

Supplemental material for

Palapar L, Kerse N, Wilkinson-Meyers L, Lumley T, Blom JW. Primary care variation in rates of unplanned hospitalizations, functional ability, and quality of life of older people. *Ann Fam Med.* 2021;19(4):318-331.

APPENDIX 1a

Characteristics of participants in the entire sample (n = 3,755), subgroup of complex participants (n = 1,374), and subgroup of noncomplex participants (n = 2,241), BRIGHT sample.

Variable	Missing	Entire sample (n = 3,755) Freq (%)	Complex subgroup (n = 1,374) Freq (%)	Noncomplex subgroup (n = 2,241) Freq (%)	Notes
Age, mean (SD)	1	79.8 (4.6)	80.1 (4.6)	79.6 (4.6)	
Sex	0				
Male		1,693 (45.1)	693 (50.4)	947 (42.3)	
Female		2,062 (54.9)	681 (49.6)	1,294 (57.7)	
Ethnicity	2				Other ethnicity includes Pacific, Asian, and African
NZ Maori		177 (4.7)	54 (3.9)	115 (5.1)	
NZ European		2,817 (75.1)	1,058 (77.0)	1,666 (74.4)	
European		645 (17.2)	222 (16.2)	390 (17.4)	
Other		114 (3.0)	40 (2.9)	68 (3.0)	
Marital status	39				
Married		1,985 (53.4)	743 (54.4)	1,183 (53.4)	
Widow or widower		1,417 (38.1)	497 (36.4)	863 (38.9)	
Single or divorced		314 (8.5)	126 (9.2)	171 (7.7)	
Living arrangement	12				
Alone		1,550 (41.4)	541 (39.4)	941 (42.1)	
With only spouse or partner		1,993 (53.3)	740 (53.9)	1,194 (53.4)	

Variable	Missing	Entire sample (n = 3,755) Freq (%)	Complex subgroup (n = 1,374) Freq (%)	Noncomplex subgroup (n = 2,241) Freq (%)	Notes
Other		200 (5.3)	91 (6.6)	101 (4.5)	
NZDep06 of home address	150				Higher decile areas in the 2006 New Zealand Index of Deprivation (NZDep06) ⁷¹ represent areas with greater levels of deprivation
1st-2nd decile (low deprivation)		1,012 (28.1)	318 (24.3)	658 (30.4)	
3rd-5th decile		1,256 (34.8)	465 (35.5)	748 (34.6)	
6th-10th decile (high deprivation)		1,337 (37.1)	526 (40.2)	759 (35.1)	
Education	154				
Completed primary		522 (14.5)	214 (15.8)	302 (13.7)	
Completed secondary		1,645 (45.7)	625 (46.2)	999 (45.3)	
Completed tertiary		1,434 (39.8)	515 (38.0)	903 (41.0)	
≥5 health problems	140	312 (8.6)	312 (22.7)	0 (0.0)	Summary score adding the number of positive responses reported by participants to 14 health conditions: hypertension, asthma, diabetes, arthritis, epilepsy, Parkinson's disease, osteoporosis, myocardial infarction or angina, stroke, chronic lung problems, hip fracture, knee replacement, hip replacement, depression or mental illness
≥3 medication types	20	2,267 (60.7)	1,134 (82.8)	1,054 (47.2)	Participant-reported number of medication types
AMTS score ≤6	33	52 (1.4)	21 (1.5)	28 (1.3)	A score of 6 or less in the Abbreviated Mental Test Score (AMTS) ⁷² is indicative of cognitive impairment

Variable	Missing	Entire sample (n = 3,755) Freq (%)	Complex subgroup (n = 1,374) Freq (%)	Noncomplex subgroup (n = 2,241) Freq (%)	Notes
GDS-15 score ≥ 5	24	342 (9.2)	188 (13.7)	136 (6.1)	A score of 5 or more in the 15-item Geriatric Depression Scale (GDS-15) ⁷³ is suggestive of depression
Social support score, mean (SD)	340	28.4 (3.1)	28.0 (3.2)	28.7 (3.0)	Higher scores in the 11-item Duke Social Support Index ⁷⁴ represent more social interaction and support
Inadequate physical activity	229	1,711 (48.5)	748 (55.9)	954 (44.0)	Exercises less than 30 mins/5 times per week considered inadequate
Current or ever smoked	5	2,078 (55.4)	849 (61.8)	1,147 (51.2)	
Alcohol consumption	145	2,197 (60.9)	811 (59.4)	1,373 (61.7)	
Frequency of alcohol intake	162				
Daily or almost daily		1,177 (32.8)	430 (31.6)	741 (33.5)	
Weekly		532 (14.8)	198 (14.6)	331 (15.0)	
Monthly		469 (13.1)	178 (13.1)	287 (13.0)	
Never		1,415 (39.4)	554 (40.7)	854 (38.6)	
High nutritional risk	25	1,199 (32.1)	610 (44.6)	573 (25.7)	A score of 6 or more in the Australian Nutrition Screening Initiative ⁷⁵ is suggestive of high nutritional risk

APPENDIX 1b

Characteristics of BRIGHT GPs (n = 125) and practices (n = 60).

Variable	Missing	Freq (%)	Notes
GP characteristics (n = 125)			
Sex	0		
Male		54 (43.2)	
Female		71 (56.8)	
Country trained	2		Overseas-trained GPs include those trained in the UK, South Africa, Sri Lanka, among others
New Zealand		83 (67.5)	
Overseas		40 (32.5)	
Years since graduation, mean (SD)	2	24.3 (9.0)	
Years in general practice, mean (SD)	16	17.4 (8.7)	
Years at this practice, mean (SD)	16	12.8 (9.2)	
Number of older patients, mean (SD)	0	65.6 (57.7)	
0.6 full time equivalent or higher	16	84 (77.1)	Full time equivalent (FTE) calculated as number of clinical sessions per week / 10
Position	17		Owners refer to sole owners or partners, associates are GPs on the practice partnership track, and locums are GPs who are not owners or salaried employees of the practice
Owner or associate		93 (86.1)	
Locum or employed GP		15 (13.9)	
Practice characteristics (n = 60)			
NZDep06 of practice location	0		Higher decile areas represent areas with greater levels of deprivation
1st to 8th decile		43 (71.7)	
9th to 10th decile		17 (28.3)	
Area type of practice location	0		Determined using geographic concordance files from Statistics New Zealand; ⁷⁶ other types of urban areas refer to satellite urban communities and independent urban communities; no rural communities in this sample
Main urban centre		56 (93.3)	
Other urban		4 (6.7)	

Variable	Missing	Freq (%)	Notes
≥10% patients aged 75+	11	16 (32.7)	
≥10% Maori patients	11	18 (36.7)	
5,000 enrolled patients or more	11	19 (38.8)	
7 GPs or more	6	19 (35.2)	
≥30% locum GPs	6	18 (33.3)	We assumed that having a smaller proportion of locum GPs promotes continuity of care
Formal assessment tool	3	4 (7.0)	Always using a formal assessment tool to help determine whether older patients have special needs
Clinical audit for frail older patients	3	7 (12.3)	Regularly auditing the practice to identify frail older people who may need additional support or an assessment
Clinics for frail older patients	4	21 (37.5)	Regularly having clinics for frail older patients to identify need or disability risk
Home visits	3	46 (80.7)	Providing regular home visits for older patients who need them
Proactive contacts, any type	3	45 (79.0)	Systematically contacting patients for any of the three reasons specified
Missed appointments	3	43 (75.4)	
Prescriptions not renewed	4	15 (26.8)	
No check up in a long time	4	21 (37.5)	
Number of practice activities	3		A summary score adding the number of positive responses reported by practices to the 5 proactive processes described above (using assessment tools, auditing the practice, having clinics for frail older patients, home visiting, and systematically contacting patients); an alternative score that considered types of follow-up as separate activities (range 0-7) was also calculated
None		4 (7.0)	
1 to 2		36 (63.2)	
3 to 5		17 (29.8)	

APPENDIX 2a

Characteristics of participants in the entire sample (n = 3,141), subgroup of complex participants (n = 1,431), and subgroup of noncomplex participants (n = 1,710), ISCOPE sample.

