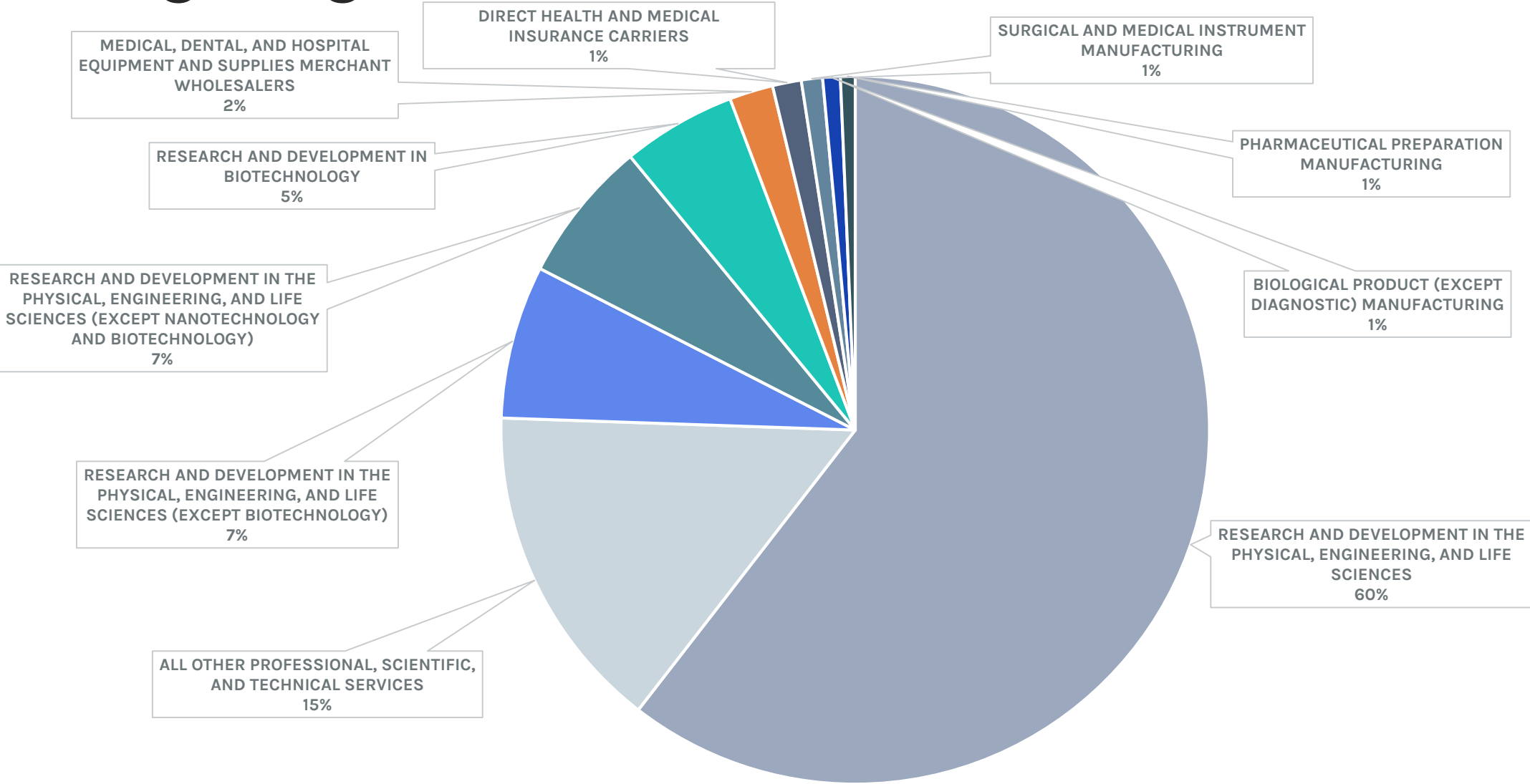


NIAID Funding Now Nearly Equal to NCI

Boosted by priorities of Bush and to lesser degree, Obama

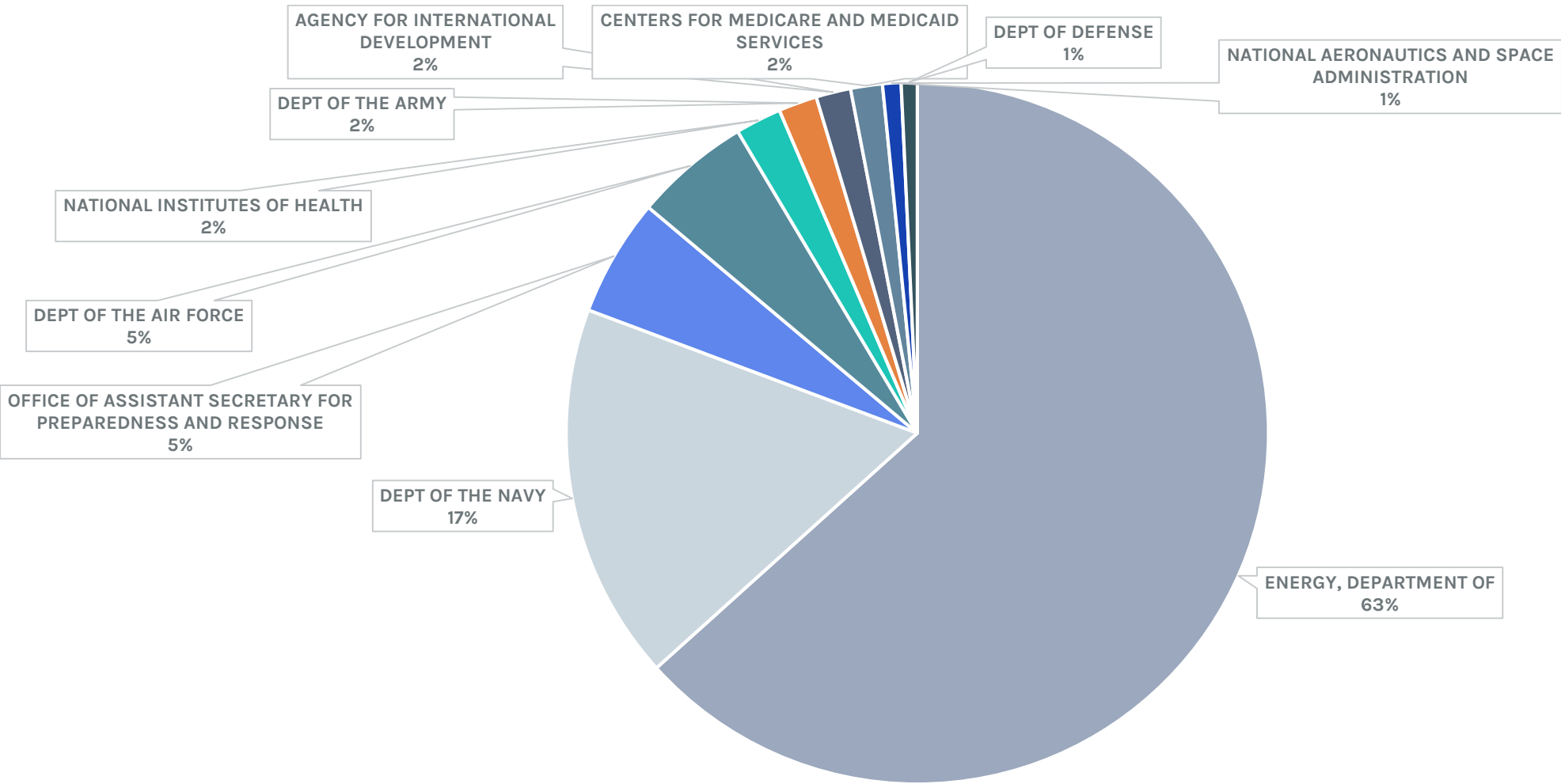


Testing, Diagnostics & Vaccines = \$150B to \$243B



Top COVID Funding Agencies – All Health-related NAICs

Representing \$145 billion of \$150 billion committed through Nov. 18th



Contracts for Much More Than Masks & Gloves

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“FIRM, FIXED-PRICE DELIVERY ORDER FOR A BASE PLUS FOUR (4) OPTION YEAR CONTRACT FOR RUBY CELL-DYN LAB ANALYZER RENTAL AND CPRR FOR FORT YATES IHS SERVICE UNIT, FORT YATES, ND

DEVELOPMENT OF ANIMAL MODELS FOR EVALUATION OF MEDICAL COUNTERMEASURES FOR SARS-COV-2

IMMUNOGENICITY AND EFFICACY TESTING OF MEDICAL COUNTERMEASURES (VACCINES AND OTHER BIOLOGICS) AGAINST EMERGING INFECTIOUS DISEASES INCLUDING COVID-19 (SARS-COV2)

“IGF::OT::IGF PRECLINICAL DEVELOPMENT OF SEMISYNTHETIC SAPONIN IMMUNOLOGICAL ADJUVANT TITERQUIL-1055 IN THE CONTEXT OF AN INFLUENZA VACCINE. NEW AWARD”

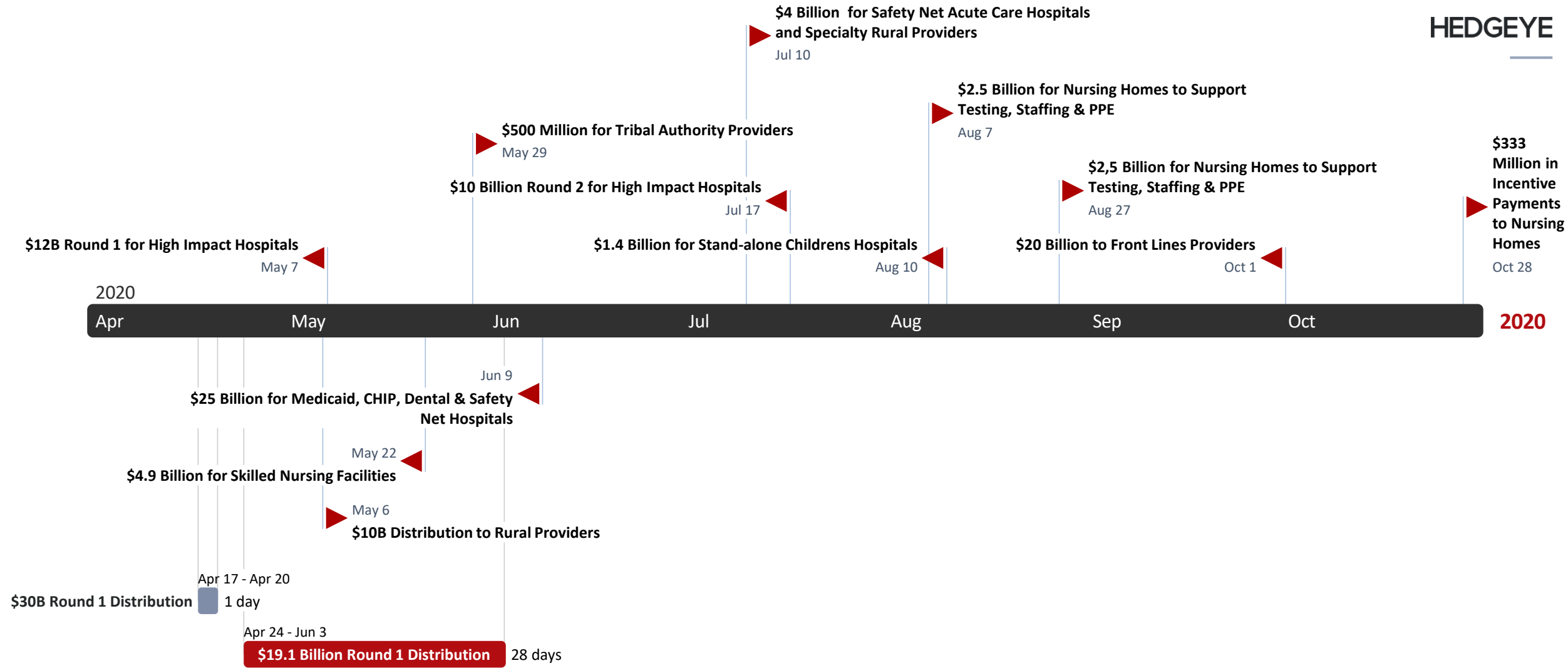
“OTA TO ESTABLISH THE FOUNDRY FOR AMERICAN BIOTECHNOLOGY (NEXTFAB) AIMS TO ACCELERATE THE RESEARCH, DEVELOPMENT, MANUFACTURE, DEPLOYMENT, OPERATIONS, AND AVAILABILITY OF: REVOLUTIONARY ADVANCES IN SCIENCE,”

Relief/Stimulus Funds



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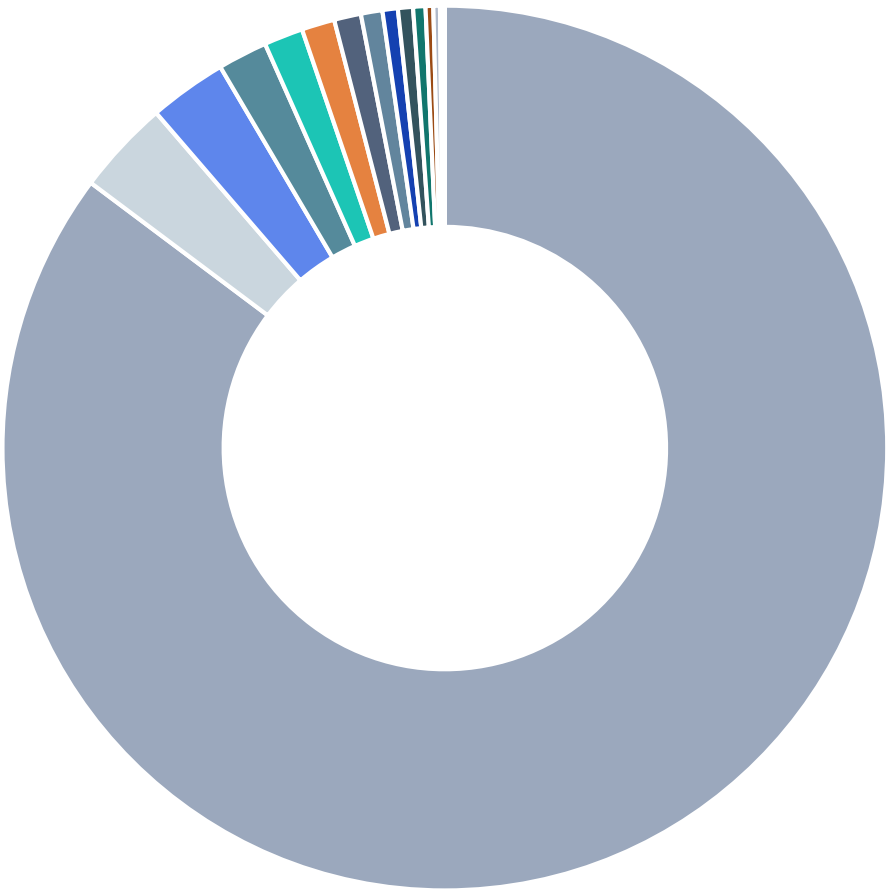
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Medicare Advance Payments = \$100B

Treat as obligation for now; Congress can forgive and may at year end

- Beginning at one year from the date the accelerated or advance payment was issued and continuing for 11 months, Medicare payments owed to providers and suppliers will be recouped at a rate of 25%
- After 11 months end, Medicare payments to providers and suppliers will be recouped at a rate of 50% for another six months
- After the six months end, a letter for the remaining balance will be issued. Providers and suppliers will have 30 days from the date of the letter to repay the balance in full. If payment is not received within 30 days, interest will accrue at the rate of 4% and will be assessed for each 30-day period the balance remains unpaid.



