

TABLE I

CLUSTER ANALYSIS OF DIABETES COHORT (***) FOR FEATURES WHERE $P \ll 1 \times 10^{-8}$, ** WHERE $P < 1 \times 10^{-8}$, * WHERE $P < 1 \times 10^{-7}$

	Description	Cluster 1	Cluster 2	Cluster 3	Cluster 4
HbA1c ***	Mean (std)	6.61 (1.57)	6.91 (1.63)	6.8 (1.59)	6.35 (1.55)
Systolic BP ***	Mean (std)	129.27 (12.85)	132.78 (12.49)	130.95 (12.63)	126.09 (13.85)
Diastolic BP ***	Mean (std)	78 (7.98)	81.24 (7.99)	79.79 (8.02)	75.34 (8.1)
LDL ***	Mean (std)	105.06 (31.68)	104.53 (30.19)	104.9 (31.12)	102.74 (30.83)
Age	<30 **	1,203 (9.6%)	810 (19.42%)	1,214 (13.96%)	904 (10.14%)
	30-39 ***	2,345 (18.7%)	1,132 (27.13%)	1,981 (22.78%)	1,352 (15.16%)
	40-49	3,525 (28.12%)	1,050 (25.17%)	2,447 (28.13%)	2,023 (22.69%)
	50-59	3,086 (24.62%)	582 (13.95%)	1,744 (20.05%)	2,102 (23.58%)
	60-69 ***	1,806 (14.41%)	116 (2.78%)	764 (8.78%)	1,876 (21.04%)
	70+	572 (4.56%)	482 (11.55%)	548 (6.3%)	659 (7.39%)
Income	High	2,644 (21.09%)	588 (14.09%)	1,532 (17.61%)	2,395 (26.86%)
	Low	6,254 (49.88%)	2,410 (57.77%)	4,647 (53.43%)	4,128 (46.3%)
	Medium	3,639 (29.03%)	1,174 (28.14%)	2,519 (28.96%)	2,393 (26.84%)
Insurance	Commercial	6,236 (49.74%)	2,396 (57.43%)	4,609 (52.99%)	4,070 (45.65%)
	Medicaid *	956 (7.63%)	598 (14.33%)	897 (10.31%)	763 (8.56%)
	Medicare *	4,637 (36.99%)	956 (22.91%)	2,698 (31.02%)	3,669 (41.15%)
	Other	27 (0.22%)	3 (0.07%)	25 (0.29%)	19 (0.21%)
	Self-pay	681 (5.43%)	219 (5.25%)	469 (5.39%)	395 (4.43%)
Race-ethnicity	Black or African American **	1,550 (12.36%)	791 (18.96%)	1,312 (15.08%)	945 (10.6%)
	Hispanic / Latino	1,889 (15.07%)	526 (12.61%)	1,169 (13.44%)	1,155 (12.95%)
	Other	619 (4.94%)	96 (2.3%)	301 (3.46%)	918 (10.3%)
	White	8479 (67.63%)	2,759 (66.13%)	5,916 (68.02%)	5,898 (66.15%)
Residence	Metro	10,246 (81.73%)	3,406 (81.64%)	6,928 (79.65%)	7,560 (84.79%)
	Metro-adjacent	1,599 (12.75%)	536 (12.85%)	1,188 (13.66%)	877 (9.84%)
	Rural	692 (5.52%)	230 (5.51%)	582 (6.69%)	479 (5.37%)
Gender	Female	6,039 (48.17%)	2,753 (65.99%)	4,843 (55.68%)	5,025 (56.36%)
	Male	6,498 (51.83%)	1,419 (34.01%)	3,855 (44.32%)	3,891 (43.64%)
True label	Negative	6,401 (51.06%)	1,634 (39.17%)	3,716 (42.72%)	5,410 (60.68%)
	Positive	6,136 (48.94%)	2,538 (60.83%)	4,982 (57.28%)	3,506 (39.32%)
Total		12,537	4,172	8,698	8,916

TABLE II

CLUSTER ANALYSIS OF CANCER COHORT (***) FOR FEATURES WHERE $P \ll 1 \times 10^{-8}$, ** WHERE $P < 1 \times 10^{-8}$, * WHERE $P < 1 \times 10^{-7}$