Variable	Missing	Entire sample (n = 3,141) Freq (%)	Complex subgroup (n = 1,431) Freq (%)	Noncomplex subgroup (n = 1,710) Freq (%)	Notes
Age, mean (SD)	0	82.5 (5.3)	82.5 (5.2)	82.4 (5.3)	
Sex	2				
Male		983 (31.3)	468 (32.7)	515 (30.2)	
Female		2,156 (68.7)	963 (67.3)	1,193 (69.9)	
Country of birth	0				
Netherlands		2,857 (91.0)	1,302 (91.0)	1,555 (90.9)	
Other		284 (9.0)	129 (9.0)	155 (9.1)	
Marital status	1				
Married or living together		1,137 (36.2)	510 (35.6)	627 (36.7)	
Widow or widower		1,657 (52.8)	767 (53.6)	890 (52.1)	
Single or divorced		346 (11.0)	154 (10.8)	192 (11.2)	
Living arrangement	1				
Alone, independent		1,701 (54.2)	779 (54.4)	922 (54.0)	
With other, independent		1,107 (35.3)	492 (34.4)	615 (36.0)	
Institutional		332 (10.6)	160 (11.2)	172 (10.1)	
Statusscore10 of home address	34				
Mid-high SES		2,487 (80.0)	1,124 (79.5)	1,363 (80.5)	Higher quintile areas in the Statusscores calculated by the Sociaal en Cultureel Planbureau in 2010 (Statusscores10) represent areas with lower levels of deprivation ⁷⁷
Low SES		620 (20.0)	290 (20.5)	330 (19.5)	
State pension as only income source	10	477 (15.2)	229 (16.0)	248 (14.6)	

Variable	Missing	Entire sample (n = 3,141) Freq (%)	Complex subgroup (n = 1,431) Freq (%)	Noncomplex subgroup (n = 1,710) Freq (%)	Notes
Education	4				Secondary education includes vocational school
Completed primary		1,152 (36.7)	515 (36.0)	637 (37.3)	
Completed secondary		1,700 (54.2)	804 (56.2)	896 (52.5)	
Completed tertiary		285 (9.1)	111 (7.8)	174 (10.2)	
≥4 health problems	0	270 (8.6)	270 (18.9)	0 (0.0)	Summary score adding the number of positive responses reported by participants to 8 health conditions: asthma, chronic bronchitis, or emphysema; diabetes; osteoarthritis or rheumatoid wear of hips or knees; osteoporosis; heart failure; stroke, brain hemorrhage, cerebral infarction, or transient ischemic attack; hip fracture; depression or anxiety disorder
MMSE score ≤23	40	389 (12.5)	147 (10.4)	242 (14.3)	A score of 23 or less in the Mini-Mental State Examination (MMSE) ⁷⁸ is indicative of cognitive impairment
GDS-15 score ≥5	190	469 (15.9)	259 (19.2)	210 (13.1)	A score of 5 or more in the 15-item Geriatric Depression Scale (GDS-15) ⁷³ is suggestive of depression
Loneliness scale score, mean (SD)	196	2.8 (2.8)	3.0 (2.9)	2.6 (2.7)	A score of 3 or more in the 11-item Loneliness Scale ⁷⁹ represent loneliness

APPENDIX 2b

Characteristics of ISCOPE GPs (n = 81) and practices (n = 59).

Variable	Missing	Freq (%)	Notes
GP characteristics (n = 81)			
Age, mean (SD)	2	50.0 (8.7)	
Sex	0		
Male		48 (59.3)	
Female		33 (40.7)	
Years in general practice, mean (SD)	0	19.9 (10.4)	
Number of older patients, mean (SD)	0	149.0 (102.6)	
≥10% patients aged 75+	0	13 (16.1)	
Position	0		Owners refer to sole owners or partners
Owner		57 (70.4)	
Employed GP		24 (29.6)	
Practice characteristics (n = 59)			
Area type of practice location	0		The Netherlands is a highly urbanised country; all practices in the sample are in the vicinity of the main urban centre
Urban		44 (74.6)	
Rural		15 (25.4)	
Duo or group practice	0	33 (55.9)	
Practice nurse	6	45 (84.9)	

APPENDIX 3

Supplementary Methods.

Subgroup analysis. There were differences in available data on self-reported conditions in the original studies: BRIGHT participants were asked about 14 health conditions (Appendix 1a), whereas ISCOPE participants were asked about 8 conditions (Appendix 2a). Thus, in defining complexity for subgroup analysis, we decided to apply the multimorbidity level cutoff where similar proportions of BRIGHT and ISCOPE participants would be considered to have complex care needs.

We arbitrarily selected 5 conditions as the multimorbidity level cutoff for BRIGHT, and determined the proportion of BRIGHT participants fulfilling this criteria ie, 9%. The cutoff for ISCOPE participants was then set at 4 conditions, as 9% of the ISCOPE sample would also be categorised as complex based on this criteria alone. We explore application of alternative thresholds for complexity in sensitivity analysis.

Sensitivity analysis. In sensitivity analysis, we compared variation in unplanned admission rates from the main analysis to estimates obtained from fitting negative binomial models (Poisson models assume that the variance is equal to the mean) and pooling the estimates from 5 imputations for missing participant characteristics.

To examine whether associations related to complexity are robust, we also varied the threshold for complexity by:

- (1) Reducing the multimorbidity level cutoff from 5 health conditions to 3 and 4 conditions in the BRIGHT sample; in the ISCOPE sample, where multimorbidity level cutoff was four health conditions, alternative cutoffs for complexity were 3

conditions (reduced comorbidity) and 5 conditions (increased comorbidity) in 2 separate models;

(2) Using number and types of health conditions combined with low levels of social support ('Morbidity & social support') to define complexity; and

(3) Considering low levels of social support by itself ('Morbidity | social support') as complex.

Bonferroni adjustment for multiple comparisons. We calculated the adjusted significance threshold as α/n , where n is equal to 3 sets of analysis (for the main analysis, complex subgroup analysis, and noncomplex subgroup analysis) multiplied by the number of primary care factors examined (21 variables from the BRIGHT trial and 9 variables for the ISCOPE study).

APPENDIX 4a

Predictors of 36-month rates of unplanned admissions in the full base model^a for the entire sample, subgroup of complex participants, and subgroup of noncomplex participants, BRIGHT sample.

Variables	Entire sample (n = 3,755) Estimate (95% CI)	Complex subgroup (n = 1,374) Estimate (95% CI)	Noncomplex subgroup (n = 2,241) Estimate (95% CI)
BRIGHT intervention group	1.07 (0.91-1.25)	1.04 (0.85-1.26)	1.14 (0.91-1.42)
Admissions 18 months prior	1.40 (1.36-1.43)	1.36 (1.32-1.41)	1.32 (1.25-1.40)
Age	1.05 (1.04-1.06)	1.04 (1.03-1.05)	1.06 (1.05-1.07)
Sex			
Male (reference)			
Female	0.92 (0.86-0.99)		
Ethnicity			
NZ European (reference)			
NZ Maori	0.74 (0.61-0.89)	0.98 (0.76-1.27)	0.66 (0.50-0.88)
Other ^b	0.79 (0.72-0.87)	0.77 (0.67-0.89)	0.85 (0.74-0.97)
Marital status			
Married (reference)			
Widow or widower	1.21 (1.12-1.31)	1.28 (1.15-1.42)	
Single or divorced	1.17 (1.02-1.33)	1.13 (0.93-1.37)	
Living arrangement			
Alone (reference)			
With only spouse or partner	0.82 (0.76-0.88)	0.79 (0.71-0.88)	0.87 (0.78-0.97)
Other	1.03 (0.89-1.20)	1.00 (0.82-1.22)	1.08 (0.85-1.36)
NZDep06 ^c of home address	1.03 (1.01-1.04)	1.03 (1.01-1.05)	
Education			
Completed primary (reference)			

Variables	Entire sample (n = 3,755)	Complex subgroup (n = 1,374)	Noncomplex subgroup (n = 2,241)
	Estimate (95% CI)	Estimate (95% CI)	Estimate (95% CI)
Completed secondary	0.79 (0.72-0.88)	0.87 (0.76-1.00)	0.69 (0.60-0.80)
Completed tertiary	0.67 (0.60-0.74)	0.75 (0.65-0.87)	0.59 (0.50-0.69)
Number of health problems	1.21 (1.18-1.24)	1.13 (1.09-1.16)	1.23 (1.18-1.29)
Number of medication types	1.10 (1.08-1.11)	1.06 (1.04-1.07)	1.11 (1.09-1.14)
AMTS score ^d	0.91 (0.88-0.94)		0.86 (0.82-0.91)
GDS-15 score ^e	1.10 (1.09-1.12)	1.08 (1.05-1.10)	1.11 (1.08-1.14)
Social support score ^f	0.97 (0.96-0.98)	0.97 (0.96-0.99)	
Adequate physical activity	0.69 (0.64-0.75)	0.71 (0.64-0.79)	0.72 (0.64-0.80)
Does not smoke	0.92 (0.85-0.99)		
Does not drink	1.11 (1.03-1.19)	1.14 (1.03-1.27)	
Frequency of alcohol intake			
Daily or almost daily (reference)			
Weekly	1.04 (0.93-1.17)	1.02 (0.86-1.20)	1.09 (0.91-1.29)
Monthly	1.20 (1.07-1.34)	0.93 (0.78-1.10)	1.47 (1.25-1.74)
Never	1.17 (1.07-1.28)	1.13 (1.00-1.28)	1.24 (1.08-1.41)
Nutritional risk score ^g	1.07 (1.06-1.08)	1.03 (1.01-1.05)	1.08 (1.07-1.10)

^a Candidate participant characteristics not included in fully adjusted analysis are represented as white space; ^b Includes European, Pacific, Asian, and African; ^c 2006 New Zealand Index of Deprivation; ^d Abbreviated Mental Test Score; ^e 15-item Geriatric Depression Scale; ^f measured using the 11-item Duke Social Support Index; ^g measured using the Australian Nutrition Screening Initiative.

