Table 1: Selected Characteristics of the Healthy Nevada Project Cohort by Recruitment Regime

		Recruiti			own
Variable	All HNP	Renown	UMC	2018-2019	2020-2022
Genetic Sex	N = 46,143	N = 39,329	N = 6.814	N = 30,099	N = 9,230
Female	66.9	66.9	66.5	66.4	68.8
Genetic Ancestry					
European	72.8	76.4	52.2	76.5	76.0
Latin American	15.1	14.3	19.5	14.4	13.8
East Asian	4.1	3.1	10.0	3.1	3.4
South Asian	0.6	0.6	0.7	0.6	0.6
African	3.4	2.0	11.6	1.9	2.3
Other	4.0	3.7	6.0	3.6	3.8
Self-Reported Race					
White	76.4	80.1	54.9	79.8	81.1
Hispanic or Latino	11.0	9.8	17.8	10.2	8.5
Asian	4.6	3.8	9.7	3.7	4.0
Black	3.0	1.7	10.1	1.6	2.1
Pacific Islander	0.9	0.7	2.0	0.7	0.7
Native American	1.1	1.2	0.7	1.2	1.1
Other	3.1	2.8	4.8	2.8	2.4
Age Group (years)					
18-24	7.9	8.0	7.1	8.7	5.8
25 - 34	17.0	16.8	18.2	17.8	13.7
35 - 44	16.6	15.8	21.1	15.2	17.8
45-54	17.2	16.3	22.3	15.3	19.7
55-64	18.8	18.9	17.9	19.2	17.8
65 - 74	16.3	17.5	9.4	17.1	18.7
75+	6.2	6.6	4.0	6.6	6.5
Educational Attainment	N = 17,439	N = 15,584	N = 1,855	N = 13,300	N = 2,284
Less than High School	1.1	1.1	0.9	1.1	1.2
GED or Equivalent	2.3	2.3	1.8	2.3	2.7
High School Graduate	9.0	8.9	9.5	9.1	8.3
Some College, no Degree	25.7	25.8	25.1	25.9	25.4
Associate Degree	12.2	12.2	11.5	12.3	11.7
Bachelor Degree	27.9	27.9	27.6	28.2	26.4
Advanced Degree	21.9	21.7	23.6	21.2	24.4
State of Residence					
Nevada	96.8	96.4	99.2	96.5	95.8
Clark County	15.9	1.0	99.2	0.9	1.4
Washoe County	67.7	79.7	_	79.2	81.2
Other County	16.5	19.3	0.8	19.9	17.4
California	1.8	2.0	0.3	1.7	3.0
Other U.S.	1.4	1.6	0.5	1.7	1.1

Notes.- Author's calculations.

Table 2: Selected Characteristics of the HNP and HNP-Eligible Cohorts by Geographic Area

