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Evaluation of Flying Start

Findings from the baseline survey of families - mapping needs and measuring early influence among families with babies aged 7-20 months

Appendices

Evaluation of Flying Start
Baseline survey of families
Mapping needs and measuring early influence among families with babies aged seven to 20 months

Ipsos MORI, Social Research Institute

Views expressed in this report are those of the researcher and not necessarily those of the Welsh Government

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Appendix A – Additional information about Flying Start entitlements

Enhanced health visitor offer

Health visitors are a key service offered to all parents across the country. Their role is to work with midwives and other healthcare professionals to help new parents prepare for birth and the early years of their child's life. The help and support they offer generally includes antenatal visits, support to prepare for parenthood, parenting tips, a health programme and development checks. The advice and support is likely to be offered via a combination of ways, both with individual families and in a group setting, and delivered in a variety of locations including in-home, in-clinic and parenting groups.

As part of the Flying Start offer, an enhanced health visitor service is provided to families which consists of a defined maximum caseload per health visitor set at one health visitor per 110 children, well below the average caseload level of around 300 per health visitor.[1] In addition, health visitors in Flying start areas also have access to additional management and admin support above that offered under existing core services.

It is intended that the reduced caseload and additional management and admin support provided under the enhanced health visitor offer in Flying start areas will enable the following:

- more health visitor time with families – more frequent contact visits and longer contact visits
- a greater number of outreach/in-home visits
- more health visitor time spent running or engaging in groups/activities
- families to have contact with health visitors who have received increased access to training and development opportunities

[1] As mentioned earlier, a factsheet produced by the Unite/Community Practitioners' and Health Visitors' Association (CPHVA) Union in 2007, based on a survey of health visitors and Trusts in England, Scotland and Wales, found that the majority (54 per cent) of full-time health visitors are holding caseloads of 200-300 families, with 26 per cent being responsible for over 400 families. See http://www.unitetheunion.com/docs/RD674%20Fact%20Sheet%20-%20Determining%20optimum%20caseload%20sizes.doc

- health visitors increased ability to draw on the 'toolbox' of additional services and support provided by Flying Start, but also other specific health and education services not funded under Flying Start such as dieticians, specialist support for domestic violence etc.

In addition to the direct services and support provided by the health visitor themselves (such as parenting advice and implementation of a health programme etc.), in many cases they also act as a gateway to use of further other Flying Start and non-Flying Start services such as parenting courses. As part of their role they are charged with identifying any potential need at an early stage in the child's development, and, if required, they will inform and refer families to the necessary additional support offered in the local area. As part of the joined-up partnership provision of services and support under Flying Start this may include attending courses run by the health visitor themselves, or if not then the health visitor may attend the first few sessions with the family.

Parenting programmes

A range of parenting courses are offered and funded under Flying Start, and the extent and type of courses on offer may vary by area depending on the level of particular need in the specific area, as well as the extent of courses that are already available locally. Flying Start courses are generally split into three areas of focus which are:

- informal support – generally encompasses a range of drop-in groups and sessions, often led by a mix of professionals
- formal support – consists mainly of the courses approved by the Assembly guidance as having proven evidenced based approaches to improve parenting (e.g. Incredible years; Family Links Parent Nurturing Programme etc.)
- intense support – in general intense support is provided to families in the form of one-to-one support offered by health visitors, parenting workers, social workers and family support workers. This takes the form of confidence building activities working up to encouraging and sometimes accompanying

parents to attend informal support groups and ultimately moving on to the more formal programmes.

LAP

A full course of LAP sessions usually consists of a six week programme (although some are longer) for parents/carers and their children aged nought to three. The key feature which underpins LAP is that parents and children learn together through play and fun activities. Sessions last about an hour and a half to two hours per week. Courses are delivered in a range of community settings within Flying Start areas including, Integrated Children's Centres, libraries, community centres, schools and playgroups and in some cases childcare settings. Most areas offer a rolling programme of LAP courses and parents are encouraged to repeat attendance for the full course.

Access to LAP should be offered in all Flying Start areas and as with parenting courses sessions are open to all parents in theory, while in practice they are again targeted towards need and in many cases they are linked to other services such as clinics, parenting courses and childcare. Attendance is voluntary, but when a referral has been made based on need attendance is strongly encouraged. Local services are offered based on need and provision of wider parenting services already on offer. Health visitors again play a central role in the targeting and referral of families to LAP, based on their early assessment of need.

Appendix B – Survey implementation, methodology and administration

This appendix describes the research methodology used in Wave 1 of the longitudinal survey of families as part of the evaluation of Flying Start conducted by Ipsos MORI and SQW Consulting on behalf of the Welsh Government. The 2010 survey is the first wave of a longitudinal survey to assess the impact of the Flying Start programme. The second wave will be conducted in 2012, following-up those families contacted in Wave 1. This survey forms part of a wider evaluation of the Flying Start programme in Wales.

Scope of the survey

Ipsos MORI interviewed a total of 3,591 parents between 8 March and 11 August 2010. Interviews were conducted face-to-face in parents' homes using Computer Assisted Personal Interviewing (CAPI). The interview was designed to last an hour. All parents were main carers of a child aged under two and lived in a Flying Start or specially selected comparison areas.

The overall aim of the survey is to evaluate the impact of the Flying Start programme. The survey was therefore carried out in areas where Flying Start is available to residents (target areas), and in areas where Flying start is not available (comparison areas). This will allow the final results, after Wave 2, to be subjected to impact analysis in order to identify and attribute differences between the outcomes measured as part of the evaluation to the Flying Start programme.[2] In total, 1,776 interviews were completed in the Flying Start areas and 1,815 interviews in comparison areas.

[2] A more detailed discussion of the analysis approach can be found in the *Propensity Score Matching Analysis* in Appendix C.

Sample design

Sample for the survey was taken from the Child Benefit Records (CBR). These records include addresses and adult and child names for those households which contained a child born on or after 1 October 2008 in Flying Start and comparison areas. The sample universe was provided to Ipsos MORI by HMRC in December 2009 subject to a Data Processor Agreement and for use for the evaluation only. A total of 7,905 addresses for both Flying Start and control areas were contained in the initial sample universe.

Each sample was ordered by postcode before a random 1 in n sample was drawn independently in both Flying Start and comparison areas. A total of 5,456 addresses were initially drawn of which 2,660 were in Flying Start areas and 2,796 were in comparison areas. Where a household was selected that contained more than one child within the target age an additional random selection was made to select the reference child within that household. This happened in 63 households in Flying Start areas and 46 households in comparison areas. The sample was then batched into approximately 329 sample points across the Flying Start and comparison areas. The batch size varied between urban and rural areas but contained an average of c. 20 addresses. Once the main sample had been drawn, the remainder was designated reserve sample and was treated in the same way as the main sample.

Given the need to interview the main carer of the selected child when they were as young as possible, interviewers were told to try to interview the main carer in households with the oldest selected child as early as possible in the fieldwork period.

Pilot

Prior to the main survey, a pilot was completed to test the survey materials and methodology. The pilot consisted of 34 standard interviews and 10 cognitive interviews. These interviews were conducted in three local authorities (LAs)[3] and

[3] The LAs where the pilot survey was conducted were Cardiff, Caerphilly and Rhondda Cynon Taff.

were completed across both Flying Start and comparison areas in each of the three LAs. Fieldwork was conducted between 28 February and 16 March 2008.[4]

The standard pilot interviews were conducted by experienced Ipsos MORI interviewers and were carried out in the same way as the main stage interviews[5]. Two full days of standard interviews were observed by members of the Ipsos MORI research team. The cognitive interviews tested key sections of the questionnaire which were administered on paper by interviewers and then followed up with qualitative probes and questions to check understanding and interpretation.

The August 2007 cut of the Child Benefit Records was used for the pilot sample, as HMRC were unable to provide more up-to-date records. Ipsos MORI used the youngest possible cohort for which HMRC believed that full records were held. This included children aged 10 to 19 months, although 12 per cent of records included children aged seven to nine months.

As in the main stage survey, the main carer of the child named at the address was the respondent for the interview. Interviewers were asked to prioritise addresses where the main claimant of child benefit was male, so as to test the effectiveness of the screening questions in identifying the principal care giver, and where possible to interview someone other than the biological mother. In the event, all 44 pilot interviews were conducted with the biological mother.

The pilot highlighted a number of issues that needed to be resolved and, as a result, a large number of changes were made prior to the main stage of the survey.

Questionnaire design

The questionnaire was designed by Ipsos MORI in collaboration with the Welsh Assembly, SQW and an Advisory Group. Where standard questions existed these were taken from tried and tested sources including the Millennium Cohort Study (Sweep 1), the National Evaluation of Sure Start nine month survey (NESS) and the Avon Longitudinal Study of Parents and Children (ALSPAC). Prior to the start of

[4] Given the delay to receiving the main sample, the pilot survey took place around two years before the main survey.
[5] That is, face-to-face in parents' homes using CAPI.

Wave 1 fieldwork Ipsos MORI contacted the Flying Start partnerships in all 22 local authorities who supplied details and names of the specific Flying Start services being offered in their area. The questionnaire for Wave 1 of the longitudinal survey of parents covers the following areas:

- local conditions
- household and family relationships
- child development
- pregnancy/birth and child health
- breastfeeding and weaning
- immunisations
- accidents
- child health
- parental health
- general health
- tobacco use
- alcohol use
- post-natal depression
- view of services in general
- health visiting
- support networks
- involvement of partner
- main carer's family and background
- absent parent
- childcare provision
- self-completion section
- home learning environment
- mental health/malaise
- partner relationship
- parenting
- home chaos
- parenting programmes
- LAP

- use of other Flying Start and non-Flying Start services
- preferred information channels
- awareness of Flying Start
- skills, employment and household resources
- basic skills
- housing
- re-contact
- interviewer self-completion section.

Due to the sensitivity of some of the questions around domestic violence and mental health it was decided that these would be better asked as part of a respondent self-completion section as it was felt that parents might be less willing to answer these questions if they were posed by the interviewer. As a result parents were offered the opportunity to complete these sections of the questionnaire themselves. This involved the CAPI machine being passed to the respondent for them to complete the answers directly without the interviewer being able to see their responses. In total nearly all parents (96 per cent) competed the self-completion section with over three-quarters doing so themselves (79 per cent). A further 17 per cent were happy for the interviewer to continue asking the questions in this section, while few parents either refused to answer the section completely or it was not felt appropriate for them to complete the section (two per cent in both cases).

The re-contact section explained the longitudinal nature of the study and secured consent for re-contact in 2012 for the next wave. Parents were also asked for their telephone and email contact details and about any intentions they had to move house within the next six months. Parents were also asked to provide the contact details for close family members, such as their parents, in addition to their own. These additional contact details were collected as it is known that the relocation rate of families with young children tends to be higher than that of the general population. It was hoped that collecting the details of these more stable individuals would provide another means by which parents could be reliably tracked between the two waves of fieldwork.

Interviewer briefings

Prior to the main stage, three day-long briefings were held with interviewers working on the survey. Two of these were held in Newport and one in Chester. At these events around 64 interviewers were briefed face-to-face by the project director and the project manager. The briefings included an introduction to the Flying Start programme, the evaluation and the questionnaire. Interviewers were also given tips on maximising participation and there was a discussion of confidentiality and child protection. Explicit mention was also made of the need for interviewers to ensure that they did not to mention Flying Start during the interview to avoid adding bias to the results.

