

STATISTICAL ANALYSIS OF DEI DATA

Patient Satisfaction Survey Analysis



Report Overview

Based on Press Ganey's key driver report for the service line Outpatient Oncology, we analyzed eleven questions to evaluate discrepancies in patient satisfaction scores for different socio-economic groups. We looked at 12 months' worth of Press Ganey survey received during the period that began 10/1/2022 and ended 9/30/2023.

The eleven questions are:

- 1. Care providers' efforts to include you in decisions about your treatment.
- 2. Care providers' discussion of your treatment options
- 3. Staff's sensitivity to the difficulties that your condition and treatment can cause.
- 4. Efforts to include you in decisions about your treatment.
- 5. Caring manner of the nurses
- 6. Nurses answer to your questions.
- 7. How well the care providers kept you informed about your condition.
- 8. Care providers' concern for your questions and worries.
- 9. Your trust in the skill of the care providers
- 10. How well the staff worked together to care for you.
- 11. Likelihood of your recommending this facility to others

Patient characteristics are:

- 1. Age Group with eight (8) levels
- 2. Race/Ethnicity with six (6) levels (note: "Missing" values are now included in analysis)
- 3. Payer with six (6) levels and
- 4. Gender with two (2) levels

Interpretations

Odds ratios (OR) are used to compare the relative odds of the occurrence of top box score for the given patient characteristic (i.e., race, payer, sex, age group) when compared to the control group.

- Control group for race is White.
- Control group for age group is 65 74 years old
- Control group for payer is Medicare
- Control group for sex is female.

An odds ratio of 1 is associated with not affecting the odds of giving Top Box.

An odds ratio > 1 is associated with a higher likelihood of giving Top Box scores than the control group.

An odds ratio < 1 is associated with a lower likelihood of giving Top Box scores than the control group.

The 95% confidence interval (CI) is used to estimate the precision of the OR. A large CI indicates a low level of precision of the OR, whereas a small CI indicates a higher precision of the OR.

The p-value is used to report a measure of statistical significance. We use an alpha level of 0.05. Any p-value less than 0.05 is considered statistically significant for the purpose of our analysis.

In practice, the 95% CI is used as a proxy for the presence of statistical significance if does overlap the null value (OR = 1). It is inappropriate to interpret an OR that spans the null value as evidence of the lack of association.

Summary Statistics:

# Surveys	510888
# Patients	30095
# Survey Questions	11

Ag	ge
Min	18
Q1	61
Med	69
Q3	75
Max	106

Age		
Groups	Frequency	(%)
15-24	89	0.3%
25-34	320	1.1%
35-44	956	3.2%
45-54	2572	8.5%
55-64	6571	21.8%
65-74	11499	38.2%
75-84	7189	23.9%
85+	899	3.0%

Gender	Frequency	(%)
Female	16232	53.9%
Male	13863	46.1%

Race/Ethnicity	Frequency	(%)
Asian	304	1.0%
Black	1601	5.3%
Hispanic	2446	8.1%
Missing	778	2.6%
More than one race/Other	170	0.6%
White	24796	82.4%

Payor	Frequency	(%)
CHARITY	403	1.3%
НМОРРО	9078	30.2%
MEDICAID	518	1.7%
MEDICARE	18980	63.1%
OTHINS	865	2.9%
SELFPAY	251	0.8%

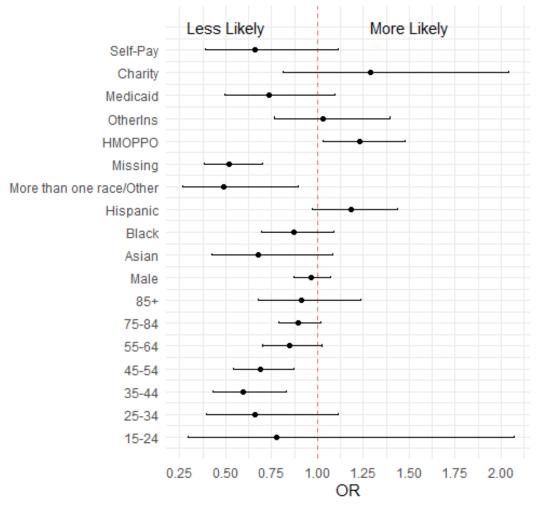
Summary Table of Significant Odds Ratio Estimates and 95% Confidence Intervals