HNP EHR ACS HNP EHR EHR ACS HNP EHR EHR		Reno-C	Reno-Carson-Fernley	ernley	L	Las Vegas	,,	Ru	Rural Nevada	da	Sha	Shasta Cascade	ade
35,613 491,656 388 4,413 1,862 29,386 594 51,062 66.6 50.2 49.3 69.8 46.2 50.2 71.8 51.4 46.7 67.0 49.8 8.0 10.2 10.4 21.1 20.4 10.6 7.3 10.0 9.5 5.1 11.5 16.8 14.2 17.9 19.8 15.8 19.2 17.7 15.7 16.2 14.0 18.0 18.9 16.4 17.5 14.6 11.9 11.4 12.0 14.2 14.4 15.7 15.8 19.7 14.9 18.9 16.4 17.5 14.6 11.9 11.4 12.0 14.2 14.4 15.7 15.8 18.5 18.9 3.7 18.1 8.4 2.6 8.7 7.3 5.0 14.6 15.8 19.3 14.6 18.9 5.2 19.9 10.6 1.5 27.5 9.3 2.6 16.5 5.2 1.5 29.9 5.2 19.9 10.6 1.5 27.5 9.3 2.6 16.5 5.2 1.5 11.7 3.0 2.0 9.0 7.6 11.7 1.0 1.5 2.2 2.0 11.1 1.1 1.3 0.3 0.6 0.8 0.4 0.4 0.3 1.7 0.4 11.1 1.1 1.3 0.0 1.3 5.0 2.5 1.4 4.6 2.5 1.4 4.6 2.8 2.2 4.9 3.4 1.3 5.0 2.0 3.3 1.7 0.9 11.1 1.1 1.3 0.3 2.0 2.0 3.4 1.3 5.0 2.5 1.4 4.6 2.8 2.9 2.1 2.9 3.4 1.3 5.0 2.0 3.3 1.7 0.9 11.1 1.1 1.3 0.0 2.0 3.0 3.0 3.0 3.0 3.0 3.0 3.0 3.0 3.0 3	Variable	HNP	EHR	ACS	HNP	EHR	\mathbf{ACS}	HNP	EHR	\mathbf{ACS}	HNP	EHR	\mathbf{ACS}
66.6 50.2 49.3 69.8 46.2 50.2 71.8 51.4 46.7 67.0 49.8 8.0 10.2 10.4 21.1 20.4 10.6 7.3 10.0 9.5 5.1 11.5 16.8 14.2 17.9 19.8 15.8 19.2 17.7 15.7 16.2 14.0 18.0 18.9 16.4 17.5 14.6 13.4 12.0 17.2 17.6 15.6 15.8 19.7 14.9 18.9 16.4 17.5 14.6 11.9 11.4 12.0 14.2 17.8 18.4 18.4 18.4 18.4 17.7 17.5 14.6 11.9 11.4 12.0 14.2 14.4 15.7 20.9 14.6 6.7 18.1 8.4 2.6 8.7 7.3 5.2 13.0 9.3 5.2 8.0 17.7 17.5 14.6 64.4 68.8 83.1 43.3 83.2 2.6 16.5 5.2 15.3 3.9 3.7 5.0 7.0 5.1 11.2 1.1 0.9 1.7 2.0 2.4 1.1 1.1 1.3 0.3 0.3 0.6 0.4 0.4 0.4 0.3 1.7 0.9 1.1 1.1 1.3 0.3 0.3 0.4 0.4 0.4 0.4 0.3 1.7 0.9 2.8 2.2 4.9 3.4 1.3 5.0 2.5 3.8 3.3 1.3 0.6 2.8 2.9 17.6 11.7 5.0 0.9 17.6 11.7 0.9 1.7 0.9 2.8 2.9 2.1 11.3 13.3 13.3 13.4 49.1 37.0 42.5 2.9 3.7 5.0 2.0 2.0 2.0 2.0 2.0 2.0 2.0 2.0 2.0 2	Observations	35,613	491,656		388	4,413		1,862	29,386		594	51,052	
8.0 10.2 10.4 21.1 20.4 10.6 7.3 10.0 9.5 5.1 11.5 16.8 16.8 14.2 17.9 19.8 15.8 19.2 17.7 15.7 16.2 14.0 18.0 15.8 11.5 16.2 12.2 15.5 16.5 15.1 17.2 17.6 15.6 15.8 19.7 14.9 18.5 17.7 17.6 15.6 15.8 19.7 14.9 18.5 17.7 17.7 17.7 17.5 14.6 17.5 14.4 12.0 14.2 14.4 15.7 12.9 14.6 17.7 18.1 8.4 2.6 8.7 7.3 5.2 14.4 15.7 21.9 14.6 17.7 18.1 8.4 2.6 8.7 7.3 5.2 13.0 9.3 5.2 8.0 17.0 9.9 5.2 19.9 10.6 1.5 27.5 9.3 2.6 16.5 5.2 15.0 17.0 17.7 11.1 11.3 0.3 0.3 0.6 0.4 2.5 3.8 3.3 1.3 0.7 0.4 17.7 11.1 11.3 0.3 11.7 0.0 17.5 11.4 12.0 12.5 11.4 4.6 2.9 2.0 17.0 0.8 0.8 0.8 0.8 0.8 0.8 0.8 0.8 0.8 0	Female share	9.99	50.2	49.3	8.69	46.2	50.2	71.8	51.4	46.7	67.0	49.8	51.0
80 10.2 10.4 21.1 20.4 10.6 7.3 10.0 9.5 5.1 11.5 16.8 14.2 17.9 19.8 19.2 17.7 15.7 16.2 14.0 18.0 15.8 11.4 15.6 13.4 13.7 18.2 17.6 15.6 15.8 19.7 14.9 18.5 16.5 15.1 17.7 15.7 16.2 14.0 18.0 18.9 16.4 17.5 14.6 17.5 14.7 17.2 17.6 15.6 15.8 19.7 14.9 18.5 17.7 17.7 17.7 17.5 14.6 11.9 11.4 12.0 14.2 14.4 15.7 12.9 14.6 17.7 17.5 14.6 11.9 11.4 12.0 14.2 14.4 15.7 12.9 14.6 17.7 17.7 17.5 14.6 11.9 11.4 12.0 14.2 14.4 15.7 12.9 14.6 17.7 17.7 17.5 14.6 17.8 17.3 17.0 14.4 15.7 17.0 14.4 15.7 17.0 14.4 15.7 17.0 14.6 17.0 17.0 17.0 17.0 17.0 17.0 17.0 17.0	Age Group (years)												
