

Quarter of Well London project delivery

	Q6				Q7				Q8				Q9				Q10															
Borough A	WLD T																															
Borough B																																
Borough C																																
Borough D																																
Borough E																																
Borough F																																
Borough G																																
Borough H																																
Borough I																																
Borough J																																
Borough K																																
Borough L																																
Borough M																																
Borough N																																
Borough O																																
Borough P																																
Borough Q																																
Borough R																																
Borough S																																
Borough T																																

Quarter of Well London project delivery

	Q11				Q12				Q13				Q14						
Borough A	Dark Purple	Red	Green	Light Green	Red	Green	Light Green	Orange	Dark Purple	Green	Light Green	Yellow	Orange	Dark Purple	Red	Yellow			
Borough B	Dark Purple	Red	Orange	Dark Purple	Red	Orange	Dark Purple	Red	Green	Dark Purple	Red	Green	Dark Purple	Yellow					
Borough C	Dark Purple	Red	Green	Light Green	Orange	Dark Purple	Red	Green	Light Green	Orange	Red	Green	Light Green	Red	Green				
Borough D	Dark Purple	Red	Dark Purple	Red	Orange	Dark Purple	Red	Orange	Dark Purple	Red	Orange	Dark Purple	Red	Yellow	Yellow	Orange			
Borough E	Dark Purple	Red	Green	Light Green	Orange	Dark Purple	Red	Light Green	Orange	Red	Light Green	Orange	Dark Purple	Red	Orange				
Borough F	Dark Purple	Red	Green	Light Green	Orange	Dark Purple	Red	Light Green	Orange	Green	Light Green	Orange	Dark Purple	Green	Orange				
Borough G	Dark Purple	Red	Green	Dark Purple	Red	Green	Dark Purple	Red	Green	Green	Yellow								
Borough H	Dark Purple	Red	Orange	Dark Purple	Green	Orange	Dark Purple	Green	Orange	Green	Orange								
Borough I	Dark Purple	Red	Green	Orange	Dark Purple	Red	Green	Orange	Red	Green	Orange	Red	Green	Orange					
Borough J	Dark Purple	Red	Green	Orange	Dark Purple	Red	W.D.T	Orange	Dark Purple	Red	Green	Yellow	Orange	Dark Purple	Yellow	Orange			
Borough K	Dark Purple	Red	Green	Light Green	Orange	Red	Green	Light Green	Orange	Green	Light Green	Yellow	Orange	Red	Green	Yellow	Orange		
Borough L	Dark Purple	Red	Green	Light Green	Orange	Dark Purple	Red	Orange	Dark Purple	Orange	Red	Yellow	Orange						
Borough M	Dark Purple	Red	W.D.T	Orange	Dark Purple	Red	Orange	Dark Purple	Yellow	Orange	Dark Purple	Green	Yellow						
Borough N	Dark Purple	Red	Dark Purple	Red	Light Green	Orange	Dark Purple	Red	Light Green	Orange	Dark Purple	Red	Green	Orange					
Borough O	Dark Purple	Red	Dark Purple	Red	Green	Dark Purple	Red	Green	Orange	Red	Orange								
Borough P	Dark Purple	Red	Orange	Dark Purple	Red	Green	Orange	Dark Purple	Red	Yellow	Orange	Green	Yellow	Orange					
Borough Q	Dark Purple	Red	Orange	Dark Purple	Red	Orange	Dark Purple	Red	Green	Orange	Red	Orange							
Borough R	Red	Light Green	Orange	Dark Purple	Red	Light Green	Orange	Dark Purple	Red	Light Green	Yellow	Orange	Dark Purple	Red	Orange				
Borough S	Dark Purple	Red	Orange	Dark Purple	Red	Green	Light Green	Orange	Dark Purple	Red	Green	Light Green	Yellow	Orange	Red	Green	Yellow	Yellow	Orange
Borough T	Dark Purple	Red	Green	Light Green	Orange	Dark Purple	Red	Green	Light Green	Orange	Red	Green	Light Green	Orange	Red	Green	Orange		