	Odds Ratios (95% CI)											
		Care providers' efforts to include you in decisions about your treatment	Care providers' discussion of your treatment options	Staff's sensitivity to the difficulties that your condition and treatment can cause	Efforts to include you in decisions about your treatment	Caring manner of the nurses	Nurses answer to your questions	How well the care providers kept you informed about your condition	Care providers' concern for your questions and worries	Your trust in the skill of the care providers	How well the staff worked together to care for you	Likelihood of your recommending this facility to others
Characteristic	Levels											
	15-24			0.32 (0.13, 0.77)								0.16 (0.03, 0.73)
	25-34							0.58 (0.35, 0.97)			0.56 (0.33, 0.95)	
	35-44	0.6 (0.43, 0.83)						0.57 (0.41, 0.8)	0.57 (0.41, 0.78)	0.44 (0.31, 0.61)	0.7 (0.5, 0.98)	0.35 (0.35, 0.35)
Age Group (control: 65- 74 year olds)	45-54	0.69 (0.54, 0.87)	0.63 (0.5, 0.79)		0.69 (0.55, 0.88)				0.54 (0.43, 0.68)	0.56 (0.43, 0.71)	0.76 (0.6, 0.97)	0.49 (0.33, 0.74)
	55-64							0.83 (0.69, 0.99)	0.77 (0.64, 0.93)	0.79 (0.64, 0.96)	0.8 (0.66, 0.96)	0.65 (0.49, 0.85)
	75-84											
	85+											
Gender (control: Female)	Male									1.15 (1.03, 1.28)		1.03 (1.03, 1.03)
	Asian				0.61 (0.38, 0.99)				0.62 (0.39, 0.99)	0.52 (0.32, 0.85)	0.55 (0.34, 0.89)	
	Black		0.78 (0.63, 0.96)	0.66 (0.53, 0.82)	0.68 (0.55, 0.84)	0.69 (0.54, 0.86)	0.63 (0.52, 0.78)		0.8 (0.64, 0.99)	0.64 (0.51, 0.8)	0.68 (0.55, 0.85)	
Race/Ethnicity (control: White Non-Hispanic)	Hispanic											
Race/Edimerty (control: White Non-Inspanie)	More than one											
	race/Other	0.49 (0.27, 0.89)	0.39 (0.22, 0.68)	0.44 (0.24, 0.8)	0.37 (0.2, 0.68)	0.32 (0.18, 0.6)	0.51 (0.28, 0.92)	0.42 (0.23, 0.75)	0.5 (0.28, 0.92)	0.34 (0.18, 0.62)	0.25 (0.14, 0.45)	0.16 (0.06, 0.46)
	Missing	0.52 (0.38, 0.7)	0.53 (0.4, 0.71)	0.46 (0.34, 0.61)	0.4 (0.3, 0.54)	0.43 (0.31, 0.59)	0.45 (0.33, 0.59)	0.47 (0.35, 0.63)	0.51 (0.38, 0.69)	0.46 (0.34, 0.63)	0.46 (0.34, 0.63)	
	НМОРРО	1.23 (1.03, 1.48)		1.32 (1.11, 1.57)	1.47 (1.23, 1.76)			1.21 (1.01, 1.44)	1.23 (1.03, 1.47)			1.17 (1.17, 1.17)
	Other Insurance											
Payor (control: Medicare)	MEDICAID											
	Charity				1.61 (1.02, 2.53)							
	Self Pay						0.59 (0.35, 0.97)					22.95 (1.18, 444.98)

