Appendix 5

Regression coefficients, recycled prediction, health care use

Care categories / Covariates	Hospital admission, All			Hospital admission, urgent			Hospital admission, elective			Physician visits, All			Physician visits, Specialists			Physician visits, General practitioner		
	Coeff	SE	P-value	Coeff	SE	P-value	Coeff	SE	P-value	Coeff	SE	P-value	Coeff	SE	P-value	Coeff	SE	P-value
Part 1*: p(event) ≠0; Intercept	0.57	0.05	<.0001	-8.08	0.05	<.0001	4.07	0.06	<.0001	7.74	0.15	<.0001	4.80	0.05	<.0001	4.03	0.06	<.0001
HCU status	5.11	0.01	<.0001	4.48	0.01	<.0001	4.66	0.02	<.0001	5.60	0.14	<.0001	3.78	0.03	<.0001	2.71	0.03	<.0001
Pre-incident value	0.78	0.03	<.0001	0.82	0.03	<.0001	0.80	0.07	<.0001	0.40	0.00	<.0001	0.29	0.00	<.0001	0.62	0.00	<.0001
Age	0.01	0.00	<.0001	0.05	0.00	<.0001	-0.07	0.00	<.0001	-0.05	0.00	<.0001	-0.03	0.00	<.0001	-0.04	0.00	<.0001
ADG	0.00	0.00	0.002	0.00	0.00	<.0001	0.00	0.00	0.006	0.38	0.00	<.0001	0.25	0.00	<.0001	0.26	0.00	<.0001
Sex	0.08	0.01	<.0001	0.12	0.01	<.0001	0.05	0.01	<.0001	-0.13	0.01	<.0001	-0.12	0.01	<.0001	-0.12	0.01	<.0001
Low income	-0.04	0.01	6E-04	0.17	0.01	<.0001	-0.40	0.02	<.0001	-0.20	0.02	<.0001	-0.20	0.01	<.0001	-0.16	0.01	<.0001
Part 2*: p(event) >0; Intercept	-2.16	0.07	<.0001	-6.77	0.19	<.0001	-1.37	0.20	<.0001	3.02	0.01	<.0001	3.10	0.01	<.0001	1.41	0.01	<.0001
HCU status	4.21	0.13	<.0001	4.62	0.17	<.0001	2.59	0.28	<.0001	1.33	0.00	<.0001	1.63	0.00	<.0001	0.91	0.00	<.0001
Pre-incident value	0.39	0.03	<.0001	0.42	0.03	<.0001	0.71	0.11	<.0001	0.03	0.00	<.0001	0.04	0.00	<.0001	0.06	0.00	<.0001
Age	0.01	0.00	<.0001	0.01	0.00	<.0001	-0.01	0.00	0.041	0.00	0.00	<.0001	0.00	0.00	<.0001	0.01	0.00	<.0001
ADG	0.02	0.00	<.0001	0.03	0.00	<.0001	0.00	0.00	0.268	0.02	0.00	<.0001	0.02	0.00	<.0001	0.02	0.00	<.0001
Sex	0.19	0.01	<.0001	0.11	0.01	<.0001	0.29	0.03	<.0001	0.02	0.00	<.0001	0.06	0.00	<.0001	-0.01	0.00	<.0001
Low income	0.07	0.01	<.0001	0.06	0.02	0.0004	-0.04	0.05	0.45	0.01	0.00	<.0001	-0.02	0.00	<.0001	0.05	0.00	<.0001
Scale parameter	1.51	0.08		0.60	0.04	<.0001	0.00	0.00		0.32	0.00		0.49	0.00		0.36	0.00	

*- A 2-part regression model (Hurdle regression) consisted of part 1 (Logistic regression) to predict the probability of positive values of the outcome and part 2 (negative binomial or Poisson model) for positive counts;

ADG- Aggregate Diagnosis Group; Coeff- regression coefficient; HCU- high-cost user; SE- standard error

