Supplementary Online Content

Astell-Burt T, Feng X. Association of urban green space with mental health and general health among adults in Australia. *JAMA Netw Open*. 2019;2(7):e198209. doi:10.1001/jamanetworkopen.2019.8209

- **eFigure.** Flowchart for the Sample
- **eTable 1.** Cross-tabulation of Missing Kessler 10 Psychological Distress Scale Data at Baseline and Follow-up
- **eTable 2.** Cross-tabulation of Missing Self-reported Physician-Diagnosed Depression or Anxiety Data at Baseline and Follow-up
- **eTable 3.** Cross-tabulation of Missing Self-rated Fair or Poor General Health Data at Baseline and Follow-up
- **eTable 4.** Associations Between Total Green Space, Green Space Type, and Prevalent Kessler 10 Psychological Distress Adjusted for Confounding in Multilevel Logistic Regressions Estimated With Markov Chain Monte Carlo (MCMC)
- **eTable 5.** Associations Between Total Green Space, Green Space Type, and Incident Kessler 10 Psychological Distress Adjusted for Confounding in Multilevel Logistic Regressions Estimated With Markov Chain Monte Carlo (MCMC)
- **eTable 6.** Associations Between Total Green Space, Green Space Type, and Prevalent Self-reported Physician-Diagnosed Depression or Anxiety Adjusted for Confounding in Multilevel Logistic Regressions Estimated With Markov Chain Monte Carlo (MCMC)
- **eTable 7.** Associations Between Total Green Space, Green Space Type, and Incident Self-reported Physician-Diagnosed Depression or Anxiety Adjusted for Confounding in Multilevel Logistic Regressions Estimated With Markov Chain Monte Carlo (MCMC)
- **eTable 8.** Associations Between Total Green Space, Green Space Type, and Prevalent Missing Self-rated Fair or Poor General Health Adjusted for Confounding in Multilevel Logistic Regressions Estimated With Markov Chain Monte Carlo (MCMC)
- **eTable 9.** Associations Between Total Green Space, Green Space Type, and Incident Missing Self-rated Fair or Poor General Health Adjusted for Confounding in Multilevel Logistic Regressions Estimated With Markov Chain Monte Carlo (MCMC)

This supplementary material has been provided by the authors to give readers additional information about their work.

Participants in the 45 and Up Study at baseline

Participants within Sydney, Newcastle and Wollongong
Urban Centres and Localities at baseline

Participants within Sydney, Newcastle and Wollongong
at baseline with follow-up data

Participants within Sydney, Newcastle and Wollongong
at baseline with follow-up data who did not relocate
between baseline and follow-up

37,775 with Kessler 10 psychological distress scale at baseline 46,786
with self-reported physician-diagnosed depression and/or anxiety at baseline

45,577
with self-reported fairto-poor general health at baseline

35,836
with Kessler 10
psychological distress
scale at follow-up
(minus non-affirmative
baseline responses)

with self-reported physician-diagnosed depression or anxiety at follow-up (minus non-affirmative baseline responses)

39,277

40,741 with self-reported fairto-poor general health at follow-up (minus non-affirmative baseline responses)

eTable 1: Cross-tabulation of missing Kessler 10 Psychological Distress Scale data at baseline and follow-up

	10-item Kessler Psychological Distress Scale	
	Prevalence	Incidence
Total (% missing responses)	46786 (19.26%)	35836 (7.94%)
	Subtotal (% affirmative responses, 95%CI)	
Gender		
Male	21,633 (18.51%, 18.00% to 19.03%)	16,857 (7.44%, 7.06% to 7.85%)
Female	25,153 (19.91%, 19.42% to 20.40%)	18,979 (8.38%, 7.99% to 8.78%)
Chi-square (p-value)	14.60 (p<0.001)	10.63 (p=0.001)
Age group		
45-54y	15,443 (16.98%, 16.39% to 17.58%)	11,902 (4.13%, 3.78% to 4.50%)
55-64y	16,604 (17.57%, 17.00% to 18.16%)	13,003 (5.78%, 5.39% to 6.19%)
65-74y	9,178 (21.25%, 20.42% to 22.10%)	7,015 (11.46%, 10.74% to 12.23%)
, ≥75y	5,561 (27.35%, 26.20% to 28.54%)	3,916 (20.40%, 19.17% to 21.69%)
Chi-square (p-value)	339.44 (p<0.001)	1,300.00 (p<0.001)
Annual household income		
\$0-\$19,999	5,573 (26.63%, 25.48% to 27.81%)	3,660 (15.79%, 14.65% to 17.01%)
\$20,000-\$29,999	3,261 (23.03%, 21.62% to 24.51%)	2,356 (11.54%, 10.32% to 12.90%)
\$30,000-\$39,999	3,114 (20.71%, 19.33% to 22.17%)	2,325 (9.42%, 8.30% to 10.68%)
\$40,000-\$49,999	3,190 (19.37%, 18.04% to 20.78%)	2,452 (7.71%, 6.72% to 8.83%)
\$50,000-\$69,999	5,347 (18.72%, 17.70% to 19.79%)	4,151 (5.28%, 4.64% to 6.00%)
\$70,000+	17,611 (14.42%, 13.91% to 14.94%)	14,518 (4.32%, 4.00% to 4.66%)
Not stated	8,690 (22.70%, 21.84% to 23.60%)	6,374 (11.63%, 10.86% to 12.44%)
Chi-square (p-value)	561.53 (p<0.001)	777.05 (p<0.001)
Highest educational qualification		
None	2,927 (28.15%, 26.55% to 29.81%)	1,893 (15.64%, 14.07% to 17.34%)
School	8,054 (22.80%, 21.89% to 23.73%)	5,850 (10.97%, 10.20% to 11.80%)
High school	4,419 (20.14%, 18.98% to 21.35%)	3,327 (7.81%, 6.95% to 8.78%)
Trade	4,170 (21.49%, 20.27% to 22.76%)	3,100 (10.90%, 9.85% to 12.05%)
Certificate/Diploma	10,366 (18.20%, 17.47% to 18.96%)	8,067 (6.79%, 6.26% to 7.36%)
University	16,398 (15.58%, 15.03% to 16.14%)	13,300 (5.37%, 5.00% to 5.76%)
Not stated	452 (27.21%, 23.30% to 31.51%)	299 (15.72%, 12.01% to 20.31%)
Chi-square (p-value)	397.61 (p<0.001)	424.06 (p<0.001)
Economic status		
Employed	26,040 (16.72%, 16.27% to 17.18%)	20,676 (4.87%, 4.59% to 5.17%)
Retired	16,762 (21.90%, 21.28% to 22.53%)	12,604 (12.51%, 11.95% to 13.10%)
Unemployed	645 (21.40%, 18.40% to 24.73%)	410 (10.49%, 7.87% to 13.85%)
Unpaid work	663 (23.23%, 20.17% to 26.60%)	472 (9.11%, 6.82% to 12.06%)
Disabled	566 (23.85%, 20.52% to 27.54%)	264 (10.23%, 7.10% to 14.51%)
Homemaker	1,541 (24.01%, 21.94% to 26.21%)	1,072 (9.05%, 7.47% to 10.92%)
Other (e.g. study)	569 (33.22%, 29.46% to 37.20%)	338 (15.09%, 11.65% to 19.32%)