SUPPLEMENTARY FILE 2: ADULT HOUSEHOLD SURVEY

Adults were interviewed in their homes by trained fieldworkers. Households were selected at random from the Post Office Address File for each of the 20 intervention and 20 control LSOAs, which contains a record for each Post Office delivery point. The addresses were assigned a number and a random number generator was used to select 150 addresses for the fieldworkers to visit. Each of the 150 addresses was visited on 5 separate days, at varying times of the day, before being classified as a non-responding address. At responding addresses, every eligible, consenting adult (aged 16 years and older) was interviewed independently. The target sample for each LSOA was 100 interviews. Further addresses were selected at random if 100 interviews had not been completed after visiting each of the 150 initial addresses five times. Where business addresses were selected and visited, they were removed from the sample and a replacement selected at random from the sampling frame. Written, informed consent was obtained from all participants.

The structured adult questionnaire was administered using computer-assisted personal interviewing, where the fieldworkers asked the survey respondents the questions and recorded the answers on an electronic version of the questionnaire on a small laptop computer. The data were synchronised to the survey database daily. Use of computer-assisted interviewing improved data quality compared to the baseline paper survey, because automatic checks for missing and inconsistent values were built-in to the questionnaire. The survey collected the primary and secondary health outcomes, a range of secondary social outcomes, information on general health and other health behaviours, sociodemographic characteristics, awareness of and participation in the *Well London* programme and other similar community activities. All data were collected in both the intervention and control neighbourhoods, although additional, more detailed questions on intervention participation were asked in the intervention neighbourhoods. The domains covered in the questionnaire are presented in more detail below. A copy of the questionnaire is available from the authors on request.

Domains collected	Questions
<i>Healthy physical activity</i>	International Physical Activity Questionnaire[1] Intention to do more physical activity and perceived barriers
<i>Healthy/unhealthy eating</i>	Food frequency questionnaire for fruit and vegetables adapted from Health Survey for England[2] Intention to eat more healthily and perceived barriers
<i>Mental wellbeing</i>	12-item General Health Questionnaire [3] Warwick Edinburgh Mental Wellbeing Scale[4, 5] The Hope Scale[6]
<i>Social networks and support</i>	Questions from the Office for National Statistics Social Capital Harmonised Question Set[7, 8], the SHARP ¹ study[9], British Household Panel Survey and the Citizenship Survey (England): <ul style="list-style-type: none"> - Social networks: frequency of seeing/speaking to relatives/friends/neighbours - Social support: number of people who would provide practical, financial, emotional help/support
<i>Neighbourhood characteristics</i>	Questions from the Office for National Statistics Social Capital Harmonised Question Set[7, 8], the SHARP study[9], British Household Panel Survey and the Citizenship Survey (England): <ul style="list-style-type: none"> - Satisfaction with the neighbourhood environment (general, environment, buildings, noise, parks, children's play areas) - Neighbourhood problems (drunkenness in public places; rubbish and litter; vandalism and graffiti; drug dealing; racially motivated crime and harassment; teenage gangs; troublesome neighbours) - Community cohesion (neighbours helping one another; neighbours from different backgrounds getting along; neighbours working together to improve the area; trust) - Perceived safety in the neighbourhood during the day and at night
<i>Community and civic participation</i>	Participation in arts and cultural activities – questions from the Taking Part Survey conducted by the Department for Culture Media and Sport. From the ONS Harmonised Question Set on Social Capital: <ul style="list-style-type: none"> - Taking actions to solve problems in the local area - Volunteering

¹ Scotland's Housing And Regeneration Project (2002-2008)

