PAs' Experiences During the COVID-19 Pandemic

AAPA 2021: Research in Action

Andrzej Kozikowski, PhD; Dawn Morton-Rias, Ed D, PA-C; Colette Jeffery, MA; Kasey Puckett, MPH and Sheila Mauldin, MNM

Disclosures

- No relevant commercial relationships to disclose

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Learning Objectives

Objective One

Describe the proportion of the PA workforce that experienced different types of clinical employment and practice changes during the COVID-19 pandemic

Objective Two

Delineate differences in how PAs were impacted by the COVID-19 pandemic by demographic and practice characteristics

Objective Three

Explain the independent predictors of increased and decreased odds of experiencing different types of clinical employment and practice changes during the COVID-19 pandemic

Agenda

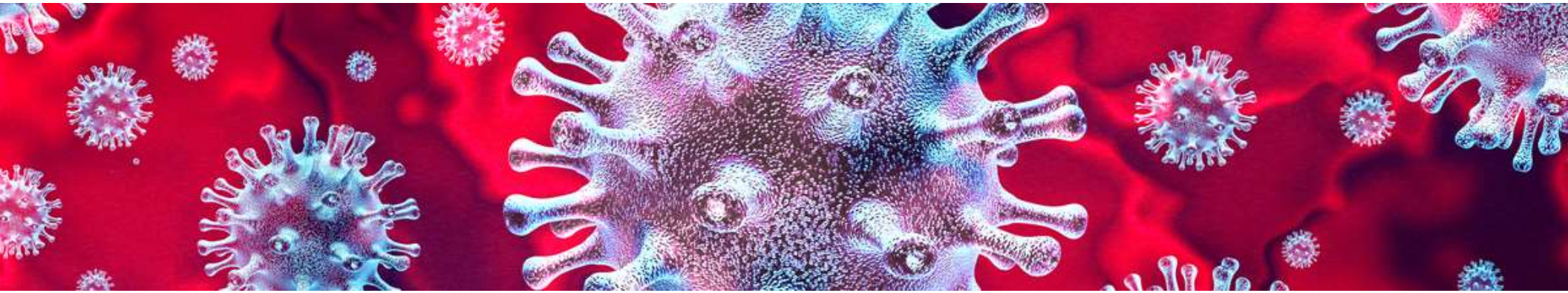|		
Background	Study Purpose	Methods
Results	Limitations	Key Findings and Conclusions

Background

o The COVID-19 pandemic has become an unprecedented health crisis seen in our lifetime

o PAs are on the frontlines serving critical roles

o Unique attributes of the PA profession are versatility and adaptability

o Understanding the implications of COVID-19 on the PA profession is of paramount importance

o PAEA COVID-19 Impact Surveys to collect data on how PA programs have been impacted

o AAPA COVID-19 Workforce survey (April-May 2020; 743 PA respondents)

- 22.1% furloughed
- 9.9% changed practice settings
- 5.9% changed specialty
- 3.7% laid off
- 3.6% became infected with COVID-19

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Study Purpose

o To help evaluate and quantify the impact of the pandemic on the PA workforce

   ▪ Clinical employment and practice changes

      • Practice setting/specialty

      • Stopping clinical work to care for family infected with COVID-19

      • Layoffs/furloughs in principal and secondary clinical positions

   • Becoming infected with COVID-19
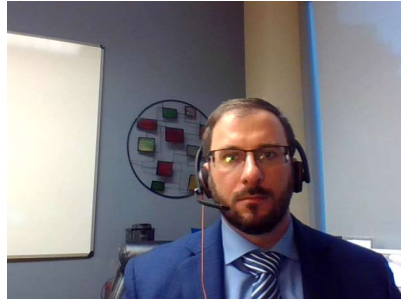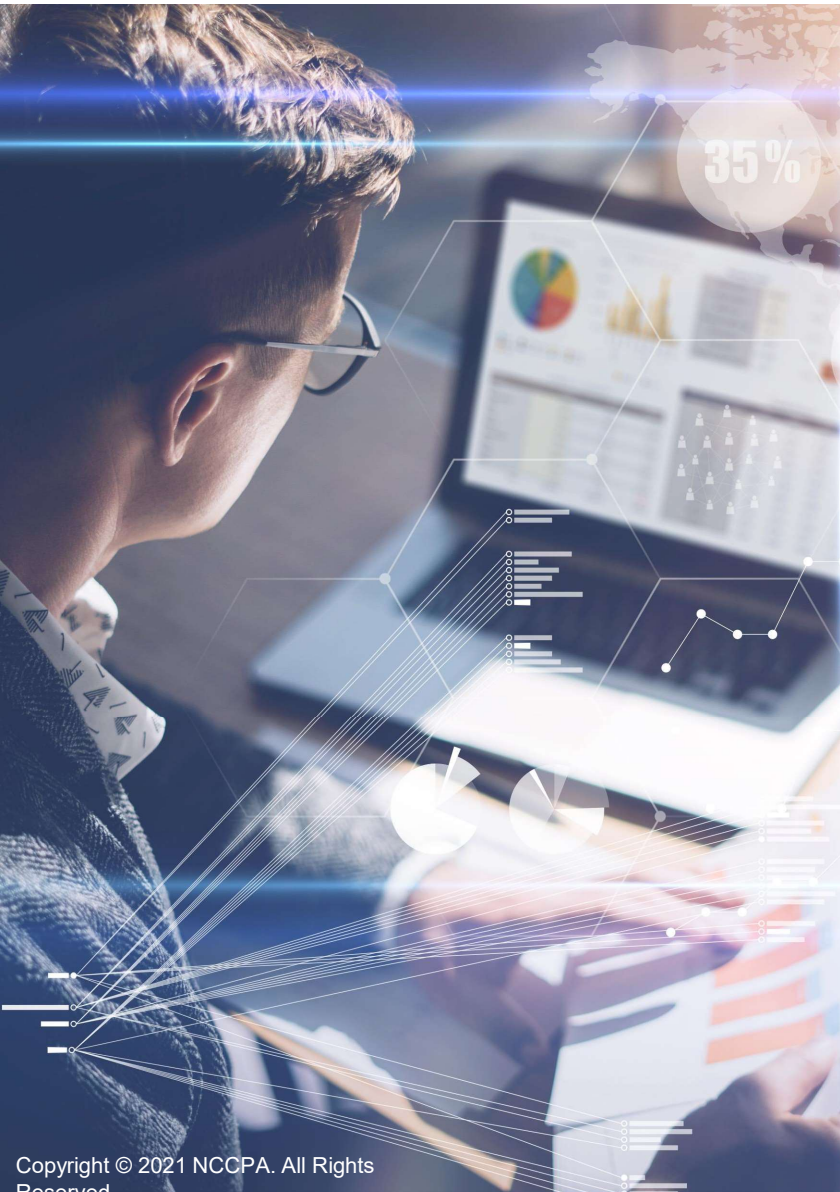
Methods

- Online national survey in August-September 2020 of Certified PAs

- An email with an invitation to the study and direct link was distributed to 138,891 Certified PAs who did not opt-out of survey participation

- 21,273 PAs participated for an overall response rate of 15.3%

- The questionnaire assessed 1) employment changes, 2) workload, staffing, morale, and resilience, 3) telemedicine use, 4) adapting to the pandemic and future outlook, and 5) challenges with obtaining CME credits

- Present analysis focuses on employment changes

- PA demographics, specialty, and practice setting variables from our PA Professional Profile were matched to survey participants and merged with their survey responses

- Descriptive statistics, Pearson chi-square/Fisher's exact test, and multivariate logistic regression were conducted using R