- Hospitals: Short Stay
- Skilled Nursing Facilities
- Hospitals: Critical Access
- Home Health
- End Stage Renal Disease
- Hospice
- Hospitals: Rehabilitation Units
- Hospitals: Long Term Care
- Hospitals; Rehabilitation
- Hospitals: Swing Bed Units
- Hospitals: Psychiatric Unit
- Hospitals; Psychiatric
- Rural Health Clinic
- Outpatient Physical Therapy
- Hospitals: Childrens
- Hospitals; other
- Federally Qualified Health Centers
- CORF
- Community Mental Health Centers

Provider Relief Fund a.k.a “Cares Act” Money

Total about \$143 billion but authorized to \$175 billion; treat as “grant” or “other” income

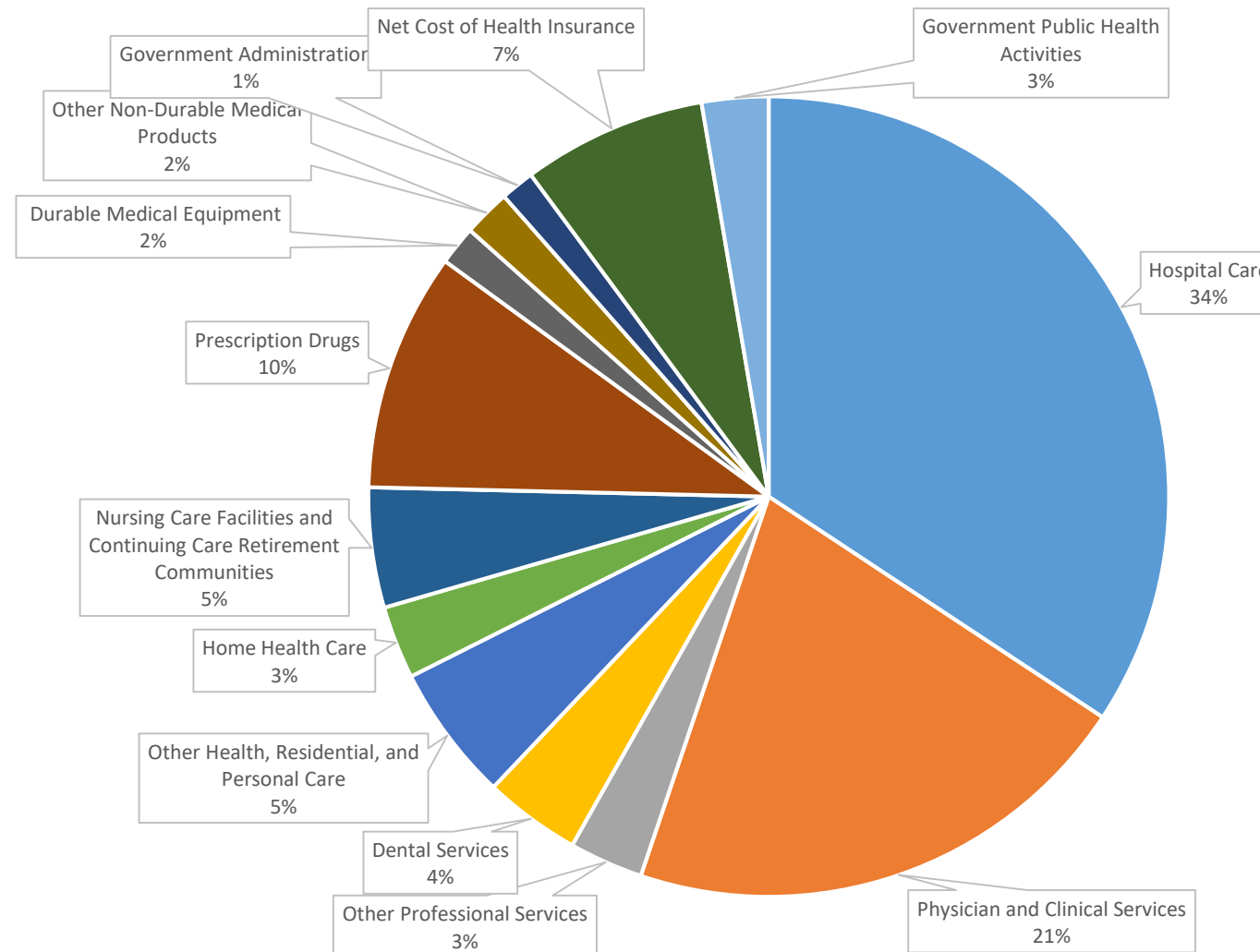
CARES money is to be used for the testing, diagnosis and treatment of actual or potential COVID patients with CMS saying they are broadly applying that criteria.

In Sept. 19 guidance, HHS placed a limit on use to PRF. Providers receiving funds were to use it only to the extent it would not make them any more profitable in 2020 than they were in 2019.

The limitation was reversed a month later. Oct. 22, after pressure from industry and Members of Congress.

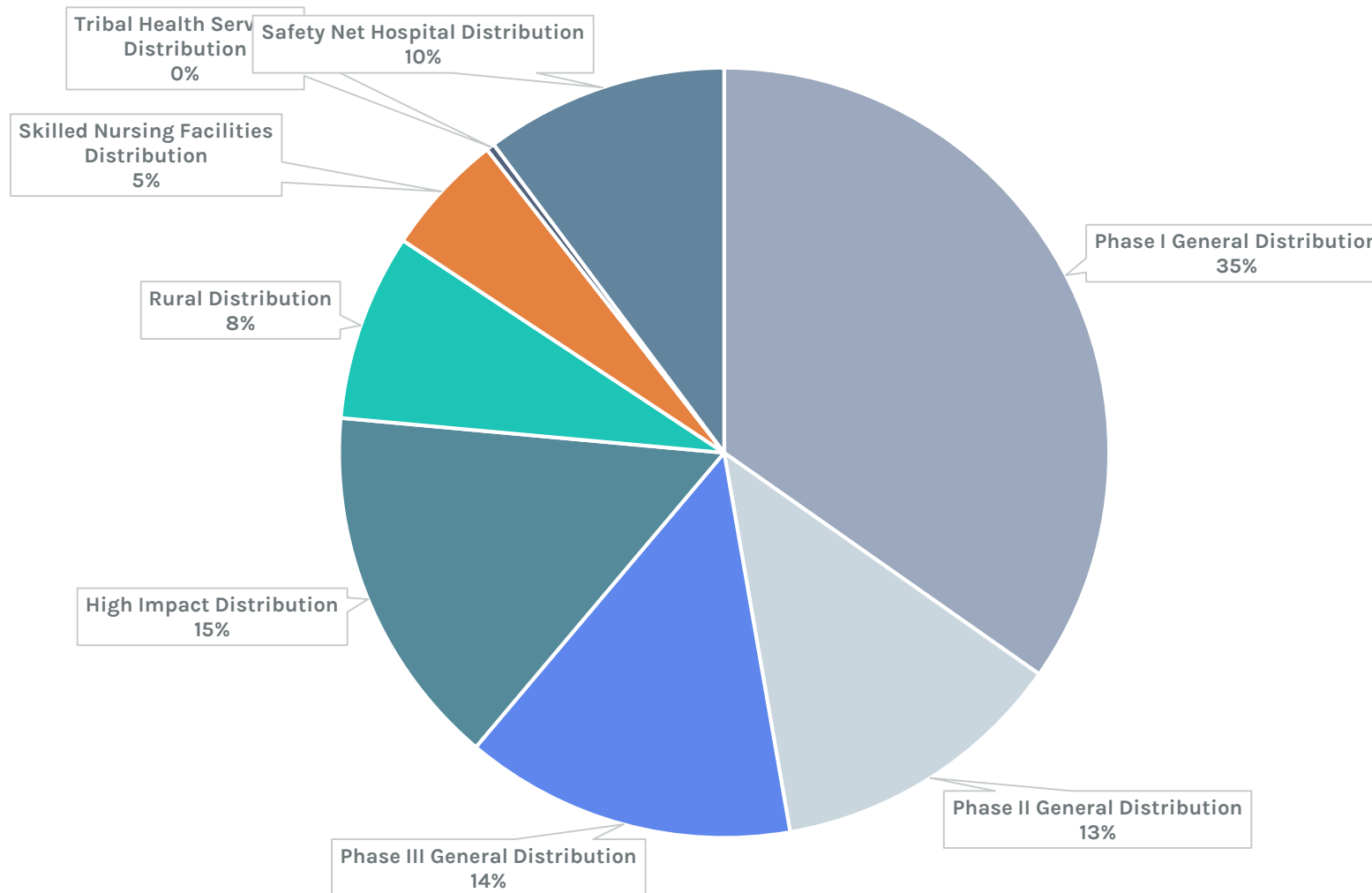
In response to the September guidance, THC was forced to reverse \$70 million in CARES Act grant money. In 4Q, however, based on October’s memo, they should be able to reverse the reversal.

Based on 3Q 2020 earnings calls most companies have reported PRF as “grant income” or “other income.”



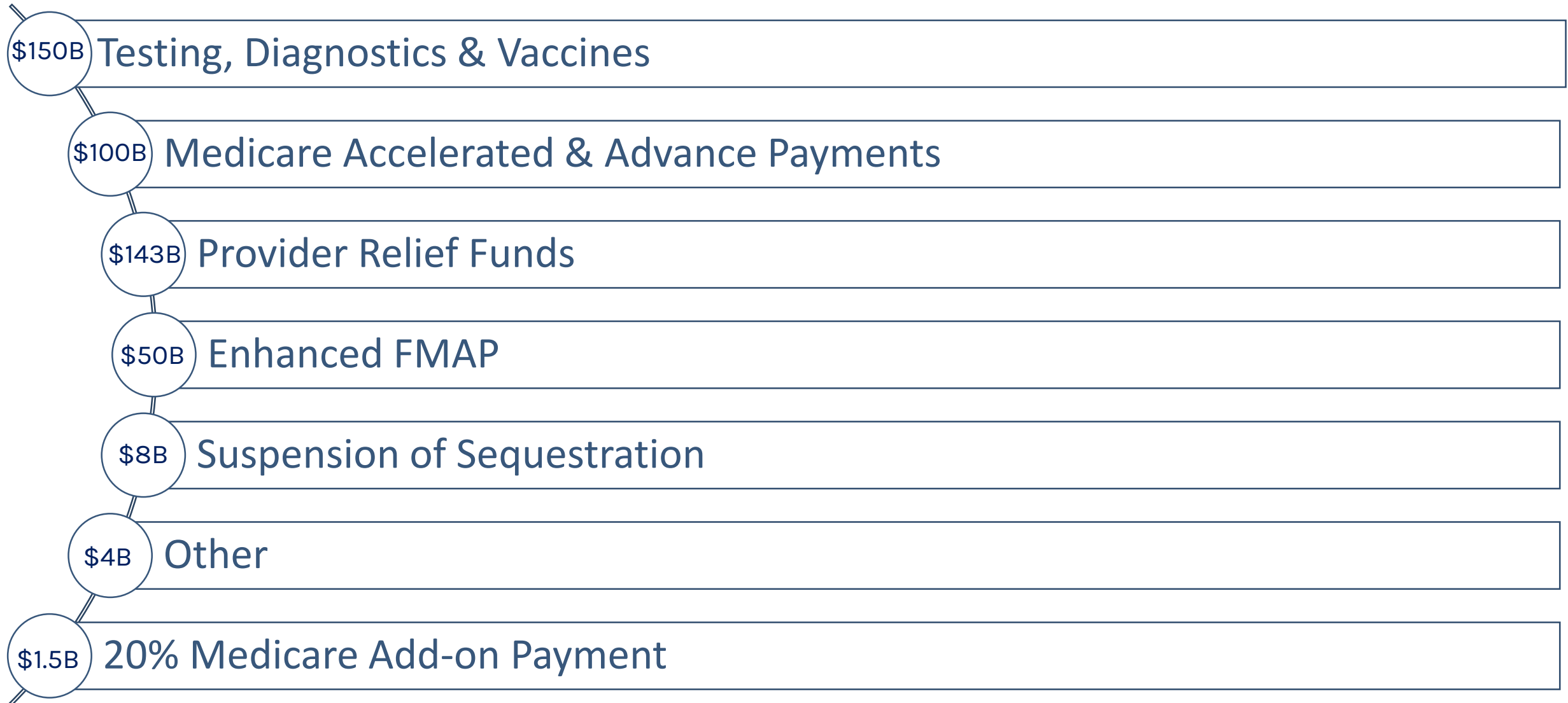
Provider Relief Fund a.k.a “Cares Act” Money

Total about \$143 billion but authorized to \$175 billion; treat as “grant” or “other” income



- The CARES Act authorized \$175 billion in relief money to hospitals and other providers. Of that amount HHS reports approximately \$143 billion in payments. Distribution of these funds was broken down into phases and between general and targeted distribution
- Reported as “grant” or “other” income and does not need to be repaid
- HCA and DGX among others have voluntarily returned CARES Act money

