

SUPPLEMENTARY FILE 7 – REGRESSION RESULTS

Table 5a: Association of area-level participation estimated from the adult household survey intervention participation questions with individual-level health and wellbeing outcomes. (Individual-level regression using robust standard errors to account for LSOA clustering)

Association with survey participation rate							
		Unadjusted		Adjusted – sociodemographic **		Adjusted – sociodemographic & individual participation ***	
Effect measure		Effect estimate (95% CI)	<i>P</i>	Effect estimate (95% CI)	<i>P</i>	Effect estimate (95% CI)	<i>P</i>
<i>Primary health outcomes</i>							
Healthy eating – meeting five-a-day	OR	1.2 (0.8, 1.8)	0.4	1.2 (0.7, 1.8)	0.5	1.2 (0.7, 1.9)	0.5
Physical activity – meeting five-a-week	OR	1.5 (1.0, 2.2)	0.049	1.3 (0.9, 2.1)	0.2	1.3 (0.9, 2.0)	0.2
Mental wellbeing - high GHQ-12 score	OR	1.2 (0.7, 2.3)	0.5	1.3 (0.8, 2.3)	0.3	1.3 (0.8, 2.2)	0.4

Mental wellbeing – Warwick Edinburgh Mental Wellbeing Scale (higher score=better mental wellbeing)	MD	-4.8 (-9.5, -0.2)	0.042	-4.7 (-8.8, -0.5)	0.03	-4.5 (-8.7, -0.3)	0.036
<i>Secondary health outcomes</i>							
Unhealthy eating score (higher score=more unhealthy eating)	MD	0.1 (-0.3, 0.4)	0.7	0.1 (-0.1, 0.3)	0.4	0.1 (-0.1, 0.3)	0.4
Healthy eating - number of portions of fruit and vegetables per day	MD	1.0 (0.5, 1.6)	0.001	1.0 (0.3, 1.7)	0.009	0.9 (0.2, 1.7)	0.011
Physical activity							
Meeting 7x60 mins moderate intensity activity per week	OR	2.9 (1.5, 5.5)	0.001	2.8 (1.6, 5.1)	<0.001	2.9 (1.6, 5.3)	0.001
Doing 150 minutes of moderate intensity activity per week	OR	1.2 (0.8, 1.9)	0.4	1.1 (0.7, 1.7)	0.8	1.1 (0.7, 1.7)	0.8
Mean MET-minutes per week – mean	MD	1728.4 (343.9, 3112.9)	0.017	1615.3 (413.2, 2817.4)	0.011	1558.0 (348.9, 2767)	0.014
Mental Health –GHQ 12 score (higher score=poorer mental	MD	0.1 (-0.3, 0.6)	0.5	0.1 (-0.2, 0.5)	0.3	0.1 (-0.2, 0.4)	0.3

health)

Secondary social outcomes

Social networks score (higher score=larger social network)	MD	-27.9 (-49.8, -5.9)	0.015	-26.7 (-50.2, -3.2)	0.028	-26.7 (-49.9, 3.5)	0.027
Social support score (higher score=more social support)	MD	3.5 (1.8, 5.2)	<0.001	3.5 (1.7, 5.2)	0.001	3.3 (1.7, 5)	<0.001

Social integration

Some or most people in neighbourhood can be trusted	OR	1.1 (0.6, 2.2)	0.7	1.1 (0.6, 2.0)	0.9	1.1 (0.6, 2.2)	0.8
People from different backgrounds in the neighbourhood get on	OR	1.2 (0.4, 3.7)	0.7	1.3 (0.4, 4.0)	0.7	1.3 (0.4, 4.4)	0.7
Racial harassment is a problem in the neighbourhood	OR	1.0 (0.2, 4.7)	1.0	0.9 (0.2, 4.5)	0.9	0.9 (0.2, 4.4)	0.9