APPENDIX 4b

Predictors of 36-month NEADL scores in the full base model^a for the entire sample, subgroup of complex participants, and subgroup of noncomplex participants, BRIGHT sample.

Variables	Entire sample (n = 3,755) Estimate (95% CI)	Complex subgroup (n = 1,374) Estimate (95% CI)	Noncomplex subgroup (n = 2,241) Estimate (95% CI)
BRIGHT intervention group	0.04 (-0.22 – 0.31)	-0.01 (-0.42 – 0.39)	0.14 (-0.14 – 0.42)
NEADL score at baseline	0.90 (0.86 – 0.95)	0.94 (0.87 – 1.01)	0.82 (0.77 – 0.88)
Age	-0.14 (-0.16 – -0.12)	-0.14 (-0.18 – -0.10)	-0.13 (-0.16 – -0.11)
Sex			
Male (reference)			
Female	-0.46 (-0.65 – -0.26)	-0.93 (-1.29 – -0.57)	-0.32 (-0.54 – -0.09)
Ethnicity			
NZ European (reference)			
NZ Maori	0.72 (0.25 – 1.18)		
Other ^b	-0.06 (-0.30 – 0.18)		
Marital status			
Married (reference)			
Widow or widower	-0.31 (-0.51 – -0.10)	-0.55 (-0.95 – -0.15)	
Single or divorced	-0.04 (-0.40 – 0.31)	-0.45 (-1.11 – 0.21)	
Living arrangement			
Alone (reference)			
With only spouse or partner	0.25 (0.05 – 0.45)	0.49 (0.11 – 0.88)	
Other	-0.58 (-1.03 – -0.12)	-1.05 (-1.88 – -0.23)	
NZDep06 ^c of home address			
Education			
Completed primary (reference)			

Variables	Entire sample (n = 3,755) Estimate (95% CI)	Complex subgroup (n = 1,374) Estimate (95% CI)	Noncomplex subgroup (n = 2,241) Estimate (95% CI)
Completed secondary			0.64 (0.29 – 0.98)
Completed tertiary			0.50 (0.14 – 0.85)
Number of health problems	-0.27 (-0.34 – -0.21)	-0.29 (-0.42 – -0.17)	-0.21 (-0.31 – -0.12)
Number of medication types	-0.12 (-0.16 – -0.08)	-0.08 (-0.14 – -0.02)	-0.11 (-0.16 – -0.06)
AMTS score ^d	0.14 (0.02 – 0.26)	0.25 (0.04 – 0.46)	
GDS-15 score ^e		-0.20 (-0.29 – -0.11)	-0.21 (-0.28 – -0.14)
Social support score ^f	0.06 (0.02 – 0.09)		0.06 (0.02 – 0.09)
Adequate physical activity	0.53 (0.34 – 0.73)	0.68 (0.30 – 1.05)	0.42 (0.20 – 0.64)
Does not smoke		-0.40 (-0.79 – -0.02)	
Does not drink	-0.34 (-0.54 – -0.14)		-0.39 (-0.62 – -0.16)
Frequency of alcohol intake			
Daily or almost daily (reference)			
Weekly	-0.20 (-0.50 – 0.10)		-0.21 (-0.55 – 0.13)
Monthly	-0.11 (-0.43 – 0.20)		-0.21 (-0.58 – 0.15)
Never	-0.40 (-0.63 – -0.17)		-0.47 (-0.73 – -0.21)
Nutritional risk score ^g	-0.07 (-0.10 – -0.04)		-0.05 (-0.09 – -0.02)

^a Candidate participant characteristics not included in fully adjusted analysis are represented as white space; ^b Includes European, Pacific, Asian, and African; ^c 2006 New Zealand Index of Deprivation; ^d Abbreviated Mental Test Score; ^e 15-item Geriatric Depression Scale; ^f measured using the 11-item Duke Social Support Index; ^g measured using the Australian Nutrition Screening Initiative.

APPENDIX 4c

Predictors of 36-month physical QOL domain ratings in the full base model^a for the entire sample, subgroup of complex participants, and subgroup of noncomplex participants, BRIGHT sample.

Variables	Entire sample (n = 3,755) Estimate (95% CI)	Complex subgroup (n = 1,374) Estimate (95% CI)	Noncomplex subgroup (n = 2,241) Estimate (95% CI)
BRIGHT intervention group	0.97 (-0.30 – 2.24)	0.33 (-1.54 – 2.19)	1.39 (0.09 – 2.68)
Physical QOL at baseline	0.64 (0.61 – 0.67)	0.65 (0.60 – 0.70)	0.61 (0.57 – 0.64)
Age	-0.34 (-0.44 – -0.24)	-0.26 (-0.43 – -0.09)	-0.36 (-0.48 – -0.24)
Sex			
Male (reference)			
Female			
Ethnicity			
NZ European (reference)			
NZ Maori			
Other ^b			
Marital status			
Married (reference)			
Widow or widower			
Single or divorced			
Living arrangement			
Alone (reference)			
With only spouse or partner	1.03 (0.14 – 1.92)		1.38 (0.29 – 2.48)
Other	-1.14 (-3.18 – 0.90)		-0.84 (-3.47 – 1.79)
NZDep06 ^c of home address			
Education			
Completed primary (reference)			

Variables	Entire sample (n = 3,755) Estimate (95% CI)	Complex subgroup (n = 1,374) Estimate (95% CI)	Noncomplex subgroup (n = 2,241) Estimate (95% CI)
Completed secondary			
Completed tertiary			
Number of health problems	-1.36 (-1.68 – -1.04)	-0.77 (-1.31 – -0.23)	-1.65 (-2.14 – -1.15)
Number of medication types	-0.47 (-0.64 – -0.30)		-0.42 (-0.68 – -0.17)
AMTS score ^d			
GDS-15 score ^e	-0.90 (-1.17 – -0.63)	-1.24 (-1.64 – -0.83)	-0.64 (-1.01 – -0.27)
Social support score ^f	0.30 (0.15 – 0.45)	0.43 (0.19 – 0.68)	0.21 (0.02 – 0.4)
Adequate physical activity	1.78 (0.88 – 2.68)		1.98 (0.87 – 3.09)
Does not smoke			
Does not drink			
Frequency of alcohol intake			
Daily or almost daily (reference)			
Weekly			-2.39 (-4.03 – -0.76)
Monthly			-1.67 (-3.44 – 0.09)
Never			-1.34 (-2.6 – -0.07)
Nutritional risk score ^g	-0.32 (-0.47 – -0.17)	-0.29 (-0.54 – -0.03)	-0.24 (-0.43 – -0.06)

^a Candidate participant characteristics not included in fully adjusted analysis are represented as white space; ^b Includes European, Pacific, Asian, and African; ^c 2006 New Zealand Index of Deprivation; ^d Abbreviated Mental Test Score; ^e 15-item Geriatric Depression Scale; ^f measured using the 11-item Duke Social Support Index; ^g measured using the Australian Nutrition Screening Initiative.

APPENDIX 4d

Predictors of 36-month psychologic QOL domain ratings in the full base model^a for the entire sample, subgroup of complex participants, and subgroup of noncomplex participants, BRIGHT sample.