Interviewers were given briefing and fieldwork packs which included the following materials. Examples of these are provided separately:

- interviewer instructions
- HMRC opt-out letter
- advance letters to be posted to each address prior to making contact with parents and Q&A leaflet
- contact sheets for each address
- laminated language card
- consent forms
- paper version of the questionnaire
- guides to self-completion for parents
- helpline cards, one for all local authorities in Wales
- change of address cards to leave with parents and business return envelopes
- interviewer calling cards
- showcards (one set for comparison areas, one set per LA for Flying Start areas).

Welsh language interviews

Ipsos MORI made provision for interviews to be conducted in Welsh if the respondent preferred this to an interview in English. All materials sent to households were translated into Welsh and clearly stated that Welsh language interviews were available on request.

The questionnaire was translated into Welsh in-house by an Ipsos MORI translator. Following approval of the translation by the Welsh Assembly Government a Welsh version of the CAPI script was created for Welsh interviews and was administered by one of Ipsos MORI's fluent Welsh speaking interviewers.

In total three Welsh interviews were requested, and all three were completed in Welsh using the Welsh CAPI script.

Fieldwork

All addresses in both Flying Start and comparison areas received an initial opt out letter in January 2010, which is a requirement of using Child Benefit Records as a sampling frame. The letter was sent from HMRC, the Welsh Assembly Government and Ipsos MORI. It included an opt-out card and a business return envelope, as well as the number of the Ipsos MORI helpline to allow recipients to opt-out by telephone directly.

All addresses then received a second advance letter from Ipsos MORI; these were sent out by interviewers a few days before they began work on the addresses. The letter provided information about the survey, invited the recipients to take part and informed them that an interviewer would be visiting them in the near future to conduct the interview. It also included an information sheet containing frequently asked questions (FAQs) about the purpose of the survey and how the data would be used. Recipients were again given contact details for Ipsos MORI if they had any questions about the survey. The helpline was manned by a member of the Ipsos MORI research team during office hours.

All materials sent out to parents or used during the interview, such as the advance letters and showcards, were translated into Welsh.

All addresses received a minimum of six visits to achieve an interview or until an alternative final outcome was reached (e.g. refused). These visits were spread across a minimum of three weeks between the first and last call at an address, and across various times and days of the week including evenings and weekends. In practice, some addresses received more visits when contact sheets initially returned as 'no contact' or 'soft refusals[6]' were reissued to a different interviewer who visited the address at least a further two times to try to achieve an interview.

Parents were not given incentives for completing the interview at Wave 1.

The work of at least 10 per cent of all interviewers on the survey was back-checked with a telephone call to the respondent by the Ipsos MORI's quality control team. This was to ensure that the interview was carried out correctly and appropriately.

Response rate

The overall unadjusted response rate was 63 per cent in both Flying Start and comparison areas while the adjusted response rate (taking account of the ineligible addresses) was 81 per cent in both areas as seen in Table B1.

[6] That is if a respondent refused at a particular time as they were too busy etc.

Table B1: Response rates by area type

Summary Response – Target sample (Flying Start areas)	Total number n	% of adds issued	% of eligible adds
Main sample	2,660	94.2	
Reserve sample	165	5.8	
Issued Sample	**2,825**	**100.0**	
Invalid Addresses	**629**	**22.3**	
Baby at new unknown address	434	15.4	
Baby at new known address outside of Flying Start area	73	2.6	
Baby deceased	3	*	
Property vacant / empty housing unit	107	3.8	
Property derelict / demolished	1	*	
Non-residential address	1	*	
Property not found	3	*	
Other ineligible	7	*	
Valid Addresses	**2,196**	**77.7**	**100.0**
Non Contact	**171**	**6.1**	**7.8**
Screening complete, but no contact with main carer	38	1.3	1.7
Occupied, but no contact	95	3.4	4.3
Occupier in not answering door	27	1.0	1.2
Unsure if occupied, no contact	11	*	0.5
Refusals	**144**	**5.1**	**6.6**
Refused before screening	41	1.5	1.9
Screening complete but proxy refusal before speaking to main carer	6	*	*
Screening complete – refusal by main carer	45	1.6	2.0
Entry to block refused by warden	0	0	0
Withdrawn by Head Office[7]	52	1.8	2.4
Other	**105**	**3.7**	**4.8**
Too ill to participate	7	*	*
Away during fieldwork	3	*	*
Broken appointment	39	1.4	1.8
Unable to speak English/Welsh	26	0.9	1.2
Other	30	1.1	1.4
Successful Interviews	**1,776**	**62.9**	**80.9**
Source: Ipsos MORI			

[7] Including those addresses that were withdrawn from the sample after opting-out from the survey.

Summary Response – Comparison sample (Control areas)	Total number n	% of adds issued	% of eligible adds
Main sample	2,796	96.9	
Reserve sample	90	3.1	
Issued Sample	**2,886**	**100.0**	
Invalid Addresses	**635**	**22.0**	
Baby at new unknown address	406	14.1	
Baby at new known address outside of Flying Start area	124	4.3	
Baby deceased	4	*	
Property vacant / empty housing unit	78	2.7	
Property derelict / demolished	2	*	
Non-residential address	1	*	
Property not found	15	0.5	
Other ineligible	5	*	
Valid Addresses	**2,251**	**78.0**	**100.0**
Non Contact	**144**	**5.0**	**6.4**
Screening complete, but no contact with main carer	40	1.4	1.8
Occupied, but no contact	77	2.7	3.4
Occupier in not answering door	21	0.7	0.9
Unsure if occupied, no contact	6	*	*
Refusals	**195**	**6.8**	**8.7**
Refused before screening	44	1.5	2.0
Screening complete but proxy refusal before speaking to main carer	13	0.5	0.6
Screening complete – refusal by main carer	54	1.9	2.4
Entry to block refused by warden	0	0	0
Withdrawn by Head Office[8]	84	2.9	3.7
Other	**97**	**3.4**	**4.3**
Too ill to participate	6	*	*
Away during fieldwork	9	*	*
Broken appointment	32	1.1	1.4
Unable to speak English/Welsh	16	0.6	0.7
Other	34	1.2	1.5
Successful Interviews	**1,815**	**62.9**	**80.6**
Source: Ipsos MORI			

[8] Including those addresses that were withdrawn from the sample after opting-out from the survey.

When conducting the survey there was a much higher proportion of movers than anticipated due to the CBR sample being more out of date and the mobility of the target population. However, a very low non contact and refusal rate (between five per cent and seven per cent across both areas) was achieved and a high response rate once the ineligible sample has been taken into account of 80.9 per cent in Flying Start areas and 80.6 per cent in comparison areas.

Data analysis – editing

At the data processing stage a number of checks were undertaken for logic, valid ranges and filtering. 'Soft edit checks' are ones where the scenario is unlikely and therefore checked, but are allowed if there is no evidence to suggest the data is incorrect.

Further, a range of other soft checks were included throughout the CAPI questionnaire in order to ensure responses were correct. Where a respondent gave answers that 'failed' one of the soft checks the CAPI script automatically prompted the interviewer to check and confirm the answers given with the parents and amend if necessary.

Table B2: Soft checks included in the CAPI script

Question	Logic check
Household grid	Age difference between parents and children more than 13 years but not exceeding 45 years
Household grid	Age gap between siblings not exceeding 20 years
Household grid	Age gap between grandparents and grandchildren more than 30 but not exceeding 80
Household grid	Age gap between partners not exceeding 25 years
Q162 and Q164	Confirm if under 45 AND retired
Q162 and Q164	Confirm if in paid work AND registered unemployed
Q162 and Q164	Confirm if on a Modern Apprenticeship involving paid work, but also on one NOT involving paid work
Q162 and Q164	Confirm if registered unemployed/signing on for JSA AND not registered unemployed but seeking work
Q162 and Q164	Confirm if not registered unemployed but seeking work/signing on for JSA AND at home/not seeking work
Q1 and Q189	Date of move to local area not later than date of move to current address

Source: Ipsos MORI

Interviewers could also add notes to responses at any point throughout the CAPI interview. These were checked at the end of fieldwork and any necessary amendments made.

In addition to soft checks, at the end of fieldwork the data was also subjected to a number of hard edit checks. This involved identifying and amending any impossible values recorded in the data between Q1 and Q9 where the date of move to local area could not be earlier than parents' date of birth.

Where impossible difference existed between the date parents said that they moved to the area and their date of birth (i.e. where the parents' year of birth was later than the year they reported moving to the local area) edits to the data were made. In such cases edits were made to the answers for Q1 to make them consistent with the year of birth of the respondent. In total across all 3,591 interviews 18 of these edits were made.

Coding

All ‘other (specify)’ responses recorded in the questionnaire were checked and (back)coded for the following questions:

- Q20. What languages do you regularly speak at home?
- Q21. And which country were you born in?
- Q39. What sort(s) of accident(s) or injury(ies) was/were it/they? Please just read out the letters that apply.
- Q40. We would like to know about any health problems for which [BABY NAME] has been taken to the GP, health centre or health visitor, or to casualty, or you have called NHS direct. Which health problems, if any, has [BABY NAME] had, not counting any accidents or injuries?
- Q71. Why have you not been able to get the support you would like from your health visitor or other members of the health visiting team?
- Q74c. Have you attended or received [SERVICE] in the local area since [BABY NAME] was born?
- Q83. Where did you mainly live when you lived away from your parents?
- Q105. Looking at this list, apart from yourself, who else has ever looked after [BABY NAME] since he/she was born?
- Q111. And why you don’t you use the [childcare] arrangements you want at the moment?
- Q131b. Where did you first learn about these parenting course(s)?
- Q134. You mentioned you had heard of [PARENTING SERVICE]. Please tell me which of the following reasons for not taking up this/these parenting course(s) or groups apply to you?
- Q142. What change in the behaviour of [BABY NAME] have you noticed?
- Q144a. Where did you first learn about Language and Play?
- Q150. Please tell me which of the following reasons for not attending Language and Play (LAP) apply to you?
- Q158. And how did you first learn about the [SUPPORT/GROUP]?
- Q.159. Thinking about all the services discussed today, in general, how do you prefer to find out about the facilities, services and support available for families with children aged nought to three in the local area?

- Q179. At present, are you [or your partner] receiving …(list on benefits)

In addition to the above, other specify options for Q19 (ethnicity of the respondent, their child and partner if applicable) were back coded to match the approach used by the census. Table outlines the circumstances where such changes were made. A total of 48 changes were made at Q19.

