



**Rose Vouchers for Fruit and Veg  
Project Impact and Outcomes Report**

April 2023

## About Alexandra Rose Charity

Founded in 1912 by Queen Alexandra, Alexandra Rose Charity was established to support Londoners in poverty. Our mission now is to give families on low incomes access to fresh fruit and veg in their local communities. In 2014, we launched the Rose Vouchers for Fruit and Veg Project, which helps families buy fresh fruit and veg and supports them to give their children the healthiest possible start. At the time of this report's publication we have supported over 8,000 families.

## Thanks to

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# Executive Summary

The UK is currently in the midst of a crisis in children's nutrition, with 20 years of high childhood obesity levels, rising food insecurity, and a lack of affordable healthy food. Since 2014, Alexandra Rose Charity has sought to intervene in this crisis by supporting families with low incomes across the UK to access food by funding food vouchers that are then distributed by community hubs and spent at local street markets and retailers. £2.1m worth of fresh fruit and vegetables have been bought with Rose Vouchers supporting over 9,580 families, including 17,850 children, to access a healthy diet and avoid food insecurity.

The Charity established its Theory of Change in 2019, which mapped the project's impact on families, including food habit changes that result from increased fruit and vegetable intake. Evidence to support the Theory of Change has come from previous evaluations into family food and shopping habits. However, drawbacks were noted in the tools and the low return participation of past evaluations, which affected confidence in findings. At the same time there have been several economic and public health shocks since 2019, including the COVID-19 pandemic and ongoing cost-of-living crisis. This study sought to test key outcomes and establish any gaps, alongside a more robust toolkit to assess food intake changes (short-form food frequency questionnaire).

This research has established in greater detail the impacts of Rose Vouchers on dietary quality and health in the largest area of distribution, the London Borough of Southwark. Rose Vouchers have far-reaching impacts on family diet, health, and wellbeing that can be summarised under the following themes:

**1. Relieving the cost of fruit and vegetables has a strong multiplier effect on wellbeing for parents and carers, including reduced financial stress and increased creativity and enjoyment in cooking.**

Families report that Rose Vouchers cover most or all of their fruit and vegetable costs which 86% of parents and carers report reduces stress and anxiety around finances; Parents and carers can 'make a meal' out of Rose Vouchers, in comparison to similar initiatives. By changing family consumer frameworks around fruit and vegetables from one of cost effectiveness and shelf-life to one of nutritional variety and choice, parents and carers experiment more with food and recipes, resulting in more joy and creativity in food-making. Consequently, parents and carers build more confidence in cooking and feel less stress around food preparation, allowing children into food preparation and meal making to a greater degree.

**2. Fruit and vegetables are effective substitutions that have a transformative effect on diet for many families.**

Interviews with families, supported by the results of the food frequency questionnaire, show that fruit replaces snacks, and vegetables bulk up meals, improving fruit and vegetable intake by 3 portions a day on average for children and parents and carers. This has a transformative impact on diet for many children

and parents and carers: 64% of children are now eating at least 5 portions of fruit and veg a day (up from just 7%), and 55% of parents and carers are now eating 5 portions of fruit and veg a day (up from just 15%).

**3. The Rose Vouchers are a successful life-course intervention that results in a sensory impact on children's palates and supports consistent, high quality of health.**

Rose Vouchers help parents and carers implement advice from nutritionists, such as modelling healthy eating for their children and diversifying fruit and vegetable intake during weaning. This helps cultivate a lasting preference for fruit and vegetables in children, as well as a resistance to unhealthy options.

The cumulative impact of good nutrition in early years is also seen in the health reports of families. Families report consistent, high quality of health across whole family household, with low frequency of sickness and low GP visits. 82% of parents and carers report that it has helped their child maintain a healthy weight, or reduce their weight. 77% of parents and carers also report improvements in their children's digestion and bouts of constipation (one of the most common causes of GP visits for infants).

**4. Rose Vouchers are an effective health inequalities intervention due to the suitability of the model for families who identify as from African, Caribbean, Asian, Latin American, and Arab backgrounds (85% of families registered on the Southwark Rose Vouchers project).**

The Rose Vouchers, alongside the partnership with local markets, help many families to access and afford fruit and vegetables that are culturally familiar. Varied produce from countries in Africa, Asia and the Middle East is often only available at local markets and is often at a higher price. By reducing the cost barrier, the Rose Vouchers help families make their cultural cuisines and childhood recipes a regular practice at home and help retain important cultural and emotional links to food and joy in home cooking - key motivations for healthy eating.

**5. Through the community model, families make stronger relationships with Centre workers, local retailers, and other families in the area, helping families leave from the project with stronger social networks.**

By regularly visiting Centres (distribution hubs) to collect Rose Vouchers, families build relationships with a range of Centre workers and find out about local and national support services relevant to them. Alongside this, families come into regular contact with families at the centre and at the markets, including those from shared cultural backgrounds or circumstances i.e., in hotels or temporary accommodation. Cumulatively, families leave the project knowing more people in their local area and with wider networks of informal and formal support.

As part of the evidence base for this study, research interviews and focus groups were conducted with 41 parents and carers in total, with 22 of these parents and carers completing short-form food frequency questionnaires and health symptom scales at baseline and follow-up discussions. Alongside this, a demographic survey was launched to learn more about family background and language. Interviews were also conducted with staff at 1<sup>st</sup> Place Children and Parents' Centre, our lead

partner in Southwark to better understand the wrap-around benefits of the model, particularly for families who struggle the most.

This research strongly suggests the model of Rose Vouchers has a more significant impact on nutrition and health than originally thought. This is due to relieving more barriers to family fruit and veg intake than understood before: the Rose Vouchers relieve the cost barrier to fresh fruit and vegetable, but they are also helping families access a more varied and relevant range fruit and vegetables, and help shape children's preferences. However, there is an anxiety going forward that the cost-of-living crisis will increase pressure on family budgets (e.g., higher energy bills) which will affect family choices of food to items that use less energy to cook. In addition to this, market retailers are being squeezed by increased business expenses and food costs at supply. It will be important to maintain good communication with traders, as well as families, about the effect of the cost-of-living crisis on food prices and how it is affecting the choice of produce bought and sold.

It's important to note that this research is a comprehensive qualitative evaluation completed over a year with a small group of families, corroborated with quantitative tools. The results of the food intake changes will need to be tested at a larger scale with more families in a shorter, streamlined evaluation to verify them further.

# Key findings

## Nutrition and diet

<p><b>Fruit replaces snacks and vegetables are used to bulk out meals, improving fruit and vegetable intake by three portions a day on average for parents and carers and children receiving Rose Vouchers.</b></p> <p>64% of children are now eating at least 5 portions of fruit and veg a day (up from just 7%), and 55% of parents and carers are now eating 5 portions of fruit and veg a day (up from just 15%).</p> <p>2 in 5 children on the project are eating 3-4 portions of snacks a week less, while a third of parents and carers report reducing their snacking by a huge 8 portions a week.</p>	<p>Regular, affordable fresh fruit and vegetables, purchased via Rose Vouchers, is leading to a more varied intake of fruit and vegetables and an average increase of 3 portions a day for both carer and children on the project. With the vouchers, families can take more risks trying new produce or buying items that had a shorter shelf life. By reducing the cost of fruit and vegetables, carers can make and commit to changes to their cooking and eating norms at home, with families introducing fruit as a snack and vegetables as a bulking agent in main meals.</p> <p>Fruit and vegetables prove to be a powerful substitute, leading to a higher intake of high-in-fibre carbohydrates, lower red meat intake and huge reductions in snacking (or the avoidance of snacking habits for infants during weaning). This is a significant learning for infants on the project: These are three of the biggest dietary problem areas for infants in deprived areas of the country as reported by Scientific Advisory Committee on Nutrition.<sup>1</sup></p>
<p><b>The incentive is helping parents and carers implement advice from nutritionists, like modelling healthy eating for their children and diversifying fruit and vegetable intake during weaning, helping to cultivate a lasting preference for fruit and vegetables and resistance to unhealthy options in their children.</b></p> <p>Many children develop enthusiastic preferences for fruit and vegetables and choose healthier options over snacks high in fat, sugar or salt at nursery, school or friends' houses.</p>	<p>A new learning this evaluation uncovered is that Rose Vouchers are helping parents and carers cultivate a lasting preference for fruit and vegetables and healthy food in their children as they grow. An additional set of interviews were conducted with families who had been on the project for 3 years or more to gauge the medium-term significance of consistent fruit and vegetable intake during a child's early years. These families reported that consistent intake has been crucial to acclimatise their children to vegetables and more bitter flavours at a critical point of development (6 months to 2 years). Families report that their children now show a preference for fruit and vegetables, even if offered less nutritious options. This intervention accumulates positive effects for healthier eating and behaviour longer term: Families are finding it easier to ensure children are eating more healthily when they go to nursery and school because they are choosing healthier foods independently. Parents and carers report that their children are becoming important influencers for healthier eating in the home as they grow up, supporting parents and carers feedback that they intend to stick to a high fruit and vegetable diet following the project.</p>

<sup>1</sup> Scientific Advisory Committee on Nutrition (SACN) "Feeding young children aged 1 to 5 years." Office for Health Improvement and Disparities. Draft report, July 2022.

## Diet-related wellbeing impacts

<p>Due to the financial relief, family consumer frameworks around fruit and vegetables are radically expanded from one of cost effectiveness and shelf-life to one of nutritional variety, experimentation, and enjoyment. Parents and carers report feeling happier and more creative around food in particular, including their children in shopping and cooking.</p>	<p>Families report that Rose Vouchers cover most or all of their fruit and vegetable costs; this means the Rose Vouchers travel far enough in the household shopping budget to have a transformative effect on the consumer frameworks of families. Due to reduced sense of risk, parents and carers experiment more with food and recipes, resulting in more joy and creativity in food-making. Consequently, parents and carers build more confidence in cooking and feel less stress around food preparation, allowing children into food preparation and meal making to a greater degree.</p> <p>The ringfencing of the Rose Voucher to only be spent on fruit and veg incentivises low-risk experimentation through the ‘challenge’ of the limitation, encouraging parents and carers to be more creative with fruit and vegetables.</p>
<p>Rose Vouchers, alongside the partnership with market traders, is helping families who identify as from African, Caribbean, Asian, Latin American and Arab backgrounds (85%) to access and afford culturally familiar food, helping them to retain important cultural and emotional links to food and joy in home cooking.</p>	<p>A new outcome this research has uncovered is that the Rose Vouchers market model is a particularly effective intervention to improve the intake of a high quantity of affordable, familiar fresh fruit and vegetables for families from a variety of different cultural backgrounds. This is an unintended outcome but one that helps explain the effectiveness of Rose Vouchers as a health intervention.</p> <p>For many families who identify as from African, Caribbean, Asian, Latin American or Arab backgrounds (85% of families who receive Rose Vouchers in Southwark), independent and market retailers are often the only outlets where they can access produce that is culturally familiar and central to the recipes they know; this produce is often at much higher price points on market stalls, but entirely absent in mass retail outlets. For families with African, Caribbean, Asian, Latin American or Arab backgrounds, Rose Vouchers reduce significant financial and availability barriers, enabling their cultural cuisines and childhood recipes to be a regular practice in their homes with their own children. The role Rose Vouchers play in helping families retain this important cultural and emotional connection to food - key motivations of healthy eating and home cooking - is crucial to its success as an intervention in meaningfully reaching groups most likely to be affected by poor nutrition in high deprivation areas. Rose Vouchers are therefore a critical bridge for the financial inclusion of many families in the healthy food marketplace, as the areas they live in are flooded with less healthy options and mass retailers under-cater for their cultures.</p>