Collective efficacy

People in the neighbourhood pull together to improve it	OR	0.3 (0.1, 1.1)	0.063	0.3 (0.1, 0.9)	0.038	0.3 (0.1, 1.0)	0.042
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People in the neighbourhood help each other and do things together	OR	0.8 (0.3, 2.3)	0.7	0.9 (0.4, 2.4)	0.9	0.9 (0.3, 2.2)	0.8
Taken any action to solve problems in the local area in past 12 months	OR	4.1 (1.6, 10.9)	0.004	4.1 (1.5, 11.3)	0.007	3.7 (1.3, 10.6)	0.015
Volunteering – any activity in last 12 months	OR	2.2 (0.8, 6.2)	0.1	2.1 (0.7, 5.9)	0.2	1.8 (0.6, 5.3)	0.3
Antisocial behaviour –resident perceptions score (higher score=more perceived antisocial behaviour)	MD	-0.4 (-1.4, 0.6)	0.4	-0.3 (-1.2, 0.6)	0.5	-0.3 (-1.2, 0.6)	0.5
Fear of crime							
Feel safe in the neighbourhood during the day	OR	0.6 (0.3, 1.3)	0.2	0.6 (0.3, 1.3)	0.2	0.7 (0.4, 1.5)	0.4
Feel safe in the neighbourhood at night	OR	1.0 (0.6, 1.7)	1.0	0.9 (0.6, 1.5)	0.8	0.9 (0.5, 1.5)	0.6

*All analyses adjusted for clustering at LSOA-level.

**Adjusted analysis additionally adjusted for sociodemographic characteristics: age, gender, ethnicity, employment status, educational attainment. Health outcomes only are also adjusted for area-summary measures collected cross-sectionally at baseline.

***Adjusted analysis additionally adjusted for sociodemographic variables (as above) and individual participation in *Well London*. Health outcomes only are also adjusted for area-summary measures collected cross-sectionally at baseline.

Abbreviations: OR, odds ratio; MD, mean difference.

Table 5b: Association of area-level participation estimated from the process evaluation with individual-level health and wellbeing outcomes. (Individual-level regression using robust standard errors to account for LSOA clustering)

Association with process evaluation participation rate							
		Unadjusted		Adjusted – sociodemographic**		Adjusted – sociodemographic & individual participation***	
	Effect measure	Effect estimate (95% CI)	<i>P</i>	Effect estimate (95% CI)	<i>P</i>	Effect estimate (95% CI)	<i>P</i>
<i>Primary health outcomes</i>							
Healthy eating – meeting five-a-day	OR	1 (1.0, 1.1)	0.049	1 (1.0, 1.1)	0.067	1 (1.0, 1.1)	0.071
Physical activity – meeting five-a-week	OR	1 (1.0, 1.1)	0.3	1 (1.0, 1.1)	0.3	1 (1.0, 1.1)	0.3
Mental wellbeing - high GHQ-12 score	OR	1 (0.9, 1.1)	0.7	1 (0.9, 1.1)	1	1 (0.9, 1.1)	1
Mental wellbeing – Warwick Edinburgh Mental Wellbeing Scale	MD	0.7	0.001	0.7	0.002	0.7	0.003

(higher score=better mental wellbeing)			(0.4, 1.1)		(0.3, 1.1)		(0.3, 1.1)	
<u>Secondary health outcomes</u>								
Unhealthy eating score (higher score=more unhealthy eating)	MD	0	(0, 0)	0.6	(0, 0)	0.6	(0, 0)	0.6
Healthy eating - number of portions of fruit and vegetables per day	MD	0	(-0.1, 0.1)	0.6	(-0.1, 0.1)	0.6	(-0.1, 0.1)	0.7
Physical activity								
Meeting 7x60 mins moderate intensity activity per week	OR	1	(0.9, 1.1)	1	(0.9, 1.1)	0.8	(0.9, 1.1)	0.8
Doing 150 minutes of moderate intensity activity per week	OR	1.1	(1, 1.1)	0.1	(1, 1.1)	0.096	(1, 1.1)	0.093
Mean MET-minutes per week – mean	MD	-46.7	(-204.6, 111.2)	0.5	(-204.6, 111.2)	0.5	(-201.8, 113.8)	0.6
Mental Health –GHQ 12 score (higher score=poorer mental health)	MD	0	(0, 0)	0.5	(0, 0)	0.7	(0, 0)	0.7