Chi-square (p-value)	293.07 (p<0.001)	658.88 (p<0.001)	
Couple status			
Not in a couple	10,236 (21.86%, 21.07% to 22.68%)	7,336 (10.41%, 9.74% to 11.13%)	
In a couple	36,550 (18.53%, 18.14% to 18.93%)	28,500 (7.30%, 7.01% to 7.61%)	
Chi-square (p-value)	57.13 (p<0.001)	77.34 (p<0.001)	
em square (p varue)	37.13 (p.10.001)	77.51 (p. 0.001)	
Total green space			
0-4%	741 (20.92%, 18.14% to 24.00%)	541 (9.24%, 7.07% to 11.99%)	
5-9%	11,056 (19.45%, 18.72% to 20.19%)	8,402 (8.18%, 7.61% to 8.78%)	
10-19%	12,455 (19.85%, 19.16% to 20.56%)	9,450 (8.23%, 7.70% to 8.80%)	
20-29%	12,712 (19.01%, 18.33% to 19.70%)	9,757 (8.19%, 7.66% to 8.75%)	
<u>></u> 30%	9,822 (18.51%, 17.75% to 19.29%)	7,686 (6.91%, 6.36% to 7.50%)	
Chi-square (p-value)	8.41 (p<0.001)	15.02 (p=0.005)	
Tree canopy			
0-9%	4,972 (20.90%, 19.79% to 22.05%)	3,603 (8.88%, 8.00% to 9.86%)	
10-19%	18,041 (20.17%, 19.59% to 20.76%)	13,543 (8.44%, 7.98% to 8.92%)	
20-29%	11,816 (18.67%, 17.98% to 19.38%)	9,186 (8.01%, 7.47% to 8.59%)	
<u>≥</u> 30%	11,957 (17.80%, 17.12% to 18.49%)	9,504 (6.80%, 6.31% to 7.32%)	
Chi-square (p-value)	37.18 (p<0.001)	26.05 (p<0.001)	
Grass			
0-4%	5,706 (18.14%, 17.16% to 19.16%)	4,496 (7.10%, 6.38% to 7.88%)	
5-9%	19,359 (18.43%, 17.89% to 18.98%)	15,120 (7.74%, 7.32% to 8.17%)	
10-19%	12,072 (20.09%, 19.38% to 20.81%)	9,071 (7.93%, 7.39% to 8.50%)	
20-29%	7,611 (20.65%, 19.76% to 21.58%)	5,652 (9.04%, 8.32% to 9.82%)	
<u>></u> 30%	2,038 (20.22%, 18.53% to 22.02%)	1,497 (8.42%, 7.11% to 9.93%)	
Chi-square (p-value)	29.31 (p<0.001)	15.08 (p=0.005)	
Low-lying vegetation			
0-4%	29,840 (18.94%, 18.50% to 19.39%)	22,960 (7.98%, 7.64% to 8.34%)	
5-9%	15,366 (19.78%, 19.16% to 20.42%)	11,681 (7.94%, 7.47% to 8.45%)	
<u>≥</u> 10%	1,580 (20.19%, 18.28% to 22.24%)	1,195 (7.03%, 5.71% to 8.62%)	
Chi-square (p-value)	5.54 (p=0.063)	1.42 (p=0.493)	

eTable 2: Cross-tabulation of missing self-reported physician-diagnosed depression or anxiety data at baseline and follow-up

	Self-reported physician-diagnosed depressio	n or anxiety
	Prevalence	Incidence
Total (9/ missing responses)	46786 (0.00%)	39277 (0.02%)
Fotal (% missing responses)	46786 (0.00%)	39277 (0.02%)
	Subtotal (% affirmative responses, 95%CI)	
Gender	Subtotal (% allithative responses, 95%cl)	
	21 (22 (0.00%)	10.155 (0.030/ 0.010/ +- 0.050/)
Male Female	21,633 (0.00%)	19,155 (0.03%, 0.01% to 0.06%)
	25,153 (0.00%)	20,130 (0.01%, 0.00% to 0.05%)
Chi-square (p-value)		0.60 (p=0.437)
Ago group		
Age group 45-54y	15,443 (0.00%)	12,527 (0.01%, 0.00% to 0.06%)
<u> </u>	16,604 (0.00%)	· ` ` ` ` · · · · · · · · · · · · · · ·
55-64y	· ' '	13,809 (0.01%, 0.00% to 0.06%)
65-74y	9,178 (0.00%)	7,954 (0.03%, 0.01% to 0.10%)
≥75y	5,561 (0.00%)	4,995 (0.06%, 0.02% to 0.19%)
Chi-square (p-value)		5.13 (p=0.162)
Annual household income		
\$0-\$19,999	5,573 (0.00%)	4,441 (0.07%, 0.02% to 0.21%)
\$20,000-\$29,999	3,261 (0.00%)	2,703 (0.00%)
\$30,000-\$39,999	3,114 (0.00%)	2,578 (0.08%, 0.02% to 0.31%)
\$40,000-\$49,999	3,190 (0.00%)	2,678 (0.00%)
\$50,000-\$69,999	5,347 (0.00%)	4,468 (0.00%)
\$70,000+	17,611 (0.00%)	14,976 (0.01%, 0.00% to 0.05%)
Not stated	8,690 (0.00%)	7,441 (0.03%, 0.01% to 0.11%)
Chi-square (p-value)		12.54 (p=0.051)
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Highest educational qualification		
None	2,927 (0.00%)	2,374 (0.08%, 0.02% to 0.34%)
School	8,054 (0.00%)	6,732 (0.01%, 0.00% to 0.11%)
High school	4,419 (0.00%)	3,730 (0.03%, 0.00% to 0.19%)
Trade	4,170 (0.00%)	3,656 (0.05%, 0.01% to 0.22%)
Certificate/Diploma	10,366 (0.00%)	8,606 (0.01%, 0.00% to 0.08%)
University	16,398 (0.00%)	13,812 (0.01%, 0.00% to 0.05%)
Not stated	452 (0.00%)	375 (0.00%)
Chi-square (p-value)		8.62 (p=0.196)
Economic status		
Employed	26,040 (0.00%)	21,938 (0.01%, 0.00% to 0.04%)
Retired	16,762 (0.00%)	14,355 (0.03%, 0.01% to 0.08%)
Unemployed	645 (0.00%)	470 (0.00%)
Unpaid work	663 (0.00%)	536 (0.00%)
Disabled	566 (0.00%)	289 (0.35%, 0.05% to 2.42%)
Homemaker	1,541 (0.00%)	1,242 (0.00%)
Other (e.g. study)	569 (0.00%)	455 (0.00%)
Chi-square (p-value)	·	18.44 (p=0.005)

Couple status		
Not in a couple	10,236 (0.00%)	7,952 (0.05%, 0.02% to 0.13%)
In a couple	36,550 (0.00%)	31,333 (0.01%, 0.00% to 0.03%)
Chi-square (p-value)		4.39 (p=0.036)
Total green space		
0-4%	741 (0.00%)	604 (0.00%)
5-9%	11,056 (0.00%)	9,204 (0.01%, 0.00% to 0.08%)
10-19%	12,455 (0.00%)	10,513 (0.05%, 0.02% to 0.11%)
20-29%	12,712 (0.00%)	10,652 (0.01%, 0.00% to 0.07%)
<u>></u> 30%	9,822 (0.00%)	8,312 (0.01%, 0.00% to 0.09%)
Chi-square (p-value)		5.26 (p=0.261)
Free canopy	4.072.(0.000/)	A 100 (0.050), 0.010(), 0.100()
0-9%	4,972 (0.00%)	4,106 (0.05%, 0.01% to 0.19%)
10-19%	18,041 (0.00%)	14,954 (0.02%, 0.01% to 0.06%)
20-29%	11,816 (0.00%)	9,990 (0.02%, 0.01% to 0.08%)
<u>></u> 30%	11,957 (0.00%)	10,235 (0.01%, 0.00% to 0.07%)
Chi-square (p-value)		2.19 (p=0.535)
Grass		
0-4%	5,706 (0.00%)	4,788 (0.02%, 0.00% to 0.15%)
5-9%	19,359 (0.00%)	16,436 (0.02%, 0.01% to 0.06%)
10-19%	12,072 (0.00%)	10,136 (0.02%, 0.00% to 0.08%)
20-29%	7,611 (0.00%)	6,275 (0.03%, 0.01% to 0.13%)
<u>></u> 30%	2,038 (0.00%)	1,650 (0.00%)
Chi-square (p-value)	. ,	0.78 (p=0.941)
ow-lying vegetation		
0-4%	29,840 (0.00%)	25,102 (0.02%, 0.01% to 0.05%)
5-9%	15,366 (0.00%)	12,850 (0.02%, 0.01% to 0.07%)
<u>≥</u> 10%	1,580 (0.00%)	1,333 (0.00%)
Chi-square (p-value)		0.33 (p=0.848)

eTable 3: Cross-tabulation of missing self-rated fair or poor general health data at baseline and follow-up