Domains collected	Questions
	<ul style="list-style-type: none"> - Perceived influence on decisions in local area
<i>General health</i>	Health related quality of life Euroqol five domain EQ-5D[10-12]; chronic disease diagnoses; GP consultations (general, mental health)
<i>Alcohol and tobacco use</i>	Questions adapted from the Health Survey for England[2]
<i>Anthropometrics</i>	Self-reported height and weight; waist circumference measured with tape measure during interview (self-report if refuse measurement)
<i>Sociodemographics</i>	Age; gender; ethnicity; nationality; marital status; housing tenure and duration of residency; educational attainment; personal and household income; employment status and occupation; household size and relationships; languages spoken; religion
<i>Intervention participation</i>	<p>Intervention neighbourhoods</p> <ul style="list-style-type: none"> - Awareness of the <i>Well London</i> programme - Awareness of specific projects within the programme with list of projects to aid recall and prevent recall bias due to poor brand recognition - Participation in the <i>Well London</i> programme - Participation in specific projects in the programme with list of projects to aid recall and prevent recall bias due to poor brand recognition - Participation in other similar community-based activities during the intervention period <p>Control neighbourhoods</p> <ul style="list-style-type: none"> - Awareness of the <i>Well London</i> programme - Participation in the <i>Well London</i> programme - Participation in other similar community-based activities during the intervention period

1. Craig CL, Marshall AL, Sjostrom M, Bauman AE, Booth ML, Ainsworth BE, Pratt M, Ekelund U, Yngve A, Sallis JF, Oja P: **International physical activity questionnaire: 12-country reliability and validity.** *Med Sci Sports Exerc* 2003, **35**:1381-1395.
2. Unit JHS: **Health Survey for England 2009 Volume 2: methods and documentation.** In *Book Health Survey for England 2009 Volume 2: methods and documentation* (Editor ed.^eds.). City: National Centre for Social Research; Department of Epidemiology and Public Health, UCL; 2009.
3. Goldberg DP, Gater R, Sartorius N, Ustun TB, Piccinelli M, Gureje O, Rutter C: **The validity of two versions of the GHQ in the WHO study of mental illness in general health care.** *Psychol Med* 1997, **27**:191-197.
4. Stewart-Brown S, Tennant A, Tennant R, Platt S, Parkinson J, Weich S: **Internal construct validity of the Warwick-Edinburgh Mental Well-being Scale (WEMWBS): a Rasch analysis using data from the Scottish Health Education Population Survey.** *Health Qual Life Outcomes* 2009, **7**:15.
5. Tennant R, Hiller L, Fishwick R, Platt S, Joseph S, Weich S, Parkinson J, Secker J, Stewart-Brown S: **The Warwick-Edinburgh Mental Well-being Scale (WEMWBS): development and UK validation.** *Health Qual Life Outcomes* 2007, **5**:63.
6. Snyder CR, Harris C, Anderson JR, Holleran SA, Irving LM, Sigmon ST, Yoshinobu L, Gibb J, Langelle C, Harney P: **The will and the ways: development and validation of an individual-differences measure of hope.** *J Pers Soc Psychol* 1991, **60**:570-585.
7. Harper R, Kelly M: **Measuring social capital in the United Kingdom.** In *Book Measuring social capital in the United Kingdom* (Editor ed.^eds.). City; 2003.
8. Green H, Fletcher L: **Social Capital Harmonised Question Set: A guide to questions for use in the measurement of social capital.** In *Book Social Capital Harmonised Question Set: A guide to questions for use in the measurement of social capital* (Editor ed.^eds.). City: Office for National Statistics; 2003.
9. Petticrew M, Kearns A, Mason P, Hoy C: **The SHARP study: a quantitative and qualitative evaluation of the short-term outcomes of housing and neighbourhood renewal.** *BMC Public Health* 2009, **9**:415.
10. Brooks R: **EuroQol: the current state of play.** *Health Policy* 1996, **37**:53-72.
11. Rabin R, de Charro F: **EQ-5D: a measure of health status from the EuroQol Group.** *Ann Med* 2001, **33**:337-343.
12. Vanagt HME, Essinkbot ML, Krabbe PFM, Bonsel GJ: **Test-Retest Reliability of Health State Valuations Collected with the Euroqol Questionnaire.** *Soc Sci Med* 1994, **39**:1537-1544.

SUPPLEMENTARY FILE 3: QUESTIONS USED TO CAPTURE PARTICIPATION IN *WELL LONDON* AND SIMILAR ACTIVITIES IN THE INTERVENTION AND CONTROL AREAS

Intervention Area Questions

Have you heard of the Well London programme?