Secondary social outcomes

Social networks score (higher score=larger social network)	MD	3.3 (1.9, 4.8)	<0.001	3.2 (1.8, 4.6)	<0.001	3.2 (1.8, 4.6)	<0.001
Social support score (higher score=more social support)	MD	-0.2 (-0.4, -0.1)	0.014	-0.2 (-0.4, 0)	0.03	-0.2 (-0.4, 0)	0.033
Social integration							
Some or most people in neighbourhood can be trusted	OR	1.1 (1, 1.2)	0.076	1.1 (1, 1.2)	0.037	1.1 (1, 1.2)	0.04
People from different backgrounds in the neighbourhood get on	OR	1.1 (1, 1.2)	0.006	1.1 (1, 1.2)	0.003	1.1 (1, 1.2)	0.004
Racial harassment is a problem in the neighbourhood	OR	0.9 (0.8, 1.1)	0.5	1 (0.8, 1.1)	0.6	1 (0.8, 1.1)	0.6
Collective efficacy							
People in the neighbourhood pull together to improve it	OR	1.3 (1.1, 1.4)	<0.001	1.3 (1.1, 1.4)	<0.001	1.3 (1.1, 1.4)	<0.001

People in the neighbourhood help each other and do things together	OR	1.1 (1, 1.2)	0.001	1.1 (1, 1.2)	0.005	1.1 (1, 1.2)	0.004
Taken any action to solve problems in the local area in past 12 months	OR	1 (0.8, 1.1)	0.5	1 (0.9, 1.1)	0.5	1 (0.9, 1.1)	0.6
Volunteering – any activity in last 12 months	OR	0.9 (0.8, 1)	0.076	0.9 (0.8, 1)	0.061	0.9 (0.8, 1)	0.072
Antisocial behaviour –resident perceptions score (higher score=more perceived antisocial behaviour)	MD	0.1 (-0.1, 0.2)	0.2	0.1 (-0.1, 0.2)	0.2	0.1 (-0.1, 0.2)	0.2
Fear of crime							
Feel safe in the neighbourhood during the day	OR	1 (0.9, 1.2)	0.6	1 (0.9, 1.1)	0.9	1 (0.9, 1.1)	0.8
Feel safe in the neighbourhood at night	OR	1 (0.9, 1.1)	0.6	1 (0.9, 1)	0.4	1 (0.9, 1.1)	0.4

*All analyses adjusted for clustering at LSOA-level.

**Adjusted analysis additionally adjusted for sociodemographic characteristics: age, gender, ethnicity, employment status, educational attainment. Health outcomes only are also adjusted for area-summary measures collected cross-sectionally at baseline.

***Adjusted analysis additionally adjusted for sociodemographic variables (as above) and individual participation in *Well London*. Health outcomes only are also adjusted for area-summary measures collected cross-sectionally at baseline.

Table 5c: Association of amount of project-time delivered with individual-level health and wellbeing outcomes. (Individual-level regression using robust standard errors to account for LSOA clustering)

Association with project delivery (project-quarters of delivery time)							
		Unadjusted		Adjusted – sociodemographic **		Adjusted – sociodemographic & individual participation ***	
	Effect measure	Effect estimate (95% CI)	<i>P</i>	Effect estimate (95% CI)	<i>P</i>	Effect estimate (95% CI)	<i>P</i>
<i>Primary health outcomes</i>							
Healthy eating – meeting five-a-day	OR	1.00 (0.98, 1.01)	0.6	0.99 (0.97, 1.01)	0.2	0.99 (0.97, 1.01)	0.2
Physical activity – meeting five-a-week	OR	0.99 (0.96, 1.01)	0.2	0.99 (0.96, 1.01)	0.3	0.99 (0.96, 1.01)	0.3
Mental wellbeing - high GHQ-12 score	OR	1.01 (0.98, 1.04)	0.5	1.02 (0.99, 1.05)	0.2	1.02 (0.99, 1.05)	0.2
Mental wellbeing – Warwick Edinburgh Mental Wellbeing Scale (higher score=better mental	MD	0.08 (-0.17, 0.33)	0.5	0.07 (-0.19, 0.34)	0.6	0.07 (-0.19, 0.33)	0.6

wellbeing)