Federal Capital Infusion = \$490 Billion



Labor

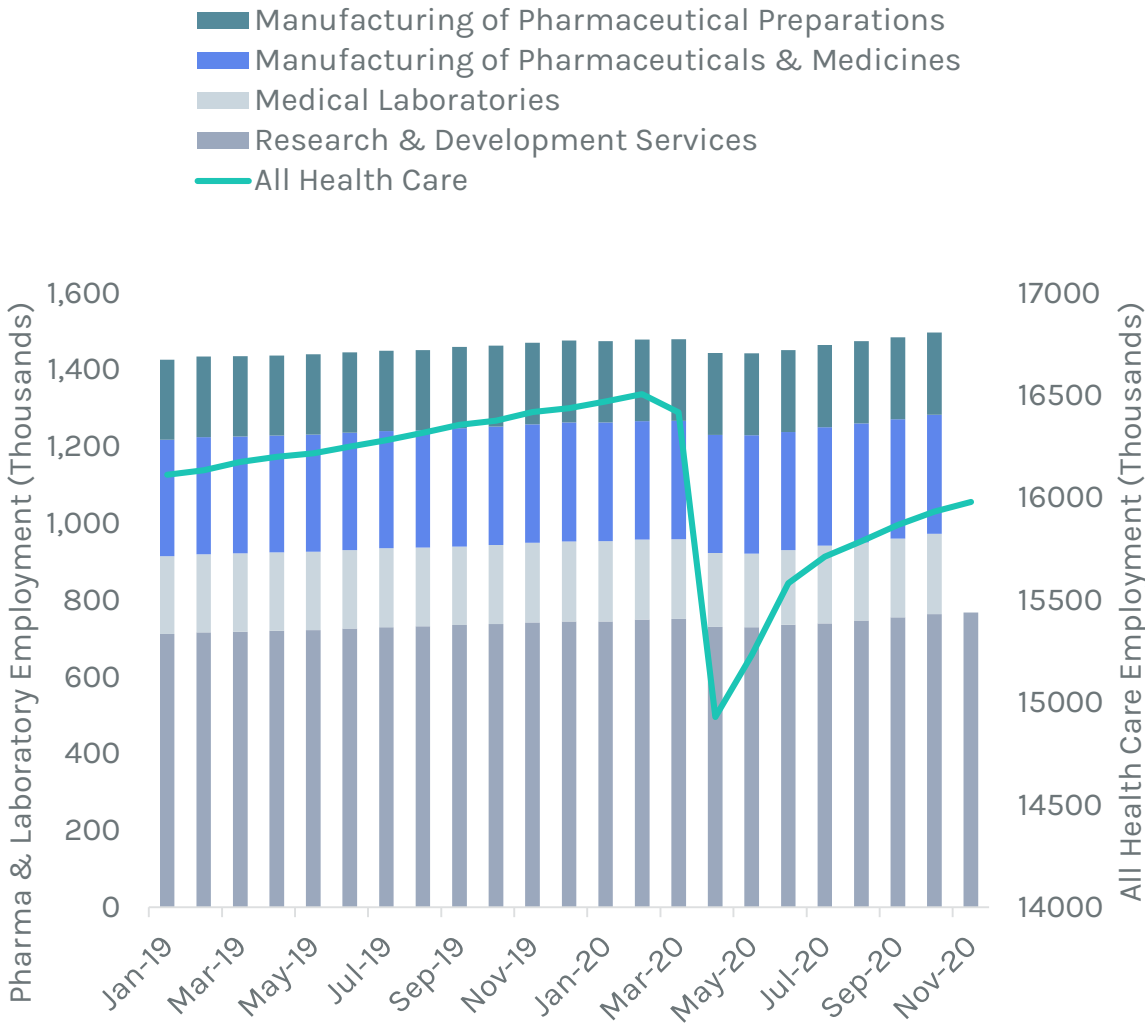
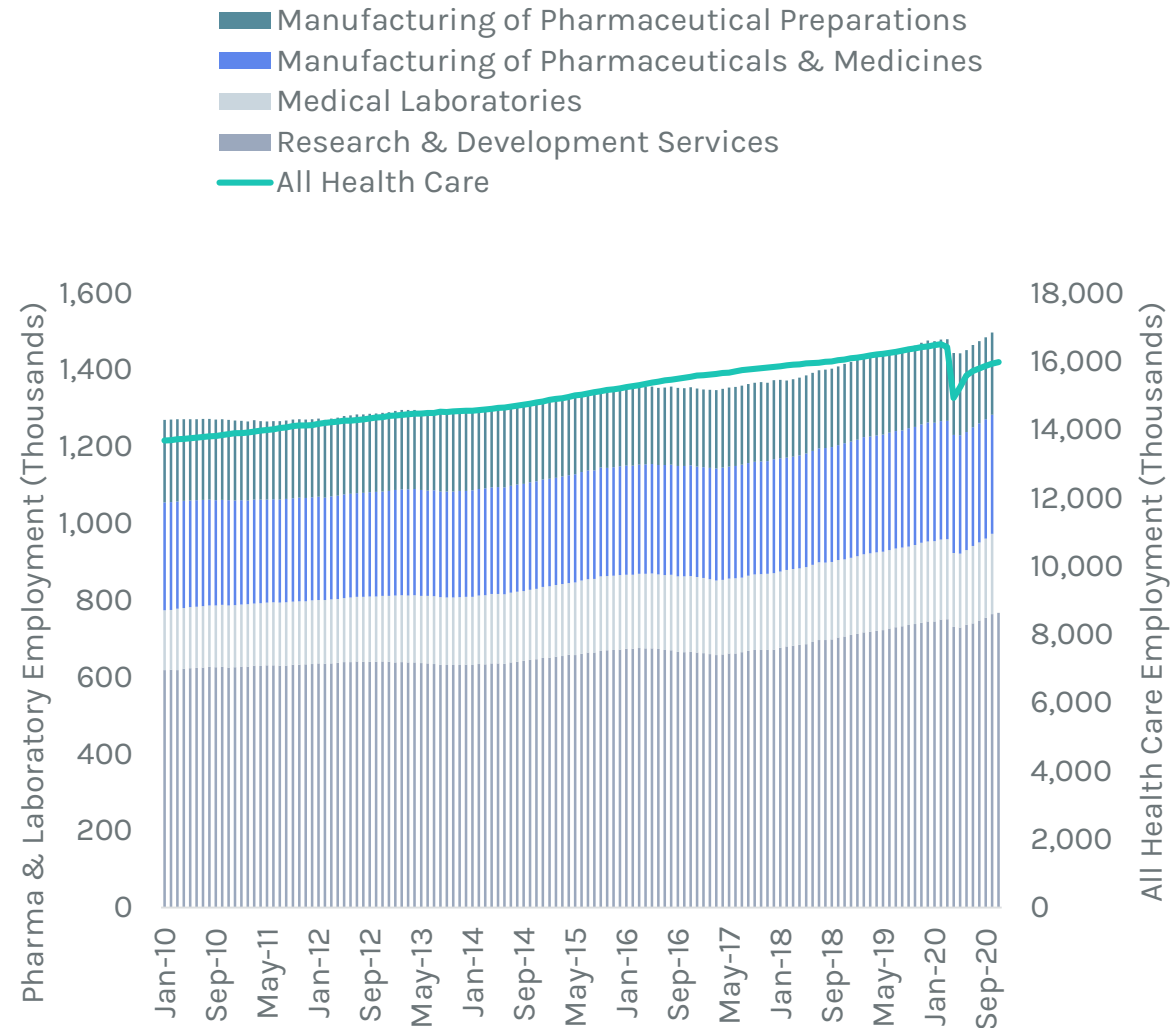


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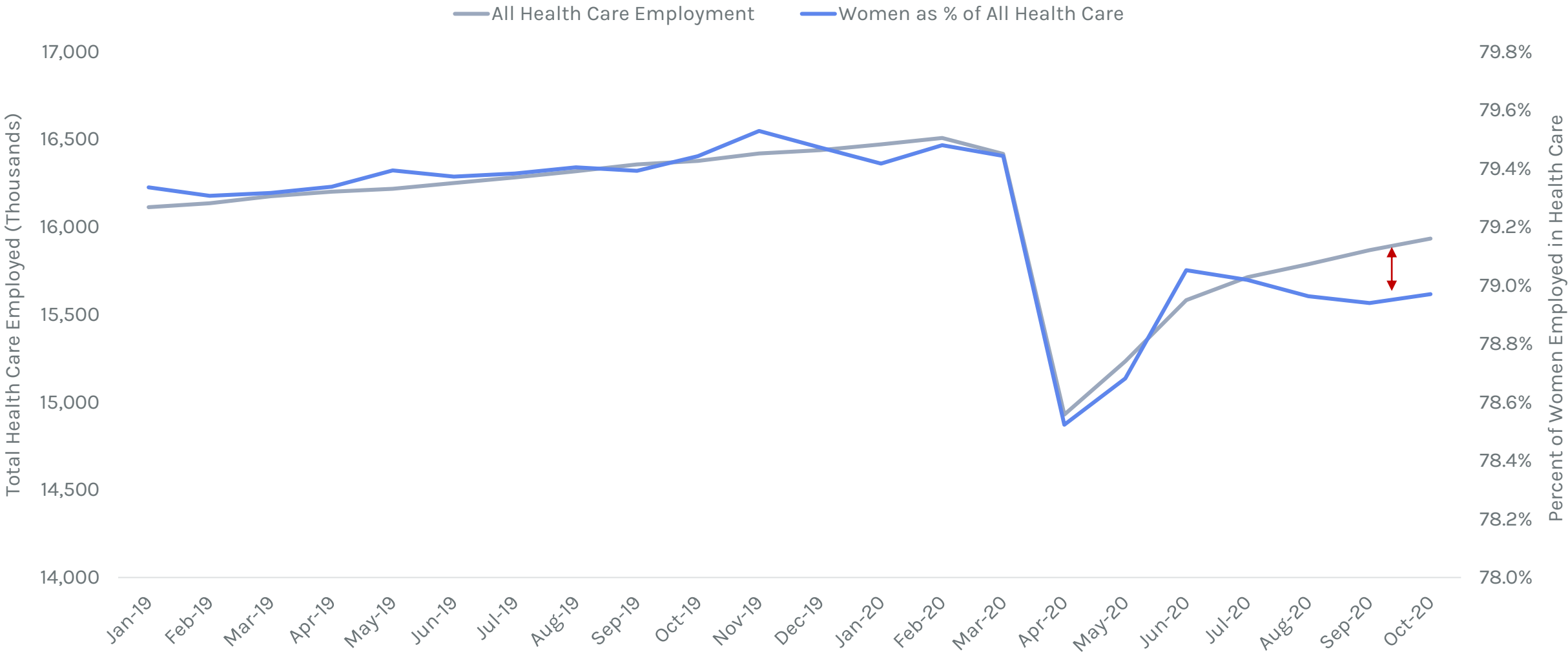
Labor Response to Capital Infusion

R&D, Pharma Manufacturing & Laboratories all outperforming rest of health care



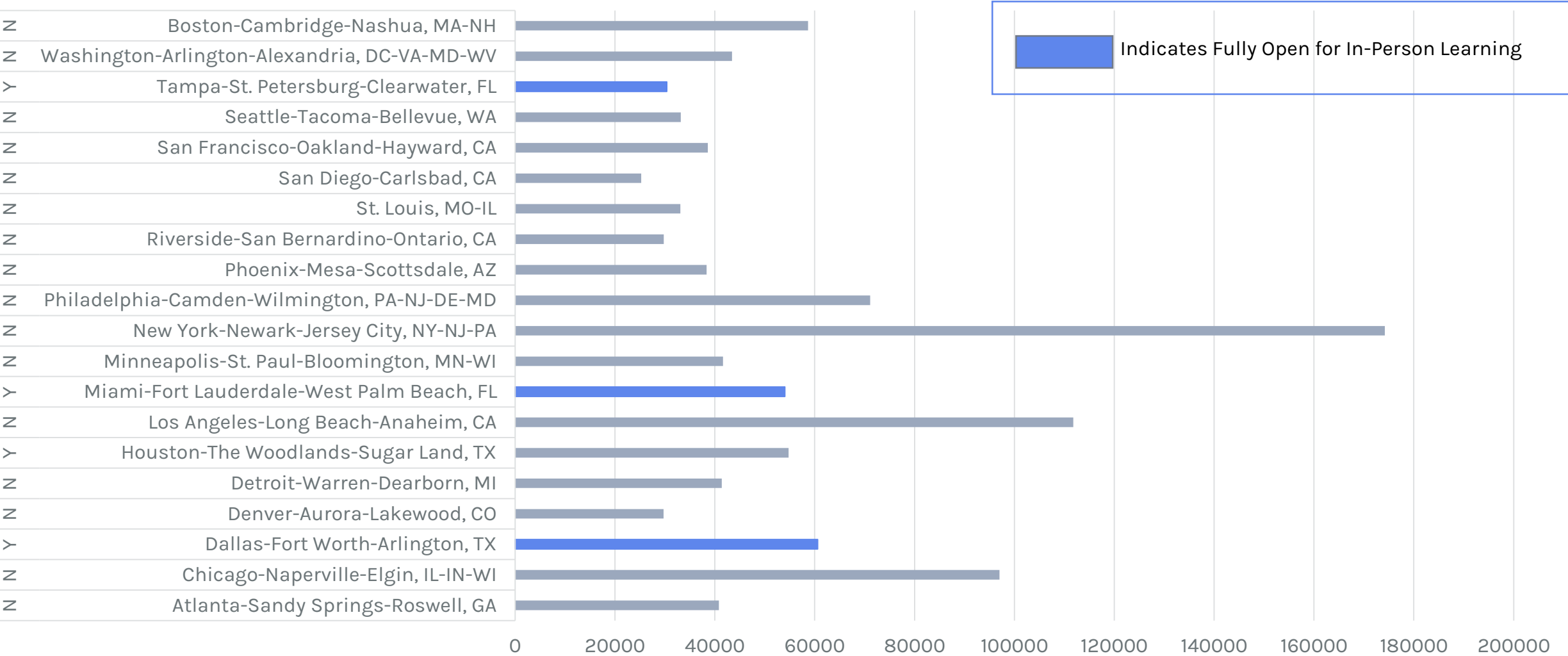
Women in Health Care Workforce Are Slow to Return

Approximately 84,000 women have departed, perhaps permanently



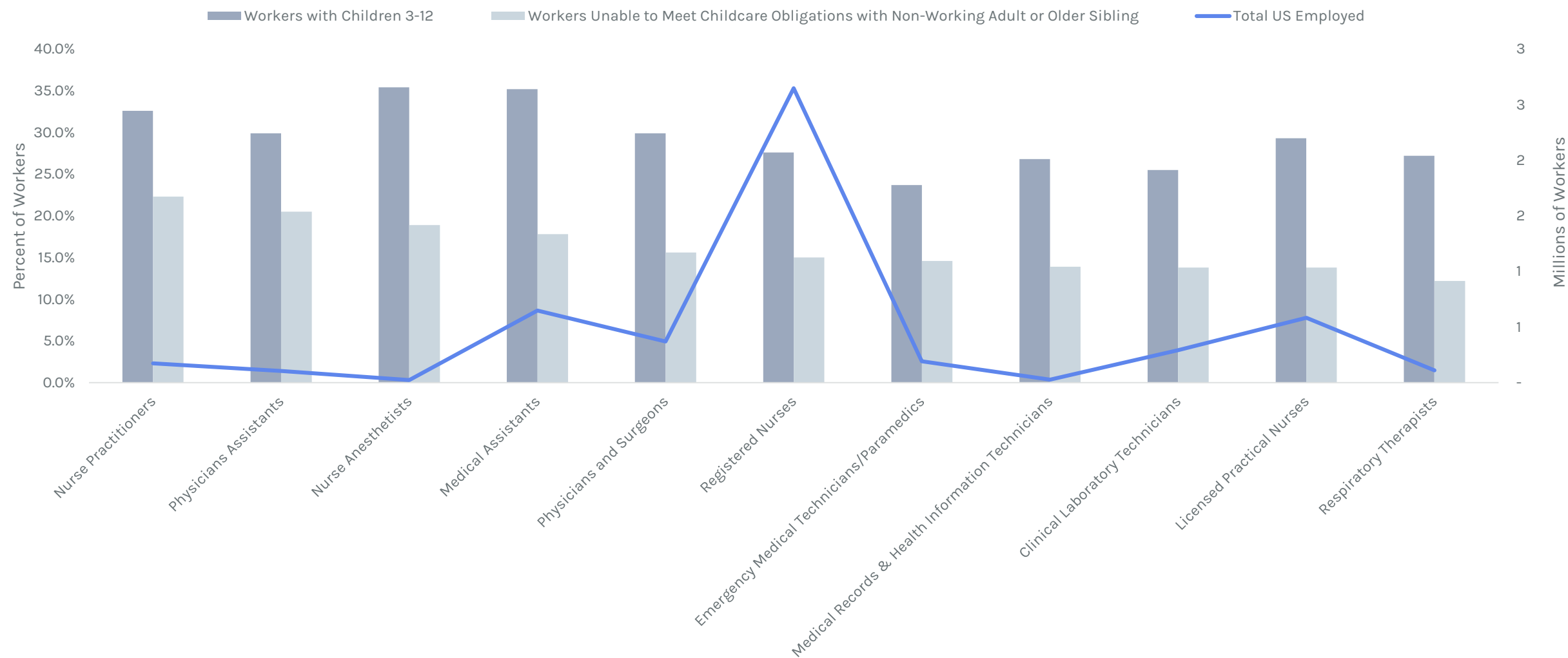
School Closures Limiting Flexibility of Workforce

