

File name: Additional File 1 Regression tests with other covariates

File format: PDF

Title of data: Regression tests with other covariates

Description of data: A number of covariates, which had negligible effects on the overall results, were excluded in the final regression models. This file presents these regression models, including the following covariates: (i) Cardiovascular (CVD) conditions (none/1 or more); (ii) Private health insurance (yes/no); (iii) Healthcare coverage (no cover, medical card/GP visit card only, private insurance only, dual cover); (iv) and long-term health problem (yes/no).

Regression tests with other covariates

1. Multiple regressions including CVD conditions (no CVD/1+) as covariate

```
. tab CVD_w1
```

see notes	Freq.	Percent	Cum.
no CVD conditions	2,964	36.26	36.26
at least 1 CVD condition	5,211	63.74	100.00
Total	8,175	100.00	

1a.GP visits - original model

```
. nbreg gpvisits i.strokew1 zMoca age i.sex i.edu3 i.emp2 i.medcard i.Disability2 MHcesd_capi, irr nolog
```

```
Negative binomial regression          Number of obs   =      5,753
                                      LR chi2(10)      =     1364.13
Dispersion = mean                    Prob > chi2      =      0.0000
Log likelihood = -13146.315          Pseudo R2       =      0.0493
```

gpvisits	IRR	Std. Err.	z	P> z	[95% Conf. Interval]
strokew1					
stroke	1.26931	.1088749	2.78	0.005	1.072892 1.501687
zMoca	1.066888	.0136849	5.05	0.000	1.040401 1.09405
age	1.003391	.0016149	2.10	0.035	1.000231 1.006561
sex					
Female	1.016083	.0235785	0.69	0.492	.9709047 1.063363
edu3					
secondary edu	.9953264	.0292704	-0.16	0.873	.9395795 1.054381
third level edu	.9537152	.0318513	-1.42	0.156	.8932871 1.018231
emp2					
Employed	.8489824	.0245915	-5.65	0.000	.8021266 .8985752
medcard					
medcard/gp visit card	1.597204	.0444586	16.82	0.000	1.512401 1.686762
Disability2					

Disability		1.434818	.050219	10.32	0.000	1.339691	1.5367
MHcesd_capi		1.018779	.0016563	11.44	0.000	1.015538	1.02203
_cons		2.029435	.225706	6.36	0.000	1.631953	2.523728
-----+-----							
/lnalpha		-.8281074	.0318193			-.8904721	-.7657428
-----+-----							
alpha		.4368753	.0139011			.4104619	.4649884

LR test of alpha=0: chibar2(01) = 4075.71 Prob >= chibar2 = 0.000

1b.GP visits - model including CVD conditions

```
. nbreg gpvisits i.strokew1 zMoca i.CVD_w1 age i.sex i.edu3 i.emp2 i.medcard i.Disability2
MHcesd_capi, irr nolog
```

```
Negative binomial regression          Number of obs   =      5,753
                                      LR chi2(11)     =     1576.37
Dispersion = mean                    Prob > chi2     =      0.0000
Log likelihood = -13040.195          Pseudo R2      =      0.0570
```

gpvisits	IRR	Std. Err.	z	P> z	[95% Conf. Interval]	
-----+-----						
strokew1						
stroke	1.230329	.1033133	2.47	0.014	1.043624	1.450436
zMoca	1.075884	.0135795	5.79	0.000	1.049595	1.102831
CVD_w1						
at least 1 CVD condition	1.438804	.0355696	14.72	0.000	1.370751	1.510236
age	1.00019	.0016001	0.12	0.906	.9970587	1.003331
sex						
Female	1.024435	.0234327	1.06	0.291	.9795225	1.071408
edu3						
secondary edu	1.003648	.0290498	0.13	0.900	.9482965	1.062231
third level edu	.9615744	.0316433	-1.19	0.234	.9015125	1.025638
emp2						
Employed	.8580756	.0245463	-5.35	0.000	.8112896	.9075596
medcard						
medcard/gp visit card	1.57704	.0433139	16.59	0.000	1.494391	1.664261
Disability2						
Disability	1.393207	.047925	9.64	0.000	1.302372	1.490377
MHcesd_capi	1.018333	.0016222	11.40	0.000	1.015159	1.021518
_cons	1.932588	.2117988	6.01	0.000	1.559026	2.395661
-----+-----						
/lnalpha	-.8881818	.0325212			-.9519223	-.8244413
-----+-----						
alpha	.4114031	.0133793			.3859983	.4384799
-----+-----						

```
LR test of alpha=0: chibar2(01) = 3800.37          Prob >= chibar2 = 0.000
```

2a. Emergency visits - original model

```
. nbreg emergency i.strokew1 zMoca age i.sex i.edu3 i.emp2 i.medcard i.Disability2 MHcesd_capi,
irr nolog
```

```
Negative binomial regression      Number of obs   =      5,757
                                   LR chi2(10)      =      136.19
Dispersion   = mean              Prob > chi2     =      0.0000
Log likelihood = -3156.5347      Pseudo R2      =      0.0211
```

emergency	IRR	Std. Err.	z	P> z	[95% Conf. Interval]	
-----+-----						
strokew1						
stroke	1.562992	.4085484	1.71	0.088	.936402	2.608863
zMoca	1.055994	.0455497	1.26	0.207	.9703874	1.149152
age	1.000074	.0053157	0.01	0.989	.9897096	1.010547
sex						
Female	.9694865	.0738441	-0.41	0.684	.83504	1.12558
edu3						
secondary edu	.981302	.0952215	-0.19	0.846	.811345	1.186861
third level edu	1.150641	.1256091	1.29	0.199	.9290065	1.42515
emp2						
Employed	.9343425	.0892415	-0.71	0.477	.7748286	1.126696
medcard						
medcard/gp visit card	1.425844	.1318271	3.84	0.000	1.189525	1.709111
Disability2						
Disability	1.880549	.1998814	5.94	0.000	1.526903	2.316103
MHcesd_capi	1.021914	.0050527	4.38	0.000	1.012059	1.031865
_cons	.1416426	.0518411	-5.34	0.000	.0691282	.2902237
-----+-----						
/lnalpha	1.135652	.078928			.9809563	1.290348
-----+-----						
alpha	3.113204	.2457189			2.667005	3.634052
-----+-----						

```
LR test of alpha=0: chibar2(01) = 644.50      Prob >= chibar2 = 0.000
```

2b. Emergency visits - model including CVD conditions

```
. nbreg emergency i.strokew1 zMoca i.CVD_w1 age i.sex i.edu3 i.emp2 i.medcard i.Disability2
MHcesd_capi, irr nolog
```

```
Negative binomial regression      Number of obs   =      5,757
                                   LR chi2(11)      =      142.77
Dispersion = mean                 Prob > chi2     =      0.0000
Log likelihood = -3153.2471       Pseudo R2      =      0.0221
```

emergency	IRR	Std. Err.	z	P> z	[95% Conf. Interval]	
-----+-----						
strokew1						
stroke	1.529209	.3990983	1.63	0.104	.9168897	2.550447
zMoca	1.060109	.0457456	1.35	0.176	.9741362	1.153669
CVD_w1						
at least 1 CVD condition	1.235639	.1021309	2.56	0.010	1.050839	1.452938
age	.9980633	.0053591	-0.36	0.718	.9876147	1.008622
sex						
Female	.9690903	.073761	-0.41	0.680	.834788	1.125
edu3						
secondary edu	.983699	.0953829	-0.17	0.865	.8134424	1.189591
third level edu	1.147465	.1251908	1.26	0.207	.9265562	1.421043
emp2						
Employed	.9394261	.089723	-0.65	0.513	.7790508	1.132816
medcard						
medcard/gp visit card	1.418072	.1310527	3.78	0.000	1.183133	1.699664
Disability2						
Disability	1.835207	.195486	5.70	0.000	1.489414	2.261284
MHcesd_capi	1.021596	.0050429	4.33	0.000	1.01176	1.031528
_cons	.1404339	.051381	-5.37	0.000	.0685551	.2876763
-----+-----						
/lnalpha	1.127702	.0791117			.9726459	1.282758
-----+-----						
alpha	3.088551	.2443406			2.644933	3.606574
-----+-----						

```
LR test of alpha=0: chibar2(01) = 639.56      Prob >= chibar2 = 0.000
```

3a.Nights in hospital - original model

```
. nbreg nights i.strokew1 zMoca age i.sex i.edu3 i.emp2 i.medcard i.Disability2 MHcesd_capi, irr
nolog
```

```
Negative binomial regression      Number of obs   =      5,758
                                   LR chi2(10)       =      100.85
Dispersion      = mean           Prob > chi2     =      0.0000
Log likelihood = -4043.7539      Pseudo R2      =      0.0123
```

nights	IRR	Std. Err.	z	P> z	[95% Conf. Interval]	
-----+-----						
strokew1						
stroke	1.930541	.8994416	1.41	0.158	.7746455	4.811217
zMoca	1.047743	.0662378	0.74	0.461	.92564	1.185952
age	1.021044	.0088188	2.41	0.016	1.003905	1.038475
sex						
Female	.9332921	.1110405	-0.58	0.562	.7391694	1.178396
edu3						
secondary edu	1.233323	.1891828	1.37	0.172	.9130801	1.665885
third level edu	1.251192	.2208183	1.27	0.204	.8853166	1.768274
emp2						
Employed	.7813591	.1203808	-1.60	0.109	.5777096	1.056798
medcard						
medcard/gp visit card	1.518647	.2199657	2.88	0.004	1.143315	2.017193
Disability2						
Disability	2.106449	.3963532	3.96	0.000	1.456758	3.045892
MHcesd_capi	1.0189	.0088877	2.15	0.032	1.001628	1.036469
_cons	.0973825	.0587259	-3.86	0.000	.0298655	.3175357
-----+-----						
/lnalpha	2.852873	.0487549			2.757315	2.948431
-----+-----						
alpha	17.33752	.8452886			15.75748	19.07599
-----+-----						

```
LR test of alpha=0: chibar2(01) = 1.0e+04      Prob >= chibar2 = 0.000
```

