651_FInalProject

#The objective of this project is to examine risk factors associated with post-transplant mortality and graft failure.

```
#Read in Data:
data=read.csv("pseudo_kidney_transplant_2005.csv")


#Donor Information:
data %>%
  dplyr::select(DON_HIST_DIAB,DON_GENDER,DON_BMI,DON_AGE,DON_RACE,DON_HTN,DON_ECD) %>%
  tbl_summary(missing = "no",
              type = all_continuous() ~ "continuous2",
              statistic = list(all_continuous() ~ c("{N_nonmiss}",
                                                    "{mean} ({sd})",
                                                    "{median} ({p25}, {p75})"),
                               all_categorical() ~ "{n} ({p}%)"),
              ) %>% add_n %>% bold_labels  %>%
  modify_caption("Table 1a. Baseline Donor Related Information ")


data %>%
  select(REC_GENDER,REC_RACE,REC_BMI,REC_COLD_ISCH_TM_20,REC_AGE_AT_TX,REC_DIAB,REC_DIAL_YRS,event) %>%
  tbl_summary(missing = "no",
              type = all_continuous() ~ "continuous2",
              statistic = list(all_continuous() ~ c("{N_nonmiss}",
                                                    "{mean} ({sd})",
                                                    "{median} ({p25}, {p75})"),
                               all_categorical() ~ "{n} ({p}%)"),
              ) %>% add_n %>% bold_labels  %>%
  modify_caption("Table 1b. Baseline Recipiant related information")
```

```
kable(tbl1,booktab=T,col.names = c("","Estimate","P-value","Estimate","P-value","Estimate","P-value")) %
  add_header_above(c(" "=3,"Full Model"=2,"Step-wise Selection"=2)) %>%
  add_header_above(c(" ","Unadjusted"=2,"Adjusted"=4)) %>%
