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# Increasing Healthy Start food and vitamin voucher uptake for low income pregnant women (Early Years Collaborative Leith Pioneer Site)

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## Abstract

Poverty has a detrimental impact on health and wellbeing. Healthy Start food and vitamin vouchers provide support for low income families across the UK, but at least 25% of eligible women and children miss out. We set out to increase uptake, with an aim of 90% of eligible women and children (n~540 eligible, varying over time) receiving vouchers in the initial team's catchment area by December 2015.

Starting with one midwife and one pregnant woman in March 2014 we used the model for improvement to identify ways to improve documentation, sign up, and referral. Weekly data on process measures and monthly data on voucher receipt were plotted on run charts.

Comparing medians for January-June 2014 and March-August 2015 there was a 13.3% rise in voucher receipt in Lothian (increase from 313 to 355 women), versus an 8.4% decline for the rest of Scotland (fall from 1688 to 1546 women). Figures varied by team, influenced by staff, family, and area factors. The initial aim proved unrealistic, as signing up a woman for vouchers increases both the numerator and denominator. Accordingly, the percentage uptake has not increased at a regional level (remains at 75%), though the figure for the initiating team ("team 3" in graphs) has increased from 73.0% (January 2014) to 79.0% (November 2015). We have continued testing, achieving recent increases in the number of women referred for welfare rights advice on benefits, tax credits, employment rights, childcare, and debt, securing on average £4,500 per client during 2015/16 (£404k for 89 clients by mid September 2015).

This improvement project, part of the Early Years Collaborative in Scotland, has had a measureable impact on pregnant women across Lothian. Success has relied on testing, an electronic maternity record, rapid dissemination of findings through direct engagement with clinical teams, and persistence. Our findings have relevance across the UK, particularly at a time of worsening finances for many families.

## Problem

Healthy Start is a UK wide food and vitamin voucher scheme for low income pregnant women and families, and pregnant women under 18 years of age regardless of financial circumstances. Across the UK around 1/4 eligible pregnant women and families with children miss out on vouchers. Healthy Start is one of the simplest parts of the UK benefit system. A pregnant woman or family with child(ren) under four years old completes an application form that is countersigned by a midwife, health visitor, general practitioner, or practice nurse. Preliminary information in our area (Edinburgh, Lothian, Scotland, United Kingdom), showed that practice varied. Monthly data on Healthy Start voucher receipt and eligibility are available from Department of Health, at postcode sector level. There is considerable variation in voucher receipt, even in areas of highest entitlement where word of mouth sharing between families and wider acceptance of vouchers in local shops may be expected to maximise uptake. Understanding the support required to boost voucher receipt will help us improve support for low income families.

## Background

Across the UK around 28% of children live in poverty.[1] Food poverty is increasing.[2] Poverty has immediate and long term negative consequences for health and wellbeing. Healthy Start vouchers are an important source of support for pregnant women and children, with vouchers worth up to £899 if eligible from week 10 of pregnancy up until the child's 4th birthday.[3] Work in other areas has highlighted the importance of welfare rights advice in supporting low income families to access their entitlements and other support (e.g. NHS Glasgow and Clyde's Healthier Wealthier Children).[4] However, across the UK at least 25% eligible women and children do not receive Healthy Start vouchers, and that figure has remained static for many years.

## Baseline measurement

The improvement work started in March 2014. In February 2014, 294 women were in receipt of vouchers in Lothian (source: Department of Health data on voucher receipt).

Process measures were also available from the NHS Lothian maternity electronic patient record (Trak) for the first 12 weeks of 2014, during which period 2,767 women booked for antenatal care:

- 72.3% of women had documentation of Healthy Start eligibility

- 13.9% women considered themselves eligible for Healthy Start

- 56.6% had documentation of questions about debt and money

worries

- 0.9% had documentation of referral for welfare rights advice.

## Design

We used the Model for Improvement, taught to the Early Years Collaborative by the Institute for Healthcare Improvement, to test small changes with an individual midwife and pregnant woman. Identifying areas for improvement we retested. On establishing a streamlined process we surveyed other midwives to assess existing practice. We shared the redesigned process with other teams. We used a Pareto chart to document reasons for not receiving vouchers at return appointment at 16 weeks of pregnancy.

## Strategy

PDSA cycle 1. Our initial focus was on the steps required for a pregnant woman to receive vouchers by 10 weeks of pregnancy. By starting at the level of individual woman/midwife, we found that the midwife had built in unnecessary steps in an attempt to avoid signing up women with non-viable pregnancy, or to reduce fraud, that had been delaying sign up into the second or third trimester. We established that the midwife did not need to assess the woman's financial circumstances (i.e. eligibility): she simply needed to confirm that the woman had consulted the midwife about her pregnancy. The midwife did not need the woman to complete the form before countersigning the form: she just needed to confirm that the details about any children were correct. These extra steps delayed and reduced sign up.