Table B3: Back coding of other specify responses at Q19

Question	Logic check
Q19	Recoding of parents who selected 'white other' and specified 'English', 'Welsh' or 'Scottish' back into the code 'white British'
Q19	Recoding of parents who selected 'Asian other' and specified 'Indian' or 'Pakistani' back into the relevant codes 'Asian - Indian' or 'Asian – Pakistan'
Q19	Recoding of parents who selected 'Black other' and specified a country or region such as 'Caribbean' or 'Somalia' back into the relevant codes 'Black - Caribbean' or 'Black – African'

Statistical reliability and design effect

The parents in the survey are only a sample of the total 'population' in Flying Start and comparison areas, so it is not possible to be certain that the figures obtained are exactly those obtained if everybody had been interviewed (the 'true' values). However, the variation between the sample results and the 'true' values can be predicted from knowledge of the size of the samples on which the results are based and on the number of times that a particular answer is given. The 'statistical confidence' with which this prediction can be made is usually chosen to be 95 per cent (the standard of acceptance) - that is, the chances are 95 in 100 that the 'true' value will fall within a specified range.

Table B4: Statistical reliability

Approximate sampling tolerances applicable to percentages at or near these levels (at the 95 per cent confidence level)			
Size of sample or sub-group on which survey result is based	10 or 90 +	30 or 70 +	50 +
1,776 (all parents in Flying Start areas)	1.4	2.1	2.3
693 (all parents in a lone-parent family)	2.2	2.4	3.7
515 (all parents in a household with 3 or more children)	2.6	4.0	4.3
213 (all parents earning more than £30,000 per year)	4.0	6.2	6.7
Source: Ipsos MORI			

Appendix C – Impact assessment sample matching design and statistical analysis methodology

Flying Start is a community based initiative, where all families with children aged nought to three in the programme areas are potentially a beneficiary of the programme. Hence an 'intention to treat' design was adopted in the evaluation of the impact of the programme. Such an approach does not focus on those children and families that have taken advantage of specific services in the Flying Start areas, but rather studies children and families living in these areas that, in theory, should be exposed to such services.

The evaluation was commissioned after the roll-out of the Flying Start programme had begun. This means that a true pre-Flying Start baseline survey was not possible. Furthermore as the Flying Start programme was rolled out in the most deprived areas in Wales and there was no random allocation to the programme, a random control trial (RCT) was not possible.

The evaluation team therefore used a quasi-experimental design to measure early impact by comparing the difference in outcomes between the Flying Start sample and a comparison group *after* programme delivery had begun.

The comparison group was developed to be as similar as possible to the Flying Start group.

Given the non-random nature in which the programme was/is delivered a two stage process was taken to find a comparison group from which an estimate of the counterfactual[9] could be obtained for each outcome with the minimum bias possible.

Stage one: Area matching at the sample selection stage

The Flying Start programme was targeted at families living in the most deprived areas of Wales, therefore the first stage in the process of evaluating Flying Start involved identifying 'control' areas in Wales that had levels of deprivation that were as close as possible to those in Flying Start programme areas (although by definition

[9] The counterfactual is an estimate of what the outcome measure(s) would have been had the Flying Start programme not been implemented.

they would be on average less deprived). The overall Indices of Deprivation score was used as a proxy for area level deprivation.

The control areas were identified by SQW Consulting in the following manner

- All Lower Layer Super Output Areas (LSOAs) which had an exact match on the Index of Multiple Deprivation with an LSOA in which the Flying Start Programme is being implemented were kept, the rest were dropped.
- For each matched control and Flying Start LSOA an estimate of the number of nought to three year olds present was made. If the difference in the nought to three year old count between the two LSOAs was less than or equal to 50 then the control LSOA was retained, those greater than 50 were rejected.
- A final sample of 195 control LSOAs were selected from the total eligible set of control LSOAs found in step 2.2. Selection of households for the control sample was restricted to those that resided in this set of LSOAs.

Table shows the mean IMD score and the frequency distribution for the IMD ranking by the Flying Start and matched comparison areas. As shown by the area level matching process, the control areas tend to be far less deprived than the Flying Start areas, symptomatic of the targeted nature of the programme.

Table C1: Comparing the IMD profile of the Flying Start and comparison areas

	FS	Control	Difference
IMD score			
Mean IM score	43.0	27.2	-14.9
IMD rank (based on all of Wales)	%	%	%
<500	80.0	38.4	-39.1
500-999	12.8	45.5	35.8
1000+	7.2	16.1	3.3

Stage two: Statistical matching at the analysis stage

For matching the aggregate Flying Start and comparison samples, two steps were involved to further match the samples at the analysis stage and these are described below. Note that for the matching of sub-group populations for sub-group impact analysis, Stage 1 only was applied.

The first step in the statistical matching was a Nearest Neighbour statistical matching exercise[10] at the respondent level among the achieved sample of respondents interviewed in the survey, to find those respondents in the control areas who most closely resemble those interviewed in the Flying Start areas on a number of key 'matching' variables. A propensity score[11] was used as the distance measure in the matching exercise due to the large number of variables that needed to be matched on for each outcome.

The matching variables identified are demographic and background characteristics of the child, parent(s) and the area they live in that are thought to potentially influence the outcome measures and to differ between Flying Start and comparison areas. By controlling for these variables through a Nearest Neighbour statistical matching exercise the pre-existing differences between families and communities can be reduced.

A second step was taken to optimise the matching because it was not possible to account for all differences through the matching exercise. To deal with this a final regression based step was taken (on the matched dataset) to control for any residual

[10] We used a Nearest Neighbour matching algorithm with caliper = 0.05, ratio = 5 and replace = true. This means that we limit the number of comparison control respondents we can match to each Flying Start respondent to a maximum of 5 and we can only match a comparison respondent to a Flying Start respondent if they fall within 0.05 standard deviations of the distance measure either side of the Flying Start respondent. However we do allow for a comparison respondent to be matched to more than one Flying Start respondent. For the sub-group population matching, an extra option was added to match respondents in the sub-group only to respondents in the same sub-group e.g. lone-parent families were matched only to lone-parents.

[11] A Propensity Score allows for multiple variables to be matched concurrently. Essentially the difference between the two samples is modelled (using in this instance logistic regression modelling, with all the significant matching variable characteristics as predictors) and the modelled probability (or propensity) of being in the Flying Start group is estimated for each respondent. Individuals in the comparison sample are then matched to individuals in the Flying Start group in such a way that the two matched samples have similar propensity score distributions.

differences. The regression model was then used to estimate the counterfactual and, from this, the Average Treatment Effect on the Treated (ATET).

Hence the analysis overall was designed to address the question, 'What is the effect of Flying Start, all other (measured) things being equal?' A full list of the matching characteristics can be found in Appendix D.

The process of matching followed by modelling to estimate the ATET is 'doubly' robust in that if either the matching analysis or the analysis model has any weaknesses (but not necessarily both) any inferences will be statistically consistent.[12]

The Stage 2 matching and modelling was conducted separately for each of the 27 outcomes. For each outcome, the child, parent(s) and area level characteristics were matched on where those characteristics demonstrated to be significant predictors of the outcome measure of interest. This ensured that the matched control sample was as similar as possible to the Flying Start sample on those characteristics which, if left unbalanced, would most likely lead to biased estimates of the impact of the programme. Additional checks on the balance using QQ plots were made for the matching variables measured on a non-discrete scale (e.g. the propensity score, age and the area level characteristics) to ensure that the matching exercise improved the balance on the distribution of these variables and not just on the mean. Additional checks on the balance using QQ plots were made for the matching variables measured on a non-discrete scale (e.g. the propensity score, age and the area level characteristics) to ensure that the matching exercise improved the balance on the distribution of these variables and not just on the mean.

The matching process and outputs for one example indicator is described below.

Matching illustration for one indicator: whether biological mother ever tried to breastfeed the child

When the matching variables were regressed on the outcome (whether the biological mother ever tried to breastfeed the child or not) the following characteristics were

[12] Ho, D.E., Imai, K., King, G., and Stuart, E. (2007), 'Matching as Nonparametric Preprocessing for Reducing Model Dependence in Parametric Causal Inference,' *Political Analysis, 15, 199-236*.

found to be related. This was based on a regression model with the outcome variable as the dependent variable and the characteristics as predictors. Please note the base for this model was restricted to the Flying Start sample only. This was to ensure that the characteristics found to be significant were not a function of whether a respondent is in the comparison or Flying start group.

Respondent level

- Age of parent/guardian
- Ethnicity of parent/guardian
- Country of birth of parent/guardian
- Education of parent/guardian
- Household composition
- Literacy of parent/guardian
- Language spoken regularly at home
- Whether parent/guardian spent any time living away from parents as a child (under 16).
- Frequency parent/guardian sees mother nowadays

Area level

- Indices of Deprivation – the overall index and the education domain index
- Percentage of working age population claiming benefit
- Percentage of children aged seven achieving level 2 in Key Stage 1 Maths
- Percentage of children aged seven achieving level 2 in Key Stage 1 Science

After identifying the significant matching variables they were entered into a logistic regression model, regressing them against a binary variable where a value of one identified those respondents from the Flying Start areas and a value of zero those from the comparison areas. The product of this model was a probability (or propensity) of being in the Flying Start group for all respondents given their characteristics based on the significant matching variables. This propensity score was used as a distance measure in the matching exercise. A Nearest Neighbour

matching method was preferred as it provided good balance with minimal loss in the number of Flying Start and comparison respondents successfully matched. It also allowed some command over the number of times control respondents were matched to more than one Flying Start respondent.

Table and Table show the key outputs from the matching exercise. Table provides information on the percentage of Flying Start and comparison respondents successfully matched and the number either discarded due to a lack of common support or not matched.

Table C2: Proportion of sample matched for outcome indicator: whether biological mother ever tried to breastfeed selected child

	Flying Start Sample (%)	Control Sample (%)
Total*	**1690**	**1735**
Discarded	**236**	**45**
Unmatched	**0**	**398**
N Successfully matched	**1,454**	**1,292**
% Successfully matched	**86%**	**74.5%**

*This is the total after cases with missing values at Q27 (the survey measure for ever having tried to breastfeed) are excluded.

Table provides information on the balance achieved from the matching exercise for each of the significant matching variables.

The balance improvement column in Table (the far right column of the table) is a measure of the percent reduction (or not) in the difference in the matching variable distributions pre and post matching. The formula for this calculation is as follows;

$$Balance\ Improvement = 100(|a| - |b|)/|a| \ ,$$

Where a is the value of the balance measure (difference between control and Flying Start percentage or mean) pre-matching and b is the value of the balance measure after matching.

Values above zero indicate an improvement in the balance after matching, with values closer to 100 showing the most improvement. Values below zero indicate worse balance after matching. As shown in Table , for the majority of the variables matched on there has been an improvement in the balance after matching.