3b.Nights in hospital - model including CVD conditions

```
. nbreg nights i.strokew1 zMoca i.CVD_w1 age i.sex i.edu3 i.emp2 i.medcard i.Disability2
MHcesd_capi, irr nolog
```

```
Negative binomial regression      Number of obs   =    5,758
                                   LR chi2(11)      =    108.87
Dispersion      = mean           Prob > chi2     =    0.0000
Log likelihood = -4039.7446      Pseudo R2      =    0.0133
```

nights	IRR	Std. Err.	z	P> z	[95% Conf. Interval]	
-----+-----						
strokew1						
stroke	1.982573	.9217095	1.47	0.141	.7970781	4.931257
zMoca	1.062547	.0670968	0.96	0.337	.938852	1.202539
CVD_w1						
at least 1 CVD condition	1.442755	.1839679	2.87	0.004	1.123711	1.852382
age	1.017069	.008892	1.94	0.053	.9997894	1.034647
sex						
Female	.9446874	.1122316	-0.48	0.632	.7484502	1.192376
edu3						
secondary edu	1.267437	.1946099	1.54	0.123	.9380539	1.712478
third level edu	1.229091	.2161316	1.17	0.241	.8707695	1.734863
emp2						
Employed	.7880019	.1214622	-1.55	0.122	.5825371	1.065936
medcard						
medcard/gp visit card	1.476801	.2136654	2.69	0.007	1.112165	1.960988
Disability2						
Disability	2.023287	.3807571	3.74	0.000	1.399175	2.925788
MHcesd_capi	1.01768	.0088037	2.03	0.043	1.00057	1.035082
_cons	.0978585	.05891	-3.86	0.000	.0300734	.3184304
-----+-----						
/lnalpha	2.844353	.0488406			2.748627	2.940079
-----+-----						
alpha	17.19043	.8395916			15.62116	18.91733
-----+-----						

```
LR test of alpha=0: chibar2(01) = 1.0e+04      Prob >= chibar2 = 0.000
```


4a.Outpatient visits - original model

```
. nbreg outpatient i.strokew1 zMoca age i.sex i.edu3 i.emp2 i.medcard i.Disability2 MHcesd_capi,
irr nolog
```

```
Negative binomial regression      Number of obs   =      5,758
                                   LR chi2(10)       =      320.19
Dispersion = mean                 Prob > chi2     =      0.0000
Log likelihood = -8323.6887       Pseudo R2      =      0.0189
```

outpatient	IRR	Std. Err.	z	P> z	[95% Conf. Interval]	
-----+-----						
strokew1						
stroke	1.491691	.2666236	2.24	0.025	1.050838	2.117493
zMoca	.9233992	.0251754	-2.92	0.003	.8753515	.9740841
age	.9991229	.0033752	-0.26	0.795	.9925296	1.00576
sex						
Female	.970144	.0461093	-0.64	0.524	.883853	1.06486
edu3						
secondary edu	.9581131	.0588409	-0.70	0.486	.8494575	1.080667
third level edu	1.048307	.072027	0.69	0.492	.9162296	1.199424
emp2						
Employed	.6883726	.0408307	-6.30	0.000	.6128225	.7732367
medcard						
medcard/gp visit card	1.308491	.0735854	4.78	0.000	1.17193	1.460964
Disability2						
Disability	1.786977	.12974	8.00	0.000	1.549955	2.060244
MHcesd_capi	1.021031	.0035114	6.05	0.000	1.014172	1.027936
_cons	1.027715	.2380878	0.12	0.906	.6526458	1.618334
-----+-----						
/lnalpha	.7918733	.0349612			.7233506	.860396
-----+-----						
alpha	2.207528	.0771779			2.061328	2.364097
-----+-----						

```
LR test of alpha=0: chibar2(01) = 5125.52      Prob >= chibar2 = 0.000
```

4b.Outpatient visits - model including CVD conditions

```
. nbreg outpatient i.strokew1 zMoca i.CVD_w1 age i.sex i.edu3 i.emp2 i.medcard i.Disability2
MHcesd_capi, irr nolog
```

```
Negative binomial regression      Number of obs   =      5,758
                                   LR chi2(11)      =      371.72
Dispersion = mean                 Prob > chi2     =      0.0000
Log likelihood = -8297.9233       Pseudo R2      =      0.0219
```

outpatient	IRR	Std. Err.	z	P> z	[95% Conf. Interval]	
-----+-----						
strokew1						
stroke	1.416524	.2513117	1.96	0.050	1.00048	2.005576
zMoca	.9333502	.0252937	-2.55	0.011	.885069	.9842652
CVD_w1						
at least 1 CVD condition	1.448863	.0740592	7.25	0.000	1.310743	1.601536
age	.9953236	.0033865	-1.38	0.168	.9887082	1.001983
sex						
Female	.9818089	.0464801	-0.39	0.698	.8948083	1.077268
edu3						
secondary edu	.963217	.0588214	-0.61	0.539	.8545614	1.085688
third level edu	1.057727	.0722966	0.82	0.412	.9251093	1.209355
emp2						
Employed	.7035111	.0416331	-5.94	0.000	.6264663	.7900312
medcard						
medcard/gp visit card	1.306792	.0731684	4.78	0.000	1.170973	1.458364
Disability2						
Disability	1.732607	.1251426	7.61	0.000	1.503902	1.996092
MHcesd_capi	1.020224	.0034795	5.87	0.000	1.013427	1.027067
_cons	1.004379	.2314683	0.02	0.985	.6393376	1.577846
-----+-----						
/lnalpha	.7695325	.0352299			.7004832	.8385819
-----+-----						
alpha	2.158757	.0760528			2.014726	2.313085
-----+-----						

```
LR test of alpha=0: chibar2(01) = 4994.43      Prob >= chibar2 = 0.000
```

5a.Rehab services used - 3 services (new variable: OT, Psychology and Physiotherapy)

. logit SSused3 i.strokew1 zMoca age i.sex i.edu3 i.emp2 i.medcard i.Disability2 MHcesd_capi, or
nolog

```

Logistic regression                Number of obs    =    5,760
                                   LR chi2(10)       =    260.77
                                   Prob > chi2        =    0.0000
Log likelihood = -1259.2078        Pseudo R2       =    0.0938
  
```

SSused3	Odds Ratio	Std. Err.	z	P> z	[95% Conf. Interval]
-----+-----					
strokew1					
stroke	1.247889	.4231788	0.65	0.514	.641978 2.42567
zMoca	.9854331	.0581176	-0.25	0.804	.8778617 1.106186
age	.9876777	.0072565	-1.69	0.091	.9735571 1.002003
sex					
Female	1.139399	.129593	1.15	0.251	.9117204 1.423934
edu3					
secondary edu	1.447394	.2076175	2.58	0.010	1.092668 1.917278
third level edu	1.763759	.2863017	3.50	0.000	1.283122 2.424433
emp2					
Employed	.6002524	.0949352	-3.23	0.001	.4402596 .8183875
medcard					
medcard/gp visit card	2.697211	.3800268	7.04	0.000	2.046369 3.555053
Disability2					
Disability	2.593357	.3499073	7.06	0.000	1.990739 3.378394
MHcesd_capi	1.039322	.0066217	6.05	0.000	1.026425 1.052382
_cons	.0424572	.0217686	-6.16	0.000	.0155426 .1159789

5b. Rehab services used (3 services) - model including CVD conditions

. logit SSused3 i.strokew1 zMoca i.CVD_w1 age i.sex i.edu3 i.emp2 i.medcard i.Disability2
MHcesd_capi, or nolog

```

Logistic regression                Number of obs   =    5,760
                                   LR chi2(11)       =    262.96
                                   Prob > chi2        =    0.0000
Log likelihood = -1258.1131        Pseudo R2      =    0.0946
    
```

	SSused3	Odds Ratio	Std. Err.	z	P> z	[95% Conf. Interval]	

strokew1							
stroke		1.229696	.4163436	0.61	0.541	.63329	2.387772
zMoca		.9895971	.0585067	-0.18	0.860	.8813205	1.111176
CVD_w1							
at least 1 CVD condition		1.20336	.1519055	1.47	0.143	.9396035	1.541156
age		.9860614	.0073258	-1.89	0.059	.971807	1.000525
sex							
Female		1.141191	.1298287	1.16	0.246	.9131051	1.426252
edu3							
secondary edu		1.456619	.2090895	2.62	0.009	1.099413	1.929884
third level edu		1.774354	.2882235	3.53	0.000	1.290542	2.439541
emp2							
Employed		.6039991	.0955388	-3.19	0.001	.4429918	.8235252
medcard							
medcard/gp visit card		2.686256	.3784398	7.01	0.000	2.038122	3.540501
Disability2							
Disability		2.54289	.3445207	6.89	0.000	1.94986	3.316284
MHcesd_capi		1.039224	.0066269	6.03	0.000	1.026316	1.052294
_cons		.041506	.0213053	-6.20	0.000	.015177	.1135108

6a.Rehab services used - 2 services only (original variable: OT and Psychology)

. logit RehabUsed2 i.strokew1 zMoca age i.sex i.edu3 i.emp2 i.medcard i.Disability2 MHcesd_capi,
or nolog

```

Logistic regression                Number of obs    =      5,760
                                   LR chi2(10)       =      160.85
                                   Prob > chi2        =      0.0000
Log likelihood = -533.39536        Pseudo R2       =      0.1310
  
```

RehabUsed2	Odds Ratio	Std. Err.	z	P> z	[95% Conf. Interval]

strokew1					
stroke	3.023982	1.210921	2.76	0.006	1.37951 6.628779
zMoca	.9380939	.0918678	-0.65	0.514	.7742619 1.136592
age	.9660501	.0117159	-2.85	0.004	.9433582 .9892879
sex					
Female	.98947	.1873641	-0.06	0.955	.6826857 1.434117
edu3					
secondary edu	1.573118	.3827416	1.86	0.063	.9764793 2.53431
third level edu	2.043387	.5582288	2.62	0.009	1.196224 3.490509
emp2					
Employed	.4544699	.1282731	-2.79	0.005	.2613698 .7902326
medcard					
medcard/gp visit card	2.865971	.6841755	4.41	0.000	1.795022 4.575872
Disability2					
Disability	3.386041	.7127287	5.79	0.000	2.241416 5.115191
MHcesd_capi	1.048094	.0098247	5.01	0.000	1.029013 1.067528
_cons	.0442429	.0373463	-3.69	0.000	.0084591 .2313985

6b. Rehab services used (2 services) - model including CVD conditions

. logit RehabUsed2 i.strokew1 zMoca i.CVD_w1 age i.sex i.edu3 i.emp2 i.medcard i.Disability2
MHcesd_capi, or nolog

```

Logistic regression                Number of obs   =      5,760
                                   LR chi2(11)       =      161.40
                                   Prob > chi2        =      0.0000
Log likelihood = -533.12063        Pseudo R2      =      0.1315
    
```