PDSA cycle 2. Retesting with the next woman who considered herself eligible for Healthy Start, the midwife was able to complete her section of the form without complication. However, on checking at the 16 week appointment, the pregnant woman had not completed her section of the form. Collecting information from women at the 16 week appointment we were able to confirm problems in completing the woman's section of the form (e.g. low literacy, application form not posted, wrong colour ink used, application rejected, partner did not want to complete their section of form). We used a Pareto chart to document and assess these reasons. In order to support women with completing the form we worked with a local adult literacy programme in the area.

PDSA cycle 3. Having established that half the midwives in the initiating team had also built these unnecessary steps into the sign up process, we conducted a survey of community midwives in the neighbouring team, and then across the whole region (n=61 responses in total), which showed that half of midwives had built in similar unnecessary steps. The results of the survey were shared with all ten teams, along with information about the simplified sign up process, by email. The information explained how to record eligibility on the electronic patient record, how to complete the application form and gain additional support if required, and provided a flowchart. Process measures (documentation and level of sign up) from the electronic patient record did not improve in the weeks following the survey and email.

PDSA cycle 4. Over subsequent weeks the process and team level data and advice were shared in community midwife team meetings. Data on voucher receipt were shared regularly, and in increasing detail, including postcode sector level data. Process measures and then voucher receipt increased in teams following the team visit, but that improvement was not always sustained.

Exploring the primary and secondary drivers with midwives and other community organisations, it was clear that there was some demoralisation within teams about the continuing challenges of supporting women to complete their section of the application form. Accordingly, following a successful application to the Scottish Legal Aid Board for funding, we introduced welfare rights adviser posts to support 3/10 community midwife teams.

PDSA cycle 5. Women were initially slow to uptake offer of referral for welfare rights advice. Collocation with antenatal services and other local organisations supporting families, and a move to email referral (with honorary contract and NHS.net email to ensure confidentiality) led to an increase in referrals. Text reminders appeared to boost attendance, while a letter reminder did not.

## Results

Process measures improved (figure 1), for the initiating team (team 3) and for Lothian overall. For the 12 weeks with most recent data (17 August - 6 November 2015), during which period 2,646 women booked for antenatal care, for Lothian overall:

- 95.8% of women had documentation of Healthy Start eligibility

- 19.3% women considered themselves eligible for Healthy Start

- 72.5% had documentation of questions about debt and money worries

- 6.3% had documentation of referral for welfare rights advice.

Having weekly process data, extracted routinely from maternity records, allowed teams to see the impact of their earliest testing very rapidly. These questions were already included on the national handheld record (Scottish Woman Held Maternity Record) and the local electronic maternity record (Trak) includes the same questions. Asking all women about eligibility for Healthy Start, and documenting the answer, identified more women as being potentially eligible for vouchers. For team 3 the percentage of women eligible for Healthy Start at antenatal booking (based on self report) increased from a median of 8.7% to 19.7% by April 2014. By August 2014, however, midwives in team 3 reported that many women had not received vouchers, and started to question whether they were signing up women who were not eligible. The percentage of women recorded as eligible for Healthy Start stablilised at 13.9% at that point, and has remained at that level ever since. Asking about Healthy Start, and documenting the response, has become a routine part of antenatal care in team 3. Similar patterns have been seen in teams across Lothian and, as illustrated in figure 1, at whole area level. The welfare rights advice data, also shown in figure 1, are explored further below.

The number of women in receipt of vouchers in Lothian increased, peaking at 368 during July 2015, with a corresponding upward shift on the run chart from March 2015 onwards (figure 2). Using run chart rules, shifts are shown by a change in median (red central line), trends with red ovals. In comparison, the figures for the rest of Scotland have fallen, with a downward shift on the run chart from January 2015 onwards. Comparing medians for January-June 2014 and March-August 2015 there was a 13.3% rise in voucher receipt in Lothian (increase from 313 to 355 women), versus an 8.4% decline for the rest of Scotland (fall from 1688 to 1546 women). The number of pregnant women in Lothian has not changed substantially over the period studied.