Variables	Entire sample (n = 3,755) Estimate (95% CI)	Complex subgroup (n = 1,374) Estimate (95% CI)	Noncomplex subgroup (n = 2,241) Estimate (95% CI)
BRIGHT intervention group	0.87 (-0.30 – 2.04)	0.23 (-1.29 – 1.76)	1.37 (0.09 – 2.65)
Psychologic QOL at baseline	0.57 (0.53 – 0.60)	0.57 (0.51 – 0.62)	0.55 (0.51 – 0.59)
Age	-0.27 (-0.36 – -0.19)	-0.18 (-0.32 – -0.03)	-0.31 (-0.42 – -0.20)
Sex			
Male (reference)			
Female			
Ethnicity			
NZ European (reference)			
NZ Maori	0.77 (-1.03 – 2.58)		
Other ^b	-1.14 (-2.08 – -0.21)		
Marital status			
Married (reference)			
Widow or widower			
Single or divorced			
Living arrangement			
Alone (reference)			
With only spouse or partner	0.65 (-0.12 – 1.43)		
Other	-1.47 (-3.24 – 0.30)		
NZDep06 ^c of home address			
Education			
Completed primary (reference)			

Variables	Entire sample (n = 3,755) Estimate (95% CI)	Complex subgroup (n = 1,374) Estimate (95% CI)	Noncomplex subgroup (n = 2,241) Estimate (95% CI)
Completed secondary			
Completed tertiary			
Number of health problems	-0.84 (-1.09 – -0.59)	-0.62 (-1.05 – -0.18)	-0.99 (-1.40 – -0.58)
Number of medication types	-0.37 (-0.51 – -0.23)	-0.26 (-0.48 – -0.05)	-0.34 (-0.55 – -0.13)
AMTS score ^d	0.51 (0.07 – 0.96)		
GDS-15 score ^e	-1.26 (-1.50 – -1.01)	-1.26 (-1.62 – -0.89)	-1.26 (-1.59 – -0.93)
Social support score ^f	0.55 (0.42 – 0.68)	0.65 (0.44 – 0.87)	0.46 (0.30 – 0.63)
Adequate physical activity	1.87 (1.10 – 2.63)	1.59 (0.32 – 2.87)	1.88 (0.92 – 2.84)
Does not smoke			
Does not drink	-0.98 (-1.75 – -0.20)	-2.05 (-3.34 – -0.75)	
Frequency of alcohol intake			
Daily or almost daily (reference)			
Weekly	-0.39 (-1.54 – 0.76)	0.03 (-1.88 – 1.95)	
Monthly	-1.68 (-2.91 – -0.45)	-1.74 (-3.77 – 0.30)	
Never	-1.41 (-2.31 – -0.52)	-2.42 (-3.93 – -0.92)	
Nutritional risk score ^g	-0.31 (-0.43 – -0.19)	-0.30 (-0.51 – -0.09)	-0.25 (-0.40 – -0.10)

^a Candidate participant characteristics not included in fully adjusted analysis are represented as white space; ^b Includes European, Pacific, Asian, and African; ^c 2006 New Zealand Index of Deprivation; ^d Abbreviated Mental Test Score; ^e 15-item Geriatric Depression Scale; ^f measured using the 11-item Duke Social Support Index; ^g measured using the Australian Nutrition Screening Initiative.

APPENDIX 4e

Predictors of 36-month social QOL domain ratings in the full base model^a for the entire sample, subgroup of complex participants, and subgroup of noncomplex participants, BRIGHT sample.

Variables	Entire sample (n = 3,755) Estimate (95% CI)	Complex subgroup (n = 1,374) Estimate (95% CI)	Noncomplex subgroup (n = 2,241) Estimate (95% CI)
BRIGHT intervention group	0.20 (-1.02 – 1.42)	0.24 (-1.47 – 1.96)	0.24 (-0.94 – 1.43)
Social QOL at baseline	0.36 (0.34 – 0.39)	0.34 (0.29 – 0.39)	0.38 (0.34 – 0.41)
Age	-0.11 (-0.20 – -0.02)		-0.11 (-0.22 – 0.00)
Sex			
Male (reference)			
Female	1.08 (0.29 – 1.88)		1.07 (0.09 – 2.06)
Ethnicity			
NZ European (reference)			
NZ Maori	-0.74 (-2.63 – 1.16)		-0.74 (-2.94 – 1.46)
Other ^b	-1.27 (-2.26 – -0.28)		-1.69 (-2.9 – -0.49)
Marital status			
Married (reference)			
Widow or widower			
Single or divorced			
Living arrangement			
Alone (reference)			
With only spouse or partner			
Other			
NZDep06 ^c of home address			
Education			
Completed primary (reference)			

Variables	Entire sample (n = 3,755) Estimate (95% CI)	Complex subgroup (n = 1,374) Estimate (95% CI)	Noncomplex subgroup (n = 2,241) Estimate (95% CI)
Completed secondary			
Completed tertiary			
Number of health problems	-0.29 (-0.55 – -0.03)		
Number of medication types	-0.27 (-0.41 – -0.13)		-0.24 (-0.45 – -0.02)
AMTS score ^d	0.59 (0.12 – 1.06)	0.97 (0.21 – 1.72)	-0.78 (-1.08 – -0.48)
GDS-15 score ^e	-0.66 (-0.88 – -0.44)	-0.47 (-0.82 – -0.13)	0.61 (0.44 – 0.79)
Social support score ^f	0.69 (0.55 – 0.83)	0.78 (0.54 – 1.02)	
Adequate physical activity	0.86 (0.06 – 1.66)		1.03 (0.03 – 2.02)
Does not smoke	1.11 (0.32 – 1.89)		1.20 (0.23 – 2.16)
Does not drink			
Frequency of alcohol intake			
Daily or almost daily (reference)			
Weekly			
Monthly			
Never			
Nutritional risk score ^g	-0.35 (-0.48 – -0.23)	-0.30 (-0.53 – -0.07)	-0.32 (-0.47 – -0.16)

^a Candidate participant characteristics not included in fully adjusted analysis are represented as white space; ^b Includes European, Pacific, Asian, and African; ^c 2006 New Zealand Index of Deprivation; ^d Abbreviated Mental Test Score; ^e 15-item Geriatric Depression Scale; ^f measured using the 11-item Duke Social Support Index; ^g measured using the Australian Nutrition Screening Initiative.

APPENDIX 4f

Predictors of 36-month environmental QOL domain ratings in the full base model^a for the entire sample, subgroup of complex participants, and subgroup of noncomplex participants, BRIGHT sample.

Variables	Entire sample (n = 3,755) Estimate (95% CI)	Complex subgroup (n = 1,374) Estimate (95% CI)	Noncomplex subgroup (n = 2,241) Estimate (95% CI)
BRIGHT intervention group	0.32 (-1.14 – 1.77)	0.06 (-1.72 – 1.84)	0.55 (-1.04 – 2.13)
Environmental QOL at baseline	0.46 (0.43 – 0.49)	0.49 (0.43 – 0.54)	0.44 (0.40 – 0.48)
Age	-0.22 (-0.30 – -0.14)	-0.16 (-0.29 – -0.03)	-0.24 (-0.34 – -0.15)
Sex			
Male (reference)			
Female	-0.92 (-1.59 – -0.25)	-1.57 (-2.70 – -0.43)	-0.85 (-1.69 – 0.00)
Ethnicity			
NZ European (reference)			
NZ Maori			
Other ^b			
Marital status			
Married (reference)			
Widow or widower	-1.29 (-1.99 – -0.58)	-1.48 (-2.72 – -0.24)	-1.38 (-2.26 – -0.51)
Single or divorced	-1.72 (-2.95 – -0.49)	-1.65 (-3.70 – 0.40)	-1.75 (-3.32 – -0.18)
Living arrangement			
Alone (reference)			
With only spouse or partner	1.33 (0.64 – 2.02)	1.47 (0.27 – 2.66)	1.37 (0.52 – 2.23)
Other	-0.82 (-2.40 – 0.75)	-1.52 (-4.08 – 1.05)	-0.19 (-2.24 – 1.86)
NZDep06 ^c of home address			
Education			
Completed primary (reference)			

Variables	Entire sample (n = 3,755) Estimate (95% CI)	Complex subgroup (n = 1,374) Estimate (95% CI)	Noncomplex subgroup (n = 2,241) Estimate (95% CI)
Completed secondary			
Completed tertiary			
Number of health problems	-0.63 (-0.86 – -0.41)	-0.57 (-0.96 – -0.18)	-0.53 (-0.89 – -0.17)
Number of medication types	-0.23 (-0.36 – -0.11)		-0.22 (-0.4 – -0.03)
AMTS score ^d	0.64 (0.24 – 1.04)		0.68 (0.15 – 1.20)
GDS-15 score ^e	-0.90 (-1.09 – -0.71)	-0.80 (-1.10 – -0.51)	-0.95 (-1.21 – -0.68)
Social support score ^f	0.43 (0.31 – 0.55)	0.52 (0.33 – 0.71)	0.36 (0.22 – 0.51)
Adequate physical activity	1.82 (1.14 – 2.50)	1.43 (0.27 – 2.59)	1.91 (1.07 – 2.76)
Does not smoke			
Does not drink	-1.19 (-1.89 – -0.49)	-1.85 (-3.03 – -0.66)	-0.97 (-1.83 – -0.10)
Frequency of alcohol intake			
Daily or almost daily (reference)			
Weekly	-1.42 (-2.44 – -0.39)	-1.60 (-3.33 – 0.13)	-1.38 (-2.66 – -0.10)
Monthly	-2.04 (-3.15 – -0.94)	-2.08 (-3.94 – -0.22)	-2.17 (-3.56 – -0.79)
Never	-1.96 (-2.77 – -1.16)	-2.72 (-4.10 – -1.34)	-1.72 (-2.72 – -0.73)
Nutritional risk score ^g	-0.38 (-0.48 – -0.27)	-0.42 (-0.61 – -0.22)	-0.30 (-0.44 – -0.16)

^a Candidate participant characteristics not included in fully adjusted analysis are represented as white space; ^b Includes European, Pacific, Asian, and African; ^c 2006 New Zealand Index of Deprivation; ^d Abbreviated Mental Test Score; ^e 15-item Geriatric Depression Scale; ^f measured using the 11-item Duke Social Support Index; ^g measured using the Australian Nutrition Screening Initiative.