- Yes
- No
- Not sure
- Prefers not to say

Looking at this list of activities which have been happening in your local area over the last 3 years, for each one please can you tell me whether you have heard of the activity? [TICK ALL THAT APPLY]

- Physical activity-'Activate London', sports (football, basketball);Relaxation(yoga, tai-chi);Walking; Cycling
- Healthy Eating-Eatwell (Cook & Eat; Cook and Taste; Cook, Grow and Eat); Community Feasts; Food Buying Schemes (Food Co-op; Mobile food stores or Food box scheme)
- Mental Wellbeing-DIY Happiness; Mental Wellbeing Impact Assessment; Changing Minds
- Arts-'Be Creative, Be Well'
- Healthy Spaces/Open Spaces-Community Garden/Allotments; Park Regeneration; Other (window-boxes)
- Training-'Training Communities', Youth Ambassadors/Activators; Personal Support Packages; Health Training for WLDT
- Volunteering Activities-Well London Delivery Team; Other volunteering
- Other Well London Activities-Video workshops; Community cafés; Wellnet shared learning workshops & website
- None of these

Have you participated in any of the Well London activities?

- Yes
- No
- Not sure
- Prefers not to say

Looking at this list, in which Well London activities did you participate? [TICK ALL THAT APPLY]

- Physical activity-'Activate London', sports (football, basketball);Relaxation(yoga, tai-chi);Walking; Cycling
- Healthy Eating-Eatwell (Cook & Eat; Cook and Taste; Cook, Grow and Eat); Community Feasts; Food Buying Schemes (Food Co-op; Mobile food stores or Food box scheme)
- Mental Wellbeing-DIY Happiness; Mental Wellbeing Impact Assessment; Changing Minds
- Arts-'Be Creative, Be Well'
- Healthy Spaces/Open Spaces-Community Garden/Allotments; Park Regeneration; Other (window-boxes)
- Training-'Training Communities', Youth Ambassadors/Activators; Personal Support Packages; Health Training for WLDT

- Volunteering Activities-Well London Delivery Team; Other volunteering
- Other Well London Activities-Video workshops; Community cafés; Wellnet shared learning workshops & website

Please could you tell me how many sessions you attended?

Physical activity-'Activate London', sports (football, basketball);Relaxation(yoga, tai-chi);Walking; Cycling	_____
Healthy Eating-Eatwell (Cook & Eat; Cook and Taste; Cook, Grow and Eat); Community Feasts; Food Buying Schemes (Food Co-op; Mobile food stores or Food box scheme)	_____
Mental Wellbeing-DIY Happiness; Mental Wellbeing Impact Assessment; Changing Minds	_____
Arts-'Be Creative, Be Well'	_____
Healthy Spaces/Open Spaces-Community Garden/Allotments; Park Regeneration; Other (window-boxes)	_____
Training-'Training Communities', Youth Ambassadors/Activators; Personal Support Packages; Health Training for WLDT	_____
Volunteering Activities-Well London Delivery Team; Other volunteering	_____
Other Well London Activities-Video workshops; Community cafés; Wellnet shared learning workshops & website	_____

Has anyone else in your household participated in any of the Well London activities?

- Yes
- No
- Don't know
- Prefers not to say

Did you receive an Active Living Map?

This is a map, which shows health eating, physical activity and wellbeing facilities in your area.

- Yes
- No
- Don't know

Did you use the Active Living Map?

- Yes

- No
- Prefers not to say

During the last 4 years, have you participated in or volunteered in any other (other than Well London) local group or community activities? Tell me all activities you can remember.

Details

During the last 3 years did you participate in any activities with a Healthy Eating theme?

- Yes
- No
- Not sure
- Prefers not to say

Details

During the last 3 years did you participate in any activities with a sport or physical exercise theme?

- Yes
- No
- Not sure
- Prefers not to say

Details

During the last 3 years did you participate in any activities with mental health or wellbeing theme?

- Yes
- No
- Not sure
- Prefers not to say

Details

During the last 3 years did you participate in any activities involving community gardening or outdoor spaces?

- Yes
- No
- Not sure
- Prefers not to say

Details

During the last 3 years did you participate in Arts and crafts or other creative activities?

- Yes
- No
- Not sure
- Prefers not to say

Details

During the last 3 years did you participate in any other local group or community activities?

