

Supplementary File 4. Sensitivity analyses: study population limited to individuals whose household composition did not change over the study period, and not adjusting for history of emergency hospital use. Created by the authors

	N	Rate ratio	95%CI	P value
Living alone: study population limited to individuals whose household composition did not change over the study period^a				
A&E attendances	4,601,533	1.06	(1.06 to 1.07)	<0.001
Emergency admissions	4,601,533	1.10	(1.09 to 1.10)	<0.001
Living alone: not adjusting for history of emergency hospital use^b				
A&E attendances	4,876,285	1.11	(1.11 to 1.12)	<0.001
Emergency admissions	4,876,285	1.16	(1.15 to 1.16)	<0.001
Living with someone with frailty: study population limited to individuals whose household composition did not change over the study period^a				
A&E attendances ^c	2,266,187	1.08	(1.07 to 1.09)	<0.001
Emergency admissions ^c	2,266,187	1.08	(1.07 to 1.09)	<0.001
Living with someone with frailty: not adjusting for history of emergency hospital use^b				
A&E attendances ^d	2,459,937	1.11	(1.10 to 1.12)	<0.001
Emergency admissions ^d	2,459,937	1.11	(1.10 to 1.12)	<0.001

^aAdjusted for covariates listed in Supplementary File 2.

^bAdjusted for covariates listed in Supplementary File 2 excluding emergency hospital use in the 12 months prior to analysis period.

^cNote: A&E attendances: rate ratio 1.083 (95% CI 1.075 to 1.092). Emergency admissions: rate ratio 1.081 (95% CI 1.070 to 1.093).

^dNote: A&E attendances: rate ratio 1.110 (95% CI 1.101 to 1.118). Emergency admissions: rate ratio 1.111 (95% CI 1.100 to 1.123).