## Physical health

<p><b>Consistent, high quality of health while on Rose Vouchers across whole family household, including low GP visits and low sickness</b></p>	<p>The impact of a high-nutrition diet was felt early on with reduced frequency of sickness and very good to excellent health for parents and carers and children. Many parents and carers viewed food as medicine and a 'gateway' to good health, using fruit and vegetables to bolster their family's immune systems (particularly during COVID-19) and ease digestion issues (common to 1 in 3 infants<sup>2</sup>). Parents and carers reported rarely needing to visit the GP for themselves or their children since receiving Rose Vouchers.</p>
<p><b>Excellent health for infants, including healthy weight maintenance and low frequency of constipation (two of the most common causes of GP visits for infants).</b></p> <p>82% of parents and carers report that the Rose Vouchers help their child maintain a healthy weight.</p> <p>Since launch of Rose Vouchers in Southwark in 2018, there has been an average reduction of 0.8% a year for children entering primary school with a BMI of 'obese'.</p>	<p>The health findings for children showed some evidence of the longer-term benefits of consistent, nutritious food in infancy in Southwark. 82% of parents and carers report that the Rose Vouchers help their child maintain a healthy weight, with 50% reporting a lot of improvement in weight maintenance. 1 in 4 parents and carers reported weight loss for children in qualitative discussions around the tool. This is supported with external reporting in Southwark: the percentage of children entering primary school already experiencing a body mass index (BMI) in the 'overweight' classification has reduced by an average of 0.6% per year since Rose Vouchers launched in the area in 2018; this is an average reduction of 0.8% a year for children entering primary school with a BMI of 'obese'. Whilst this is slow and incremental change, with many factors and interventions other than Rose Vouchers involved, it shows a net positive impact on a health indicator tied to long-term health issues in an area with record high levels of high BMI in children aged 6 since the Child Measurement Programme began in 2006.</p>
<p><b>Reversed symptoms of low nutrition for parents and carers</b></p> <p>1 in 2 (50%) parents and carers reported struggling with symptoms of low nutrition upon joining the project and follow-up improvements.</p>	<p>Half of parents and carers reported struggling with at least one symptom related to low nutrition upon joining the project, including low energy levels, struggles to maintain a healthy weight, stress and anxiety, poor sleep, digestion, and concentration issues. Over 1 in 3 parents and carers (36%) reported a family history of severe long-term health issues related to conditions affected by nutrition, like cardiovascular issues, weight changes, high blood pressure, diabetes type 2, stroke, and others. Afterwards participants reported improvements in an average of 5 symptoms, including their pre-existing issues.</p>

<sup>2</sup> [The Children's Bowel and Bladder Charity](#). Accessed 31 March 2023.

## Stress reduction and easing mental load to attend to other needs

<p><b>The financial assistance of Rose Vouchers significantly reduces stress and anxiety for parents and carers, who report that they cover most or all of their fruit and vegetables costs.</b></p> <p>Families report that they can ‘make a meal’ out of Rose Vouchers, in comparison to similar initiatives.</p> <p>86% of families report better mental wellbeing, particularly around financial stress.</p>	<p>The impacts on physical health are intertwined with, and enabled by, some significant mental health and wellbeing benefits experienced as part of the Rose Vouchers for Fruit and Veg Project and community model. Due to the financial assistance of Rose Vouchers, parents and carers report a high reduction in stress in financial anxiety and more mental space to cater to other elements of their lives.</p> <p>A further set of interviews with workers at the lead distribution hub in Southwark, 1st Place Children and Parents’ Centre, found that workers have observed how Rose Vouchers have helped to destigmatise talking about financial struggles and encourage more discussion around struggles between parents and carers at family groups. Likewise, it helps families to prioritise courses for their children’s other developmental needs, for example, language and literacy development, when their core need for food is not an overwhelming worry. Rose Vouchers help parents and carers to make decisions they are happier with for their children’s health and development, therefore reducing feelings of guilt. For example, fruit and vegetables become a food item they can always say yes to; a resource they can be both generous and creative with on a day-to-day basis with their children.</p>
<p><b>The regular Rose Voucher collection point at distribution hubs is an important contact point for parents and carers to get help for other support needs (e.g., Healthy Start Scheme), as well as acting as an important opportunity for social interaction with other families in the area.</b></p> <p>Families report receiving help with one or more other support needs from finding out about courses and programmes while collecting Rose Vouchers from distribution hubs.</p>	<p>Families report that collecting Rose Vouchers from their local hub is key for them finding out about other forms of financial assistance support available and accessing the help needed to apply. This is additional to enrolment on the Healthy Start programme, of which centre workers promote and support as part of Rose Voucher registration.</p> <p>Rose Vouchers also function as a conversation-starter between families, particularly those looking to connect with other families from similar cultures. They create easy engagement opportunities for families to start a conversation about background and home, and many families report these conversations as a key way they find out about new recipes or approaches to cooking unfamiliar produce.</p>

# Introduction

## Purpose of the evaluation

Alexandra Rose Charity has developed a Theory of Change (see appendix) mapping the project's impact on families, including food habit changes that result from increased fruit and vegetable intake. Evidence to support this Theory of Change has come from previous evaluations into family food and shopping habits, which established broad areas of change. However, drawbacks were noted in both the tools (24-hour food diaries) and the low return participation of past evaluations, which affected confidence in findings. The Charity felt a more exploratory approach needed to be taken to test key outcomes and establish any gaps, alongside a more robust toolkit to assess food intake.

## How the programme operates in Southwark

The London Borough of Southwark has become one of the largest project areas for the Charity since its launch in May 2018. Rose Vouchers has helped over 1,881 families and 4,317 children since then, with 1,008 families currently redeeming in the period of this assessment. In Southwark, families have a variety of close, varied retail options including 10 fresh fruit and vegetable retail options in East Street Market (Walworth) and Peckham, as well as nearby retailers in Lambeth. Families with children under school age (under 5) and pregnant mothers can claim £4 in Rose Vouchers per child per week. There is an addition of £2 to this for children aged between 0-12 months (a total of £6 per week) to take into consideration the importance of nutrition and food experimentation in the first year of life.

Alongside this, Southwark also allows an additional £4 if a family has children of primary school age, an uplift funded by Impact on Urban Health as part of their wider investment in improving the local food environment and reducing childhood obesity.

Due to large family sizes and this uplift, families in Southwark claim an average of £8.90 per week: £35.60 a month on fruit and vegetables.

A family is eligible for Rose Vouchers until their last child under primary school age goes to school. At this point the child will be eligible to receive free school meals.

# National Context

## Worsening household food insecurity

In the last decade, the inability of many households to access and afford a nutritious diet has become a growing source of public concern in the UK. Food insecurity, a shorthand term for this crisis, has resulted in various emergency solutions to compensate, most notably food banks. The UK's largest provider of food banks, the Trussell Trust have reported year-on-year increases in food bank use, distributing a record 2.5 million food bank parcels in the financial year 2020-2021, with just under 1m for parcels going to children.<sup>3</sup> However, the scale of food poverty is likely to be much worse, with The Food Foundation indicating in a 2017 report that up to 17 times more people need support than food banks can provide.<sup>4</sup>

The dual crisis of COVID-19 and the cost-of-living crisis have seen rates of food insecurity intensify. The Food Foundation is monitoring the scale of the issue with their Food Insecurity Tracker, which revealed that food insecurity quadrupled during lockdown and reached critical levels in 2022 following the cost-of-living increases.<sup>5</sup> In October 2022, the Foundation found that over 10 million adults and 4 million children reported food insecurity in the past month.<sup>6</sup> The need to assess the depth of the food access and affordability crisis has led the UK government to introduce a category on food insecurity in the Office for National Statistics (ONS) survey for the first time in 2020.<sup>7</sup>

The threat to family and children's food intake and nutrition is at the forefront of these worries. The Childhood Trust surveyed 280 young people in September 2022 and found 40% of children aged between 7-16 reported being food insecure in the past month.<sup>8</sup> The results showed that 21% of the children surveyed were aware that they were not able to get food they wanted in the past month because there was not enough money available in their households and 8% of children reported feeling embarrassed or ashamed about the methods they or their family used to get food. However, the true scale of impact on the health and wellbeing of children is still to be established. In March 2023, the Food Foundation reported that the number of households where children are experiencing food insecurity has nearly doubled in 2022-2023, with over 1 in 5 households (21.6%) reporting fewer meals, smaller meals, and going hungry due to cost.<sup>9</sup>

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<sup>3</sup> The Trussell Trust, [Record 2.5 million food parcels distributed last year](#). 22 April 2021. Accessed: 31 March 2023.

<sup>4</sup> The Food Foundation, [Too Poor to Eat: Food Insecurity in the UK, 2016](#), 6 May 2016. p.6.

<sup>5</sup> The Food Foundation, [Food Insecurity Tracking; Vulnerability to food insecurity since the COVID-19 lockdown](#). 14 April 2020.

<sup>6</sup> The Food Foundation, [New data show 4 million children in households affected by food insecurity](#). 18 October 2022.

<sup>7</sup> Department for Environment, Food and Rural Affairs. [UK Food Security Report 2021](#). 16 December 2021.

<sup>8</sup> The Childhood Trust, [Food Insecurity 2022 Report](#). November 2022.

<sup>9</sup> The Food Foundation. [Child food insecurity doubles fueling calls for urgent expansion of Free School Meals](#). 1 March 2023.

Percentage of households with children where children are experiencing food insecurity:

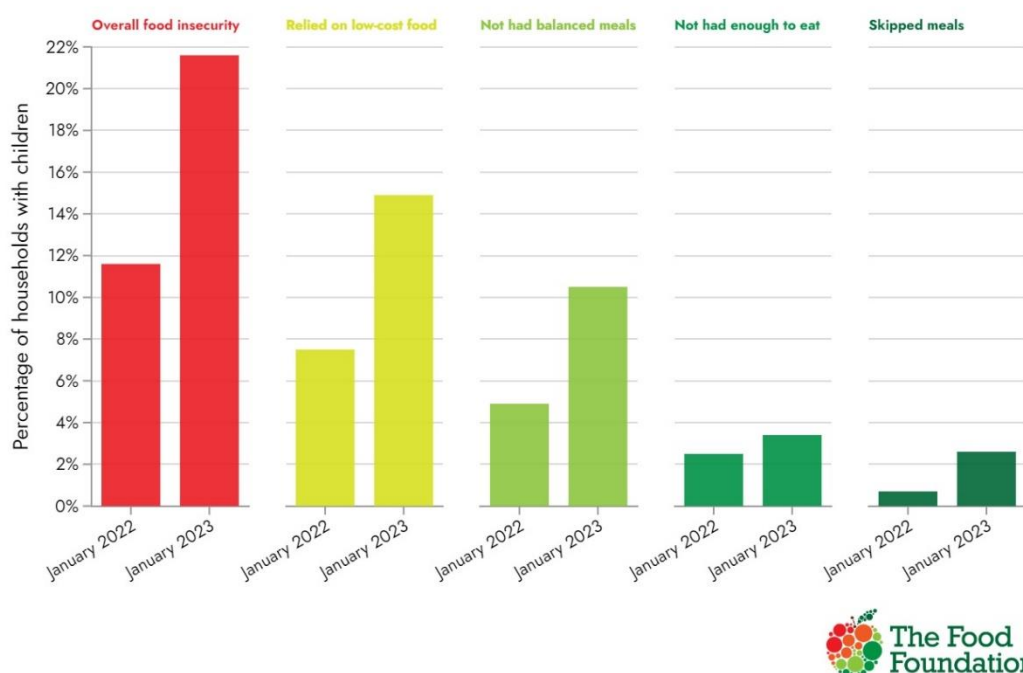


Table 1. The Food Foundation. Published 1 March 2023.