- Yes
- No
- Not sure
- Prefers not to say

Details



Control Area Questions

Have you heard of the Well London programme?

- Yes
- No
- Not sure
- Prefers not to say

Have you participated in any of the Well London activities?

- Yes
- No
- Not sure
- Prefers not to say

This section is about your participation or volunteering in local community activities during the last 3 years. Tell me all activities you can remember.

During the last 3 years did you participate in any activities with a Healthy Eating theme?

- Yes
- No
- Not sure
- Prefers not to say

Details

During the last 3 years did you participate in any activities with a sport or physical exercise theme?

- Yes
- No
- Not sure
- Prefers not to say

Details

During the last 3 years did you participate in any activities with mental health or wellbeing theme?

- Yes
- No
- Not sure
- Prefers not to say

Details

During the last 3 years did you participate in any activities involving community gardening or outdoor spaces?

- Yes
- No
- Not sure
- Prefers not to say

Details

During the last 3 years did you participate in Arts and crafts or other creative activities?

- Yes
- No
- Not sure
- Prefers not to say

Details

During the last 3 years did you participate in any other local group or community activities?

- Yes
- No

- Not sure
- Prefers not to say

Details

SUPPLEMENTARY FILE 4: DESCRIPTION OF PRIMARY AND SECONDARY OUTCOME VARIABLES

Outcome type	Outcome	Indicator	Measurement tool	Data collection	Baseline adjustment variable
Primary	Healthy eating	Binary – consumption of 5 or more portions of fruit and vegetables per day (“five-a-day”)	Food frequency questionnaire adapted from the Health Survey for England	Adult household survey	Proportion meeting five-a-day
Primary	Healthy physical activity	Binary – doing five or more sessions of moderate intensity physical activity per week lasting at least 30 mins (“five-a-week”)	International Physical Activity Questionnaire	Adult household survey	Proportion meeting five-a-week
Primary	Mental health – negative	Binary – score above threshold for normal mental health	12 item General Health Questionnaire	Adult household survey	Hope Scale score[42]; proportion reporting feeling anxious/depressed in Euroqol 5D[43]; proportion consulting general practitioner for mental health problems in previous 12 months.
Primary	Mental health – positive wellbeing	Continuous - score	Warwick-Edinburgh Mental Wellbeing Scale	Adult household survey	Hope Scale score[42]; proportion reporting feeling anxious/depressed in Euroqol 5D[43]; proportion consulting general practitioner for mental health problems in previous 12 months.
Secondary	Unhealthy eating	Continuous – score comprised of mean Likert scale points for frequency of consumption of: fried foods; savoury snacks (crisps, salted nuts); cakes and puddings; sweets and chocolates; sugar sweetened soft drinks	Food frequency questionnaire adapted from the Health Survey for England Scale points: <i>6 or more times per week (5)</i> <i>3-5 times per week (4)</i> <i>1-2 times per week (3)</i> <i>Less than once a week (2)</i> <i>Rarely or never (1)</i>	Adult household survey	Mean frequency of eating takeaway foods
Secondary	Healthy eating	Continuous – number of portions of fruit and vegetables per day	Food frequency questionnaire adapted from the Health Survey for England	Adult household survey	Mean portions of fruit and vegetables per day
Secondary	Healthy physical activity	Binary – doing 60 minutes of moderate intensity	International Physical Activity Questionnaire	Adult household	Proportion doing 60 minutes of activity per day