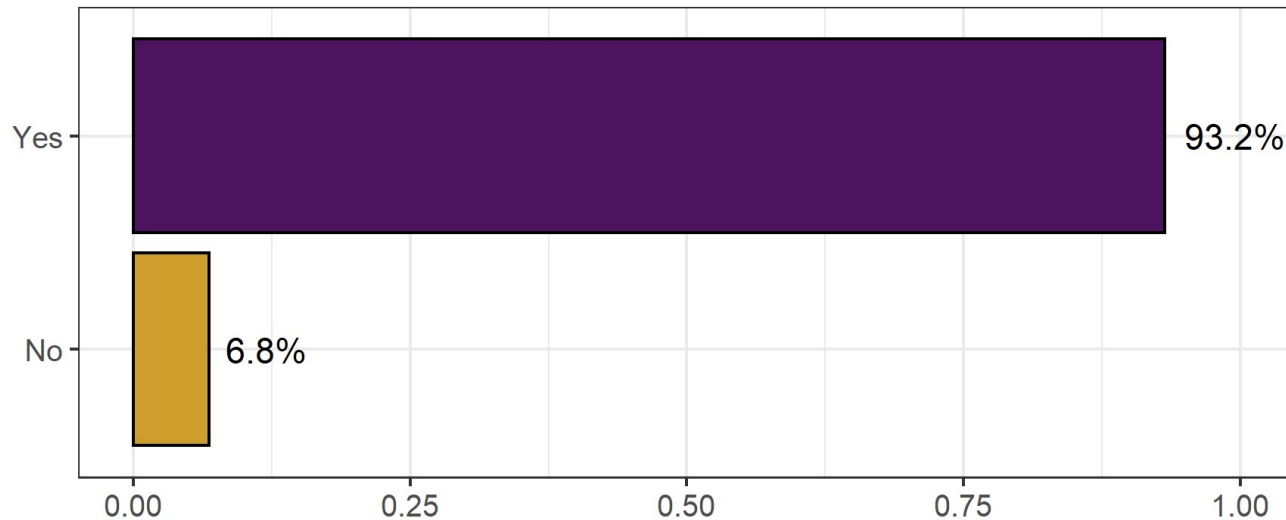# Distribution of PA Survey Participants by State

Distribution of PA Survey Participants by State N=21,273
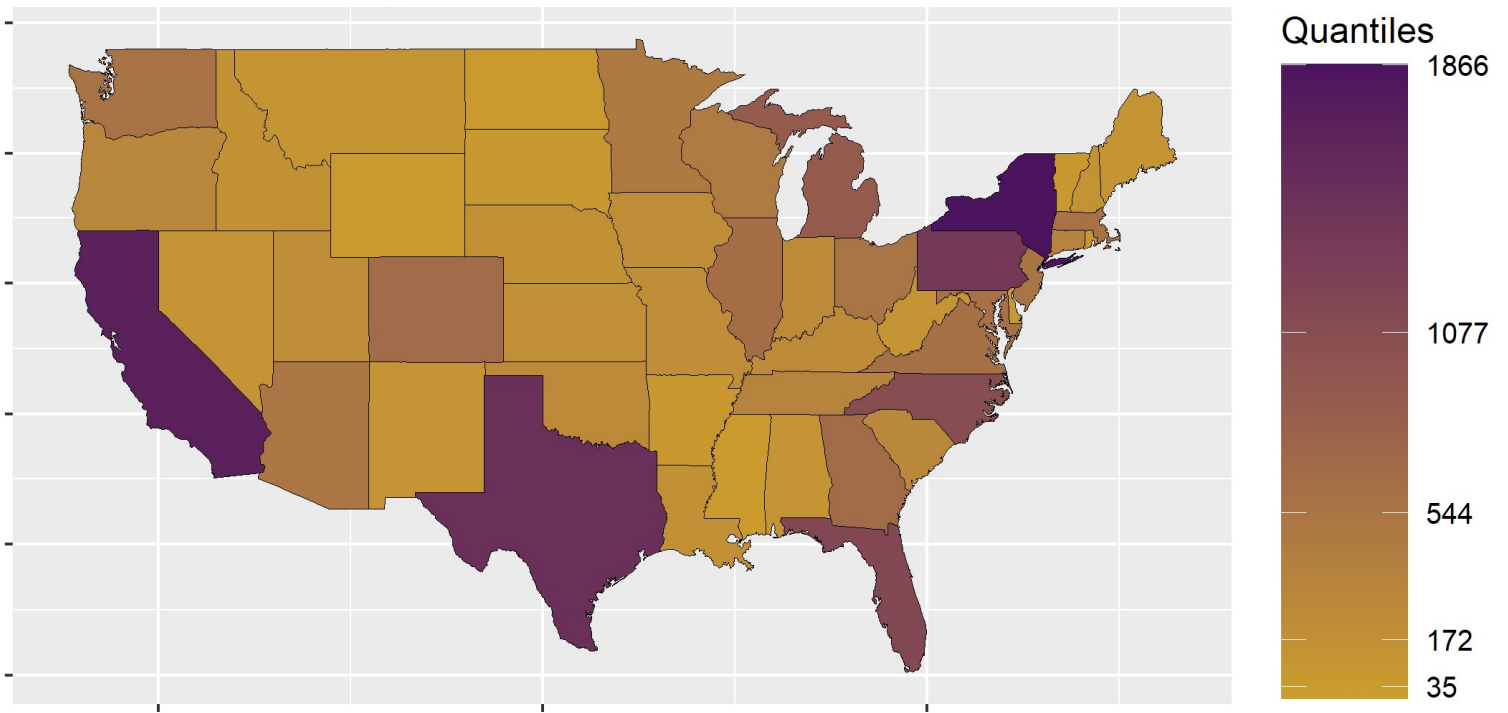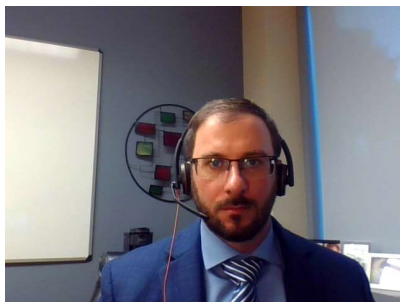
In Clinical Practice During COVID-19 Pandemic

Have you been in clinical practice as a PA at any time during the coronavirus (COVID-19) pandemic?

Yes — 93.2%

No — 6.8%

(x-axis: 0.00, 0.25, 0.50, 0.75, 1.00)

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Bivariate Results: Changed Practice Setting by PA Demographics

Changed practice setting due to the coronavirus (COVID-19) pandemic by PA demographics			
	No	Yes	p-value
Age:			
Less than 30	84.6%	15.4%	
30-39	84.5%	15.5%	
40-49	85.1%	14.9%	0.265
50-59	84.7%	15.3%	
60+	86.5%	13.5%	
Gender:			
Female	84.9%	15.1%	0.838
Male	85.0%	15.0%	
Race:			
White	85.5%	**14.5%**	
Asian	82.2%	17.8%	0.002
Black/African American	82.8%	17.2%	
Other	82.6%	17.4%	
Ethnicity:			
Non-Hispanic/Latino	85.1%	14.9%	0.521
Hispanic/Latino	84.4%	15.6%	
Urban-Rural Setting:			
Urban	84.9%	15.1%	
Large Rural	85.9%	14.1%	0.819
Small Rural	84.1%	15.9%	
Isolated	84.2%	15.8%	
Region:			
South	87.1%	12.9%	
Northeast	81.7%	**18.3%**	<0.001
West	84.6%	15.4%	
Midwest	85.4%	14.6%	

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Changed practice setting due to the coronavirus (COVID-19) pandemic by PA practice characteristics	No	Yes	p-value
Specialty			
Family Medicine/General Practice	84.8%	15.2%	
Surgery-Subspecialties	80.7%	19.3%	
Emergency Medicine	90.8%	9.2%	
Internal Medicine - Subspecialties	82.5%	17.5%	
Internal Medicine – General Practice	82.8%	17.2%	
Dermatology	93.2%	6.8%	
Hospital Medicine	90.9%	9.1%	<0.001
Surgery - General	77.8%	**22.2%**	
Pediatric - General	88.4%	11.6%	
Critical Care Medicine	91.3%	8.7%	
Psychiatry	68.7%	**31.3%**	
Other	84.6%	15.4%	
Practice Setting			
Office-Based private practice	85.8%	14.2%	
Hospital	85.1%	14.9%	
Federal government facility/hospital/unit	81.5%	18.5%	
Urgent Care	87.4%	12.6%	<0.001
Community health center	82.8%	17.2%	
Rural health clinic	86.3%	13.7%	
Other	79.5%	**20.5%**	

Bivariate Results: Changed Practice Setting by PA Practice Characteristics

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Multivariate Results: Changed Practice Setting
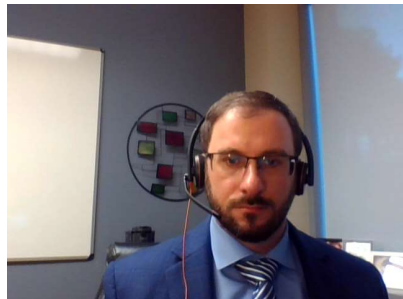
Significant predictors of changing practice setting due COVID-19 pandemic