$ \begin{array}{cccccccccccccccccccccccccccccccccccc$	18-24	8.0	10.2	10.4	21.1	20.4	10.6	7.3	10.0	9.2	5.1	11.5	11.8
15.8 11.4 15.6 13.4 13.7 18.2 17.6 12.8 15.1 15.8 14.5 14.5 16.5 15.1 17.2 17.6 15.6 15.8 19.7 14.9 18.4 18.4 18.4 18.4 18.4 18.5 14.5 17.5 14.6 11.9 14.2 17.5 14.4 15.7 14.4 15.7 14.4 15.7 14.4 15.7 14.4 15.7 14.4 15.7 14.4 15.7 14.4 15.7 14.4 15.7 14.4 15.7 14.4 15.7 14.4 15.7 14.4 15.7 14.4 15.7 14.4 15.7 14.4 15.7 15.9 14.4 15.7 14.4 15.7 15.9 14.4 15.7 14.4 15.7 15.0 14.4 15.7 15.0 14.4 15.7 15.0 15.2	25-34	16.8	14.2	17.9	19.8	15.8	19.2	17.7	15.7	16.2	14.0	18.0	17.8
16.2 12.2 15.5 16.5 15.1 17.2 17.6 15.6 15.8 19.7 14.9 18.5 18.9 16.4 17.5 14.7 14.9 15.5 20.4 18.4 18.4 18.4 18.5 18.5 17.7 17.5 14.6 11.9 11.4 12.0 14.2 14.4 15.7 2.0 14.6 17.5 14.6 11.9 11.4 12.0 14.2 14.4 15.7 2.0 14.6 17.5 14.6 18.3 14.4 15.7 17.3 18.4 2.6 8.7 7.3 5.2 13.0 9.3 5.2 8.0 14.6 18.9 10.6 1.5 27.5 9.3 2.6 16.5 5.2 15.5 17.5 9.3 2.6 16.5 5.2 15.5 17.5 11.1 11.3 11.3 10.6 11.7 11.0 11.5 11.0 11.5 11.4 10.6 11.5 11.4 10.6 11.5 11.4 10.6 11.5 11.4 11.5 11.4 11.5 11.4 11.5 11.4 11.5 11.5	35-44	15.8	11.4	15.6	13.4	13.7	18.2	17.6	12.8	15.1	15.8	14.5	16.7
$ \begin{array}{cccccccccccccccccccccccccccccccccccc$	45-54	16.2	12.2	15.5	16.5	15.1	17.2	17.6	15.6	15.8	19.7	14.9	15.6
17.7 17.5 14.6 11.9 11.4 12.0 14.2 14.4 15.7 21.9 14.6 6.7 18.1 8.4 2.6 8.7 7.3 5.2 13.0 9.3 5.2 8.0 8.0 8.0 8.0 8.0 9.3 5.2 13.0 9.9 5.2 19.9 10.6 1.5 27.5 9.3 2.6 16.5 5.2 1.5 3.9 3.7 5.0 7.0 5.1 11.2 1.1 0.9 1.7 2.0 2.4 11.7 1.0 1.5 2.2 0.7 2.1 0.7 0.5 0.5 1.5 0.6 0.8 0.4 0.4 0.4 0.3 1.7 0.4 1.1 1.1 1.1 1.3 0.3 0.6 0.4 2.5 3.8 3.3 1.3 0.6 1.1 0.0 1.5 2.9 2.0 1.0 0.1 11.4 0.0 1.3 5.0 2.9 17.6 3.0 3.0 1.7 0.9 1.7 0.9 1.7 0.9 1.1 0.0 1.1 0.0 1.1 0.0 1.3 1.3 1.3 1.3 1.3 1.3 1.3 1.3 1.3 1.3	55-64	18.9	16.4	17.5	14.7	14.9	15.5	20.4	18.4	18.4	18.4	18.5	16.7
6.7 18.1 8.4 2.6 8.7 7.3 5.2 13.0 9.3 5.2 8.0 79.9 84.4 66.4 68.3 83.1 43.3 83.2 89.4 71.6 86.2 91.0 9.9 5.2 19.9 10.6 1.5 27.5 9.3 2.6 16.5 5.2 17.0 1.7 3.0 2.0 9.0 7.6 11.7 1.0 1.5 2.2 0.7 2.1 0.7 0.5 0.5 1.5 0.6 0.8 0.4 0.4 0.3 1.7 0.4 1.1 1.1 1.3 0.3 0.6 0.4 2.5 3.8 3.3 1.3 0.6 2.8 2.2 4.9 3.4 1.3 5.0 2.9 17.6 86.7 9.3 lent 1.1 11.4 0.0 13.8 2.2 12.4 4.6 2.9 2.0 1.2 29.9 17.6 36.7 9.3 2.3 4.9 3.1 33.1 49.1 37.0 42.5 3.6 4.5 35.4 33.1 33.1 49.1 37.0 42.5	65-74	17.7	17.5	14.6	11.9	11.4	12.0	14.2	14.4	15.7	21.9	14.6	12.9
$\begin{array}{cccccccccccccccccccccccccccccccccccc$	75+	6.7	18.1	8.4	2.6	8.7	7.3	5.2	13.0	9.3	5.2	8.0	8.57
79.9 84.4 66.4 68.3 83.1 43.3 83.2 89.4 71.6 86.2 91.0 9.9 5.2 19.9 10.6 1.5 27.5 9.3 2.6 16.5 5.2 1.5 3.9 3.7 5.0 7.0 5.1 11.2 1.1 0.9 1.7 2.0 2.4 1.7 3.0 2.0 9.0 7.6 11.7 1.0 1.5 2.2 0.7 2.1 0.7 0.5 0.5 1.5 0.6 0.8 0.4 0.4 0.3 1.7 0.4 1.1 1.1 1.3 0.3 0.6 0.4 2.5 3.8 3.3 1.3 0.6 2.8 2.2 4.9 3.4 1.3 5.0 2.5 1.4 4.6 2.9 2.0 1.1 11.4 0.0 13.8 2.2 12.4 9.9 17.6 37.6 35.4 33.1 33.1 49.1 37.0 42.5 50.4 27.1 54.0 23.2 31.2 13.7 47.2	Race and Ethnicity												