Outcome type	Outcome	Indicator	Measurement tool	Data collection	Baseline adjustment variable
		physical activity per day		survey	
Secondary	Healthy physical activity	Binary – doing 150 minutes of moderate intensity physical activity per week	International Physical Activity Questionnaire	Adult household survey	Proportion doing 150 minutes of moderate activity per week
Secondary	Healthy physical activity	Continuous – MET-minutes of activity per week	International Physical Activity Questionnaire	Adult household survey	Mean MET-minutes per week
Secondary	Mental health – negative	Continuous – GHQ12 score	12 item General Health Questionnaire	Adult household survey	Hope Scale score [42]; proportion reporting feeling anxious/depressed in Euroqol 5D [43]; proportion consulting general practitioner for mental health problems in previous 12 months.
Secondary	Social networks: Contact with friends and neighbours	Score indicating relative frequency of contact with friends and neighbours (possible range 0-112)	ONS social capital harmonised question set	Adult household survey	N/A
Secondary	Social support: Help available for practical, financial and emotional problems	Score indicating number of people who would provide support with practical or financial or emotional problems (possible range 0-6)	ONS social capital harmonised question set	Adult household survey	N/A
Secondary	Social integration and trust: Residents’ perceptions that neighbours of different backgrounds get along and that neighbours can be trusted	Binary outcomes indicating whether respondents perceive that: - Most people in their neighbourhood can be trusted - People from different backgrounds in the neighbourhood “get on well” - Racial harassment is a problem in the neighbourhood	ONS social capital harmonised question set	Adult household survey	N/A
Secondary	Collective efficacy and reciprocity: Residents’ perceptions that neighbours help each other and work together to improve the neighbourhood	Binary outcomes indicating whether respondents perceive that: - People in the neighbourhood pull together to improve it - People in the neighbourhood help each other	ONS social capital harmonised question set; Citizenship Survey (England)	Adult household survey	N/A

Outcome type	Outcome	Indicator	Measurement tool	Data collection	Baseline adjustment variable
Secondary	Civic participation: Participation in volunteering activities; involvement in activism on local issues	Binary outcomes indicating involvement in: - Volunteering in the last 12 months - Action to solve a problem affecting the local area/community in the last 12 months	ONS social capital harmonised question set	Adult household survey	N/A
Secondary	Antisocial behaviour: Reported by residents	Score indicating the number of issues that respondents perceive to be a problem in the local area: - Public drinking/drunkenness - Litter - Graffiti and vandalism - Drug dealing - Teenage gangs - "Troublesome" neighbours (possible range 0-6)	ONS social capital harmonised question set	Adult household survey	N/A
Secondary	Antisocial behaviour: Coverage across the LSOA of signs of antisocial behaviour and incivilities recorded by fieldworkers completing the environmental audit	Score indicating the intensity of signs of incivilities: Litter/broken glass; graffiti; broken/vandalised facilities; broken windows; unattended dogs; large items dumped in public areas; dog foul; needles/syringes/condoms; empty alcohol cans/bottles; sex paraphernalia (condoms, cars) (possible range 0-100)	-	Neighbourhood environmental audit	Incivilities score
Secondary	Fear of crime: Residents' perceptions of neighbourhood safety	Binary outcomes indicating whether respondents feel safe in their neighbourhood: - During the day - At night	SHARP study	Adult household survey	N/A

Abbreviations: GHQ-12, 12-item General Health Questionnaire; MET-minutes, metabolic equivalent time in minutes; SHARP, Scotland's Housing and Regeneration Project (2002-2008)

SUPPLEMENTARY FILE 5: QUESTIONNAIRE ITEMS USED TO MEASURE SOCIAL AND COMMUNITY PROCESSES AND OUTCOME MEASURES FOR THE ANALYSIS

Social / Community Process	Indicator	Questionnaire items	Response structure	Data collection	Outcome measure
Social networks	Contact with friends and neighbours	How often do you: i. Meet up with friends ii. Speak to friends on the phone iii. Write to friends iv. Speak to neighbours	Most days; once a week or more; once or twice a month; less often than once a month; never; don't know	Adult household survey	Score the responses to indicate approximate number of days per month Most days=28 Once a week or more=12 Once or twice a month=2 Less often than once a month=0.5 Never=0 Don't know = treat as missing Sum the scores across the domains to give a total relative frequency of social contact events

