

Report*for output from health data

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Abstract

Main purpose: This report has for objective the analysis of the variable diabet for the disease with the variables npreg, bp_pb, bmigroups, skin_cl3_, ped_cl3_, age_cl3_ .

Main results: The final main variables are the following, npreg5, bp_pb1, bmigroupsc_obese, glu_cl3_56_103, glu_cl3_129_199, glu_cl3_103_129, skin_cl3_24_33, skin_cl3_33_99

Introduction

Size of the sample

The number of rows of the dataset is equal to 532 after filtering.

*This document is auto-generated from the r package daatepi.

Descriptive results

Model results

	variable	modality	RR	I.95l_RR	I.95r_RR	OR	I.95l_OR	I.95r_OR
1	npreg	5	1.1	0.54	2.251	1.11	0.52	2.371
2	npreg	7	2.47	1.21	5.017	2.61	1.23	5.565
3	npreg	0	1.08	0.7	1.668	1.1	0.66	1.823
4	npreg	3	1.26	0.76	2.082	1.3	0.74	2.287
5	npreg	1	0.52	0.35	0.79	0.45	0.27	0.733
6	npreg	2	0.43	0.25	0.748	0.38	0.21	0.704
7	npreg	9	3.44	1.38	8.581	3.62	1.4	9.353
8	npreg	10_17	3.39	1.75	6.577	3.73	1.83	7.606
9	npreg	4	0.56	0.28	1.156	0.54	0.25	1.159
10	npreg	8	3.72	1.51	9.171	3.94	1.54	10.062
11	npreg	6	0.67	0.29	1.543	0.65	0.27	1.571
12	bp_pb	0	0.97	0.93	1.004	0.39	0.15	0.993
13	bp_pb	1	2.51	1.01	6.241	2.6	1.01	6.702
14	bmigroups	c_obese	1.51	1.35	1.697	4.02	2.58	6.273
15	bmigroups	b_overweight	0.57	0.39	0.837	0.49	0.31	0.785
16	bmigroups	a_normal	0.06	0.02	0.261	0.05	0.01	0.224
17	glu_cl3_	56_103	0.24	0.16	0.374	0.15	0.09	0.246
18	glu_cl3_	129_199	3.34	2.6	4.301	6.93	4.62	10.385
19	glu_cl3_	103_129	0.79	0.6	1.043	0.71	0.48	1.055
20	skin_cl3_	24_33	1.1	0.86	1.394	1.16	0.79	1.683
21	skin_cl3_	33_99	1.78	1.39	2.279	2.41	1.64	3.528
22	skin_cl3_	7_24	0.44	0.32	0.622	0.32	0.21	0.496
23	ped_cl3_	middle	0.97	0.75	1.257	0.96	0.65	1.407
24	ped_cl3_	low	0.53	0.39	0.727	0.41	0.27	0.62
25	ped_cl3_	large	1.72	1.36	2.175	2.34	1.61	3.42
26	age_cl3_	21_24	0.29	0.18	0.458	0.21	0.12	0.354
27	age_cl3_	33_81	1.95	1.55	2.454	3	2.03	4.427
28	age_cl3_	24_33	1	0.78	1.275	1	0.68	1.471

Table 1: Results for odds ratios and relative risks with their confidence interval at 0.95% (part 1/1)

	vars	or_f	or02.5_f	or97.5_f	pval_f	or_r	or02.5_r	or97.5_r	pval_r
1	(Intercept)	0.039	0.005	0.186	0.000	0.023	0.004	0.088	0.000
7	npreg1	0.539	0.245	1.174	0.121				
8	npreg10_17	1.581	0.538	4.754	0.409				
9	npreg2	0.414	0.171	0.971	0.046				
10	npreg3	1.034	0.438	2.435	0.939				
11	npreg4	0.437	0.154	1.179	0.11				
12	npreg5	0.558	0.198	1.528	0.261				
13	npreg6	0.337	0.103	1.022	0.061				
14	npreg7	1.043	0.352	3.127	0.939				
15	npreg8	1.459	0.421	5.452	0.56				
16	npreg9	1.478	0.435	5.307	0.537				
6	bp_pb1	1.267	0.451	3.702	0.655				
4	bmigroupsb_overweight	7.752	2.008	51.676	0.01	7.538	2.034	49.107	0.009
5	bmigroupsc_obese	15.226	4.007	101.19	0.001	17.796	5.165	112.168	0.000
19	skin_cl3_33_99	1.208	0.721	2.026	0.473				
20	skin_cl3_7_24	0.911	0.489	1.696	0.769				
17	ped_cl3_low	0.281	0.161	0.482	0.000	0.304	0.179	0.508	0.000
18	ped_cl3_middle	0.605	0.357	1.017	0.059	0.586	0.356	0.96	0.034
2	age_cl3_24_33	3.238	1.723	6.315	0.000	3.222	1.775	6.074	0.000
3	age_cl3_33_81	4.389	2.063	9.612	0.000	6.147	3.408	11.565	0.000