### Health outcomes from poor nutrition

Worsening household food insecurity has a ripple effect on the nutrition of households, with people having to make difficult decisions day-to-day around what food they can afford. The price of food, and value for money, plays a key role in decision-making, as reported in the Measuring Up food sector and sustainability report in 2018:

Calories from healthy food consistently cost more than calories from unhealthy foods. And the wealthier you are, the higher portion of household income is assigned to consuming vegetables. This has a direct impact on health and wellbeing, with obesity and poor diet linked to key health issues including heart disease, diabetes and cancer.<sup>10</sup>

In the current UK food system, healthier options are not easy, obvious, affordable or immediately rewarding. The result is essential components of a healthy diet (vegetables) are one of the first items to be sacrificed. The cost-of-living increases have only made healthier option harder to choose with record high food prices. In January 2023, the Office of National Statistics reported that food prices have increased a huge 16.7% in the past 12 months.<sup>11</sup> The last time the UK saw such a rapid spike was in 1977 - 45 years ago.<sup>12</sup> Food banks are playing a key role staving

<sup>10</sup> UK Stakeholders for Sustainable Development (USKSSD) network. [Measuring up: How the UK is performing on the UN Sustainable Development Goals](#). 2018. p.4-5.

<sup>11</sup> Office for National Statistics, [Recent trends in UK food and drink producer and consumer prices: January 2023](#). 8 March 2023.

<sup>12</sup> Office for National Statistics, [Consumer price inflation, historical estimates and recent trends, UK: 1950 to 2022](#). 18 May 2022.

off hunger for millions of people trying to manage these increases in costs, but the key priority is fulfilling an immediate critical need, which is best achieved with surplus goods that can store well, like dried items and tins, and not fresh produce like fruit and vegetables that have a shorter shelf life.

A lack of affordable fresh fruit and vegetables threatens to worsen the negative health outcomes of poor nutrition in young children in the UK, tracked most directly in the form of high body mass index (BMI) at age 4-5 years old. Since 2006, the Office for Health Improvement and Disparities has tracked the BMI of children entering school in the National Child Measurement Programme and little overall change has occurred: in 2006, 23% of children were overweight at the start of school, and in 2022 it is 24%; in 2006 10% of children were classified as ‘severely obese’, in 2022 it is still 10%.<sup>13</sup> At the same time, malnutrition has been on the rise in reporting - an issue that can overlap with high BMI. The crisis of poor nutrition is also worse for groups who identify as being from African, Caribbean, Asian, Latin American and Arab backgrounds, in terms of higher rates of high BMI and multiple long-term health issues.<sup>14</sup>

To better understand the realities of infant health and nutrition beyond BMI, the Scientific Advisory Committee on Nutrition (SACN) conducted research into infant nutrition in the first year of life, and in years 1-4. This has enabled us to understand more concretely the areas of concern in infant nutrition. These include low fruit and vegetable intake; too many snacks that are high in fat, sugar and salt; low fibre in infants in high deprivation areas; and higher than advised protein intake for all infants.<sup>15</sup>

Good nutrition can radically improve the day-to-day quality of health and life of a young child, improving sleep, focus and concentration, and management of energy levels. Digestion issues are also common for infants, with the Children’s Bowel and Bladder Charity estimating that 1 in 3 infants suffer from constipation.<sup>16</sup> Of those, 30% will develop chronic symptoms and be referred to secondary care specialists.<sup>17</sup> Constipation and digestion issues are common causes of GP visits for children alongside colds, stomach bugs, and strep throat - all issues that can be reduced in frequency and severity through diet and improved immunity. What’s also crucial, however, is the long-term impacts of good nutrition for children aged between 1 and 4. A high intake of nutritious food at this crucial developmental stage has significant impacts on cognitive development and academic achievement.<sup>18</sup>

The government has invested in programmes to tackle these issues, such as the Healthy Start programme, but there have been issues with low take-up and it can

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<sup>13</sup> Office for Health Improvement and Disparities (OHID). [National Child Measurement Programme](#) and Child Obesity Profile. Accessed: 05 May 2023.

<sup>14</sup> OHID. [Patterns and trends in child obesity: England](#). p33. Accessed: 05 May 2023.

<sup>15</sup> SACN “Feeding young children aged 1 to 5 years.”

<sup>16</sup> [The Children’s Bowel and Bladder Charity](#). Accessed 31/03/2023

<sup>17</sup> Patient. [Constipation in Children](#). Research based on Mutyala R, Sanders K, Bates MD; Assessment and management of pediatric constipation for the primary care clinician. *Curr Probl Pediatr Adolesc Health Care*. 2020 May50(5):100802. 2020 Jun 10.

<sup>18</sup> Roberts M, Tolar-Peterson T, Reynolds A, Wall C, Reeder N, Rico Mendez G. The Effects of Nutritional Interventions on the Cognitive Development of Preschool-Age Children: A Systematic Review. *Nutrients*. 2022 Jan 26;14(3):532.

take time to work around the barriers to reach those most affected - such as technology access, language barriers, comfort and literacy with formfilling. Moreover, evidence suggests Healthy Start vouchers are used by families to stockpile formula milk from supermarkets, rather than buying fruit and vegetables.<sup>19</sup>

### Worsening quality of health in deprived areas

Good nutrition for an adult has immediate impacts on quality of life, including better immunity and lower sickness, as well as lower levels of long-term illness like cardiovascular issues, cancer, and mental health. Without adequate access to affordable nutritious foods like fruit and vegetables that is endemic to deprived areas, people's health outcomes and quality of health are drastically impacted. This is clear in reporting from the Office of National Statistics, which shows that men in deprived areas are now living a quarter of their life in poor health.<sup>20</sup> The outcomes for women are even starker: women in deprived areas can now expect to live a third of their life in poor health.<sup>21</sup> The pressure on the National Health Service will only grow as life expectancy remains at a historical high, while 20 years or more of poor health threatens to become the norm for many people in the UK.

## Local Context

Southwark is in the top 10th percentile of LSOAs (lower super output areas) for high deprivation.<sup>22</sup> According to recent Southwark Council reporting, there are 20,954 children under 5 years old in Southwark, with 2570 children classed as in need.<sup>23</sup>

Southwark is above the national average for children going to primary school with a BMI that places them in the 'obese' or 'overweight' classifications. Like the national average, this experienced an unprecedented spike following the COVID-19 lockdown when people were more sedentary and experiencing frequent sickness. Outside of this anomaly, the percentage of children entering primary school already experiencing excess weight has reduced by an average of 1% a year since 2013, illustrating the success of health interventions like Rose Vouchers, Healthy Start, and other early years programmes funded by Impact on Urban Health in the borough of Southwark. However, there is still a long way to go.

A challenge for health interventions in Southwark is the food environment: Southwark, like many urban areas, is flooded with the ready availability of unhealthy, convenience foods. Research from Gehl found that a chicken shop is never more than 11 minutes away from bus stops and schools in Southwark.<sup>24</sup>

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<sup>19</sup> Ohly H, Crossland N, Dykes F, Lowe N, Moran VH. A realist qualitative study to explore how low-income pregnant women use Healthy Start food vouchers. *Maternal and Child Nutrition*. 2019 Jan;15(1):e12632.

<sup>20</sup> Office for National Statistics, Health state life expectancies, UK: 2018 to 2020.

<sup>21</sup> Ibid.

<sup>22</sup> Indices of Deprivation 2019. Southwark's JSNA. Southwark Council: London. 2019.

<sup>23</sup> Childhood obesity in Southwark. Southwark's JSNA. Southwark Council: London. 2020.

<sup>24</sup> Gehl - Making Cities for People. Understanding Southwark's food experience. 2019. P87-88. Accessed: 05 May 2023.

Likewise, unhealthy foods in supermarkets are 3 times cheaper than fruit and vegetables. At the same time, markets in Southwark are being squeezed by gentrification and dwindling residencies, while food costs at supply rise.<sup>25</sup> These vendors are often a major root to accessing fruit and vegetables for low-income residents in Southwark.

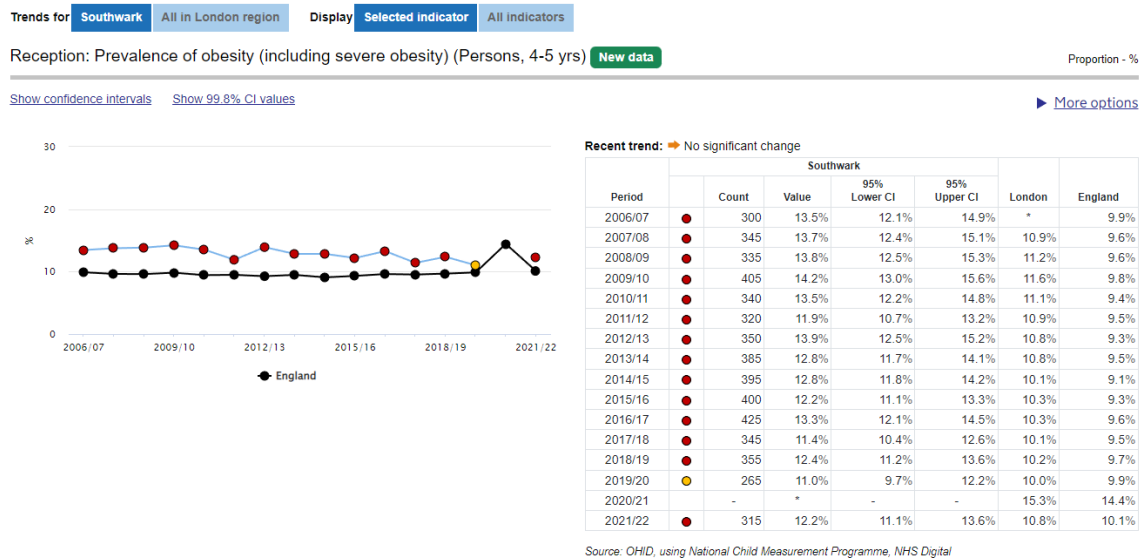


Figure 1. Prevalence of obesity (including severe obesity) in infants aged 4-5 years old. Source: PHE. [National Child Measurement Programme](#) and [Child Obesity Profile](#).