Psychiatry vs. Family Medicine (p<0.001; OR 2.27)
Northeast vs. South (p<0.001; OR 1.54)
Other vs. Office-Based Private Practice (p<0.001; OR 1.51)
Surgery-General vs. Family Medicine (p=0.006; OR 1.44)
Fed gov facility/hospital/unit vs. Office-Based Private Practice (p=0.003; OR 1.40)
Asian vs. White (p=0.003; OR 1.32)
West vs. South (p<0.001; OR 1.29)
Surgery-Subspecialties vs. Family Medicine (p=0.005; OR 1.26)
Hospital vs. Office-Based Private Practice (p=0.001; OR 1.21)
Emergency Medicine vs. Family Medicine (p<0.001; OR 0.50)
Dermatology vs. Family Medicine (p<0.001; OR 0.47)
Hospital Medicine vs. Family Medicine (p<0.001; OR 0.45)
Critical Care Medicine vs. Family Medicine (p<0.001; OR 0.44)

Odds Ratio (95% CI)

0.5   1.0   2.0

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Bivariate Results: Was or Currently Being Furloughed in Principal Clinical Position by PA Demographics

Was or currently being furloughed in principal clinical position due to the coronavirus (COVID-19) pandemic by PA demographics			
	No	Yes	p-value
Age			
Less than 30	88.3%	11.7%	
30-39	87.2%	12.8%	
40-49	86.9%	**13.1%**	0.001
50-59	89.7%	10.3%	
60+	88.6%	11.4%	
Gender:			
Female	87.5%	**12.5%**	0.030
Male	88.7%	11.3%	
Race:			
White	87.4%	**12.6%**	
Asian	89.2%	10.8%	0.001
African American	91.0%	9.0%	
Other	90.5%	9.5%	
Ethnicity:			
Non-Hispanic/Latino	87.5%	**12.5%**	0.006
Hispanic/Latino	90.3%	9.8%	
Urban-Rural Setting:			
Urban	87.6%	**12.4%**	
Large Rural	88.0%	12.0%	0.005
Small Rural	90.8%	9.2%	
Isolated	93.8%	6.2%	
Region:			
South	88.0%	12.0%	
Northeast	89.0%	11.0%	<0.001
West	89.0%	11.0%	
Midwest	84.4%	**15.6%**	

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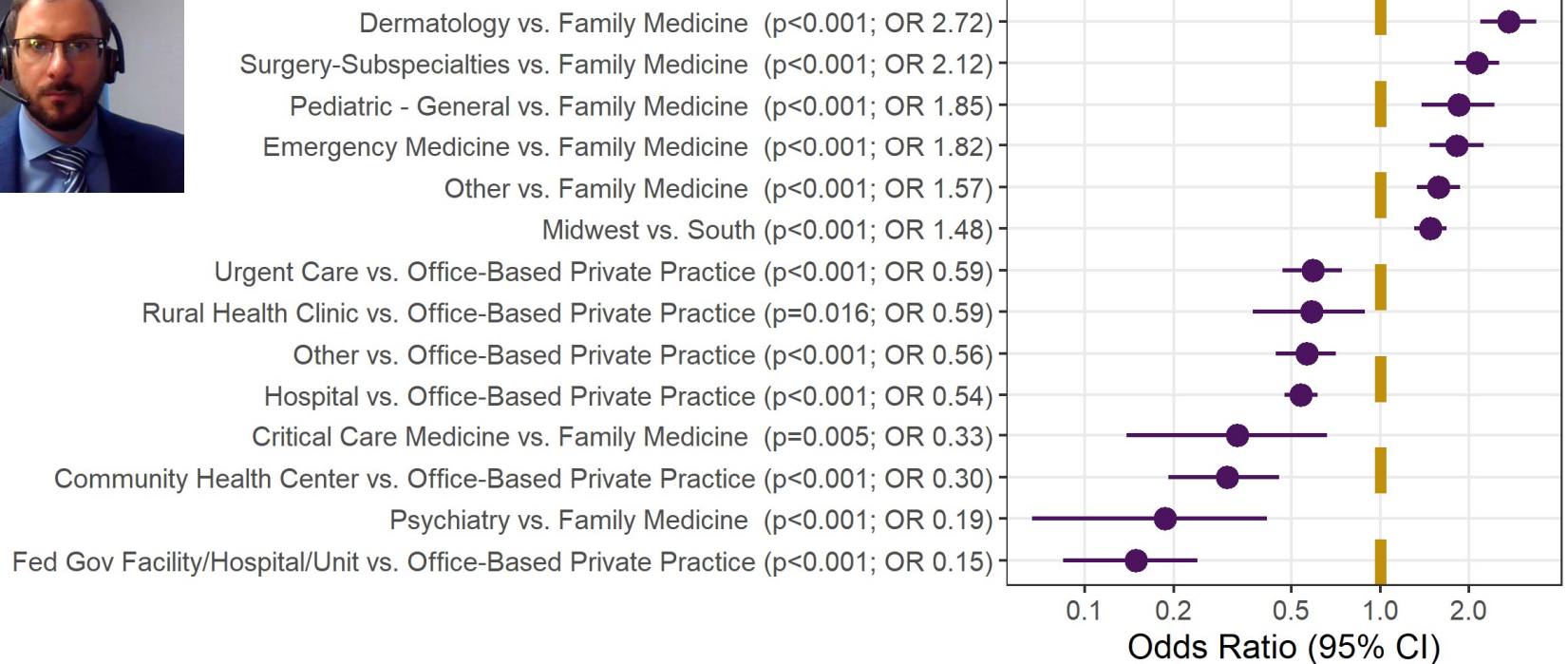# Bivariate Results: Was or Currently Being Furloughed in Principal Clinical Position by PA Practice Characteristics

Was or currently being furloughed in principal clinical position due to the coronavirus (COVID-19) pandemic by PA practice characteristics			
	No	Yes	p-value
Specialty			
Family Medicine/General Practice	91.0%	9.0%	
Surgery-Subspecialties	83.0%	17.0%	
Emergency Medicine	87.4%	12.6%	
Internal Medicine - Subspecialties	89.7%	10.3%	
Internal Medicine – General Practice	90.2%	9.8%	
Dermatology	72.6%	**27.4%**	<0.001
Hospital Medicine	93.0%	7.0%	
Surgery - General	91.7%	8.3%	
Pediatric - General	82.3%	17.7%	
Critical Care Medicine	97.8%	2.2%	
Psychiatry	98.4%	1.6%	
Other	87.3%	12.7%	
Practice Setting			
Office-Based Private Practice	83.1%	**16.9%**	
Hospital	89.6%	10.4%	
Federal Government Facility/Hospital/Unit	97.7%	2.3%	
Urgent Care	89.4%	10.6%	<0.001
Community Health Center	95.9%	4.2%	
Rural Health Clinic	92.4%	7.6%	
Other	90.8%	9.2%	

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Multivariate Results: Was or Currently Being Furloughed in Principal Clinical Position

Significant predictors of being furloughed in principal clinical position due COVID-19 pandemic

Dermatology vs. Family Medicine (p<0.001; OR 2.72)
Surgery-Subspecialties vs. Family Medicine (p<0.001; OR 2.12)
Pediatric - General vs. Family Medicine (p<0.001; OR 1.85)
Emergency Medicine vs. Family Medicine (p<0.001; OR 1.82)
Other vs. Family Medicine (p<0.001; OR 1.57)
Midwest vs. South (p<0.001; OR 1.48)
Urgent Care vs. Office-Based Private Practice (p<0.001; OR 0.59)
Rural Health Clinic vs. Office-Based Private Practice (p=0.016; OR 0.59)
Other vs. Office-Based Private Practice (p<0.001; OR 0.56)
Hospital vs. Office-Based Private Practice (p<0.001; OR 0.54)
Critical Care Medicine vs. Family Medicine (p=0.005; OR 0.33)
Community Health Center vs. Office-Based Private Practice (p<0.001; OR 0.30)
Psychiatry vs. Family Medicine (p<0.001; OR 0.19)
Fed Gov Facility/Hospital/Unit vs. Office-Based Private Practice (p<0.001; OR 0.15)
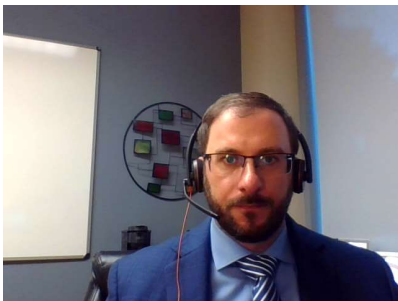
Odds Ratio (95% CI)