RehabUsed2	Odds Ratio	Std. Err.	z	P> z	[95% Conf. Interval]
-----+-----					
strokew1					
stroke	2.985287	1.194223	2.73	0.006	1.362933 6.538794
zMoca	.942024	.0924501	-0.61	0.543	.7771863 1.141823
CVD_w1					
at least 1 CVD condition	1.16932	.2488205	0.74	0.462	.7705582 1.774439
age	.9648015	.0118178	-2.93	0.003	.9419149 .9882441
sex					
Female	.9907469	.1876009	-0.05	0.961	.6835734 1.435953
edu3					
secondary edu	1.586559	.3866118	1.89	0.058	.9840929 2.557859
third level edu	2.057371	.5626951	2.64	0.008	1.20367 3.516559
emp2					
Employed	.4577112	.1292737	-2.77	0.006	.2631372 .7961607
medcard					
medcard/gp visit card	2.857973	.6822748	4.40	0.000	1.790002 4.563129
Disability2					
Disability	3.322225	.7037876	5.67	0.000	2.193354 5.032103
MHcesd_capi	1.048187	.0098382	5.01	0.000	1.02908 1.067648
_cons	.0429982	.0363596	-3.72	0.000	.0081972 .2255449
-----+-----					

2. Multiple regressions including other covariates

Insurance (ins2)

```
. tab ins2
```

ins2	Freq.	Percent	Cum.
no private insurance	3,465	42.42	42.42
private insurance	4,704	57.58	100.00
Total	8,169	100.00	

1a.GP visits - original model

```
. nbreg gpvisits i.strokew1 zMoca age i.sex i.edu3 i.emp2 i.medcard i.Disability2 MHcesd_capi,
irr nolog
```

```
Negative binomial regression           Number of obs   =       5,753
                                         LR chi2(10)     =       1364.13
Dispersion = mean                       Prob > chi2     =       0.0000
Log likelihood = -13146.315             Pseudo R2      =       0.0493
```

gpvisits	IRR	Std. Err.	z	P> z	[95% Conf. Interval]
strokew1					
stroke	1.26931	.1088749	2.78	0.005	1.072892 1.501687
zMoca	1.066888	.0136849	5.05	0.000	1.040401 1.09405
age	1.003391	.0016149	2.10	0.035	1.000231 1.006561
sex					
Female	1.016083	.0235785	0.69	0.492	.9709047 1.063363
edu3					
secondary edu	.9953264	.0292704	-0.16	0.873	.9395795 1.054381
third level edu	.9537152	.0318513	-1.42	0.156	.8932871 1.018231
emp2					
Employed	.8489824	.0245915	-5.65	0.000	.8021266 .8985752
medcard					
medcard/gp visit card	1.597204	.0444586	16.82	0.000	1.512401 1.686762
Disability2					
Disability	1.434818	.050219	10.32	0.000	1.339691 1.5367
MHcesd_capi	1.018779	.0016563	11.44	0.000	1.015538 1.02203

_cons		2.029435	.225706	6.36	0.000	1.631953	2.523728
-----+-----							
/lnalpha		-.8281074	.0318193			-.8904721	-.7657428
-----+-----							
alpha		.4368753	.0139011			.4104619	.4649884

LR test of alpha=0: chibar2(01) = 4075.71 Prob >= chibar2 = 0.000

1b.GP visits - model including insurance

```
. nbreg gpvisits i.strokew1 zMoca i.ins2 age i.sex i.edu3 i.emp2 i.medcard i.Disability2
MHcesd_capi, irr nolog
```

```
Negative binomial regression          Number of obs   =      5,749
                                      LR chi2(11)      =     1353.30
Dispersion = mean                    Prob > chi2     =      0.0000
Log likelihood = -13137.446          Pseudo R2      =      0.0490
```

gpvisits	IRR	Std. Err.	z	P> z	[95% Conf. Interval]	
-----+-----						
strokew1						
stroke	1.269977	.1089374	2.79	0.005	1.073447	1.502488
zMoca	1.066563	.0137304	5.01	0.000	1.039989	1.093817
ins2						
private insurance	.9964236	.0275354	-0.13	0.897	.9438907	1.05188
age	1.003471	.0016595	2.10	0.036	1.000224	1.006729
sex						
Female	1.015687	.0235792	0.67	0.503	.9705083	1.062969
edu3						
secondary edu	.9949325	.0298201	-0.17	0.865	.9381697	1.05513
third level edu	.9541238	.0327592	-1.37	0.171	.8920296	1.02054
emp2						
Employed	.8491743	.024612	-5.64	0.000	.8022803	.8988093
medcard						
medcard/gp visit card	1.593726	.048097	15.44	0.000	1.502192	1.690838
Disability2						
Disability	1.432837	.0502106	10.26	0.000	1.33773	1.534706
MHcesd_capi	1.018631	.0016614	11.32	0.000	1.01538	1.021893
_cons	2.028307	.2259408	6.35	0.000	1.630478	2.523203
-----+-----						
/lnalpha	-.8277287	.0318298			-.8901141	-.7653434
-----+-----						
alpha	.4370408	.0139109			.4106089	.4651742
-----+-----						

```
LR test of alpha=0: chibar2(01) = 4070.53          Prob >= chibar2 = 0.000
```

2a. Emergency visits - original model

```
. nbreg emergency i.strokew1 zMoca age i.sex i.edu3 i.emp2 i.medcard i.Disability2 MHcesd_capi,
irr nolog
```

```
Negative binomial regression      Number of obs   =      5,757
                                   LR chi2(10)      =      136.19
Dispersion = mean                 Prob > chi2     =      0.0000
Log likelihood = -3156.5347       Pseudo R2      =      0.0211
```

emergency	IRR	Std. Err.	z	P> z	[95% Conf. Interval]	
-----+-----						
strokew1						
stroke	1.562992	.4085484	1.71	0.088	.936402	2.608863
zMoca	1.055994	.0455497	1.26	0.207	.9703874	1.149152
age	1.000074	.0053157	0.01	0.989	.9897096	1.010547
sex						
Female	.9694865	.0738441	-0.41	0.684	.83504	1.12558
edu3						
secondary edu	.981302	.0952215	-0.19	0.846	.811345	1.186861
third level edu	1.150641	.1256091	1.29	0.199	.9290065	1.42515
emp2						
Employed	.9343425	.0892415	-0.71	0.477	.7748286	1.126696
medcard						
medcard/gp visit card	1.425844	.1318271	3.84	0.000	1.189525	1.709111
Disability2						
Disability	1.880549	.1998814	5.94	0.000	1.526903	2.316103
MHcesd_capi	1.021914	.0050527	4.38	0.000	1.012059	1.031865
_cons	.1416426	.0518411	-5.34	0.000	.0691282	.2902237
-----+-----						
/lnalpha	1.135652	.078928			.9809563	1.290348
-----+-----						
alpha	3.113204	.2457189			2.667005	3.634052
-----+-----						

```
LR test of alpha=0: chibar2(01) = 644.50      Prob >= chibar2 = 0.000
```

2b. Emergency visits - model including insurance

```
. nbreg emergency i.strokew1 zMoca i.ins2 age i.sex i.edu3 i.emp2 i.medcard i.Disability2
MHcesd_capi, irr nolog
```

```
Negative binomial regression      Number of obs   =      5,753
                                   LR chi2(11)      =      132.49
Dispersion = mean                 Prob > chi2     =      0.0000
Log likelihood = -3150.4197       Pseudo R2      =      0.0206
```

emergency	IRR	Std. Err.	z	P> z	[95% Conf. Interval]	
-----+-----						
strokew1						
stroke	1.559522	.4062789	1.71	0.088	.9359244	2.598617
zMoca	1.049293	.0453461	1.11	0.266	.964076	1.142042
ins2						
private insurance	.8688459	.0777711	-1.57	0.116	.7290395	1.035463
age	1.002204	.00546	0.40	0.686	.9915593	1.012962
sex						
Female	.9707361	.0739303	-0.39	0.697	.8361313	1.12701
edu3						
secondary edu	1.006462	.0999081	0.06	0.948	.828517	1.222625
third level edu	1.19967	.1353425	1.61	0.107	.9616836	1.49655
emp2						
Employed	.9359685	.0893195	-0.69	0.488	.7763027	1.128474
medcard						
medcard/gp visit card	1.344173	.1329223	2.99	0.003	1.107342	1.631656
Disability2						
Disability	1.846807	.1966862	5.76	0.000	1.498884	2.275491
MHcesd_capi	1.020814	.0050905	4.13	0.000	1.010885	1.03084
_cons	.1364452	.0499853	-5.44	0.000	.0665471	.279761
-----+-----						
/lnalpha	1.131686	.079167			.9765215	1.28685
-----+-----						
alpha	3.10088	.2454874			2.655204	3.621363
-----+-----						

```
LR test of alpha=0: chibar2(01) = 635.78      Prob >= chibar2 = 0.000
```

3a.Nights in hospital - original model

```
. nbreg nights i.strokew1 zMoca age i.sex i.edu3 i.emp2 i.medcard i.Disability2 MHcesd_capi, irr
nolog
```

```
Negative binomial regression      Number of obs   =      5,758
                                   LR chi2(10)      =      100.85
Dispersion      = mean           Prob > chi2     =      0.0000
Log likelihood = -4043.7539      Pseudo R2      =      0.0123
```

nights	IRR	Std. Err.	z	P> z	[95% Conf. Interval]	
-----+-----						
strokew1						
stroke	1.930541	.8994416	1.41	0.158	.7746455	4.811217
zMoca	1.047743	.0662378	0.74	0.461	.92564	1.185952
age	1.021044	.0088188	2.41	0.016	1.003905	1.038475
sex						
Female	.9332921	.1110405	-0.58	0.562	.7391694	1.178396
edu3						
secondary edu	1.233323	.1891828	1.37	0.172	.9130801	1.665885
third level edu	1.251192	.2208183	1.27	0.204	.8853166	1.768274
emp2						
Employed	.7813591	.1203808	-1.60	0.109	.5777096	1.056798
medcard						
medcard/gp visit card	1.518647	.2199657	2.88	0.004	1.143315	2.017193
Disability2						
Disability	2.106449	.3963532	3.96	0.000	1.456758	3.045892
MHcesd_capi	1.0189	.0088877	2.15	0.032	1.001628	1.036469
_cons	.0973825	.0587259	-3.86	0.000	.0298655	.3175357
-----+-----						
/lnalpha	2.852873	.0487549			2.757315	2.948431
-----+-----						
alpha	17.33752	.8452886			15.75748	19.07599
-----+-----						

```
LR test of alpha=0: chibar2(01) = 1.0e+04      Prob >= chibar2 = 0.000
```