Care providers' efforts to include you in decisions about your treatment

			95% Odds	
			Estimate	
			Confidence	
Characteristic	Levels	Odds Estimate	Interval	p-value
	15-24	0.78	(0.29, 2.07)	0.61
Age Group (control: 65 - 74)	25-34	0.66	(0.39, 1.11)	0.12
	35-44	0.60	(0.43, 0.83)	0.00
	45-54	0.69	(0.54, 0.87)	0.00
	55-64	0.85	(0.7, 1.02)	0.08
	75-84	0.90	(0.79, 1.02)	0.10
	85+	0.91	(0.67, 1.24)	0.56
Gender (control: Female)	Male	0.97	(0.87, 1.07)	0.51
	Charity	1.29	(0.81, 2.04)	0.28
	НМОРРО	1.23	(1.03, 1.48)	0.02
Payor (control: Medicare)	Medicaid	0.74	(0.5, 1.1)	0.13
	Other Insurance	1.03	(0.76, 1.4)	0.84
	Self Pay	0.66	(0.39, 1.11)	0.12
	Asian	0.68	(0.42, 1.08)	0.10
Race/Ethnicity (control: White, Non-Hispanic)	Black	0.87	(0.7, 1.09)	0.22
	Hispanic	1.18	(0.97, 1.44)	0.10
	Missing	0.52	(0.38, 0.7)	0.00
	More than one race/Other	0.49	(0.27, 0.89)	0.02

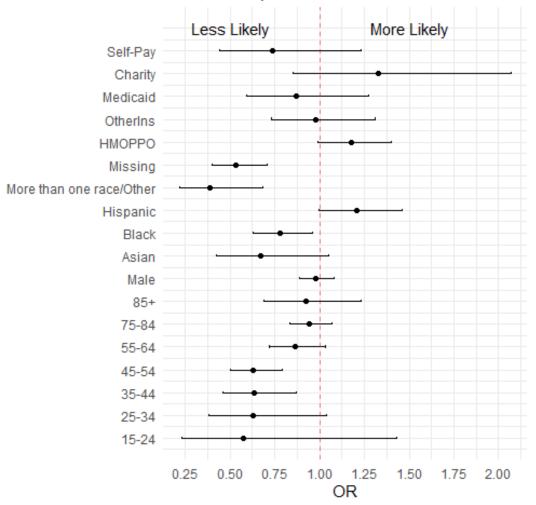
CPs efforts to include you in decisions about your treatment



Care providers' discussion of your treatment options

Characteristic	Levels	Odds Estimate	95% Odds Estimate Confidence Interval	p-value
Age Group (control: 65 - 74)	15-24	0.58	(0.23, 1.43)	0.23
	25-34	0.63	(0.38, 1.04)	0.07
	35-44	0.63	(0.46, 0.87)	0.00
	45-54	0.63	(0.5, 0.79)	0.00
	55-64	0.86	(0.72, 1.03)	0.10
	75-84	0.94	(0.83, 1.07)	0.35
	85+	0.92	(0.69, 1.23)	0.58
Gender (control: Female)	Male	0.98	(0.89, 1.08)	0.66
	Charity	1.33	(0.85, 2.07)	0.21
	НМОРРО	1.18	(0.99, 1.4)	0.06
Payor (control: Medicare)	Medicaid	0.87	(0.59, 1.28)	0.47
	Other Insurance	0.98	(0.73, 1.31)	0.88
	Self Pay	0.74	(0.44, 1.23)	0.24
	Asian	0.67	(0.42, 1.05)	0.08
	Black	0.78	(0.63, 0.96)	0.02
Race/Ethnicity (control: White, Non-Hispanic)	Hispanic	1.21	(1, 1.46)	0.05
	Missing	0.53	(0.4, 0.71)	0.00
	More than one race/Other	0.39	(0.22, 0.68)	0.00