0.1   0.2   0.5   1.0   2.0

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Changing Specialty during the Coronavirus (COVID-19) Pandemic

Have you changed your specialty during the coronavirus (COVID-19) pandemic?
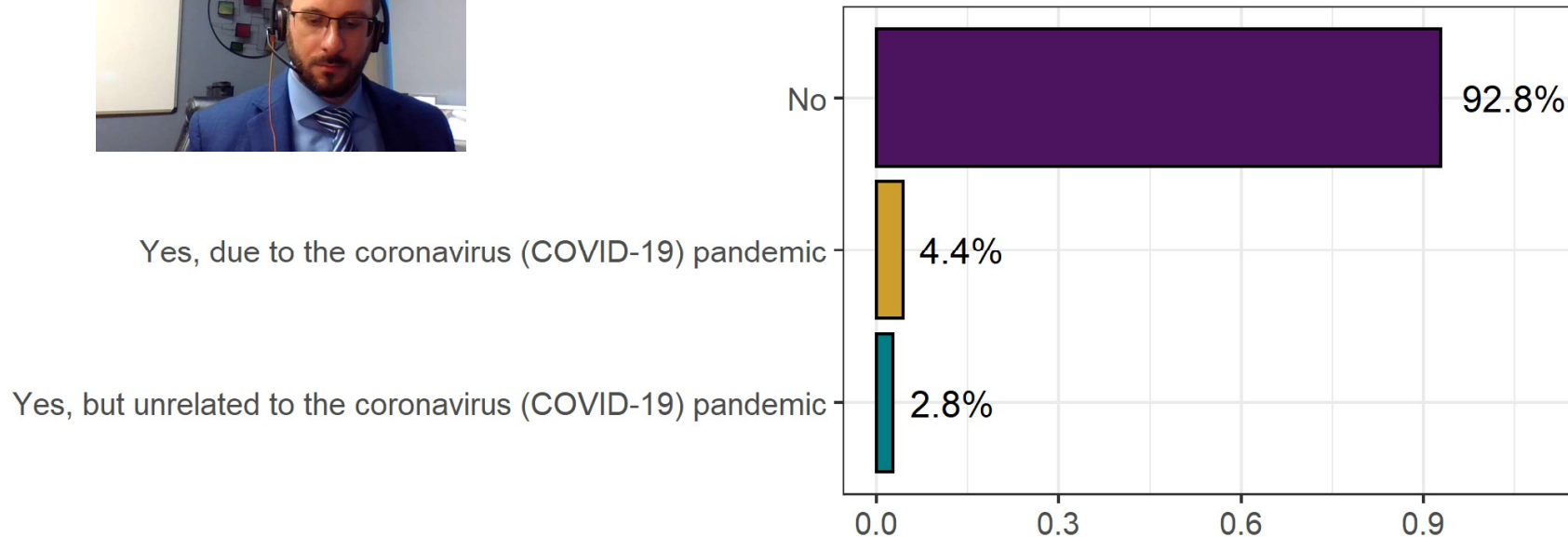
No — 92.8%

Yes, due to the coronavirus (COVID-19) pandemic — 4.4%

Yes, but unrelated to the coronavirus (COVID-19) pandemic — 2.8%
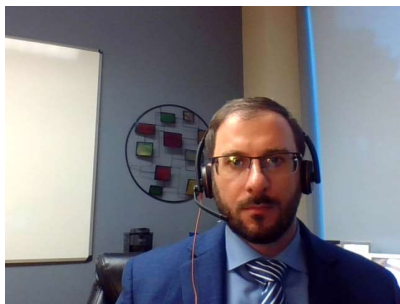
0.0   0.3   0.6   0.9

Bivariate Results: Changed Specialty During the Coronavirus (COVID-19) Pandemic by PA Demographics

Changed specialty during the coronavirus (COVID-19) pandemic by PA demographics			
	No	Yes	p-value
Age			
Less than 30	89.7%	**10.3%**	
30-39	93.1%	6.9%	
40-49	93.5%	6.5%	<0.001
50-59	92.7%	7.3%	
60+	93.6%	6.4%	
Gender:			
Female	92.8%	7.2%	
Male	92.9%	7.1%	0.946
Race:			
White	93.2%	6.8%	
Asian	91.7%	8.3%	
Black/African American	92.1%	7.9%	0.036
Other	91.1%	**9.0%**	
Ethnicity:			
Non-Hispanic/Latino	93.3%	6.7%	
Hispanic/Latino	91.8%	8.2%	0.063
Urban-Rural Setting:			
Urban	92.8%	7.2%	
Large Rural	92.6%	7.4%	
Small Rural	94.2%	5.8%	0.736
Isolated	92.2%	7.8%	
Region:			
South	93.5%	6.5%	
Northeast	91.2%	**8.8%**	
West	92.8%	7.2%	<0.001
Midwest	93.6%	6.4%	

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Bivariate Results: Changed Specialty During the Coronavirus (COVID-19) Pandemic by PA Practice Characteristics

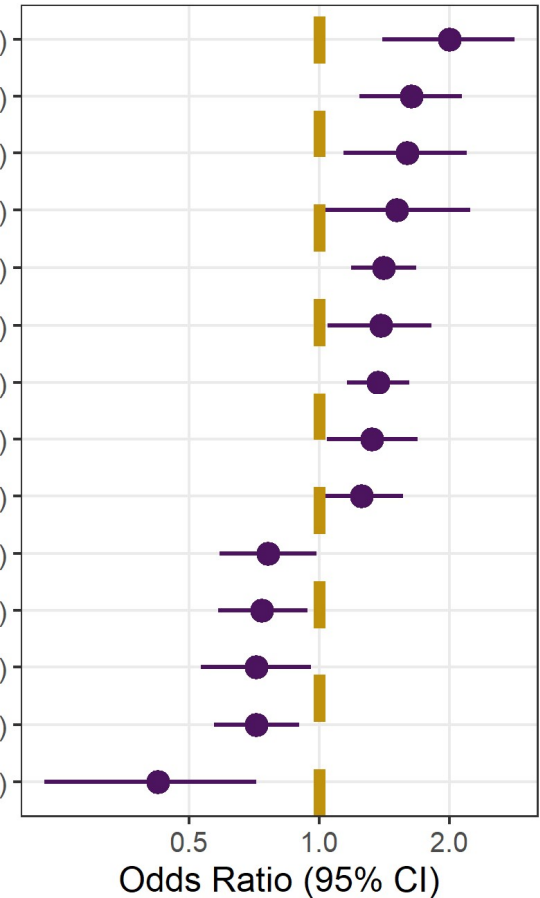| Changed specialty during the coronavirus (COVID-19) pandemic by PA practice characteristics			
	No	Yes	p-value
Specialty			
Family Medicine/General Practice	94.4%	5.6%	
Surgery-Subspecialties	92.1%	7.9%	
Emergency Medicine	93.5%	6.5%	
Internal Medicine - Subspecialties	94.1%	5.9%	
Internal Medicine – General Practice	94.3%	5.7%	
Dermatology	97.7%	2.3%	
Hospital Medicine	93.5%	6.5%	<0.001
Surgery - General	87.3%	**12.7%**	
Pediatric - General	93.0%	7.0%	
Critical Care Medicine	94.6%	5.4%	
Psychiatry	96.1%	3.9%	
Other	92.1%	7.9%	
Practice Setting			
Office-Based Private Practice	94.6%	5.4%	
Hospital	92.4%	7.6%	
Federal Government Facility/Hospital/Unit	92.5%	7.5%	
Urgent Care	90.6%	**9.4%**	<0.001
Community Health Center	94.6%	5.4%	
Rural Health Clinic	95.8%	4.2%	
Other	92.4%	7.6%	