9.9 5.2 19.9 10.6 1.5 27.5 9.3 2.6 16.5 5.2 1.5 3.9 3.7 5.0 7.0 5.1 11.2 1.1 0.9 1.7 2.0 2.4 1.7 1.0 1.5 2.2 0.7 2.1 1.7 1.0 1.5 2.2 0.7 2.1 1.1 1.1 1.3 0.5 0.5 0.5 0.4 0.4 0.4 0.3 1.7 0.4 1.3 0.6 0.4 2.5 3.8 3.3 1.3 0.6 1.1 1.1 1.1 1.1 1.3 0.6 0.4 2.5 3.8 3.3 1.3 0.6 0.4 0.4 0.4 0.3 0.6 0.4 0.4 0.4 0.3 0.6 0.4 0.4 0.4 0.3 0.6 0.4 0.4 0.3 0.4 0.6 0.4 0.4 0.3 0.4 0.6 0.4 0.4 0.3 0.6 0.4 0.4 0.3 0.6 0.4 0.4 0.3 0.4 0.6 0.4 0.4 0.3 0.4 0.6 0.4 0.4 0.3 0.4 0.6 0.4 0.4 0.3 0.4 0.6 0.4 0.4 0.3 0.4 0.6 0.4 0.4 0.3 0.4 0.6 0.4 0.4 0.3 0.4 0.6 0.4 0.4 0.3 0.4 0.6 0.4 0.4 0.3 0.4 0.6 0.4 0.4 0.3 0.4 0.6 0.4 0.4 0.3 0.4 0.6 0.4 0.4 0.3 0.4 0.6 0.4 0.4 0.4 0.3 0.4 0.6 0.4 0.4 0.4 0.3 0.4 0.6 0.4 0.4 0.4 0.3 0.4 0.6 0.4 0.4 0.4 0.4 0.3 0.6 0.4 0.4 0.4 0.4 0.4 0.4 0.4 0.4 0.4 0.4	White	6.62	84.4	66.4	68.3	83.1	43.3	83.2	89.4	71.6	86.2	91.0	56.4
3.9 3.7 5.0 7.0 5.1 11.2 1.1 0.9 1.7 2.0 2.4 1.7 3.0 2.0 9.0 7.6 11.7 1.0 1.5 2.2 0.7 2.1 0.7 0.5 0.5 1.5 0.6 0.8 0.4 0.4 0.3 1.7 0.4 1.1 1.1 1.3 0.3 0.6 0.4 2.5 3.8 3.3 1.7 0.4 2.8 2.2 4.9 3.4 1.3 5.0 2.5 1.4 4.6 2.9 2.0 2.8 2.2 4.9 3.4 1.3 5.0 2.5 1.4 4.6 2.9 2.0 1.1 11.4 0.0 13.8 2.2 12.7 0.9 2.0 1.2 26.1 12.9 29.9 17.6 36.7 9.3 2.5 3.4 27.1 54.0 23.2 31.2 13.7 47.5	Hispanic or Latino	6.6	5.2	19.9	10.6	1.5	27.5	9.3	2.6	16.5	5.2	1.5	19.2
$\begin{array}{cccccccccccccccccccccccccccccccccccc$	Asian	3.9	3.7	5.0	7.0	5.1	11.2	1.1	6.0	1.7	2.0	2.4	11.9
$\begin{array}{cccccccccccccccccccccccccccccccccccc$	Black	1.7	3.0	2.0	9.0	9.2	11.7	1.0	1.5	2.2	0.7	2.1	5.2
1.1 1.1 1.3 0.3 0.6 0.4 2.5 3.8 3.3 1.3 0.6 6.6 2.8 2.2 4.9 3.4 1.3 5.0 2.5 1.4 4.6 2.9 2.0 2.0 2.8 11.0 26.1 12.9 29.9 17.6 36.7 9.3 27.0 42.5 50.4 27.1 54.0 23.2 31.2 13.7 47.2	Pacific Islander	0.7	0.5	0.5	1.5	9.0	8.0	0.4	0.4	0.3	1.7	0.4	0.7
Lil 11.4 0.0 13.8 2.2 14.9 2.0 2.5 1.4 4.6 2.9 2.0 2.0 lont 11.0 26.1 12.9 29.9 17.6 36.7 9.3 cotate Degree 37.6 35.4 33.1 49.1 37.0 42.5 50.4 27.1 54.0 23.2 31.2 13.7 47.2	Native American	1.1	1.1	1.3	0.3	9.0	0.4	2.5	3.8	3.3	1.3	9.0	8.0
lent 11.0 26.1 12.9 29.9 17.6 36.7 9.3 ociate Degree 37.6 35.4 33.1 54.0 23.2 31.2 13.7 47.2	Other	2.8	2.2	4.9	3.4	1.3	5.0	2.5	1.4	4.6	2.9	2.0	5. 8.
1.1 11.4 0.0 13.8 2.2 12.7 0.9 left 11.0 26.1 12.9 29.9 17.6 36.7 9.3 ociate Degree 37.6 35.4 33.1 49.1 37.0 42.5 50.4 27.1 54.0 23.2 31.2 13.7 47.2	Educational Attainment												
lent 11.0 26.1 12.9 29.9 17.6 36.7 9.3 ociate Degree 37.6 35.4 33.1 49.1 37.0 42.5 50.4 27.1 54.0 23.2 31.2 13.7 47.2	Less than High School	1.1		11.4	0.0		13.8	2.2		12.7	0.9		10.8
ociate Degree 37.6 35.4 33.1 33.1 49.1 37.0 42.5 50.4 27.1 54.0 23.2 31.2 13.7 47.2	High School Diploma or Equivalent	11.0		26.1	12.9		29.9	17.6		36.7	9.3		23.5
50.4 27.1 54.0 23.2 31.2 13.7 47.2	Some College No Degree or Associate Degree	37.6		35.4	33.1		33.1	49.1		37.0	42.5		37.1
Socio-Economic Characteristics	Bachelor Degree or higher	50.4		27.1	54.0		23.2	31.2		13.7	47.2		28.5
	Socio-Economic Characteristics												