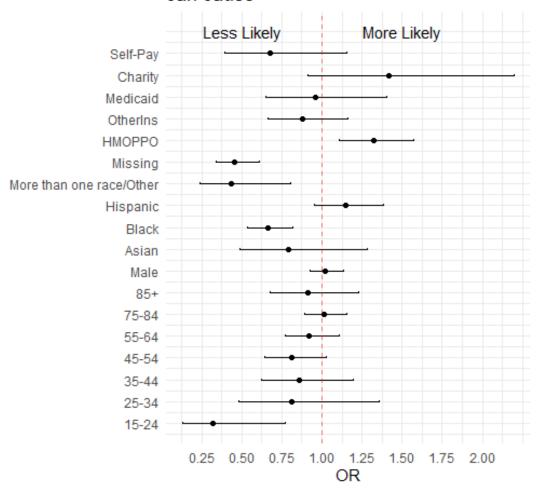
CPs discussion of your treatment options



Staff's sensitivity to the difficulties that your condition and treatment can cause

			95% Odds	
			Estimate	
			Confidence	
Characteristic	Levels	Odds Estimate	Interval	p-value
	15-24	0.32	(0.13, 0.77)	0.01
Age Group (control: 65 - 74)	25-34	0.81	(0.48, 1.35)	0.42
	35-44	0.86	(0.62, 1.2)	0.37
	45-54	0.81	(0.64, 1.03)	0.08
	55-64	0.92	(0.77, 1.1)	0.38
	75-84	1.01	(0.89, 1.15)	0.84
	85+	0.91	(0.68, 1.23)	0.56
Gender (control: Female)	Male	1.02	(0.92, 1.13)	0.68
	Charity	1.42	(0.91, 2.2)	0.12
	НМОРРО	1.32	(1.11, 1.57)	0.00
Payor (control: Medicare)	Medicaid	0.96	(0.65, 1.41)	0.82
	Other Insurance	0.88	(0.66, 1.16)	0.35
	Self Pay	0.68	(0.4, 1.15)	0.15
	Asian	0.79	(0.49, 1.28)	0.34
Race/Ethnicity (control: White, Non-Hispanic)	Black	0.66	(0.53, 0.82)	0.00
	Hispanic	1.15	(0.95, 1.39)	0.15
	Missing	0.46	(0.34, 0.61)	0.00
	More than one race/Other	0.44	(0.24, 0.8)	0.01

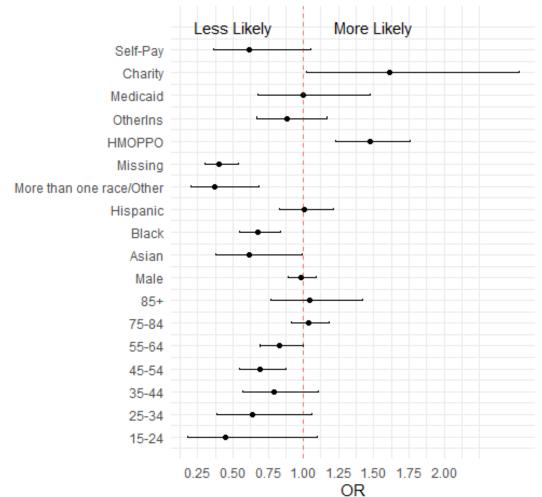
Staff sensitivity to the difficulties that your condition and treatment can cause



Efforts to include you in decisions about your treatment

			95% Odds Estimate Confidence	
Characteristic	Levels	Odds Estimate	Interval	p-value
Age Group (control: 65 - 74)	15-24	0.45	(0.18, 1.1)	0.08
	25-34	0.64	(0.38, 1.06)	0.08
	35-44	0.79	(0.57, 1.11)	0.18
	45-54	0.69	(0.55, 0.88)	0.00
	55-64	0.83	(0.69, 1)	0.05
	75-84	1.04	(0.91, 1.18)	0.58
	85+	1.05	(0.77, 1.42)	0.77
Gender (control: Female)	Male	0.98	(0.89, 1.09)	0.77
	Charity	1.61	(1.02, 2.53)	0.04
	НМОРРО	1.47	(1.23, 1.76)	0.00
Payor (control: Medicare)	Medicaid	1.00	(0.67, 1.47)	0.98
	Other Insurance	0.88	(0.67, 1.17)	0.38
	Self Pay	0.62	(0.36, 1.05)	0.07
	Asian	0.61	(0.38, 0.99)	0.05
Race/Ethnicity (control: White, Non-Hispanic)	Black	0.68	(0.55, 0.84)	0.00
	Hispanic	1.00	(0.83, 1.21)	0.97
	Missing	0.40	(0.3, 0.54)	0.00
	More than one race/Other	0.37	(0.2, 0.68)	0.00