The results have varied by team (figure 2). Teams 3 and 5 have shown recent upward trends in voucher receipt, coinciding with the appointment of welfare rights advisers in the area. Team 2, whose team lead was also involved in the Early Years Collaborative, saw an increase in voucher receipt during the first months of 2014, but not meeting run chart rules for an upward trend; the median was recalculated after 12 data points, with a modest upward shift that has been maintained. Team 4 also saw an upward shift after 12 data points, coinciding with direct input from the welfare rights advice team in December 2014. While most areas of Lothian are quite mixed in terms of socioeconomic status, teams 7 and 8 cover more affluent areas, with smaller pockets of deprivation. These areas had a lower level of uptake initially (percentage of eligible families in receipt of vouchers) but saw rapid increases in voucher receipt for pregnant women on establishing new processes at the antenatal booking appointment. Reasons for potential decline in voucher receipt in these two areas subsequently are explored below. Teams 1 and 6 have seen considerable change, with demolition/new housing and demographic changes making further interpretation challenging (area and family factors). Further testing is being undertaken in both areas. Teams 9 and 10 cover a single local authority area, but with differences in access to services and changes in demographics (area and family factors).

Despite the overall improvement in Lothian (upward shift), there has more recently been a downward trend in voucher receipt, with the number of women in receipt falling from 368 in July 2015 to 336 by November 2015 (figure 2). This is thought to be due to a change in the application process at a UK level, with applications received before ten weeks now rejected by the national Healthy Start office (previously applications received at eight or nine weeks of pregnancy were held and processed at ten weeks). We are, accordingly, in the process of changing our application process locally. The rest of Scotland has seen a corresponding downward shift. This more recent decline in voucher receipt at a Lothian level has not been observed in all teams. Teams 3 and 5 have sustained their increase, while other teams have shown a rapid decline. This has led to a further round of testing. Teams 7 and 8, for example, which had had great success in signing up women in the first 18 months by focusing on sign up at the antenatal booking appointment (typically before ten weeks), have predictably seen their voucher receipt decline rapidly as a result of the recent change in rules prior to ten weeks.

Results can also vary within a team's catchment area. Figure 3 shows number of women in receipt of vouchers for the originating team (team 3), in descending order from the postcode sector area with greatest entitlement (PCA) as assessed by number of women and children eligible, to the area with lowest entitlement (PCG). Areas with fewer than 30 women and children eligible have not been included in this figure. The postcode area with highest entitlement (PCA), where the midwife conducting the first tests was based, saw early gains followed by a rapid fall as midwives became demoralised about the number of rejected applications; the introduction of local welfare rights advice for pregnant women and families has increased confidence and successful applications. The neighbouring area (PCB) also saw an early increase followed by a fall that has not recovered. Having a framework to discuss reasons for a change in results (improvement or fall) at team or locality level is important, and we have simplified the driver diagram to make this possible, based on experiences with different teams, as described above (figure 4). This will form the basis of planning and then testing in postcode sector B (PCB) in figure 3, which sits in two midwife teams' catchment area.

The overall aim of this work was that 90% eligible women and children in team 3's area would be in receipt of vouchers by December 2015 ("uptake"). Department of Health does not report percentage uptake for pregnant women and children separately, presumably because of the limitations in data described below. Uptake for Lothian overall has remained static over the period of study at between 74 and 75%. While we are not currently meeting the aim in the initiating team (team 3), we have seen an increase from 73.0% (452/619) in Jan 2014 to 79.0% (392/496) in November 2015 with an associated upward shift (figure 5). We identified during the course of this work that Department of Health data (sourced from Department for Work and Pensions and Her Majesty's Revenue and Customs), on which the aim is based, have important limitations. They will not typically know that a woman is pregnant until the Healthy Start application is made, in contrast to children where eligibility is documented through other entitlements such as Child Benefit, which have almost universal coverage soon after birth. Signing a pregnant woman up for Healthy Start therefore increases both the numerator and denominator for this measure, so the percentage uptake increases much more slowly than expected. The number of children also greatly exceeds the number of children in receipt. Refocusing the aim for this maternity work, we are now aiming for 400 women to be in receipt of Healthy Start vouchers in Lothian by June 2016.

Figure 6 shows the Pareto chart for data collected at the 16 week appointment, for apparently eligible women who were not in receipt of vouchers. Having signed the women up at the antenatal booking appointment (typically before ten weeks), the midwives found that women struggled to complete the application and/or post the form, experienced delays in hearing back, or had their application rejected. Others had not thought they were eligible at booking. These findings were used to support the case for more welfare rights advice in the area, working with NHS, education colleagues, and the voluntary sector, with a successful application to the Scottish Legal Aid Board. Welfare rights advisers took up post in the team 3 area February 2015, extending to team 5 more recently. This welfare rights advice service has reported on outcomes to mid

September 2015. In total 89 women and families had been referred up to this point, with projected financial gain of £404,000, an average of £4,500 per client for 2015/16. Main gains were through unclaimed entitlements, housing, childcare, and debt advice, so projected sums are likely to be close to the actual sums secured; some women and families were also supported to apply for hardship funds, which are approved on a discretionary basis.