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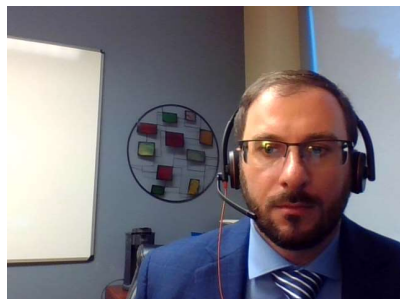# Multivariate Results: Changed Specialty During Coronavirus (COVID-19) Pandemic

Significant predictors of changing specialty during the coronavirus (COVID-19) pandemic

Surgery - General vs. Family Medicine (p<0.001; OR 2.00)

Urgent Care vs. Office-Based Private Practice (p<0.001; OR 1.64)

Federal Gov Facility/Hospital/Unit vs. Office-Based Private Practice (p=0.005; OR 1.60)

Pediatric - General vs. Family Medicine (p=0.046; OR 1.51)

Hospital vs. Office-Based Private Practice (p<0.001; OR 1.41)

Other vs. Office-Based Private Practice (p=0.002; OR 1.39)

Northeast vs. South (p<0.001; OR 1.37)

Surgery-Subspecialties vs. Family Medicine (p=0.022; OR 1.33)

Other vs. Family Medicine (p=0.044; OR 1.25)

Age 50-59 vs. Less than 30 (p=0.037; OR 0.76)

Age 40-49 vs. Less than 30 (p=0.012; OR 0.74)

Age 60+ vs. Less than 30 (p=0.024; OR 0.71)

Age 30-39 vs. Less than 30 (p=0.003; OR 0.71)

Dermatology vs. Family Medicine (p=0.003; OR 0.42)
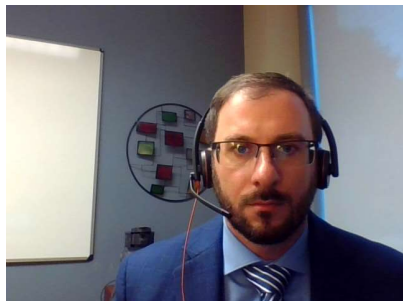
Odds Ratio (95% CI)

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Bivariate Results: Being Laid Off in Principal Clinical Position by PA Demographics

Was laid off from principal clinical position due to the coronavirus (COVID-19) pandemic by PA demographics			
	No	Yes	p-value
Age			
Less than 30	95.7%	4.3%	
30-39	96.2%	3.8%	
40-49	95.8%	4.2%	<0.001
50-59	94.6%	**5.4%**	
60+	94.5%	**5.5%**	
Gender:			
Female	95.8%	4.3%	
Male	95.3%	4.7%	0.203
Race:			
White	95.8%	4.2%	
Asian	96.0%	4.0%	
Black/African American	96.5%	3.5%	0.728
Other	95.4%	4.6%	
Ethnicity:			
Non-Hispanic/Latino	95.8%	4.2%	
Hispanic/Latino	96.0%	4.0%	0.808
Urban-Rural Setting:			
Urban	95.7%	4.3%	
Large Rural	94.4%	5.6%	
Small Rural	95.1%	4.9%	0.322
Isolated	96.0%	4.0%	
Region:			
South	95.9%	4.1%	
Northeast	96.1%	**3.9%**	
West	95.1%	4.9%	0.049
Midwest	95.3%	4.8%	

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# Bivariate Results: Being Laid Off in Principal Clinical Position by PA Practice Characteristics

Was laid off from principal clinical position due to the coronavirus (COVID-19) pandemic by PA practice characteristics			
	No	Yes	p-value
Specialty			
Family Medicine/General Practice	96.0%	4.1%	<0.001
Surgery-Subspecialties	95.4%	4.6%	
Emergency Medicine	95.5%	4.5%	
Internal Medicine - Subspecialties	97.7%	2.3%	
Internal Medicine – General Practice	95.8%	4.2%	
Dermatology	93.4%	**6.6%**	
Hospital Medicine	97.9%	2.1%	
Surgery - General	97.2%	2.8%	
Pediatric - General	96.2%	3.8%	
Critical Care Medicine	99.1%	0.9%	
Psychiatry	98.7%	1.3%	
Other	95.3%	4.7%	
Practice Setting			
Office-Based Private Practice	94.5%	5.5%	<0.001
Hospital	97.5%	2.5%	
Federal Government Facility/Hospital/Unit	98.5%	1.5%	
Urgent Care	93.4%	**6.6%**	
Community Health Center	97.5%	2.5%	
Rural Health Clinic	97.4%	2.6%	
Other	94.6%	5.5%	

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Multivariate Results: Being Laid Off in Principal Clinical Position

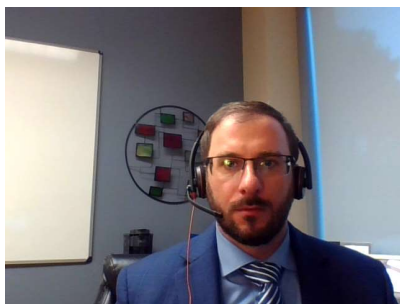**Significant predictors of being laid off in principal clinical position due COVID-19 pandemic**
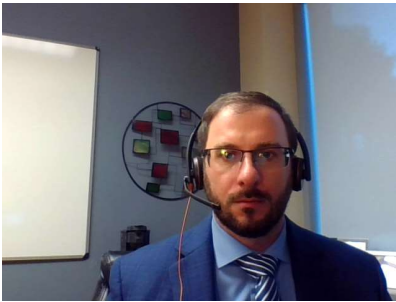
Emergency Medicine vs. Family Medicine (p<0.001; OR 2.00)

Surgery-Subspecialties vs. Family Medicine (p=0.009; OR 1.46)

Other vs. Family Medicine (p=0.017; OR 1.37)

Rural Health Clinic vs. Office-Based Private Practice (p=0.049; OR 0.48)

Community Health Center vs. Office-Based Private Practice (p=0.011; OR 0.48)

Hospital vs. Office-Based Private Practice (p<0.001; OR 0.36)

Psychiatry vs. Family Medicine (p=0.034; OR 0.28)

Fed Gov Facility/Hospital/Unit vs. Office-Based Private Practice (p<0.001; OR 0.26)
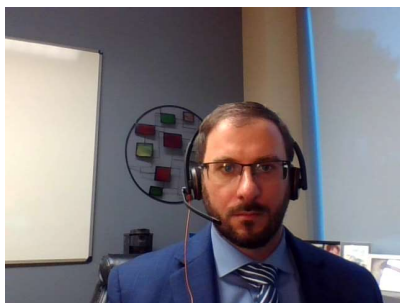
Odds Ratio (95% CI)

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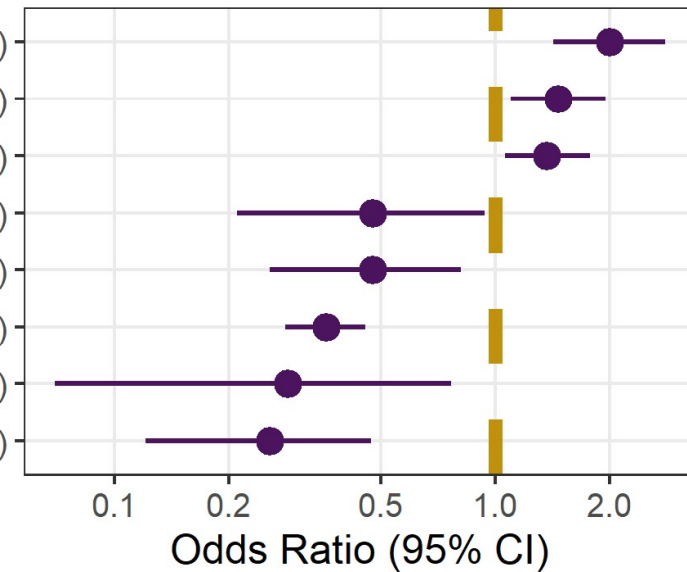
Bivariate Results: Became infected with COVID-19 and unable to work by PA Demographics

