Market Response to COVID-19:

Physician and Advanced Practice Provider Compensation Practices Survey Report

April 15, 2020

INTRODUCTION

Health care organizations across the United States face immediate and unprecedented financial and workforce challenges due to the COVID-19 pandemic. Whether located in a current virus "hot spot" or waiting for the surge in areas that have yet to reach their peak, hospitals and health care systems are being forced to address the influx of related challenges.

At SullivanCotter, our aim is to provide meaningful data-driven insights to help inform health care organizations during this unprecedented time. To better assist our clients, we conducted a survey to understand the compensation-related practices that are being considered and implemented in response to COVID-19.

The *2020 COVID-19 Physician and Advanced Practice Provider Compensation Practices Survey* was conducted from March 31 to April 7, 2020, and includes responses from 119 leading health care organizations from across the country. Thank you for taking valuable time to participate during this turbulent period.

The COVID-19 situation is extremely fluid, as is the response of health care providers across the country, and we anticipate that workforce practices will evolve over the coming weeks and months. In order to keep our clients up to date on emerging issues related to COVID-19, SullivanCotter will continue to track developments in real time. Please reach out to your consultant for the latest information and insights or call 888.739.7039.

This report is organized into two sections:

Section I presents an Executive Summary of the survey results (page 2).

Section II presents the survey results (page 4).

The following guidelines are used in this report:

- Organization-specific data are confidential. While participating organizations are identified in **Appendix A**, no attribution to an organization's actual data is provided.
- Participant counts (n) listed are based on the number of organizations that responded to each question unless otherwise noted.

Questions and comments about this survey report should be directed to: covidinsights@sullivancotter.com

Please note there is a companion *2020 COVID-19 Executive and Employee Compensation Practices Survey Report* available upon request.

As these are proprietary materials, we ask that you do not distribute or share this information with anyone outside of your organization without written consent from SullivanCotter. Your cooperation in this regard is greatly appreciated.

SECTION I: EXECUTIVE SUMMARY

The evolving COVID-19 pandemic has significantly altered the way in which hospitals and health care systems currently operate by placing an enormous strain on organizational resources. The way in which organizations are handling these emerging financial and workforce issues covers a broad spectrum of related responses and solutions. Responses can vary depending on a number of factors, such as 1) the degree to which the surge of the virus is impacting operations, 2) the impact of canceling elective surgeries and closing ambulatory care operations, 3) the need to preserve cash reserves, 4) the costs associated with virus preparation and treatment, and 5) the extent to which care is coordinated on a local, regional and potentially even national level.

A natural consequence of the COVID-19 pandemic is the need to review compensation-related programs across the entire health care workforce to identify modifications required to support changes in deployment and organizational financial sustainability while also ensuring the well-being of its employees and patients.

This survey is intended to provide perspective on the market's response to COVID-19 as it relates to physician and advanced practice provider (APP) compensation issues as of early April 2020.

This report includes the following cuts:

- National (all organizations)
- Virus hot spot locations
  - Certain areas across the country have been identified as a virus hot spot, which indicates a higher concentration of COVID-19 patients (see **Appendix B** for information on the definition and the identification of hot spot areas).

In addition to the complete survey results, which can be found starting on page 4 of this report, we have summarized a list of high-level findings below.

Overall, survey responses did not indicate material differences between locations identified as virus hot spots versus non-hot spots apart from a few instances, which are detailed in the following summary:

Front Line Specialties

- Most common physician specialties considered front line in providing COVID-19 services include:
  - Emergency medicine
  - Critical care
  - Hospitalist/nocturnist
  - Infectious disease

Premium Pay

- **Physician:** Premium compensation practices are being used by only 9.5% of organizations for front line physicians. However, there is modest variance between hot spot (11.1%) and non-hot spot (7.8%) locations.
- **APP:** The use of premiums for APPs is slightly higher with 14.3% of organizations providing these. The variance between hot spot (16.0%) and non-hot spot (12.5%) locations is comparable to the variance for physicians.

Compensation Floor

- **Physician:** Over half (58.5%) of organizations are using compensation floors for non-front line physicians.

- The use of the compensation floor varied based on hot spot (45.3%) and non-hot spot (71.7%) locations. However, this variance is also influenced by the number of organizations that have a salary-based plan, which is significantly higher in hot spot (15.1%) versus non-hot spot (3.8%) locations.
  - Over the last month, SullivanCotter has conducted anecdotal research and received details on model mechanics for determining the floor amount. Below are examples of the plan mechanics being considered or implemented.
    - Graduated schedule based on historical compensation levels:
      - <$249,999 = 95% floor
      - $250,000-$349,999 = 90% floor
      - $350,000-$449,999 = 85% floor
      - $450,000-$549,999 = 80% floor
      - >$550,000 = 75% floor
    - Guarantees ranging from 60.0% to 85.0% of historical productivity-based compensation.
    - 100.0% of salary draw for first 45 days; 75.0% of salary draw thereafter.
    - Guarantee at a median of specialty-specific market data.
- The average and median number of months projected for using the compensation floor is two months, with a range of one to three months.
- Over half (54.7%) of organizations have not determined if there will be a payback requirement for covering the floor after the crisis subsides. 19.8% are considering some type of payback provision and 13.2% are requiring some type of payback provision post-crisis. The remaining 12.3% are not requiring repayment of the floor post-crisis.
- The majority of organizations indicate that the floor will be determined based on a rolling 12 months of historical compensation.

On-Call Pay Practices

- **Physician:** Over three-quarters (79.8%) of organizations are not making changes to on-call pay practices. 23.5% of non-hot spot organizations are considering changes compared to 13.2% of hot spot organizations.