Burnout, high risk profile also contributing

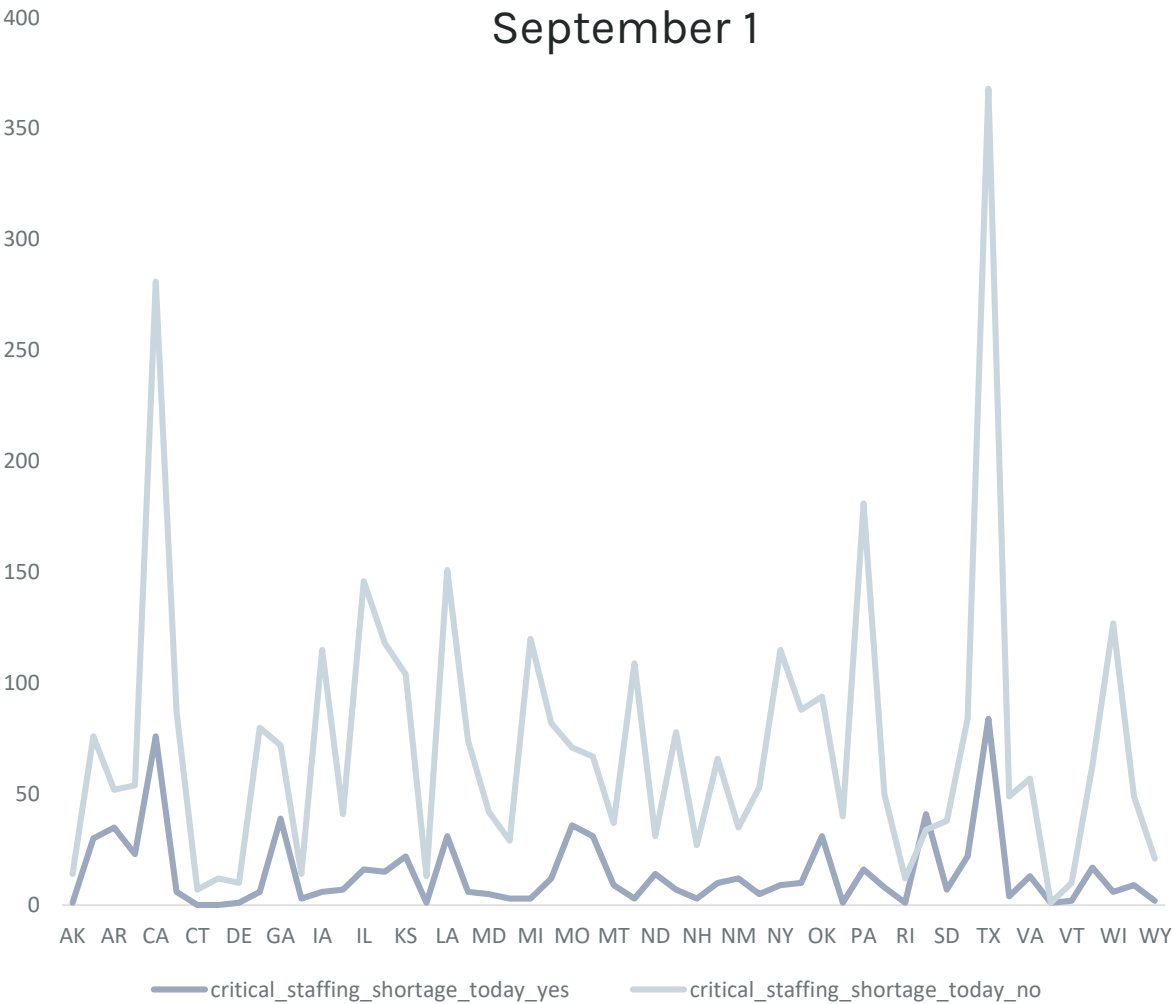
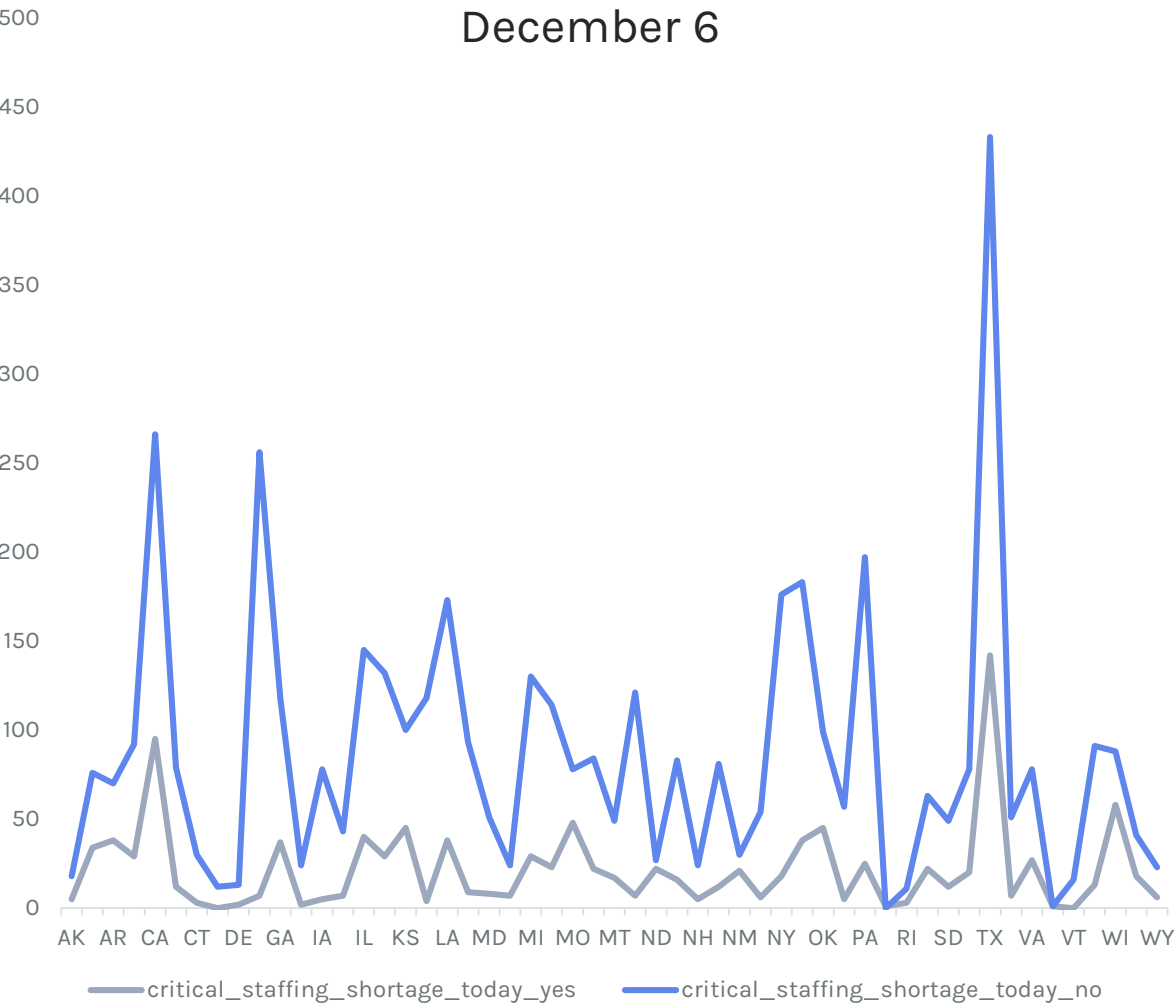


Less Skilled, Lower Wage Workers Most Impacted

April Study but things have not improved much



Hospitals Reporting Critical Staffing Shortages



Nurse Demand is E-V-E-R-Y-W-H-E-R-E

From CROs to Pharmacies and everything in between



Join our Covid-19 Vaccine Support Team

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We are committed to administering millions of coronavirus vaccines in 2021. We're hiring pharmacists, pharmacy technicians, and nurses to administer COVID-19 vaccines across the United States.

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Pharmacy Technicians

Nurses

Pharmacy Interns

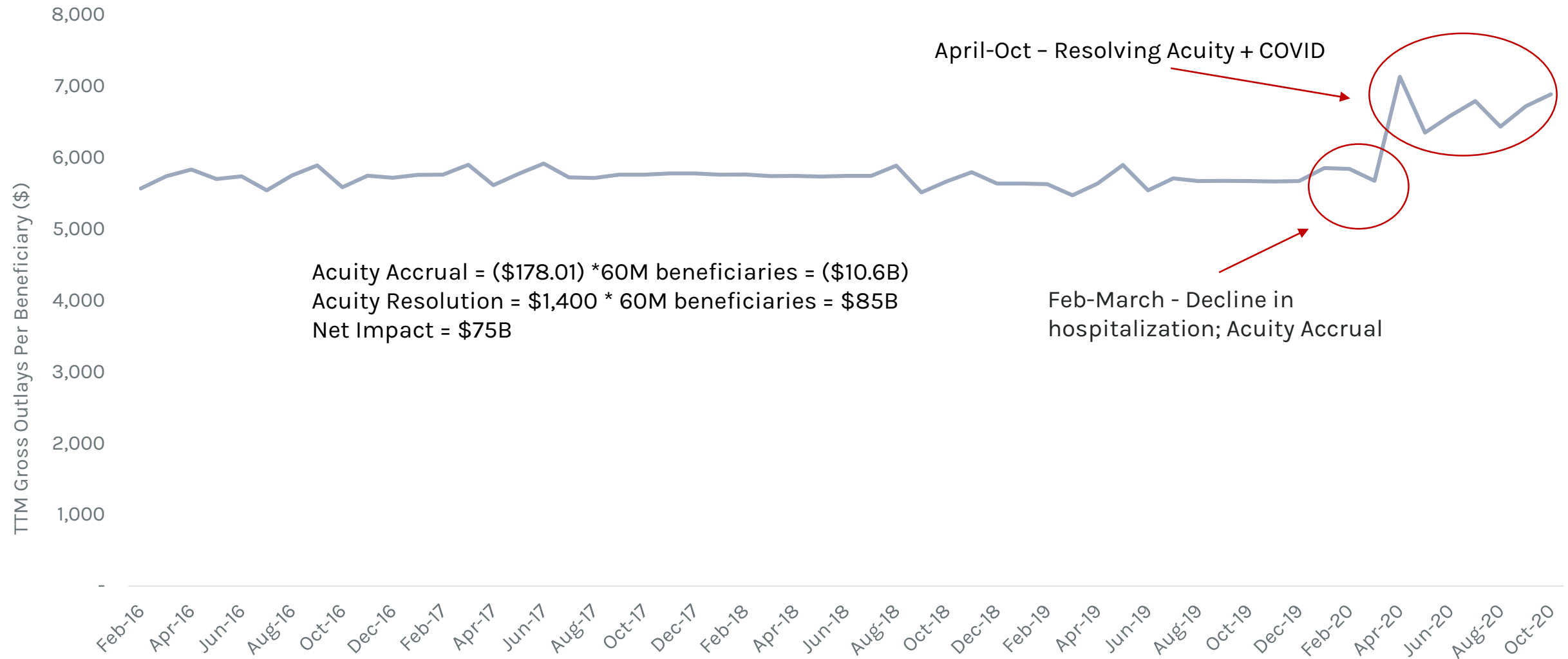
Temporary

Learn More

TTM Gross Treasury Outlays Per Medicare Beneficiary

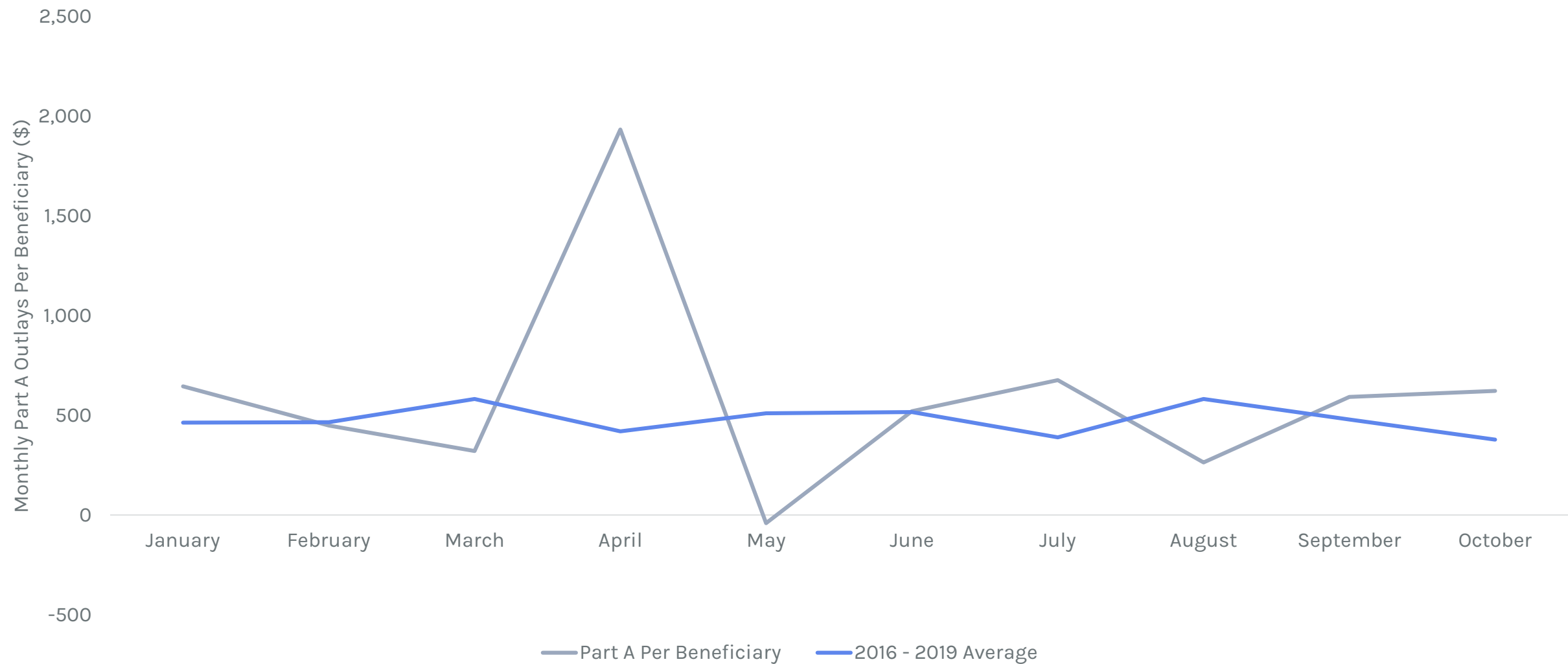
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Part A: Acuity Still Being Addressed; Delays in Inpatient Care + COVID = 25%



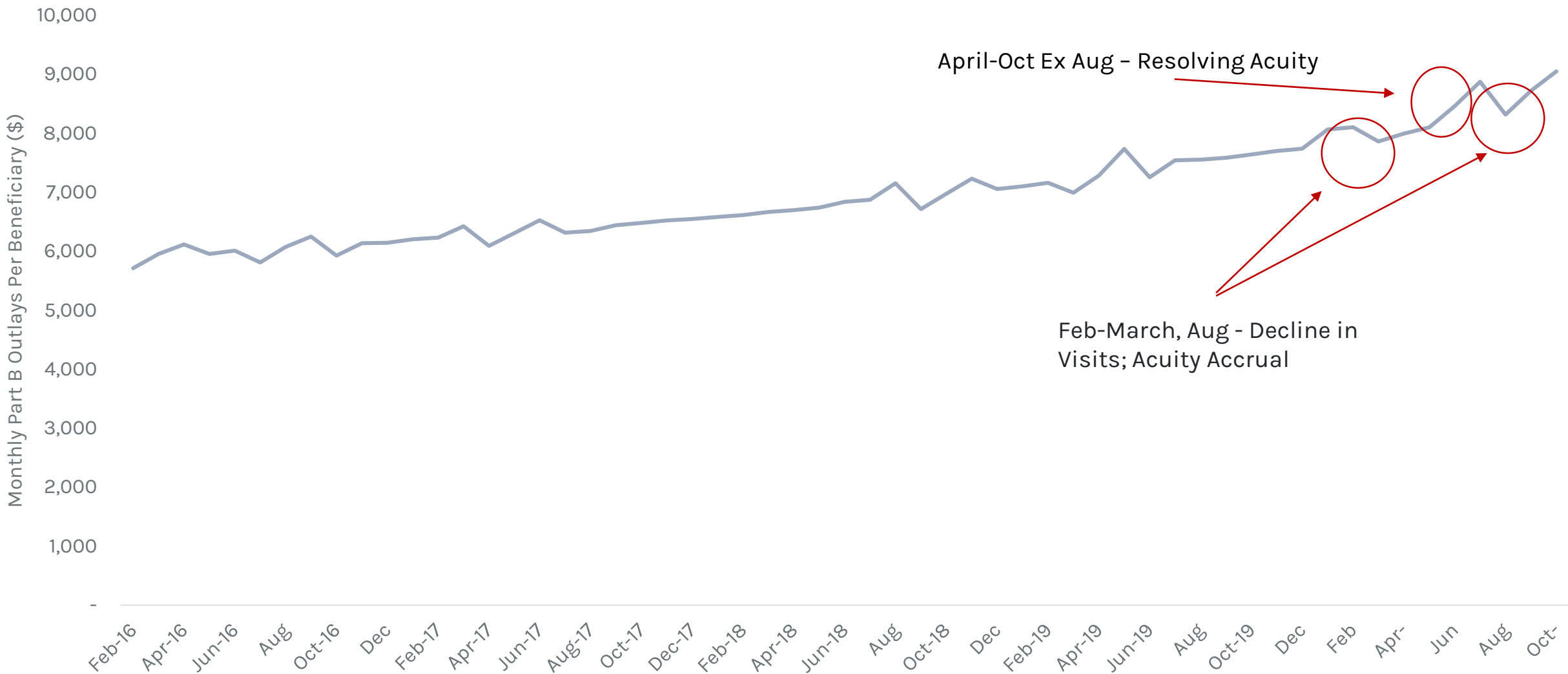
Monthly Gross Treasury Outlays Per Medicare Beneficiary

Part A: CY2020 v Monthly Average 2016-2019 - Destroying seasonal trends and a few actuarial models