Secondary health outcomes

Unhealthy eating score	MD	0.00	0.5	0.00	0.5	0.00	0.6
(higher score=more unhealthy eating)		(-0.01, 0.01)		(-0.01, 0.01)		(-0.01, 0.01)	

Healthy eating - number of portions of fruit and vegetables per day	MD	-0.02	0.1	-0.02	0.1	-0.02	0.1
		(-0.04, 0.01)		(-0.05, 0.01)		(-0.05, 0.01)	

Physical activity

Meeting 7x60 mins moderate intensity activity per week	OR	0.99	0.2	0.98	0.2	0.98	0.2
		(0.96, 1.01)		(0.96, 1.01)		(0.96, 1.01)	

Doing 150 minutes of moderate intensity activity per week	OR	0.98	0.2	0.98	0.3	0.98	0.3
		(0.96, 1.01)		(0.96, 1.01)		(0.96, 1.01)	

Mean MET-minutes per week – mean	MD	-23.4	0.2	-22.1	0.3	-21.1	0.3
		(-61.2, 14.3)		(-61.1, 16.9)		(-59.9, 17.7)	

Mental Health –GHQ 12 score	MD	0.00	0.5	0.01	0.3	0.01	0.3
(higher score=poorer mental health)		(-0.01, 0.02)		(-0.01, 0.02)		(-0.01, 0.02)	

Secondary social outcomes

Social networks score (higher score=larger social network)	MD	0/44 (-0.47, 1.34)	0.3	0.41 (-0.47, 1.29)	0.3	0.40 (-0.48, 1.28)	0.4
Social support score (higher score=more social support)	MD	-0.04 (-0.12, 0.04)	0.3	-0.03 (-0.10, 0.04)	0.4	-0.03 (-0.09, 0.04)	0.4
Social integration							
Some or most people in neighbourhood can be trusted	OR	1.01 (0.96, 1.06)	0.8	1.01 (0.96, 1.06)	0.8	1.01 (0.96, 1.06)	0.8
People from different backgrounds in the neighbourhood get on	OR	1.01 (0.96, 1.05)	0.7	1.01 (0.97, 1.05)	0.7	1.01 (0.97, 1.05)	0.7
Racial harassment is a problem in the neighbourhood	OR	1.10 (1.02, 1.18)	0.01	1.10 (1.04, 1.18)	0.002	1.10 (1.04, 1.18)	0.002
Collective efficacy							
People in the neighbourhood pull together to improve it	OR	1.04 (0.98, 1.10)	0.2	1.04 (0.98, 1.10)	0.2	1.04 (0.98, 1.10)	0.2
People in the neighbourhood help each other and do things	OR	1.02 (0.98, 1.06)	0.3	1.02 (0.99, 1.06)	0.3	1.02 (0.99, 1.06)	0.2

together

Taken any action to solve problems in the local area in past 12 months	OR	1.01 (0.97, 1.06)	0.6	1.01 (0.97, 1.06)	0.6	1.01 (0.97, 1.06)	0.5
Volunteering – any activity in last 12 months	OR	1.01 (0.97, 1.04)	0.7	1.01 (0.97, 1.04)	0.8	1.01 (0.97, 1.04)	0.7
Antisocial behaviour –resident perceptions score (higher score=more perceived antisocial behaviour)	MD	0.06 (0.03, 0.10)	0.001	0.06 (0.03, 0.10)	<0.001	0.06 (0.03, 0.10)	<0.001
Fear of crime							
Feel safe in the neighbourhood during the day	OR	0.97 (0.93, 1.00)	0.07	0.96 (0.93, 1.00)	0.05	0.96 (0.93, 1.00)	0.04
Feel safe in the neighbourhood at night	OR	0.98 (0.95, 1.01)	0.2	0.97 (0.94, 1.01)	0.1	0.97 (0.94, 1.01)	0.1

*All analyses adjusted for clustering at LSOA-level.

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***Adjusted analysis additionally adjusted for sociodemographic variables (as above) and individual participation in *Well London*. Health outcomes only are also adjusted for area -summary measures collected cross-sectionally at baseline.