APPENDIX 5a

Predictors of 12-month rates of unplanned admissions in the full base model^a for the entire sample, subgroup of complex participants, and subgroup of noncomplex participants, ISCOPE sample.

Variables	Entire sample (n = 3,141) Estimate (95% CI)	Complex subgroup (n = 1,431) Estimate (95% CI)	Noncomplex subgroup (n = 1,710) Estimate (95% CI)
ISCOPE intervention group	0.98 (0.77-1.23)	0.97 (0.73-1.29)	0.93 (0.65-1.34)
Admissions 12 months prior	1.90 (1.73-2.09)	1.70 (1.52-1.91)	2.11 (1.71-2.61)
Age			
Sex			
Male (reference)			
Female		0.76 (0.60-0.97)	
Country of birth			
Netherlands (reference)			
Other			
Marital status			
Married or living together (reference)			
Widow or widower			
Single or divorced			
Living arrangement			
Alone, independent (reference)			
With other, independent			0.71 (0.51-0.99)
Institutional			0.38 (0.18-0.83)
Statusscore10 ^b of home address			
Income			
State pension only (reference)			
State pension and other			

Variables	Entire sample (n = 3,141) Estimate (95% CI)	Complex subgroup (n = 1,431) Estimate (95% CI)	Noncomplex subgroup (n = 1,710) Estimate (95% CI)
Education			
Completed primary (reference)			
Completed secondary			1.18 (0.86-1.63)
Completed tertiary			0.31 (0.13-0.73)
Number of health problems	1.15 (1.07-1.24)		
MMSE score ^c			
GDS-15 score ^d			
Loneliness scale score ^e			

^a Candidate participant characteristics not included in fully adjusted analysis are represented as white space; ^b 2010 Statusscores calculated by the Sociaal en Cultureel Planbureau; ^c Mini-Mental State Examination; ^d 15-item Geriatric Depression Scale; ^e measured using the 11-item Loneliness Scale.

APPENDIX 5b

Predictors of 12-month GARS scores in the full base model^a for the entire sample, subgroup of complex participants, and subgroup of noncomplex participants, ISCOPE sample.

Variables	Entire sample (n = 3,141) Estimate (95% CI)	Complex subgroup (n = 1,431) Estimate (95% CI)	Noncomplex subgroup (n = 1,710) Estimate (95% CI)
ISCOPE intervention group	-0.43 (-1.06 – 0.21)	-0.83 (-1.67 – 0.00)	-0.12 (-0.96 – 0.73)
GARS score at baseline	0.95 (0.92 – 0.97)	0.93 (0.90 – 0.97)	0.95 (0.92 – 0.99)
Age	0.21 (0.16 – 0.27)	0.19 (0.11 – 0.27)	0.24 (0.16 – 0.32)
Sex			
Male (reference)			
Female			
Country of birth			
Netherlands (reference)			
Other			
Marital status			
Married or living together (reference)			
Widow or widower			-0.21 (-1.04 – 0.61)
Single or divorced			1.57 (0.28 – 2.87)
Living arrangement			
Alone, independent (reference)			
With other, independent	0.24 (-0.35 – 0.83)		
Institutional	1.54 (0.51 – 2.56)		
Statusscore10 ^b of home address			
Income			
State pension only (reference)			
State pension and other			

Variables	Entire sample (n = 3,141) Estimate (95% CI)	Complex subgroup (n = 1,431) Estimate (95% CI)	Noncomplex subgroup (n = 1,710) Estimate (95% CI)
Education			
Completed primary (reference)			
Completed secondary			
Completed tertiary			
Number of health problems			
MMSE score ^c	-0.30 (-0.39 – -0.21)	-0.30 (-0.44 – -0.16)	-0.31 (-0.44 – -0.19)
GDS-15 score ^d	0.12 (0.01 – 0.24)		
Loneliness scale score ^e			

^a Candidate participant characteristics not included in fully adjusted analysis are represented as white space; ^b 2010 Statuscores calculated by the Sociaal en Cultureel Planbureau; ^c Mini-Mental State Examination; ^d 15-item Geriatric Depression Scale; ^e measured using the 11-item Loneliness Scale.

APPENDIX 5c

Predictors of 12-month EQ-5D scores in the full base model^a for the entire sample, subgroup of complex participants, and subgroup of noncomplex participants, ISCOPE sample.