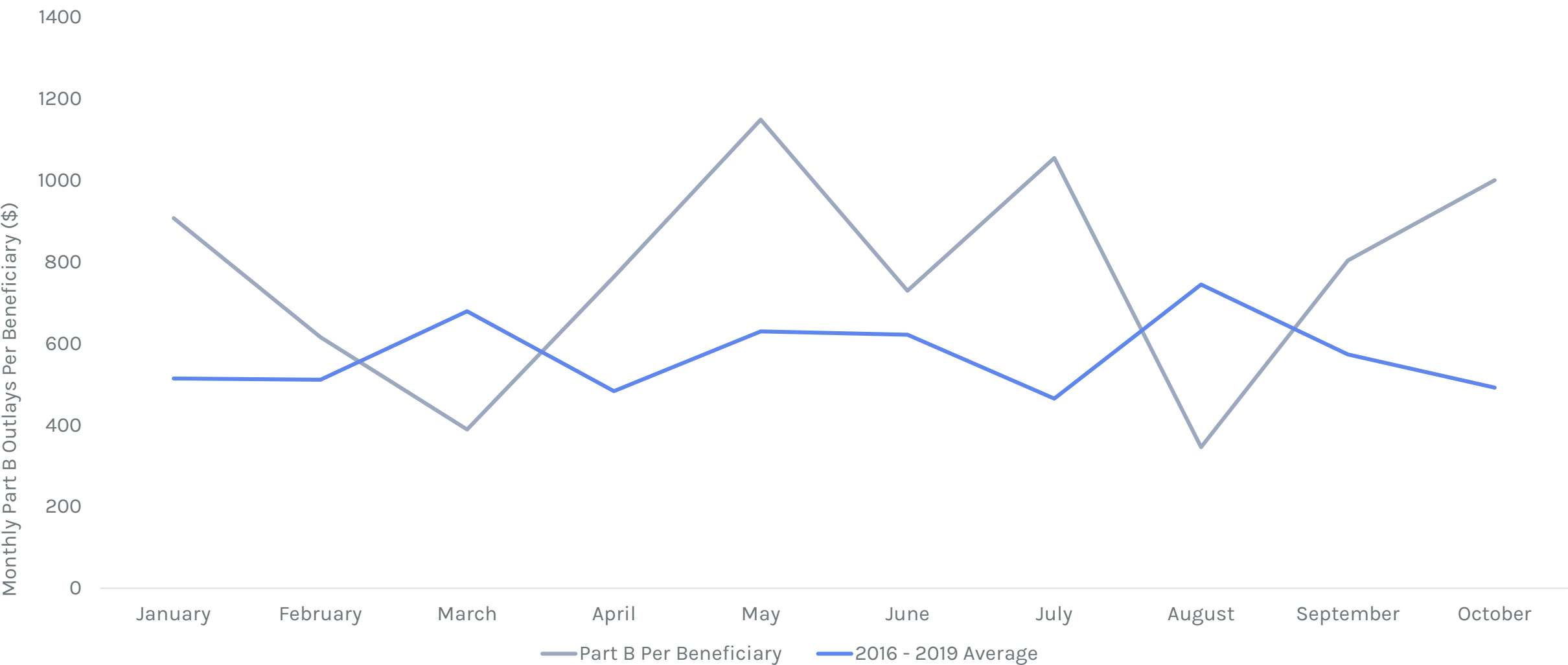
TTM Gross Treasury Outlays Per Medicare Beneficiary

Part B: More stable than inpatient – Influence of alternative settings and telehealth



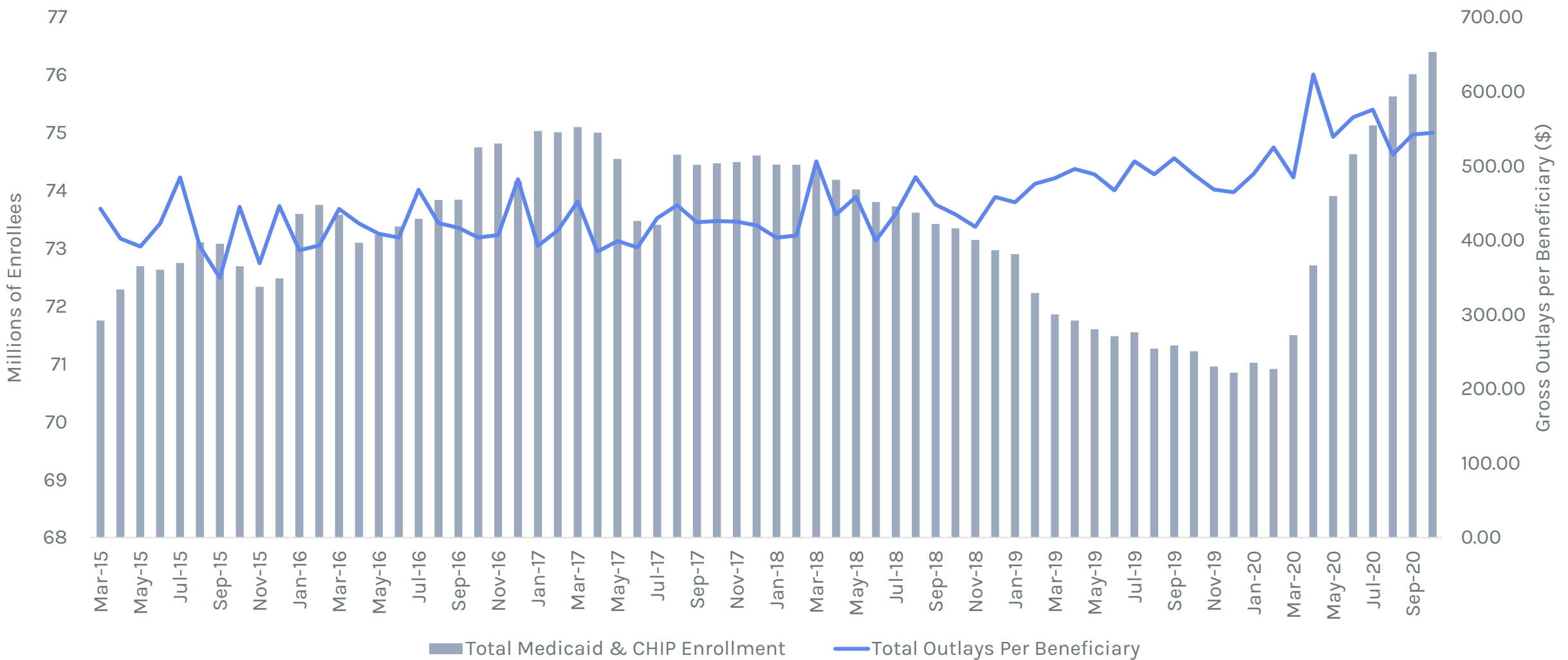
Monthly Gross Treasury Outlays Per Medicare Beneficiary

Part B: CY2020 v Monthly Average 2016-2019 - Destroying seasonal trends and a few actuarial models



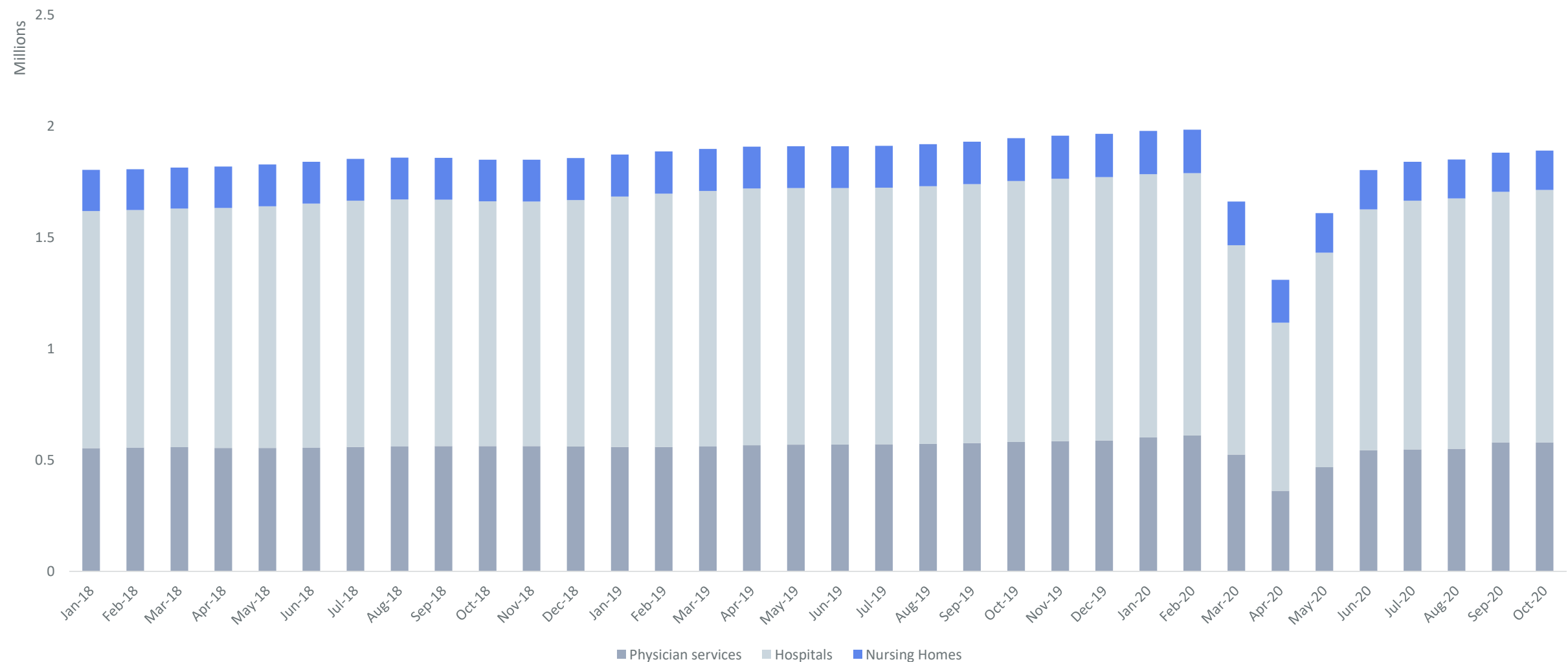
Gross Treasury Outlays – Medicaid Grants to States