Became infected with COVID-19 and unable to work by PA demographics			
	No	Yes	p-value
Age			
Less than 30	95.7%	**4.3%**	
30-39	96.8%	3.2%	
40-49	96.5%	3.6%	0.046
50-59	96.2%	3.8%	
60+	97.3%	2.7%	
Gender:			
Female	96.8%	3.2%	0.001
Male	95.8%	**4.2%**	
Race:			
White	96.6%	3.4%	
Asian	96.2%	3.8%	0.325
African American	95.7%	4.3%	
Other	95.8%	4.2%	
Ethnicity:			
Non-Hispanic/Latino	96.6%	3.5%	0.072
Hispanic/Latino	95.5%	4.5%	
Urban-Rural Setting:			
Urban	96.4%	**3.6%**	
Large Rural	98.1%	1.9%	0.008
Small Rural	98.1%	1.9%	
Isolated	98.2%	1.8%	
Region:			
South	96.5%	3.5%	
Northeast	95.4%	**4.7%**	<0.001
West	97.4%	2.6%	
Midwest	97.1%	2.9%	

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Bivariate Results: Became infected with COVID-19 and unable to work PA Practice Characteristics
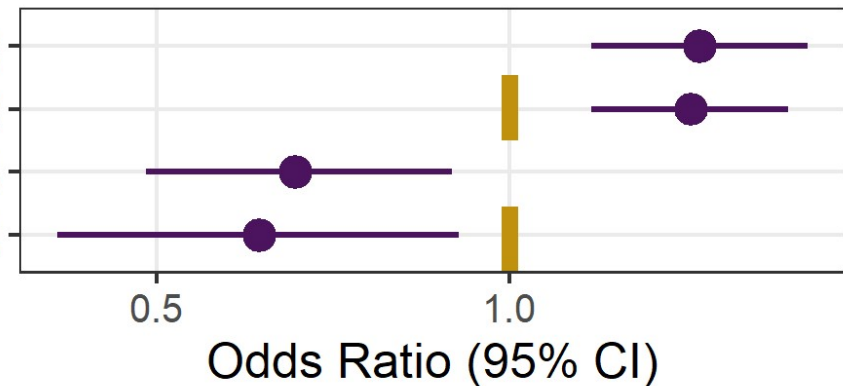

Became infected with COVID-19 and unable to work by PA practice characteristics			
	No	Yes	p-value
Specialty			
Family Medicine/General Practice	96.8%	3.2%	
Surgery-Subspecialties	96.5%	3.5%	
Emergency Medicine	95.7%	4.3%	
Internal Medicine - Subspecialties	96.1%	3.9%	
Internal Medicine – General Practice	96.8%	3.2%	
Dermatology	97.4%	2.6%	0.207
Hospital Medicine	95.9%	4.1%	
Surgery - General	96.8%	3.2%	
Pediatric - General	97.1%	2.9%	
Critical Care Medicine	96.6%	3.4%	
Psychiatry	98.4%	1.6%	
Other	96.9%	3.1%	
Practice Setting			
Office-Based Private Practice	96.9%	3.2%	
Hospital	96.3%	3.7%	
Fed Gov Facility/Hospital/Unit	98.0%	2.0%	
Urgent Care	96.3%	3.7%	0.195
Community Health Center	96.2%	3.8%	
Rural Health Clinic	96.2%	3.8%	
Other	96.2%	3.8%	

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Multivariate Results: Became Infected with COVID-19 and Unable to Work

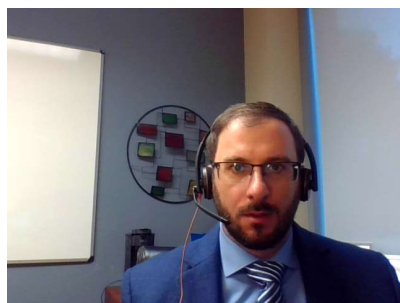**Significant predictors of becoming infected with COVID-19 and unable to work**

Northeast vs. South (p=0.001; OR 1.45)

Males vs. Females (p<0.001; OR 1.43)

Age 30-39 vs. Less than 30 (p=0.006; OR 0.66)

Age 60+ vs. Less than 30 (p=0.014; OR 0.61)
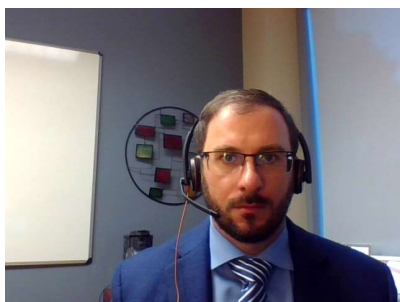
Odds Ratio (95% CI)

Bivariate Results: Was or Currently being Furloughed in Secondary Clinical Position by PA Demographics

Was or currently being furloughed in secondary clinical position due to the coronavirus (COVID-19) pandemic by PA demographics			
	No	Yes	p-value
Age			
Less than 30	99.0%	1.0%	
30-39	97.8%	2.2%	
40-49	97.1%	2.9%	<0.001
50-59	97.2%	2.8%	
60+	96.9%	**3.1%**	
Gender:			
Female	98.0%	2.0%	<0.001
Male	96.2%	**3.8%**	
Race:			
White	97.6%	2.4%	
Asian	97.8%	2.2%	
Black/African American	97.5%	2.5%	0.969
Other	97.4%	2.6%	
Ethnicity:			
Non-Hispanic/Latino	97.6%	2.4%	0.559
Hispanic/Latino	97.3%	2.7%	
Urban-Rural Setting:			
Urban	97.6%	2.4%	
Large Rural	96.3%	**3.7%**	0.043
Small Rural	97.3%	2.7%	
Isolated	98.9%	1.1%	
Region:			
South	97.6%	2.4%	
Northeast	97.8%	2.2%	0.415
West	97.3%	2.7%	

# Bivariate Results: Was or Currently being Furloughed in Secondary Clinical Position by PA Practice Characteristics

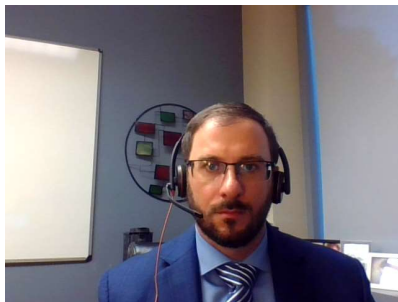| Was or currently being furloughed in secondary clinical position due to the coronavirus (COVID-19) pandemic by PA practice characteristics			
	No	Yes	p-value
Specialty			
Family Medicine/General Practice	98.0%	2.0%	
Surgery-Subspecialties	98.0%	2.0%	
Emergency Medicine	94.2%	**5.8%**	
Internal Medicine - Subspecialties	98.6%	1.4%	
Internal Medicine – General Practice	98.2%	1.8%	
Dermatology	99.0%	1.0%	
Hospital Medicine	98.2%	1.8%	<0.001
Surgery - General	98.0%	2.0%	
Pediatric - General	96.6%	3.4%	
Critical Care Medicine	97.5%	2.5%	
Psychiatry	98.4%	1.6%	
Other	97.7%	2.3%	
Practice Setting			
Office-Based Private Practice	97.9%	2.1%	
Hospital	97.0%	**3.0%**	
Federal Government Facility/Hospital/Unit	98.4%	1.6%	
Urgent Care	97.1%	2.9%	0.018
Community Health Center	97.8%	2.2%	
Rural Health Clinic	98.0%	2.0%	
Other	97.8%	2.2%	

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Multivariate Results: Being Furloughed in Secondary Clinical Position

Significant predictors of being furloughed in secondary clinical position due to COVID-19 pandemic

Emergency Medicine vs. Family Medicine (p<0.001; OR 2.56)

Age 60+ vs. Less than 30 (p=0.003; OR 2.41)

Age 40-49 vs. Less than 30 (p=0.003; OR 2.27)

Age 50-59 vs. Less than 30 (p=0.014; OR 2.04)

Age 30-39 vs. Less than 30 (p=0.031; OR 1.81)