Table 2: Results with the multivariate regression and corresponding odds ratios with their confidence interval at 0.95% (part 1/1)

Discussion

Appendix 1 - Variables from data file

```
nrows=532
ncols=15
var y=diabet
vars x(6) =npreg bp_pb bmigroups skin_cl3_ ped_cl3_ age_cl3_
vars cont(6) =age bp glu skin bmi ped
vars disc(7) =npreg bp_pb bmigroups glu_cl3_ skin_cl3_ ped_cl3_ age_cl3_
vars int(0) =
var id=id
```

Appendix 2 - Descriptive statistics

	var	nb_na	nblevel	nbperlevel	propperlevel	namelevel
1	npreg	0.00	11.00	77;116;35;79;57;41;31;28;29;20;19	0.14;0.22;0.07;0.15;0.11;0.08;0.06;0.05;0.05;0.04;0.04	0;1;10_17;2;3;4;5;6;7;8;
2	bp_pb	0.00	2.00	514;18	0.97;0.03	0;1
3	bmigroups	0.00	3.00	64;126;342	0.12;0.24;0.64	a_normal;b_overweight
4	glu_cl3_	1.00	3.00	176;171;184	0.33;0.32;0.35	103_129;129_199;56_10
5	skin_cl3_	2.00	3.00	187;166;177	0.35;0.31;0.33	24_33;33_99;7_24
6	ped_cl3_	2.00	3.00	177;176;177	0.33;0.33;0.33	large;low;middle
7	age_cl3_	48.00	3.00	130;179;175	0.27;0.37;0.36	21_24;24_33;33_81

Table 3: Results from description of categorical variables

	var	median	mean	sd	min	max	nb_na	nb
1	age	28.00	31.61	10.76	21.00	81.00	0.00	532.00
2	bp	72.00	71.51	12.31	24.00	110.00	0.00	532.00
3	glu	115.00	121.03	31.00	56.00	199.00	0.00	532.00
4	skin	29.00	29.18	10.52	7.00	99.00	0.00	532.00
5	bmi	32.80	32.89	6.88	18.20	67.10	0.00	532.00
6	ped	0.42	0.50	0.34	0.09	2.42	0.00	532.00

Table 4: Results from description of continuous variables

	MEAN_0	MEAN_1	STD_0	STD_1	MD_0	MD_1	MIN_0	MIN_1	MAX_0	MAX_1	Nnotna_0	Nnotna_1
age	29.22	36.41	9.90	10.84	25.00	35.00	21.00	21.00	81.00	70.00	355	177
bp	69.91	74.70	11.90	12.52	70.00	74.00	24.00	30.00	110.00	110.00	355	177
glu	110.02	143.12	24.29	31.27	106.00	144.00	56.00	78.00	197.00	199.00	355	177
skin	27.29	32.98	10.08	10.40	27.00	32.00	7.00	7.00	60.00	99.00	355	177
bmi	31.43	35.82	6.55	6.61	30.90	34.60	18.20	22.90	57.30	67.10	355	177
ped	0.45	0.62	0.30	0.40	0.37	0.54	0.09	0.13	2.33	2.42	355	177

Table 5: Results from bivariate descriptions.

Appendix 3 - Chi-square tests

	row	col	nbr	nbc	chi2	df	p.val	mnij	p.val.e	pow	nb
1	diabet	npreg	2.00	11.00	57.7900	10.00	0.0000	7.00	0.0005	1.0000	532.00
2	diabet	bmigroups	2.00	3.00	47.6500	2.00	0.0000	2.00	0.0005	1.0000	532.00
3	diabet	glu_cl3_	2.00	3.00	109.4900	2.00	0.0000	20.00	0.0005	1.0000	531.00
4	diabet	skin_cl3_	2.00	3.00	32.8400	2.00	0.0000	32.00	0.0005	0.9997	530.00
5	diabet	ped_cl3_	2.00	3.00	25.4500	2.00	0.0000	37.00	0.0005	0.9970	530.00
6	diabet	age_cl3_	2.00	3.00	47.2800	2.00	0.0000	18.00	0.0005	1.0000	484.00
7	npreg	glu_cl3_	11.00	3.00	38.7700	20.00	0.0071	3.00	0.0060	0.9874	531.00
8	npreg	skin_cl3_	11.00	3.00	47.5800	20.00	0.0005	4.00	0.0009	0.9977	530.00
9	npreg	age_cl3_	11.00	3.00	250.2500	20.00	0.0000	0.00	0.0005	1.0000	484.00
10	bp_pb	age_cl3_	2.00	3.00	8.4000	2.00	0.0150	1.00	0.0166	0.7819	484.00
11	bmigroups	glu_cl3_	3.00	3.00	32.5800	4.00	0.0000	7.00	0.0005	0.9986	531.00
12	bmigroups	skin_cl3_	3.00	3.00	184.6500	4.00	0.0000	2.00	0.0005	1.0000	530.00
13	bmigroups	age_cl3_	3.00	3.00	11.4800	4.00	0.0217	11.00	0.0220	0.8245	484.00
14	glu_cl3_	skin_cl3_	3.00	3.00	24.1300	4.00	0.0001	37.00	0.0005	0.9872	529.00
15	glu_cl3_	age_cl3_	3.00	3.00	34.0800	4.00	0.0000	29.00	0.0005	0.9996	483.00
16	skin_cl3_	age_cl3_	3.00	3.00	20.1700	4.00	0.0005	32.00	0.0009	0.9790	482.00