  kable_styling(latex_options = c("scale_down"))
```

```
kable(tbl2,booktab=T,col.names = c("","Estimate","P-value","Estimate","P-value","Estimate","P-value")) %
  add_header_above(c(" "=3,"Full Model"=2,"Step-wise Selection"=2)) %>%
  add_header_above(c(" ","Unadjusted"=2,"Adjusted"=4)) %>%
  kable_styling(latex_options = c("scale_down"))
```

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p1
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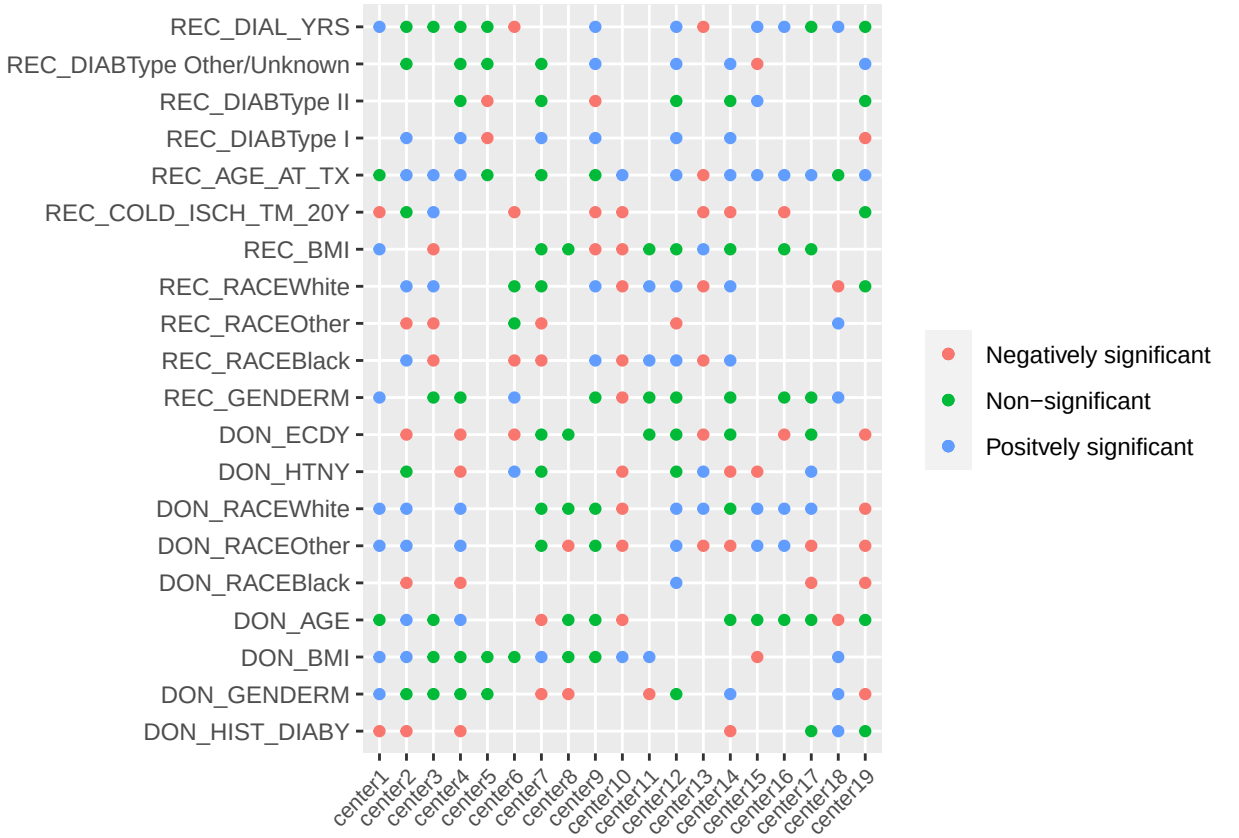
	Unadjusted		Adjusted			
			Full Model		Step-wise Selection	
	Estimate	P-value	Estimate	P-value	Estimate	P-value
(Intercept)	–	–	-4.86(-6.28,-3.44)	<0.001**	-4.96(-6.25,-3.68)	<0.001**
DON_AGE	0.01(0,-2.35)	<0.001**	0(-0.01,0.01)	0.999	0(-0.01,0.01)	0.627
DON_BMI	0.02(0,-2.6)	0.046*	0.02(0,0.04)	0.106	0.02(0,0.04)	0.098
DON_ECDY	0.24(-0.05,-1.54)	0.11	-0.16(-0.59,0.27)	0.458	–	–
DON_GENDERM	-0.29(-0.53,-1.37)	0.026*	-0.24(-0.49,0.02)	0.076	-0.25(-0.51,0.01)	0.061
DON_HIST_DIABY	0.44(-0.04,-1.48)	0.067	0.36(-0.16,0.88)	0.176	0.37(-0.15,0.89)	0.159
DON_HTNY	-0.13(-0.4,-1.57)	0.353	-0.31(-0.65,0.03)	0.075	-0.35(-0.68,-0.03)	0.034*
DON_RACEBlack	-0.53(-1.51,-0.25)	0.289	-0.72(-1.74,0.3)	0.165	-0.73(-1.74,0.29)	0.16
DON_RACEOther	0.07(-0.84,-1.08)	0.882	-0.18(-1.13,0.77)	0.713	-0.2(-1.15,0.75)	0.681
DON_RACEWhite	0.36(-0.5,-0.59)	0.413	0.14(-0.76,1.05)	0.756	0.12(-0.78,1.02)	0.794
REC_AGE_AT_TX	0.04(0.03,-1.04)	<0.001**	0.04(0.03,0.06)	<0.001**	0.04(0.03,0.06)	<0.001**
REC_BMI	0(-0.02,-2.28)	1	-0.01(-0.03,0.02)	0.488	–	–
REC_COLD_ISCH_TM_20Y	-0.24(-0.51,-1.51)	0.086	-0.28(-0.56,-0.01)	0.043*	-0.28(-0.56,-0.01)	0.043*
REC_DIABType I	1.23(0.62,-0.42)	<0.001**	1.19(0.54,1.84)	<0.001**	1.17(0.53,1.82)	<0.001**