	I	
	Self-rated fair or poor general health	
	Prevalence	Incidence
Total (% missing responses)	46786 (2.58%)	41494 (1.81%)
Total (70 missing responses)	40700 (2.3070)	41434 (1.0170)
	Subtotal (% affirmative responses, 95%CI)	
Gender	Subtotal (% allithative responses, 93%ci)	
Male	21,633 (2.16%, 1.97% to 2.36%)	19,205 (2.28%, 2.08% to 2.50%)
Female	25,153 (2.95%, 2.75% to 3.17%)	22,289 (1.41%, 1.27% to 1.58%)
Chi-square (p-value)	28.92 (p<0.001)	43.56 (p<0.001)
Cili-square (p-value)	26.92 (p<0.001)	45.50 (β<0.001)
Age group		
45-54y	15,443 (2.10%, 1.88% to 2.34%)	13,935 (0.82%, 0.68% to 0.98%)
55-64y	16,604 (2.43%, 2.21% to 2.68%)	14,869 (1.33%, 1.16% to 1.53%)
65-74y	9,178 (2.72%, 2.41% to 3.08%)	8,072 (2.58%, 2.25% to 2.95%)
≥75y	5,561 (4.15%, 3.66% to 4.71%)	4,618 (5.05%, 4.45% to 5.72%)
Chi-square (p-value)	71.15 (p<0.001)	393.99 (p<0.001)
	(1/	
Annual household income		
\$0-\$19,999	5,573 (2.60%, 2.21% to 3.05%)	4,316 (3.38%, 2.88% to 3.97%)
\$20,000-\$29,999	3,261 (1.72%, 1.32% to 2.23%)	2,813 (2.56%, 2.04% to 3.21%)
\$30,000-\$39,999	3,114 (1.51%, 1.14% to 2.00%)	2,809 (1.96%, 1.51% to 2.54%)
\$40,000-\$49,999	3,190 (1.19%, 0.87% to 1.63%)	2,893 (1.69%, 1.28% to 2.23%)
\$50,000-\$69,999	5,347 (0.92%, 0.69% to 1.21%)	4,929 (1.48%, 1.18% to 1.86%)
\$70,000+	17,611 (0.61%, 0.50% to 0.73%)	16,647 (1.11%, 0.96% to 1.28%)
Not stated	8,690 (8.83%, 8.25% to 9.44%)	7,087 (2.46%, 2.12% to 2.84%)
Chi-square (p-value)	1,700.00 (p<0.001)	135.29 (p<0.001)
Highest educational qualification		
None	2,927 (4.85%, 4.13% to 5.69%)	2,246 (3.03%, 2.39% to 3.82%)
School	8,054 (3.23%, 2.86% to 3.64%)	6,904 (2.06%, 1.75% to 2.42%)
High school	4,419 (2.76%, 2.32% to 3.29%)	3,833 (2.01%, 1.61% to 2.50%)
Trade	4,170 (2.37%, 1.95% to 2.88%)	3,593 (2.28%, 1.84% to 2.83%)
Certificate/Diploma	10,366 (2.05%, 1.80% to 2.35%)	9,391 (1.61%, 1.37% to 1.88%)
University	16,398 (2.06%, 1.85% to 2.28%)	15,170 (1.44%, 1.27% to 1.65%)
Not stated	452 (7.96%, 5.80% to 10.85%)	357 (3.92%, 2.33% to 6.52%)
Chi-square (p-value)	156.07 (p<0.001)	48.90 (p<0.001)
Economic status		
Employed	26,040 (2.14%, 1.97% to 2.33%)	23,964 (1.19%, 1.06% to 1.33%)
Retired	16,762 (2.98%, 2.73% to 3.25%)	14,465 (2.83%, 2.58% to 3.12%)
Unemployed	645 (4.50%, 3.14% to 6.40%)	479 (1.88%, 0.98% to 3.57%)
Unpaid work	663 (2.56%, 1.60% to 4.09%)	595 (1.51%, 0.79% to 2.88%)
Disabled	566 (4.77%, 3.29% to 6.87%)	215 (2.79%, 1.26% to 6.08%)
Homemaker	1,541 (2.79%, 2.08% to 3.74%)	1,328 (1.58%, 1.03% to 2.41%)
Other (e.g. study)	569 (6.33%, 4.60% to 8.65%)	448 (2.90%, 1.69% to 4.94%)
Chi-square (p-value)	82.46 (p<0.001)	141.87 (p<0.001)

ouple status			
Not in a couple	10,236 (3.52%, 3.18% to 3.89%)	8,587 (2.24%, 1.94% to 2.57%)	
In a couple	36,550 (2.32%, 2.17% to 2.48%)	32,907 (1.70%, 1.57% to 1.85%)	
Chi-square (p-value)	45.30 (p<0.001)	10.78 (p=0.001)	
CIII-square (p-value)	45.30 (p<0.001)	10.78 (μ-0.001)	
otal green space			
0-4%	741 (2.56%, 1.64% to 3.99%)	628 (2.71%, 1.69% to 4.31%)	
5-9%	11,056 (2.91%, 2.61% to 3.24%)	9,689 (1.88%, 1.63% to 2.17%)	
10-19%	12,455 (2.83%, 2.56% to 3.14%)	10,953 (2.16%, 1.91% to 2.45%)	
20-29%	12,712 (2.27%, 2.03% to 2.55%)	11,278 (1.70%, 1.48% to 1.96%)	
<u>></u> 30%	9,822 (2.30%, 2.02% to 2.62%)	8,946 (1.40%, 1.17% to 1.66%)	
Chi-square (p-value)	15.83 (p=0.003)	20.06 (p<0.001)	
Ггее сапору			
0-9%	4,972 (3.04%, 2.59% to 3.55%)	4,135 (1.91%, 1.53% to 2.38%)	
10-19%	18,041 (2.93%, 2.69% to 3.18%)	15,617 (1.97%, 1.77% to 2.20%)	
20-29%	11,816 (2.46%, 2.20% to 2.76%)	10,684 (1.93%, 1.68% to 2.21%)	
>30%	11,957 (2.00%, 1.76% to 2.27%)	11,058 (1.45%, 1.24% to 1.69%)	
Chi-square (p-value)	29.42 (p<0.001)	11.55 (p=0.009)	
Grass			
	5,706 (2.54%, 2.16% to 2.98%)	F 212 /1 400/ 1 110/ +c 1 700/	
0-4%	, , , , , , , , , , , , , , , , , , , ,	5,212 (1.40%, 1.11% to 1.76%)	
5-9%	19,359 (2.55%, 2.34% to 2.78%)	17,466 (1.85%, 1.66% to 2.06%)	
10-19%	12,072 (2.44%, 2.18% to 2.73%)	10,592 (1.95%, 1.71% to 2.24%)	
20-29%	7,611 (2.92%, 2.56% to 3.32%)	6,491 (1.86%, 1.56% to 2.22%)	
<u>≥</u> 30%	2,038 (2.65%, 2.03% to 3.44%)	1,733 (1.67%, 1.17% to 2.40%)	
Chi-square (p-value)	4.56 (p=0.335)	6.57 (p=0.160)	
ow-lying vegetation			
0-4%	29,840 (2.55%, 2.37% to 2.73%)	26,538 (1.88%, 1.73% to 2.05%)	
5-9%	15,366 (2.66%, 2.41% to 2.92%)	13,568 (1.72%, 1.52% to 1.96%)	
<u>≥</u> 10%	1,580 (2.59%, 1.92% to 3.51%)	1,388 (1.37%, 0.87% to 2.14%)	
	0.47 (p=0.789)	2.88 (p=0.237)	

eTable 4: Associations between total green space, green space type, and prevalent Kessler 10 psychological distress adjusted for confounding in multilevel logistic regressions estimated with Markov Chain Monte Carlo (MCMC)

	10-item Kessler Psychological	Distress Scale (prevalence)		
	Model 1			
	Total green space	Tree canopy	Grass	Low-lying vegetation
	Odds Ratio (95% Confidence I	nterval) [p-value]		
Total green space (ref: 0-4%)				
5-9%	0.82 (0.58 to 1.18) [p=0.12]			
10-19%	0.80 (0.56 to 1.17) [p=0.11]			
20-29%	0.79 (0.55 to 1.15) [p=0.09]			
<u>≥</u> 30%	0.69 (0.47 to 1.02) [p=0.03]			
Tree canopy (ref: 0-9%)				
10-19%		0.81 (0.70 to 0.94) [p=0.003]		
20-29%		0.73 (0.61 to 0.87) [p=0.001]		
≥30%		0.61 (0.50 to 0.74) [p<0.001]		
Grass (ref: 0-4%)				
5-9%			1.13 (0.93 to 1.35) [p=0.12]	
10-19%			1.38 (1.11 to 1.70) [p=0.001]	
20-29%			1.27 (0.99 to 1.60) [p=0.03]	
≥30%			1.71 (1.25 to 2.28) [p<0.001]	
Low-lying vegetation (0-4%)				
5-9%				0.97 (0.86 to 1.08) [p=0.26]
≥10%				0.97 (0.72 to 1.26) [p=0.39]
Age group (ref: 45-54y)				
55-64y	0.55 (0.49 to 0.61) [p<0.001]	0.55 (0.49 to 0.62) [p<0.001]	0.55 (0.49 to 0.62) [p<0.001]	0.55 (0.49 to 0.62) [p<0.001]