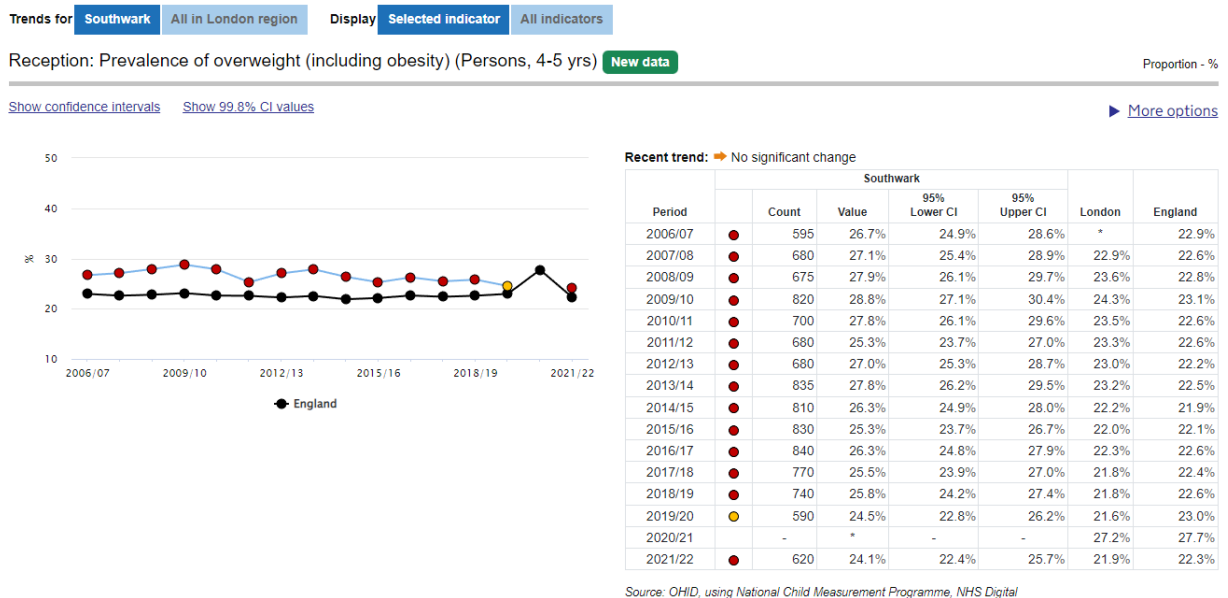


Figure 2. Prevalence of overweight (including obesity) in infants aged 4-5 years old. Source: PHE. [National Child Measurement Programme](#) and [Child Obesity Profile](#).

<sup>25</sup> Alexandra Rose Charity. Economic Impact Assessment. 2023.



# Evaluation methodology

## Learning Goal

This research project had two aims:

- 1) To find out how Rose Vouchers affect the eating habits of the main parent or carer and Rose Voucher eligible child in the home
- 2) To better understand in what ways Rose Vouchers affect the quality of health and wellbeing of families, particularly the main carer and children under primary school age

## Learning Approach

This evaluation uses a mixed qualitative and quantitative approach including measurement using a short-form food frequency questionnaire and health and wellbeing indicators affected by nutrition. These tools were followed up with workshops and interviews in which open-ended questions were asked to collect further insights or contextualise answers. Further research was conducted with a cohort of families who have been on the project in Southwark for over 3 years, and interviews with staff and volunteers at the lead distribution partner in Southwark.

Stakeholder	Research Method	Date	Sample Size
Families	Semi Structured 1:1 Interviews	April 2022	9
Families on the project 6 months (baseline and follow-up)	Short-form Food Frequency Questionnaire (SFFFQ)  Health and wellbeing Impact grid  Followed up with open-ended questions in workshops or 1:1 semi-structured interviews	Cohort 1: June 2022  Cohort 2: September and October 2022	22
Families who have been receiving Rose Vouchers 3+ years	Semi Structured 1:1 Interviews	August 2022	10
1 <sup>st</sup> Place Children and Parents' Centre workers	Semi Structured 1:1 Interviews with Management, family support workers, delivery team and volunteers	March 2023	7

For more details on the methodology, see appendix

# Findings: Family diet and food intake

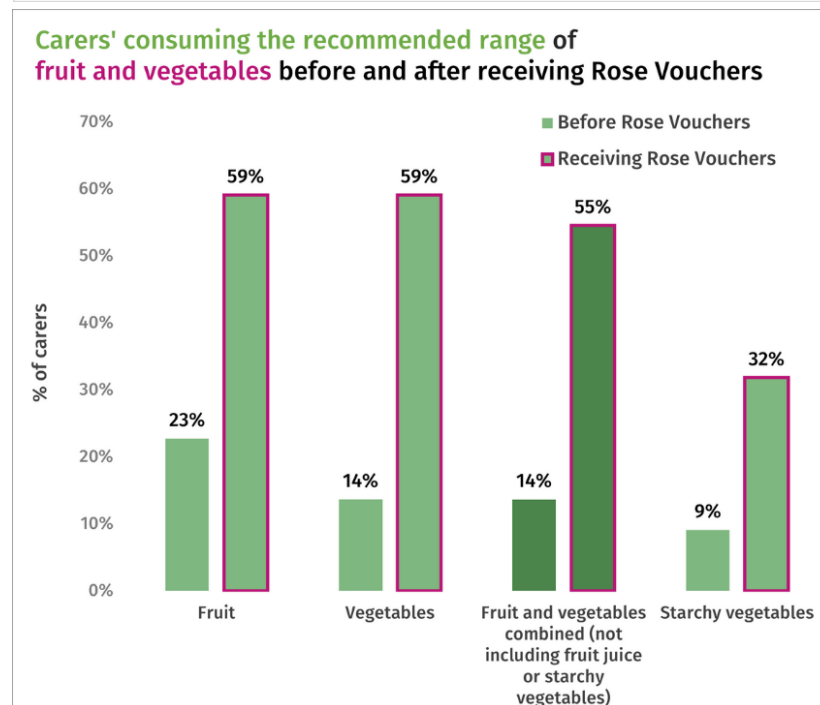
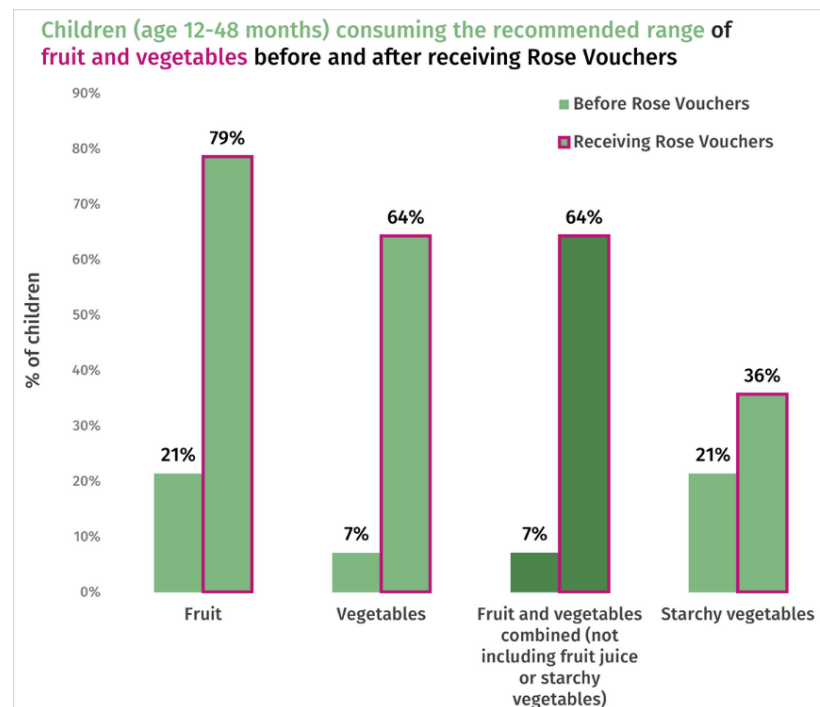
## 1. Significant increase in the variety and amount of fruit and vegetables consumed

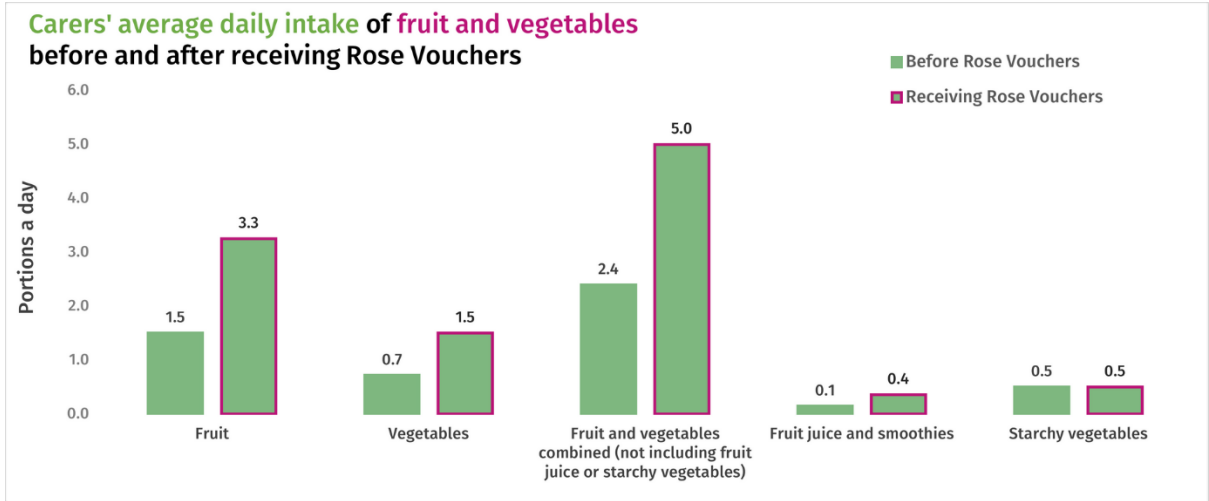
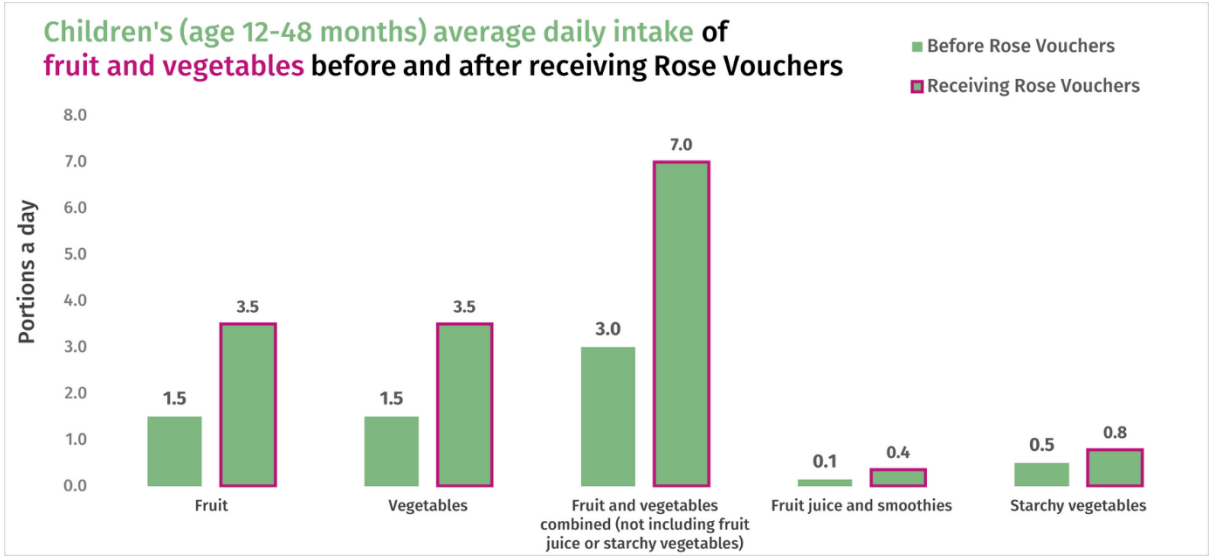
64% of children are now eating at least 5 portions of fruit and vegetables a day (up from just 7%). 55% of parents and carers are now eating 5 portions of fruit and vegetables a day (up from just 15%).