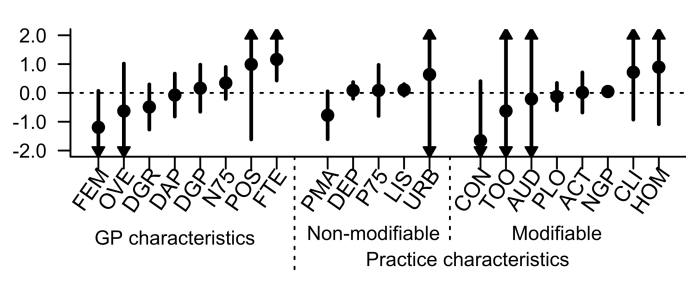
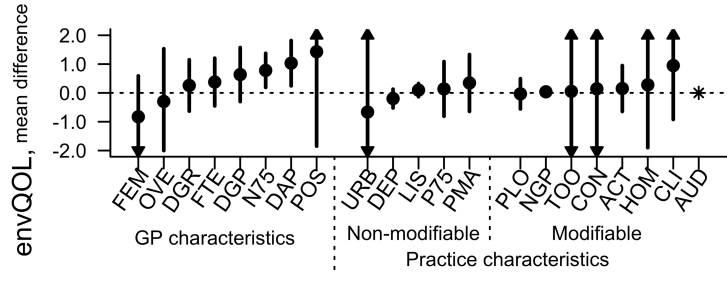
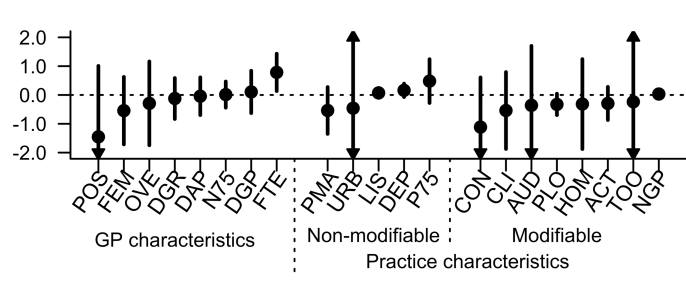
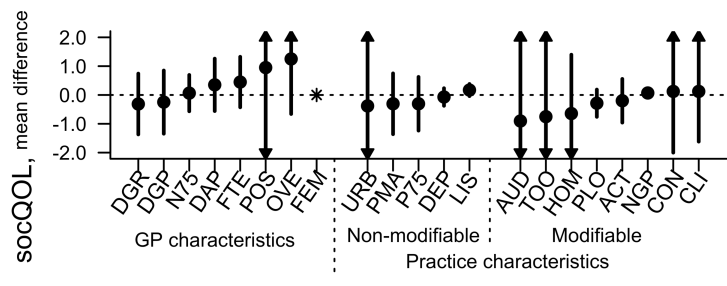
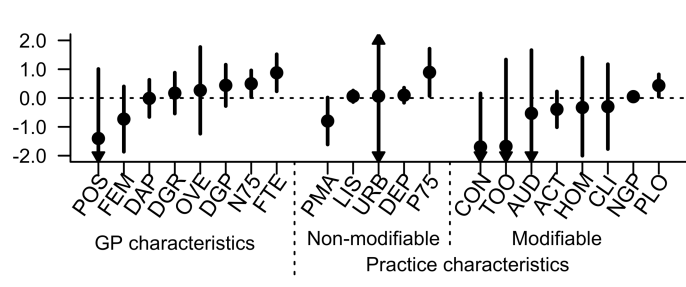
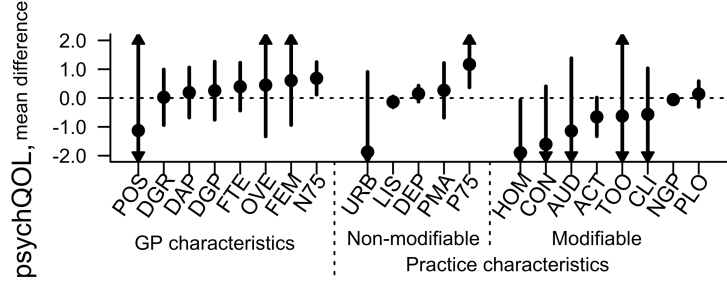
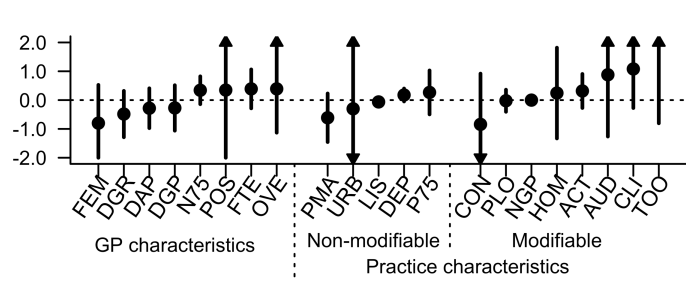
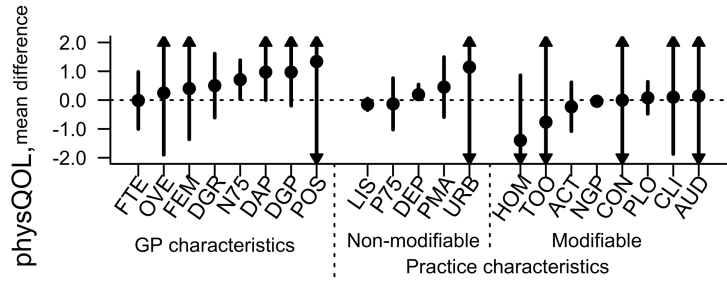
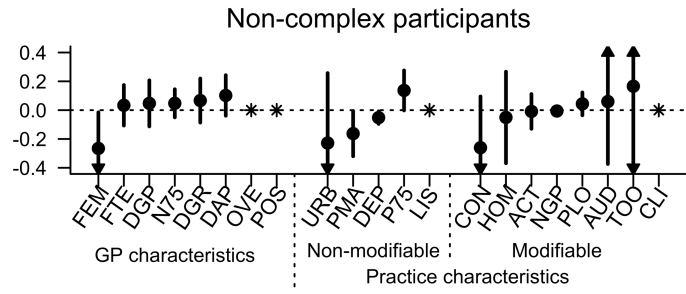
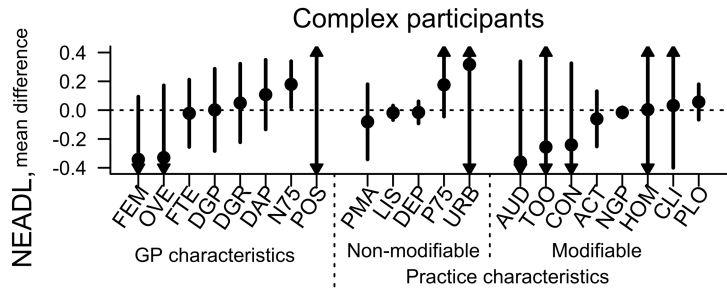
Variables	Entire sample (n = 3,141) Estimate (95% CI)	Complex subgroup (n = 1,431) Estimate (95% CI)	Noncomplex subgroup (n = 1,710) Estimate (95% CI)
ISCOPE intervention group	0.01 (-0.01 – 0.04)	0.02 (-0.02 – 0.06)	0.01 (-0.02 – 0.04)
EQ-5D score at baseline	0.55 (0.52 – 0.59)	0.52 (0.46 – 0.57)	0.58 (0.53 – 0.63)
Age	-0.01 (-0.01 – 0.00)	-0.01 (-0.01 – 0.00)	0.00 (-0.01 – 0.00)
Sex			
Male (reference)			
Female	-0.06 (-0.08 – -0.04)	-0.05 (-0.09 – -0.02)	-0.07 (-0.09 – -0.04)
Country of birth			
Netherlands (reference)			
Other			
Marital status			
Married or living together (reference)			
Widow or widower	-0.03 (-0.06 – -0.01)	-0.04 (-0.07 – -0.01)	-0.08 (-0.13 – -0.03)
Single or divorced	-0.02 (-0.06 – 0.01)	0.00 (-0.05 – 0.05)	0.02 (0.00 – 0.05)
Living arrangement			
Alone, independent (reference)			
With other, independent	0.03 (0.00 – 0.05)	0.03 (-0.01 – 0.06)	
Institutional	-0.09 (-0.13 – -0.06)	-0.10 (-0.15 – -0.05)	
Statusscore10 ^b of home address			
Income			
State pension only (reference)			
State pension and other	0.04 (0.01 – 0.07)	0.05 (0.01 – 0.10)	

Variables	Entire sample (n = 3,141) Estimate (95% CI)	Complex subgroup (n = 1,431) Estimate (95% CI)	Noncomplex subgroup (n = 1,710) Estimate (95% CI)
Education			
Completed primary (reference)			
Completed secondary	0.02 (-0.01 – 0.04)		0.02 (-0.01 – 0.04)
Completed tertiary	0.07 (0.03 – 0.10)		0.08 (0.04 – 0.13)
Number of health problems	-0.04 (-0.04 – -0.03)	-0.04 (-0.05 – -0.02)	-0.05 (-0.07 – -0.04)
MMSE score ^c	0.01 (0.00 – 0.01)	0.01 (0.00 – 0.01)	0.01 (0.00 – 0.01)
GDS-15 score ^d	-0.02 (-0.02 – -0.01)	-0.02 (-0.03 – -0.01)	-0.01 (-0.02 – 0.00)
Loneliness scale score ^e	-0.01 (-0.01 – 0.00)	-0.01 (-0.02 – -0.01)	-0.01 (-0.01 – 0.00)

^a Candidate participant characteristics not included in fully adjusted analysis are represented as white space; ^b 2010 Statusscores calculated by the Sociaal en Cultureel Planbureau; ^c Mini-Mental State Examination; ^d 15-item Geriatric Depression Scale; ^e measured using the 11-item Loneliness Scale.

APPENDIX 6

Subgroup analysis for the variation in adjusted NEADL score^a and physical,^b psychologic,^c social,^d and environmental^e QOL domain ratings at 36 months attributable to GP and practice characteristics, BRIGHT sample^f.



GP characteristics

- DAP Per decade at the practice
- DGP Per decade working as GP
- DGR Per decade since graduation
- FEM Female GP
- FTE Per 0.2 higher FTE
- N75 Per 50 more patients aged 75+
- OVE Trained overseas
- POS Locum or employed GP vs owner or associate

Non-modifiable practice characteristics

- DEP Deprivation score (practice location)
- LIS Per 1,000 more enrolled patients
- P75 Per 5% more patients aged 75+
- PMA Per 10% more Māori patients
- URB Main urban centre vs other (practice location)

Modifiable practice characteristics

- ACT Per practice activity
- AUD Clinical audit
- CLI Clinics for frail older patients
- CON Proactive contacts
- HOM Home visits
- NGP Number of GPs in the practice
- PLO Per 10% more locum GPs
- TOO Formal assessment tool

^a 36-month NEADL full base models adjust for (1) group assignment in the BRIGHT trial, baseline NEADL score, age, sex, marital status, living arrangement, number of health problems, number of medications, Abbreviated Mental Test Score (cognition), Geriatric Depression Scale (GDS-15) score (depression), physical activity, and alcohol consumption in the subgroup of participants with complex care needs and (2) group assignment in the BRIGHT trial, baseline NEADL score, age, sex, education, number of health problems, number of medications, Geriatric Depression Scale (GDS-15) score (depression), social support score, physical activity, alcohol consumption, and frequency of alcohol intake in the subgroup of noncomplex participants.