Notes.— Author's calculations.

Table 3: Selected Characteristics of the HNP and HNP-Eligible Cohorts by Geographic Area

Variable HNP Observations 35,613 Female share 66.6 Age Group (years) 8.0 18-24 8.0 25-34 16.8 35-44 15.8	4	ACS	HNP	EHR	20 <	HND	EHR	ACS	HNP	VP EHR AC	ر د د
(ears)					7	TITI					2
lears)			388	4,413		1,862	29,386		526	44,585	
	5.00	49.3	8.69	46.2	50.2	71.8	51.4	46.7	65.4	49.9	50.2
		10.4	21.1	20.4	10.6	7.3	10.0	9.5	3.6	10.9	8. 8.
		17.9	19.8	15.8	19.2	17.7	15.7	16.2	12.2	17.7	13.7
		15.6	13.4	13.7	18.2	17.6	12.8	15.1	16.2	14.3	15.9
45-54 16.2	2 12.2	15.5	16.5	15.1	17.2	17.6	15.6	15.8	19.4	14.9	16.1
55-64 18.9		17.5	14.7	14.9	15.5	20.4	18.4	18.4	19.2	18.8	18.8
65–74		14.6	11.9	11.4	12.0	14.2	14.4	15.7	23.8	15.2	16.0
75+ 6.7		8.4	2.6	8.7	7.3	5.2	13.0	9.3	5.7	8.2	10.6
Race and Ethnicity											
White 79.9	9 84.4	66.4	68.3	83.1	43.3	83.2	89.4	71.6	87.6	91.6	73.9
Hispanic or Latino 9.9		19.9	10.6	1.5	27.5	9.3	2.6	16.5	4.6	1.7	12.3
Asian 3.9		5.0	7.0	5.1	11.2	1.1	6.0	1.7	1.9	2.2	5.9
		2.0	9.0	9.7	11.7	1.0	1.5	2.2	9.0	1.4	1.5
Pacific Islander 0.7	0.5	0.5	1.5	9.0	8.0	0.4	0.4	0.3	1.5	0.4	0.2
Native American 1.1		1.3	0.3	9.0	0.4	2.5	3.8	3.3	1.3	9.0	0.7
Other 2.8		4.9	3.4	1.3	5.0	2.5	1.4	4.6	2.5	2.1	5.4
Educational Attainment											
		11.4	0.0		13.8	2.2		12.7	1.0		6.4
High School Diploma or Equivalent 11.0	0	26.1	12.9		29.9	17.6		36.7	6.6		21.4
Some College No Degree or Associate Degree 37.6	3	35.4	33.1		33.1	49.1		37.0	41.7		37.4
Bachelor Degree or higher 50.4	#	27.1	54.0		23.2	31.2		13.7	47.4		34.8
$Socio ext{-}Economic \ Characteristics$											

Notes.— Author's calculations.

Table 4: Selected Characteristics of the HNP Cohort and the HNP-Eligible Renown EHR Cohort by ${\rm Sex}$

		H	NP	Non-	-HNP
Variable	All	Men	Women	Men	Women
Age Group (years)					
18-24	10.1	6.3	7.4	10.3	10.2
25 - 34	17.2	14.9	16.8	16.9	17.5
35-44	14.4	14.8	16.2	14.3	14.3
45-54	15.0	15.4	17.4	15.2	14.6
55-64	17.1	18.1	19.4	17.3	16.6
65 - 74	14.2	21.0	17.1	14.1	13.8
75+	7.7	9.5	5.7	7.8	7.7
Race and Ethnicity					
Asian	3.1	3.6	3.7	2.4	3.7
Black	2.8	1.8	1.6	3.2	2.5
Hispanic or Latino	7.3	8.9	9.6	7.7	6.7
Native American	1.2	1.0	1.3	1.1	1.4
Other	2.6	2.6	2.7	2.7	2.6
Pacific Islander	0.5	0.8	0.7	0.5	0.5
White	82.4	81.3	80.4	82.5	82.6
Genetic Ancestry ($N = missing$)		(N = 291)	(N = 473)		
European		76.0	75.0		
Latin American		12.6	14.2		
East Asian		2.7	3.1		
South Asian		0.8	0.4		
African		1.9	1.8		
Other		3.4	3.5		
Median household income of Census tract	\$66,772	\$78,045	\$75,574	\$65,822	\$66,607
Distance (meters) from Renown	16,825.8	12,075.9	12,614.7	16,954.0	17,334.4
California resident	11.7	1.5	1.5	12.7	12.0
N	596,010	11,194	23,604	276,805	284,407

Notes.– Author's calculations.