Does not include state match; acuity probably in check as half are children



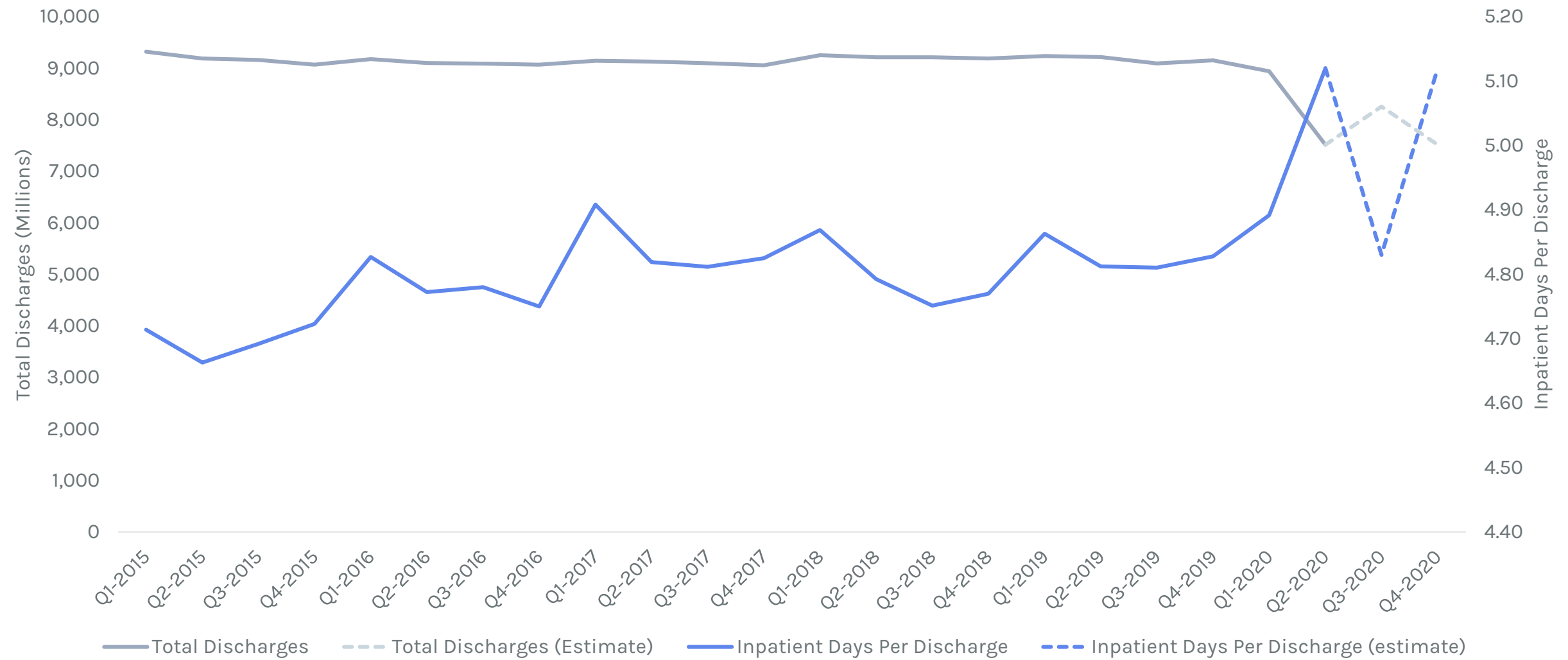
Other Health Programs

Similar Result with 3Q not getting back to pre-crisis levels; Price not Volume



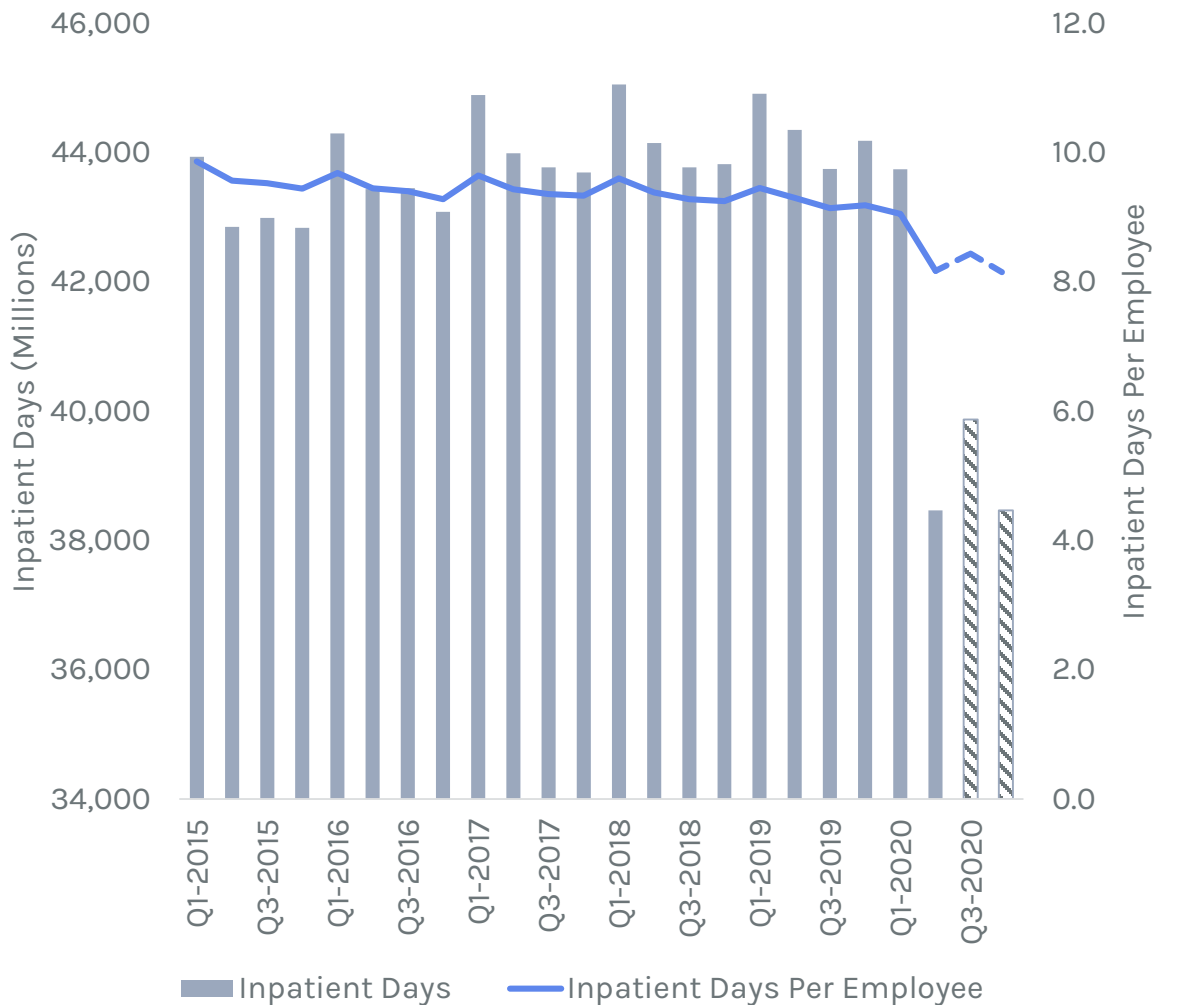
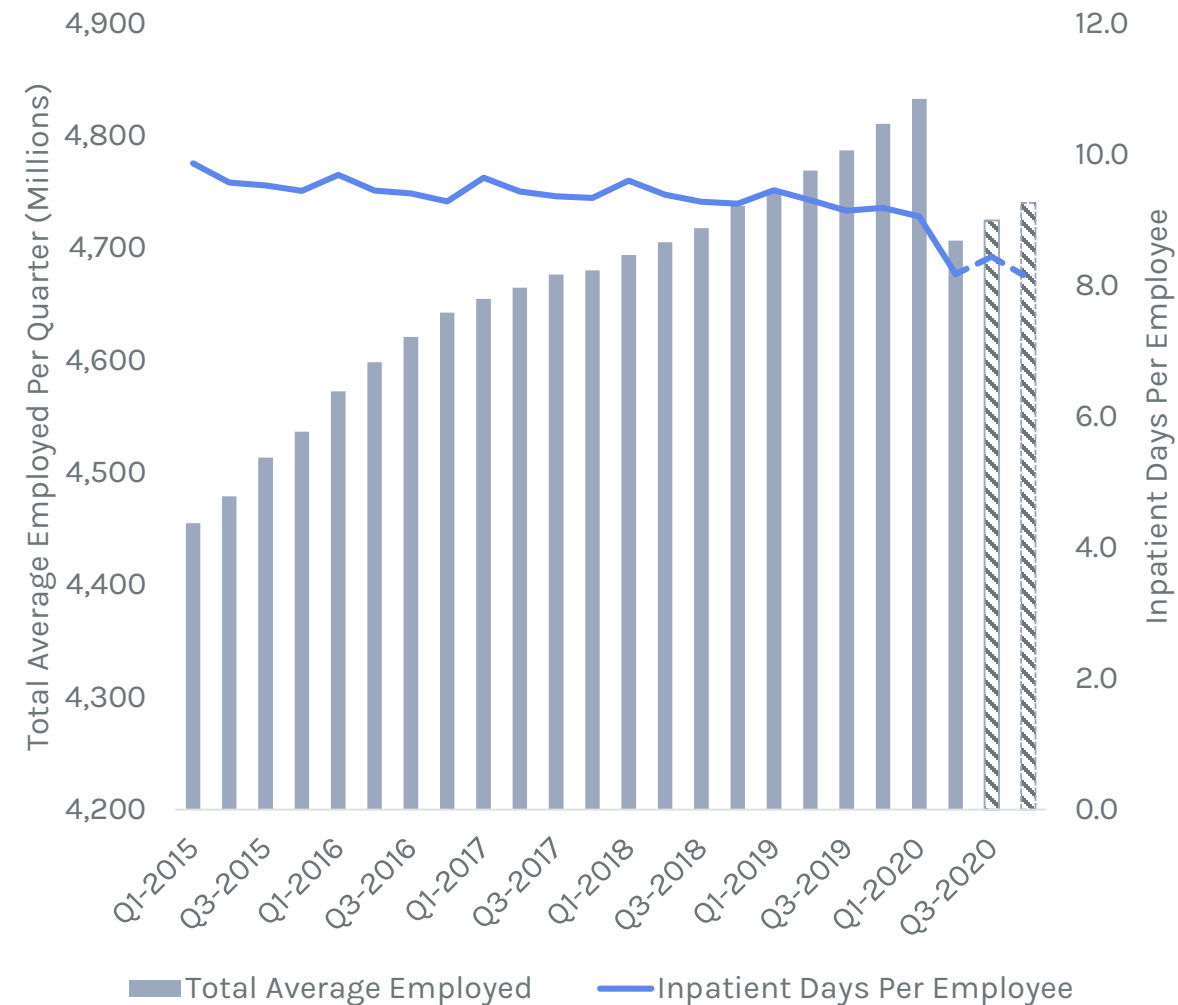
All Inpatient Care

Q3 and Q4 will probably look a lot like Q1 and Q2



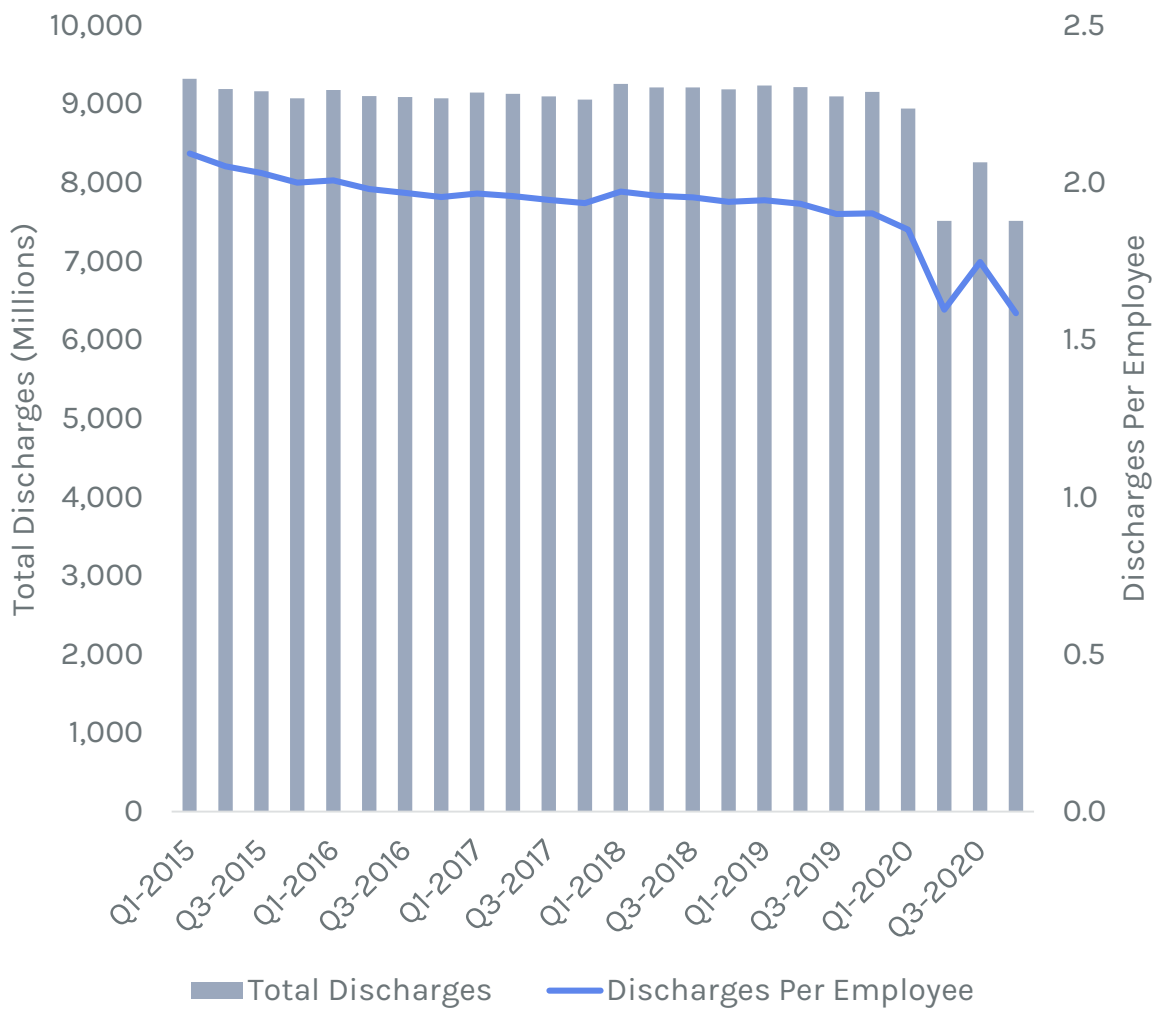
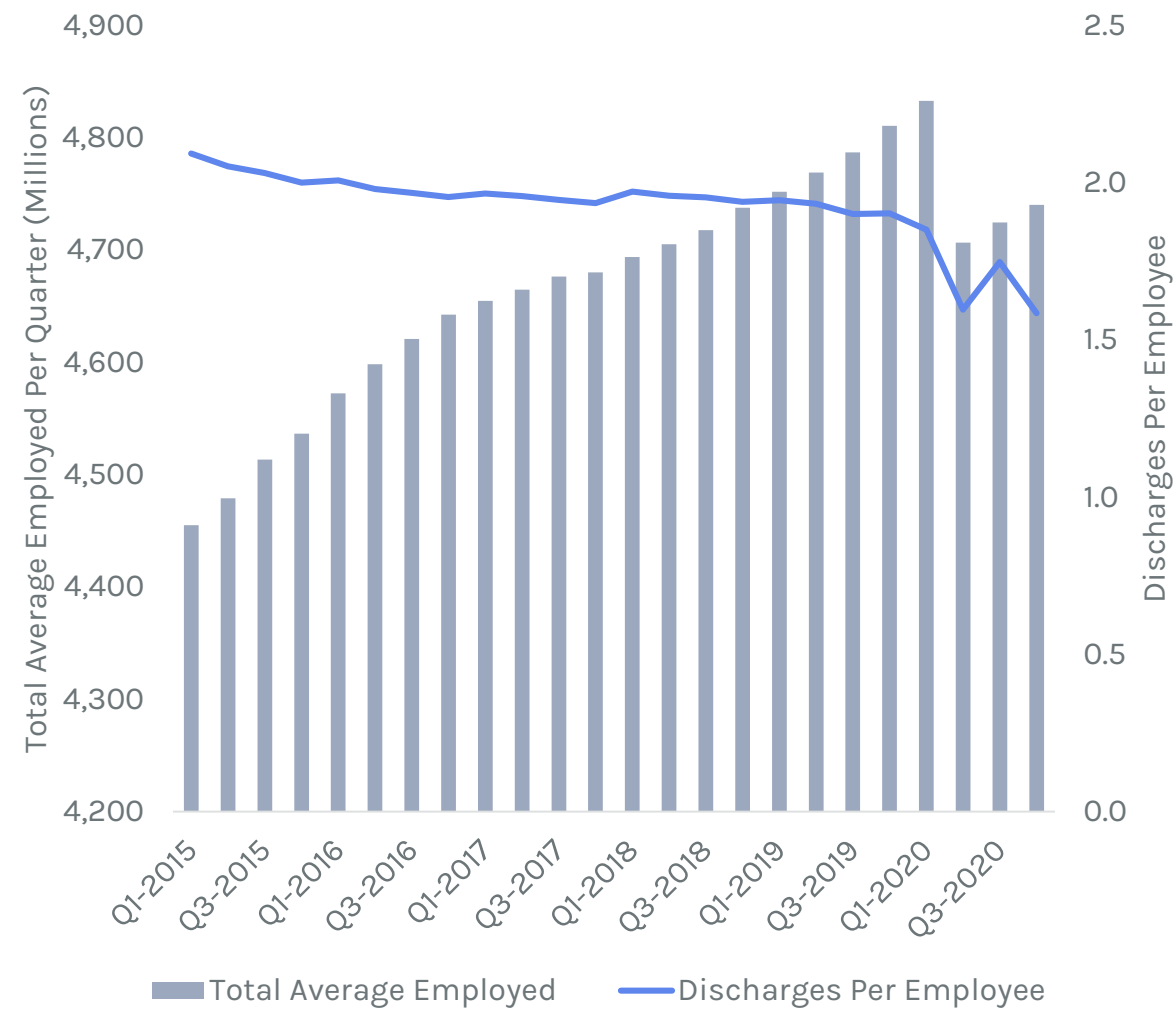
The Elusive Productivity of Health Care

Ten months into COVID and hospitals are still inefficient – Inpatient Days



The Elusive Productivity of Health Care

Ten months into COVID and hospitals are still inefficient – Discharges



“What is more important about regulation is understanding what doesn’t happen because of it.” ~ FedEx CEO Fred Smith

Major Deregulatory Moves of 2019/20

Changes to Supervision

Move from Direct Supervision to General Supervision

- Non-surgical Extended Duration Therapy Services (permanent)
- Pharmacists can provide care incident to physicians' services

Direct Supervision via Telecommunication Services

- Pulmonary, Cardiac, Intensive Cardiac Rehabilitation (permanent)
- Services provided by auxiliary personnel (12/31/2021)
- Supervision of residents through (TBD)

Site of Care Restrictions

End of Inpatient Only List

- Let physicians decide between Inpatient and HOPD
- 3-year phase-in

Significant modification to Covered Procedures List

- Eliminate criteria
- Adds 270 new procedures to CPL in 2021

Price Transparency

- Shoppable Services Final
- Negotiated Rates between carriers (proposed)

Advanced Technology

Breakthrough Technology

- New MCIT Coverage Pathway for National Medicare Coverage of FDA “Breakthrough” Devices
- Provided reimbursement assurance in place of “valley of death.”
 - Genetic Tests
 - AI

Technology Pass-through Payments

- First AI approved this year

Device Intensive Procedures

- Changed threshold from 40% to 30%

Rural Health

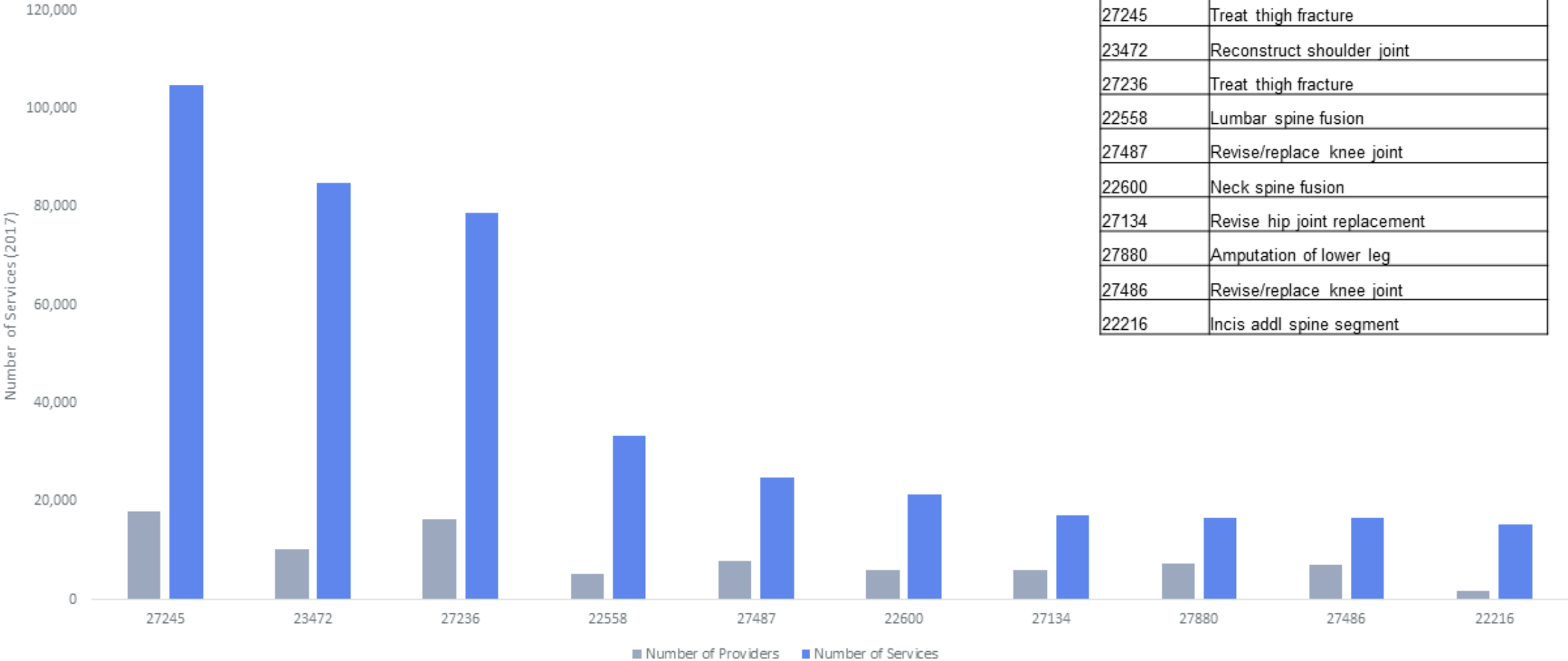
Memorandum of Understanding b/w USDA, HHS and FCC