Table 6: Results from chi2 tests for testing the link between two categorical variables. The subsample sizes are not checked. (part 1/1)

Appendix 4 - Tests for comparing two means (t.test)

	var1	median1	mean1	sd1	nb1	var2	median2	mean2	sd2	nb2	T_t.test (2cl)	P_t.test (2cl)	P<0.05	Power_t.t
1	age	25.00	29.22	9.90	355.00	age	35.00	36.41	10.84	177.00	-7.4200	0.0000	1.00	1.00
2	bp	70.00	69.91	11.90	355.00	bp	74.00	74.70	12.52	177.00	-4.2200	0.0000	1.00	0.97
3	glu	106.00	110.02	24.29	355.00	glu	144.00	143.12	31.27	177.00	-12.3500	0.0000	1.00	1.00
4	skin	27.00	27.29	10.08	355.00	skin	32.00	32.98	10.40	177.00	-6.0100	0.0000	1.00	1.00
5	bmi	30.90	31.43	6.55	355.00	bmi	34.60	35.82	6.61	177.00	-7.2400	0.0000	1.00	1.00
6	ped	0.37	0.45	0.30	355.00	ped	0.54	0.62	0.40	177.00	-5.0200	0.0000	1.00	1.00

Table 7: Results from t-Student tests for comparing two means from continuous variables. The subsample sizes are not checked.

Appendix 5 - Tests for comparing several means (t.test,anova)

	var_cont	var_disc	test12_vr	test12_eq	test12_gt	test12_ls	test12_wx_eq	test12_wx_gq	test12_wx_ls
1	age	npreg							
2	bp	npreg							
3	glu	npreg							
4	skin	npreg							
5	bmi	npreg							
6	ped	npreg							
7	age	bp_pb	0.2771	0.0039	0.9981	0.0019	0.0004	0.9998	0.0002
8	bp	bp_pb	0.0318	0.0000	1.0000	0.0000	0.0000	1.0000	0.0000
9	glu	bp_pb	0.7598	0.0836	0.9582	0.0418	0.0401	0.9800	0.0201
10	skin	bp_pb	0.5660	0.0134	0.9933	0.0067	0.0120	0.9941	0.0060
11	bmi	bp_pb	0.0487	0.0099	0.9951	0.0049	0.0012	0.9994	0.0006
12	ped	bp_pb	0.8930	0.9000	0.4500	0.5500	0.7064	0.3532	0.6474
13	age	bmigroups							
14	bp	bmigroups							
15	glu	bmigroups							
16	skin	bmigroups							
17	bmi	bmigroups							
18	ped	bmigroups							
19	age	glu_cl3_							

Table 8: Results from anova tests for comparing means from continuous variables (part 1). The subsample sizes are not checked. (part 1/3)

	var_cont	var_disc	test12_vr	test12_eq	test12_gt	test12_ls	test12_wx_eq	test12_wx_gq	test12_wx_ls
20	bp	glu_cl3_							
21	glu	glu_cl3_							
22	skin	glu_cl3_							
23	bmi	glu_cl3_							
24	ped	glu_cl3_							
25	age	skin_cl3_							
26	bp	skin_cl3_							
27	glu	skin_cl3_							
28	skin	skin_cl3_							
29	bmi	skin_cl3_							
30	ped	skin_cl3_							
31	age	ped_cl3_							
32	bp	ped_cl3_							
33	glu	ped_cl3_							
34	skin	ped_cl3_							
35	bmi	ped_cl3_							
36	ped	ped_cl3_							
37	age	age_cl3_							
38	bp	age_cl3_							
39	glu	age_cl3_							