Table 5: Summary of PheWAS for HNP Participation by Aggregate PheCode Category

		PheCode	Mode	Model 1 $(N = 596, 010)$	Mod	Model 2 $(N = 592, 932)$
Category Name	Name	Count	Hits	Mean OR (Min-Max)	Hits	Mean OR (Min-Max)
0	ı	17	10 (58.8%)	1.76 (1.07-4.14)	10 (58.8%)	1.73 (1.08-4.09)
1	Infectious diseases	17	8 (47.1%)	1.76 (0.93 - 2.77)	8 (47.1%)	1.71 (0.88 - 2.66)
2	Neoplasms	26	33 (34.0%)	1.96 (0.29 - 25.81)	33 (34.0%)	1.92 (0.29 - 25.58)
က	Endocrine/metabolic	119	75 (63.0%)	2.74 (0.35 - 82.80)	75 (63.0%)	2.70 (0.33 - 81.74)
4	Hematopoietic	45	21 (46.7%)	1.72 (0.56 - 4.08)	21 (46.7%)	1.69 (0.54 - 4.04)
5	Mental disorders	99	32(48.5%)	$1.52\ (0.33-4.54)$	$33\ (50.0\%)$	$1.49 \ (0.32 - 4.46)$
9	Neurological	75	40 (53.3%)	1.91 (0.38 - 4.37)	40 (53.3%)	1.89 (0.37 - 4.31)
7	Sense organs	06	47 (52.2%)	2.10 (0.89 - 4.25)	43 (47.8%)	2.07 (0.88 - 4.27)
∞	Circulatory system	141	68 (48.2%)	1.70 (0.37 - 9.51)	67 (47.5%)	$1.67 \ (0.36 - 9.47)$
6	Respiratory	75	42 (56.0%)	1.73 (0.48 - 3.54)	41 (54.7%)	1.70 (0.47 - 3.53)
10	Digestive	133	64 (48.1%)	1.70 (0.46 - 3.64)	63(47.4%)	1.67 (0.45 - 3.65)
11	Genitourinary	146	94 (64.4%)	1.94 (0.46 - 3.34)	94 (64.4%)	1.91 (0.45 - 3.28)
12	Pregnancy complications	42	3 (7.1%)	1.14 (0.63 - 2.20)	3 (7.1%)	1.12 (0.62 - 2.15)
13	Dermatologic	75	50 (66.7%)	2.14 (0.54 - 4.17)	50 (66.7%)	2.10 (0.52 - 4.02)
14	Musculoskeletal	26	67 (69.1%)	2.17 (0.79 - 4.67)	68 (70.1%)	2.15 (0.76 - 4.59)
15	Congenital anomalies	31	9 (29.0%)	$2.01 \ (1.11-2.81)$	9 (29.0%)	2.00(1.09 - 2.89)
17	Symptoms	44	31 (70.5%)	1.90 (0.57 - 3.80)	31 (70.5%)	1.87 (0.56 - 3.68)
18	Injuries and poisonings	91	34 (37.4%)	1.49 (0.45 - 8.00)	34 (37.4%)	1.46 (0.44 - 7.80)

Notes.— Author's calculations.

Table 6: Highest 20 and Lowest 20 Odds Ratios for HNP Participation and Phenotype Association, All Phenotypes

		_			lence
PheCode	Phenotype	OR	p	HNP	EHR
Top 20 Odds					
272.9	Unspecified disorder of lipoid metabolism	82.80	0.0e + 00	20.5%	0.4%
153.2	Colon cancer	25.81	0.0e + 00	11.3%	0.6%
411.4	Coronary atherosclerosis	9.51	0.0e + 00	28.5%	7.4%
965.3	Salicylates causing adverse effects in therapeutic use	8.00	6.9e-37	0.2%	0.02%
228.1	Hemangioma of skin and subcutaneous tissue	6.89	4.3e-115	0.7%	0.1%
260.7	Polyphagia	6.51	5.4e-61	0.4%	0.05%
715.3	Spinal enthesopathy	4.67	7.6e-74	0.6%	0.1%
217.1	Nevus, non-neoplastic	4.63	5.6e-53	0.4%	0.1%
306	Other mental disorder	4.54	0.0e+00	42.7%	12.8%
327.7	Sleep related movement disorders	4.37	8.2e-25	0.2%	0.04%
367	Disorders of refraction and accommodation; blindness and low vision	4.25	2.9e-68	0.6%	0.1%
702	Degenerative skin conditions and other dermatoses	4.17	1.8e-08	0.1%	0.01%
1010	Other tests	4.14	0.0e + 00	83.4%	51.3%
286.8	Hypercoagulable state	4.08	2.7e-17	0.1%	0.04%
253.11	Acromegaly and gigantism	3.95	9.5e-06	0.04%	0.01%
694.2	Other dyschromia	3.89	9.8e-222	2.2%	0.5%
702.2	Seborrheic keratosis	3.83	2.7e-301	3.1%	0.8%
769	Nonallopathic lesions nec	3.80	5.1e-71	0.7%	0.2%
426.9	Cardiac pacemaker/device in situ	3.75	4.2e-33	0.3%	0.1%
217	Vascular hamartomas and non-neoplastic nevi	3.71	1.4e-08	0.1%	0.02%
Bottom 20 C	Odds Ratios				
501	Pneumonitis due to inhalation of food or vomitus	0.48	9.9e-17	0.4%	1.1%
571.8	Liver abscess and sequelae of chronic liver disease	0.47	1.5e-09	0.2%	0.5%
573.4	Acute and subacute necrosis of liver	0.46	1.0e-06	0.1%	0.3%
290.2	Delirium due to conditions classified elsewhere	0.46	2.4e-15	0.3%	0.9%
585.32	End stage renal disease	0.46	2.0e-12	0.2%	0.6%
585.2	Renal failure nos	0.46	2.2e-19	0.4%	1.1%
571.81	Portal hypertension	0.46	2.2e-06	0.1%	0.3%
317.11	Alcoholic liver damage	0.45	5.5e-14	0.3%	0.7%
994.21	Septic shock	0.45	5.3e-17	0.3%	0.9%
290.11	Alzheimer's disease	0.44	1.5e-08	0.1%	0.5%
198.2	Secondary malignancy of respiratory organs	0.44	6.8e-07	0.1%	0.3%
260.3	Adult failure to thrive	0.41	4.6e-16	0.3%	0.8%
198.4	Secondary malignant neoplasm of liver	0.41	1.9e-08	0.1%	0.3%
348	Other conditions of brain	0.38	6.9e-06	0.1%	0.2%
427.42	Cardiac arrest	0.37	5.6e-18	0.2%	0.8%
260.2	Severe protein-calorie malnutrition	0.37	7.4e-26	0.3%	1.1%
260.1	Cachexia	0.35	8.1e-10	0.3%	0.4%
290.3	Other persistent mental disorders due to conditions classified elsewhere	0.34	6.6e-08	0.1%	0.4%
290.1	Dementias	0.33	4.5e-38	0.1%	1.8%
198.5	Secondary malignancy of brain/spine	0.33	2.5e-08	0.4%	0.2%

Notes.– Author's calculations.