Males vs. Female (p<0.001; OR 1.68)
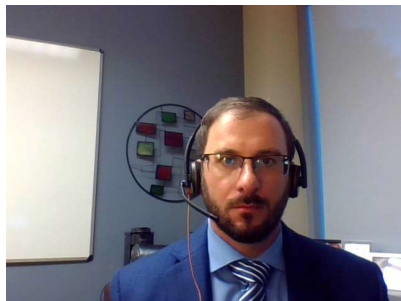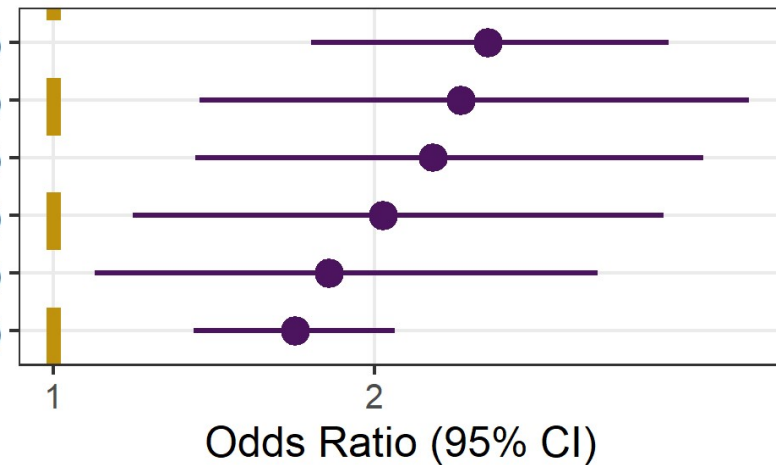
Odds Ratio (95% CI)

Bivariate Results: Decided Not to Work Clinically Due to the High Risk of Being Infected or Infecting Family by PA Demographics

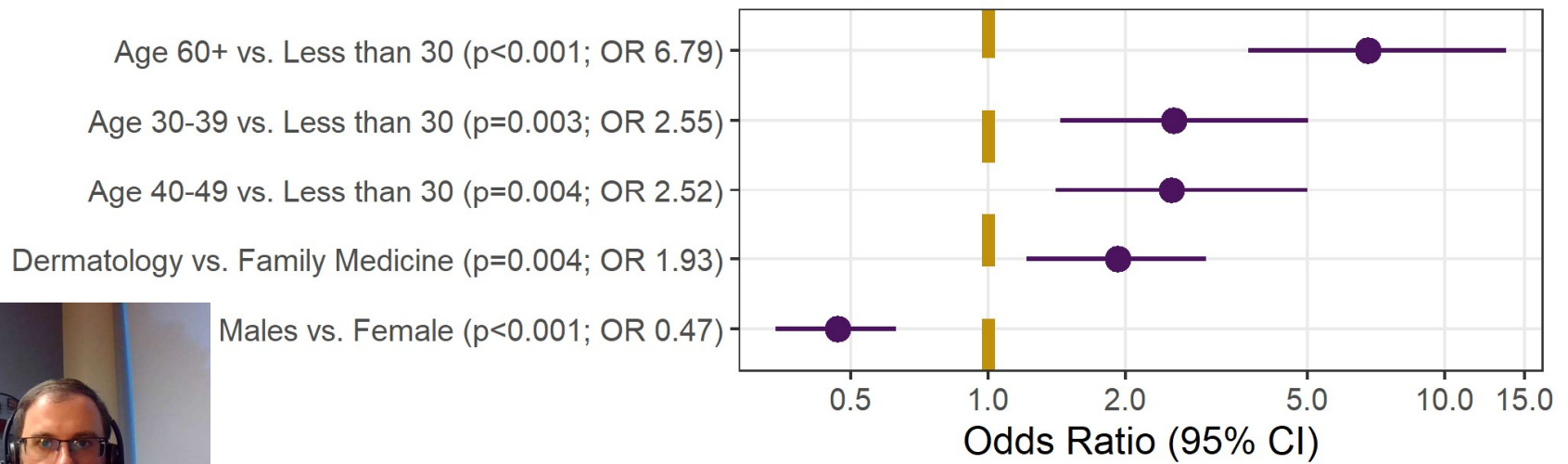| Decided not to work clinically due to the high risk of being infected or infecting family with COVID-19 by PA demographics	No	Yes	p-value
Age			
Less than 30	99.1%	0.9%	
30-39	97.6%	2.4%	
40-49	97.8%	2.2%	<0.001
50-59	98.5%	1.5%	
60+	95.1%	**4.9%**	
Gender:			
Female	97.4%	**2.6%**	<0.001
Male	98.6%	1.4%	
Race:			
White	97.8%	2.2%	
Asian	96.9%	3.1%	0.109
African American	97.0%	3.0%	
Other	97.4%	2.6%	
Ethnicity:			
Non-Hispanic/Latino	97.7%	2.3%	1.000
Hispanic/Latino	97.7%	2.3%	
Urban-Rural Setting:			
Urban	97.7%	2.3%	
Large Rural	97.6%	2.4%	0.135
Small Rural	98.9%	1.1%	
Isolated	99.3%	0.7%	
Region:			
South	97.8%	2.2%	
Northeast	97.5%	2.5%	0.550
West	97.6%	2.4%	
Midwest	97.9%	2.1%	

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Bivariate Results: Decided Not to Work Clinically Due to the High Risk of Being Infected or Infecting Family by PA Practice Characteristics
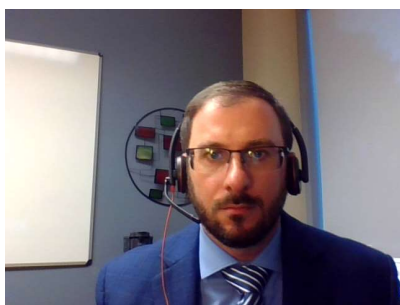

Decided not to work clinically due to the high risk of being infected or infecting family with COVID-19 by PA practice characteristics			
	No	Yes	p-value
Specialty			
Family Medicine/General Practice	97.9%	2.1%	
Surgery-Subspecialties	98.0%	2.0%	
Emergency Medicine	97.8%	2.2%	
Internal Medicine - Subspecialties	97.9%	2.1%	
Internal Medicine – General Practice	97.5%	2.5%	
Dermatology	95.4%	**4.6%**	0.001
Hospital Medicine	98.6%	1.4%	
Surgery - General	98.8%	1.2%	
Pediatric - General	98.2%	1.8%	
Critical Care Medicine	99.1%	0.9%	
Psychiatry	97.5%	2.5%	
Other	97.3%	2.7%	
Practice Setting			
Office-Based Private Practice	97.4%	2.7%	
Hospital	98.1%	1.9%	
Fed Gov Facility/Hospital/Unit	98.8%	1.2%	
Urgent Care	96.6%	**3.4%**	<0.001
Community Health Center	98.5%	1.5%	
Rural Health Clinic	99.4%	0.6%	
Other	97.2%	2.8%	

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Multivariate Results: Decided Not to Work Clinically Due to the High Risk of Being Infected or Infecting Family

Significant predictors of deciding not to work clinically due to high risk of infection

Age 60+ vs. Less than 30 (p<0.001; OR 6.79)

Age 30-39 vs. Less than 30 (p=0.003; OR 2.55)

Age 40-49 vs. Less than 30 (p=0.004; OR 2.52)

Dermatology vs. Family Medicine (p=0.004; OR 1.93)

Males vs. Female (p<0.001; OR 0.47)

Odds Ratio (95% CI)

0.5   1.0   2.0   5.0   10.0   15.0

Bivariate Results: Was Laid Off from Secondary Clinical Position by PA Demographics

Was laid off from secondary clinical position due to the coronavirus (COVID-19) pandemic by PA demographics	No	Yes	p-value
Age			
Less than 30	99.4%	0.7%	
30-39	98.8%	1.2%	
40-49	98.3%	1.7%	<0.001
50-59	97.5%	**2.5%**	
60+	98.2%	1.8%	
Gender:			
Female	98.7%	1.3%	<0.001
Male	97.7%	**2.3%**	
Race:			
White	98.6%	1.4%	
Asian	98.8%	1.2%	<0.001
Black/African American	96.5%	**3.5%**	
Other	98.1%	1.9%	
Ethnicity:			
Non-Hispanic/Latino	98.5%	1.5%	0.036
Hispanic/Latino	97.7%	**2.3%**	
Urban-Rural Setting:			
Urban	98.5%	1.5%	
Large Rural	97.6%	2.4%	0.200*
Small Rural	98.1%	1.9%	
Isolated	98.5%	1.5%	
Region:			
South	98.6%	1.4%	
Northeast	98.6%	1.4%	0.522
West	98.3%	1.7%	
Midwest	98.3%	1.7%	
*Fisher's Exact Test			