Table C3: Balance achieved for each matching variable for outcome indicator: whether biological mother ever tried to breastfeed selected child

Matching Variables		Unmatched			Matched			Balance Improvement
		Flying Start	Control	Difference	Flying Start	Control	Difference	
Ethnicity (White British)	Other	9.1%	7.7%	1.4%	8.0%	8.8%	.9%	36
	White British	90.9%	92.3%	1.4%	92.0%	91.2%	.9%	36
Which country were you born in?	Not Wales	21.0%	26.6%	5.6%	19.9%	20.9%	1.1%	81
	Wales	79.0%	73.4%	5.6%	80.1%	79.1%	1.1%	81
Born outside of the UK	Born inside UK	94.3%	95.3%	1.0%	94.9%	95.0%	.1%	90
	Born outside UK	5.7%	4.7%	1.0%	5.1%	5.0%	.1%	90
What is the highest educational qualification that you have?	Postgraduate	2.0%	6.7%	4.6%	2.3%	2.2%	.1%	98
	Undergraduate	6.8%	19.4%	12.6%	7.8%	7.5%	.3%	97
	Higher education	6.1%	9.1%	3.0%	6.5%	5.3%	1.2%	61
	Stopped at 18	16.9%	19.3%	2.4%	18.2%	15.3%	2.9%	-21
	Stopped at 16	42.3%	32.3%	10.1%	41.5%	47.7%	6.1%	39
	Else/Refused/Don't know/No answer	25.7%	13.1%	12.6%	23.8%	22.1%	1.7%	87
Household Composition	Couple with one child	18.5%	29.8%	11.3%	19.3%	18.2%	1.1%	90
	Couple with two children	20.8%	27.5%	6.7%	21.3%	21.6%	.3%	96
	Couple with three or more children	19.8%	18.1%	1.7%	19.0%	17.0%	2.0%	-18
	Lone parent family	38.6%	22.2%	16.4%	38.4%	41.2%	2.7%	84
	Other	2.3%	2.4%	.1%	2.0%	2.1%	.1%	29
Can you usually read and fill out forms you might have to deal with in your own language	Yes, easily	90.3%	94.8%	4.5%	91.5%	92.6%	1.1%	75
	Yes, with difficulty	6.1%	2.4%	3.7%	5.5%	4.7%	.8%	77
	No	3.6%	2.8%	.8%	3.0%	2.8%	.3%	65
What languages do you regularly speak at home	Not Welsh	95.8%	88.0%	7.8%	95.5%	96.1%	.7%	91
	Welsh	4.2%	12.0%	7.8%	4.5%	3.9%	.7%	91
Did you spend any time living away from both of your parents as a child (under 16)	Yes	11.7%	8.2%	3.5%	11.3%	11.1%	.3%	92
	No	88.3%	91.8%	3.5%	88.7%	88.9%	.3%	92
Propensity score		.63	.38	0.25	.63	.63	0.00	100
Age		27.28	29.56	2.28	27.31	27.08	0.23	90
How often do you see your mother nowadays?		197	180	17.05	200	199	0.83	95
Welsh Indices of Deprivation - Main		45.55	25.54	20.00	41.75	41.50	0.25	99
Welsh Indices of Deprivation - Education		56.07	25.79	30.28	51.91	44.64	7.27	76
Percentage of working age population claiming benefit (LSOA)		31%	20%	11.0%	29%	28%	1.1%	90
Percentage of children aged 7 achieving level 2 in Key Stage 1 Maths		11%	11%	.4%	11%	11%	.2%	63
Percentage of children aged 7 achieving level 2 in Key Stage 1 Science		8%	8%	.5%	8%	8%	.0%	93

Whilst there is evidence that the matching has improved the balance, it is evident that the two samples are not completely balanced. Therefore, as outlined above, the second parametric modelling step was taken which marginally improved the balance further. The model was built on the matched control sample regressing the original significant matching variables plus the propensity score against the outcome. The coefficients from this model were combined with the values of the covariates from the matched Flying Start sample to obtain an estimate of the counterfactual for each matched Flying Start respondent. The difference in the actual outcome measure and the estimated outcome from the model provides an estimate of the treatment effect, averaging this over all matched Flying Start respondents gives an estimate of the Average Treatment Effect on the Treated (ATET). Simulating[13] this process 1,000 times allows calculation if a point estimate for the ATET and its 95 per cent Confidence Interval. If the lower 95 per cent confidence interval falls above zero, then it can be concluded that there is strong evidence that the Flying Start programme has had significant (positive) effect on the outcome.

Table shows data outputs from the matching analysis.

[13] Each simulation involved the following steps: 1) draw a new set of coefficients at random from a normal distribution with mean equal to the value of the coefficient and variance equal to the square of the standard error of the coefficient 2) re-estimate the counterfactual using these new coefficients combined with the values of the covariates from the matched Flying Start sample 3) calculate the treatment effect for each matched Flying Start respondent based on subtracting the expected value of the outcome (estimated in step 2) from the actual value 4) average this over all matched Flying Start respondents to obtain an estimate for the ATET.

Table C5: Example impact analysis findings for all impact indicators: whether biological mother ever tried to breastfeed selected child

Outcome	Average Treatment Effect on the Treated		
	Point estimate of impact (%)	**Lower Confidence Interval (%)**	**Upper Confidence Interval (%)**
% of biological mothers who ever tried to breastfeed their child	-1.7	-4.2	0.5

As shown in Table , the Confidence Intervals for the ATET lie above and below 0, and therefore there is insufficient evidence to support the hypothesis that the Flying Start programme has had a significant impact on the number of biological mothers who tried to breastfeed.

Interpretation of data

However, lack of baseline data and the impossibility of ensuring a 100 per cent matched comparison group[14] means that it is not possible to be totally confident that the analysis has produced non-biased estimates of impact: they may be skewed by differing starting points between the two samples and potential limitations in the ability of the matching to fully control for this. In particular, it must be noted that the matching analysis used mainly individual and household socio-demographic data and it was not possible to control for difference start points in terms of attitudes, behaviours and service delivery context and it is very likely that this has lead to some residual bias in the estimates. The analysis may therefore be underestimating or overestimating impact. However, given the greater likelihood that Flying Start areas started with lower starting points than the slightly less deprived comparison area samples, it is also more likely that figures underestimate rather than overestimate the early influences of Flying Start.

[14] As is the case for many quasi-experimental design studies.

Balance achieved from Stage 1 matching for all outcome indicators

Table provides data to show the degree to which Stage 1 matching balanced out differences between the Flying Start and matched comparison samples for each indicator.

Specifically, for each outcome indicator, the table shows the average level of balance achieved across all matching variables.

Table demonstrates that the Stage 1 matching addressed the vast proportion of the original differences between Flying Start and matched comparison samples, for all outcome indicators. Furthermore, note that the total level of matching achieved was slightly better than shown by the statistics below because, as mentioned, the second stage of matching further controlled for some of the remaining residual differences.

However, it must be borne in mind that for some indicators it was necessary to discard some Flying Start sample cases for the matching to be successful. In these cases, the impact estimate for Flying Start is relevant to a slightly reduced Flying Start population, and as such is not fully 100 per cent representative of the Flying Start population. However, for all variables the vast majority of cases has been included, but this must be borne in mind when interpreting the findings. The Flying Start base for the impact estimates has been presented in the data tables throughout the findings section of the report. In all such tables, findings for the relevant indicator is given for both the full Flying Start population and the (sometimes reduced) Flying Start population on which the impact estimate has been based. This provides full transparency regarding the representativeness of the Flying Start impact estimates.

Table C6: **Summary of balance achieved from Stage 1 matching for each outcome indicator.**

Var-iable	Question topic	Mean of differences between Flying Start and comparison sample across all matching variables		Proportion of the mean difference that has been addressed by matching
		Before matching	After stage 1 matching	
		Mean (n)	Mean (n)	%
132	Whether asked if would like to attend parenting course	3.03	0.22	92.69
145	Whether asked if would like to attend LAP	5.71	0.04	99.24
144_1	Where first learnt about LAP	4.39	0.44	90.03
35-37	Whether immunisations are up to date	2.63	0.25	90.58
35	Whether immunisations are up to date	1.12	0.03	97.10
117_1	Regularity with which read to Baby	2.16	0.17	91.99
61	Rating of facilities available for families	2.22	0.06	97.49
65-66	Number of visits from health visitor/to health visitor at clinic	1.42	0.14	89.94
65	Number of visits from health visitor at home	0.45	0.06	87.16
144	Awareness of LAP	10.66	1.16	89.12
130	Awareness of parenting courses	1.21	0.04	96.50
131	Awareness of any other parenting courses	0.09	0.01	97.37
133	Attendance of parenting courses	1.03	0.04	96.17
74	Attendance of parenting groups	8.27	0.29	96.47
27	Whether attempted to breastfeed	6.27	0.18	97.08
28	Whether able to breastfeed	1.59	0.11	93.07
33	Weaning age	2.01	1.71	64.73
117_2	Regularity with which someone sings to Baby	2.32	0.22	90.63
71	Helpfulness of advice and support from health visitor	3.46	0.39	88.72
70	Ease of contacting health visitor	3.65	1.13	68.99
71b	Amount of support from health visitor	0.31	0.01	96.17
64_1	Amount of support about caring for child	2.43	0.30	87.44
64_2	Amount of support about relationship with child	0.06	0.01	91.85
64_3	Amount of support about helping child learn	3.32	0.11	96.64
63	Overall rating of advice and support available locally	4.36	0.38	91.18
73	Whether asked if would like to attend parenting group	4.48	1.15	74.45
72	Awareness of parenting groups	2.98	00.13	95.68

Balance achieved from Stage 1 matching for all outcome indicators

Confidence Intervals for the ATET of all indicator variables

Table C1 provides confidence intervals for the ATET of all indicator variables.

For variables where the lower 95 per cent confidence interval falls above zero, it can be concluded that there is strong evidence that the Flying Start programme has had significant (positive) effect on the outcome.

For variables where one confidence interval falls above zero and the other falls below zero, there is no evidence that Flying Start has had an impact.

Table C1: Confidence Intervals for the ATET of all indicator variables

Outcome	Average Treatment Effect on the Treated		
	Point estimate of impact (%)	**Lower Confidence Interval (%)**	**Upper Confidence Interval (%)**
Attempted breastfeeding	-1.7	-4.2	0.5
Ability to breastfeed	-1.1	-3.5	0.9
Indicative impact of Flying Start on weaning age of infants	-0.8	-3.2	-1.6
Babies up to date with pneumococcal conjugate vaccine (PCV), meningitis C, measles, mumps and rubella immunisations	-0.5	-2.4	3.4
Babies in receipt of three doses of the combined diphtheria, tetanus and whooping cough vaccinations, the polio vaccination and the haemophilias influenza B vaccination	-0.5	-1.9	1.1
Parents in Flying Start areas who read/look at books with their child	-1.4	-3.9	1.0
Parents in Flying Start areas who sing song/nursery rhymes to their child	4.4	2.0	7.1
Rating of the facilities, services and support available for families as very/fairly good	5.7	3.3	8.2
Rating of advice and support from services available locally on how to bring up baby as very/fairly good	11.4	8.6	14.0
Number of visits from a health visitor in-home	1.5	1.4	1.5
Number of visits from a health visitor in-home and in-clinic (combined)	1.1	1.1	1.2
Main parent's knowledge of LAP from a health visitor or member of health visiting team	11.9	10.5	13.0

Main parent's knowledge of parenting programmes	11.5	9.6	13.3
Main parent's knowledge of parenting programmes from a health visitor or member of health visiting team	7.0	5.6	8.3
Attendance at a parenting programme by main parent	4.0	2.5	5.3
Attendance at a parenting group/initiative by main parent	25.4	22.7	27.8
Rating of helpfulness of advice and support from health visitor as very helpful	6.2	3.9	8.5
Ease of contacting health visitor easily most of the time	9.7	7.1	12.4
Parents received enough support from their health visitor	6.6	4.5	8.5
Proportion saying they received enough advice and support on how to look after baby to keep to keep them happy and healthy	2.6	0.5	4.8
Proportion saying they received enough advice and support to help develop parent/child relationship	4.9	3.0	6.9
Proportion saying they received enough advice and support to help their child reach full potential	7.5	5.3	10.1
Invitation to parenting/group initiative given to parent or their partner	28.4	25.7	31.0
Knowledge of parenting groups/ initiatives among main parent	19.2	16.8	21.5
Whether main parent or their partner was asked to attend LAP	13.0	11.4	14.2
Main parent's awareness of LAP	22.8	21.0	24.5
Whether main parent or their partner was asked to attend a parenting programme	10.6	9.0	12.0

Appendix D - Sub-group impact analysis results

The tables below present the findings from the additional analysis conducted among a selection of sub-groups: lone parents, first time parents, young parents and parents experiencing multiple socio-economic disadvantages. As with the overall analysis, for variables where the lower 95 per cent confidence interval falls above zero, it can be concluded that there is strong evidence that the Flying Start programme has had significant (positive) effect on the outcome. For variables where one confidence interval falls above zero and the other falls below zero, there is no evidence that Flying Start has had an impact. Where results are not statistically significant, this is shown by an asterisk (*).