3b.Nights in hospital - model including insurance

```
. nbreg nights i.strokew1 zMoca i.ins2 age i.sex i.edu3 i.emp2 i.medcard i.Disability2
MHcesd_capi, irr nolog
```

```
Negative binomial regression      Number of obs   =      5,754
                                   LR chi2(11)      =      100.77
Dispersion = mean                 Prob > chi2     =      0.0000
Log likelihood = -4040.2153       Pseudo R2      =      0.0123
```

nights	IRR	Std. Err.	z	P> z	[95% Conf. Interval]	
strokew1						
stroke	1.92784	.8988453	1.41	0.159	.7730417	4.807721
zMoca	1.048222	.0663228	0.74	0.457	.9259687	1.186616
ins2						
private insurance	1.070257	.1617246	0.45	0.653	.7959114	1.439169
age	1.020357	.0089522	2.30	0.022	1.002961	1.038055
sex						
Female	.9286919	.1109297	-0.62	0.536	.7348487	1.173668
edu3						
secondary edu	1.209907	.1927329	1.20	0.232	.8854404	1.653274
third level edu	1.221389	.2252715	1.08	0.278	.8508625	1.753269
emp2						
Employed	.7838596	.1209826	-1.58	0.115	.5792445	1.060754
medcard						
medcard/gp visit card	1.566816	.2534868	2.78	0.006	1.141056	2.151441
Disability2						
Disability	2.116934	.3993409	3.98	0.000	1.462634	3.063931
MHcesd_capi	1.019098	.0089096	2.16	0.030	1.001785	1.036711
_cons	.0974991	.0588243	-3.86	0.000	.0298843	.3180956
/lnalpha	2.854183	.0487796			2.758577	2.949789
alpha	17.36025	.8468264			15.77737	19.10193

```
LR test of alpha=0: chibar2(01) = 1.0e+04      Prob >= chibar2 = 0.000
```

4a.Outpatient visits - original model

```
. nbreg outpatient i.strokew1 zMoca age i.sex i.edu3 i.emp2 i.medcard i.Disability2 MHcesd_capi,
irr nolog
```

```
Negative binomial regression      Number of obs   =      5,758
                                   LR chi2(10)      =      320.19
Dispersion = mean                 Prob > chi2     =      0.0000
Log likelihood = -8323.6887       Pseudo R2      =      0.0189
```

outpatient	IRR	Std. Err.	z	P> z	[95% Conf. Interval]	
-----+-----						
strokew1						
stroke	1.491691	.2666236	2.24	0.025	1.050838	2.117493
zMoca	.9233992	.0251754	-2.92	0.003	.8753515	.9740841
age	.9991229	.0033752	-0.26	0.795	.9925296	1.00576
sex						
Female	.970144	.0461093	-0.64	0.524	.883853	1.06486
edu3						
secondary edu	.9581131	.0588409	-0.70	0.486	.8494575	1.080667
third level edu	1.048307	.072027	0.69	0.492	.9162296	1.199424
emp2						
Employed	.6883726	.0408307	-6.30	0.000	.6128225	.7732367
medcard						
medcard/gp visit card	1.308491	.0735854	4.78	0.000	1.17193	1.460964
Disability2						
Disability	1.786977	.12974	8.00	0.000	1.549955	2.060244
MHcesd_capi	1.021031	.0035114	6.05	0.000	1.014172	1.027936
_cons	1.027715	.2380878	0.12	0.906	.6526458	1.618334
-----+-----						
/lnalpha	.7918733	.0349612			.7233506	.860396
-----+-----						
alpha	2.207528	.0771779			2.061328	2.364097
-----+-----						

```
LR test of alpha=0: chibar2(01) = 5125.52      Prob >= chibar2 = 0.000
```

4b.Outpatient visits - model including insurance

```
. nbreg outpatient i.strokew1 zMoca i.ins2 age i.sex i.edu3 i.emp2 i.medcard i.Disability2
MHcesd_capi, irr nolog
```

```
Negative binomial regression      Number of obs   =      5,754
                                   LR chi2(11)      =      320.17
Dispersion      = mean           Prob > chi2     =      0.0000
Log likelihood = -8316.7611      Pseudo R2      =      0.0189
```

outpatient	IRR	Std. Err.	z	P> z	[95% Conf. Interval]	

strokew1						
stroke	1.490039	.2664271	2.23	0.026	1.049538	2.115423
zMoca	.9235939	.0252291	-2.91	0.004	.8754462	.9743896
ins2						
private insurance	1.019028	.0600746	0.32	0.749	.9078318	1.143844
age	.9988237	.0034612	-0.34	0.734	.9920628	1.005631
sex						
Female	.9700035	.046147	-0.64	0.522	.8836458	1.064801
edu3						
secondary edu	.9522039	.0600993	-0.78	0.438	.8414058	1.077592
third level edu	1.041242	.0747811	0.56	0.574	.9045215	1.198627
emp2						
Employed	.6871922	.0407845	-6.32	0.000	.6117301	.7719633
medcard						
medcard/gp visit card	1.319573	.0815822	4.49	0.000	1.168983	1.489562
Disability2						
Disability	1.790241	.1302135	8.01	0.000	1.552384	2.064542
MHcesd_capi	1.02106	.0035179	6.05	0.000	1.014188	1.027978
_cons	1.036077	.2404284	0.15	0.879	.6574536	1.632747

/lnalpha	.7922529	.0349706			.7237118	.8607939

alpha	2.208366	.0772278			2.062073	2.365038

```
LR test of alpha=0: chibar2(01) = 5124.90      Prob >= chibar2 = 0.000
```

5a.Rehab services used - 3 services (new variable: OT, Psychology and Physiotherapy)

```
. logit SSused3 i.strokew1 zMoca age i.sex i.edu3 i.emp2 i.medcard i.Disability2 MHcesd_capi, or
nolog
```

```
Logistic regression      Number of obs      =      5,760
                        LR chi2(10)                    =      260.77
                        Prob > chi2                    =      0.0000
Log likelihood = -1259.2078      Pseudo R2          =      0.0938
```

SSused3	Odds Ratio	Std. Err.	z	P> z	[95% Conf. Interval]

strokew1					
stroke	1.247889	.4231788	0.65	0.514	.641978 2.42567
zMoca	.9854331	.0581176	-0.25	0.804	.8778617 1.106186
age	.9876777	.0072565	-1.69	0.091	.9735571 1.002003
sex					
Female	1.139399	.129593	1.15	0.251	.9117204 1.423934
edu3					
secondary edu	1.447394	.2076175	2.58	0.010	1.092668 1.917278
third level edu	1.763759	.2863017	3.50	0.000	1.283122 2.424433
emp2					
Employed	.6002524	.0949352	-3.23	0.001	.4402596 .8183875
medcard					
medcard/gp visit card	2.697211	.3800268	7.04	0.000	2.046369 3.555053
Disability2					
Disability	2.593357	.3499073	7.06	0.000	1.990739 3.378394
MHcesd_capi	1.039322	.0066217	6.05	0.000	1.026425 1.052382
_cons	.0424572	.0217686	-6.16	0.000	.0155426 .1159789

5b. Rehab services used (3 services) - model including insurance

. logit SSused3 i.strokew1 zMoca i.ins2 age i.sex i.edu3 i.emp2 i.medcard i.Disability2
MHcesd_capi, or nolog

Logistic regression	Number of obs	=	5,756
	LR chi2(11)	=	256.37
	Prob > chi2	=	0.0000
Log likelihood = -1258.4763	Pseudo R2	=	0.0924

SSused3	Odds Ratio	Std. Err.	z	P> z	[95% Conf. Interval]

strokew1					
stroke	1.255797	.4256175	0.67	0.502	.6462916 2.440117
zMoca	.9838256	.0582233	-0.28	0.783	.8760797 1.104823
ins2					
private insurance	.9642815	.1269263	-0.28	0.782	.7450098 1.248089
age	.9883855	.0075732	-1.52	0.127	.9736531 1.003341
sex					
Female	1.138567	.1295439	1.14	0.254	.9109836 1.423006
edu3					
secondary edu	1.451313	.2120397	2.55	0.011	1.089931 1.932517
third level edu	1.779988	.2984687	3.44	0.001	1.281408 2.472559
emp2					
Employed	.6015445	.0951988	-3.21	0.001	.4411222 .8203074
medcard					
medcard/gp visit card	2.651081	.401044	6.44	0.000	1.970866 3.566064
Disability2					
Disability	2.57538	.3492746	6.98	0.000	1.974244 3.359555
MHcesd_capi	1.038788	.0066504	5.94	0.000	1.025835 1.051905
_cons	.0418651	.0215945	-6.15	0.000	.0152333 .1150564

***6a.Rehab services used - 2 services only (original variable: OT and Psychology) ***

. logit RehabUsed2 i.strokew1 zMoca age i.sex i.edu3 i.emp2 i.medcard i.Disability2 MHcesd_capi,
or nolog

```

Logistic regression                Number of obs    =      5,760
                                   LR chi2(10)       =      160.85
                                   Prob > chi2        =      0.0000
Log likelihood = -533.39536        Pseudo R2       =      0.1310
  
```

RehabUsed2	Odds Ratio	Std. Err.	z	P> z	[95% Conf. Interval]

strokew1					
stroke	3.023982	1.210921	2.76	0.006	1.37951 6.628779
zMoca	.9380939	.0918678	-0.65	0.514	.7742619 1.136592
age	.9660501	.0117159	-2.85	0.004	.9433582 .9892879
sex					
Female	.98947	.1873641	-0.06	0.955	.6826857 1.434117
edu3					
secondary edu	1.573118	.3827416	1.86	0.063	.9764793 2.53431
third level edu	2.043387	.5582288	2.62	0.009	1.196224 3.490509
emp2					
Employed	.4544699	.1282731	-2.79	0.005	.2613698 .7902326
medcard					
medcard/gp visit card	2.865971	.6841755	4.41	0.000	1.795022 4.575872
Disability2					
Disability	3.386041	.7127287	5.79	0.000	2.241416 5.115191
MHcesd_capi	1.048094	.0098247	5.01	0.000	1.029013 1.067528
_cons	.0442429	.0373463	-3.69	0.000	.0084591 .2313985

6b. Rehab services used (2 services) - model including insurance

. logit RehabUsed2 i.strokew1 zMoca i.ins2 age i.sex i.edu3 i.emp2 i.medcard i.Disability2
MHcesd_capi, or nolog

```

Logistic regression      Number of obs      =      5,756
                        LR chi2(11)      =      155.13
                        Prob > chi2     =      0.0000
Log likelihood = -532.37525  Pseudo R2         =      0.1272
    
```

RehabUsed2	Odds Ratio	Std. Err.	z	P> z	[95% Conf. Interval]

strokew1					
stroke	3.065494	1.226442	2.80	0.005	1.399433 6.715045
zMoca	.9359527	.0920593	-0.67	0.501	.771846 1.134951
ins2					
private insurance	.9612339	.2131456	-0.18	0.858	.6224182 1.484485
age	.9669326	.0123155	-2.64	0.008	.9430935 .9913744
sex					
Female	.9854501	.1869269	-0.08	0.938	.6794741 1.429211
edu3					
secondary edu	1.558739	.3853763	1.80	0.073	.9601209 2.530586
third level edu	2.051816	.5775512	2.55	0.011	1.181788 3.562354
emp2					
Employed	.4557496	.1288219	-2.78	0.005	.2618945 .7930971
medcard					
medcard/gp visit card	2.804016	.7223069	4.00	0.000	1.69244 4.645662
Disability2					
Disability	3.346762	.7095832	5.70	0.000	2.20878 5.071043
MHcesd_capi	1.046822	.0099186	4.83	0.000	1.027561 1.066444
_cons	.0439556	.0374328	-3.67	0.000	.0082819 .2332924