Incentive Compensation

- **Physician:** 61.8% of organizations indicated incentive compensation will remain unchanged. For the 38.2% considering plan changes, responses were equally split between eliminating the incentive plan for 2020 or reducing the incentive plan opportunity for 2020.
- **APP:** Nearly half (47.4%) of organizations have APP incentives as part of the standard compensation plan (note this is slightly higher in hot spot locations).
  - For those organizations with incentive plans, the majority are not planning changes to incentive plan calculations due to COVID-19. Of those considering changes, the most commonly reported action is to modify the 2020 incentive plan to include COVID-19 specific metrics.

Redeployment

- **APP:** Over three-quarters (78.6%) of organizations are redeploying or plan to redeploy APPs to front line specialties.

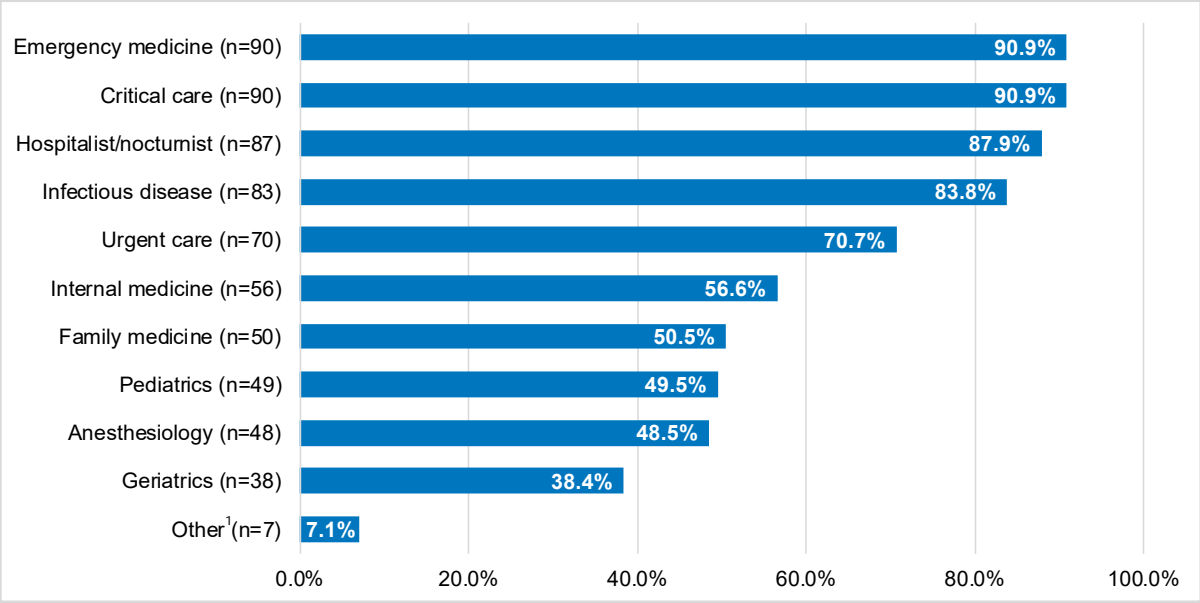
SECTION II: SURVEY RESULTS

PHYSICIAN COMPENSATION PRACTICES

FRONT LINE PHYSICIANS

Chart 1: Specialties Classified as COVID-19 Front Line Specialties by Organization (n=99)

More than 80% of organizations indicated hospital-based specialties (emergency medicine, critical care, hospitalist/nocturnist, and infectious disease) are the most prevalent in providing direct patient care to COVID-19 patients.



[1]Other specialties include: Psychiatry, pulmonology, select orthopedic specialties, surgery/trauma surgery and neonatology.

Chart 2: Prevalence of COVID-19-Related Premium Pay to Front Line Physicians

90.5% of organizations report they are not providing premium compensation to front line physicians. Regardless of location, for those providing or considering providing premiums (i.e., 9.5% for national and 11.1% in hot spots) to front line physician specialties, practices are roughly split between applying the premium to all clinical coverage or only clinical coverage above a 1.0 full-time equivalent (FTE) expectation (see **Table 1** on the following page for detailed responses).

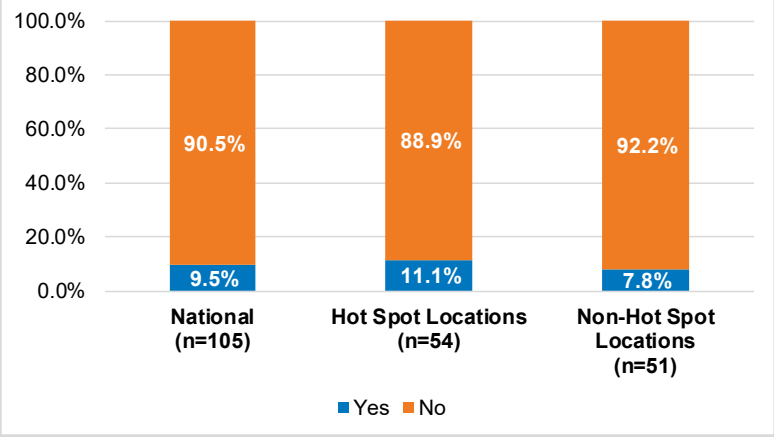


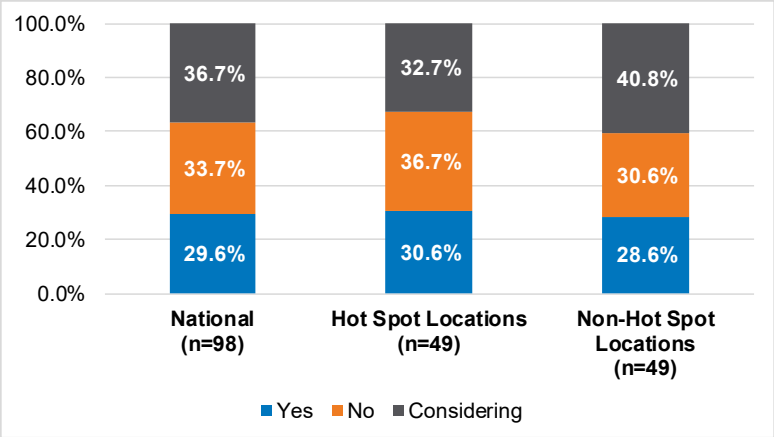
Table 1: Premium Pay Practices for Front Line Physicians