^b 36-month physical QOL full base models adjust for (1) group assignment in the BRIGHT trial, baseline physical QOL rating, age, number of health problems, Geriatric Depression Scale (GDS-15) score (depression), social support score, and nutritional risk score in the subgroup of participants with complex care needs and (2) group assignment in the BRIGHT trial, baseline physical QOL rating, age, living arrangement, number of health problems, number of medications, Geriatric Depression Scale (GDS-15) score (depression), social support score, physical activity, frequency of alcohol intake, and nutritional risk score in the subgroup of noncomplex participants.

^c 36-month psychologic QOL full base models adjust for (1) group assignment in the BRIGHT trial, baseline psychologic QOL rating, age, number of health problems, number of medications, Geriatric Depression Scale (GDS-15) score (depression), social support score, physical activity, alcohol consumption, frequency of alcohol intake, and nutritional risk score in the subgroup of participants with complex care needs and (2) group assignment in the BRIGHT trial, baseline psychologic QOL rating, age, number of health problems, number of medications, Geriatric Depression Scale (GDS-15) score (depression), social support score, physical activity, and nutritional risk score in the subgroup of noncomplex participants.

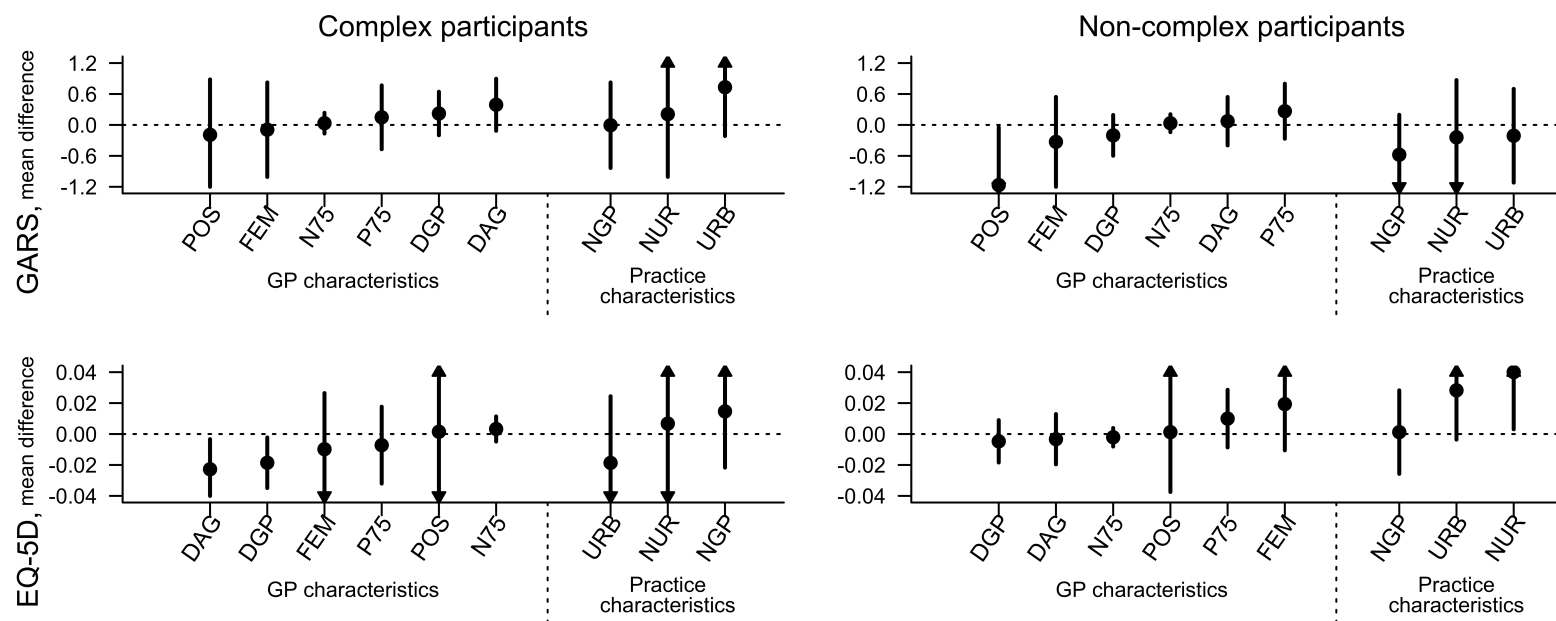
^d 36-month social QOL full base models adjust for (1) group assignment in the BRIGHT trial, baseline social QOL rating, Abbreviated Mental Test Score (cognition), Geriatric Depression Scale (GDS-15) score (depression), social support score, and nutritional risk score in the subgroup of participants with complex care needs and (2) group assignment in the BRIGHT trial, baseline social QOL rating, age, sex, ethnicity, number of medications, Geriatric Depression Scale (GDS-15) score (depression), social support score, physical activity, smoking, and nutritional risk score in the subgroup of noncomplex participants.

^e 36-month environmental QOL full base models adjust for (1) group assignment in the BRIGHT trial, baseline environmental QOL rating, age, sex, marital status, living arrangement, number of health problems, Geriatric Depression Scale (GDS-15) score (depression), social support score, physical activity, alcohol consumption, frequency of alcohol intake, and nutritional risk score in the subgroup of participants with complex care needs and (2) group assignment in the BRIGHT trial, baseline environmental QOL rating, age, sex, marital status, living arrangement, number of health problems, number of medications, Abbreviated Mental Test Score (cognition), Geriatric Depression Scale (GDS-15) score (depression), social support score, physical activity, alcohol consumption, frequency of alcohol intake, and nutritional risk score in the subgroup of noncomplex participants.

^f Estimates above the line imply better scores; below the line, worse scores. Models that failed to converge are marked as *; markings ▼ and ▲ represent estimates less than -0.4 and greater than 0.4 for NEADL and less than -2.0 and greater than 2.0 for physical QOL.

APPENDIX 7

Subgroup analysis for the variation in adjusted GARS score^a and EQ-5D score^b at 12 months attributable to GP and practice characteristics, ISCOPE sample^c.



GP characteristics

DAG Per decade GP age
DGP Per decade working as GP
FEM Female GP

N75 Per 50 more patients aged 75+
P75 Per 5% more patients aged 75+
POS Employed GP vs GP owner

Practice characteristics

NGP Duo or group vs solo practice
NUR Has a practice nurse
URB Urban vs rural (practice location)

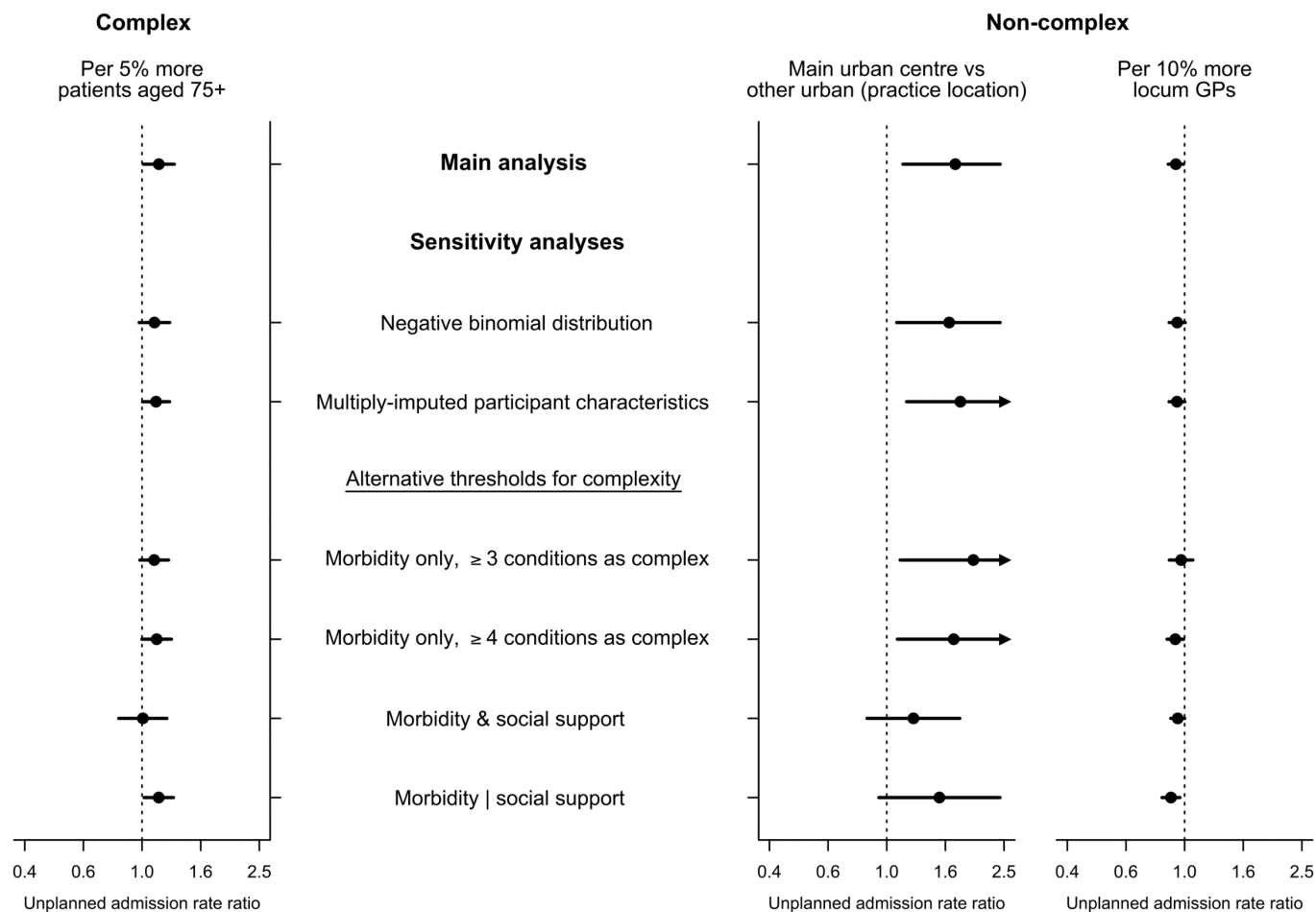
^a 12-month GARS full base models adjust for (1) group assignment in the ISCOPE study, baseline GARS score, age, and Mini-Mental State Examination score (cognition) in the subgroup of participants with complex care needs and (2) group assignment in the ISCOPE study, baseline GARS score, age, marital status, and Mini-Mental State Examination score (cognition) in the subgroup of noncomplex participants.