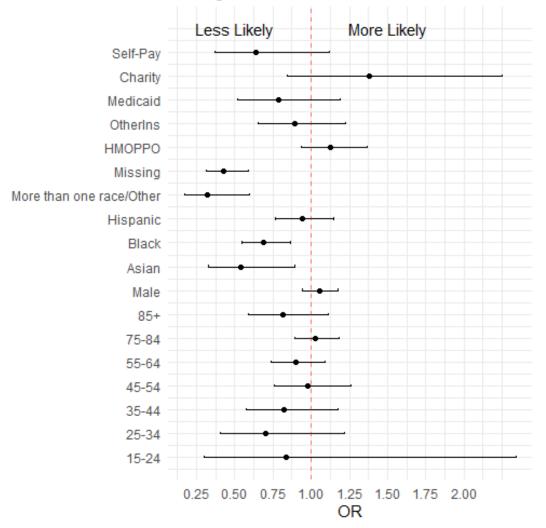
Efforts to include you in decisions about your treatment



Caring manner of the nurses

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			95% Odds	
			Estimate	
			Confidence	
Characteristic	Levels	Odds Estimate	Interval	p-value
Age Group (control: 65 - 74)	15-24	0.84	(0.3, 2.34)	0.74
	25-34	0.71	(0.41, 1.22)	0.21
	35-44	0.82	(0.58, 1.17)	0.28
	45-54	0.98	(0.76, 1.26)	0.87
	55-64	0.90	(0.74, 1.09)	0.29
	75-84	1.03	(0.9, 1.18)	0.68
	85+	0.81	(0.59, 1.11)	0.20
Gender (control: Female)	Male	1.05	(0.94, 1.18)	0.35
	Charity	1.38	(0.84, 2.25)	0.20
	НМОРРО	1.13	(0.93, 1.36)	0.21
Payor (control: Medicare)	Medicaid	0.78	(0.52, 1.19)	0.26
	Other Insurance	0.89	(0.65, 1.23)	0.49
	Self Pay	0.64	(0.37, 1.12)	0.12
	Asian	0.54	(0.33, 0.89)	0.02
Race/Ethnicity (control: White, Non-Hispanic)	Black	0.69	(0.54, 0.86)	0.00
	Hispanic	0.94	(0.77, 1.15)	0.55
	Missing	0.43	(0.31, 0.59)	0.00
	More than one race/Other	0.32	(0.18, 0.6)	0.00