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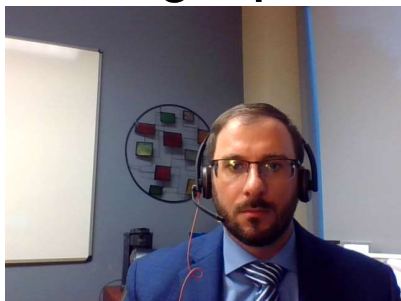## Bivariate Results: Was Laid Off from Secondary Clinical Position by PA Practice Characteristics

Was laid off from secondary clinical position due to the coronavirus (COVID-19) pandemic by PA practice characteristics	No	Yes	p-value
Specialty			
Family Medicine/General Practice	98.7%	1.3%	
Surgery-Subspecialties	98.8%	1.2%	
Emergency Medicine	96.2%	**3.8%**	
Internal Medicine - Subspecialties	99.0%	1.0%	
Internal Medicine – General Practice	99.1%	0.9%	
Dermatology	99.4%	0.6%	0.0005*
Hospital Medicine	97.6%	2.4%	
Surgery - General	98.2%	1.8%	
Pediatric - General	99.1%	0.9%	
Critical Care Medicine	99.1%	0.9%	
Psychiatry	99.1%	1.0%	
Other	98.7%	1.3%	
Practice Setting			
Office-Based Private Practice	98.9%	1.1%	
Hospital	98.1%	1.9%	
Federal Government Facility/Hospital/Unit	99.0%	1.0%	
Urgent Care	97.8%	**2.2%**	0.002
Community Health Center	98.2%	1.8%	
Rural Health Clinic	98.0%	2.0%	
Other	98.7%	1.3%	
*Fisher's Exact Test for Count Data with simulated p-value (based on 2000 replicates)			

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Bivariate Results: Needed to Stop Working to Care for a Family Member Who was Infected with COVID-19 by PA demographics

Needed to stop working to care for a family member who was infected with COVID-19 by PA demographics	No	Yes	p-value
Age			
Less than 30	99.5%	0.6%	
30-39	99.2%	0.8%	
40-49	99.1%	0.9%	0.287
50-59	99.2%	0.8%	
60+	99.5%	0.5%	
Gender:			
Female	99.2%	0.8%	0.153
Male	99.4%	0.6%	
Race:			
White	99.3%	0.7%	
Asian	98.9%	1.1%	0.400*
African American	99.3%	0.7%	
Other	99.2%	0.8%	
Ethnicity:			
Non-Hispanic/Latino	99.3%	0.7%	0.197
Hispanic/Latino	98.9%	1.1%	
Urban-Rural Setting:			
Urban	99.2%	0.8%	
Large Rural	99.4%	0.6%	0.300*
Small Rural	100.0%	0.0%	
Isolated	98.9%	1.1%	
Region:			
South	99.2%	0.8%	
Northeast	99.3%	0.7%	0.721
West	99.3%	0.7%	
Midwest	99.3%	0.7%	
***Fisher's Exact Test**			

Bivariate Results: Needed to Stop Working to Care for a Family Member Who was Infected with COVID-19 by PA Practice Characteristics

Needed to stop working to care for a family member who was infected with COVID-19 by PA practice characteristics			
	No	Yes	p-value
Specialty			
Family Medicine/General Practice	99.3%	0.7%	
Surgery-Subspecialties	99.3%	0.7%	
Emergency Medicine	99.4%	0.6%	
Internal Medicine - Subspecialties	99.0%	1.0%	
Internal Medicine – General Practice	99.2%	0.8%	
Dermatology	99.6%	0.4%	
Hospital Medicine	98.9%	1.1%	0.900*
Surgery - General	99.2%	0.8%	
Pediatric - General	99.6%	0.5%	
Critical Care Medicine	99.7%	0.3%	
Psychiatry	99.4%	0.6%	
Other	99.2%	0.8%	
Practice Setting			
Office-Based Private Practice	99.3%	0.7%	
Hospital	99.3%	0.7%	
Federal Government Facility/Hospital/Unit	99.9%	0.1%	
Urgent Care	99.0%	1.0%	0.020*
Community Health Center	99.5%	0.5%	
Rural Health Clinic	99.1%	0.9%	
Other	98.4%	**1.6%**	
*Fisher's Exact Test for Count Data with Simulated P-Value (based on 2000 replicates)			

Limitations

Generalizability

Response rate

Self-report nature of surveys

Cross-sectional survey

- Results present a snapshot in time
- Rapidly changing healthcare environment during the pandemic

Key Findings

1

15.1% of PAs changed their practice setting. Compared to PAs in Family Medicine, those in Psychiatry had 2.27 times higher odds while PAs in Critical Care Medicine, Hospital Medicine, Dermatology and Emergency Medicine had 56% to 50% lower odds.

2

12.2% were furloughed in principal clinical position. PAs in Dermatology (2.72), Surgery-Subspecialties (2.12), General Pediatrics (1.85), and EM (1.82) had the highest odds while those working for federal government (0.15) and Psychiatry (0.19) had the lowest.

3

7.2% of PAs changed their specialty. Compared to PAs in Family Medicine, those in General Surgery had two-fold higher odds while those in Dermatology had 58% lower odds. The youngest PAs (<30) had the highest odds of changing specialty compared to all other age groups.

4

4.4% were laid off from principal clinical position. PAs in EM (2.00) and Surgery-Subspecialties (1.46) had the highest odds while those working for federal government (0.26) and Psychiatry (0.28) had the lowest.

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Key Findings

3.5% became infected and unable to work. PAs in the Northeast compared to the South had 45% higher odds. Males had 43% higher odds and the youngest PAs (<30) had higher odds than PAs 60+ and 30-39.

2.4% of PAs were furloughed in their secondary clinical position. PAs in EM (2.56) and males had higher odds (1.68) while those <30 had lower odds compared to all other age groups.

2.3% decided not to work clinically due to the high-risk of being infected or infecting family with COVID-19. PAs 60+ had almost 7-fold higher odds compared to those <30.

Key Findings

1.5% of PAs were laid off from secondary clinical position. There were statistically significant differences by age, gender, race, ethnicity, specialty and practice setting.
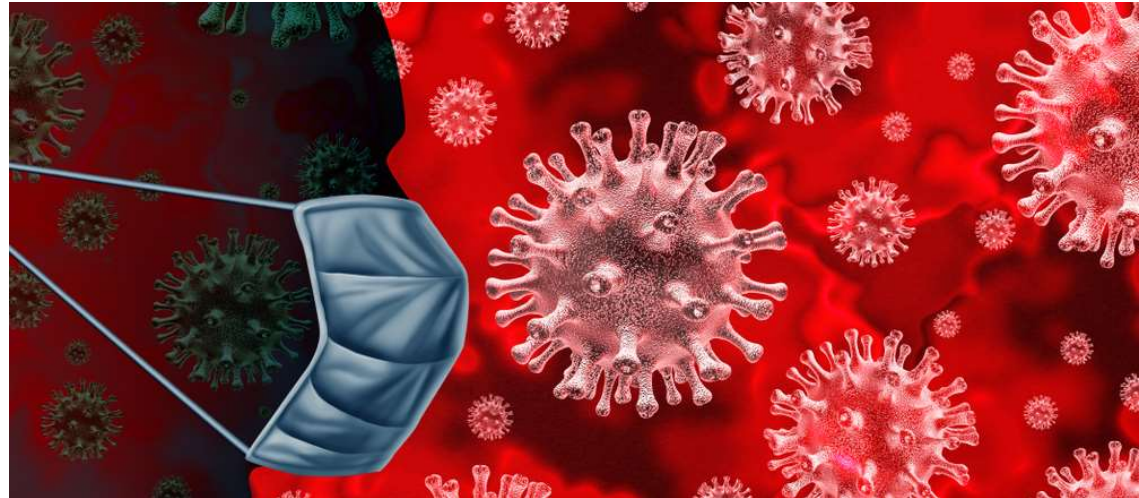
0.8% needed to stop working to care for a family member who was infected with COVID-19. There were statistically significant differences by practice setting.

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Conclusions

The COVID-19 crisis highlights the value that PAs bring to healthcare and the versatility and adaptability of the profession

1 Many PAs were impacted by the pandemic and differences were observed by PA demographics and practice characteristics

2 Findings were both consistent and differed from AAPA COVID-19 survey; this may reflect different time points when data were collected

3 More research is needed to assess long term impact of the pandemic on the PA workforce

References

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Thank You!

For more information contact:

Andrzej Kozikowski, PhD; andrzejk@nccpa.net

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