Table 7: Highest 20 and Lowest 20 Odds Ratios for HNP Participation and Phenotype Association, Female Phenotypes

DhoCodo	Dhougting	٥	S	Incidence	ence
Tow 90 Odds Batios	Patientory po Patientory po	3	A	1111	
617	Disorders secondary to childbirth, surgery, trauma	3.11	1.9e-174	3.5%	1.3%
610.3	Fibrosclerosis of breast	2.91	2.4e-12	0.2%	0.1%
610.8	Other specified benign mammary dysplasias	2.83	1.8e-29	0.7%	0.2%
627.22	Need for hormone replacement therapy (postmenopausal)	2.71	3.0e-139	3.7%	1.3%
627	Menopausal and postmenopausal disorders	2.69	1.5e-141	3.8%	1.3%
610.1	Cystic mastopathy	2.63	4.0e-139	3.9%	1.3%
256	Ovarian dysfunction	2.58	1.5e-27	0.8%	0.2%
627.3	Postmenopausal atrophic vaginitis	2.56	7.4e-106	3.1%	1.2%
256.4	Polycystic ovaries	2.51	7.7e-81	2.4%	0.0%
627.2	Symptomatic menopause	2.49	0.0e+00	11.8%	4.7%
624.1	Dystrophy of female genital tract	2.48	8.8e-08	0.2%	0.1%
626.15	Infertility, female, associated with anovulation	2.47	2.1e-12	0.3%	0.1%
626.4	Premenstrual tension syndromes	2.44	7.5e-28	0.8%	0.3%
610.4	Benign neoplasm of breast	2.41	4.1e-37	1.2%	0.4%
610.2	Fibroadenosis of breast	2.41	1.0e-11	0.3%	0.1%
619.5	Noninflammatory disorders of vulva and perineum	2.41	9.2e-27	0.8%	0.3%
258.1	Postablative ovarian failure	2.39	1.1e-24	0.8%	0.3%
620.1	Dysplasia of cervix	2.30	3.8e-09	0.3%	0.1%
221	Benign neoplasm of other female genital organs	2.29	3.1e-06	0.2%	0.1%
619.3	Noninflammatory disorders of cervix	2.27	1.3e-49	1.8%	0.7%
Bottom 20 (Bottom 20 Odds Ratios				
654.2	Rhesus isoimmunization in pregnancy	1.10	3.1e-01	0.6%	0.5%
614.33	Pelvic inflammatory disease, nos	1.08	5.1e-01	0.4%	0.4%
643.1	Hyperemesis gravidarum	1.08	4.0e-01	0.6%	0.6%
645	Late pregnancy and failed induction	1.07	2.2e-01	1.5%	1.4%
634	Miscarriage; stillbirth	1.06	2.6e-01	1.6%	1.5%
647.3	Major puerperal infection	1.05	8.3e-01	0.1%	0.1%
644	Anemia during pregnancy	1.05	4.9e-01	0.9%	0.9%
636.3	Hemorrhage in early pregnancy	1.05	3.2e-01	2.3%	2.2%
636	Early or threatened labor; hemorrhage in early pregnancy	1.04	4.0e-01	2.5%	2.6%
614.31	Acute inflammatory pelvic disease	0.99	9.7e-01	0.2%	0.2%
635.2	Antepartum hemorrhage, abruptio placentae, and placenta previa	0.99	8.8e-01	1.1%	1.2%
647.1	Infections of genitourinary tract during pregnancy	0.99	8.6e-01	1.0%	1.2%
654.1	Abnormality of organs and soft tissues of pelvis complicating pregnancy, childbirth, or the puerperium	0.98	7.1e-01	1.9%	1.8%
636.2	Early onset of delivery	0.98	8.0e-01	0.7%	0.7%
651	Multiple gestation	0.98	8.3e-01	0.4%	0.4%
638	Other high-risk pregnancy	0.87	2.1e-05	4.7%	4.9%
614.3	Pelvic inflammatory disease (pid)	0.86	5.6e-01	0.1%	0.1%
658	Maternal complication of pregnancy affecting fetus or newborn	0.80	1.5e-01	0.2%	0.2%
650	Normal delivery	0.74	4.2e-12	2.5%	3.4%
654	Other and unspecified complications of birth; puerperium affecting management of mother	0.63	5.4e-05	0.4%	0.5%
NOTES - An	Norres – Author's calculations				

Notes.- Author's calculations.