32% of parents and carers are now eating up to 1.5 portions of starchy vegetables a day (up from just 9%), and 36% of children are eating 1.5 portions a day (up from 21%). This supports qualitative feedback that families are using Rose Vouchers to buy fruit and vegetables that have a shorter shelf life, in comparison to starchy vegetables which tend to store for longer.

Blending fruit and vegetables into fresh juices and smoothies is helping as many as 2 in 5 parents and carers (41%) to have an extra 2-3 cups a week. Qualitative findings found that parents and carers who are not used to eating a lot or a wide variety of fruit and vegetables find smoothies a helpful method of increasing intake and acclimatising their own palates to different flavours. Parents and carers are also opting to blend fruit and vegetables because it is a way of making food last longer. All children are within a recommended range for fresh fruit juice and smoothies. 36% of parents and carers are drinking more than the recommended 1 cup of fruit juice a day, but only by a marginal amount — these parents and carers report consuming approx. 1.5 cups a day.

“Rose Vouchers have helped me to know more ways to use fruit and veg, and plan what I need, because I have to think about what I can get. I have been





“If I didn’t have Rose Vouchers I would stick to my daughter’s fruit and vegetables preferences, but with the vouchers I can get different kinds of fruit and vegetables that she might not normally try.”

learning to make different foods and use fruit in different ways. It has helped to create that pattern in the house.”

There is also a high average increase in fruit and vegetables intake for both parents and carers and children. Fruit and vegetable intake is improved by three portions a day on average for parents and carers and children receiving Rose Vouchers. The highest change is in vegetable intake which improves by approximately 2 portions a day for most children (86%) and many parents and carers (68%).

The averages illustrate the scale of increase across the sample size — on average, parents and carers and children are reaching the recommended 5-a-day.

“We try new things, very often. We are trying to eat more vegetables so we often try new types; the variety has been helping my daughter a lot. We experiment with vegetables and fruit - new recipes, blending smoothies ... Rose Vouchers has made me try a whole new variety and helped me eat healthier.”

Due to the lessening of financial risk, parents and carers report the whole family now tries new types of fruit and vegetables and eat a more varied intake. This extended to trying new recipes and ways of cooking food (blending, steaming, slow cooking), and seeking out meal advice either online or with other families at the distribution hubs or

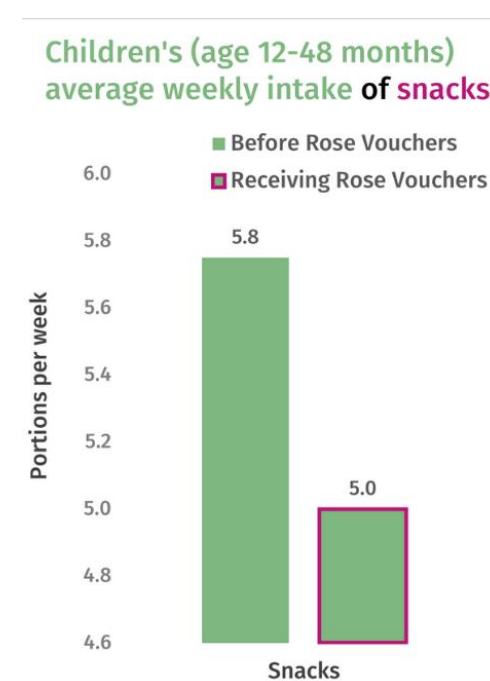
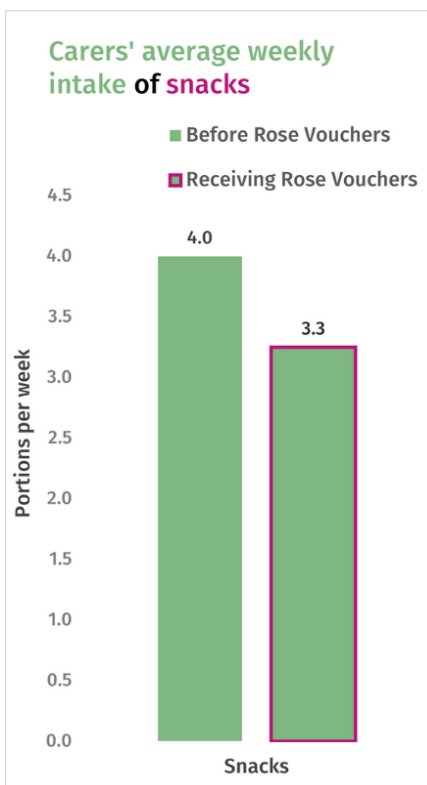
market. The wide variety of fruit and vegetable options at the market and independent retailer stalls is a key enabler of this diversity of intake.

## 2. Reduced snacking

**Fruit and vegetables are acting as a substitute for snacks high in fat, salt and sugar (like biscuits, crisps and cakes).** Fruit is an effective substitute for parents and carers and children who prefer sweet food.

Parents and carers report significant reductions in snacking for 2 in 5 children (43%), with an average of 3-4 portions a week. This can also be seen in the average decrease in snacking. Although most children are still eating a little over the recommended 3 portions a week, a decrease in snacking during period of development is notable. In many cases parents and carers report diverting children's interest in snacks at the point of weaning onto fruit and vegetables before they develop a preference for high in fat, salt and sugar snacks.

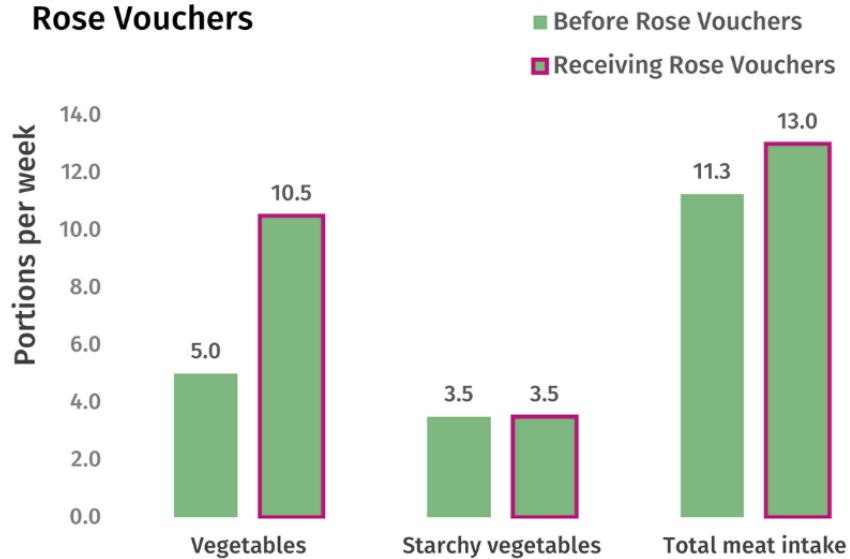
Similar improvements are seen in the results from parents and carers with a third (35%) reporting huge reductions of 8 portions a week - this equates to a daily change in habits.



“My kids like biscuits a lot and potato chips, sweets, chocolate - now they are having less of these because of the Rose Vouchers”

“For me yes, definitely, I would snack on fruit more now than anything else”

### Carers' average weekly food intake before and after receiving Rose Vouchers



### 3. Increased proportion of vegetables in meals

Qualitative research with families found that many families were incorporating vegetables in higher concentration into their meals, such as blending or mixing into soups, stews and curries.

Parents and carers were eating a ratio of 3:4 veg to meat before Rose Vouchers (25% more meat than veg), and after Rose Vouchers are eating a ratio of 1:0.9 veg to meat after Rose Vouchers (almost one for one).

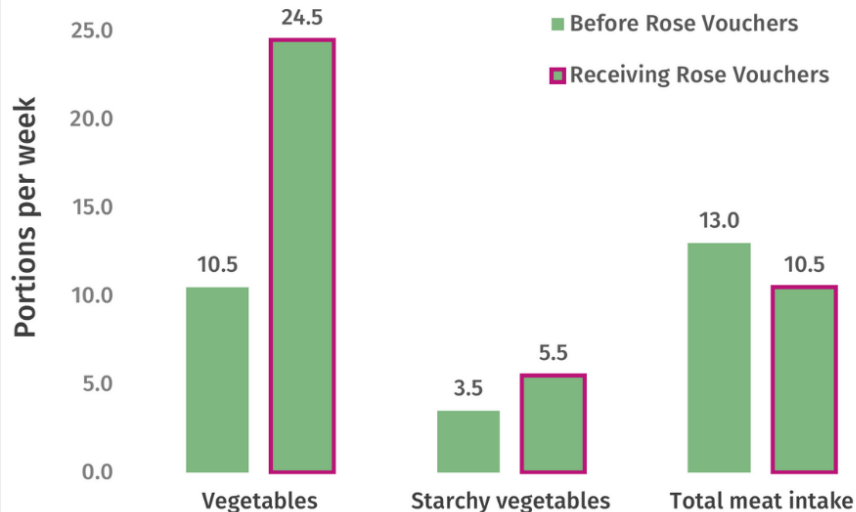
Children were eating a ratio of 1:0.9 veg to meat before Rose Vouchers (almost one for one), and after Rose Vouchers are eating a ratio of 3:1 veg to meat ratio (veg to meat intake has tripled).

“..it’s because now you know the veg is there, you have to use it”

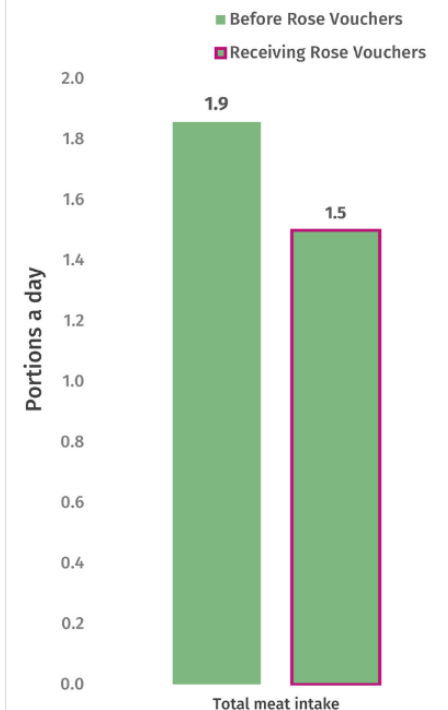
Another encouraging change is the average meat intake of children has also decreased from 1.9 portions a day to the recommended 1.5. This suggests that the increase in fruit and vegetable access is helping parents and carers to address excess protein consumption, a problem area in children’s nutrition alongside low fruit and vegetable consumption.