Response[1,2]	National (n=105)		Hot Spot Locations (n=54)		Non-Hot Spot Locations (n=51)	
	Considering	Implemented	Considering	Implemented	Considering	Implemented
Clinical coverage above a 1.0 full-time equivalent (FTE) expectation	1.9%	2.9%	1.9%	3.7%	2.0%	2.0%
All clinical coverage	1.9%	1.9%	1.9%	3.7%	2.0%	0.0%

[1]Note: Rows may not equal 100% due to 'Do Not Know' responses and columns will not add to 100% due to multiple response categories.
[2]Data in the table represent the number of respondents for each category divided by the total number of participants for each cut.

Chart 3: Prevalence of Recruiting Retired or Other Non-Working Physicians to Provide Clinical Coverage

Regardless of location, approximately two-thirds (ranging from 63.3% to 69.4%) of organizations have recruited or are considering recruiting retired physicians and other non-working physicians to provide clinical coverage.



NON-FRONT LINE PHYSICIANS

Chart 4: Prevalence of Temporary Compensation Floors to Supplement Low Volumes, Work Relative Value Units and/or Lack of Shifts

58.5% of organizations are providing compensation support to physicians that have been financially impacted by reductions in patient volumes due to COVID-19. It is interesting to note that 15.1% of hot spot locations have salary-based compensation structures versus 3.8% in non-hot spot locations, which impacts the increased demand for protection in non-hot spot locations. The average and median length of the temporary floor is two months, with a range of one to three months.

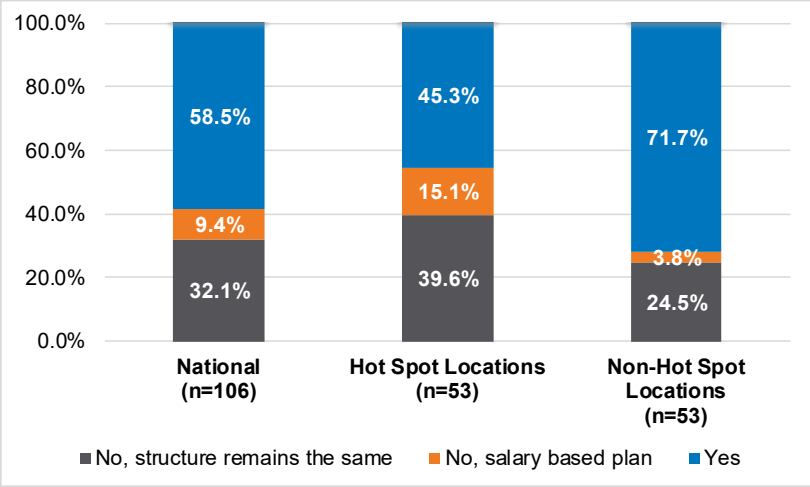


Chart 5: Time Frame of Historical Compensation when Establishing a Compensation Floor (n=58)

The majority of organizations indicate the floor will be determined based on 12 months of historical compensation.

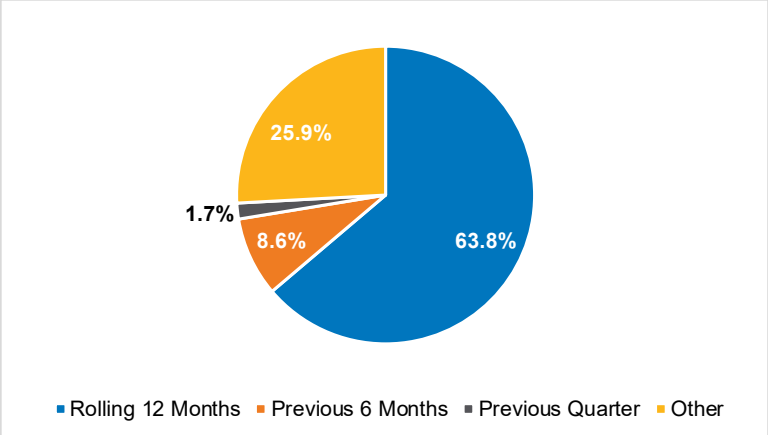


Chart 6: Prevalence of Organizations Requiring Paid Time Off (PTO) to Cover Floor

Of the 58.5% of organizations providing a floor, 61.4% ***will not*** require physicians to use accrued PTO to cover the guarantee.

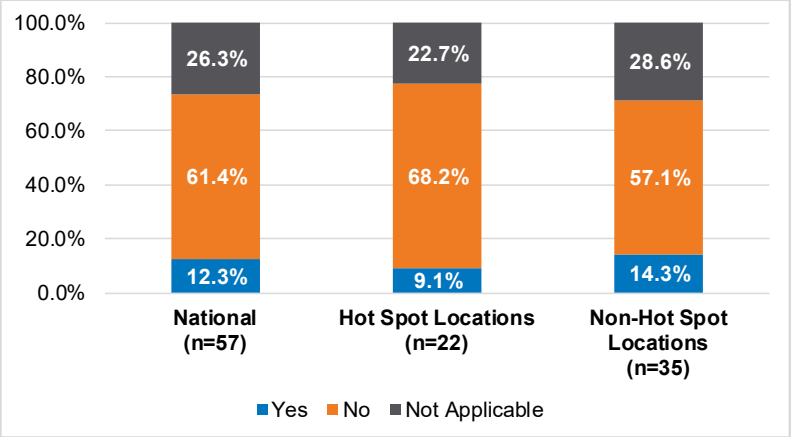


Chart 7: Prevalence of On-Call Pay Practices/Policy Changes

79.8% of organizations have not changed their on-call pay practices in response to COVID-19. Those who have currently enacted changes represent 1.9% of organizations.