3. Multiple regressions including cover (0=no cover;1=medical card or GP card only/ 2=private insurance only/ 3=dual cover) as a covariate instead of medcard

. tab cover

cover	Freq.	Percent	Cum.
No cover	842	10.32	10.32
Medical card only	2,621	32.11	42.43
Insurance only	3,281	40.20	82.63
Dual cover	1,418	17.37	100.00
Total	8,162	100.00	

1a.GP visits - original model

. nbreg gpvisits i.strokew1 zMoca age i.sex i.edu3 i.emp2 i.medcard i.Disability2 MHcesd_capi, irr nolog

```
Negative binomial regression          Number of obs   =    5,753
                                      LR chi2(10)      =   1364.13
Dispersion = mean                    Prob > chi2      =    0.0000
Log likelihood = -13146.315          Pseudo R2       =    0.0493
```

gpvisits	IRR	Std. Err.	z	P> z	[95% Conf. Interval]
strokew1					
stroke	1.26931	.1088749	2.78	0.005	1.072892 1.501687
zMoca	1.066888	.0136849	5.05	0.000	1.040401 1.09405
age	1.003391	.0016149	2.10	0.035	1.000231 1.006561
sex					
Female	1.016083	.0235785	0.69	0.492	.9709047 1.063363
edu3					
secondary edu	.9953264	.0292704	-0.16	0.873	.9395795 1.054381
third level edu	.9537152	.0318513	-1.42	0.156	.8932871 1.018231
emp2					
Employed	.8489824	.0245915	-5.65	0.000	.8021266 .8985752
medcard					
medcard/gp visit card	1.597204	.0444586	16.82	0.000	1.512401 1.686762
Disability2					

Disability		1.434818	.050219	10.32	0.000	1.339691	1.5367
MHcesd_capi		1.018779	.0016563	11.44	0.000	1.015538	1.02203
_cons		2.029435	.225706	6.36	0.000	1.631953	2.523728
-----+-----							
/lnalpha		-.8281074	.0318193			-.8904721	-.7657428
-----+-----							
alpha		.4368753	.0139011			.4104619	.4649884

LR test of alpha=0: chibar2(01) = 4075.71				Prob >= chibar2 = 0.000			

1b.GP visits - model including cover instead of medical card

```
. nbreg gpvisits i.strokew1 zMoca age i.sex i.edu3 i.emp2 i.cover i.Disability2 MHcesd_capi, irr
nolog
```

```
Negative binomial regression      Number of obs   =      5,749
                                LR chi2(12)      =     1371.17
Dispersion      = mean           Prob > chi2     =      0.0000
Log likelihood = -13128.512      Pseudo R2      =      0.0496
```

gpvisits	IRR	Std. Err.	z	P> z	[95% Conf. Interval]	
strokew1						
stroke	1.264975	.108289	2.75	0.006	1.069582	1.496062
zMoca	1.065209	.0137042	4.91	0.000	1.038685	1.09241
age	1.004104	.0016661	2.47	0.014	1.000844	1.007375
sex						
Female	1.013742	.0235072	0.59	0.556	.9686999	1.060878
edu3						
secondary edu	1.003761	.0301187	0.13	0.900	.9464321	1.064563
third level edu	.9558508	.0327583	-1.32	0.188	.8937547	1.022261
emp2						
Employed	.8546409	.0247762	-5.42	0.000	.8074344	.9046074
cover						
Medical card only	1.85272	.0863508	13.23	0.000	1.690976	2.029936
Insurance only	1.148018	.0497806	3.18	0.001	1.05448	1.249852
Dual cover	1.692786	.0849942	10.48	0.000	1.534135	1.867844
Disability2						
Disability	1.428096	.0499838	10.18	0.000	1.333415	1.529501
MHcesd_capi	1.018661	.0016601	11.34	0.000	1.015412	1.02192
_cons	1.725882	.2030493	4.64	0.000	1.370464	2.173474
/lnalpha	-.8331272	.031896			-.8956423	-.7706122
alpha	.4346878	.0138648			.4083452	.4627297

```
LR test of alpha=0: chibar2(01) = 4045.44      Prob >= chibar2 = 0.000
```

2a. Emergency visits - original model

```
. nbreg emergency i.strokew1 zMoca age i.sex i.edu3 i.emp2 i.medcard i.Disability2 MHcesd_capi,
irr nolog
```

```
Negative binomial regression      Number of obs   =      5,757
                                   LR chi2(10)      =      136.19
Dispersion = mean                 Prob > chi2     =      0.0000
Log likelihood = -3156.5347       Pseudo R2      =      0.0211
```

emergency	IRR	Std. Err.	z	P> z	[95% Conf. Interval]	
-----+-----						
strokew1						
stroke	1.562992	.4085484	1.71	0.088	.936402	2.608863
zMoca	1.055994	.0455497	1.26	0.207	.9703874	1.149152
age	1.000074	.0053157	0.01	0.989	.9897096	1.010547
sex						
Female	.9694865	.0738441	-0.41	0.684	.83504	1.12558
edu3						
secondary edu	.981302	.0952215	-0.19	0.846	.811345	1.186861
third level edu	1.150641	.1256091	1.29	0.199	.9290065	1.42515
emp2						
Employed	.9343425	.0892415	-0.71	0.477	.7748286	1.126696
medcard						
medcard/gp visit card	1.425844	.1318271	3.84	0.000	1.189525	1.709111
Disability2						
Disability	1.880549	.1998814	5.94	0.000	1.526903	2.316103
MHcesd_capi	1.021914	.0050527	4.38	0.000	1.012059	1.031865
_cons	.1416426	.0518411	-5.34	0.000	.0691282	.2902237
-----+-----						
/lnalpha	1.135652	.078928			.9809563	1.290348
-----+-----						
alpha	3.113204	.2457189			2.667005	3.634052
-----+-----						

```
LR test of alpha=0: chibar2(01) = 644.50      Prob >= chibar2 = 0.000
```

2b. Emergency visits - model including cover instead of medical card

```
. nbreg emergency i.strokew1 zMoca age i.sex i.edu3 i.emp2 i.cover i.Disability2 MHcesd_capi, irr
nolog
```

```
Negative binomial regression      Number of obs   =      5,753
                                   LR chi2(12)      =      133.02
Dispersion      = mean           Prob > chi2     =      0.0000
Log likelihood = -3150.155       Pseudo R2      =      0.0207
```

emergency	IRR	Std. Err.	z	P> z	[95% Conf. Interval]	
strokew1						
stroke	1.565694	.4081133	1.72	0.085	.9393622	2.609642
zMoca	1.050141	.0453807	1.13	0.258	.9648586	1.14296
age	1.001894	.0054743	0.35	0.729	.9912222	1.012682
sex						
Female	.9726593	.0741259	-0.36	0.716	.837705	1.129355
edu3						
secondary edu	1.000985	.099586	0.01	0.992	.8236506	1.216499
third level edu	1.198483	.1351645	1.61	0.108	.9608019	1.494962
emp2						
Employed	.9324084	.089132	-0.73	0.464	.7731024	1.124541
cover						
Medical card only	1.241408	.182592	1.47	0.142	.930499	1.656201
Insurance only	.8060051	.109816	-1.58	0.113	.6171119	1.052717
Dual cover	1.133766	.1812589	0.79	0.432	.8287793	1.550985
Disability2						
Disability	1.84943	.1969827	5.77	0.000	1.500985	2.278764
MHcesd_capi	1.020777	.0050898	4.12	0.000	1.010849	1.030801
_cons	.1481228	.0567526	-4.98	0.000	.0699018	.3138744
/lnalpha	1.131259	.0791762			.9760763	1.286442
alpha	3.099556	.2454112			2.654022	3.619882

```
LR test of alpha=0: chibar2(01) = 635.39      Prob >= chibar2 = 0.000
```


3a.Nights in hospital - original model

```
. nbreg nights i.strokew1 zMoca age i.sex i.edu3 i.emp2 i.medcard i.Disability2 MHcesd_capi, irr
nolog
```

```
Negative binomial regression      Number of obs   =      5,758
                                   LR chi2(10)      =      100.85
Dispersion      = mean            Prob > chi2     =      0.0000
Log likelihood = -4043.7539       Pseudo R2      =      0.0123
```

nights	IRR	Std. Err.	z	P> z	[95% Conf. Interval]	
strokew1						
stroke	1.930541	.8994416	1.41	0.158	.7746455	4.811217
zMoca	1.047743	.0662378	0.74	0.461	.92564	1.185952
age	1.021044	.0088188	2.41	0.016	1.003905	1.038475
sex						
Female	.9332921	.1110405	-0.58	0.562	.7391694	1.178396
edu3						
secondary edu	1.233323	.1891828	1.37	0.172	.9130801	1.665885
third level edu	1.251192	.2208183	1.27	0.204	.8853166	1.768274
emp2						
Employed	.7813591	.1203808	-1.60	0.109	.5777096	1.056798
medcard						
medcard/gp visit card	1.518647	.2199657	2.88	0.004	1.143315	2.017193
Disability2						
Disability	2.106449	.3963532	3.96	0.000	1.456758	3.045892
MHcesd_capi	1.0189	.0088877	2.15	0.032	1.001628	1.036469
_cons	.0973825	.0587259	-3.86	0.000	.0298655	.3175357
/lnalpha	2.852873	.0487549			2.757315	2.948431
alpha	17.33752	.8452886			15.75748	19.07599

```
LR test of alpha=0: chibar2(01) = 1.0e+04      Prob >= chibar2 = 0.000
```