Documentation and referrals for welfare rights advice for team 3 and Lothian overall, as recorded on the maternity electronic record, are shown in figure 1. In common with the Healthy Start work, we observed an improvement in documentation and an increase in referrals in team 3. We have not yet seen an equivalent increase in referrals in other teams, though referral details for existing welfare rights advice have been shared in each area. This has become an important focus for testing in each team, boosted by the initial results on financial gain from team 3.

See supplementary file: ds7216.pdf - “Healthy Start figures 1-6”

## Lessons and limitations

This work has demonstrated that low income pregnant women need support to apply for entitlements during pregnancy. Healthy Start is one of the simplest parts of the welfare system, but sign up was poorly understood and completed. Even when midwives had mastered their part of the sign up process, women frequently needed more support to complete the application.

We rapidly identified areas for improvement (March - April 2014), but sharing improvement with other teams relied on face to face discussions rather than email, and sharing team and postcode sector level data on a monthly basis. Sharing learning with other teams meant that there was less time to test new ideas and continue to produce team level reports, so increases in voucher receipt were not sustained in some teams. This observation led to a greater focus on keeping data up to date, sharing local results with all teams, and providing tools to plan next steps (see figure 4 for an adapted version of the driver diagram, which acts as a prompt for discussion within the team). We are now working on automating data sharing and learning skills in improvement science within teams. A more complex project would require dedicated project management, analyst and administration time.

These observations apply equally to sharing the approach with other parts of Scotland. While the findings and analytic approaches have been shared widely across Scotland, from May 2014 onwards, the increase in voucher receipt has not been repeated for the rest of Scotland. Sharing learning at a conference or committee or cascading materials by email should not be expected to drive improvement. Department of Health data are available by postcode sector across the whole of Scotland and the rest of the UK, so the outcome data presented here could potentially be automated more widely, but would require details about team breakdown by postcode sector.

The downward trend in voucher receipt observed in our area from July – November 2015 appears to be due to a change in the way applications are processed centrally. This illustrates the need for ongoing monitoring and testing, and the fragile nature of improvement work. It also illustrates the power of up to date local data. We were able to work through the different options using figure 4. With no apparent changes in staff, family, or area factors we could narrow our focus onto process factors (in this case the processing of applications in the UK central office). Information from midwives and women helped identify potential causes. Phoning up the central office confirmed the change in the processing of applications centrally, and we fed this information to government colleagues who had not known of the change either.

Starting again, we would have chosen a different aim focusing on a count (number of women in receipt of vouchers) rather than percentage uptake. Refocusing the aim is a legitimate part of improvement work.[5] Ultimately, of course, the intention is that no eligible women and children miss out on Healthy Start vouchers.

This work has relevance to staff working with pregnant women and families across the UK. Healthy Start, and the other benefits and entitlements mentioned here, are available to low income women and families across the UK. The work described here could be repeated in other areas, though not all areas will have electronic maternity data used to report on process measures. Furthermore, the monthly outcome data, available across the UK, potentially provide an insight into important aspects of maternal and child poverty. As demonstrated in this work, low income women and families struggle to apply for Healthy Start without coordinated support, and are vulnerable to even small rule changes in the welfare system.

Wider lessons, for colleagues starting an improvement project, include: the need to start small (single midwife, single patient); meet and work with teams rather than simply email them or discuss with team leads; keep testing and thinking ahead; share up to date team level data with teams and partner organisations; break down the barriers between organisations. These are consistent with the Institute for Healthcare Improvement "high impact" leadership behaviours of Person-centredness; Front Line Engagement; Relentless Focus; Transparency; Boundarilessness.[6]

## Conclusion

We have achieved an increase in the number of women receiving Healthy Start food and vitamin vouchers for Lothian overall (13.3% increase), at a time when voucher receipt has fallen for the rest of the country (8.4% decrease). Success relied on understanding the process, testing improvements, sharing team and small area data, and employing welfare rights advisers. The benefits have extended beyond the Healthy Start programme, to boost family budgets attending a welfare rights adviser by an average of £4,500. These successes are achievable across the UK, as the benefits, tax credits, and other supports are available UK-wide, and there are lessons here for early years workers and families interacting with welfare systems across the world.

## References

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## Declaration of interests

None to declare

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## Ethical approval

According to the policy activities that constitute research in NHS Lothian this work met criteria for operational improvement activities exempt from ethics review. We used the following criteria for determining if improvement activities require ethics review. Policy criterion: The work is primarily intended to improve local care and supporting activities, not provide generalisable knowledge in a field of inquiry. Explanation: The work reported here meets this criterion because documentation of money worries, application for Healthy Start and referral for welfare rights advice is already included in the national antenatal care pathway. We sought to improve the offer and uptake among pregnant women, as part of routine antenatal care.