	Description	Cluster 1	Cluster 2	Cluster 3	Cluster 4
HbA1c ***	Mean (std)	6.51 (1.22)	6.06 (1.04)	6.84 (1.47)	6.37 (1.15)
Systolic BP ***	Mean (std)	130.55 (11.08)	125.88 (13.03)	132.29 (12.46)	129.24 (12.13)
Diastolic BP ***	Mean (std)	77.96 (7.46)	74.06 (7.54)	79.66 (7.75)	76.58 (7.87)
LDL ***	Mean (std)	101.36 (29.82)	100.74 (30.91)	100.65 (29.18)	101.44 (31.18)
Age	<30 **	58 (6.78%)	44 (4.63%)	47 (13.82%)	68 (5.17%)
	30-39 ***	145 (16.94%)	75 (7.89%)	68 (20%)	146 (11.09%)
	40-49	232 (27.1%)	207 (21.79%)	100 (29.41%)	319 (24.24%)
	50-59	258 (30.14%)	277 (29.16%)	86 (25.29%)	401 (30.47%)
	60-69 ***	139 (16.24%)	323 (34%)	23 (6.76%)	364 (27.66%)
	70+	24 (2.8%)	24 (2.53%)	16 (4.71%)	18 (1.37%)
Income	High	173 (20.21%)	290 (30.53%)	36 (10.59%)	313 (23.78%)
	Low	456 (53.27%)	407 (42.84%)	206 (60.59%)	625 (47.49%)
	Medium	227 (26.52%)	253 (26.63%)	98 (28.82%)	378 (28.72%)
Insurance	Commercial	390 (45.56%)	324 (34.11%)	174 (51.18%)	512 (38.91%)
	Medicaid *	59 (6.89%)	44 (4.63%)	33 (9.71%)	62 (4.71%)
	Medicare *	382 (44.63%)	567 (59.68%)	119 (35%)	710 (53.95%)
	Other	1 (0.12%)	2 (0.21%)	0 (0%)	3 (0.23%)
	Self-pay	24 (2.8%)	13 (1.37%)	14 (4.12%)	29 (2.2%)
Race-ethnicity	Black or African American **	117 (13.67%)	80 (8.42%)	59 (17.35%)	166 (12.61%)
	Hispanic / Latino	89 (10.4%)	83 (8.74%)	39 (11.47%)	142 (10.79%)
	Other	28 (3.27%)	70 (7.37%)	8 (2.35%)	56 (4.26%)
	White	622 (72.66%)	717 (75.47%)	234 (68.82%)	952 (72.34%)
Residence	Metro	687 (80.26%)	792 (83.37%)	273 (80.29%)	1,114 (84.65%)
	Metro-adjacent	124 (14.49%)	104 (10.95%)	51 (15%)	135 (10.26%)
	Rural	45 (5.26%)	54 (5.68%)	16 (4.71%)	67 (5.09%)
Gender	Female	453 (52.92%)	551 (58%)	243 (71.47%)	598 (45.44%)
	Male	403 (47.08%)	399 (42%)	97 (28.53%)	718 (54.56%)
True label	Negative	471 (55.02%)	383 (40.32%)	248 (72.94%)	629 (47.8%)
	Positive	385 (44.98%)	567 (59.68%)	92 (27.06%)	687 (52.2%)
Total		856	950	340	1,316

TABLE III

CLUSTER ANALYSIS OF BPH COHORT (***) FOR FEATURES WHERE $P \ll 1 \times 10^{-8}$, ** WHERE $P < 1 \times 10^{-8}$, * WHERE $P < 1 \times 10^{-7}$