“I have been looking up recipes to see how I can use the veg”

### Children's (age 12-48 months) average weekly intake before and after receiving Rose Vouchers



### Children's (age 12-48 months) average daily intake of meat before and after receiving Rose Vouchers



The relationship between meat and vegetable intake reveals some other insights:

**i. Increased meat appears to be a sign of reduced food insecurity for parents and carers**

Meat is an important part of family diets, with quantitative results showing that some parents and carers eat a high volume of meat (only 50% reported eating up to 1.5 portions of meat a day upon joining the project). Intake of meat remained consistent for parents and carers after receiving Rose Vouchers, with some parents and carers' meat intake increasing a moderate amount (to approx. 2 portions a day) which has edged some parents and carers (22%) beyond the recommended range of up to 1.5 portions a day. However, parents and carers sometimes found it difficult to judge meat portion sizes in batch cook meals like curries and stews, and sometimes reported on how often they had meat in a day or week even though it might be comparatively less in a meal: "... I eat chicken the same amount of times a week but there's less chunks in the meals now, if you know what I mean. I'll say two times a week but it's hard to say with the things I cook". Therefore, qualitative results indicate meat intake is better understood as a sign of improved food security, for example, parents and carers snacking less and eating more main meals: "... now there's more for me, I used to have what's left -- sometimes I'd just mope up what's left with bread".

**ii. Vegetables appear to be an effective method to help with dietary balance for families that have diets high in meat**

Bulking the portion of vegetables in main meals appears to be an effective method of reducing meat intake for families in comparison to other alternatives. In focus groups and interviews, parents and carers showed strong aversion to vegetarian substitutes to meat, which is mirrored in the negligible intake of vegetarian substitutes reported in the quantitative results. This was attributed to flavour and taste preferences: "[laughs] Oh no, no, no, it tastes of nothing". This aversion was strongest for families who have cultural cuisines that are high in meat: "Are you kidding, my kids, they wouldn't eat it, they would know - we have grown up with goat." Parents and carers aversion to vegetarian substitutes is also because they see regular, increased access to affordable fruit and vegetables, through Rose Vouchers, as an opportunity for them to embed a healthy diet in the home that is less processed. Vegetarian substitutes were viewed as less natural, less tasty alternatives to meat that were not also unappealing because they did not know what was in them ("...it's grey, it turns to mush in the pan"). Whilst vegetables were seen as familiar and healthy, vegetarian meat substitutes were seen by some parents and carers as antithetical to the opportunity the Rose Vouchers offer.

**iii. A greater diversity of meat is consumed**

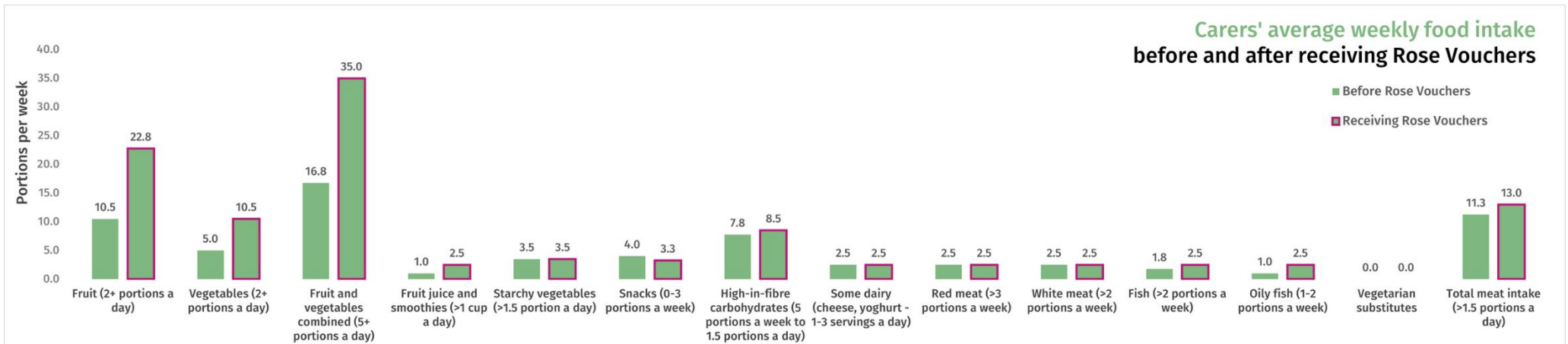
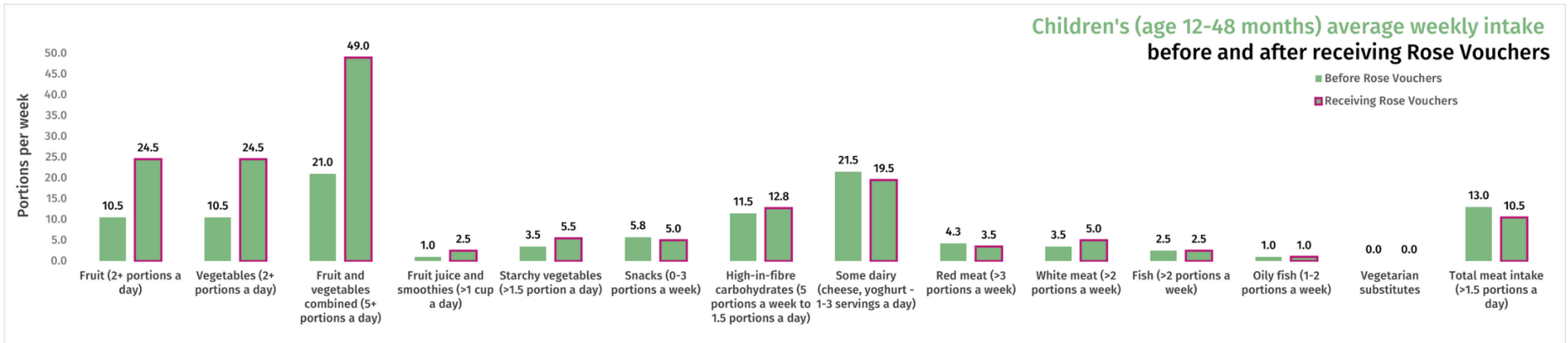
Whilst families could benefit from more awareness raising about the amount of meat recommended in a daily diet, the quantitative results indicate some other positive changes regarding meat intake in the family diet following Rose Vouchers. For example, there is no significant increase in red meat in parents and carers' diets, and over 1 in 4 parents and carers (27%) show large reductions of 5-6 portions a week. Children's intake is similar, with low red meat. Parents and carers report a reduction of 4-5 portions a week for almost 3 out of 5 children (57%). Increase in meat consumption for both parents and carers and children is in white meat (chicken, turkey) and fish. Therefore, increases in parents and carers' total meat consumption appears to be a symptom of parents and carers trying to create a more balanced diet between red meat, white meat, fish and oily

fish. This trend supports family feedback that they are experimenting more with meals and recipes.

#### 4. Better balanced diets overall

Increased fruit and vegetable intake is resulting in better balanced diets overall, including:

- High fruit and veg intake
- Reduced snacking
- Increased high-in-fibre carbohydrates
- Increased white meat
- Low red meat
- Reduced dairy (cheese, yoghurt)





## Mechanisms driving dietary change

The increase in fruit and vegetables in families' diets appeared to be driven by four mechanisms:

1. Covering their fresh fruit and vegetable costs and therefore minimising the risk factor.
2. Access to culturally familiar fruit and vegetables at a lower cost due to the Rose Vouchers.
3. Promoting early and repeated introduction of fruits and vegetables to children.

**Covering costs:** Families report that they can 'make a meal' out of Rose Vouchers, in comparison to other initiatives like Healthy Start which is used for one or two items (e.g., mostly formula milk). This also means they minimise the risk factor for financially insecure families who are not always used to buying fruit and vegetables regularly due to their cost and comparatively short shelf life to other food.

"...with Healthy Start vouchers you can just get one or two items from the supermarket but we can make a meal out of Rose Vouchers"

"I think because fruit and veg goes off so quickly, sometimes you would rather spend something that last longer with your money"

**Accessing culturally familiar fruit and vegetables:** Rose Vouchers are a successful mechanism for encouraging fruit and vegetable uptake for families from African, Caribbean, Asian, Latin American, and Arab backgrounds (85%) who can only usually access culturally familiar fruit and vegetables from markets, where it usually carries a higher price. This reduces the barrier of unfamiliarity, whilst providing space for families to try new foods.

"...we are able to eat fruit and veg from the market that we're used to eating every day or every other day, like plantain, yam, okra. But it also helps us try veg new to us, like leeks, because these foods are more expensive - helps us keep our habits and create new ones"

**Introducing fruit and vegetables to children:** Parents and carers who reported not liking vegetables since childhood were motivated by Rose Vouchers to introduce their children to vegetables early on. They were keen to break the cycle of fruit and vegetable aversion, which they attributed to not growing up in households where they were exposed to them regularly and lack of messaging around food. These carers reported moderate increases in vegetable intake for themselves, sometimes from none at all, but expressed a desire to try to eat more to model food behaviours to their children.

"I have never liked fruit and veg but I don't want to pass that onto my kids - they watch what you do and learn from you. I want them to be healthy so I want them to get used to the tastes early. I didn't and I know that's why I don't like them now, even though I eat more because I know it's good for me and them to see me doing it"

## Diet-related wellbeing impacts

1. The ringfenced Rose Voucher encourages parents and carers to be more creative with fruit and vegetables as the only item they can buy with the voucher; rather than feel the limitation as an unwelcome constraint, it often **incentivises creativity and low-risk experimentation with food that builds confidence and joy in cooking.**

"Because the Rose Vouchers can only be spent on fruit and veg it almost forces you to be more creative. Sometimes I see foods I've never heard of at the market, I wouldn't even know if they were a cabbage or a fruit...! I'd ask people, ask traders - how do you cook that then? [...] I look into recipes online with what I have left in the fridge. It feels like a little indulgence you can let yourself have [as a mom] because it's still making food for everyone at the end of the day - but it's also fun and a little challenge as I said."

"Before Rose Vouchers, I didn't have a good knowledge about food or cooking. I now google recipes to check what types of recipes I can do with the fruit and veg I have, and check portion sizes. I try all sorts now. Before it was very hard to manage a consistent weight for my children but now I have more confidence that I know how to do that"

"Having the Rose Vouchers makes you focus on what you can do with them - I will plan to try something new or just pick something up at the market that looks good and look at what I can do with it later. It makes such a difference to meals - the kids have noticed meals are changing and are getting curious about what moms going to do next. We're all happier."

2. By easing cost barriers, Rose Vouchers enables parents and carers from African, Caribbean, Asian, Latin American, and Arab backgrounds (85% of families registered on the Southwark Rose Vouchers project) to make their cultural cuisines and childhood recipes a regular practice at home. This helps families retain **important cultural and emotional links to food and joy in home cooking.**

42% of families on the Southwark Rose Vouchers for Fruit and Veg Project speak a language other than English as their main language. To date, families speak as many as 23 other languages on the project, which include Tigrinya, Yoruba, Foulah, Krio, Benin, Twi, Deri, Edo, Herero, Urdu, Arabic, Turkish, Kurdish, Bengali, Cantonese, Vietnamese, Ukrainian, Albanian, Spanish, Portuguese, Italian, and French.