Table 9: Results from anova tests for comparing means from continuous variables (part 1). The subsample sizes are not checked. (part 2/3)

	var_cont	var_disc	test12_vr	test12_eq	test12_gt	test12_ls	test12_wx_eq	test12_wx_gq	test12_wx_ls
40	skin	age_cl3_							
41	bmi	age_cl3_							
42	ped	age_cl3_							

Table 10: Results from anova tests for comparing means from continuous variables (part 1). The subsample sizes are not checked. (part 3/3)

	var_cont	var_disc	test_vr	test_aov	test_aov_check	test_welch	test_krusk
1	age	npreg	0.0008	0.0000	0.0000	0.0000	0.0000
2	bp	npreg	0.0556	0.0000	0.0119	0.0000	0.0000
3	glu	npreg	0.0191	0.0001	0.0000	0.0005	0.0002
4	skin	npreg	0.0173	0.0123	0.0000	0.0064	0.0021
5	bmi	npreg	0.0005	0.0001	0.0000	0.0026	0.0006
6	ped	npreg	0.8106	0.9381	0.0000	0.9311	0.6470
7	age	bp_pb					
8	bp	bp_pb					
9	glu	bp_pb					
10	skin	bp_pb					
11	bmi	bp_pb					
12	ped	bp_pb					
13	age	bmigroups	0.1054	0.0036	0.0000	0.0016	0.0000
14	bp	bmigroups	0.3826	0.0000	0.0008	0.0000	0.0000
15	glu	bmigroups	0.0000	0.0000	0.0000	0.0000	0.0000
16	skin	bmigroups	0.0013	0.0000	0.0000	0.0000	0.0000
17	bmi	bmigroups	0.0000	0.0000	0.0000	0.0000	0.0000
18	ped	bmigroups	0.4336	0.1524	0.0000	0.1242	0.0927
19	age	glu_cl3_	0.0000	0.0000	0.0000	0.0000	0.0000

Table 11: Results from anova tests for comparing means from continuous variables (part 2). The subsample sizes are not checked. (part 1/3)

	var_cont	var_disc	test_vr	test_aov	test_aov_check	test_welch	test_krusk
20	bp	glu_cl3_	0.6391	0.0000	0.0048	0.0000	0.0000
21	glu	glu_cl3_	0.0000	0.0000	0.0000	0.0000	0.0000
22	skin	glu_cl3_	0.7975	0.0000	0.0000	0.0000	0.0000
23	bmi	glu_cl3_	0.4248	0.0000	0.0000	0.0000	0.0000
24	ped	glu_cl3_	0.1412	0.0665	0.0000	0.0855	0.1242
25	age	skin_cl3_	0.0032	0.0001	0.0000	0.0001	0.0000
26	bp	skin_cl3_	0.1327	0.0000	0.0005	0.0000	0.0000
27	glu	skin_cl3_	0.0059	0.0000	0.0000	0.0000	0.0000
28	skin	skin_cl3_	0.0000	0.0000	0.0000	0.0000	0.0000
29	bmi	skin_cl3_	0.0079	0.0000	0.0000	0.0000	0.0000
30	ped	skin_cl3_	0.0013	0.0112	0.0000	0.0228	0.1566
31	age	ped_cl3_	0.2100	0.0455	0.0000	0.0511	0.0216
32	bp	ped_cl3_	0.7254	0.5865	0.0038	0.5863	0.3627
33	glu	ped_cl3_	0.0072	0.0021	0.0000	0.0035	0.0133
34	skin	ped_cl3_	0.0456	0.1469	0.0000	0.1910	0.2682
35	bmi	ped_cl3_	0.5750	0.0556	0.0000	0.0426	0.1589
36	ped	ped_cl3_	0.0000	0.0000	0.0000	0.0000	0.0000
37	age	age_cl3_	0.0000	0.0000	0.0000	0.0000	0.0000
38	bp	age_cl3_	0.6847	0.0000	0.0304	0.0000	0.0000
39	glu	age_cl3_	0.0037	0.0000	0.0000	0.0000	0.0000

Table 12: Results from anova tests for comparing means from continuous variables (part 2). The subsample sizes are not checked. (part 2/3)

	var_cont	var_disc	test_vr	test_aov	test_aov_check	test_welch	test_krusk
40	skin	age_cl3_	0.1000	0.0004	0.0000	0.0003	0.0004
41	bmi	age_cl3_	0.0107	0.0219	0.0000	0.0289	0.0114
42	ped	age_cl3_	0.0555	0.0284	0.0000	0.0112	0.0714

Table 13: Results from anova tests for comparing means from continuous variables (part 2). The subsample sizes are not checked. (part 3/3)