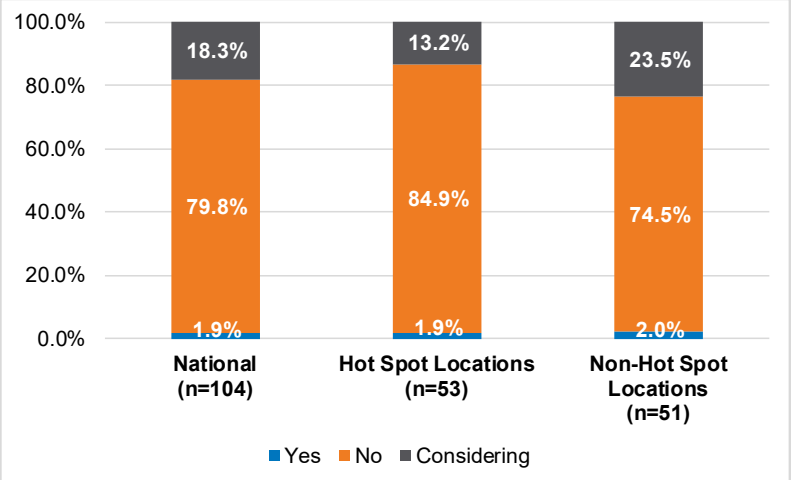


Table 2: Actions to Address Temporarily Closed Clinics/Services for Non-Front Line Physicians

For organizations with temporarily closed clinics/service for non-front line physicians, 39.3% will provide salary continuation to impacted physicians. The remaining organizations are considering either requiring the physicians to take time off without pay (29.5%) or requiring the use of PTO to maintain income (24.1%).

Pay Practices

Response[1,2]	National (n=112)		Hot Spot Locations (n=56)		Non-Hot Spot Locations (n=56)	
	Considering	Implemented	Considering	Implemented	Considering	Implemented
Salary continuation	25.0%	39.3%	17.9%	42.9%	32.1%	35.7%
Require use of PTO banks	24.1%	13.4%	28.6%	12.5%	19.6%	14.3%
Take time without pay/furloughed	29.5%	5.4%	26.8%	8.9%	32.1%	1.8%

[1]Note: Rows may not equal 100% due to 'Do Not Know' responses and columns will not add to 100% due to multiple response categories.
[2]Data in the table represent the number of respondents for each category divided by the total number of participants for each cut.

In addition to the pay practices above, 44.6% of organizations have implemented and 31.3% are considering redeploying physicians in temporarily closed clinics/services to front line areas. Only 6.3% are considering reductions in the physician workforce.

Workforce Practices

Response[1,2]	National (n=112)		Hot Spot Locations (n=56)		Non-Hot Spot Locations (n=56)	
	Considering	Implemented	Considering	Implemented	Considering	Implemented
Redeploy physicians to front line areas	31.3%	44.6%	28.6%	50.0%	33.9%	39.3%
Reduction in force	6.3%	2.7%	3.6%	5.4%	8.9%	0.0%

[1]Note: Rows may not equal 100% due to 'Do Not Know' responses and columns will not add to 100% due to multiple response categories.
[2]Data in the table represent the number of respondents for each category divided by the total number of participants for each cut.

CHART 8: Prevalence of Compensation Floor Payback Requirements Post Crisis

At this time, a small percentage of organizations (13.2%) will require some type of payback of the compensation floor after the COVID-19 crisis subsides. 54.7% of organizations have not determined how this will be addressed. This will become an increasing area of focus for organizations as the crisis nears resolution.

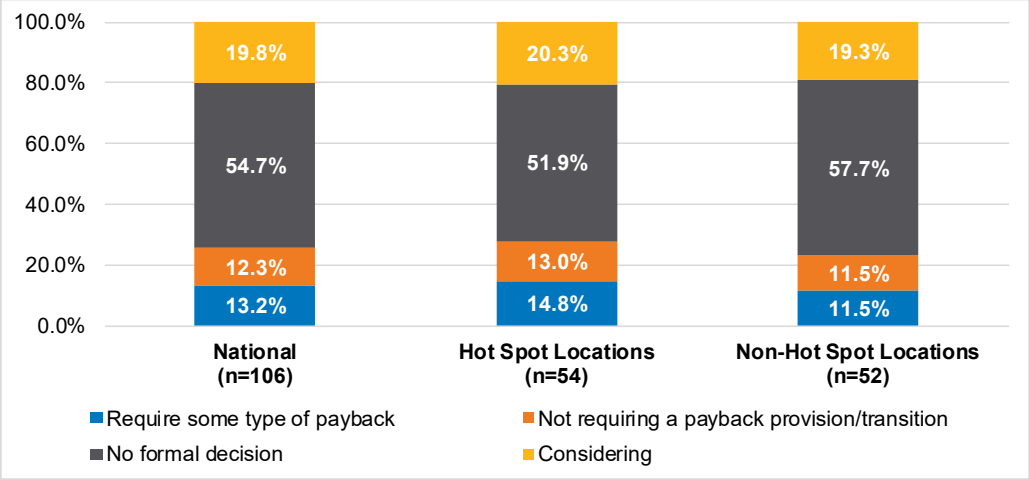


Chart 9: Percentage of Organizations with Plans to Modify Physician Incentives in 2020

At this time, 61.8% of organizations are not planning to modify their physician incentive compensation plans in response to COVID-19. Of those organizations planning to modify physician incentive plans, responses were roughly split between those eliminating incentive opportunities in 2020 and those reducing the incentive opportunities (see **Table 3** below for detailed responses).