"I can share the food I grew up with my children now - you can buy the food and cook it more often, cook it at home all the time. Before you would have to choose - can I afford this this week? On top of the plantain? They eat one every day! [...] You'd end up cooking something with home flavour every now and again, as a treat, as a trip. It's home all the time now."

## Longer term impact: Intervening in sensory development

Interviews with families who have been on the Southwark Rose Vouchers for Fruit and Veg Project for 3 years or more ( $n = 10$ ) report that increased fruit and vegetables through Rose Vouchers has enabled them to **flavour-train children's palates**. This was demonstrated in the following ways:

### A. Children develop a preference for fruit and vegetables

"Because I introduced vegetables to them at an early age, they love them now. Spinach, broccoli, vegetables - they are eating it very often. But I had to work at it - the transition was difficult at some points when they wouldn't want to eat things."

"Over the years they have just grown used to fruit and veg being there in the house. There are some types they still don't want (e.g., cauliflower), but they will eat most, especially when blended. You pick up new techniques of getting it into meals - By the time my second one was eating I would mash up fresh fruit and veg directly, she likes that."

### B. Many children break picky eating tendencies and are open to many foods.

"Without the vouchers I would be surprised if my children knew what fruit and veg were. They would be more picky and fussy but because they had it since they were young, they find fruit and veg normal. Know it's better for them than junk food."

"They would not eat fruit and vegetables as much, before they would only eat oranges and bananas, but now they eat all sorts - peas, carrots, sweetcorn, just more variety. They are accustomed to fruit and veg now - they know what I use, what's missing, what it should taste like, they notice and are learning."

### C. Increased fruit and veg in the home, enabled by Rose Vouchers, increases children's engagement with food and develops knowledge and confidence.

"After having more children and feeling having more confidence with fruit and veg, I gave them squashed up fruit and veg. Children now know every single fruit and veg - and how to spell them! Having Rose Vouchers has made it easier for them to feel confident around fruit and veg."

"My son says no to unhealthy things, and knows the consequences of unhealthy eating. I have spoken about fried foods, they have the knowledge. Eating too much chips, etc. The kids eat fruit if they're hungry."

"They like to try new food, and will ask what it is and how does it taste. They come into the kitchen when I'm cooking because of the smell to try it."

### D. Children become models and advocates for healthy eating to others after being on the project.

"Friends look up to my children when they see them eating fruit and veg. My friends say they didn't know her kids like veg, they are being a good influence on other kids."

"The children know healthy food and they tell their friends to eat healthy foods, not unhealthy foods. He understands what's good food"

# Findings: Family health

## 1. Children's physical health

Parents and carers report great to excellent health for their children after receiving Rose Vouchers, including reduced need to visit the GP and reduced need to buy medicines through a reduction frequency of illness. Parents and carers often viewed fruit and vegetables as a form of medicine in and of themselves, mixing them into teas (lemon, ginger).

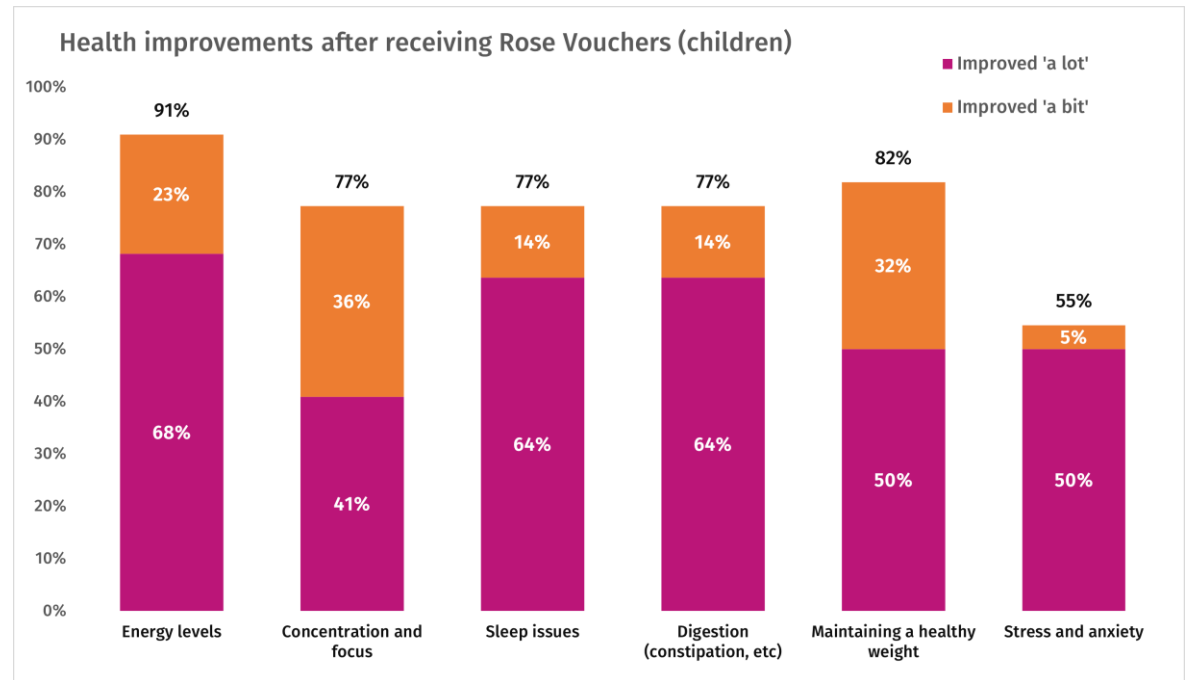
**Improved weight maintenance (82%), with 1 in 4 parents and carers reporting weight loss for children during qualitative interviews**

"My daughter has lost weight - it has helped to give her and her brothers something sweet but better for you to eat, like fruit, instead of ice cream or some other sweet thing that's caught their eye. And she doesn't feel like we're singling her out or not letting her join in with her brothers"

**Improved digestion and reduced constipation (77%)**

"My daughter used to be constipated a lot but anytime it seems like it's happening again I get more fruit and veg again, and it helps."

"I have weight issues in my family, I encourage them to eat lots of vegetables to clear their system. They don't get constipated now because I give them smoothies and vegetables."



**Improved immunity, reduced sickness (colds, stomach bugs)**

Improved immunity can also be seen in improved quality of health, including improved energy levels (91%), sleep quality (77%), concentration (77%), and feelings of stress or anxiety (55%). After receiving Rose Vouchers, parents and carers reported improvements in 4-5 indicators for their children.

"[My children] are sick a lot less now."

"Actually, now that we're talking about it, I have bought less Calpol and medication."

## 2. Parents and carers' physical health

Parents and carers report good to great health for themselves after receiving Rose Vouchers, with a reduced need to visit the GP and reduced need to buy medicines.

### Improved immunity, reduced sickness

Improved immunity can also be seen in improved quality of health, including improved energy levels (95%), digestion (77%), sleep quality (73%) and concentration (73%). Parents and carers listed improved quality of health in 5 indicators on average 6 months later.

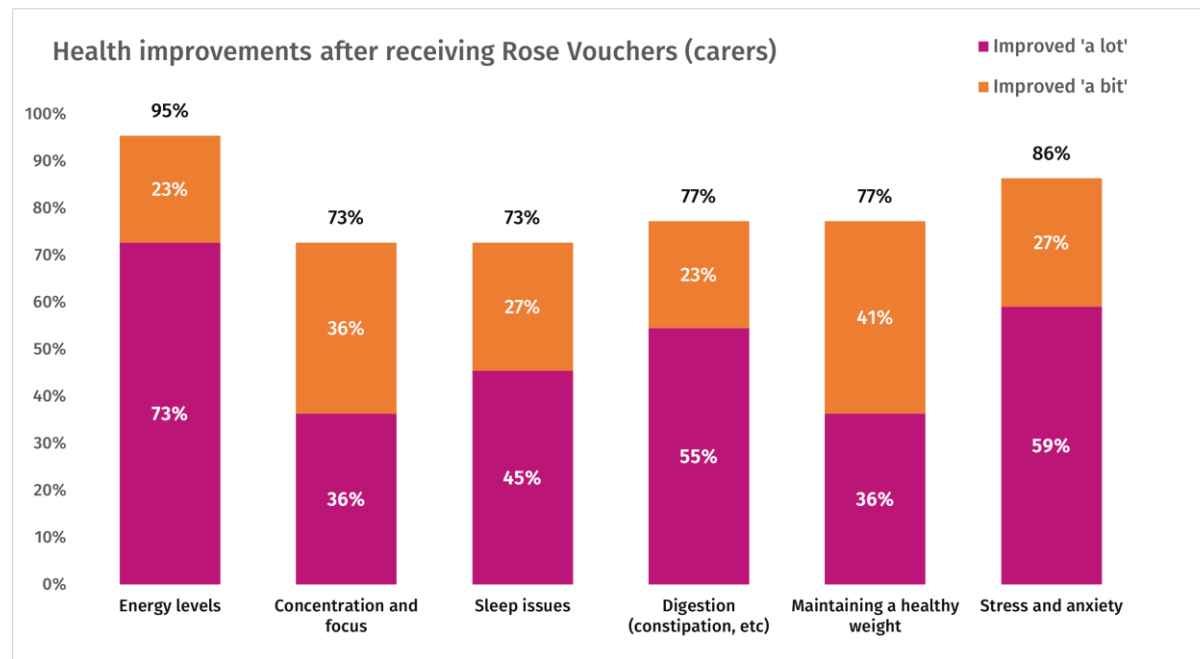
“I have literally struggled with constipation my whole life, and I’ve finally been able to break that cycle... it’s really helped”

### Improved weight maintenance (77%), with 1 in 4 reporting weight loss in qualitative interviews

“I have been managing my weight but since being on Rose Vouchers I have lost 4KG. It’s down to my diet and eating lots of fruit and veg.”

“My weight has reduced, I feel very light and flexible now”

### Reduced stress (86%), specifically related to easing financial stress and worry



“I’m also less anxious, I was going through a bit of depression about money issues. Now that I have Rose Vouchers, I am much more relaxed, it brought my anxiety down”

The baseline showed 1 in 2 parents and carers (50%) were struggling with a symptom or condition that could be eased or prevented with improved nutrition and exercise. All reported improvements 6 months later. 1 in 3 (36%) reported a family history of serious long-term health conditions that could be eased or prevented with better nutrition, including heart disease, diabetes type 2, high blood pressure, high cholesterol, strokes, and weight fluctuation (i.e., a history of noticeable weight gain and weight loss).

## Mechanisms driving changes in family health

Improvements in health appear to have been driven by three mechanisms (which are interconnected):

1. Direct improvements to health as a result of fruit and vegetable consumption.
2. Increasing motivation to lead a healthy lifestyle due to the opportunity provided by Rose Vouchers.
3. Enabling other healthy lifestyle choices and initiatives.

**Direct improvements from fruit and vegetables:** These tended to include improved energy levels, but also reduced constipation and weight loss.

“[Doctors] usually give you some kind of medication... like fibre gel, but all this you can get in fruit!”