65-74y	0.27 (0.22 to 0.32) [p<0.001]			
≥75y	0.22 (0.17 to 0.28) [p<0.001]	0.23 (0.18 to 0.28) [p<0.001]	0.23 (0.18 to 0.29) [p<0.001]	0.22 (0.18 to 0.28) [p<0.001]
Gender (ref: Male)				
Female	1.06 (0.95 to 1.17) [p=0.14]	1.06 (0.96 to 1.18) [p=0.12]	1.06 (0.95 to 1.17) [p=0.15]	1.06 (0.95 to 1.17) [p=0.15]
Annual household income (ref: \$0-\$19,999)				
\$20,000-\$29,999	0.77 (0.63 to 0.95) [p=0.007]	0.77 (0.63 to 0.94) [p=0.004]	0.77 (0.62 to 0.94) [p=0.005]	0.77 (0.62 to 0.93) [p=0.004]
\$30,000-\$39,999	0.72 (0.58 to 0.89) [p=0.001]	0.72 (0.58 to 0.88) [p=0.001]	0.72 (0.58 to 0.89) [p=0.001]	0.72 (0.58 to 0.88) [p=0.001]
\$40,000-\$49,999	0.54 (0.42 to 0.67) [p<0.001]	0.54 (0.43 to 0.67) [p<0.001]	0.53 (0.42 to 0.66) [p<0.001]	0.53 (0.42 to 0.66) [p<0.001]
\$50,000-\$69,999	0.49 (0.40 to 0.60) [p<0.001]	0.49 (0.40 to 0.59) [p<0.001]	0.49 (0.40 to 0.60) [p<0.001]	0.49 (0.40 to 0.59) [p<0.001]
\$70,000+	0.41 (0.34 to 0.49) [p<0.001]	0.41 (0.35 to 0.49) [p<0.001]	0.41 (0.34 to 0.49) [p<0.001]	0.41 (0.34 to 0.49) [p<0.001]
Not stated	0.56 (0.47 to 0.66) [p<0.001]	0.56 (0.47 to 0.66) [p<0.001]	0.56 (0.47 to 0.66) [p<0.001]	0.55 (0.47 to 0.65) [p<0.001]
Highest educational qualification (ref: None)				
School	0.69 (0.57 to 0.84) [p<0.001]	0.71 (0.58 to 0.86) [p<0.001]	0.70 (0.57 to 0.84) [p<0.001]	0.69 (0.57 to 0.84) [p<0.001]
High school	0.69 (0.55 to 0.85) [p<0.001]	0.71 (0.56 to 0.88) [p=0.001]	0.70 (0.56 to 0.87) [p<0.001]	0.69 (0.55 to 0.86) [p<0.001]
Trade	0.69 (0.55 to 0.86) [p=0.001]	0.71 (0.56 to 0.88) [p=0.001]	0.70 (0.56 to 0.88) [p=0.001]	0.69 (0.55 to 0.86) [p=0.001]
Certificate/Diploma	0.64 (0.53 to 0.78) [p<0.001]	0.66 (0.54 to 0.80) [p<0.001]	0.65 (0.53 to 0.79) [p<0.001]	0.64 (0.53 to 0.77) [p<0.001]
University	0.60 (0.49 to 0.73) [p<0.001]	0.62 (0.51 to 0.76) [p<0.001]	0.62 (0.50 to 0.75) [p<0.001]	0.60 (0.49 to 0.73) [p<0.001]
Not stated	1.16 (0.74 to 1.72) [p=0.28]	1.19 (0.75 to 1.76) [p=0.25]	1.17 (0.73 to 1.74) [p=0.27]	1.16 (0.73 to 1.72) [p=0.27]
Economic status (ref: Employed)				
Retired	1.18 (1.01 to 1.38) [p=0.019]	1.18 (1.02 to 1.37) [p=0.016]	1.18 (1.01 to 1.36) [p=0.021]	1.18 (1.01 to 1.36) [p=0.021]
Unemployed	3.17 (2.44 to 4.02) [p<0.001]	3.19 (2.46 to 4.07) [p<0.001]	3.18 (2.45 to 4.04) [p<0.001]	3.18 (2.45 to 4.03) [p<0.001]
Unpaid work	1.72 (1.17 to 2.38) [p=0.003]	1.72 (1.18 to 2.40) [p=0.003]	1.71 (1.16 to 2.37) [p=0.003]	1.71 (1.18 to 2.36) [p=0.003]
Disabled	6.80 (5.33 to 8.52) [p<0.001]	6.73 (5.28 to 8.44) [p<0.001]	6.89 (5.41 to 8.66) [p<0.001]	6.84 (5.37 to 8.57) [p<0.001]
Homemaker	1.74 (1.37 to 2.16) [p<0.001]	1.74 (1.36 to 2.17) [p<0.001]	1.74 (1.37 to 2.17) [p<0.001]	1.74 (1.37 to 2.16) [p<0.001]
Other (e.g. study)	2.21 (1.53 to 3.07) [p<0.001]	2.22 (1.53 to 3.08) [p<0.001]	2.22 (1.52 to 3.05) [p<0.001]	2.21 (1.52 to 3.05) [p<0.001]

Couple status (ref: Not in a couple)				
In a couple	0.60 (0.54 to 0.67) [p<0.001]	0.61 (0.54 to 0.68) [p<0.001]	0.59 (0.53 to 0.66) [p<0.001]	0.60 (0.54 to 0.67) [p<0.001]

eTable 5: Associations between total green space, green space type, and incident Kessler 10 psychological distress adjusted for confounding in multilevel logistic regressions estimated with Markov Chain Monte Carlo (MCMC)

10-item Kessler Psychological	<u> </u> Distress Scale (incidence)		
Model 5	Model 8		
Total green space	Tree canopy	Grass	Low-lying vegetation
Odds Ratio (95% Confidence Ir	ıterval) [p-value]		
0.54 (0.36 to 0.80) [p=0.003]			
0.53 (0.35 to 0.79) [p=0.003]			
0.50 (0.33 to 0.75) [p<0.001]			
0.46 (0.29 to 0.69) [p<0.001]			
	0.76 (0.60 to 0.95) [p=0.009]		
	0.69 (0.54 to 0.88) [p=0.002]		
		0.89 (0.71 to 1.11) [p=0.14]	
		1.05 (0.81 to 1.33) [p=0.38]	
		1.07 (0.81 to 1.39) [p=0.35]	
		0.90 (0.59 to 1.30) [p=0.27]	
			1.06 (0.92 to 1.22) [p=0.21]
			1.11 (0.77 to 1.51) [p=0.30]
0.59 (0.51 to 0.69) [p<0.001]	0.60 (0.51 to 0.70) [p<0.001]	0.59 (0.51 to 0.69) [n<0.001]	0.59 (0.51 to 0.69) [p<0.001]
	Model 5 Total green space Odds Ratio (95% Confidence III 0.54 (0.36 to 0.80) [p=0.003] 0.53 (0.35 to 0.79) [p=0.003] 0.50 (0.33 to 0.75) [p<0.001]	Total green space Tree canopy Odds Ratio (95% Confidence Interval) [p-value] 0.54 (0.36 to 0.80) [p=0.003] 0.53 (0.35 to 0.79) [p=0.003] 0.50 (0.33 to 0.75) [p<0.001] 0.46 (0.29 to 0.69) [p<0.001] 0.76 (0.60 to 0.95) [p=0.009] 0.69 (0.54 to 0.88) [p=0.002]	Model 5 Model 6 Model 7 Total green space Tree canopy Grass Odds Ratio (95% Confidence Interval) [p-value] 0.54 (0.36 to 0.80) [p=0.003] 0.53 (0.35 to 0.79) [p=0.003] 0.50 (0.33 to 0.75) [p<0.001] 0.46 (0.29 to 0.69) [p<0.001] 0.92 (0.75 to 1.11) [p=0.18] 0.76 (0.60 to 0.95) [p=0.009] 0.69 (0.54 to 0.88) [p=0.002] 1.05 (0.81 to 1.33) [p=0.38] 1.07 (0.81 to 1.39) [p=0.35] 0.90 (0.59 to 1.30) [p=0.27]