Social / Community Process	Indicator	Questionnaire items	Response structure	Data collection	Outcome measure
Social support	Help provided	<p>How many people outside your home could you ask for the following kinds of help:</p> <ul style="list-style-type: none"> i. Buy groceries if you are unwell ii. Lend you money for a few days iii. Give advice and support in a crisis 	None; one or two; more than two; would not ask;	Adult household survey	<p>Score the responses:</p> <p>None=0 One or two = 1 More than two=2 Would not ask = 0 Don't know=missing Prefers not to say = missing</p> <p>Sum scores across questions to give a social support score with range 0-6</p>
Social integration and trust	Residents' perceptions of neighbour interaction	<p>Would you say that:</p> <ul style="list-style-type: none"> a. Most of the people in your neighbourhood can be trusted b. Some can be trusted c. A few can be trusted d. No-one can be trusted e. Just moved here f. Don't know g. Prefers not to say 		Adult household survey	<p>Separate binary outcomes:</p> <p>Trust = most or some can be trusted vs. other responses</p>

Social / Community Process	Indicator	Questionnaire items	Response structure	Data collection	Outcome measure
		To what extent do you agree or disagree that this neighbourhood is a place where people from different backgrounds get on well together?	Definitely agree; tend to agree; tend to disagree; definitely disagree; don't know; too few people in the neighbourhood; all same background		Different backgrounds get on = definitely or tend to agree vs. other responses
		How much of a problem is people being attacked or harassed because of their skin colour, ethnic origin or religion?	Very big problem; fairly big problem; not a very big problem; it happens but it's not a problem; not a problem at all; don't know		Racial harassment = very or fairly big problem vs. other responses
Collective efficacy	Residents' perceptions of neighbours mutual help and working together	To what extent do you agree or disagree that people in this neighbourhood pull together to improve the neighbourhood?	Definitely agree; tend to agree; tend to disagree; definitely disagree; don't know; nothing needs improving	Adult household survey	Separate binary outcomes: People pull together = definitely or tend to agree vs. other responses
		Is this a neighbourhood in which people do things together and try to help each other, or one in which people mostly go their own way?	Help each other; go own way; mixture; don't know		Help each other = health each other vs. other responses

Social / Community Process	Indicator	Questionnaire items	Response structure	Data collection	Outcome measure
Civic participation	Involvement in volunteering activities; involvement in activism on local issues	During the last 12 months have you given any unpaid help to any groups, clubs or organisations in any of these ways?	Raising or handling money/taking part in a sponsored event; leading the group/member of a committee; organising or helping run an activity or event; visiting people; befriending or mentoring people; giving advice/information/counselling; secretarial/admin/clerical work; providing transport/driving; representing; campaigning; other practical help; any other help; none of the above	Adult household survey	Binary: Involvement in any activity vs. no involvement

Social / Community Process	Indicator	Questionnaire items	Response structure	Data collection	Outcome measure
		In the last 12 months have you taken any of the following actions in an attempt to solve a problem affecting people in your local area?	Contacted a local radio/television station or newspaper; contacted the appropriate organisation such as the council; contacted a local councillor or MP; attended a public meeting or neighbourhood forum to discuss local issues; attended a tenants' or local residents' group; attended a protest meeting or joined an action group; helped organise a petition on a local issue; no local problems; none of these; don't know; none of the above		Binary: Taken any action vs. no action
Antisocial behaviour	Residents' perceptions of antisocial behaviour	<p>I am going to read out a list of problems which some people face in their neighbourhood. For each one, please can you tell me how much of a problem it is:</p> <p>How much of a problem are people being drunk or rowdy in public places?</p> <p>How much of a problem is rubbish or litter lying around?</p>	Very big problem; fairly big problem; not a very big problem; it happens but it's not a problem; not a problem at all; don't know	Adult household survey	<p>Binary indicator for each question:</p> <p>Very or fairly big problem vs. other responses</p> <p>Sum binary scores across the questions to give a perceived antisocial behaviour score ranging between 0 and 6</p>

Social / Community Process	Indicator	Questionnaire items	Response structure	Data collection	Outcome measure
		How much of a problem are vandalism, graffiti and other deliberate damage to property or vehicles?			
		How much of a problem are people using or dealing drugs?			
		How much of a problem are teenagers hanging around on the street?			
Antisocial behaviour	Signs of antisocial behaviour observed by field workers	<p>How much of a problem are troublesome neighbours?</p> <p>When you walked around this segment did you see:</p> <ul style="list-style-type: none"> Litter of broken glass Graffiti Broken or vandalised facilities Broken windows Unattended dogs Large items dumped in public areas (furniture/cars) Dog foul Needles, syringes or condoms Empty beer cans or alcohol bottles Sex paraphernalia (condoms, cards) 	None; little; moderate amount; a lot	Neighbourhood environmental audit	<p>Score none=0, little=1, moderate=2, a lot=3</p> <p>Calculate the mean score for each domain (i.e. litter, graffiti etc.) across the surveyed segments in the LSOA. Sum the domain mean scores for the LSOA and standardise to range between 0 and 100</p>