Table 8: Odds Ratios for HNP Participation and Phenotype Association, Male Phenotypes

				Incid	lence
PheCode	Phenotype	\mathbf{OR}	p	HNP	EHR
257.1	Testicular hypofunction	2.76	9.5e-146	7.3%	2.2%
601.11	Acute prostatitis	2.67	4.9e-14	0.6%	0.2%
796	Elevated prostate specific antigen [PSA]	2.63	1.0e-122	7.1%	2.5%
257	Testicular dysfunction	2.53	1.3e-11	0.6%	0.2%
605	Erectile dysfunction [ED]	2.45	9.8e-179	12.2%	4.6%
600	Hyperplasia of prostate	2.45	7.8e-188	16.0%	7.8%
604.3	Peyronie's disease	2.33	5.5e-05	0.2%	0.1%
609.2	Abnormal spermatozoa	2.32	2.4e-06	0.3%	0.1%
603.2	Spermatocele	2.30	8.0e-09	0.5%	0.2%
602	Other disorders of prostate	2.27	3.4e-24	1.6%	0.6%
601.12	Chronic prostatitis	2.24	1.0e-06	0.4%	0.2%
608	Other disorders of male genital organs	2.02	1.8e-52	4.9%	2.4%
609.1	Infertility, male	1.91	7.4e-03	0.2%	0.1%
603.1	Hydrocele	1.87	1.1e-11	1.2%	0.6%
185	Cancer of prostate	1.84	5.3e-35	4.7%	2.6%
601.1	Prostatitis	1.77	7.1e-09	1.0%	0.5%
604	Disorders of penis	1.72	1.8e-08	1.1%	0.6%
601.3	Orchitis and epididymitis	1.66	9.3e-09	1.3%	0.8%
604.1	Redundant prepuce and phimosis/BXO	1.58	4.4e-02	0.2%	0.1%
187.2	Malignant neoplasm of testis	1.54	1.8e-02	0.3%	0.2%
601.4	Balanoposthitis	1.49	2.1e-02	0.3%	0.2%
601.8	Other inflammatory disorders of male genital organs	1.42	5.0e-02	0.3%	0.2%

 ${\bf Notes.-\ Author's\ calculations.}$

Table 9: Matching Summary and Balance Statistics

	EHR H	NP-Eligible			Matche	ed Control	Sample		
	HNP	Non-HNP	(1)	(2)	(3)	(4)	(5)	(6)	(7)
A. Socio-Economic Characte	eristics								
Age (years)	51.1	48.0	51.7	51.8	51.1	51.1	51.1	51.1	51.1
Female	68.8	54.0	68.8	68.8	68.8	68.8	68.8	68.8	68.8
White	81.6	84.5	85.3	86.2	81.6	81.6	81.7	81.6	81.6
Asian	3.6	3.2	3.0	2.8	3.6	3.6	3.6	3.6	3.6
Black	1.6	2.5	1.2	1.1	1.6	1.6	1.6	1.6	1.6
Hispanic or Latino	8.9	5.4	7.5	7.1	8.9	8.9	8.8	8.8	8.8
Native American	1.1	1.3	0.6	0.7	1.1	1.1	1.1	1.1	1.1
Other	2.6	2.4	1.9	1.7	2.6	2.6	2.6	2.6	2.6
Pacific islander	0.7	0.6	0.5	0.5	0.7	0.7	0.6	0.6	0.6
log(distance m from Renown)	9.416	9.721	9.399	9.402	9.415	9.415	9.414	9.414	9.414
log(median household income)	11.328	11.196	11.329	11.330	11.328	11.327	11.328	11.328	11.328
Household poverty rate of tract	8.6	10.2	8.6	8.6	8.6	8.6	8.6	8.6	8.6
Observations	30,334	338,103							
B. Health Measures									
Body Mass Index	29.3		28.6	28.6					
Under weight (%)	1.2		1.9	1.8					
Normal weight	28.3		30.7	30.8					
Over weight	32.6		32.9	33.1					
Obese	38.4		35.1	34.9					
Missing BMI data	750		1,406	2,873					
C. Matching Summary									
Method			NN	NN	NN	NN	CEM	CEM	CEM
Distance			$_{\mathrm{PS}}$	$_{\mathrm{PS}}$	MD	MD	MD	MD	MD
Match with replacement			No	No	No	No	No	Yes	Yes
Match ratio			1:1	2:1	1:1	2:1	1:1	1:1	2:1
Treated (N_H)									
Matched			30,334	30,334	30,334	30,334	30,287	30,304	30,304
Unmatched			0	0	0	0	47	30	30
Discarded			0	0	0	0	0	0	0
Control (N_C)									
Matched			30,334	60,668	30,334	60,668	30,287	17,395	34,088
Unmatched			307,769	$277,\!435$	307,769	277,435	307,816	320,708	304,015
Discarded			0	0	0	0	0	0	0
max(abs(Std. Mean Diff))			0.097	0.121	0.001	0.003	0.001	0.001	0.001
max(eCDF Max)			0.038	0.047	0.003	0.004	0.002	0.002	0.003

Notes.— Author's calculations.

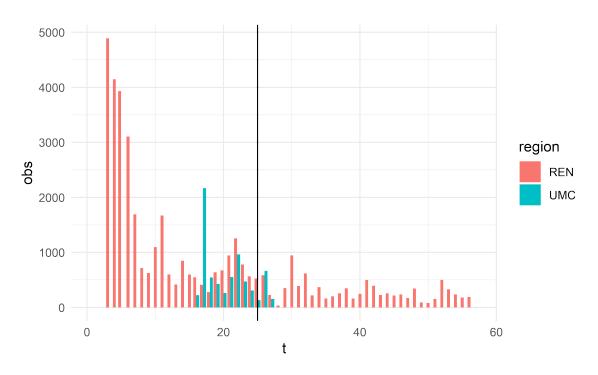


Figure 1: HNP Monthly Recruiting Totals