65-74y	0.50 (0.39 to 0.63) [p<0.001]	0.51 (0.40 to 0.64) [p<0.001]	0.51 (0.40 to 0.63) [p<0.001]	0.50 (0.40 to 0.63) [p<0.001]
≥75y	0.62 (0.46 to 0.81) [p<0.001]	0.64 (0.48 to 0.84) [p=0.001]	0.63 (0.47 to 0.82) [p=0.001]	0.63 (0.47 to 0.81) [p<0.001]
Gender (ref: Male)				
Female	1.14 (0.99 to 1.30) [p=0.033]	1.15 (1.00 to 1.31) [p=0.025]	1.14 (0.99 to 1.30) [p=0.033]	1.14 (0.99 to 1.30) [p=0.033]
Annual household income (ref: \$0-\$19,999)				
\$20,000-\$29,999	0.97 (0.73 to 1.26) [p=0.39]	0.98 (0.74 to 1.27) [p=0.41]	0.96 (0.72 to 1.26) [p=0.35]	0.97 (0.73 to 1.26) [p=0.373]
\$30,000-\$39,999	0.74 (0.54 to 0.99) [p=0.020]	0.76 (0.55 to 1.01) [p=0.029]	0.74 (0.54 to 0.98) [p=0.020]	0.74 (0.54 to 0.99) [p=0.020]
\$40,000-\$49,999	0.87 (0.65 to 1.14) [p=0.146]	0.88 (0.66 to 1.16) [p=0.18]	0.86 (0.64 to 1.13) [p=0.127]	0.86 (0.64 to 1.13) [p=0.139]
\$50,000-\$69,999	0.65 (0.49 to 0.84) [p=0.001]	0.67 (0.51 to 0.87) [p=0.001]	0.65 (0.49 to 0.84) [p=0.001]	0.65 (0.49 to 0.85) [p=0.001]
\$70,000+	0.52 (0.40 to 0.66) [p<0.001]	0.54 (0.42 to 0.69) [p<0.001]	0.52 (0.41 to 0.66) [p<0.001]	0.52 (0.41 to 0.66) [p<0.001]
Not stated	0.78 (0.62 to 0.97) [p=0.015]	0.80 (0.63 to 1.00) [p=0.023]	0.78 (0.61 to 0.97) [p=0.014]	0.78 (0.62 to 0.98) [p=0.015]
Highest educational qualification (ref: None)				
School	0.65 (0.51 to 0.84) [p=0.001]	0.68 (0.52 to 0.86) [p=0.001]	0.66 (0.51 to 0.84) [p=0.001]	0.65 (0.50 to 0.84) [p=0.001]
High school	0.56 (0.41 to 0.75) [p<0.001]	0.59 (0.43 to 0.78) [p<0.001]	0.57 (0.42 to 0.75) [p<0.001]	0.56 (0.42 to 0.75) [p<0.001]
Trade	0.69 (0.51 to 0.91) [p=0.005]	0.71 (0.52 to 0.93) [p=0.008]	0.69 (0.51 to 0.91) [p=0.004]	0.68 (0.51 to 0.92) [p=0.006]
Certificate/Diploma	0.63 (0.49 to 0.80) [p<0.001]	0.66 (0.51 to 0.83) [p<0.001]	0.63 (0.49 to 0.81) [p<0.001]	0.62 (0.48 to 0.81) [p<0.001]
University	0.49 (0.38 to 0.63) [p<0.001]	0.52 (0.41 to 0.67) [p<0.001]	0.50 (0.39 to 0.64) [p<0.001]	0.50 (0.38 to 0.64) [p<0.001]
Not stated	0.78 (0.37 to 1.37) [p=0.18]	0.82 (0.39 to 1.44) [p=0.23]	0.80 (0.38 to 1.41) [p=0.20]	0.79 (0.38 to 1.40) [p=0.19]
Economic status (ref: Employed)				
Retired	0.97 (0.79 to 1.19) [p=0.38]	0.98 (0.80 to 1.19) [p=0.40]	0.97 (0.79 to 1.18) [p=0.36]	0.97 (0.79 to 1.17) [p=0.36]
Unemployed	2.15 (1.43 to 3.08) [p<0.001]	2.17 (1.43 to 3.11) [p<0.001]	2.15 (1.40 to 3.07) [p<0.001]	2.16 (1.41 to 3.10) [p<0.001]
Unpaid work	0.90 (0.47 to 1.47) [p=0.31]	0.90 (0.47 to 1.50) [p=0.33]	0.90 (0.47 to 1.48) [p=0.33]	0.89 (0.46 to 1.47) [p=0.31]
Disabled	2.59 (1.63 to 3.82) [p<0.001]	2.64 (1.65 to 3.93) [p<0.001]	2.62 (1.63 to 3.87) [p<0.001]	2.64 (1.66 to 3.92) [p<0.001]
Homemaker	1.09 (0.76 to 1.50) [p=0.33]	1.11 (0.77 to 1.51) [p=0.31]	1.10 (0.77 to 1.49) [p=0.32]	1.09 (0.76 to 1.49) [p=0.33]
Other (e.g. study)	1.68 (0.97 to 2.62) [p=0.033]	1.70 (0.98 to 2.66) [p=0.028]	1.67 (0.95 to 2.60) [p=0.035]	1.67 (0.95 to 2.63) [p=0.038]
Couple status (ref: Not in a couple)				

In a couple	0.88 (0.75 to 1.02) [p=0.045]	0.87 (0.75 to 1.01) [p=0.035]	0.86 (0.74 to 0.99) [p=0.020]	0.86 (0.73 to 1.00) [p=0.025]

eTable 6: Associations between total green space, green space type, and prevalent self-reported physician-diagnosed depression or anxiety adjusted for confounding in multilevel logistic regressions estimated with Markov Chain Monte Carlo (MCMC)

	Self-reported physician-diagno	losed depression or anxiety (prev	lalence)	
	Model 9	Model 10	Model 11	Model 12
	Total green space	Tree canopy	Grass	Low-lying vegetation
	Odds Ratio (95% Confidence II	nterval) [p-value]		
Total green space (ref: 0-4%)				
5-9%	0.94 (0.75 to 1.16) [p=0.27]			
10-19%	0.92 (0.73 to 1.14) [p=0.21]			
20-29%	0.95 (0.75 to 1.18) [p=0.30]			
≥30%	0.93 (0.74 to 1.16) [p=0.26]			
Tree canopy (ref: 0-9%)				
10-19%		1.01 (0.92 to 1.10) [p=0.42]		
20-29%		1.00 (0.90 to 1.11) [p=0.48]		
<u>≥</u> 30%		0.97 (0.86 to 1.09) [p=0.29]		
Grass (ref: 0-4%)				
5-9%			0.98 (0.90 to 1.07) [p=0.33]	
10-19%			0.98 (0.87 to 1.09) [p=0.36]	
20-29%			1.01 (0.89 to 1.14) [p=0.43]	
≥30%			1.12 (0.94 to 1.32) [p=0.10]	
Low-lying vegetation (0-4%)				
5-9%				1.04 (0.98 to 1.11) [p=0.08]
≥10%				0.97 (0.83 to 1.12) [p=0.36]
Age group (ref: 45-54y)				
55-64y	0.81 (0.76 to 0.86) [p<0.001]	0.81 (0.76 to 0.86) [p<0.001]	0.81 (0.76 to 0.86) [p<0.001]	0.81 (0.76 to 0.86) [p<0.001