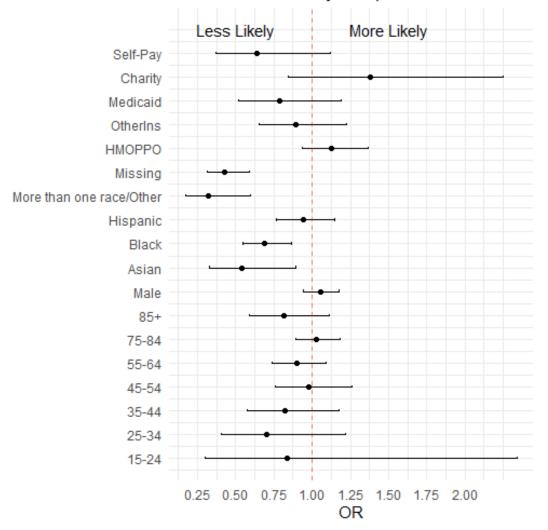
Caring manner of the nurses



Nurses answer to your questions

Characteristic	Levels	Odds Estimate	95% Odds Estimate Confidence Interval	p-value
	15-24	0.84	(0.3, 2.34)	0.68
	25-34	0.71	(0.41, 1.22)	0.13
	35-44	0.82	(0.58, 1.17)	0.44
Age Group (control: 65 - 74)	45-54	0.98	(0.76, 1.26)	0.23
	55-64	0.90	(0.74, 1.09)	0.65
	75-84	1.03	(0.9, 1.18)	0.88
	85+	0.81	(0.59, 1.11)	0.26
Gender (control: Female)	Male	1.05	(0.94, 1.18)	0.28
	Charity	1.38	(0.84, 2.25)	0.24
	НМОРРО	1.13	(0.93, 1.36)	0.35
Payor (control: Medicare)	Medicaid	0.78	(0.52, 1.19)	0.22
	Other Insurance	0.89	(0.65, 1.23)	0.32
	Self Pay	0.64	(0.37, 1.12)	0.04
	Asian	0.54	(0.33, 0.89)	0.12
Race/Ethnicity (control: White, Non-Hispanic)	Black	0.69	(0.54, 0.86)	0.00
	Hispanic	0.94	(0.77, 1.15)	0.87
	Missing	0.43	(0.31, 0.59)	0.00
	More than one race/Other	0.32	(0.18, 0.6)	0.03

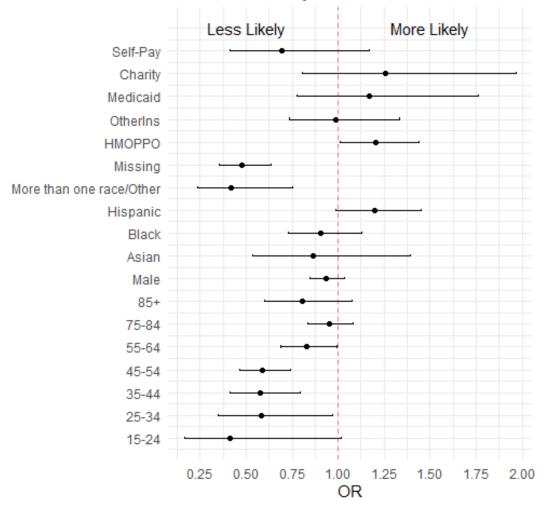
Nurses answer to your questions



How well the care providers kept you informed about your condition

			95% Odds	
			Estimate	
			Confidence	
Characteristic	Levels	Odds Estimate	Interval	p-value
	15-24	0.41	(0.17, 1.02)	0.05
	25-34	0.58	(0.35, 0.97)	0.04
	35-44	0.57	(0.41, 0.8)	0.00
Age Group (control: 65 - 74)	45-54	0.59	(0.46, 0.74)	0.00
	55-64	0.83	(0.69, 0.99)	0.04
	75-84	0.95	(0.84, 1.08)	0.42
	85+	0.80	(0.6, 1.07)	0.14
Gender (control: Female)	Male	0.94	(0.85, 1.04)	0.21
	Charity	1.26	(0.8, 1.97)	0.32
	НМОРРО	1.21	(1.01, 1.44)	0.04
Payor (control: Medicare)	Medicaid	1.17	(0.78, 1.76)	0.46
	Other Insurance	0.99	(0.74, 1.33)	0.95
	Self Pay	0.69	(0.41, 1.17)	0.17
Race/Ethnicity (control: White, Non-Hispanic)	Asian	0.86	(0.53, 1.39)	0.54
	Black	0.91	(0.73, 1.13)	0.38
	Hispanic	1.20	(0.99, 1.45)	0.07
	Missing	0.47	(0.35, 0.63)	0.00
	More than one race/Other	0.42	(0.23, 0.75)	0.00

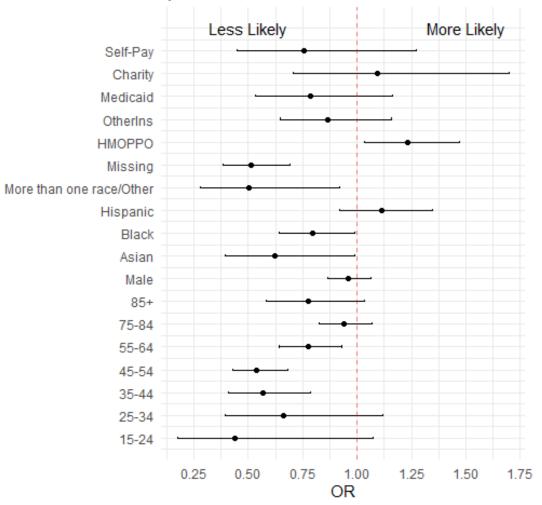
How well the CPs kept you informed about your condition