Table D1: Indicative impact of Flying Start on number of health visitor visits received by lone parents

			Weighted results for impact analysis (mean)		
	Lone parents in Flying Start areas (mean n)		**Lone parents in Flying Start areas (mean n)**	**Estimate of the counterfactual from the lone parents matched comparison group (mean n)**	**Indication of impact (mean n)**
Number of visits from a health visitor in-home	8.6		8.6	6.9	1.7
Base: All lone parents	*672*				
Base: All matched lone parents excluding those who responded don't know or refused			*665*	*379*	-
Number of visits from a health visitor in-home and in-clinic (combined)	17.5		17.5	16.4	1.1*
Base: All lone parents	*664*				
Base: All matched lone parents excluding those who responded don't know or refused			*642*	*373*	-

* Please note that this change is not statistically significant – results indicate no difference

Table D2: Indicative impact of Flying Start on number of health visitor visits received by first time parents

			Weighted results for impact analysis (mean)		
	First time parents in Flying Start areas (mean n)		**First time parents in Flying Start areas (mean n)**	**Estimate of the counterfactual from the first time parents matched comparison group (mean n)**	**Indication of impact (mean n)**
Number of visits from a health visitor in-home	8.8		8.8	6.6	2.2
Base: All first time parents	*665*				
Base: All matched first time parents excluding those who responded don't know or refused			*659*	*669*	-
Number of visits from a health visitor in-home and in-clinic (combined)	19.4		19.4	16.9	2.5
Base: All first time parents	*659*				
Base: All matched first time parents excluding those who responded don't know or refused			*655*	*624*	-

Table D3: Indicative impact of Flying Start on number of health visitor visits received by young parents

			Weighted results for impact analysis (mean)		
	Young parents in Flying Start areas (mean n)		**Young parents in Flying Start areas (mean n)**	**Estimate of the counterfactual from the young parents matched comparison group (mean n)**	**Indication of impact (mean n)**
Number of visits from a health visitor in-home	9.1		9.2	7.0	2.2
Base: All young parents	*651*				
Base: All matched young parents excluding those who responded don't know or refused			*639*	*385*	-
Number of visits from a health visitor in-home and in-clinic (combined)	18.8		18.8	16.8	2.0
Base: All young parents	*641*				
Base: All matched young parents excluding those who responded don't know or refused			*631*	*394*	-

Table D4: Indicative impact of Flying Start on number of health visitor visits received by parents experiencing multiple disadvantage

			Weighted results for impact analysis (mean)		
	Parents experiencing multiple disadvantage in Flying Start areas (mean n)		**Parents experiencing multiple disadvantage in Flying Start areas (mean n)**	**Estimate of the counterfactual from the parents experiencing multiple disadvantage in the matched comparison group (mean n)**	**Indication of impact (mean n)**
Number of visits from a health visitor in-home	9.2		9.1	6.8	2.3
Base: All parents experiencing multiple disadvantage	*310*				
Base: All matched parents excluding those who responded don't know or refused			*300*	*123*	-
Number of visits from a health visitor in-home and in-clinic (combined)	17.5		17.6	16.1	1.5*
Base: All parents experiencing multiple disadvantage	*307*				
Base: All matched parents experiencing multiple disadvantage excluding those who responded don't know or refused			*291*	*121*	-

* Please note that this change is not statistically significant – results indicate no difference

Table D5: Indicative impact of Flying Start on knowledge of, referral to, and take-up of parenting groups and initiatives among lone parents

			Weighted results for impact analysis		
	Lone parents in Flying Start areas (%)		**Lone parents in Flying Start areas (%)**	**Estimate of the counterfactual from the lone parents matched comparison group (%)**	**Indication of impact (%)**
Knowledge of parenting groups/ initiatives	85		84	66	18
Base: All lone parents	*689*				
Base: All matched lone parents			*594*	*352*	-
Invitation to parenting/ group initiative	74		73	49	24
Base: All lone parents	*689*				
Base: All matched lone parents			*543*	*324*	-
Attendance at a parenting group/initiative	62		63	39	26
Base: All lone parents	*689*				
Base: All matched lone parents			*510*	*299*	-

Table D6: Indicative impact of Flying Start on knowledge of, referral to, and take-up of parenting groups and initiatives among first time parents

			Weighted results for impact analysis		
	First time parents in Flying Start areas (%)		**First time parents in Flying Start areas (%)**	**Estimate of the counterfactual from the first time parents matched comparison group (%)**	**Indication of impact (%)**
Knowledge of parenting groups/ initiatives	88		88	67	21
Base: All first time parents	*673*				
Base: All matched first time parents			*612*	*568*	-
Invitation to parenting/ group initiative	77		77	53	24
Base: All first time parents	*673*				
Base: All first time parents			*612*	*568*	-
Attendance at a parenting group/initiative	67		68	47	21
Base: All first time parents	*673*				
Base: All matched first time parents			*563*	*487*	-

Table D7: Indicative impact of Flying Start on knowledge of, referral to, and take-up of parenting groups and initiatives among young parents

			Weighted results for impact analysis		
	Young parents in Flying Start areas (%)		**Young parents in Flying Start areas (%)**	**Estimate of the counterfactual from the young parents matched comparison group (%)**	**Indication of impact (%)**
Knowledge of parenting groups/ initiatives	86		85	55	30
Base: All lone parents	*666*				
Base: All matched lone parents			*569*	*370*	-
Invitation to parenting/ group initiative	75		75	39	36
Base: All lone parents	*666*				
Base: All matched lone parents			*521*	*340*	-
Attendance at a parenting group/initiative	65		66	38	28
Base: All lone parents	*666*				
Base: All matched lone parents			*506*	*325*	-

Table D8: Indicative impact of Flying Start on knowledge of, referral to, and take-up of parenting groups and initiatives among parents experiencing multiple disadvantage

			Weighted results for impact analysis	
	Parents experiencing multiple disadvantage in Flying Start areas (%)	**Parents experiencing multiple disadvantage in Flying Start areas (%)**	**Estimate of the counterfactual from the parents experiencing multiple disadvantage matched comparison group (%)**	**Indication of impact (%)**
Knowledge of parenting groups/ initiatives	81	80	57	23
Base: All parents experiencing multiple disadvantage	*317*			
Base: All matched parents experiencing multiple disadvantage		*248*	*118*	-
Invitation to parenting/ group initiative	69	67	38	29

Base: All parents experiencing multiple disadvantage	*317*				
Base: All matched parents experiencing multiple disadvantage			*219*	*120*	-
Attendance at a parenting group/initiative	59		60	34	26
Base: All parents experiencing multiple disadvantage	*317*				
Base: All matched parents experiencing multiple disadvantage			*204*	*116*	-

Table D9: Indicative impact of Flying Start on knowledge of, referral to, and take-up of parenting programmes among lone parents

			Weighted results for impact analysis		
	Lone parents in Flying Start areas (%)		**Lone parents in Flying Start areas (%)**	**Estimate of the counterfactual from the lone parents matched comparison group (%)**	**Indication of impact (%)**
Main parent's knowledge of parenting programmes	30		30	15	15
Base: All lone parents	*689*				
Base: All matched lone parents			*679*	*382*	-
Main parent's knowledge of parenting programmes from a health visitor or member of health visiting team	17		17	9	8
Base: All lone parents	*689*				
Base: All matched lone parents			*688*	*387*	-
Whether main parent or their partner was asked to attend a parenting programme	20		19	8	11
Base: All lone parents	*689*				
Base: All matched lone parents			*592*	*340*	-
Attendance at a parenting programme by main parent	10		10	4	6
Base: All lone parents	*689*				
Base: All matched lone parents			*626*	*341*	-

Table D10: Indicative impact of Flying Start on knowledge of, referral to, and take-up of parenting programmes among first time parents

			Weighted results for impact analysis		
	First time parents in Flying Start areas (%)		**First time parents in Flying Start areas (%)**	**Estimate of the counterfactual from the first time parents matched comparison group (%)**	**Indication of impact (%)**
Main parent's knowledge of parenting programmes	28		28	15	13
Base: All first time parents	*673*				
Base: All matched first time parents			*672*	*630*	-
Main parent's knowledge of parenting programmes from a health visitor or member of health visiting team	15		15	8	7
Base: All first time parents	*673*				
Base: All matched first time parents			*672*	*683*	-
Whether main parent or their partner was asked to attend a parenting programme	15		15	8	7
Base: All first time parents	*673*				
Base: All matched first time parents			*604*	*532*	-
Attendance at a parenting programme by main parent	9		10	6	4
Base: All first time parents	*673*				
Base: All matched first time parents			*620*	*559*	-

Table D11: Indicative impact of Flying Start on knowledge of, referral to, and take-up of parenting programmes among young parents

			Weighted results for impact analysis		
	Young parents in Flying Start areas (%)		**Young parents in Flying Start areas (%)**	**Estimate of the counterfactual from the matched young parents comparison group (%)**	**Indication of impact (%)**
Main parent's knowledge of parenting programmes	32		32	15	17
Base: All young parents	*666*				
Base: All matched young parents			*659*	*401*	-
Main parent's knowledge of parenting programmes from a health visitor or member of health visiting team	16		16	10	6
Base: All young parents	*666*				
Base: All matched young parents			*664*	*414*	-
Whether main parent or their partner was asked to attend a parenting programme	20		20	8	12
Base: All young parents	*666*				
Base: All matched young parents			*564*	*340*	-
Attendance at a parenting programme by main parent	12		12	5	7
Base: All young parents	*666*				
Base: All matched young parents			*588*	*358*	-

Table D12: Indicative impact of Flying Start on knowledge of, referral to, and take-up of parenting programmes among parents experiencing multiple disadvantage