65-74y	0.55 (0.50 to 0.61) [p<0.001]	0.55 (0.50 to 0.60) [p<0.001]	0.55 (0.50 to 0.60) [p<0.001]	0.55 (0.50 to 0.60) [p<0.001]
<u>></u> 75y	0.36 (0.31 to 0.40) [p<0.001]	0.36 (0.32 to 0.40) [p<0.001]	0.36 (0.32 to 0.40) [p<0.001]	0.36 (0.32 to 0.40) [p<0.001
Gender (ref: Male)				
Female	1.75 (1.66 to 1.86) [p<0.001]	1.75 (1.65 to 1.85) [p<0.001]	1.75 (1.66 to 1.85) [p<0.001]	1.75 (1.65 to 1.85) [p<0.001
Annual household income (ref: \$0-\$19,999)				
\$20,000-\$29,999	0.93 (0.83 to 1.05) [p=0.13]	0.94 (0.83 to 1.05) [p=0.12]	0.94 (0.83 to 1.05) [p=0.13]	0.94 (0.83 to 1.05) [p=0.13]
\$30,000-\$39,999	0.92 (0.81 to 1.03) [p=0.08]	0.92 (0.81 to 1.03) [p=0.07]	0.92 (0.81 to 1.04) [p=0.08]	0.92 (0.81 to 1.03) [p=0.08]
\$40,000-\$49,999	0.82 (0.73 to 0.93) [p=0.001]	0.82 (0.73 to 0.93) [p=0.001]	0.82 (0.73 to 0.93) [p=0.001]	0.83 (0.73 to 0.93) [p=0.002
\$50,000-\$69,999	0.84 (0.75 to 0.94) [p=0.001]	0.84 (0.75 to 0.94) [p=0.001]	0.84 (0.75 to 0.94) [p=0.002]	0.84 (0.75 to 0.94) [p=0.001
\$70,000+	0.79 (0.71 to 0.87) [p<0.001]	0.79 (0.71 to 0.87) [p<0.001]	0.79 (0.71 to 0.88) [p<0.001]	0.79 (0.71 to 0.88) [p<0.001
Not stated	0.69 (0.63 to 0.76) [p<0.001]	0.69 (0.63 to 0.76) [p<0.001]	0.69 (0.63 to 0.76) [p<0.001]	0.69 (0.63 to 0.76) [p<0.001
Highest educational qualification (ref:				
School	0.85 (0.75 to 0.95) [p=0.002]	0.85 (0.76 to 0.94) [p=0.001]	0.85 (0.76 to 0.95) [p=0.003]	0.84 (0.75 to 0.94) [p=0.003
High school	0.87 (0.76 to 0.99) [p=0.016]	0.87 (0.76 to 0.98) [p=0.014]	0.87 (0.77 to 0.99) [p=0.019]	0.87 (0.76 to 0.99) [p=0.015
Trade	0.83 (0.72 to 0.95) [p=0.004]	0.83 (0.73 to 0.95) [p=0.003]	0.84 (0.73 to 0.95) [p=0.005]	0.83 (0.72 to 0.95) [p=0.004
Certificate/Diploma	0.98 (0.87 to 1.10) [p=0.34]	0.98 (0.87 to 1.09) [p=0.35]	0.98 (0.88 to 1.10) [p=0.37]	0.97 (0.87 to 1.09) [p=0.31]
University	0.94 (0.84 to 1.06) [p=0.16]	0.95 (0.84 to 1.06) [p=0.17]	0.95 (0.85 to 1.07) [p=0.19]	0.94 (0.84 to 1.06) [p=0.15]
Not stated	1.00 (0.75 to 1.30) [p=0.48]	1.00 (0.76 to 1.29) [p=0.48]	1.00 (0.75 to 1.30) [p=0.48]	0.99 (0.75 to 1.29) [p=0.46]
Economic status (ref: Employed)				
Retired	1.30 (1.20 to 1.40) [p<0.001]	1.30 (1.20 to 1.40) [p<0.001]	1.30 (1.20 to 1.40) [p<0.001]	1.29 (1.20 to 1.40) [p<0.001
Unemployed	1.85 (1.53 to 2.20) [p<0.001]	1.85 (1.54 to 2.21) [p<0.001]	1.85 (1.53 to 2.21) [p<0.001]	1.85 (1.54 to 2.21) [p<0.001
Unpaid work	1.28 (1.03 to 1.55) [p=0.013]	1.28 (1.04 to 1.55) [p=0.010]	1.28 (1.03 to 1.55) [p=0.012]	1.28 (1.03 to 1.55) [p=0.013
Disabled	4.46 (3.70 to 5.33) [p<0.001]	4.47 (3.71 to 5.33) [p<0.001]	4.46 (3.70 to 5.33) [p<0.001]	4.45 (3.70 to 5.30) [p<0.002
Homemaker	1.24 (1.07 to 1.41) [p=0.002]	1.24 (1.07 to 1.42) [p=0.001]	1.24 (1.07 to 1.42) [p=0.001]	1.24 (1.07 to 1.41) [p=0.002
Other (e.g. study)	1.47 (1.17 to 1.82) [p<0.001]	1.47 (1.18 to 1.81) [p<0.001]	1.47 (1.17 to 1.82) [p<0.001]	1.47 (1.17 to 1.81) [p=0.001

Couple status (ref: Not in a couple)				
In a couple	0.63 (0.59 to 0.67) [p<0.001]			

eTable 7: Associations between total green space, green space type, and incident self-reported physician-diagnosed depression or anxiety adjusted for confounding in multilevel logistic regressions estimated with Markov Chain Monte Carlo (MCMC)

	Self-reported physician-diagno	sed depression or anxiety (incid	lence)				
	Model 13	Model 13 Model 14 Model 15 Model					
	Total green space	Tree canopy	Grass	Low-lying vegetation			
	Odds Ratio (95% Confidence II	I nterval) [p-value]					
Total green space (ref: 0-4%)							
5-9%	1.37 (0.99 to 1.88) [p=0.027]						
10-19%	1.30 (0.94 to 1.78) [p=0.06]						
20-29%	1.42 (1.03 to 1.94) [p=0.014]						
<u>></u> 30%	1.21 (0.87 to 1.67) [p=0.14]						
Tree canopy (ref: 0-9%)							
10-19%		0.97 (0.86 to 1.10) [p=0.67]					
20-29%		0.85 (0.74 to 0.98) [p=0.029]					
≥30%		0.86 (0.74 to 1.00) [p=0.05]					
Grass (ref: 0-4%)							
5-9%			0.96 (0.84 to 1.10) [p=0.28]				
10-19%			1.06 (0.91 to 1.24) [p=0.23]				
20-29%			1.08 (0.90 to 1.28) [p=0.22]				
≥30%			1.13 (0.88 to 1.43) [p=0.17]				
Low-lying vegetation (0-4%)							
5-9%				1.02 (0.94 to 1.12) [p=0.31]			
≥10%				1.04 (0.83 to 1.28) [p=0.39]			
Age group (ref: 45-54y)							
55-64y	0.67 (0.61 to 0.74) [p<0.001]	0.68 (0.61 to 0.74) [p<0.001]	0.68 (0.61 to 0.74) [p<0.001]	0.67 (0.61 to 0.74) [p<0.001]			

65-74y	0.50 (0.43 to 0.58) [p<0.001]	0.50 (0.43 to 0.58) [p<0.001]	0.50 (0.43 to 0.58) [p<0.001]	0.50 (0.43 to 0.57) [p<0.001]
<u>></u> 75y	0.49 (0.41 to 0.58) [p<0.001]	0.50 (0.42 to 0.59) [p<0.001]	0.50 (0.42 to 0.58) [p<0.001]	0.49 (0.41 to 0.58) [p<0.001]
Gender (ref: Male)				
Female	1.38 (1.27 to 1.50) [p<0.001]			
Annual household income (ref: \$0-\$19,999)				
\$20,000-\$29,999	1.00 (0.83 to 1.19) [p=0.47]	1.00 (0.83 to 1.20) [p=0.99]	1.00 (0.83 to 1.19) [p=0.48]	1.00 (0.83 to 1.19) [p=0.48]
\$30,000-\$39,999	0.97 (0.79 to 1.16) [p=0.355]	0.97 (0.80 to 1.17) [p=0.76]	0.97 (0.80 to 1.17) [p=0.37]	0.97 (0.80 to 1.16) [p=0.36]
\$40,000-\$49,999	0.87 (0.71 to 1.05) [p=0.07]	0.87 (0.72 to 1.06) [p=0.17]	0.87 (0.71 to 1.05) [p=0.08]	0.87 (0.71 to 1.05) [p=0.071]
\$50,000-\$69,999	1.04 (0.87 to 1.22) [p=0.36]	1.03 (0.87 to 1.22) [p=0.69]	1.04 (0.88 to 1.22) [p=0.341]	1.04 (0.87 to 1.22) [p=0.35]
\$70,000+	0.85 (0.73 to 0.99) [p=0.021]	0.85 (0.73 to 1.00) [p=0.048]	0.86 (0.73 to 1.00) [p=0.023]	0.85 (0.73 to 0.99) [p=0.019]
Not stated	1.14 (0.99 to 1.31) [p=0.039]	1.14 (0.99 to 1.31) [p=0.08]	1.14 (0.99 to 1.31) [p=0.031]	1.14 (0.99 to 1.31) [p=0.038]
Highest educational qualification (ref: None)				
School	0.77 (0.65 to 0.91) [p=0.001]	0.77 (0.66 to 0.91) [p=0.002]	0.77 (0.65 to 0.91) [p=0.001]	0.77 (0.65 to 0.90) [p<0.001]
High school	0.68 (0.56 to 0.81) [p<0.001]	0.67 (0.56 to 0.81) [p<0.001]	0.68 (0.55 to 0.81) [p<0.001]	0.67 (0.55 to 0.80) [p<0.001]
Trade	0.77 (0.64 to 0.93) [p=0.003]	0.77 (0.64 to 0.93) [p=0.007]	0.77 (0.64 to 0.93) [p=0.003]	0.77 (0.63 to 0.92) [p=0.002]
Certificate/Diploma	0.75 (0.64 to 0.88) [p<0.001]	0.76 (0.64 to 0.89) [p=0.001]	0.75 (0.64 to 0.88) [p<0.001]	0.75 (0.63 to 0.87) [p<0.001]
University	0.67 (0.57 to 0.79) [p<0.001]	0.67 (0.57 to 0.79) [p<0.001]	0.67 (0.57 to 0.79) [p<0.001]	0.67 (0.56 to 0.78) [p<0.001]
Not stated	0.86 (0.56 to 1.23) [p=0.20]	0.85 (0.58 to 1.25) [p=0.41]	0.85 (0.55 to 1.22) [p=0.18]	0.85 (0.56 to 1.23) [p=0.18]
Economic status (ref: Employed)				
Retired	1.18 (1.05 to 1.33) [p=0.003]	1.19 (1.05 to 1.33) [p=0.005]	1.18 (1.05 to 1.33) [p=0.003]	1.19 (1.05 to 1.33) [p=0.003]
Unemployed	1.46 (1.07 to 1.92) [p=0.008]	1.45 (1.08 to 1.94) [p=0.012]	1.47 (1.07 to 1.93) [p=0.009]	1.47 (1.07 to 1.94) [p=0.010]
Unpaid work	1.35 (0.99 to 1.77) [p=0.028]	1.35 (1.01 to 1.81) [p=0.042]	1.36 (1.00 to 1.79) [p=0.025]	1.36 (1.00 to 1.78) [p=0.024]
Disabled	2.29 (1.62 to 3.09) [p<0.001]	2.26 (1.63 to 3.12) [p<0.001]	2.28 (1.61 to 3.11) [p<0.001]	2.30 (1.62 to 3.10) [p<0.001]
Homemaker	1.05 (0.84 to 1.28) [p=0.35]	1.05 (0.85 to 1.29) [p=0.67]	1.05 (0.84 to 1.28) [p=0.35]	1.05 (0.84 to 1.28) [p=0.35]
Other (e.g. study)	1.48 (1.06 to 1.99) [p=0.011]	1.48 (1.09 to 2.01) [p=0.013]	1.48 (1.07 to 1.98) [p=0.011]	1.49 (1.07 to 1.98) [p=0.009]