3b.Nights in hospital - model including cover instead of medical card

```
. nbreg nights i.strokew1 zMoca age i.sex i.edu3 i.emp2 i.cover i.Disability2 MHcesd_capi, irr
nolog
```

```
Negative binomial regression      Number of obs   =      5,754
                                   LR chi2(12)      =      105.42
Dispersion   = mean              Prob > chi2     =      0.0000
Log likelihood = -4037.8908      Pseudo R2      =      0.0129
```

nights	IRR	Std. Err.	z	P> z	[95% Conf. Interval]	
strokew1						
stroke	1.892449	.8805335	1.37	0.170	.7602742	4.710618
zMoca	1.042986	.0660888	0.66	0.507	.9211749	1.180905
age	1.021487	.0089723	2.42	0.016	1.004053	1.039225
sex						
Female	.9059521	.1088196	-0.82	0.411	.715916	1.146432
edu3						
secondary edu	1.220133	.1933312	1.26	0.209	.8944033	1.664489
third level edu	1.222751	.2235265	1.10	0.271	.8545412	1.749617
emp2						
Employed	.8079196	.1252901	-1.38	0.169	.5961643	1.09489
cover						
Medical card only	2.359292	.5711878	3.55	0.000	1.467927	3.791916
Insurance only	1.544237	.3373096	1.99	0.047	1.006433	2.369425
Dual cover	1.99021	.5185509	2.64	0.008	1.194312	3.316502
Disability2						
Disability	2.13453	.402248	4.02	0.000	1.47535	3.088229
MHcesd_capi	1.019101	.0089224	2.16	0.031	1.001763	1.03674
_cons	.0663251	.0413687	-4.35	0.000	.0195327	.2252133
/lnalpha	2.849256	.0488281			2.753554	2.944957
alpha	17.27492	.8435024			15.69833	19.00985

```
LR test of alpha=0: chibar2(01) = 1.0e+04      Prob >= chibar2 = 0.000
```

4a.Outpatient visits - original model

```
. nbreg outpatient i.strokew1 zMoca age i.sex i.edu3 i.emp2 i.medcard i.Disability2 MHcesd_capi,
irr nolog
```

```
Negative binomial regression      Number of obs   =      5,758
                                   LR chi2(10)      =      320.19
Dispersion      = mean           Prob > chi2     =      0.0000
Log likelihood = -8323.6887      Pseudo R2      =      0.0189
```

outpatient	IRR	Std. Err.	z	P> z	[95% Conf. Interval]	

strokew1						
stroke	1.491691	.2666236	2.24	0.025	1.050838	2.117493
zMoca	.9233992	.0251754	-2.92	0.003	.8753515	.9740841
age	.9991229	.0033752	-0.26	0.795	.9925296	1.00576
sex						
Female	.970144	.0461093	-0.64	0.524	.883853	1.06486
edu3						
secondary edu	.9581131	.0588409	-0.70	0.486	.8494575	1.080667
third level edu	1.048307	.072027	0.69	0.492	.9162296	1.199424
emp2						
Employed	.6883726	.0408307	-6.30	0.000	.6128225	.7732367
medcard						
medcard/gp visit card	1.308491	.0735854	4.78	0.000	1.17193	1.460964
Disability2						
Disability	1.786977	.12974	8.00	0.000	1.549955	2.060244
MHcesd_capi	1.021031	.0035114	6.05	0.000	1.014172	1.027936
_cons	1.027715	.2380878	0.12	0.906	.6526458	1.618334

/lnalpha	.7918733	.0349612			.7233506	.860396

alpha	2.207528	.0771779			2.061328	2.364097

```
LR test of alpha=0: chibar2(01) = 5125.52      Prob >= chibar2 = 0.000
```

4b.Outpatient visits - model including cover instead of medical card

```
. nbreg outpatient i.strokew1 zMoca age i.sex i.edu3 i.emp2 i.cover i.Disability2 MHcesd_capi,
irr nolog
```

```
Negative binomial regression      Number of obs   =      5,754
                                LR chi2(12)      =      328.39
Dispersion = mean                Prob > chi2     =      0.0000
Log likelihood = -8312.6511      Pseudo R2      =      0.0194
```

outpatient	IRR	Std. Err.	z	P> z	[95% Conf. Interval]	
-----+-----						
strokew1						
stroke	1.486677	.2653898	2.22	0.026	1.047772	2.109436
zMoca	.9232165	.0252165	-2.92	0.003	.8750928	.9739866
age	.999673	.0034779	-0.09	0.925	.9928795	1.006513
sex						
Female	.9633728	.0458543	-0.78	0.433	.8775647	1.057571
edu3						
secondary edu	.962892	.0608211	-0.60	0.549	.8507685	1.089792
third level edu	1.043898	.0748138	0.60	0.549	.9070987	1.201329
emp2						
Employed	.6971448	.0414856	-6.06	0.000	.6203972	.7833867
cover						
Medical card only	1.629241	.1552309	5.12	0.000	1.351713	1.96375
Insurance only	1.234193	.1088806	2.39	0.017	1.038222	1.467156
Dual cover	1.460638	.1515774	3.65	0.000	1.191816	1.790094
Disability2						
Disability	1.791215	.1301236	8.02	0.000	1.553502	2.065302
MHcesd_capi	1.020873	.0035149	6.00	0.000	1.014007	1.027785
_cons	.8320982	.2029429	-0.75	0.451	.5159083	1.342075
-----+-----						
/lnalpha	.7884059	.0350221			.7197639	.8570479
-----+-----						
alpha	2.199887	.0770446			2.053948	2.356195
-----+-----						

```
LR test of alpha=0: chibar2(01) = 5101.29      Prob >= chibar2 = 0.000
```

5a.Rehab services used - 3 services (new variable: OT, Psychology and Physiotherapy)

. logit SSused3 i.strokew1 zMoca age i.sex i.edu3 i.emp2 i.medcard i.Disability2 MHcesd_capi, or nolog

```

Logistic regression          Number of obs    =      5,760
                             LR chi2(10)           =      260.77
                             Prob > chi2            =      0.0000
Log likelihood = -1259.2078  Pseudo R2        =      0.0938
  
```

SSused3	Odds Ratio	Std. Err.	z	P> z	[95% Conf. Interval]

strokew1					
stroke	1.247889	.4231788	0.65	0.514	.641978 2.42567
zMoca	.9854331	.0581176	-0.25	0.804	.8778617 1.106186
age	.9876777	.0072565	-1.69	0.091	.9735571 1.002003
sex					
Female	1.139399	.129593	1.15	0.251	.9117204 1.423934
edu3					
secondary edu	1.447394	.2076175	2.58	0.010	1.092668 1.917278
third level edu	1.763759	.2863017	3.50	0.000	1.283122 2.424433
emp2					
Employed	.6002524	.0949352	-3.23	0.001	.4402596 .8183875
medcard					
medcard/gp visit card	2.697211	.3800268	7.04	0.000	2.046369 3.555053
Disability2					
Disability	2.593357	.3499073	7.06	0.000	1.990739 3.378394
MHcesd_capi	1.039322	.0066217	6.05	0.000	1.026425 1.052382
_cons	.0424572	.0217686	-6.16	0.000	.0155426 .1159789

5b. Rehab services used (3 services) - model including cover instead of medical card

```
. logit SSused3 i.strokew1 zMoca age i.sex i.edu3 i.emp2 i.cover i.Disability2 MHcesd_capi, or
nolog
```

```
Logistic regression          Number of obs      =      5,756
                             LR chi2(12)            =      256.55
                             Prob > chi2             =      0.0000
Log likelihood = -1258.3851   Pseudo R2          =      0.0925
```

SSused3	Odds Ratio	Std. Err.	z	P> z	[95% Conf. Interval]	

strokew1						
stroke	1.256403	.4257708	0.67	0.501	.6466561 2.441096	
zMoca	.9833193	.0581988	-0.28	0.776	.8756193 1.104266	
age	.9886388	.0075956	-1.49	0.137	.9738632 1.003639	
sex						
Female	1.137502	.129451	1.13	0.258	.9100875 1.421744	
edu3						
secondary edu	1.456617	.2133298	2.57	0.010	1.093155 1.940924	
third level edu	1.781957	.2991283	3.44	0.001	1.28236 2.476191	
emp2						
Employed	.6031985	.0955378	-3.19	0.001	.4422241 .8227693	
cover						
Medical card only	2.899676	.7599295	4.06	0.000	1.734889 4.846489	
Insurance only	1.061058	.2789838	0.23	0.822	.6337714 1.776419	
Dual cover	2.715398	.7542479	3.60	0.000	1.575425 4.680251	
Disability2						
Disability	2.572788	.3490275	6.97	0.000	1.9721 3.356441	
MHcesd_capi	1.038826	.0066516	5.95	0.000	1.025871 1.051945	
_cons	.0380032	.0214693	-5.79	0.000	.0125588 .1149985	

***6a.Rehab services used- 2 services only (original variable: OT and Psychology) ***

. logit RehabUsed2 i.strokew1 zMoca age i.sex i.edu3 i.emp2 i.medcard i.Disability2 MHcesd_capi,
or nolog

```

Logistic regression                Number of obs    =      5,760
                                   LR chi2(10)       =      160.85
                                   Prob > chi2        =      0.0000
Log likelihood = -533.39536        Pseudo R2       =      0.1310

```

RehabUsed2	Odds Ratio	Std. Err.	z	P> z	[95% Conf. Interval]
strokew1					
stroke	3.023982	1.210921	2.76	0.006	1.37951 6.628779
zMoca	.9380939	.0918678	-0.65	0.514	.7742619 1.136592
age	.9660501	.0117159	-2.85	0.004	.9433582 .9892879
sex					
Female	.98947	.1873641	-0.06	0.955	.6826857 1.434117
edu3					
secondary edu	1.573118	.3827416	1.86	0.063	.9764793 2.53431
third level edu	2.043387	.5582288	2.62	0.009	1.196224 3.490509
emp2					
Employed	.4544699	.1282731	-2.79	0.005	.2613698 .7902326
medcard					
medcard/gp visit card	2.865971	.6841755	4.41	0.000	1.795022 4.575872
Disability2					
Disability	3.386041	.7127287	5.79	0.000	2.241416 5.115191
MHcesd_capi	1.048094	.0098247	5.01	0.000	1.029013 1.067528
_cons	.0442429	.0373463	-3.69	0.000	.0084591 .2313985

6b.Rehab services used (2 services) - model including cover instead of medical card

```
. logit RehabUsed2 i.strokew1 zMoca age i.sex i.edu3 i.emp2 i.cover i.Disability2 MHcesd_capi, or
nolog
```

```
Logistic regression           Number of obs   =      5,756
                              LR chi2(12)       =      155.91
                              Prob > chi2           =      0.0000
Log likelihood = -531.98916    Pseudo R2       =      0.1278
```

RehabUsed2	Odds Ratio	Std. Err.	z	P> z	[95% Conf. Interval]	

strokew1						
stroke	3.073338	1.229636	2.81	0.005	1.402963	6.732468
zMoca	.9343493	.0918771	-0.69	0.490	.7705632	1.132949
age	.9677374	.0123483	-2.57	0.010	.9438352	.9922449
sex						
Female	.9839554	.1866755	-0.09	0.932	.6784002	1.427134
edu3						
secondary edu	1.574888	.3905416	1.83	0.067	.9686534	2.560538
third level edu	2.057317	.5810903	2.55	0.011	1.182711	3.578685
emp2						
Employed	.458917	.1297986	-2.75	0.006	.2636228	.7988868
cover						
Medical card only	3.923297	1.912195	2.80	0.005	1.509315	10.19818
Insurance only	1.38805	.6902024	0.66	0.510	.5237797	3.678423
Dual cover	3.428856	1.772495	2.38	0.017	1.244898	9.444193
Disability2						
Disability	3.348344	.7102538	5.70	0.000	2.209391	5.074436
MHcesd_capi	1.046956	.0099264	4.84	0.000	1.02768	1.066593
_cons	.0305717	.0293373	-3.63	0.000	.0046611	.2005168