^b 12-month EQ-5D full base models adjust for (1) group assignment in the ISCOPE study, baseline EQ-5D score, age, sex, marital status, living arrangement, source of income, number of health problems, Mini-Mental State Examination score (cognition), and Geriatric Depression Scale (GDS-15) score (depression), and loneliness score in the subgroup of participants with complex care needs and (2) group assignment in the ISCOPE study, baseline EQ-5D score, age, sex, living arrangement, education, number of health problems, Mini-Mental State Examination score (cognition), and Geriatric Depression Scale (GDS-15) score (depression), and loneliness score in the subgroup of noncomplex participants.

° GARS estimates above the line imply worse scores; below the line, better scores. EQ-5D estimates above the line imply better scores; below the line, worse scores. Models that failed to converge are marked as *; markings ▼ and ▲ represent estimates less than -1.2 and greater than 1.2 for GARS and less than -0.04 and greater than 0.04 for EQ-5D.

APPENDIX 8

Sensitivity analysis^a for the variation in adjusted rate of unplanned admissions over 36 months according to proportion of older patients in the practice in complex participants,^b and urban area type of practice location and proportion of locum GPs in the practice in noncomplex participants,^c BRIGHT sample.



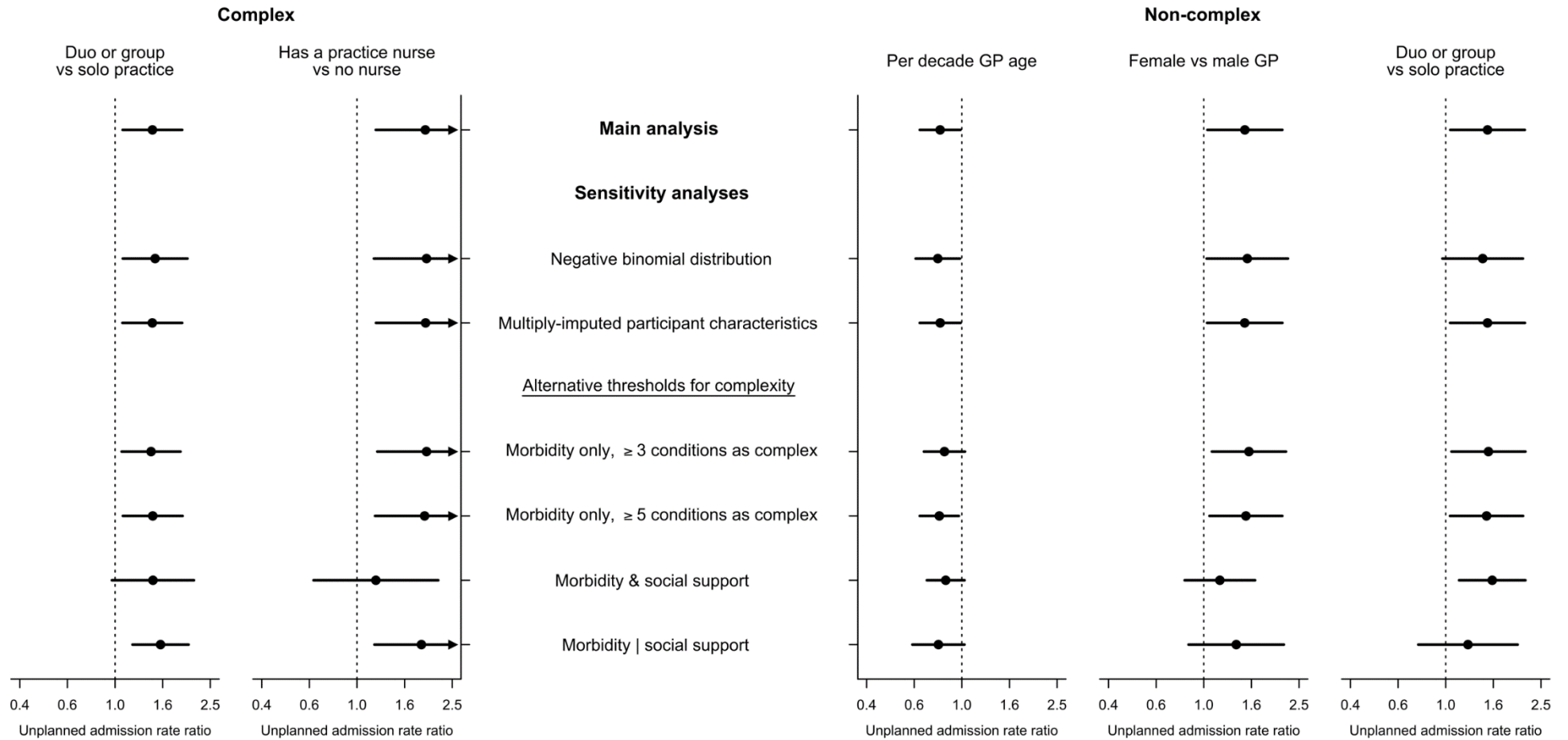
^a 'Morbidity & social support' used number and types of health conditions combined with low levels of social support to define complexity, whereas 'Morbidity | social support' classified participants' care needs based on either number and types of health conditions or levels of social support.

^b Full base model for the subgroup of participants with complex care needs adjusts for group assignment in the BRIGHT trial, number of unplanned admissions in the 18-month period prior to baseline, age, ethnicity, marital status, living arrangement, deprivation decile of participant's home address, education, number of health problems, number of medications, Geriatric Depression Scale (GDS-15) score (depression), social support score, physical activity, alcohol consumption, frequency of alcohol intake, and nutritional risk score.

^c Full base model for the subgroup of noncomplex participants adjusts for group assignment in the BRIGHT trial, number of unplanned admissions in the 18-month period prior to baseline, age, ethnicity, living arrangement, education, number of health problems, number of medications, Abbreviated Mental Test Score (cognition), Geriatric Depression Scale (GDS-15) score (depression), physical activity, frequency of alcohol intake, and nutritional risk score.

APPENDIX 9

Sensitivity analysis^a for the variation in adjusted rate of unplanned admissions over 12 months according to practice size and practice nurse staffing in complex participants,^b and GP age, GP sex, and practice size in noncomplex participants,^c ISCOPE sample.



^a ‘Morbidity & social support’ used number and types of health conditions combined with low levels of social support to define complexity, whereas ‘Morbidity | social support’ classified participants’ care needs based on either number and types of health conditions or levels of social support.

^b Full base model for the subgroup of participants with complex care needs adjusts for group assignment in the ISCOPE study, number of unplanned admissions in the 12-month period prior to baseline, and sex.

^c Full base model for the subgroup of noncomplex participants adjusts for group assignment in the ISCOPE study, number of unplanned admissions in the 12-month period prior to baseline, living arrangement, and education.

Supplemental References

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