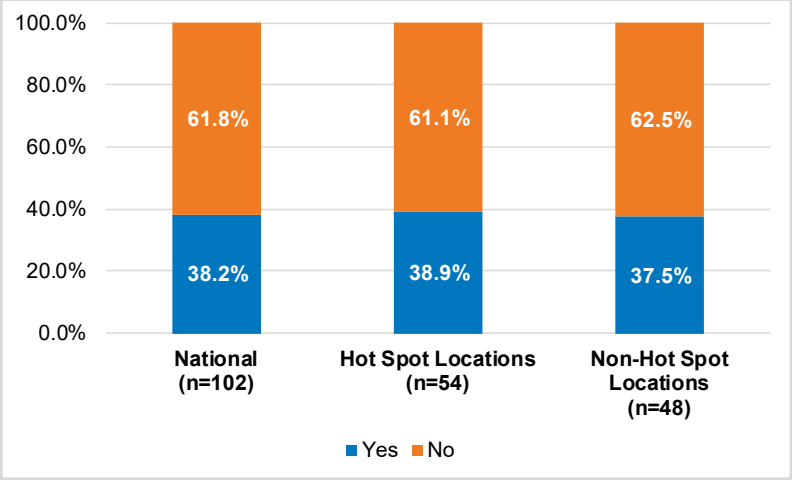


Table 3: Incentive Plan Actions

Response[1,2]	National (n=102)		Hot Spot Locations (n=54)		Non-Hot Spot Locations (n=48)	
	Considering	Implemented	Considering	Implemented	Considering	Implemented
Eliminating incentive opportunities in 2020	13.7%	1.0%	9.3%	0.0%	18.8%	2.1%
Reducing the incentive opportunity	13.7%	2.0%	14.8%	0.0%	12.5%	4.2%
Modifying plan to add new incentive metrics related to COVID-19	9.8%	0.0%	5.6%	0.0%	14.6%	0.0%
Other	2.9%	2.9%	5.6%	3.7%	0.0%	2.1%

[1]Note: Rows may not equal 100% due to 'Do Not Know' responses and columns will not add to 100% due to multiple response categories.
[2]Data in the table represent the number of respondents for each category divided by the total number of participants for each cut.

Chart 10: Prevalence of Separate Compensation Policies for Physicians Developing COVID-19 Symptoms Due to Providing Clinical Care

Regardless of location, just over half (53.1%) of organizations have a separate policy for physicians that develop COVID-19 symptoms. For those with a separate policy, 23.5% of organizations will provide full pay for the duration of the physicians' absence without requiring the use of PTO. 15.3% of organizations will utilize standard PTO and short-term disability policies to compensate for time away from work (see **Table 4** below for detailed responses).

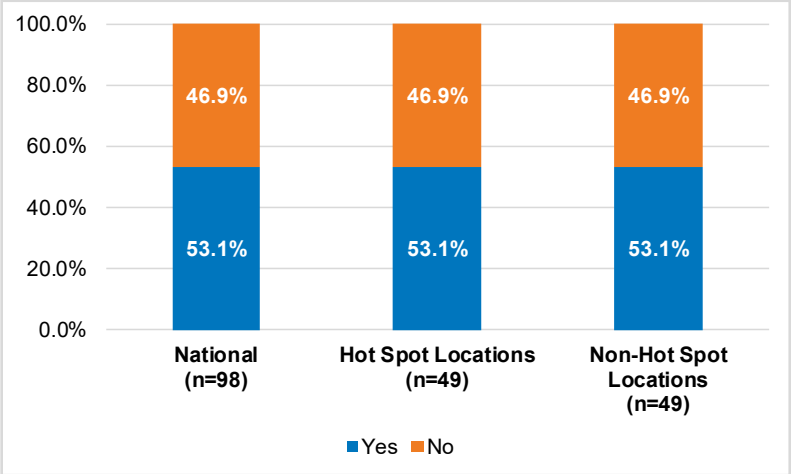


Table 4: Actions Specific to Physicians with COVID-19

Response[1,2]	National (n=98)		Hot Spot Locations (n=49)		Non-Hot Spot Locations (n=49)	
	Considering	Implemented	Considering	Implemented	Considering	Implemented
Full pay for the duration of their absence without requiring the use of PTO	4.1%	23.5%	6.1%	20.4%	2.0%	26.5%
Standard PTO and Short-Term Disability policy	4.1%	15.3%	2.0%	14.3%	6.1%	16.3%
Additional PTO available without penalty	4.1%	10.2%	8.2%	8.2%	0.0%	12.2%
Partial pay for the duration of their absence without requiring the use of PTO	5.1%	4.1%	8.2%	4.1%	2.0%	4.1%

[1]Note: Rows may not equal 100% due to 'Do Not Know' responses and columns will not add to 100% due to multiple response categories.
[2]Data in the table represent the number of respondents for each category divided by the total number of participants for each cut.

APP COMPENSATION PRACTICES

ADVANCED PRACTICE PROVIDERS

Chart 11: Prevalence of Redeploying Non-Front Line APPs

Over three-quarters (78.6%) of organizations are redeploying or plan to redeploy APPs to front line specialties. The prevalence is slightly higher in non-hot spot locations at 83.3%.