Care providers' concern for your questions and worries

			95% Odds	
			Estimate	
			Confidence	
Characteristic	Levels	Odds Estimate	Interval	p-value
	15-24	0.44	(0.18, 1.08)	0.07
	25-34	0.66	(0.39, 1.12)	0.12
	35-44	0.57	(0.41, 0.78)	0.00
Age Group (control: 65 - 74)	45-54	0.54	(0.43, 0.68)	0.00
	55-64	0.77	(0.64, 0.93)	0.01
	75-84	0.94	(0.83, 1.07)	0.34
	85+	0.78	(0.58, 1.04)	0.09
Gender (control: Female)	Male	0.96	(0.87, 1.06)	0.42
	Charity	1.09	(0.7, 1.7)	0.69
	НМОРРО	1.23	(1.03, 1.47)	0.02
Payor (control: Medicare)	Medicaid	0.79	(0.53, 1.16)	0.23
	Other Insurance	0.87	(0.65, 1.16)	0.33
	Self Pay	0.75	(0.45, 1.27)	0.29
Race/Ethnicity (control: White, Non-Hispanic)	Asian	0.62	(0.39, 0.99)	0.04
	Black	0.80	(0.64, 0.99)	0.04
	Hispanic	1.11	(0.92, 1.35)	0.27
	Missing	0.51	(0.38, 0.69)	0.00
	More than one race/Other	0.50	(0.28, 0.92)	0.03

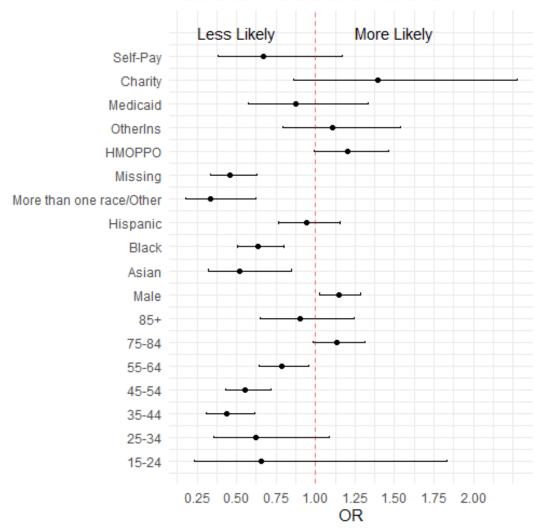
CPs concern for your questions and worries



Your trust in the skill of the care providers

			95% Odds	
			Estimate	
			Confidence	
Characteristic	Levels	Odds Estimate	Interval	p-value
	15-24	0.66	(0.23, 1.83)	0.42
	25-34	0.62	(0.36, 1.09)	0.10
	35-44	0.44	(0.31, 0.61)	0.00
Age Group (control: 65 - 74)	45-54	0.56	(0.43, 0.71)	0.00
	55-64	0.79	(0.64, 0.96)	0.02
	75-84	1.14	(0.99, 1.31)	0.08
	85+	0.90	(0.65, 1.25)	0.53
Gender (control: Female)	Male	1.15	(1.03, 1.28)	0.01
	Charity	1.40	(0.86, 2.28)	0.18
	НМОРРО	1.21	(0.99, 1.46)	0.06
Payor (control: Medicare)	Medicaid	0.87	(0.57, 1.33)	0.53
	Other Insurance	1.11	(0.8, 1.54)	0.55
	Self Pay	0.67	(0.39, 1.17)	0.16
Race/Ethnicity (control: White, Non-Hispanic)	Asian	0.52	(0.32, 0.85)	0.01
	Black	0.64	(0.51, 0.8)	0.00
	Hispanic	0.94	(0.77, 1.16)	0.57
	Missing	0.46	(0.34, 0.63)	0.00
	More than one race/Other	0.34	(0.18, 0.62)	0.00