Regression coefficients, recycled prediction, health care use (CONT)

Care categories / Covariates	Emergency department visits			Home care services, All*			Home care services, Personal support			Home care services, Nursing			Home care services, Allied			Home care services, Other*		
	Coeff	SE	P-value	Coeff	SE	P-value	Coeff	SE	P-value	Coeff	SE	P-value	Coeff	SE	P-value	Coeff	SE	P-value
Part 1*: p(event) ≠0; Intercept	-1.58	0.03	<.0001	-9.51	0.05	<.0001	-9.22	0.07	<.0001	-3.04	0.05	<.0001	-7.21	0.05	<.0001	-9.28	0.05	<.0001
HCU status	2.40	0.01	<.0001	3.11	0.01	<.0001	2.97	0.01	<.0001	3.06	0.01	<.0001	2.71	0.01	<.0001	3.07	0.01	<.0001
Pre-incident value	0.39	0.00	<.0001	0.08	0.00	<.0001	0.09	0.00	<.0001	0.11	0.00	<.0001	0.26	0.00	<.0001	0.58	0.00	<.0001
Age	0.02	0.00	<.0001	0.08	0.00	<.0001	0.09	0.00	<.0001	0.02	0.00	<.0001	0.07	0.00	<.0001	0.08	0.00	<.0001
ADG	0.09	0.00	<.0001	0.05	0.00	<.0001	0.02	0.00	<.0001	0.02	0.00	<.0001	0.04	0.00	<.0001	0.05	0.00	<.0001
Sex	0.04	0.01	<.0001	-0.34	0.01	<.0001	-0.47	0.01	<.0001	0.12	0.01	<.0001	-0.45	0.01	<.0001	-0.34	0.01	<.0001
Low income	0.04	0.01	<.0001	0.04	0.01	<.0001	0.15	0.01	<.0001	-0.10	0.01	<.0001	-0.01	0.01	0.600	0.08	0.01	<.0001
Part 2*: p(event) >0; Intercept	-0.02	0.03	0.658	0.52	0.00	<.0001	-0.70	0.14	<.0001	2.40	0.06	<.0001	0.20	0.05	<.0001	-0.47	0.01	<.0001
HCU status	0.97	0.01	<.0001	0.74	0.00	<.0001	0.62	0.03	<.0001	0.76	0.02	<.0001	0.24	0.01	<.0001	0.74	0.00	<.0001
Pre-incident value	0.21	0.00	<.0001	0.01	0.00	<.0001	0.01	0.00	<.0001	0.03	0.00	<.0001	0.02	0.00	<.0001	0.03	0.00	<.0001
Age	0.00	0.00	0.179	0.03	0.00	<.0001	0.02	0.00	<.0001	0.00	0.00	<.0001	0.01	0.00	<.0001	0.02	0.00	<.0001
ADG	0.03	0.00	<.0001	0.00	0.00	<.0001	-0.01	0.00	0.001	0.00	0.00	0.091	0.02	0.00	<.0001	0.00	0.00	<.0001
Sex	0.09	0.01	<.0001	-0.13	0.00	<.0001	-0.07	0.02	0.006	-0.03	0.01	0.011	-0.11	0.01	<.0001	0.00	0.00	0.3217
Low income	0.02	0.01	0.005	0.05	0.00	<.0001	-0.06	0.03	0.026	0.03	0.02	0.061	-0.14	0.01	<.0001	0.04	0.00	<.0001
Scale parameter	1.09	0.02					115.73	0.00		2.12	0.02		1.01	0.01				

*-models were fit using Poisson distribution

*- A 2-part regression model (Hurdle regression) consisted of part 1 (Logistic regression) to predict the probability of positive values of the outcome and part 2 (negative binomial or Poisson model) for positive counts;

ADG- Aggregate Diagnosis Group; Coeff- regression coefficient; HCU- high-cost user; SE- standard error