Social / Community Process	Indicator	Questionnaire items	Response structure	Data collection	Outcome measure
Fear of crime	Residents' perceptions of neighbourhood safety	<p>How safe do you feel generally when you are walking outside alone in this neighbourhood during the daytime?</p> <p>How safe do you feel when you are walking outside in this neighbourhood alone after dark?</p>	Very safe; fairly safe; a bit unsafe; very unsafe; never out alone	Adult household survey	<p>Separate binary outcomes:</p> <p>Very or fairly safe vs. other responses</p>

SUPPLEMENTARY FILE 6: ESTIMATING PROJECT-CONTACT EVENTS

Data Sources

The following data were used to estimate the total project-contact events i.e. the number of times residents from a specific target neighbourhood (UK census lower super output area) attended a session of a different Well London project over the course of the programme delivery:

- a. **Headcounts.** Each delivery organisation counted the number of persons participating in each session of each project delivered throughout the course of the programme in each neighbourhood. These were centrally collated at the London Health Commission (who coordinated the whole *Well London* programme).
- b. **Evaluation forms.** Participants in individual project sessions were asked to complete an end-of-session evaluation form that included questions about the number of sessions attended within the project and the type of other *Well London* projects in which they have participated for the current 3-month process evaluation reporting period and whether they participated in Well London during the previous 3 month period. Participants were also asked to provide their postcode.

Estimation of project-contact events

The evaluation form data were used to derive the proportion of participants with a residential postcode inside the target neighbourhood by cross-checking their reported postcodes against the UK Post Office Address File. Project-neighbourhood-specific crude headcounts were multiplied by the project-neighbourhood-specific proportions of participants living within the target neighbourhood. This provided project-neighbourhood specific estimates of the number of times a target-neighbourhood resident participated in a project. These were then aggregated across projects within each LSOA to provide LSOA specific estimates of project-contact events, expressed as the number of events per 1000 population.

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

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)	P	Effect estimate (95% CI)	P	Effect estimate (95% CI)	P
<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)	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	(-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	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, 1.1)	0.096	(1, 1.1)	0.093
Mean MET-minutes per week – mean	MD	-46.7	(-204.6, 111.2)	0.5	-46.7	(-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)	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 estimate (95% CI)	<i>P</i>	Effect estimate (95% CI)	<i>P</i>	Effect estimate (95% CI)	<i>P</i>
Effect measure							
<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 (higher score=more unhealthy eating)	MD	0.00 (-0.01, 0.01)	0.5	0.00 (-0.01, 0.01)	0.5	0.00 (-0.01, 0.01)	0.6
Healthy eating - number of portions of fruit and vegetables per day	MD	-0.02 (-0.04, 0.01)	0.1	-0.02 (-0.05, 0.01)	0.1	-0.02 (-0.05, 0.01)	0.1
Physical activity							
Meeting 7x60 mins moderate intensity activity per week	OR	0.99 (0.96, 1.01)	0.2	0.98 (0.96, 1.01)	0.2	0.98 (0.96, 1.01)	0.2
Doing 150 minutes of moderate intensity activity per week	OR	0.98 (0.96, 1.01)	0.2	0.98 (0.96, 1.01)	0.3	0.98 (0.96, 1.01)	0.3
Mean MET-minutes per week – mean	MD	-23.4 (-61.2, 14.3)	0.2	-22.1 (-61.1, 16.9)	0.3	-21.1 (-59.9, 17.7)	0.3
Mental Health –GHQ 12 score (higher score=poorer mental health)	MD	0.00 (-0.01, 0.02)	0.5	0.01 (-0.01, 0.02)	0.3	0.01 (-0.01, 0.02)	0.3

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.

**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.