- Intended to create better coordination in improving access

Reforms to FCC Rural Health Program

- Grant money from CARES Act
- Pivot orientation toward more rural providers

Top Ten Musculoskeletal Procedures on IPO List

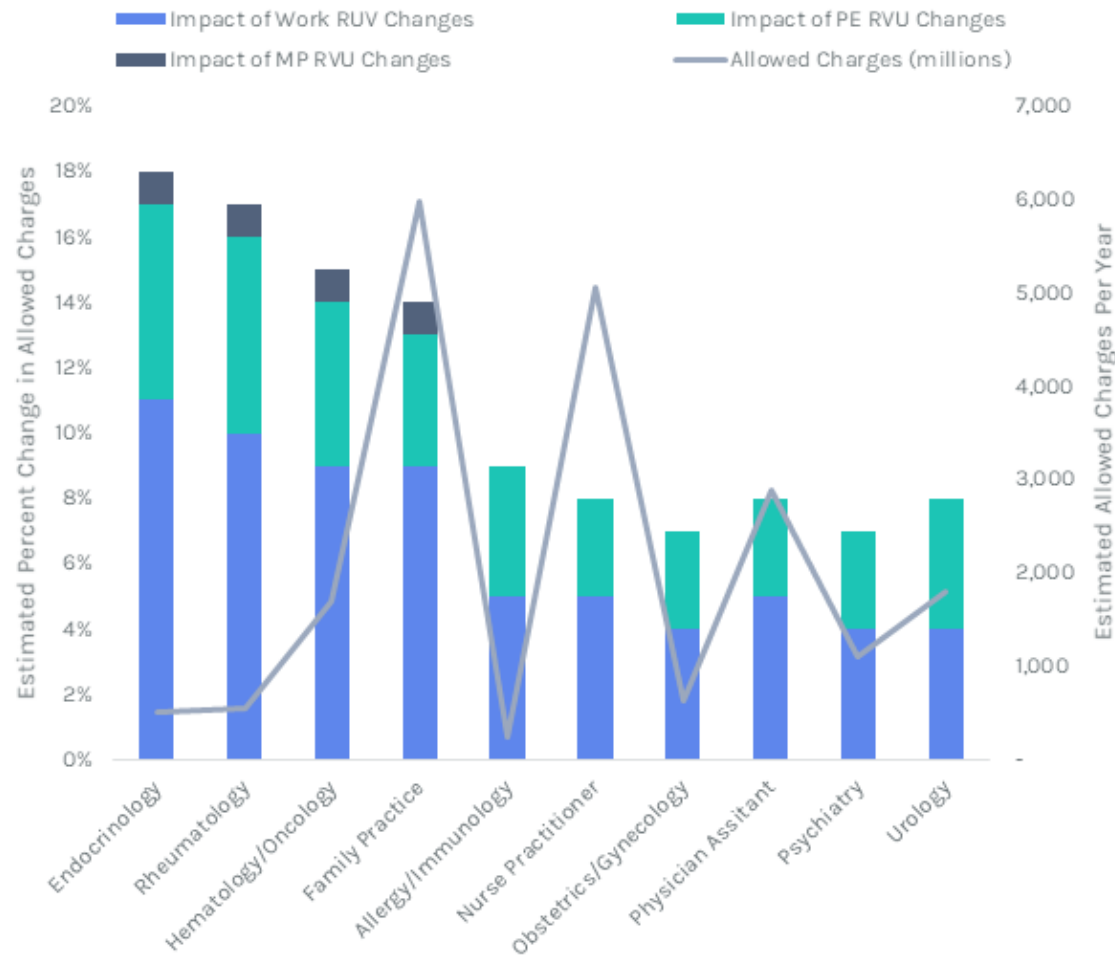


HCPCS Code Short Descriptor

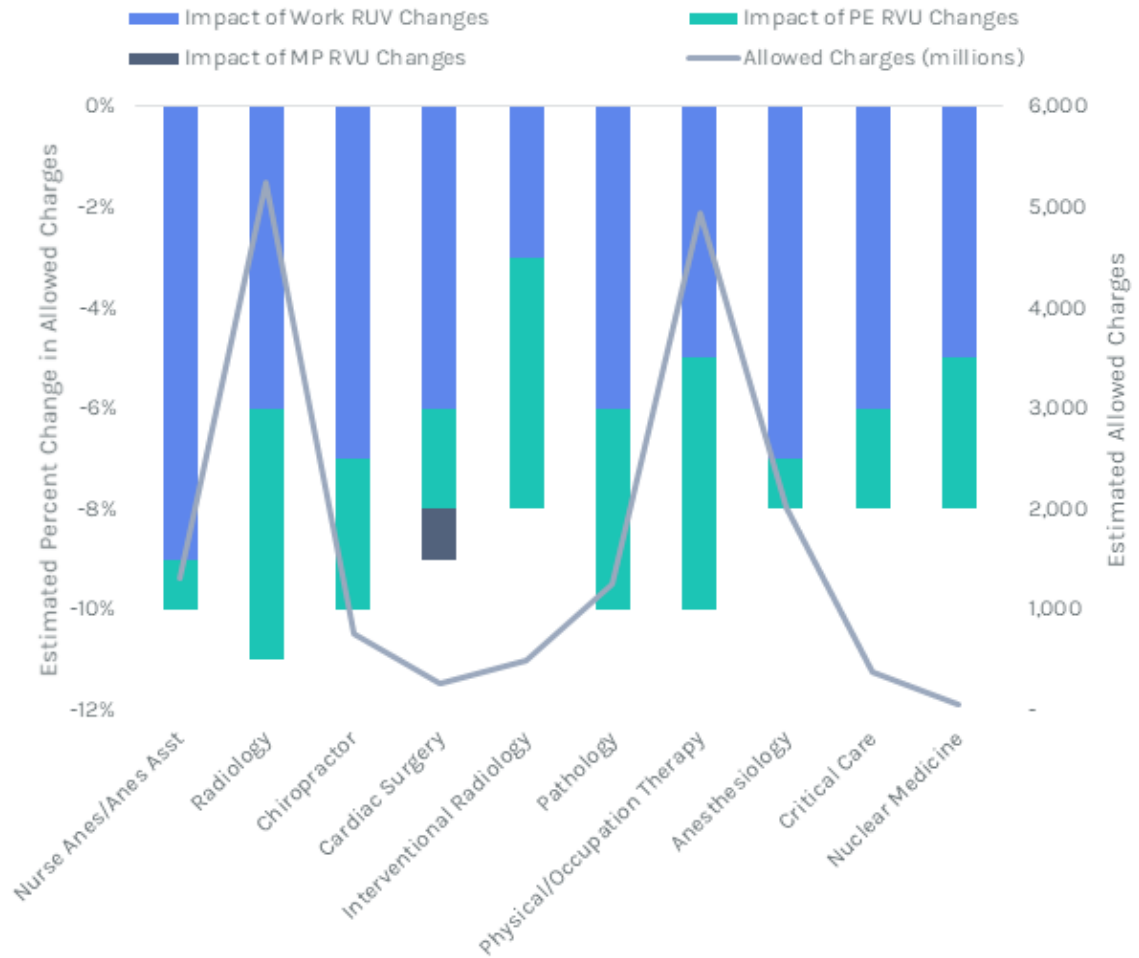
27245	Treat thigh fracture
23472	Reconstruct shoulder joint
27236	Treat thigh fracture
22558	Lumbar spine fusion
27487	Revise/replace knee joint
22600	Neck spine fusion
27134	Revise hip joint replacement
27880	Amputation of lower leg
27486	Revise/replace knee joint
22216	Incis addl spine segment

Primary Care E/M Codes | Budget Neutrality Adjustment

Top Ten Medicare Payment Increases

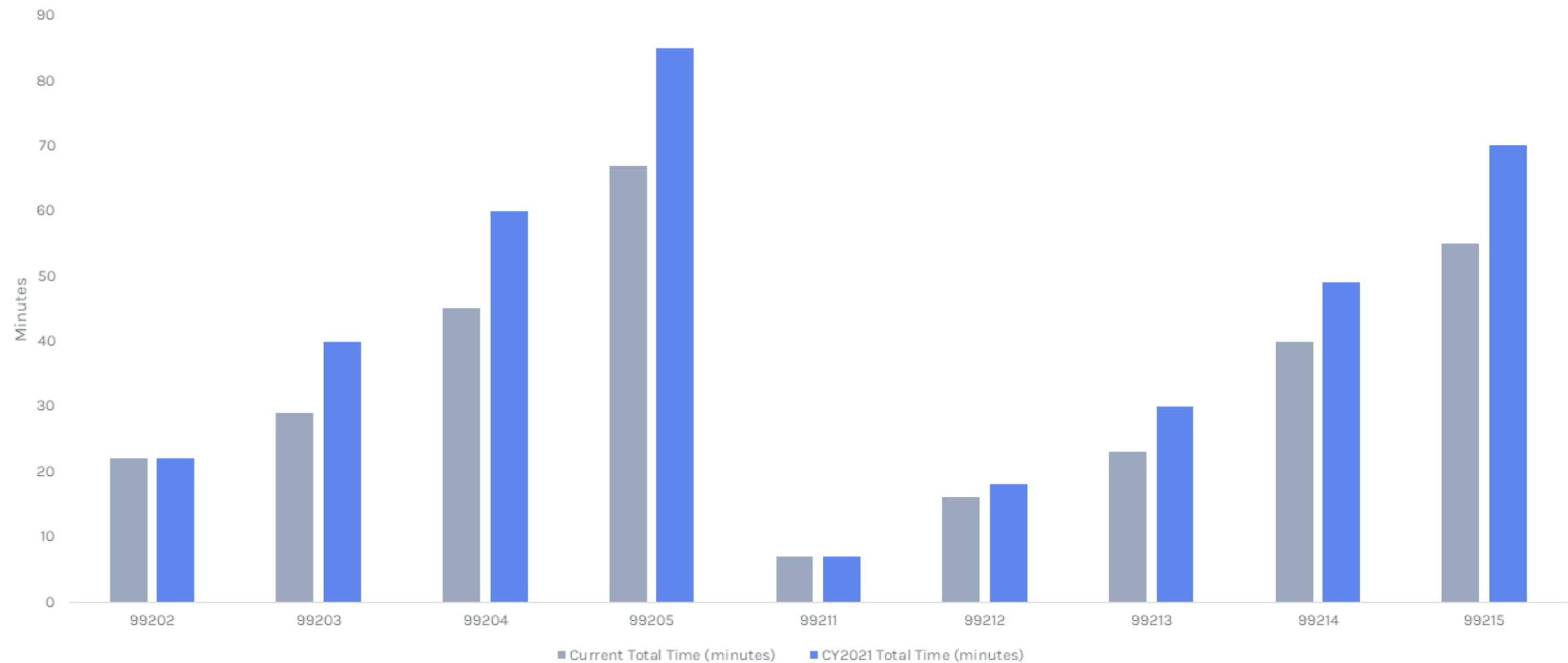


Top Ten Medicare Payment Decreases



Time Used | Evaluation & Management Codes

99201 will be deleted in CY 2021



Technology



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Health Care Technology Trends | Emerging to Developed

Emerging

Voice Technology

- Voice technology was being explored at the edges of HCIT until COVID
- Most fully developed technologies related to Nurse Call solutions
- Emergency Use Authorization approved by FDA during Public Health Emergency
- Outbreak containment strategy that also addresses labor issues

Gaining Traction

Rural Complex/Chronic Care

- Priority of White House and CMS since 2016
- Funding program at Federal Communications Commission enhanced through appropriations and CARES Act
- Restructured to focus on rural providers
- Leverages developing and developed trends in telemedicine and Remote Physiological Monitoring
- Changes to direct supervision rule paves way for scale

Developing

Remote Physiological Monitoring and Communication Technology-based Services

- Change in CPT Codes in 2018 separated billing for CTBS
- Subsequent changes have permitted billing by non-physician practitioners who do not bill for Evaluation/Management Services
- Expansion of RPM codes and permitted billing entities

Developed

Telemedicine

- Accelerated by COVID-19 outbreak
- Mostly affects what services physicians and NPPs can provide and bill
- Codes greatly expanded on Physician Fee Service schedule and likely to change again at end of Public Health Emergency

Medicare | PFS Emergency Telehealth Provisions

[1] Permanent

- Group Psychotherapy (CPT 90853)
- Domiciliary, Rest Home or Custodial Care Services, Established Patients (CPT 99334-99335)
- Home Visits, Established Patients (CPT 99347-99348)
- Cognitive Assessment and Care Planning Services (CPT 99483)
- Visit Complexity for Certain Office/Outpatient/E/M (HCPCS CPC1X)
- Prolonged Services CPT (99XXX0)
- Psychological and Neuropsychological Testing (CPT 96121)

[2] Temporary Extension

- Domiciliary, Rest Home or Custodial Care Services, Established Patients (CPT 99336-99337)
- Home Visits, Established Patient (CPT 99349-99350)
- Emergency Department Visits Levels 1-3 (CPT 99281-99283)
- Nursing Facility discharge day management (CPT 99315-99316)
- Psychological and Neuropsychological Testing (CPT 96130-96133)

[3] Not Extended

- Initial Nursing facility visits, all levels (CPT 99304-99306)
- Psychological and Neuropsychological Testing (CPT 96136-96139)
- Therapy Services, Physical and Occupational, All Levels (CPT 97161-97168, 97110, 97112, 97116, 97535, 97750, 97755, 97760, 97761, 92521-92524, 92507)
- Initial Hospital Care and hospital discharge day management (CPT 99221-99223, 99238-99239)
- Inpatient Neonatal and Pediatric Critical Care (CPT 99468-99472, 99475-99476, 99477-99480)
- Critical Care Services (CPT 99291-99292)
- ESRD Monthly Capitation (CPT 90952, 90953, 90956, 90959, 90962)
- Radiation Treatment Management (CPT 77427)
- Emergency Room Visit Levels 4-5 (CPT 99284-99285)
- Domiciliary, Rest Home or Custodial Care services, New (CPT 99324-99328)
- Home Visits, New Patient, All levels (CPT 99341-99345)
- Initial and Subsequent Observation and Observation discharge (CPT 99217-99220, 99224-99226, 99234-99236)

CMS cannot change prohibition of “home” as an originating site; nor can it allow permit audio only telehealth. Cannot alter restriction on rural originating site

“The Secretary shall pay for telehealth services that are furnished via a telecommunications system by a physician or a practitioner to an eligible telehealth individual enrolled under this part notwithstanding that the individual physician or practitioner providing the telehealth service is not at the same location as the beneficiary.”