	Description	Cluster 1	Cluster 2	Cluster 3	Cluster 4
HbA1c ***	Mean (std)	6.36 (1.24)	6.6 (1.35)	6.19 (1.27)	6.68 (1.38)
Systolic BP ***	Mean (std)	128.85 (12.02)	130.87 (11.4)	127.36 (12.74)	131.92 (10.92)
Diastolic BP ***	Mean (std)	76.81 (7.61)	78.76 (7.7)	75.23 (7.7)	79.24 (7.64)
LDL ***	Mean (std)	99.11 (30.3)	98.39 (29.62)	98.61 (29.48)	100.62 (28.53)
Age	<30 **	70 (3.98%)	71 (6.32%)	54 (4.45%)	49 (11.72%)
	30-39 ***	232 (13.19%)	210 (18.7%)	121 (9.97%)	89 (21.29%)
	40-49	440 (25.01%)	282 (25.11%)	258 (21.25%)	136 (32.54%)
	50-59	606 (34.45%)	372 (33.13%)	387 (31.88%)	90 (21.53%)
	60-69 ***	385 (21.89%)	158 (14.07%)	364 (29.98%)	22 (5.26%)
	70+	26 (1.48%)	30 (2.67%)	30 (2.47%)	32 (7.66%)
Income	High	426 (24.22%)	233 (20.75%)	337 (27.76%)	58 (13.88%)
	Low	824 (46.84%)	553 (49.24%)	533 (43.9%)	237 (56.7%)
	Medium	509 (28.94%)	337 (30.01%)	344 (28.34%)	123 (29.43%)
Insurance	Commercial	750 (42.64%)	508 (45.24%)	436 (35.91%)	229 (54.78%)
	Medicaid *	92 (5.23%)	74 (6.59%)	64 (5.27%)	51 (12.2%)
	Medicare *	873 (49.63%)	498 (44.35%)	688 (56.67%)	123 (29.43%)
	Other	3 (0.17%)	2 (0.18%)	0 (%)	1 (0.24%)
	Self-pay	41 (2.33%)	41 (3.65%)	26 (2.14%)	14 (3.35%)
Race-ethnicity	Black or African American **	168 (9.55%)	115 (10.24%)	113 (9.31%)	72 (17.22%)
	Hispanic / Latino	224 (12.73%)	127 (11.31%)	130 (10.71%)	41 (9.81%)
	Other	69 (3.92%)	42 (3.74%)	123 (10.13%)	8 (1.91%)
	White	1,298 (73.79%)	839 (74.71%)	848 (69.85%)	297 (71.05%)
Residence	Metro	1,447 (82.26%)	897 (79.88%)	1,049 (86.41%)	327 (78.23%)
	Metro-adjacent	209 (11.88%)	153 (13.62%)	113 (9.31%)	65 (15.55%)
	Rural	103 (5.86%)	73 (6.5%)	52 (4.28%)	26 (6.22%)
Gender	Female	403 (22.91%)	340 (30.28%)	313 (25.78%)	224 (53.59%)
	Male	1,356 (77.09%)	783 (69.72%)	901 (74.22%)	194 (46.41%)
Label	Negative	775 (44.06%)	632 (56.28%)	545 (44.89%)	305 (72.97%)
	Positive	984 (55.94%)	491 (43.72%)	669 (55.11%)	113 (27.03%)
Total		1,759	1,123	1,214	418

TABLE IV

CLUSTER ANALYSIS OF HIP FRACTURE AND OSTEOPOROSIS COHORT (***) FOR FEATURES WHERE $P \ll 1 \times 10^{-8}$, ** WHERE $P < 1 \times 10^{-8}$, * WHERE $P < 1 \times 10^{-7}$)