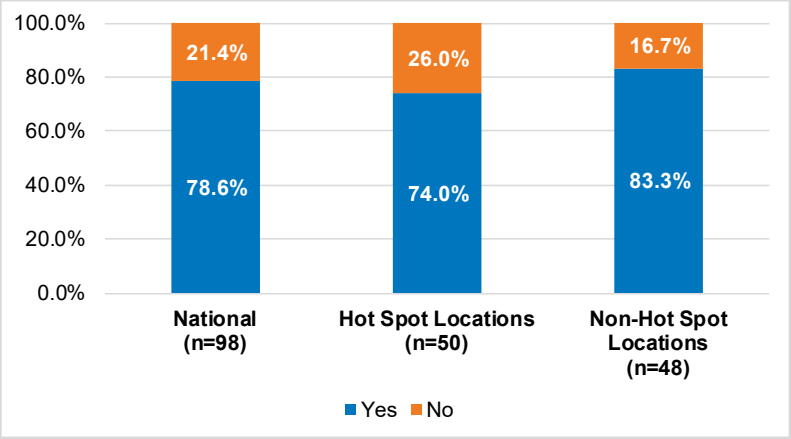


Table 5: Actions to Address Temporarily Closed Clinics/Services for APPs

For organizations that have temporarily closed clinics or shut down clinical services where APPs were practicing, 42.9% are considering requiring APPs to use PTO banks to remain whole. The prevalence of those considering this practice is higher in hot-spot locations (53.8%), although none have formally implemented this action.

33.3% of organizations (ranging from 25.0% to 38.5%, depending on location) are considering time off without pay or furloughing APPs.

Approximately 28.6% of organizations (ranging from 25.0% to 30.8%, depending on location) have implemented salary continuation for APPs. The percentage considering salary continuation is lower at 23.8%.

Response[1,2]	National (n=21)		Hot Spot Locations (n=13)		Non-Hot Spot Locations (n=8)	
	Considering	Implemented	Considering	Implemented	Considering	Implemented
Require use of PTO banks	42.9%	9.5%	53.8%	0.0%	25.0%	25.0%
Take time without pay/ furloughed	33.3%	4.8%	38.5%	0.0%	25.0%	12.5%
Salary continuation	23.8%	28.6%	23.1%	30.8%	25.0%	25.0%
Reduction in force	19.0%	0.0%	15.4%	0.0%	25.0%	0.0%
Other	4.8%	9.5%	7.7%	15.4%	0.0%	0.0%

[1]Note: Rows may not equal 100% due to 'Do Not Know' responses and columns will not add to 100% due to multiple response categories.
[2]Data in the table represent the number of respondents for each category divided by the total number of participants for each cut.

Table 6: Prevalence of PTO Policy Actions for APPs Required to Use PTO to Maintain Income

In hot spot locations, 30.8% of organizations are considering allowing APPs with reduced hours to receive donated PTO balances from other staff members while 30.8% are considering extending a loan of PTO up to a maximum of set hours. 23.1% of hot spot organizations are not planning to adjust the current policy.

In non-hot spot locations, 25.0% have implemented and 12.5% are considering implementing a PTO policy allowing APPs with reduced hours to receive donated PTO balances from other staff members. Respondents are equally split between considering (12.5%) and implementing (12.5%) the ability for APPs to use extended sick leave or other time-off banks.

Response[1,2]	National (n=21)		Hot Spot Locations (n=13)		Non-Hot Spot Locations (n=8)	
	Considering	Implemented	Considering	Implemented	Considering	Implemented
Allow APPs with reduced hours to receive donated PTO balances from other staff members	23.8%	9.5%	30.8%	0.0%	12.5%	25.0%
Extend a loan of PTO up to a maximum of set hours	19.0%	9.5%	30.8%	7.7%	0.0%	12.5%
No adjustments to current policy	14.3%	14.3%	23.1%	15.4%	0.0%	12.5%
Allow APPs to use extended sick leave or other time-off banks	14.3%	14.3%	15.4%	15.4%	12.5%	12.5%
Provide a one-time allotment of PTO hours to the current PTO balance	9.5%	0.0%	15.4%	0.0%	0.0%	0.0%
Other	4.8%	0.0%	7.7%	0.0%	0.0%	0.0%

[1]Note: Rows may not equal 100% due to 'Do Not Know' responses and columns will not add to 100% due to multiple response categories.
[2]Data in the table represent the number of respondents for each category divided by the total number of participants for each cut.

Chart 12: Prevalence of Premium Compensation for APPs Due to COVID-19

85.7% of organizations do not plan to provide premium compensation to APPs due to COVID-19. Of those considering premium compensation, the most prevalent practice is to apply the premium to shift/hours outside the standard expectation (see **Table 7** on the following page for detailed responses); however, this has been implemented by only 5.1% of organizations.

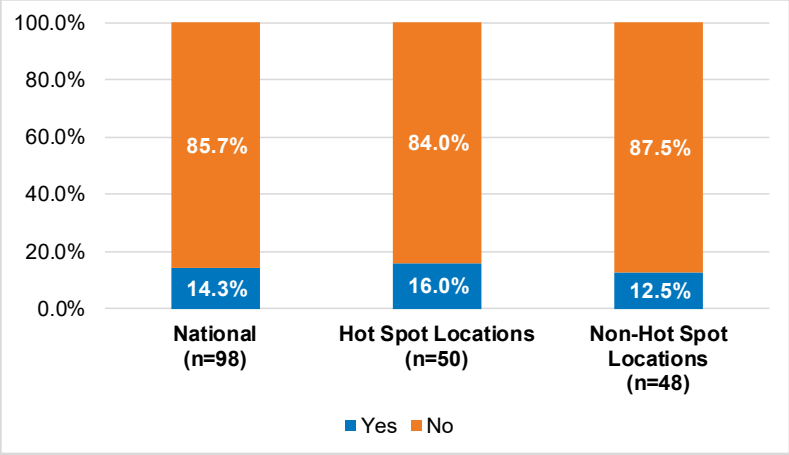


Table 7: Premium Compensation Practices for APPs Due to COVID-19

Response[1,2]	National (n=98)		Hot Spot Locations (n=50)		Non-Hot Spot Locations (n=48)	
	Considering	Implemented	Considering	Implemented	Considering	Implemented
Additional shifts/hours outside the standard expectation	5.1%	5.1%	6.0%	6.0%	4.2%	4.2%
Working in a high risk COVID-19 department	4.1%	2.0%	4.0%	2.0%	4.2%	2.1%
Work outside the APP's typical specialty	2.0%	3.1%	2.0%	2.0%	2.1%	4.2%