Distant Site	Originating Site	Services/Fees	Exceptions
<p>The term “distant site” means the site at which the physician or practitioner is located at the time the service is provided via a telecommunications system.</p> <ul style="list-style-type: none">Physician/Practitioner OfficeHospital ClinicInpatient HospitalAny other place physician may be located	<p>[T]he term “originating site” means only those sites described below at which the eligible telehealth individual is located at the time the service is furnished via a telecommunications system:</p> <ul style="list-style-type: none">Physician/PractitionerCritical Access HospitalRural Health ClinicFederally Qualified health CenterHospitalHospital or CAH based dialysis centerSNFCommunity Mental Health Center <p>AND Located in:</p> <ul style="list-style-type: none">Rural health professional shortage areaNOT in an MSA	<p>Services</p> <ul style="list-style-type: none">Professional consultationsOffice visitsOffice psychiatry visitsAny other services specified by CMS (updated annually) <p>Fees</p> <ul style="list-style-type: none">Facility fee is 80% of actual charge or 80% of the originating site’s normal facility fee; no facility fee is paid if originating site is a homeUsual deductible and co-insurance rates applyProvider charges normal professional fee	<p>From geographical originating site requirements -</p> <ul style="list-style-type: none">Clinical assessment for ESRD patients provided face-to-face assessment conducted once/3 months (dialysis clinic or home)Stroke Treatment (hospital, CAH or mobile stroke unit)Substance Abuse Disorder (home) <p>From most requirements -</p> <ul style="list-style-type: none">Medicare Advantage Plans

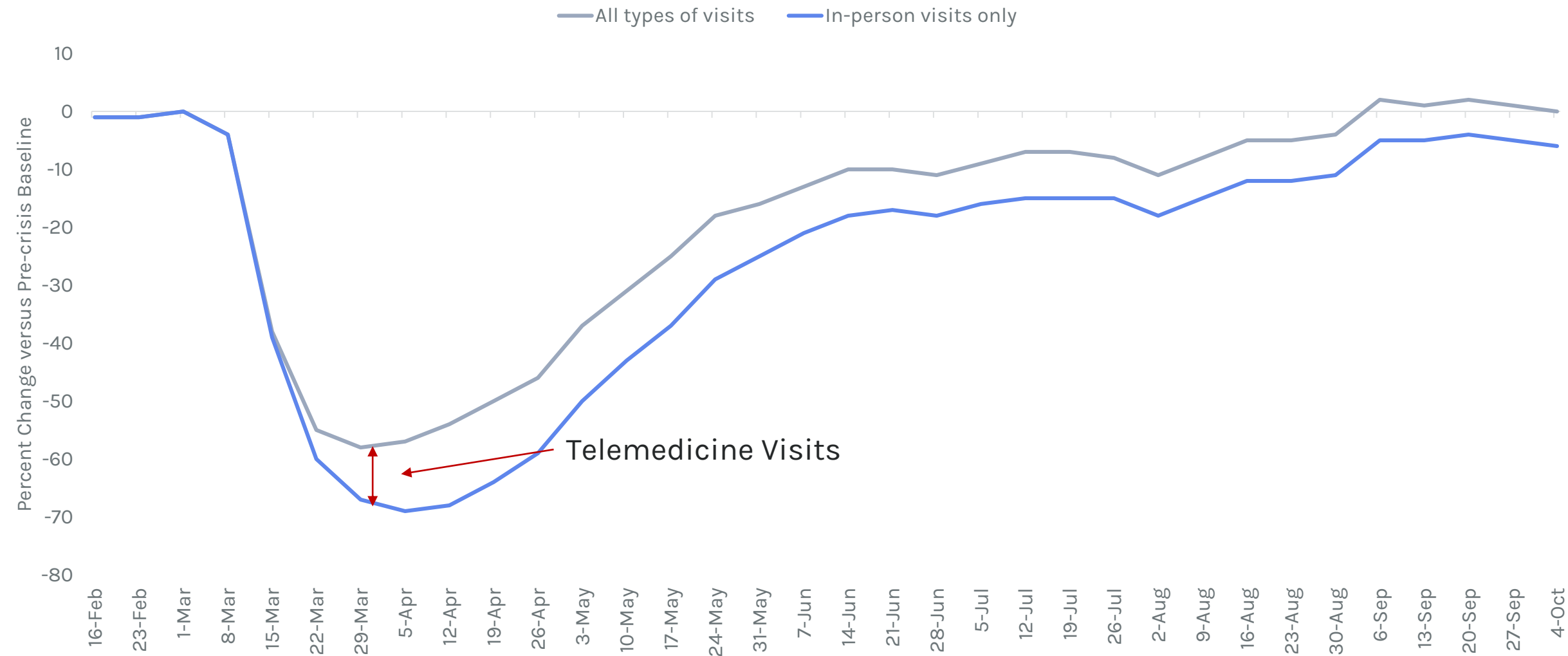
Medicare | Permitted Telehealth Practitioners

- [1] Physician assistant, nurse practitioner, or clinical nurse specialist
- [2] Certified registered nurse anesthetist
- [3] Certified nurse-midwife
- [4] Clinical social worker or clinical psychologist
- [5] Registered dietitian or nutrition professional

*Requirement for
“Direct Supervision”
can be met via
interactive
telecommunications
without physical
presence of physician
or NPP until end of
PHE and may be
extended
permanently*

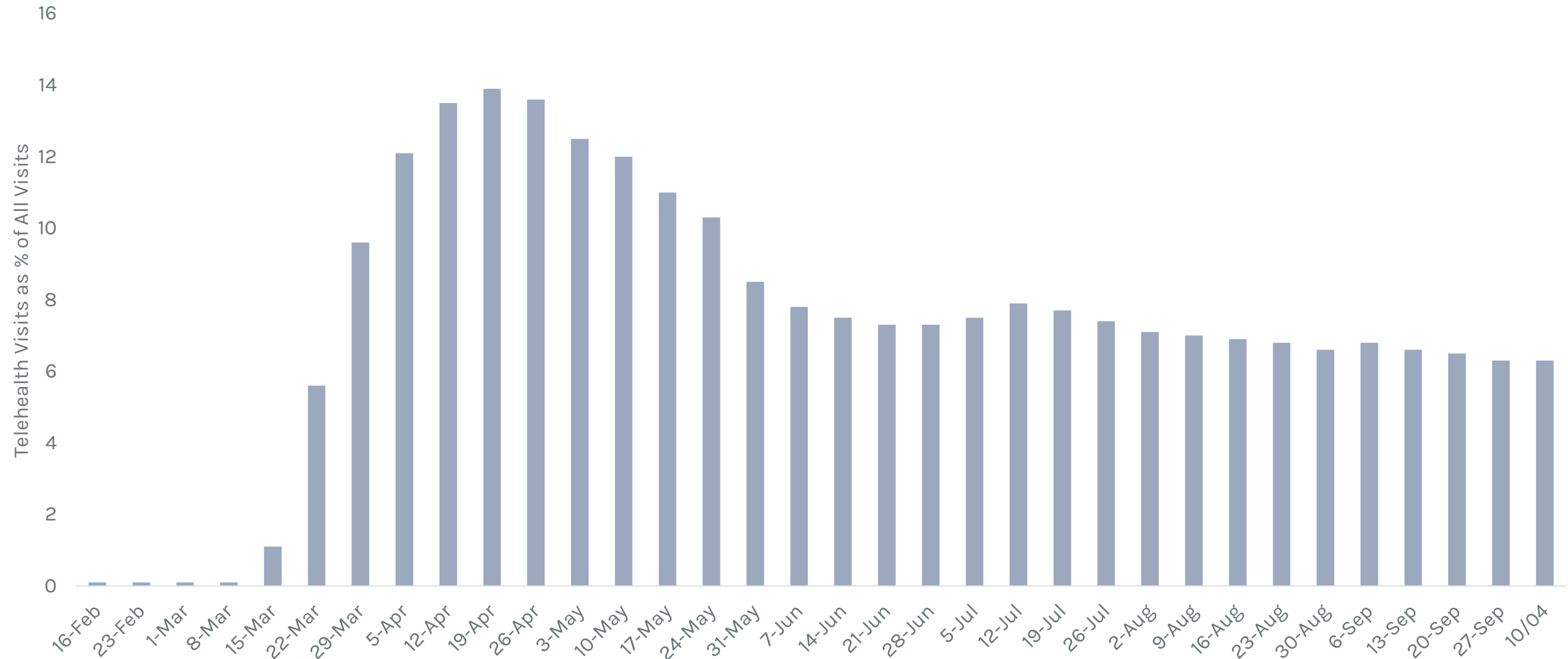
Telemedicine Use Declining But Above Baseline

Policy concerns emerging around overuse

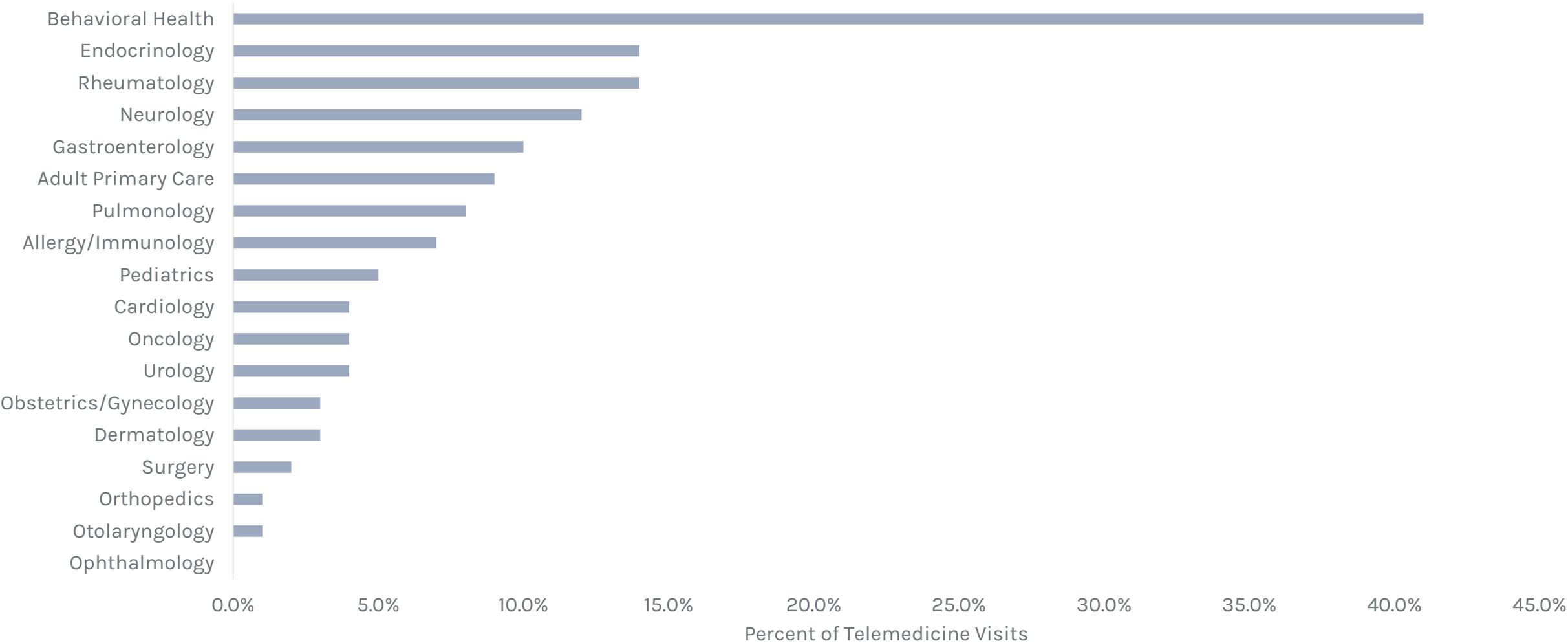


Use of Telemedicine Still on a Slow Decline

Acuity, patient need, and best practices limit its utility



Telehealth Emerging as Chief Modality for Behavioral



Communication Technology-based Services

[1] CY 2019 Rule

- Determined that there were services that could be furnished via telecommunications technology but were NOT considered Medicare telehealth
 - G2010 – Remote Evaluation of store-and-forward video or images including follow-up by professional who can report E/M services
 - G2012 – Virtual check-in by physician or other NPP who can report E/M services

[2] CY 2020 Rule

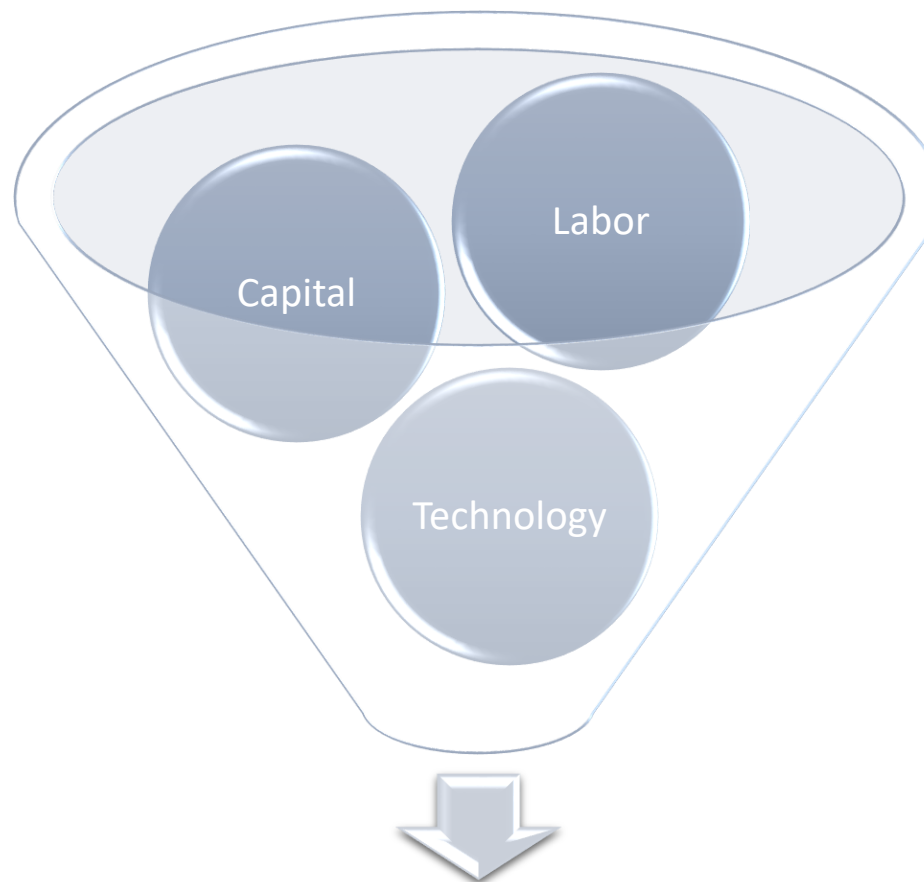
- Developed codes for NPP who cannot bill independently for E/M services
 - G2061 – Qualified NPP online assessment and management, established patient for up to 7 days cumulative, 5-10 minutes
 - G2062 – Qualified NPP online assessment and management, established patient for up to 7 days cumulative, 11-20 minutes
 - G2063 – Qualified NPP online assessment and management, established patient for up to 7 days cumulative, 21 minutes or more
- For PHE, determined codes could be billed social workers, clinical psychologists, PT, OT and SLP

[3] CY 2021 Proposed

- Proposing to adopt permanently expansion of NPP from CY 2020
- Proposing two new codes for practitioners who cannot bill independently for E/M services
 - G20X0 – Remote assessment of recorded video/images submitted by established patient including interpretation w/follow-up in 24 hours
 - G20X2 – Brief CTBS by NPP similar to G2012
- Designating these and CY 2020 codes as “sometimes therapy” services to facilitate billing by therapists

Top of the Funnel: Macro Drivers of Change

- The infusion of capital into the health system is unprecedented = \$490 Billion in 6 months
- Labor demand especially for nurses originates from a greater variety of sites than ever before, straining the system
- Technology to improve productivity and make the system more efficient is still in its infancy
- Deregulation will put more demands on innovation and productivity



Subsector Analysis

Next Week | Subsector Analysis

[1] Use of Excess Capital

- CROs, Labs, R &D
- Buffering labor disruptions

[2] Labor demands

- Coming from everywhere – pharmacies, CROs, labs
- Vicious cycle between acuity and labor supply; mad scramble for patients

[3] Technology Advances

- Necessary to enhance productivity
- Desired to make experience more pleasant

[4] Deregulation

- Exacerbating labor demands
- Driving Technology

Please submit questions* to
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*Answered at the end of the call

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