	Description	Cluster 1	Cluster 2	Cluster 3	Cluster 4
HbA1c ***	Mean (std)	6.54 (1.28)	5.93 (0.97)	6.27 (1.16)	6.7 (1.37)
Systolic BP ***	Mean (std)	130.06 (11.2)	125.6 (13.29)	128.19 (12.09)	132.01 (11.63)
Diastolic BP ***	Mean (std)	77.43 (7.15)	73.65 (7.3)	75.56 (7.48)	79.77 (7.36)
LDL ***	Mean (std)	101.88 (29.31)	103.84 (30.51)	103.02 (30.7)	101.33 (28.66)
Age	<30 **	64 (6.61%)	35 (3.06%)	62 (4.3%)	58 (13.84%)
	30-39 ***	153 (15.81%)	69 (6.04%)	128 (8.87%)	82 (19.57%)
	40-49	231 (23.86%)	244 (21.37%)	309 (21.41%)	103 (24.58%)
	50-59	294 (30.37%)	388 (33.98%)	503 (34.86%)	117 (27.92%)
	60-69 ***	202 (20.87%)	388 (33.98%)	409 (28.34%)	32 (7.64%)
	70+	24 (2.48%)	18 (1.58%)	32 (2.22%)	27 (6.44%)
Income	High	157 (16.22%)	351 (30.74%)	330 (22.87%)	55 (13.13%)
	Low	518 (53.51%)	484 (42.38%)	712 (49.34%)	246 (58.71%)
	Medium	293 (30.27%)	307 (26.88%)	401 (27.79%)	118 (28.16%)
Insurance	Commercial	372 (38.43%)	363 (31.79%)	511 (35.41%)	206 (49.16%)
	Medicaid *	73 (7.54%)	44 (3.85%)	72 (4.99%)	47 (11.22%)
	Medicare *	484 (50%)	722 (63.22%)	819 (56.76%)	155 (36.99%)
	Other	2 (0.21%)	0 (%)	0 (%)	1 (0.24%)
	Self-pay	37 (3.82%)	13 (1.14%)	41 (2.84%)	10 (2.39%)
Race-ethnicity	Black or African American **	117 (12.09%)	55 (4.82%)	133 (9.22%)	70 (16.71%)
	Hispanic / Latino	125 (12.91%)	93 (8.14%)	179 (12.4%)	42 (10.02%)
	Other	26 (2.69%)	117 (10.25%)	89 (6.17%)	6 (1.43%)
	White	700 (72.31%)	877 (76.8%)	1,042 (72.21%)	301 (71.84%)
Residence	Metro	781 (80.68%)	977 (85.55%)	1,190 (82.47%)	339 (80.91%)
	Metro-adjacent	136 (14.05%)	117 (10.25%)	165 (11.43%)	61 (14.56%)
	Rural	51 (5.27%)	48 (4.2%)	88 (6.1%)	19 (4.53%)
Gender	Female	657 (67.87%)	986 (86.34%)	983 (68.12%)	307 (73.27%)
	Male	311 (32.13%)	156 (13.66%)	460 (31.88%)	112 (26.73%)
Label	Negative	660 (68.18%)	281 (24.61%)	728 (50.45%)	317 (75.66%)
	Positive	308 (31.82%)	861 (75.39%)	715 (49.55%)	102 (24.34%)
Total		968	1,142	1,443	419

TABLE V
CLUSTER ANALYSIS OF HYPERTENSION COHORT (***) FOR FEATURES WHERE $P \ll 1 \times 10^{-8}$, ** WHERE $P < 1 \times 10^{-8}$, * WHERE $P < 1 \times 10^{-7}$)

	Description	Cluster 1	Cluster 2	Cluster 3	Cluster 4	Cluster 5
HbA1c ***	Mean (std)	6.45 (1.43)	6.02 (1.27)	6.57 (1.5)	6.28 (1.37)	6.59 (1.47)
Systolic BP ***	Mean (std)	130.08 (13.01)	124.22 (14.27)	131.19 (12.91)	128.13 (13.29)	132.96 (12.74)
Diastolic BP ***	Mean (std)	79.29 (8.23)	74.71 (8.24)	80.48 (8.29)	77.53 (8.21)	81.78 (8.35)
LDL ***	Mean (std)	107.05 (31.26)	103.41 (30.78)	106.51 (30.63)	106.77 (31.58)	105.53 (29.4)
Age	<30 **	1,606 (12.83%)	1,105 (12.22%)	1,353 (16.71%)	1,520 (10.59%)	965 (22.57%)
	30-39 ***	2,874 (22.97%)	1,485 (16.42%)	2,010 (24.82%)	2,879 (20.07%)	1,186 (27.74%)
	40-49	3,442 (27.51%)	2,086 (23.07%)	2,133 (26.34%)	3,846 (26.81%)	917 (21.45%)
	50-59	2,584 (20.65%)	1,900 (21.01%)	1,348 (16.65%)	3,244 (22.61%)	451 (10.55%)
	60-69 ***	1,181 (9.44%)	1,669 (18.46%)	478 (5.9%)	2,016 (14.05%)	100 (2.34%)
	70+	826 (6.6%)	798 (8.82%)	776 (9.58%)	842 (5.87%)	656 (15.35%)
Income	High	2,657 (21.23%)	2,776 (30.7%)	1,465 (18.09%)	3,550 (24.74%)	599 (14.01%)
	Low	6,282 (50.2%)	3,799 (42.01%)	4,349 (53.7%)	6,807 (47.45%)	2,463 (57.61%)
	Medium	3,574 (28.56%)	2,468 (27.29%)	2,284 (28.2%)	3,990 (27.81%)	1,213 (28.37%)
Insurance	Commercial	6,919 (55.29%)	4,535 (50.15%)	4,587 (56.64%)	7,502 (52.29%)	2,524 (59.04%)
	Medicaid *	1,170 (9.35%)	787 (8.7%)	949 (11.72%)	1,168 (8.14%)	709 (16.58%)
	Medicare *	3,677 (29.39%)	3,406 (37.66%)	2,067 (25.52%)	4,862 (33.89%)	834 (19.51%)
	Other	23 (0.18%)	16 (0.18%)	22 (0.27%)	33 (0.23%)	2 (0.05%)
	Self-pay	724 (5.79%)	299 (3.31%)	473 (5.84%)	782 (5.45%)	206 (4.82%)
Race-ethnicity	Black or African American **	1,567 (12.52%)	783 (8.66%)	1,228 (15.16%)	1,493 (10.41%)	796 (18.62%)
	Hispanic / Latino	1,986 (15.87%)	1,074 (11.88%)	1,193 (14.73%)	2,209 (15.4%)	547 (12.8%)
	Other	537 (4.29%)	1,127 (12.46%)	274 (3.38%)	981 (6.84%)	90 (2.11%)
	White	8,423 (67.31%)	6,059 (67%)	5,403 (66.72%)	9,664 (67.36%)	2,842 (66.48%)
Residence	Metro	10,335 (82.59%)	7,857 (86.88%)	6,566 (81.08%)	12,051 (84%)	3,536 (82.71%)
	Metro-adjacent	1,462 (11.68%)	792 (8.76%)	1,045 (12.9%)	1,529 (10.66%)	527 (12.33%)
	Rural	716 (5.72%)	394 (4.36%)	487 (6.01%)	767 (5.35%)	212 (4.96%)
Gender	Female	6,380 (50.99%)	5,673 (62.73%)	4945 (61.06%)	6,915 (48.2%)	2,947 (68.94%)
	Male	6,133 (49.01%)	3,370 (37.27%)	3,153 (38.94%)	7,432 (51.8%)	1,328 (31.06%)
Label	Negative	5,652 (45.17%)	5,729 (63.35%)	3,433 (42.39%)	7,642 (53.27%)	1,682 (39.35%)
	Positive	6,861 (54.83%)	3,314 (36.65%)	4,665 (57.61%)	6,705 (46.73%)	2,593 (60.65%)
Total		12,513	9,043	8,098	14,347	4,275