[1]Note: Rows may not equal 100% due to 'Do Not Know' responses and columns will not add to 100% due to multiple response categories.
[2]Data in the table represent the number of respondents for each category divided by the total number of participants for each cut.

Chart 13: Prevalence of Organizations That Provide Incentive Compensation to APPs in Standard Compensation Plans

47.4% of organizations have incentives as part of the standard compensation plan for APPs (note this is slightly higher (53.1%) in hot spot locations). For those with incentive plans, the most commonly reported action is to not change incentive plan calculations due to COVID-19 at this time. Of those considering changes, the most commonly reported action is to modify the 2020 incentive plan to include COVID-19 specific metrics, although none have formally implemented this action (see **Table 8** on the following page for detailed responses).

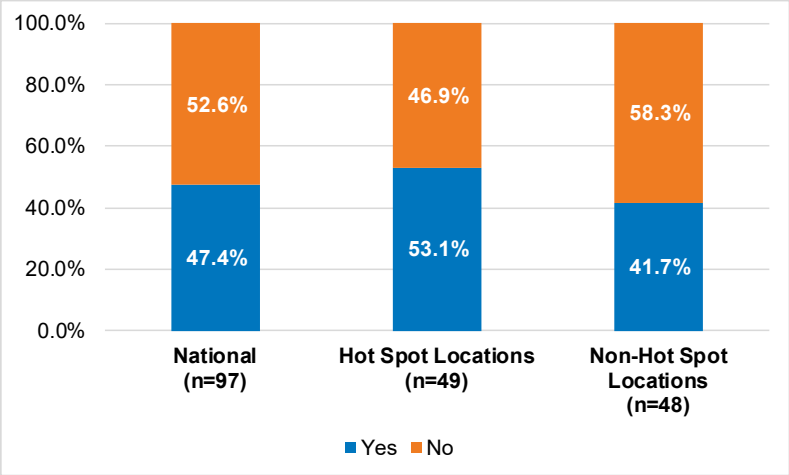


Table 8: APP Incentive Plan Actions for 2020

Response[1,2]	National (n=97)		Hot Spot Locations (n=49)		Non-Hot Spot Locations (n=48)	
	Considering	Implemented	Considering	Implemented	Considering	Implemented
No changes to the current incentive plan at this time	9.3%	21.6%	8.2%	26.5%	10.4%	16.7%
Modifying plan to add new incentive metrics related to COVID-19	10.3%	0.0%	8.2%	0.0%	12.5%	0.0%
Eliminating incentive opportunities in 2020	6.2%	0.0%	4.1%	0.0%	8.3%	0.0%
Reducing the incentive opportunity	4.1%	2.1%	4.1%	2.0%	4.2%	2.1%
Other	2.1%	4.1%	4.1%	4.1%	0.0%	4.2%

[1]Note: Rows may not equal 100% due to 'Do Not Know' responses and columns will not add to 100% due to multiple response categories.
[2]Data in the table represent the number of respondents for each category divided by the total number of participants for each cut.

APPENDIX A: SURVEY PARTICIPANTS

Organization	City	State
AdventHealth	Altamonte Springs	FL
Advocate Aurora Health	Downers Grove	IL
Allina Health System	Minneapolis	MN
Altru Health System	Grand Forks	ND
AMITA Health	Lisle	IL
Ann & Robert H. Lurie Children's Hospital of Chicago	Chicago	IL
Ascension Health	St. Louis	MO
Atrium Health	Charlotte	NC
Atrius Health	Newton	MA
Banner Health	Phoenix	AZ
Beaumont Heath	Troy	MI
Beth Israel Lahey Health	Boston	MA
Billings Clinic	Billings	MT
BJC HealthCare	St. Louis	MO
Carilion Clinic	Roanoke	VA
Cedars-Sinai Health System	Los Angeles	CA
CentraCare Health	St. Cloud	MN
Centura Health	Centennial	CO
Children's Health System of Texas	Dallas	TX
Children's Healthcare of Atlanta	Atlanta	GA
Children's Hospital Association	Lenexa	KS
Children's Hospital Colorado	Aurora	CO
Children's Hospital and Clinics of Minnesota	Minneapolis	MN
Children's Wisconsin	Milwaukee	WI
ChristianaCare	Wilmington	DE
Cincinnati Children's Hospital Medical Center	Cincinnati	OH
Cook Children's Health Care System	Fort Worth	TX
Emory Healthcare	Atlanta	GA
Encompass Health	Birmingham	AL
Essentia Health	Duluth	MN
Excela Health	Greensburg	PA
Franciscan Health	Mishawaka	IN
Geisinger Health	Danville	PA
Gundersen Health System	La Crosse	WI
Hackensack Meridian Health	Edison	NJ
Hennepin Healthcare System	Minneapolis	MN
Hospital for Special Surgery	New York	NY
Indiana University Health	Indianapolis	IN
Intermountain Healthcare	Salt Lake City	UT
Legacy Health	Portland	OR
Lehigh Valley Health Network	Allentown	PA
Lexington Medical Center	West Columbia	SC
Lifespan	Providence	RI