REC_DIABType II	0.43(0.02,-0.29)	0.032*	0.24(-0.18,0.66)	0.27	0.22(-0.2,0.64)	0.31
REC_DIABType Other/Unknown	0.7(0.42,0)	<0.001**	0.54(0.25,0.84)	<0.001**	0.52(0.23,0.81)	<0.001**
REC_DIAL_YRS	0.02(-0.02,-1.71)	0.317	0.05(0.01,0.1)	0.017*	0.05(0.01,0.1)	0.016*
REC_GENDERM	0.54(0.27,-1.6)	<0.001**	0.47(0.2,0.75)	0.001*	0.47(0.19,0.75)	0.001*
REC_RACEBlack	0.32(-0.2,0.73)	0.236	0.37(-0.19,0.93)	0.195	0.35(-0.2,0.9)	0.211
REC_RACEOther	0.06(-1.25,-1.83)	0.929	0.03(-1.32,1.38)	0.963	0.03(-1.31,1.38)	0.962
REC_RACEWhite	0.15(-0.34,-0.22)	0.549	0.05(-0.47,0.58)	0.839	0.04(-0.48,0.56)	0.881

	Unadjusted		Adjusted			
			Full Model		Step-wise Selection	
	Estimate	P-value	Estimate	P-value	Estimate	P-value
(Intercept)	–	–	-2.15(-3.3,-1)	<0.001**	-2.3(-3.34,-1.27)	<0.001**
DON_AGE	0.02(0.02,-1.77)	<0.001**	0.02(0.01,0.03)	<0.001**	0.02(0.01,0.03)	<0.001**
DON_BMI	0.03(0.04,-1.78)	0.003*	0.01(0,0.03)	0.082	0.01(0,0.03)	0.111
DON_ECDY	0.41(0.54,-1.3)	0.001*	0.28(-0.08,0.63)	0.123	–	–
DON_GENDERM	-0.21(-0.04,-1.06)	0.056	-0.2(-0.42,0.03)	0.083	-0.18(-0.41,0.04)	0.105
DON_HIST_DIABY	0.65(0.91,-1.27)	0.001*	0.55(0.13,0.97)	0.01*	0.54(0.12,0.96)	0.011*
DON_HTNY	0.32(0.15,-1.31)	0.004*	-0.2(-0.48,0.07)	0.147	-0.14(-0.4,0.12)	0.294
DON_RACEBlack	0.48(0.46,1.22)	0.207	0.12(-0.65,0.89)	0.761	0.11(-0.66,0.88)	0.781
DON_RACEOther	-0.33(0.99,0.42)	0.385	-0.59(-1.38,0.19)	0.14	-0.57(-1.36,0.21)	0.153
DON_RACEWhite	0.11(1.23,0.81)	0.76	-0.28(-1.02,0.45)	0.45	-0.26(-0.99,0.48)	0.494
REC_AGE_AT_TX	-0.01(0.05,-0.23)	<0.001**	-0.02(-0.03,-0.01)	<0.001**	-0.02(-0.03,-0.01)	<0.001**
REC_BMI	0.01(0.03,-1.19)	0.317	0(-0.02,0.02)	0.998	–	–