TABLE VI

CLUSTER ANALYSIS OF ALZHEIMER'S AND DEMENTIA COHORT (***) FOR FEATURES WHERE $P \ll 1 \times 10^{-8}$, ** WHERE $P < 1 \times 10^{-8}$, * WHERE $P < 1 \times 10^{-7}$)

	Description	Cluster 1	Cluster 2	Cluster 3	Cluster 4
HbA1c ***	Mean (std)	6.78 (1.31)	6.9 (1.2)	6.2 (0.68)	6.5 (1.23)
Systolic BP ***	Mean (std)	130.56 (10.9)	126.82 (6.18)	130.98 (18.25)	128.25 (12.06)
Diastolic BP ***	Mean (std)	77.08 (7.57)	77.01 (3.64)	73.81 (9.82)	73.76 (7.47)
LDL ***	Mean (std)	97.32 (28.03)	79.86 (12.13)	99.27 (25.22)	95.3 (28.48)
Age	<30 **	156 (7.58%)	0 (%)	0 (%)	153 (3.76%)
	30-39 ***	306 (14.87%)	0 (%)	0 (%)	289 (7.11%)
	40-49	394 (19.14%)	0 (%)	0 (%)	471 (11.58%)
	50-59	553 (26.87%)	3 (50%)	1 (14.29%)	849 (20.88%)
	60-69 ***	566 (27.5%)	3 (50%)	6 (85.71%)	2,212 (54.4%)
	70+	83 (4.03%)	0 (%)	0 (%)	92 (2.26%)
Income	High	304 (14.77%)	1 (16.67%)	(%)	771 (18.96%)
	Low	1,180 (57.34%)	4 (66.67%)	6 (85.71%)	2,264 (55.68%)
	Medium	574 (27.89%)	1 (16.67%)	1 (14.29%)	1,031 (25.36%)
Insurance	Commercial	718 (34.89%)	0 (%)	1 (14.29%)	902 (22.18%)
	Medicaid *	144 (7%)	0 (%)	0 (%)	140 (3.44%)
	Medicare *	1,141 (55.44%)	6 (100%)	6 (85.71%)	2,960 (72.8%)
	Other	3 (0.15%)	0 (%)	0 (%)	7 (0.17%)
	Self-pay	52 (2.53%)	0 (%)	0 (%)	57 (1.4%)
Race-ethnicity	Black or African American **	275 (13.36%)	1 (16.67%)	2 (28.57%)	421 (10.35%)
	Hispanic / Latino	217 (10.54%)	0 (%)	0 (%)	526 (12.94%)
	Other	65 (3.16%)	0 (%)	0 (%)	272 (6.69%)
	White	1,501 (72.93%)	5 (83.33%)	5 (71.43%)	2,847 (70.02%)
Residence	Metro	1,584 (76.97%)	5 (83.33%)	7 (100%)	3,298 (81.11%)
	Metro-adjacent	347 (16.86%)	1 (16.67%)	0 (%)	562 (13.82%)
	Rural	127 (6.17%)	(%)	(%)	206 (5.07%)
Gender	Female	1,232 (59.86%)	3 (50%)	5 (71.43%)	2,279 (56.05%)
	Male	826 (40.14%)	3 (50%)	2 (28.57%)	1,787 (43.95%)
Label	Negative	1,355 (65.84%)	0 (%)	1 (14.29%)	1,713 (42.13%)
	Positive	703 (34.16%)	6 (100%)	6 (85.71%)	2,353 (57.87%)
Total		2,058	6	7	4,066