Organization	City	State
Maimonides Medical Center	Brooklyn	NY
MaineHealth	Portland	ME
Marshfield Clinic Health System	Marshfield	WI
Massachusetts General Physicians Organization	Boston	MA
Mayo Clinic Health System	Eau Claire	WI
Mayo Foundation	Rochester	MN
McLaren Health Care	Flint	MI
MedStar Health	Columbia	MD
Memorial Health System	Springfield	IL
Memorial Sloan Kettering Cancer Center	New York	NY
MemorialCare Health System	Fountain Valley	CA
Mercy	St. Louis	MO
Michigan Medicine	Ann Arbor	MI
Moffitt Cancer Center	Tampa	FL
Montefiore Medicine	Bronx	NY
Mount Sinai Health System	New York	NY
New York-Presbyterian Healthcare System	New York	NY
North Memorial Health Care	Robbinsdale	MN
NorthShore University HealthSystem	Evanston	IL
Northwell Health	Great Neck	NY
Northwest Permanente, PC	Portland	OR
Northwestern Memorial HealthCare	Chicago	IL
Norton Healthcare	Louisville	KY
Oregon Health & Science University	Portland	OR
Orlando Health	Orlando	FL
OSF HealthCare	Peoria	IL
PeaceHealth	Bellevue	WA
Penn State Health	University Park	PA
Presbyterian Healthcare Services	Albuquerque	NM
Private Diagnostic Clinic	Durham	NC
ProMedica	Toledo	OH
Providence St. Joseph Health	Renton	WA
Renown Health	Reno	NV
Rush University Medical Center	Chicago	IL
RWJBarnabas Health	West Orange	NJ
Sanford Health	Sioux Falls	SD
Seattle Children's	Seattle	WA
Sentara Healthcare	Norfolk	VA
Southern California Permanente Medical Group	Pasadena	CA
Spectrum Health	Grand Rapids	MI
SSM Health	St. Louis	MO
Sutter Health	Roseville	CA
Texas Children's Hospital	Houston	TX
Texas Health Resources	Arlington	TX
The Carle Foundation	Urbana	IL

Organization	City	State
The Children's Hospital of Philadelphia	Philadelphia	PA
The Nemours Foundation	Jacksonville	FL
The Ohio State University Wexner Medical Center	Columbus	OH
The Queen's Health Systems	Honolulu	HI
The Southeast Permanente Medical Group	Atlanta	GA
The University of Chicago Medicine	Chicago	IL
The University of Texas Health Science Center at Houston	Houston	TX
The University of Texas Health Science Center at San Antonio	San Antonio	TX
Thomas Jefferson University	Philadelphia	PA
Tower Health	West Reading	PA
Trinity Health	Livonia	MI
U.S. Anesthesia Partners	Dallas	TX
UCHealth	Fort Collins	CO
UMass Memorial Health Care	Worcester	MA
UNC Health Care	Chapel Hill	NC
University Hospitals	Cleveland	OH
University of California Health	Oakland	CA
US Acute Care Solutions	Canton	OH
UW Health	Madison	WI
Valley Health System	Ridgewood	NJ
VCU Health System	Richmond	VA
Vidant Health	Greenville	NC
Virginia Mason Medical Center	Seattle	WA
Vituity	Emeryville	CA
Wake Forest Baptist Health	Winston-Salem	NC
Washington Permanente Medical Group	Seattle	WA
Wellforce	Burlington	MA
WellSpan Health	York	PA
WellStar Health System	Marietta	GA
WVU Medicine	Fairmont	WV
Yale New Haven Health System	New Haven	CT

APPENDIX B: SURVEY DEFINITIONS

Hot Spot Locations

Hot spots were determined using data as of April 7, 2020, from the Johns Hopkins University Center for Systems Science and Engineering (CSSE), Johns Hopkins University Bloomberg School of Public Health, and The United States Census Bureau. The base geographic unit used in the determination of hot spots were state counties. Three statistics were reviewed: (1) the number of confirmed COVID-19 cases; (2) the number of cases per capita; and (3) the number of deaths per capita. A county was deemed a hot spot if its statistics ranked highly (approximately 1.5 times the average) compared to national counts as well as its own state counts. Counties directly adjacent to those with the highest volume and intensity were additionally designated as hot spots for purposes of this report.

Hot Spot Areas	
Atlanta, GA and vicinity	Miami, FL
Bridgeport, CT	Nashville, TN
Chicago, IL and vicinity	New Jersey (entire state)
Cleveland, OH	New Orleans, LA
Dallas, TX	New York City, NY and vicinity
Decatur, IN	Philadelphia, PA
Denver, CO and vicinity	Pittsburgh, PA
Detroit, MI and vicinity	San Diego, CA
Hartford, CT	San Francisco, CA and vicinity
Las Vegas, NV	Seattle, WA and vicinity
Los Angeles, CA and vicinity	Shreveport, LA
Massachusetts (entire state)	Westchester, NY
Memphis, TN	Wilmington, DE

Front Line Providers

Individuals providing direct patient care to COVID-19 patients.

Non-Front Line Providers

Individuals not providing direct patient care to COVID-19 patients. This does not include physicians that are redeployed to provide direct patient care to COVID-19 patients.

APPENDIX C: ABOUT SULLIVANCOTTER

SullivanCotter partners with health care and other not-for-profit organizations to drive performance and improve outcomes through the development and implementation of integrated workforce strategies. Using our time-tested methodologies and industry-leading research and information, we provide data-driven insights and expertise to help organizations align business strategy and performance objectives – enabling our clients to deliver on their mission, vision and values.

For more information, visit www.sullivancotter.com or call 888.739.7039.