**4. Multiple regressions including long-term illness (longterm)
as a covariate; attempt to measure other non-CVD conditions
which could impact HSU**

. tab longterm

longterm	Freq.	Percent	Cum.
No illness	5,039	61.68	61.68
Yes longterm illness	3,131	38.32	100.00
Total	8,170	100.00	

1a.GP visits - original model

. nbreg gpvisits i.strokew1 zMoca age i.sex i.edu3 i.emp2 i.medcard i.Disability2 MHcesd_capi,
irr nolog

Negative binomial regression	Number of obs	=	5,753
	LR chi2(10)	=	1364.13
Dispersion = mean	Prob > chi2	=	0.0000
Log likelihood = -13146.315	Pseudo R2	=	0.0493

gpvisits	IRR	Std. Err.	z	P> z	[95% Conf. Interval]
strokew1					
stroke	1.26931	.1088749	2.78	0.005	1.072892 1.501687
zMoca	1.066888	.0136849	5.05	0.000	1.040401 1.09405
age	1.003391	.0016149	2.10	0.035	1.000231 1.006561
sex					
Female	1.016083	.0235785	0.69	0.492	.9709047 1.063363
edu3					
secondary edu	.9953264	.0292704	-0.16	0.873	.9395795 1.054381
third level edu	.9537152	.0318513	-1.42	0.156	.8932871 1.018231
emp2					
Employed	.8489824	.0245915	-5.65	0.000	.8021266 .8985752
medcard					
medcard/gp visit card	1.597204	.0444586	16.82	0.000	1.512401 1.686762
Disability2					
Disability	1.434818	.050219	10.32	0.000	1.339691 1.5367
MHcesd_capi	1.018779	.0016563	11.44	0.000	1.015538 1.02203

_cons		2.029435	.225706	6.36	0.000	1.631953	2.523728
-----+-----							
/lnalpha		-.8281074	.0318193			-.8904721	-.7657428
-----+-----							
alpha		.4368753	.0139011			.4104619	.4649884

LR test of alpha=0: chibar2(01) = 4075.71 Prob >= chibar2 = 0.000

1b.GP visits - model including longterm illness

```
. nbreg gpvisits i.strokew1 zMoca i.longterm age i.sex i.edu3 i.emp2 i.medcard i.Disability2
MHcesd_capi, irr nolog
```

```
Negative binomial regression      Number of obs   =      5,748
                                  LR chi2(11)      =     1618.78
Dispersion      = mean           Prob > chi2     =      0.0000
Log likelihood = -13007.973      Pseudo R2      =      0.0586
```

gpvisits	IRR	Std. Err.	z	P> z	[95% Conf. Interval]	

strokew1						
stroke	1.203119	.1004988	2.21	0.027	1.021424	1.417134
zMoca	1.072254	.0134819	5.55	0.000	1.046153	1.099006
longterm						
Yes longterm illness	1.470992	.0351196	16.17	0.000	1.403744	1.541461
age	1.004484	.0015881	2.83	0.005	1.001376	1.007602
sex						
Female	1.011344	.0230472	0.49	0.621	.9671661	1.05754
edu3						
secondary edu	.9970944	.028727	-0.10	0.920	.9423506	1.055018
third level edu	.9426187	.0308805	-1.80	0.071	.8839962	1.005129
emp2						
Employed	.8892008	.0254868	-4.10	0.000	.8406248	.9405838
medcard						
medcard/gp visit card	1.544167	.0423642	15.84	0.000	1.463328	1.629472
Disability2						
Disability	1.266007	.0443783	6.73	0.000	1.181948	1.356045
MHcesd_capi	1.015355	.0016221	9.54	0.000	1.012181	1.018539
_cons	1.664557	.1829528	4.64	0.000	1.341969	2.06469

/lnalpha	-.9043947	.0327966			-.9686748	-.8401145

alpha	.4047868	.0132756			.3795857	.4316611

```
LR test of alpha=0: chibar2(01) = 3700.88      Prob >= chibar2 = 0.000
```

2a. Emergency visits - original model

```
. nbreg emergency i.strokew1 zMoca age i.sex i.edu3 i.emp2 i.medcard i.Disability2 MHcesd_capi,
irr nolog
```

```
Negative binomial regression      Number of obs   =      5,757
                                   LR chi2(10)      =      136.19
Dispersion      = mean           Prob > chi2     =      0.0000
Log likelihood = -3156.5347      Pseudo R2      =      0.0211
```

emergency	IRR	Std. Err.	z	P> z	[95% Conf. Interval]	
-----+-----						
strokew1						
stroke	1.562992	.4085484	1.71	0.088	.936402	2.608863
zMoca	1.055994	.0455497	1.26	0.207	.9703874	1.149152
age	1.000074	.0053157	0.01	0.989	.9897096	1.010547
sex						
Female	.9694865	.0738441	-0.41	0.684	.83504	1.12558
edu3						
secondary edu	.981302	.0952215	-0.19	0.846	.811345	1.186861
third level edu	1.150641	.1256091	1.29	0.199	.9290065	1.42515
emp2						
Employed	.9343425	.0892415	-0.71	0.477	.7748286	1.126696
medcard						
medcard/gp visit card	1.425844	.1318271	3.84	0.000	1.189525	1.709111
Disability2						
Disability	1.880549	.1998814	5.94	0.000	1.526903	2.316103
MHcesd_capi	1.021914	.0050527	4.38	0.000	1.012059	1.031865
_cons	.1416426	.0518411	-5.34	0.000	.0691282	.2902237
-----+-----						
/lnalpha	1.135652	.078928			.9809563	1.290348
-----+-----						
alpha	3.113204	.2457189			2.667005	3.634052
-----+-----						

```
LR test of alpha=0: chibar2(01) = 644.50      Prob >= chibar2 = 0.000
```

2b. Emergency visits - model including longterm illness

```
. nbreg emergency i.strokew1 zMoca i.longterm age i.sex i.edu3 i.emp2 i.medcard i.Disability2
MHcesd_capi, irr nolog
```

```
Negative binomial regression      Number of obs   =      5,752
                                  LR chi2(11)      =      192.59
Dispersion = mean                 Prob > chi2     =      0.0000
Log likelihood = -3125.4182       Pseudo R2      =      0.0299
```

emergency	IRR	Std. Err.	z	P> z	[95% Conf. Interval]	

strokew1						
stroke	1.437654	.3707305	1.41	0.159	.8672684	2.383171
zMoca	1.068789	.0458264	1.55	0.121	.9826412	1.162489
longterm						
Yes longterm illness	1.817805	.1434494	7.57	0.000	1.557313	2.12187
age	1.001628	.0053026	0.31	0.759	.9912887	1.012075
sex						
Female	.9602327	.0728892	-0.53	0.593	.8274916	1.114267
edu3						
secondary edu	.9717456	.0939108	-0.30	0.767	.8040652	1.174394
third level edu	1.122789	.1220436	1.07	0.287	.9073509	1.38938
emp2						
Employed	1.013597	.0973149	0.14	0.888	.8397342	1.223457
medcard						
medcard/gp visit card	1.357385	.125377	3.31	0.001	1.13261	1.626767
Disability2						
Disability	1.559045	.1682998	4.11	0.000	1.261743	1.926399
MHcesd_capi	1.017002	.0050314	3.41	0.001	1.007189	1.026912
_cons	.1036375	.0380454	-6.18	0.000	.0504708	.2128106

/lnalpha	1.072501	.0801795			.9153518	1.22965

alpha	2.92268	.2343391			2.497654	3.420032

```
LR test of alpha=0: chibar2(01) = 610.75      Prob >= chibar2 = 0.000
```

3a.Nights in hospital - original model

```
. nbreg nights i.strokew1 zMoca age i.sex i.edu3 i.emp2 i.medcard i.Disability2 MHcesd_capi, irr
nolog
```

```
Negative binomial regression      Number of obs   =      5,758
                                   LR chi2(10)      =      100.85
Dispersion = mean                 Prob > chi2     =      0.0000
Log likelihood = -4043.7539       Pseudo R2      =      0.0123
```

nights	IRR	Std. Err.	z	P> z	[95% Conf. Interval]	
strokew1						
stroke	1.930541	.8994416	1.41	0.158	.7746455	4.811217
zMoca	1.047743	.0662378	0.74	0.461	.92564	1.185952
age	1.021044	.0088188	2.41	0.016	1.003905	1.038475
sex						
Female	.9332921	.1110405	-0.58	0.562	.7391694	1.178396
edu3						
secondary edu	1.233323	.1891828	1.37	0.172	.9130801	1.665885
third level edu	1.251192	.2208183	1.27	0.204	.8853166	1.768274
emp2						
Employed	.7813591	.1203808	-1.60	0.109	.5777096	1.056798
medcard						
medcard/gp visit card	1.518647	.2199657	2.88	0.004	1.143315	2.017193
Disability2						
Disability	2.106449	.3963532	3.96	0.000	1.456758	3.045892
MHcesd_capi	1.0189	.0088877	2.15	0.032	1.001628	1.036469
_cons	.0973825	.0587259	-3.86	0.000	.0298655	.3175357
/lnalpha	2.852873	.0487549			2.757315	2.948431
alpha	17.33752	.8452886			15.75748	19.07599

```
LR test of alpha=0: chibar2(01) = 1.0e+04      Prob >= chibar2 = 0.000
```

3b.Nights in hospital - model including longterm illness

. nbreg nights i.strokew1 zMoca i.longterm age i.sex i.edu3 i.emp2 i.medcard i.Disability2
MHcesd_capi, irr nolog

```
Negative binomial regression      Number of obs   =      5,753
                                   LR chi2(11)      =      136.55
Dispersion   = mean              Prob > chi2     =      0.0000
Log likelihood = -4019.3393      Pseudo R2      =      0.0167
```

nights	IRR	Std. Err.	z	P> z	[95% Conf. Interval]	
strokew1						
stroke	1.792692	.8231025	1.27	0.204	.7289243	4.408889
zMoca	1.064631	.0674806	0.99	0.323	.9402574	1.205457
longterm						
Yes longterm illness	2.078446	.2570556	5.92	0.000	1.631041	2.648577
age	1.025841	.0088873	2.94	0.003	1.00857	1.043409
sex						
Female	.9534505	.112887	-0.40	0.687	.7559922	1.202483
edu3						
secondary edu	1.204587	.183036	1.22	0.221	.8943318	1.622473
third level edu	1.156953	.2031283	0.83	0.406	.8201041	1.63216
emp2						
Employed	.8838343	.1365227	-0.80	0.424	.6529634	1.196335
medcard						
medcard/gp visit card	1.4375	.2066904	2.52	0.012	1.084472	1.90545
Disability2						
Disability	1.680238	.3195497	2.73	0.006	1.157413	2.439233
MHcesd_capi	1.012504	.0086243	1.46	0.145	.995741	1.029549
_cons	.054652	.0333283	-4.77	0.000	.0165394	.1805891
/lnalpha	2.81531	.0491421			2.718993	2.911627
alpha	16.69835	.8205916			15.16504	18.38668