REC_COLD_ISCH_TM_20Y	0.12(0.02,-1.24)	0.275	0(-0.22,0.23)	0.979	0(-0.22,0.23)	0.974
REC_DIABType I	0.27(1.85,0.96)	0.44	0.43(-0.29,1.15)	0.246	0.42(-0.3,1.14)	0.256
REC_DIABType II	0.07(0.83,0.42)	0.697	0.14(-0.25,0.52)	0.491	0.14(-0.24,0.52)	0.467
REC_DIABType Other/Unknown	0.25(0.98,0.5)	0.054	0.19(-0.09,0.46)	0.179	0.2(-0.06,0.47)	0.135
REC_DIAL_YRS	0.07(0.06,-1.41)	<0.001**	0.06(0.03,0.1)	<0.001**	0.06(0.03,0.1)	<0.001**
REC_GENDERM	0.16(0.8,-1.26)	0.146	0.09(-0.13,0.32)	0.418	0.1(-0.13,0.32)	0.404
REC_RACEBlack	1.24(0.84,1.75)	<0.001**	1.18(0.64,1.71)	<0.001**	1.17(0.64,1.7)	<0.001**
REC_RACEOther	-0.3(1.36,1.24)	0.701	-0.44(-2.03,1.14)	0.583	-0.45(-2.04,1.14)	0.58
REC_RACEWhite	0.28(0.65,0.79)	0.282	0.38(-0.14,0.91)	0.152	0.38(-0.14,0.9)	0.152


REC_DIAL_YRS
REC_DIABType Other/Unknown
REC_DIABType II
REC_DIABType I
REC_AGE_AT_TX
REC_COLD_ISCH_TM_20Y
REC_BMI
REC_RACEWhite
REC_RACEOther
REC_RACEBlack
REC_GENDERM
DON_ECDY
DON_HTNY
DON_RACEWhite
DON_RACEOther
DON_RACEBlack
DON_AGE
DON_BMI
DON_GENDERM
DON_HIST_DIABY
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Negatively significant
Non−significant
Positvely significant

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p2
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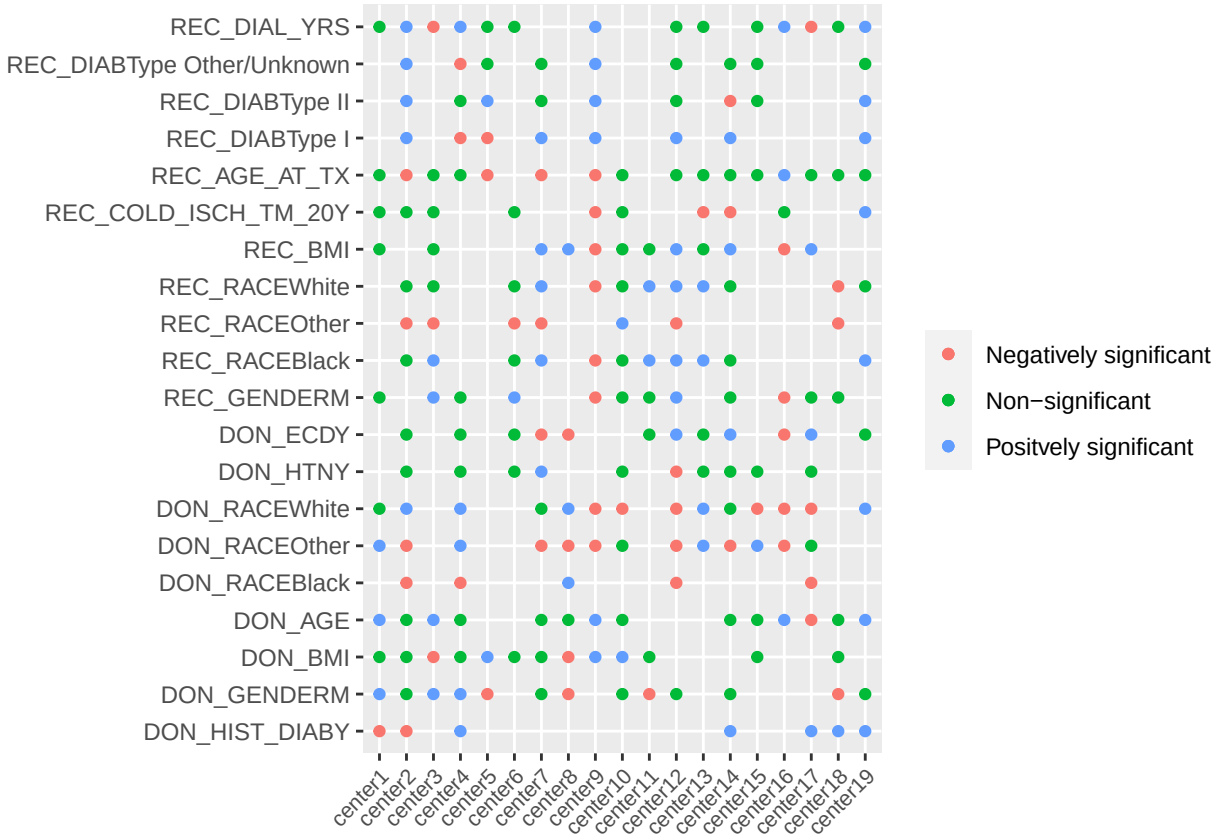
REC_DIAL_YRS
REC_DIABType Other/Unknown
REC_DIABType II
REC_DIABType I
REC_AGE_AT_TX
REC_COLD_ISCH_TM_20Y
REC_BMI
REC_RACEWhite
REC_RACEOther
REC_RACEBlack
REC_GENDERM
DON_ECDY
DON_HTNY
DON_RACEWhite
DON_RACEOther
DON_RACEBlack
DON_AGE
DON_BMI
DON_GENDERM
DON_HIST_DIABY
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Negatively significant
Non−significant
Positvely significant