			Weighted results for impact analysis		
	Parents experiencing multiple disadvantage in Flying Start areas (%)		**Parents experiencing multiple disadvantage in Flying Start areas (%)**	**Estimate of the counterfactual from the matched parents experiencing multiple disadvantage comparison group (%)**	**Indication of impact (%)**
Main parent's knowledge of parenting programmes	26		25	13	12
Base: All parents experiencing multiple disadvantage	*317*				
Base: All matched parents experiencing multiple disadvantage			*308*	*136*	-
Main parent's knowledge of parenting programmes from a health visitor or member of health visiting team	15		15	12	3*
Base: All parents experiencing multiple disadvantage	*317*				
Base: All matched parents experiencing multiple disadvantage			*310*	*136*	-
Whether main parent or their partner was asked to attend a parenting programme	18		18	10	8*
Base: All parents experiencing multiple disadvantage	*317*				
Base: All matched parents experiencing multiple disadvantage			*250*	*111*	-
Attendance at a parenting programme by main parent	10		10	2	8
Base: All parents experiencing multiple disadvantage	*317*				
Base: All matched parents experiencing multiple disadvantage			*283*	*112*	-

* Please note that this change is not statistically significant – results indicate no difference

Table D13: Indicative impact of Flying Start on knowledge of, and referral to Language and Play among lone parents

			Weighted results for impact analysis		
	Lone parents in Flying Start areas (%)		**Lone parents in Flying Start areas (%)**	**Estimate of the counterfactual from the matched lone parents comparison group (%)**	**Indication of impact (%)**
Main parent's awareness of Language and Play	34		34	9	25
Base: All lone parents	*689*				
Base: All matched lone parents			*670*	*366*	-
Main parent's knowledge of Language and Play from a health visitor or member of health visiting team	16		16	1	15
Base: All lone parents	*689*				
Base: All matched lone parents			*668*	*329*	-
Whether main parent or their partner was asked to attend Language and Play	18		18	6	12
Base: All lone parents	*689*				
Base: All matched lone parents			*673*	*364*	-

TableD14: Indicative impact of Flying Start on knowledge of, and referral to Language and Play among first time parents

			Weighted results for impact analysis		
	First time parents in Flying Start areas (%)		**First time parents in Flying Start areas (%)**	**Estimate of the counterfactual from the matched first time parents comparison group (%)**	**Indication of impact (%)**
Main parent's awareness of Language and Play	31		31	11	20
Base: All first time parents	*673*				
Base: All matched first time parents			*661*	*574*	-
Main parent's knowledge of Language and Play from a health visitor or member of health visiting team	16		16	5	11
Base: All first time parents	*673*				
Base: All matched first parents			*659*	*570*	-
Whether main parent or their partner was asked to attend Language and Play	17		17	9	8
Base: All first time parents	*673*				
Base: All matched first time parents			*668*	*612*	-

Table D15: Indicative impact of Flying Start on knowledge of, and referral to Language and Play among young parents

			Weighted results for impact analysis		
	Young parents in Flying Start areas (%)		**Young parents in Flying Start areas (%)**	**Estimate of the counterfactual from the matched young parents comparison group (%)**	**Indication of impact (%)**
Main parent's awareness of Language and Play	35		35	11	24
Base: All young parents	*666*				
Base: All matched young parents			*645*	*391*	-
Main parent's knowledge of Language and Play from a health visitor or member of health visiting team	16		17	4	13
Base: All young parents	*666*				
Base: All matched young parents			*640*	*363*	-
Whether main parent or their partner was asked to attend Language and Play	20		20	7	13
Base: All young parents	*666*				
Base: All matched young parents			*654*	*392*	-

Table D16: Indicative impact of Flying Start on knowledge of, and referral to Language and Play among parents experiencing multiple disadvantage

			Weighted results for impact analysis		
	Parents experiencing multiple disadvantage in Flying Start areas (%)		**Parents experiencing multiple disadvantage in Flying Start areas (%)**	**Estimate of the counterfactual from the matched parents experiencing multiple disadvantage comparison group (%)**	**Indication of impact (%)**
Main parent's awareness of Language and Play	34		34	12	22
Base: All parents experiencing multiple disadvantage	*317*				
Base: All parents experiencing multiple disadvantage			*302*	*132*	-
Main parent's knowledge of Language and Play from a health visitor or member of health visiting team	18		18	2	16
Base: All parents experiencing multiple disadvantage	*317*				
Base: All parents experiencing multiple disadvantage			*262*	*122*	-
Whether main parent or their partner was asked to attend Language and Play	17		15	8	7*
Base: All parents experiencing multiple disadvantage	*317*				
Base: All parents experiencing multiple disadvantage			*294*	*121*	-

* Please note that this change is not statistically significant – results indicate no difference

Table D17: Indicative impact of Flying Start on lone parents' perceptions of contact with their health visitor and/or team

			Weighted results for impact analysis		
	Lone parents in Flying Start areas (%)		**Lone parents in Flying Start areas (%)**	**Estimate of the counterfactual from the matched lone parents comparison group (%)**	**Indication of impact (%)**
Ease of contacting health visitor easily most of the time	74		73	64	9
Base: All lone parents	*680*				
Base: All matched lone parents excluding those who responded don't know or refused			*613*	*322*	-
Rating of helpfulness of advice and support from health visitor as very helpful	64		64	56	8
Base: All lone parents	*686*				
Base: All matched lone parents excluding those who responded don't know or refused			*682*	*397*	-
Parents received enough support from their health visitor	76		76	72	4*
Base: All lone parents	*688*				
Base: All matched lone parents excluding those who responded don't know or refused			*681*	*395*	-

* Please note that this change is not statistically significant – results indicate no difference

Table D18: Indicative impact of Flying Start on first time parents' perceptions of contact with their health visitor and/or team

			Weighted results for impact analysis		
	First time parents in Flying Start areas (%)		**First time parents in Flying Start areas (%)**	**Estimate of the counterfactual from the matched first time parents comparison group (%)**	**Indication of impact (%)**
Ease of contacting health visitor easily most of the time	74		74	68	6*
Base: All first time parents	*658*				
Base: All matched first time parents excluding those who responded don't know or refused			*592*	*468*	-
Rating of helpfulness of advice and support from health visitor as very helpful	63		63	56	7
Base: All first time parents	*670*				
Base: All matched first time parents excluding those who responded don't know or refused			*761*	*715*	-
Parents received enough support from their health visitor	75		75	71	4*
Base: All first time parents	*673*				
Base: All matched first time parents excluding those who responded don't know or refused			*672*	*706*	-

* Please note that this change is not statistically significant – results indicate no difference

Table D19: Indicative impact of Flying Start on young parents' perceptions of contact with their health visitor and/or team

			Weighted results for impact analysis		
	Families in Flying Start areas (%)		**Families in Flying Start areas (%)**	**Estimate of the counterfactual from the matched young parents comparison group (%)**	**Indication of impact (%)**
Ease of contacting health visitor easily most of the time	72		71	64	7*
Base: All young parents	*651*				
Base: All matched young parents excluding those who responded don't know or refused			*574*	*320*	-
Rating of helpfulness of advice and support from health visitor as very helpful	62		62	53	9
Base: All young parents	*665*				
Base: All matched young parents excluding those who responded don't know or refused			*660*	*403*	-
Parents received enough support from their health visitor	76		76	69	7
Base: All young parents	*666*				
Base: All matched young parents excluding those who responded don't know or refused			*415*	*414*	-

* Please note that this change is not statistically significant – results indicate no difference

Table D20: Indicative impact of Flying Start on parents' experiencing multiple disadvantages' perceptions of contact with their health visitor and/or team

			Weighted results for impact analysis		
	Parents experiencing multiple disadvantage in Flying Start areas (%)		**Parents experiencing multiple disadvantage in Flying Start areas (%)**	**Estimate of the counterfactual from the parents experiencing multiple disadvantage matched comparison group (%)**	**Indication of impact (%)**
Ease of contacting health visitor easily most of the time	72		71	55	16
Base: All parents experiencing multiple disadvantage	*313*				
Base: All matched parents experiencing multiple disadvantage excluding those who responded don't know or refused			*280*	*109*	-
Rating of helpfulness of advice and support from health visitor as very helpful	62		62	51	11*
Base: All parents experiencing multiple disadvantage	*317*				
Base: All matched parents experiencing multiple disadvantage excluding those who responded don't know or refused			*298*	*135*	-
Parents received enough support from their health visitor	79		80	70	10*
Base: All parents experiencing multiple disadvantage	*316*				
Base: All matched parents			*301*	*134*	-

experiencing multiple disadvantage excluding those who responded don't know or refused					

* Please note that this change is not statistically significant – results indicate no difference

Table D21: Indicative impact of Flying Start on lone parents' rating of facilities for children and overall rating of advice and support from local services

			Weighted results for impact analysis		
	Lone parents in Flying Start areas (%)		**Lone parents in Flying Start areas (%)**	**Estimate of the counterfactual from the matched lone parents comparison group (%)**	**Indication of impact (%)**
Rating of the facilities, services and support available for families as very/fairly good	61		62	63	-1*
Base: All lone parents	*665*				
Base: All matched lone parents excluding those who responded don't know or refused			*598*	*363*	-
Rating of advice and support from services available locally on how to bring up baby as very/fairly good	65		66	59	7*
Base: All lone parents	*661*				
Base: All matched lone parents excluding those who responded don't know or refused			*580*	*340*	-

* Please note that this change is not statistically significant – results indicate no difference

Table D22: Indicative impact of Flying Start on first time parents' rating of facilities for children and overall rating of advice and support from local services

			Weighted results for impact analysis		
	First time parents in Flying Start areas (%)		**First time parents in Flying Start areas (%)**	**Estimate of the counterfactual from the matched first time parents comparison group (%)**	**Indication of impact (%)**
Rating of the facilities, services and support available for families as very/fairly good	67		66	64	2
Base: All first time parents	*653*				
Base: All matched first time parents excluding those who responded don't know or refused			*604*	*626*	-
Rating of advice and support from services available locally on how to bring up baby as very/fairly good	69		70	54	7*
Base: All first time parents	*653*				
Base: All matched first time parents excluding those who responded don't know or refused			*620*	*557*	-

Table D23: Indicative impact of Flying Start on young parents' rating of facilities for children and overall rating of advice and support from local services

			Weighted results for impact analysis		
	Young parents in Flying Start areas (%)		**Young parents in Flying Start areas (%)**	**Estimate of the counterfactual from the matched young parents comparison group (%)**	**Indication of impact (%)**
Rating of the facilities, services and support available for families as very/fairly good	63		64	57	7*
Base: All young parents	*643*				
Base: All matched young parents excluding those who responded don't know or refused			*599*	*368*	-
Rating of advice and support from services available locally on how to bring up baby as very/fairly good	68		69	54	15
Base: All young parents	*635*				
Base: All matched young parents excluding those who responded don't know or refused			*588*	*363*	-

* Please note that this change is not statistically significant – results indicate no difference

Table D24: Indicative impact of Flying Start on parents' experiencing multiple disadvantages' rating of facilities for children and overall rating of advice and support from local services

			Weighted results for impact analysis		
	Parents experiencing multiple disadvantage in Flying Start areas (%)		**Parents experiencing multiple disadvantage in Flying Start areas (%)**	**Estimate of the counterfactual from the matched parents experiencing multiple disadvantage comparison group (%)**	**Indication of impact (%)**
Rating of the facilities, services and support available for families as very/fairly good	61		61	62	-1*
Base: All parents experiencing multiple disadvantage	*307*				
Base: All matched parents experiencing multiple disadvantage excluding those who responded don't know or refused			*250*	*129*	-
Rating of advice and support from services available locally on how to bring up baby as very/fairly good	65		68	57	11*
Base: All parents experiencing multiple disadvantage	*308*				
Base: All matched parents experiencing multiple disadvantage excluding those who responded don't know or refused			*250*	*117*	-