TABLE VII

CLUSTER ANALYSIS OF STROKE COHORT (***) FOR FEATURES WHERE $P \ll 1 \times 10^{-8}$, ** WHERE $P < 1 \times 10^{-8}$, * WHERE $P < 1 \times 10^{-7}$

	Description	Cluster 1	Cluster 2	Cluster 3	Cluster 4
HbA1c ***	Mean (std)	6.9 (1.4)	6.5 (1.28)	6.79 (1.45)	6.24 (1.18)
Systolic BP ***	Mean (std)	132.52 (11.71)	129.65 (12.53)	130.19 (12.57)	127.86 (13.94)
Diastolic BP ***	Mean (std)	80.31 (7.61)	76.79 (8.43)	77.79 (8.33)	74.48 (7.97)
LDL ***	Mean (std)	96.56 (27.34)	96.22 (31.38)	97.19 (31.54)	95.37 (30.34)
Age	<30 **	24 (13.04%)	25 (4.03%)	27 (6.08%)	20 (4.44%)
	30-39 ***	46 (25%)	79 (12.74%)	81 (18.24%)	32 (7.11%)
	40-49	54 (29.35%)	162 (26.13%)	125 (28.15%)	80 (17.78%)
	50-59	36 (19.57%)	183 (29.52%)	112 (25.23%)	104 (23.11%)
	60-69 ***	12 (6.52%)	159 (25.65%)	81 (18.24%)	192 (42.67%)
	70+	12 (6.52%)	12 (1.94%)	18 (4.05%)	22 (4.89%)
Income	High	32 (17.39%)	142 (22.9%)	69 (15.54%)	96 (21.33%)
	Low	99 (53.8%)	296 (47.74%)	243 (54.73%)	224 (49.78%)
	Medium	53 (28.8%)	182 (29.35%)	132 (29.73%)	130 (28.89%)
Insurance	Commercial	97 (52.72%)	225 (36.29%)	184 (41.44%)	129 (28.67%)
	Medicaid *	22 (11.96%)	39 (6.29%)	47 (10.59%)	22 (4.89%)
	Medicare *	57 (30.98%)	328 (52.9%)	192 (43.24%)	285 (63.33%)
	Other	1 (0.54%)	3 (0.48%)	1 (0.23%)	1 (0.22%)
	Self-pay	7 (3.8%)	25 (4.03%)	20 (4.5%)	13 (2.89%)
Race-ethnicity	Black or African American **	34 (18.48%)	69 (11.13%)	67 (15.09%)	50 (11.11%)
	Hispanic / Latino	13 (7.07%)	77 (12.42%)	46 (10.36%)	35 (7.78%)
	Other	6 (3.26%)	25 (4.03%)	18 (4.05%)	36 (8%)
	White	131 (71.2%)	449 (72.42%)	313 (70.5%)	329 (73.11%)
Residence	Metro	146 (79.35%)	502 (80.97%)	344 (77.48%)	365 (81.11%)
	Metro-adjacent	28 (15.22%)	79 (12.74%)	82 (18.47%)	49 (10.89%)
	Rural	10 (5.43%)	39 (6.29%)	18 (4.05%)	36 (8%)
Gender	Female	111 (60.33%)	265 (42.74%)	228 (51.35%)	238 (52.89%)
	Male	73 (39.67%)	355 (57.26%)	216 (48.65%)	212 (47.11%)
Label	Negative	126 (68.48%)	300 (48.39%)	235 (52.93%)	188 (41.78%)
	Positive	58 (31.52%)	320 (51.61%)	209 (47.07%)	262 (58.22%)
Total		184	620	444	450