Couple status (ref: Not in a couple)				
In a couple	0.84 (0.76 to 0.92) [p<0.001]	0.84 (0.77 to 0.93) [p<0.001]	0.83 (0.76 to 0.91) [p<0.001]	0.84 (0.76 to 0.92) [p<0.001]

eTable 8: Associations between total green space, green space type, and prevalent missing self-rated fair or poor general health adjusted for confounding in multilevel logistic regressions estimated with Markov Chain Monte Carlo (MCMC)

	Self-rated fair-to-poor general h	lealth (prevalence)			
	Model 17	Model 17 Model 18 Model 19 Model 20			
	Total green space	Tree canopy	Grass	Low-lying vegetation	
	Odds Ratio (95% Confidence Int	erval) [p-value]			
Total green space (ref: 0-4%)					
5-9%	0.76 (0.57 to 1.00) [p=0.023]				
10-19%	0.75 (0.56 to 0.97) [p=0.015]				
20-29%	0.74 (0.55 to 0.97) [p=0.014]				
≥30%	0.63 (0.46 to 0.83) [p=0.001]				
Tree canopy (ref: 0-9%)					
10-19%		0.94 (0.84 to 1.05) [p=0.17]			
20-29%		0.77 (0.67 to 0.88) [p<0.001]			
<u>></u> 30%		0.66 (0.56 to 0.78) [p<0.001]			
Grass (ref: 0-4%)					
5-9%			1.05 (0.91 to 1.20) [p=0.28]		
10-19%			1.16 (0.96 to 1.36) [p=0.06]		
20-29%			1.24 (1.00 to 1.51) [p=0.026]		
<u>≥</u> 30%			1.40 (1.07 to 1.78) [p=0.006]		
Low-lying vegetation (0-4%)					
5-9%				0.95 (0.87 to 1.04) [p=0.14]	
<u>≥</u> 10%				1.11 (0.91 to 1.35) [p=0.15]	
Age group (ref: 45-54y)					
55-64y	0.80 (0.73 to 0.88) [p<0.001]	0.80 (0.73 to 0.88) [p<0.001]	0.80 (0.73 to 0.88) [p<0.001]	0.80 (0.73 to 0.88) [p<0.001]	
33-04Y	0.80 (0.73 to 0.88) [p<0.001]	0.60 (0.73 to 0.88) [p<0.001]	0.60 (0.73 to 0.88) [p<0.001]	0.60 (0.73 t0 0.88) [p<0.001]	

65-74y	0.72 (0.63 to 0.81) [p<0.001]	0.72 (0.64 to 0.82) [p<0.001]	0.72 (0.63 to 0.81) [p<0.001]	0.72 (0.63 to 0.81) [p<0.001]
<u>></u> 75y	0.87 (0.76 to 1.00) [p=0.023]	0.88 (0.76 to 1.00) [p=0.029]	0.87 (0.76 to 1.00) [p=0.024]	0.87 (0.76 to 1.00) [p=0.025]
Gender (ref: Male)				
Female	0.79 (0.74 to 0.85) [p<0.001]			
Annual household income (ref: \$0-\$19,999)				
\$20,000-\$29,999	0.74 (0.65 to 0.84) [p<0.001]	0.74 (0.65 to 0.84) [p<0.001]	0.74 (0.65 to 0.84) [p<0.001]	0.74 (0.64 to 0.84) [p<0.001]
\$30,000-\$39,999	0.56 (0.48 to 0.65) [p<0.001]	0.56 (0.48 to 0.65) [p<0.001]	0.56 (0.48 to 0.64) [p<0.001]	0.56 (0.48 to 0.64) [p<0.001]
\$40,000-\$49,999	0.58 (0.49 to 0.68) [p<0.001]	0.58 (0.50 to 0.68) [p<0.001]	0.58 (0.49 to 0.67) [p<0.001]	0.58 (0.50 to 0.67) [p<0.001]
\$50,000-\$69,999	0.53 (0.45 to 0.60) [p<0.001]	0.53 (0.46 to 0.61) [p<0.001]	0.53 (0.46 to 0.60) [p<0.001]	0.53 (0.46 to 0.60) [p<0.001]
\$70,000+	0.44 (0.39 to 0.50) [p<0.001]	0.44 (0.39 to 0.51) [p<0.001]	0.44 (0.39 to 0.50) [p<0.001]	0.44 (0.39 to 0.50) [p<0.001]
Not stated	0.70 (0.63 to 0.78) [p<0.001]			
Highest educational qualification (ref: None)				
School	0.73 (0.65 to 0.83) [p<0.001]	0.74 (0.66 to 0.84) [p<0.001]	0.74 (0.65 to 0.84) [p<0.001]	0.74 (0.65 to 0.83) [p<0.001]
High school	0.80 (0.69 to 0.93) [p=0.001]	0.82 (0.70 to 0.95) [p=0.005]	0.81 (0.70 to 0.94) [p=0.003]	0.81 (0.70 to 0.93) [p=0.001]
Trade	0.72 (0.62 to 0.84) [p<0.001]	0.74 (0.64 to 0.85) [p<0.001]	0.73 (0.63 to 0.84) [p<0.001]	0.73 (0.63 to 0.84) [p<0.001]
Certificate/Diploma	0.60 (0.52 to 0.68) [p<0.001]	0.61 (0.54 to 0.69) [p<0.001]	0.60 (0.53 to 0.69) [p<0.001]	0.60 (0.52 to 0.68) [p<0.001]
University	0.55 (0.48 to 0.63) [p<0.001]	0.56 (0.49 to 0.64) [p<0.001]	0.56 (0.48 to 0.64) [p<0.001]	0.55 (0.48 to 0.63) [p<0.001]
Not stated	0.85 (0.61 to 1.14) [p=0.13]	0.86 (0.62 to 1.16) [p=0.16]	0.85 (0.61 to 1.14) [p=0.14]	0.85 (0.61 to 1.14) [p=0.13]
Economic status (ref: Employed)				
Retired	1.51 (1.35 to 1.67) [p<0.001]	1.51 (1.35 to 1.68) [p<0.001]	1.51 (1.36 to 1.67) [p<0.001]	1.51 (1.36 to 1.68) [p<0.001]
Unemployed	2.66 (2.14 to 3.26) [p<0.001]	2.67 (2.15 to 3.27) [p<0.001]	2.67 (2.15 to 3.25) [p<0.001]	2.66 (2.14 to 3.26) [p<0.001]
Unpaid work	1.19 (0.86 to 1.58) [p=0.15]	1.20 (0.88 to 1.58) [p=0.13]	1.20 (0.87 to 1.58) [p=0.13]	1.20 (0.87 to 1.59) [p=0.14]
Disabled	11.87 (9.71 to 14.33) [p<0.001]	11.86 (9.70 to 14.38) [p<0.001]	11.97 (9.77 to 14.49) [p<0.001]	11.98 (9.79 to 14.48) [p<0.001]
Homemaker	1.70 (1.41 to 2.01) [p<0.001]	1.71 (1.42 to 2.03) [p<0.001]	1.70 (1.42 to 2.02) [p<0.001]	1.70 (1.41 to 2.03) [p<0.001]
Other (e.g. study)	2.03 (1.56 to 2.57) [p<0.001]	2.04 (1.57 to 2.60) [p<0.001]	2.04 (1.57 to 2.60) [p<0.001]	2.04 (1.57 to 2.58) [p<0.001]