* Please note that this change is not statistically significant – results indicate no difference

Table D25: Indicative impact of Flying Start on whether lone parent had enough advice and support in three key parenting aspects

			Weighted results for impact analysis		
	Lone parents in Flying Start areas (%)		**Lone parents in Flying Start areas (%)**	**Estimate of the counterfactual from the matched lone parents comparison group (%)**	**Indication of impact (%)**
Proportion saying they received enough advice and support on how to look after baby to keep to keep them happy and healthy	76		76	80	-4*
Base: All lone parents	*685*				-
Base: All matched lone parents excluding those who responded don't know or refused			*685*	*373*	
Proportion saying they received enough advice and support to help develop parent/child relationship	77		77	75	2*
Base: All lone parents	*682*				-
Base: All matched lone parents excluding those who responded don't know or refused			*674*	*397*	
Proportion saying they received enough advice and support to help their child reach full potential	71		71	59	12
Base: All lone parents	*683*				-
Base: All matched lone parents excluding those who responded don't know or refused			*555*	*328*	

* Please note that this change is not statistically significant – results indicate no difference

Table D26: Indicative impact of Flying Start on whether first time parent had enough advice and support in three key parenting aspects

			Weighted results for impact analysis		
	First time parents in Flying Start areas (%)		**First time parents in Flying Start areas (%)**	**Estimate of the counterfactual from the matched first time parents comparison group (%)**	**Indication of impact (%)**
Proportion saying they received enough advice and support on how to look after baby to keep to keep them happy and healthy	77		77	75	2*
Base: All first time parents	*671*				-
Base: All matched first time parents excluding those who responded don't know or refused			*669*	*605*	
Proportion saying they received enough advice and support to help develop parent/child relationship	78		78	75	3*
Base: All first time parents	*668*				
Base: All matched first time parents excluding those who responded don't know or refused			*663*	*705*	-
Proportion saying they received enough advice and support to help their child reach full potential	67		68	63	5*
Base: All first time parents	*665*				-
Base: All matched first time parents excluding those who responded don't know or refused			*578*	*536*	

* Please note that this change is not statistically significant – results indicate no difference

Table D27: Indicative impact of Flying Start on whether young parent had enough advice and support in three key parenting aspects

			Weighted results for impact analysis		
	Young parents in Flying Start areas (%)		**Young parents in Flying Start areas (%)**	**Estimate of the counterfactual from the matched young parents comparison group (%)**	**Indication of impact (%)**
Proportion saying they received enough advice and support on how to look after baby to keep to keep them happy and healthy	78		78	73	5*
Base: All young parents	*661*				
Base: All matched young parents excluding those who responded don't know or refused			*660*	*400*	-
Proportion saying they received enough advice and support to help develop parent/child relationship	78		79	75	4*
Base: All young parents	*660*				
Base: All matched young parents excluding those who responded don't know or refused			*657*	*404*	-
Proportion saying they received enough advice and support to help their child reach full potential	70		70	62	8*
Base: All young parents	*658*				
Base: All matched young parents excluding those who responded don't know or refused			*519*	*352*	-

* Please note that this change is not statistically significant – results indicate no difference

Table D28: Indicative impact of Flying Start on whether parent experiencing multiple disadvantage had enough advice and support in three key parenting aspects

			Weighted results for impact analysis		
	Parents experiencing multiple disadvantage in Flying Start areas (%)		**Parents experiencing multiple disadvantage in Flying Start areas (%)**	**Estimate of the counterfactual from the matched parents experiencing multiple disadvantage comparison group (%)**	**Indication of impact (%)**
Proportion saying they received enough advice and support on how to look after baby to keep to keep them happy and healthy	78		78	83	-5*
Base: All parents experiencing multiple disadvantage	*313*				
Base: All matched parents experiencing multiple disadvantage excluding those who responded don't know or refused			*296*	*126*	-
Proportion saying they received enough advice and support to help develop parent/child relationship	79		80	78	2*
Base: All parents experiencing multiple disadvantage	*312*				
Base: All matched parents experiencing multiple disadvantage excluding those who responded don't know or refused			*300*	*135*	-
Proportion saying they received enough advice and support to help their child reach full potential	74		76	56	20

Base: All parents experiencing multiple disadvantage	*311*				
Base: All matched parents experiencing multiple disadvantage excluding those who responded don't know or refused			*236*	*115*	-

* Please note that this change is not statistically significant – results indicate no difference

Table D29: Indicative impact of Flying Start on whether lone parent has tried to breastfeed

			Weighted results for impact analysis		
	Lone parents in Flying Start areas (%)		**Lone parents in Flying Start areas (%)**	**Estimate of the counterfactual from the matched lone parents comparison group (%)**	**Indication of impact (%)**
Attempted breastfeeding	38		38	31	7*
Base: All lone parents	*682*				
Base: All matched lone parents excluding those who responded don't know or refused			*559*	*335*	-

* Please note that this change is not statistically significant – results indicate no difference

Table D30: Indicative impact of Flying Start on whether first time parent has tried to breastfeed

			Weighted results for impact analysis		
	First time parents in Flying Start areas (%)		**First time parents in Flying Start areas (%)**	**Estimate of the counterfactual from the matched first time parents comparison group (%)**	**Indication of impact (%)**
Attempted breastfeeding	51		52	51	1*
Base: All first time parents	*644*				
Base: All matched first time parents excluding those who responded don't know or refused			*565*	*520*	-

* Please note that this change is not statistically significant – results indicate no difference

Table D31: Indicative impact of Flying Start on whether young parent has tried to breastfeed

			Weighted results for impact analysis		
	Young parents in Flying Start areas (%)		**Young parents in Flying Start areas (%)**	**Estimate of the counterfactual from the matched young parents comparison group (%)**	**Indication of impact (%)**
Attempted breastfeeding	40		40	32	8*
Base: All young parents	*653*				
Base: All matched young parents excluding those who responded don't know or refused			*521*	*363*	-

* Please note that this change is not statistically significant – results indicate no difference

Table D32: Indicative impact of Flying Start on whether parent experiencing multiple disadvantage has tried to breastfeed

			Weighted results for impact analysis		
	Parents experiencing multiple disadvantage in Flying Start areas (%)		**Parents experiencing multiple disadvantage in Flying Start areas (%)**	**Estimate of the counterfactual from the matched parents experiencing multiple disadvantage comparison group (%)**	**Indication of impact (%)**
Attempted breastfeeding	32		32	22	10*
Base: All parents experiencing multiple disadvantage	*312*				
Base: All matched parents experiencing multiple disadvantage excluding those who responded don't know or refused			*213*	*121*	-

* Please note that this change is not statistically significant – results indicate no difference

Table D33: Indicative impact of Flying Start on whether lone parent is able to breastfeed

			Weighted results for impact analysis		
	Lone parents in Flying Start areas (%)		**Lone parents in Flying Start areas (%)**	**Estimate of the counterfactual from the matched lone parents comparison group (%)**	**Indication of impact (%)**
Ability to breastfeed	30		30	27	3*
Base: All lone parents	*682*				
Base: All matched lone parents excluding those who responded don't know or refused			*681*	*360*	-

* Please note that this change is not statistically significant – results indicate no difference

Table D34: Indicative impact of Flying Start on whether first time parent is able to breastfeed

			Weighted results for impact analysis		
	First time parents in Flying Start areas (%)		**First time parents in Flying Start areas (%)**	**Estimate of the counterfactual from the matched first time parents comparison group (%)**	**Indication of impact (%)**
Ability to breastfeed	41		41	39	2*
Base: All first time parents	*644*				
Base: All matched first time parents excluding those who responded don't know or refused			*643*	*583*	-

* Please note that this change is not statistically significant – results indicate no difference

Table D35: Indicative impact of Flying Start on whether young parent is able to breastfeed

			Weighted results for impact analysis		
	Young parents in Flying Start areas (%)		**Young parents in Flying Start areas (%)**	**Estimate of the counterfactual from the matched young parents comparison group (%)**	**Indication of impact (%)**
Ability to breastfeed	31		31	29	2*
Base: All young parents	*653*				
Base: All matched young parents excluding those who responded don't know or refused			*651*	*393*	-

* Please note that this change is not statistically significant – results indicate no difference

Table D36: Indicative impact of Flying Start on whether parent experiencing multiple disadvantage is able to breastfeed

			Weighted results for impact analysis		
	Parents experiencing multiple disadvantage in Flying Start areas (%)		**Parents experiencing multiple disadvantage in Flying Start areas (%)**	**Estimate of the counterfactual from the matched parents experiencing multiple disadvantage comparison group (%)**	**Indication of impact (%)**
Ability to breastfeed	25		24	17	7*
Base: All parents experiencing multiple disadvantage	*312*				
Base: All matched parents experiencing multiple disadvantage excluding those who responded don't know or refused			*298*	*127*	-

* Please note that this change is not statistically significant – results indicate no difference

Table D37: Indicative impact of Flying Start on weaning age of infants among lone parents

			Weighted results for impact analysis		
	Lone parents in Flying Start areas (%)		**Lone parents in Flying Start areas (%)**	**Estimate of the counterfactual from the matched lone parents comparison group (%)**	**Indication of impact (%)**
Weaning age of infants between 5-7 months	43		43	42	1*
Base: All lone parents	*689*				
Base: All matched lone parents			*676*	*388*	-

* Please note that this change is not statistically significant – results indicate no difference

Table D38: Indicative impact of Flying Start on weaning age of infants among first time parents

			Weighted results for impact analysis		
	First time parents in Flying Start areas (%)		**First time parents in Flying Start areas (%)**	**Estimate of the counterfactual from the matched first time parents comparison group (%)**	**Indication of impact (%)**
Weaning age of infants between 5-7 months	49		50	49	1*
Base: All first time parents	*673*				
Base: All matched first time parents			*655*	*669*	-

* Please note that this change is not statistically significant – results indicate no difference

Table D39: Indicative impact of Flying Start on weaning age of infants among young parents

			Weighted results for impact analysis		
	Young parents in Flying Start areas (%)		**Young parents in Flying Start areas (%)**	**Estimate of the counterfactual from the matched young parents comparison group (%)**	**Indication of impact (%)**
Weaning age of infants between 5-7 months	44		45	45	0*
Base: All young parents	*666*				
Base: All matched young parents			*647*	*405*	-

* Please note that this change is not statistically significant – results indicate no difference

Table D40: Indicative impact of Flying Start on weaning age of infants among parents experiencing multiple disadvantage

			Weighted results for impact analysis		
	Parents experiencing multiple disadvantage in Flying Start areas (%)		**Parents experiencing multiple disadvantage in Flying Start areas (%)**	**Estimate of the counterfactual from the matched parents experiencing multiple disadvantage comparison group (%)**	**Indication of impact (%)**
Weaning age of infants between 5-7 months	42		44	34	10*
Base: All parents experiencing multiple disadvantage	*317*				
Base: All matched parents experiencing multiple disadvantage			*287*	*137*	-

* Please note that this change is not statistically significant – results indicate no difference

Table D41: Indicative impact of Flying Start on whether baby had immunisations among lone parents

			Weighted results for impact analysis		
	Lone parents in Flying Start areas (%)		**Lone parents in Flying Start areas (%)**	**Estimate of the counterfactual from the matched lone parents comparison group (%)**	**Indication of impact (%)**
Babies in receipt of three doses of the combined diphtheria, tetanus and whooping cough vaccinations, the polio vaccination and the haemophilias influenza B vaccination[15]	89		89	88	1*
Base: All lone parents	*669*				
Base: All matched lone parents excluding those who responded don't know or refused			*654*	*372*	-
Babies up to date with pneumococcal conjugate vaccine (PCV), meningitis C, measles, mumps and rubella immunisations [16]	72		72	74	-2*
Base: All lone parents with a child aged 14 months or over	*363*				
Base: All matched lone parents with a child aged 14 months or over excluding those who responded don't know or refused			*361*	*185*	-

* Please note that this change is not statistically significant – results indicate no difference

[15] All babies in our sample should have received all of these immunisations.
[16] Please note babies will receive the MMR vaccine between 12-13 months, so we have only included parents with a child aged 14 months or over in the impact analysis for this group of vaccines.