TABLE VIII

CLUSTER ANALYSIS OF OBESITY COHORT (***) FOR FEATURES WHERE $P \ll 1 \times 10^{-8}$, ** WHERE $P < 1 \times 10^{-8}$, * WHERE $P < 1 \times 10^{-7}$

	Description	Cluster 1	Cluster 2	Cluster 3	Cluster 4
HbA1c ***	Mean (std)	6.27 (1.29)	6.43 (1.38)	6.49 (1.41)	6.33 (1.29)
Diastolic BP ***	Mean (std)	75.02 (7.58)	79.68 (7.92)	81.47 (8.08)	77.97 (7.8)
LDL ***	Mean (std)	100.87 (29.78)	105.85 (30.1)	104.8 (29.2)	104.85 (30.55)
Systolic BP ***	Mean (std)	126.39 (12.93)	129.98 (12.48)	132.27 (12.53)	128.63 (12.23)
Age	<30 **	451 (6.19%)	934 (11.02%)	802 (17.93%)	904 (7.3%)
	30-39 ***	605 (8.31%)	1,445 (17.05%)	996 (22.27%)	1,478 (11.94%)
	40-49	975 (13.39%)	1,910 (22.53%)	1,056 (23.61%)	2,396 (19.36%)
	50-59	1,620 (22.24%)	2,049 (24.17%)	951 (21.27%)	3,096 (25.02%)
	60-69 ***	1,782 (24.46%)	1,514 (17.86%)	542 (12.12%)	2,799 (22.62%)
	70+	1,851 (25.41%)	624 (7.36%)	125 (2.8%)	1,703 (13.76%)
Income	High	1,896 (26.03%)	1,651 (19.48%)	723 (16.17%)	2,648 (21.4%)
	Low	3,453 (47.41%)	4,476 (52.81%)	2,509 (56.1%)	6,232 (50.36%)
	Medium	1,935 (26.57%)	2,349 (27.71%)	1,240 (27.73%)	3,496 (28.25%)
Insurance	Commercial	3,148 (43.22%)	4,859 (57.33%)	2,663 (59.55%)	6,498 (52.5%)
	Medicaid *	523 (7.18%)	910 (10.74%)	705 (15.76%)	924 (7.47%)
	Medicare *	3,363 (46.17%)	2,212 (26.1%)	873 (19.52%)	4,278 (34.57%)
	Other	10 (0.14%)	16 (0.19%)	5 (0.11%)	17 (0.14%)
	Self-pay	240 (3.29%)	479 (5.65%)	226 (5.05%)	659 (5.32%)
Race-ethnicity	Black or African American **	745 (10.23%)	1,347 (15.89%)	913 (20.42%)	1,576 (12.73%)
	Hispanic / Latino	917 (12.59%)	1,231 (14.52%)	555 (12.41%)	1,927 (15.57%)
	Other	661 (9.07%)	329 (3.88%)	101 (2.26%)	611 (4.94%)
	White	4,961 (68.11%)	5,569 (65.7%)	2,903 (64.92%)	8,262 (66.76%)
Residence	Metro	6,026 (82.73%)	6,953 (82.03%)	3,682 (82.33%)	10,292 (83.16%)
	Metro-adjacent	848 (11.64%)	1,046 (12.34%)	577 (12.9%)	1,406 (11.36%)
	Rural	410 (5.63%)	477 (5.63%)	213 (4.76%)	678 (5.48%)
Gender	Female	4,016 (55.13%)	5,110 (60.29%)	3,039 (67.96%)	6,336 (51.2%)
	Male	3,268 (44.87%)	3,366 (39.71%)	1,433 (32.04%)	6,040 (48.8%)
Label	Negative	7,109 (97.6%)	2,428 (28.65%)	940 (21.02%)	5,827 (47.08%)
	Positive	175 (2.4%)	6,048 (71.35%)	3,532 (78.98%)	6,549 (52.92%)
Total		7,284	8,476	4,472	12,376