Couple status (ref: Not in a couple)				
In a couple	0.74 (0.69 to 0.80) [p<0.001]	0.75 (0.69 to 0.81) [p<0.001]	0.74 (0.68 to 0.80) [p<0.001]	0.74 (0.68 to 0.80) [p<0.001]

eTable 9: Associations between total green space, green space type, and incident missing self-rated fair or poor general health adjusted for confounding in multilevel logistic regressions estimated with Markov Chain Monte Carlo (MCMC)

55-64y	0.96 (0.86 to 1.08) [p=0.26]	0.96 (0.86 to 1.07) [p=0.22]	0.96 (0.86 to 1.08) [p=0.24]	0.96 (0.86 to 1.07) [p=0.23]			
Age group (ref: 45-54y)							
<u>≥</u> 10%				0.88 (0.69 to 1.10) [p=0.14]			
5-9%				1.06 (0.96 to 1.16) [p=0.12]			
Low-lying vegetation (0-4%)							
<u>></u> 30%			1.47 (1.12 to 1.91) [p=0.002]				
20-29%			1.42 (1.16 to 1.71) [p<0.001]				
10-19%			1.31 (1.10 to 1.55) [p=0.001]				
5-9%			1.07 (0.92 to 1.23) [p=0.19]				
Grass (ref: 0-4%)							
<u>≥</u> 30%		0.67 (0.57 to 0.80) [p<0.001]					
20-29%		0.72 (0.62 to 0.85) [p<0.001]					
10-19%		0.87 (0.77 to 1.00) [p=0.025]					
Tree canopy (ref: 0-9%)							
≥30%	1.33 (0.84 to 2.04) [p=0.14]						
20-29%	1.52 (0.97 to 2.33) [p=0.034]						
10-19%	1.60 (1.03 to 2.43) [p=0.018]						
5-9%	1.55 (1.01 to 2.34) [p=0.023]						
Total green space (ref: 0-4%)	Odds Ratio (95% Confidence ii	Tervari (p-value)	<u> </u>	<u> </u>			
	Total green space Odds Ratio (95% Confidence II	Tree canopy	Grass	Low-lying vegetation			
	Model 21	Model 22	Model 23	Model 24			
		Self-rated fair-to-poor general health (incidence)					
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65-74y	1.31 (1.13 to 1.51) [p<0.001]	1.31 (1.13 to 1.50) [p<0.001]	1.31 (1.13 to 1.50) [p<0.001]	1.31 (1.13 to 1.51) [p<0.001]
<u>></u> 75y	2.50 (2.13 to 2.92) [p<0.001]	2.51 (2.15 to 2.92) [p<0.001]	2.53 (2.16 to 2.94) [p<0.001]	2.50 (2.14 to 2.93) [p<0.001]
Gender (ref: Male)				
Female	0.77 (0.71 to 0.84) [p<0.001]	0.77 (0.71 to 0.84) [p<0.001]	0.77 (0.71 to 0.84) [p<0.001]	0.77 (0.71 to 0.84) [p<0.001
Annual household income (ref: \$0-\$19,999)				
\$20,000-\$29,999	0.89 (0.76 to 1.03) [p=0.06]	0.89 (0.76 to 1.03) [p=0.06]	0.89 (0.76 to 1.02) [p=0.05]	0.89 (0.76 to 1.03) [p=0.06]
\$30,000-\$39,999	0.78 (0.66 to 0.92) [p=0.001]	0.79 (0.67 to 0.92) [p=0.002]	0.78 (0.66 to 0.92) [p=0.002]	0.78 (0.66 to 0.92) [p=0.001
\$40,000-\$49,999	0.78 (0.66 to 0.93) [p=0.002]	0.79 (0.66 to 0.93) [p=0.003]	0.79 (0.66 to 0.93) [p=0.003]	0.79 (0.66 to 0.93) [p=0.002
\$50,000-\$69,999	0.65 (0.55 to 0.76) [p<0.001]	0.65 (0.55 to 0.76) [p<0.001]	0.65 (0.55 to 0.77) [p<0.001]	0.65 (0.55 to 0.76) [p<0.001
\$70,000+	0.55 (0.47 to 0.64) [p<0.001]	0.55 (0.47 to 0.64) [p<0.001]	0.55 (0.47 to 0.64) [p<0.001]	0.55 (0.47 to 0.63) [p<0.001
Not stated	0.83 (0.72 to 0.94) [p=0.002]	0.83 (0.73 to 0.94) [p=0.002]	0.83 (0.73 to 0.94) [p=0.001]	0.83 (0.73 to 0.94) [p=0.001
Highest educational qualification (ref: None)				
School	0.77 (0.66 to 0.89) [p<0.001]	0.77 (0.66 to 0.90) [p<0.001]	0.77 (0.66 to 0.89) [p<0.001]	0.77 (0.66 to 0.89) [p<0.001
High school	0.81 (0.68 to 0.97) [p=0.009]	0.82 (0.68 to 0.97) [p=0.013]	0.82 (0.69 to 0.98) [p=0.014]	0.81 (0.68 to 0.97) [p=0.009
Trade	0.84 (0.70 to 0.99) [p=0.018]	0.84 (0.71 to 0.99) [p=0.019]	0.84 (0.71 to 0.99) [p=0.019]	0.84 (0.70 to 0.99) [p=0.022
Certificate/Diploma	0.68 (0.58 to 0.80) [p<0.001]	0.69 (0.59 to 0.80) [p<0.001]	0.69 (0.59 to 0.80) [p<0.001]	0.68 (0.58 to 0.80) [p<0.003
University	0.59 (0.50 to 0.69) [p<0.001]	0.60 (0.51 to 0.70) [p<0.001]	0.60 (0.51 to 0.70) [p<0.001]	0.59 (0.50 to 0.69) [p<0.003
Not stated	1.05 (0.72 to 1.44) [p=0.43]	1.05 (0.73 to 1.45) [p=0.41]	1.05 (0.72 to 1.44) [p=0.43]	1.04 (0.72 to 1.44) [p=0.43]
Economic status (ref: Employed)				
Retired	1.21 (1.07 to 1.35) [p=0.002]	1.21 (1.07 to 1.36) [p=0.002]	1.21 (1.07 to 1.35) [p=0.001]	1.20 (1.06 to 1.36) [p=0.002
Unemployed	1.72 (1.26 to 2.28) [p<0.001]	1.73 (1.26 to 2.29) [p<0.001]	1.72 (1.27 to 2.27) [p<0.001]	1.72 (1.25 to 2.28) [p=0.001
Unpaid work	0.99 (0.68 to 1.37) [p=0.46]	1.00 (0.69 to 1.38) [p=0.48]	1.00 (0.69 to 1.39) [p=0.48]	1.00 (0.69 to 1.38) [p=0.47]
Disabled	2.81 (1.92 to 3.94) [p<0.001]	2.77 (1.89 to 3.87) [p<0.001]	2.81 (1.91 to 3.92) [p<0.001]	2.81 (1.92 to 3.92) [p<0.002
Homemaker	1.24 (0.98 to 1.54) [p=0.037]	1.25 (0.98 to 1.55) [p=0.034]	1.24 (0.97 to 1.53) [p=0.041]	1.24 (0.97 to 1.53) [p=0.039
Other (e.g. study)	1.60 (1.16 to 2.13) [p=0.002]	1.61 (1.17 to 2.16) [p=0.002]	1.59 (1.16 to 2.12) [p=0.002]	1.59 (1.16 to 2.11) [p=0.002

Couple status (ref: Not in a couple)				
In a couple	0.79 (0.72 to 0.87) [p<0.001]	0.80 (0.73 to 0.88) [p<0.001]	0.78 (0.71 to 0.86) [p<0.001]	0.79 (0.72 to 0.87) [p<0.001]