LR test of alpha=0: chibar2(01) = 9877.93 Prob >= chibar2 = 0.000

4a.Outpatient visits - original model

```
. nbreg outpatient i.strokew1 zMoca age i.sex i.edu3 i.emp2 i.medcard i.Disability2 MHcesd_capi,
irr nolog
```

```
Negative binomial regression      Number of obs   =      5,758
                                   LR chi2(10)      =      320.19
Dispersion = mean                 Prob > chi2     =      0.0000
Log likelihood = -8323.6887       Pseudo R2      =      0.0189
```

outpatient	IRR	Std. Err.	z	P> z	[95% Conf. Interval]	
-----+-----						
strokew1						
stroke	1.491691	.2666236	2.24	0.025	1.050838	2.117493
zMoca	.9233992	.0251754	-2.92	0.003	.8753515	.9740841
age	.9991229	.0033752	-0.26	0.795	.9925296	1.00576
sex						
Female	.970144	.0461093	-0.64	0.524	.883853	1.06486
edu3						
secondary edu	.9581131	.0588409	-0.70	0.486	.8494575	1.080667
third level edu	1.048307	.072027	0.69	0.492	.9162296	1.199424
emp2						
Employed	.6883726	.0408307	-6.30	0.000	.6128225	.7732367
medcard						
medcard/gp visit card	1.308491	.0735854	4.78	0.000	1.17193	1.460964
Disability2						
Disability	1.786977	.12974	8.00	0.000	1.549955	2.060244
MHcesd_capi	1.021031	.0035114	6.05	0.000	1.014172	1.027936
_cons	1.027715	.2380878	0.12	0.906	.6526458	1.618334
-----+-----						
/lnalpha	.7918733	.0349612			.7233506	.860396
-----+-----						
alpha	2.207528	.0771779			2.061328	2.364097
-----+-----						

```
LR test of alpha=0: chibar2(01) = 5125.52      Prob >= chibar2 = 0.000
```


4b.Outpatient visits - model including longterm illness

```
. nbreg outpatient i.strokew1 zMoca i.longterm age i.sex i.edu3 i.emp2 i.medcard i.Disability2
MHcesd_capi, irr nolog
```

```
Negative binomial regression          Number of obs   =      5,753
                                      LR chi2(11)     =      643.70
Dispersion = mean                    Prob > chi2     =      0.0000
Log likelihood = -8151.6442          Pseudo R2      =      0.0380
```

outpatient	IRR	Std. Err.	z	P> z	[95% Conf. Interval]	

strokew1						
stroke	1.410321	.2403202	2.02	0.044	1.009886	1.969534
zMoca	.9332813	.0245787	-2.62	0.009	.8863301	.9827196
longterm						
Yes longterm illness	2.401465	.1150536	18.29	0.000	2.186228	2.637893
age	1.00328	.0032902	1.00	0.318	.996852	1.009749
sex						
Female	.9628969	.0444146	-0.82	0.412	.879665	1.054004
edu3						
secondary edu	.9677825	.0574478	-0.55	0.581	.86149	1.08719
third level edu	1.032862	.0685443	0.49	0.626	.9068876	1.176335
emp2						
Employed	.7984812	.0466383	-3.85	0.000	.7121101	.8953282
medcard						
medcard/gp visit card	1.216473	.0668381	3.57	0.000	1.09228	1.354788
Disability2						
Disability	1.41033	.0999349	4.85	0.000	1.227454	1.620452
MHcesd_capi	1.013218	.003349	3.97	0.000	1.006675	1.019803
_cons	.5439719	.1236483	-2.68	0.007	.3484119	.8492979

/lnalpha	.6490419	.0367526			.5770082	.7210756

alpha	1.913706	.0703336			1.780703	2.056644

```
LR test of alpha=0: chibar2(01) = 4343.80          Prob >= chibar2 = 0.000
```

5a.Rehab services used - 3 services (new variable: OT, Psychology and Physiotherapy)

. logit SSused3 i.strokew1 zMoca age i.sex i.edu3 i.emp2 i.medcard i.Disability2 MHcesd_capi, or nolog

```

Logistic regression          Number of obs    =      5,760
                             LR chi2(10)          =      260.77
                             Prob > chi2          =      0.0000
Log likelihood = -1259.2078  Pseudo R2        =      0.0938
  
```

SSused3	Odds Ratio	Std. Err.	z	P> z	[95% Conf. Interval]

strokew1					
stroke	1.247889	.4231788	0.65	0.514	.641978 2.42567
zMoca	.9854331	.0581176	-0.25	0.804	.8778617 1.106186
age	.9876777	.0072565	-1.69	0.091	.9735571 1.002003
sex					
Female	1.139399	.129593	1.15	0.251	.9117204 1.423934
edu3					
secondary edu	1.447394	.2076175	2.58	0.010	1.092668 1.917278
third level edu	1.763759	.2863017	3.50	0.000	1.283122 2.424433
emp2					
Employed	.6002524	.0949352	-3.23	0.001	.4402596 .8183875
medcard					
medcard/gp visit card	2.697211	.3800268	7.04	0.000	2.046369 3.555053
Disability2					
Disability	2.593357	.3499073	7.06	0.000	1.990739 3.378394
MHcesd_capi	1.039322	.0066217	6.05	0.000	1.026425 1.052382
_cons	.0424572	.0217686	-6.16	0.000	.0155426 .1159789

5b. Rehab services used (3 services) - model including longterm illness

. logit SSused3 i.strokew1 zMoca i.longterm age i.sex i.edu3 i.emp2 i.medcard i.Disability2
MHcesd_capi, or nolog

Logistic regression	Number of obs	=	5,755
	LR chi2(11)	=	313.11
	Prob > chi2	=	0.0000
Log likelihood = -1232.7022	Pseudo R2	=	0.1127

SSused3	Odds Ratio	Std. Err.	z	P> z	[95% Conf. Interval]

strokew1					
stroke	1.15439	.3893762	0.43	0.670	.5959938 2.235955
zMoca	.9964729	.059103	-0.06	0.952	.8871128 1.119315
longterm					
Yes longterm illness	2.414493	.2995352	7.11	0.000	1.893339 3.079099
age	.9898175	.0073056	-1.39	0.166	.9756019 1.00424
sex					
Female	1.13947	.1301702	1.14	0.253	.9108858 1.425418
edu3					
secondary edu	1.459999	.2107668	2.62	0.009	1.100202 1.937461
third level edu	1.748068	.2855369	3.42	0.001	1.269169 2.407672
emp2					
Employed	.6657387	.1061474	-2.55	0.011	.4870636 .9099591
medcard					
medcard/gp visit card	2.516501	.3551644	6.54	0.000	1.908373 3.318415
Disability2					
Disability	1.965227	.2731058	4.86	0.000	1.496656 2.580497
MHcesd_capi	1.033779	.0066755	5.14	0.000	1.020778 1.046946
_cons	.0256163	.0133742	-7.02	0.000	.0092068 .0712731

***6a.Rehab services used - 2 services only (original variable: OT and Psychology) ***

. logit RehabUsed2 i.strokew1 zMoca age i.sex i.edu3 i.emp2 i.medcard i.Disability2 MHcesd_capi,
or nolog

```

Logistic regression                Number of obs    =      5,760
                                   LR chi2(10)       =      160.85
                                   Prob > chi2        =      0.0000
Log likelihood = -533.39536        Pseudo R2       =      0.1310

```

RehabUsed2	Odds Ratio	Std. Err.	z	P> z	[95% Conf. Interval]

strokew1					
stroke	3.023982	1.210921	2.76	0.006	1.37951 6.628779
zMoca	.9380939	.0918678	-0.65	0.514	.7742619 1.136592
age	.9660501	.0117159	-2.85	0.004	.9433582 .9892879
sex					
Female	.98947	.1873641	-0.06	0.955	.6826857 1.434117
edu3					
secondary edu	1.573118	.3827416	1.86	0.063	.9764793 2.53431
third level edu	2.043387	.5582288	2.62	0.009	1.196224 3.490509
emp2					
Employed	.4544699	.1282731	-2.79	0.005	.2613698 .7902326
medcard					
medcard/gp visit card	2.865971	.6841755	4.41	0.000	1.795022 4.575872
Disability2					
Disability	3.386041	.7127287	5.79	0.000	2.241416 5.115191
MHcesd_capi	1.048094	.0098247	5.01	0.000	1.029013 1.067528
_cons	.0442429	.0373463	-3.69	0.000	.0084591 .2313985

6b.Rehab services used (2 services) - model including longterm illness

. logit RehabUsed2 i.strokew1 zMoca i.longterm age i.sex i.edu3 i.emp2 i.medcard i.Disability2
MHcesd_capi, or nolog

```

Logistic regression                Number of obs   =       5,755
                                   LR chi2(11)       =       185.15
                                   Prob > chi2        =       0.0000
Log likelihood = -521.13046        Pseudo R2      =       0.1508
    
```

RehabUsed2	Odds Ratio	Std. Err.	z	P> z	[95% Conf. Interval]

strokew1					
stroke	2.809574	1.118978	2.59	0.009	1.287151 6.132693
zMoca	.9468643	.0929152	-0.56	0.578	.7811957 1.147666
longterm					
Yes longterm illness	2.950673	.678337	4.71	0.000	1.88034 4.630264
age	.968969	.0117659	-2.60	0.009	.9461805 .9923063
sex					
Female	.9991877	.1894041	-0.00	0.997	.6891202 1.448769
edu3					
secondary edu	1.583393	.3870808	1.88	0.060	.9806219 2.556677
third level edu	2.005828	.5500773	2.54	0.011	1.17182 3.433419
emp2					
Employed	.5127925	.1452453	-2.36	0.018	.2943365 .8933862
medcard					
medcard/gp visit card	2.61402	.6224874	4.04	0.000	1.639112 4.16878
Disability2					
Disability	2.444502	.5277837	4.14	0.000	1.601071 3.732246
MHcesd_capi	1.042332	.009845	4.39	0.000	1.023214 1.061808
_cons	.0223162	.0192626	-4.41	0.000	.0041105 .1211569