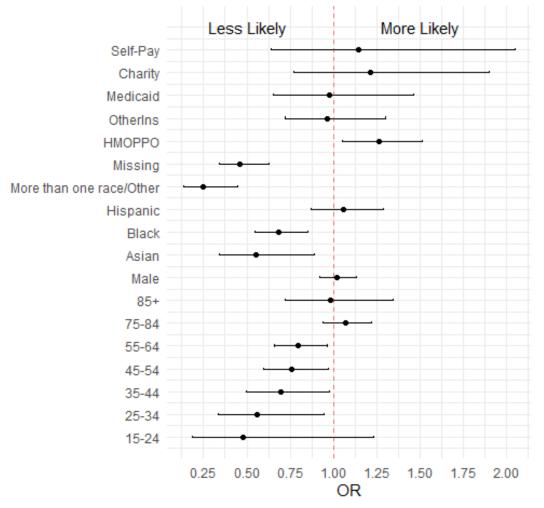
Your trust in the skill of the CPs



How well the staff worked together to care for you

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			95% Odds	
			Estimate	
			Confidence	
Characteristic	Levels	Odds Estimate	Interval	p-value
	15-24	0.48	(0.19, 1.23)	0.13
	25-34	0.56	(0.33, 0.95)	0.03
	35-44	0.70	(0.5, 0.98)	0.04
Age Group (control: 65 - 74)	45-54	0.76	(0.6, 0.97)	0.03
	55-64	0.80	(0.66, 0.96)	0.02
	75-84	1.07	(0.94, 1.22)	0.31
	85+	0.99	(0.72, 1.34)	0.93
Gender (control: Female)	Male	1.02	(0.92, 1.13)	0.72
	Charity	1.21	(0.77, 1.9)	0.40
	НМОРРО	1.26	(1.05, 1.51)	0.01
Payor (control: Medicare)	Medicaid	0.98	(0.65, 1.46)	0.91
	Other Insurance	0.97	(0.72, 1.3)	0.82
	Self Pay	1.14	(0.64, 2.05)	0.65
Race/Ethnicity (control: White, Non-Hispanic)	Asian	0.55	(0.34, 0.89)	0.01
	Black	0.68	(0.55, 0.85)	0.00
	Hispanic	1.06	(0.87, 1.29)	0.58
	Missing	0.46	(0.34, 0.63)	0.00
	More than one race/Other	0.25	(0.14, 0.45)	0.00

How well the staff worked together to care for you



Likelihood of your recommending this facility to others

			95% Odds	
			Estimate	
			Confidence	
Characteristic	Levels	Odds Estimate	Interval	p-value
	15-24	0.16	(0.03, 0.73)	0.02
	25-34	2.09	(0.23, 18.63)	0.51
	35-44	0.35	(0.35, 0.35)	0.00
Age Group (control: 65 - 74)	45-54	0.49	(0.33, 0.74)	0.00
	55-64	0.65	(0.49, 0.85)	0.00
	75-84	1.06	(0.8, 1.39)	0.71
	85+	0.79	(0.39, 1.6)	0.51
Gender (control: Female)	Male	1.03	(1.03, 1.03)	0.00
	Charity	1.17	(0.46, 3)	0.74
	НМОРРО	1.17	(1.17, 1.17)	0.00
Payor (control: Medicare)	Medicaid	1.52	(0.61, 3.79)	0.37
	Other Insurance	1.39	(0.7, 2.78)	0.35
	Self Pay	22.95	1.18, 444.98	0.04
	Asian	0.64	(0.22, 1.87)	0.42
Race/Ethnicity (control: White, Non-Hispanic)	Black	0.83	(0.49, 1.41)	0.49
	Hispanic	0.97	(0.6, 1.55)	0.89
	Missing	0.56	(0.29, 1.1)	0.10
	More than one race/Other	0.16	(0.06, 0.46)	0.00

Likelihood of your recommending this facility to others