Table D42: Indicative impact of Flying Start on whether baby had immunisations among first time parents

			Weighted results for impact analysis		
	First time parents in Flying Start areas (%)		**First time parents in Flying Start areas (%)**	**Estimate of the counterfactual from the matched first time parents comparison group (%)**	**Indication of impact (%)**
Babies in receipt of three doses of the combined diphtheria, tetanus and whooping cough vaccinations, the polio vaccination and the haemophilias influenza B vaccination[17]	89		89	91	-2*
Base: All first time parents	*656*				
Base: All matched first time parents excluding those who responded don't know or refused			*654*	*622*	-
Babies up to date with pneumococcal conjugate vaccine (PCV), meningitis C, measles, mumps and rubella immunisations [18]	74		74	80	-6*
Base: All first time parents with a child aged 14 months or over	*344*				
Base: All matched first time parents with a child aged 14 months or over excluding those who responded don't know or refused			*340*	*337*	-

* Please note that this change is not statistically significant – results indicate no difference

[17] All babies in our sample should have received all of these immunisations.
[18] Please note babies will receive the MMR vaccine between 12-13 months, so we have only included parents with a child aged 14 months or over in the impact analysis for this group of vaccines.

Table D43: Indicative impact of Flying Start on whether baby had immunisations among young parents

			Weighted results for impact analysis		
	Young parents in Flying Start areas (%)		**Young parents in Flying Start areas (%)**	**Estimate of the counterfactual from the matched young parents comparison group (%)**	**Indication of impact (%)**
Babies in receipt of three doses of the combined diphtheria, tetanus and whooping cough vaccinations, the polio vaccination and the haemophilias influenza B vaccination[19]	88		88	88	0*
Base: All young parents	*646*				
Base: All matched young parents excluding those who responded don't know or refused			*622*	*395*	-
Babies up to date with pneumococcal conjugate vaccine (PCV), meningitis C, measles, mumps and rubella immunisations [20]	73		73	74	-1*
Base: All young parents with a child aged 14 months or over	*337*				
Base: All matched young parents with a child aged 14 months or over excluding those who responded don't know or refused			*337*	*185*	-

* Please note that this change is not statistically significant – results indicate no difference

[19] All babies in our sample should have received all of these immunisations.
[20] Please note babies will receive the MMR vaccine between 12-13 months, so we have only included parents with a child aged 14 months or over in the impact analysis for this group of vaccines.

Table D44: Indicative impact of Flying Start on whether baby had immunisations among parents experiencing multiple disadvantage

			Weighted results for impact analysis		
	Parents experiencing multiple disadvantage in Flying Start areas (%)		**Parents experiencing multiple disadvantage in Flying Start areas (%)**	**Estimate of the counterfactual from the matched parents experiencing multiple disadvantage comparison group (%)**	**Indication of impact (%)**
Babies in receipt of three doses of the combined diphtheria, tetanus and whooping cough vaccinations, the polio vaccination and the haemophilias influenza B vaccination[21]	90		90	86	4*
Base: All parents experiencing multiple disadvantage	*312*				
Base: All matched parents experiencing multiple disadvantage excluding those who responded don't know or refused			*290*	*128*	-
Babies up to date with pneumococcal conjugate vaccine (PCV), meningitis C, measles, mumps and rubella immunisations [22]	76		77	61	16*
Base: All parents experiencing multiple disadvantage with a child aged 14 months or over	*173*				
Base: All matched parents experiencing multiple disadvantage with a child aged 14 months or over excluding those who responded don't know or			*153*	*58*	-

[21] All babies in our sample should have received all of these immunisations.
[22] Please note babies will receive the MMR vaccine between 12-13 months, so we have only included parents with a child aged 14 months or over in the impact analysis for this group of vaccines.

refused					

* Please note that this change is not statistically significant – results indicate no difference

Table D45: Indicative impact of Flying Start on reading and singing to children among lone parents

			Weighted results for impact analysis		
	Lone parents in Flying Start areas (%)		**Lone parents in Flying Start areas (%)**	**Estimate of the counterfactual from the matched lone parents comparison group (%)**	**Indication of impact (%)**
Reading/looking at books with baby at least once a day	46		47	50	-3*
Base: All lone parents	*660*				
Base: All matched lone parents excluding those who responded don't know or refused			*643*	*360*	-
Singing songs/nursery rhymes to baby at least once a day	72		74	72	2*
Base: All lone parents	*666*				
Base: All matched lone parents excluding those who responded don't know or refused			*601*	*326*	-

* Please note that this change is not statistically significant – results indicate no difference

Table D46: Indicative impact of Flying Start on reading and singing to children among first time parents

			Weighted results for impact analysis		
	First time parents in Flying Start areas (%)		**First time parents in Flying Start areas (%)**	**Estimate of the counterfactual from the matched first time parents comparison group (%)**	**Indication of impact (%)**
Reading/looking at books with baby at least once a day	55		55	55	0*
Base: All first time parents	*647*				
Base: All matched first time parents excluding those who responded don't know or refused			*635*	*598*	-
Singing songs/nursery rhymes to baby at least once a day	75		76	71	5*
Base: All first time parents	*649*				
Base: All matched first time parents excluding those who responded don't know or refused			*616*	*528*	-

* Please note that this change is not statistically significant – results indicate no difference

Table D47: Indicative impact of Flying Start on reading and singing to children among young parents

			Weighted results for impact analysis		
	Young parents in Flying Start areas (%)		**Young parents in Flying Start areas (%)**	**Estimate of the counterfactual from the matched young parents comparison group (%)**	**Indication of impact (%)**
Reading/looking at books with baby at least once a day	49		49	47	2*
Base: All young parents	*641*				
Base: All matched young parents excluding those who responded don't know or refused			*624*	*378*	-
Singing songs/nursery rhymes to baby at least once a day	70		71	73	-2*
Base: All young parents	*646*				
Base: All matched young parents excluding those who responded don't know or refused			*598*	*368*	-

* Please note that this change is not statistically significant – results indicate no difference

Table D48: Indicative impact of Flying Start on reading and singing to children among parents experiencing multiple disadvantage

			Weighted results for impact analysis		
	Parents experiencing multiple disadvantage in Flying Start areas (%)		**Parents experiencing multiple disadvantage in Flying Start areas (%)**	**Estimate of the counterfactual from the matched parents experiencing multiple disadvantage comparison group (%)**	**Indication of impact (%)**
Reading/looking at books with baby at least once a day	41		42	47	-5*
Base: All parents experiencing multiple disadvantage	*303*				
Base: All matched parents experiencing multiple disadvantage excluding those who responded don't know or refused			*282*	*120*	-
Singing songs/nursery rhymes to baby at least once a day	64		67	63	4*
Base: All parents experiencing multiple disadvantage	*305*				
Base: All matched parents experiencing multiple disadvantage excluding those who responded don't know or refused			*269*	*111*	-

* Please note that this change is not statistically significant – results indicate no difference

Appendix E - Variables used in matching

Respondent level survey variables

- Q7 – Household size
- Q9 – Age
- Q10 – Gender
- Q11 – Household composition
- Q11 – Couple or lone-parent.
  - Lone-parent: Code 1 'partner/spouse' not coded at any iteration of q11.
  - Couple: Code 1 'partner/spouse' is coded at any iteration of q11.
- Q11 – First time parent vs. those with other children.
  - First time parent: Code 3, 4, 5 or 6 coded once only at all iterations of q11.
  - Not first time parent: Code 3, 4, 5 or 6 coded twice or more at all iterations of q11.
- Q11 – Number of children in household.
  - 1 child in household: Code 3, 4, 5 or 6 coded once only at all iterations of q11.
  - 2 children in household: Code 3, 4, 5 or 6 coded twice at all iterations of q11.
  - 3+ children in household: Code 3, 4, 5 or 6 coded three or more times only at all iterations of q11.
- Q11 - Number of children aged 4 or under in household.
  - 1 child in household aged 4 or younger: Code 3, 4, 5 or 6 coded once only at all iterations of q11 AND 4 or under at q9.
  - 2 children in household aged 4 or younger: Code 3, 4, 5 or 6 coded twice at all iterations of q11 AND 4 or under at q9 for 2 children.
  - 3+ children in household aged 4 or younger: Code 3, 4, 5 or 6 coded three or more times only at all iterations of q11 AND 4 or under at q9 for three children.
- Q14/15 – Baby relationship to partner/whether baby has an adopted parent
- Q17 – Length of current relationship

- Q18c – National identity
- Q19 - Ethnicity
- Q20 – Languages speak at home
- Q21/22 – Whether born in UK or elsewhere and year arrived in the country
- Q23 – Gestation period
- Q24-26 – Birth weight
- Q43/45 – Parents long-standing illness, disability or infirmity
- Q49 – Smoking prior to pregnancy
- Q50-52 – Whether changed amount smoked during pregnancy
- Q82-87 – Main carer's family background. Mother/father still alive? Ever live away from parents?
- Q96 – If ever in a relationship with biological parent and how long for
- Q165 – Work status when fell pregnant
- Q168-178 – NS-SEC
- Q183 – Car use
- Q184/5 – Qualifications
- Q190-192 – Tenure
- Q193-194 – Number of rooms
- Q187/Q188 – Reading and numeracy skills.

Area level matching variables (data from secondary sources)

- Welsh IMD overall score, scores for individual domains and underlying variables
- Population density
- Rurality
- Percentage of adults with no qualifications
- Percentage of population unemployed
- Percentage of population working
- Percentage of population of working age claiming benefits
- Percentage of households owner occupied
- Percentage of households council owned
- Percentage of ethnic minority population

- Percentage of births to teen mothers
- Percentage of adults with long-term illness
- Infant mortality
- Percentage of children aged 7 achieving level 2 in Key Stage 1 English
- Percentage of children aged 7 achieving level 2 in Key Stage 1 Maths
- Percentage of children aged 7 achieving level 2 in Key Stage 1 Science