**Motivation to lead a healthy lifestyle:** the healthier diet available through Rose Vouchers has also motivated families to be **more physically active** and the structure of Rose Voucher collection and the market encourage families to get out the house more and do more walking.

“I want to make more healthier life changes; before I started, I was not that active, but now that I’ve started it has reminded me that oh, I’ve got a free chance now, I have money / Rose Vouchers, it makes it easier to get up and go. That has made my life a lot easier; it’s created a habit of eating healthier yeah, making me think, what am I doing to cook out of this?”

“I’m doing a lot more walking, because first I go to pick up the voucher, then I walk through East Street, it ends up being quite a lot of exercise”

**Enabling healthy lifestyle choices:** In some cases, Rose Vouchers have enabled participants to follow healthy eating advice given to them in other settings, such as GPs.

“My GP referred me to dietitian who sends me a list of what to eat. They tell me to eat lots of vegetables which Rose Vouchers helps me to do”

# Findings: Wellbeing benefits from the Rose Voucher distribution model

## 1. Increased social interaction and sense of community

Families make new friends and experience an increased sense of community through the distribution hub and the market.

Qualitative findings show that the collection slot is more important than formal courses for sharing recipes and discussing storing/prepping food ideas, with the collection timeslot providing regular opportunities to meet other families and discuss recipes and techniques.

“I know everyone at the market, in the children’s centre chatting in the queues -- they give more information about other events and useful projects.”

“I’m closer to the community because people see me in the Market with friends, I was there every day at one point”

## 2. Increased interaction with support services

By regularly visiting distribution hubs to collect Rose Vouchers, most families reported taking up support for help with one or two other needs.

The Rose Voucher collection desk is an important information source for families who report learning about and later benefitting from one or more other programmes featured at this desk. The most common form of support was help with financial assistance through bill reduction, debt, and housing, but also includes parenting courses and language classes.

“I’ve used the children’s centre for a housing issue but was referred to citizen advice. Children’s centre also helped with water bill.”

“Children’s centre supported me with energy bills in May or June. They have also advised me in the past.”



Figure 3. The Rose Vouchers display board in the 1st Place Children and Parents' Centre reception area. March 2023.

### 3. Avoidance of more negative outcomes

**The regular contact points offered through Rose Voucher collection helps distribution partners reach and follow-up with struggling families, helping mitigate crisis periods and more severe negative outcomes.**

Rose Vouchers are an important ‘carrot’ to engage families to attend the centre, particularly hard-to-reach families. 70% of families who join the Rose Vouchers for Fruit and Veg Project have never attended the centre before in Southwark. The role of Rose Voucher collection at helping centre workers support families most in need has only become more stark during recent crises. The Service Manager of 1<sup>st</sup> Place Children and Parents’ Centre stressed the importance of the Rose Vouchers during COVID-19 and checking in on vulnerable families:

“When lockdown hit, I said the Rose Voucher distribution needs to continue. Even if I have to come in myself and hang my hand out the window to give it to the families myself. I’ll be there [waves hand].

“It was too important. It was the only way we could help families who we know had difficulties and there were safeguarding concerns. Sometimes the family support team will ask me, can you just check on them the next time they collect so I’d see the family and make sure all was ok for them.”

Rose Voucher collection slots help centre workers, during this time and outside of lockdown, not only to monitor safeguarding concerns but to see families and keep contact with them. 85% of families receiving support from the Community Family Support team are also registered onto the Rose Vouchers for Fruit and Veg Project (estimate from qualitative interviews). These families face great difficulties related to housing, domestic abuse, safeguarding concerns, and wellbeing.

#### **Mechanisms driving increased social interaction and community**

Increased feelings of connection and community appear to have been driven by five mechanisms:

1. Rose Voucher collection enables families to build a relationship with the centre.
2. Markets offer a more personalised shopping experience for families.
3. Families receiving Rose Vouchers have several opportunities to meet other families with a shared background or experience.
4. Rose Vouchers reduce stigma around financial struggle, enabling open conversations between families around difficult topics.
5. Relevance of the programmes and support at Rose Voucher desk for family needs.

**Building a relationship with the centre:** the regular Rose slot enables families to become familiar with the activities going on in their local area, as well as build friendly relationships with staff. Some go on to volunteer at the centre and assist with Rose Voucher distribution.

“I speak to many new people through Rose Vouchers. Sometimes you meet people in the Children’s Centre when you get the Rose Vouches, friendly giving out advice and also at the market. Nice people at the Children’s Centre. Always available to give advice. ... I



have met new friends, mostly women. Gets more information from other parents, it's very good."

**A more personalised shopping experience in the markets:** the markets are often more welcoming than e.g., supermarkets with traders learning to say hello in another language, ask about children, give advice about how to cook a type of fruit or vegetable.

"When in East Street, I chat while shopping. It's a good thing, organic and natural - East Street is very diverse you meet different people from everywhere."

"I'm closer to the community because people see me in the market with friends, I was there every day at one point"

**Connecting families with families:** Families see each other whilst attending the centre and at the markets, and the vouchers can be a conversation starter for families. In particular, Rose Vouchers help families find other families with a shared experience, particularly families with the same heritage or living with similar challenges i.e., living in the same hotel due to refugee status.

"I meet new people at the market, chatting about where they get their stuff, the kids, getting ideas about new things to try. Get to know lots of mums at the market, then I introduce them to Rose Vouchers."

"Families meet other families on the project - even other families from where they are originally from. Even me! I meet people on this project from where I'm from- You hear a language being spoken in the centre, or in the market, and they are places where you can turn around and say hey, are you from here?! It can be isolating being in new in a country, easy to be on your own. You need these opportunities to connect." **Volunteer**

"Families then tell other families, that's how most families find out about the Rose Vouchers. People love the vouchers and like to be able to give other people a good recommendation - hey, do you know about Rose Vouchers?! That's how I found out myself - I was at the market one day and saw someone hand over this colourful slip of paper and I said, what's that? Some families even list each other as their second collector and collect for each other, then give them out at school pick-up. It's sometimes difficult for families to make the collection slot, when they have a few children, so we are understanding like that for some people. It shows how much they want them to ask friends to pick them up - Plus they then have another reason to see their friends, don't they." **Volunteer**

"I have registered people on this project - 4 or 5 families - living in the same block, as neighbours, who have never met but are on this project. I say, do you know this other person?! Even if they haven't met yet, it provides that opportunity to meet, whether at the centre or when they will see each other around at the market or going to and from their home, to have something to start a conversation." **1<sup>st</sup> Place worker**



Figure 4. Welcoming and relevant: A display in the Stay and Play room. February 2023.

**Reduce stigma around financial struggle:** By providing a tangible benefit to sharing income or employment precarity, the Rose Voucher overcomes pride and shame, the biggest barriers most families face when they need to ask for help. This trickles into other centre activities, with families talking more openly around financial struggle with other families in courses and sessions.

“Before we ran the Rose Vouchers for Fruit and Veg Project we saw maybe one family a month arrive on a Friday just before we close saying they had no food or money for the weekend. They always arrive on Friday you see, when there was no where we could signpost them to. They arrive then because they’ve tried everywhere else, or panic set in, and they have nowhere else to turn. Without Rose Vouchers, I don’t know what we would have done during COVID and cost-of-living crisis. 20-25 families out of 30 are on Rose Vouchers who attend our courses. That’s how much need there is now.

“While I wouldn’t say we get more families on the courses because of Rose Vouchers, we definitely get more families in need. We’re definitely reaching the families in the area that are on low incomes and need the help. I even notice it now, before no one would talk about struggling with money. It would take a lot to get to a stage where you could have a family open up about finances or other issues like that. But even in the sessions families will talk about it to each other. There’s no embarrassment.” **Early Years worker**

**Relevance of support offer at centre:** The sign-up process incentivises families to overcome feelings of shyness and shame about their struggles with a direct reward (e.g., vouchers) and advise them about other support they are eligible to receive.

“I attended the cook and eat course twice, at the children’s centre. I learned about not adding salt to food, using more veg in dishes, adding spices instead of salt. It was useful.”

“They are brilliant, I have been to parenting courses and first aid. It has helped me to deal with tantrums. Healthy eating was also mentioned on parenting courses.”

## Discussion

The aim of the Rose Vouchers for Fruit and Veg Project is to give families on low incomes access to fresh fruit and veg in their local communities. This research has demonstrated that this access has far-reaching impacts on family diet, health, and wellbeing.

The research has shown that ringfencing the Rose Voucher to fruit and vegetables helps families prioritise the food source that is the first to be deprioritised during financial worry: vegetables. The ringfencing of the Rose Voucher is also a stimulant for creativity, encouraging more experimentation in meals. By focusing attention and spend on this food source, the intervention is successful in enabling parents and carers to introduce a consistent, varied, high fruit and vegetable diets for their children during a crucial period of development (6 months to 2 years). This research has also shown that Rose Vouchers are proving to be a successful life-course intervention for many families that results in a sensory impact, an important steppingstone for healthy choices in the future.

As mentioned, Rose Vouchers are making a noticeable difference to family diets, covering most of their costs for fruit and vegetables. However, the evaluation has also found that the partnership with children's centres is helping to mitigate against dependency on the financial assistance of the vouchers. In the process of receiving Rose Vouchers, families are developing closer relationships with the people in their area and developing their confidence engaging with local and national initiatives. The relationships families develop by going to the centre regularly, with both centre workers and with other families, is strongly felt by both staff and families.

The regular, informal Rose Voucher collection slots are also reported as an essential gateway for centre workers to build familiarity and trust with families. This is assisted by the income criteria of the model, which helps to shepherd conversations about need and openness around struggle with families through the incentive of a tangible benefit, accessible on that very day. This has the follow-on impact of helping families overcome pride and shame around struggle, the biggest barriers most families face when they need to ask for help. This trickles into other centre activities, with families talking more openly around financial struggle with other families in courses and sessions. The cumulative effect is a reduction in the stigma of financial struggle and reduced isolation in hard times.

This research has also more strongly established that Rose Vouchers are an effective health inequalities intervention. The project has high participation from hard-to-engage families in deprived communities, frequently from cultural groups who also show high rates of multiple long-term health impacts. This is due to the Rose Vouchers for Fruit and Veg Project working in partnership with market traders who offer a wider variety of culturally familiar produce. The suitability of the model for families who identify as having African, Caribbean, Asian, Latin American and Arab backgrounds is an unintended outcome of the partnership but one that ensures its efficacy.

Going forward, there are some challenges on the horizon. The cost-of-living crisis is likely to increase pressure on families in the future, reducing the amount and variety of fruit and vegetables families can afford. This is driven both by increased expenditure elsewhere (e.g., higher energy bills) and as a result of market retailers also being squeezed by increased business expenses and food costs at supply. Higher energy bills are also influencing eating and cooking habits with families choosing ingredients and methods of cooking which are most 'energy efficient'.

Another obstacle for the efficacy of interventions like the Rose Vouchers for Fruit and Veg Project is good public awareness of the latest nutritional guidance in formats sympathetic to language and literacy barriers, which is a challenge at the local and national level alike. This research discovered that there is a need for more public education on advised meat and protein intake, as well as the detrimental impact of blending fruit and vegetables on its nutritional quality.

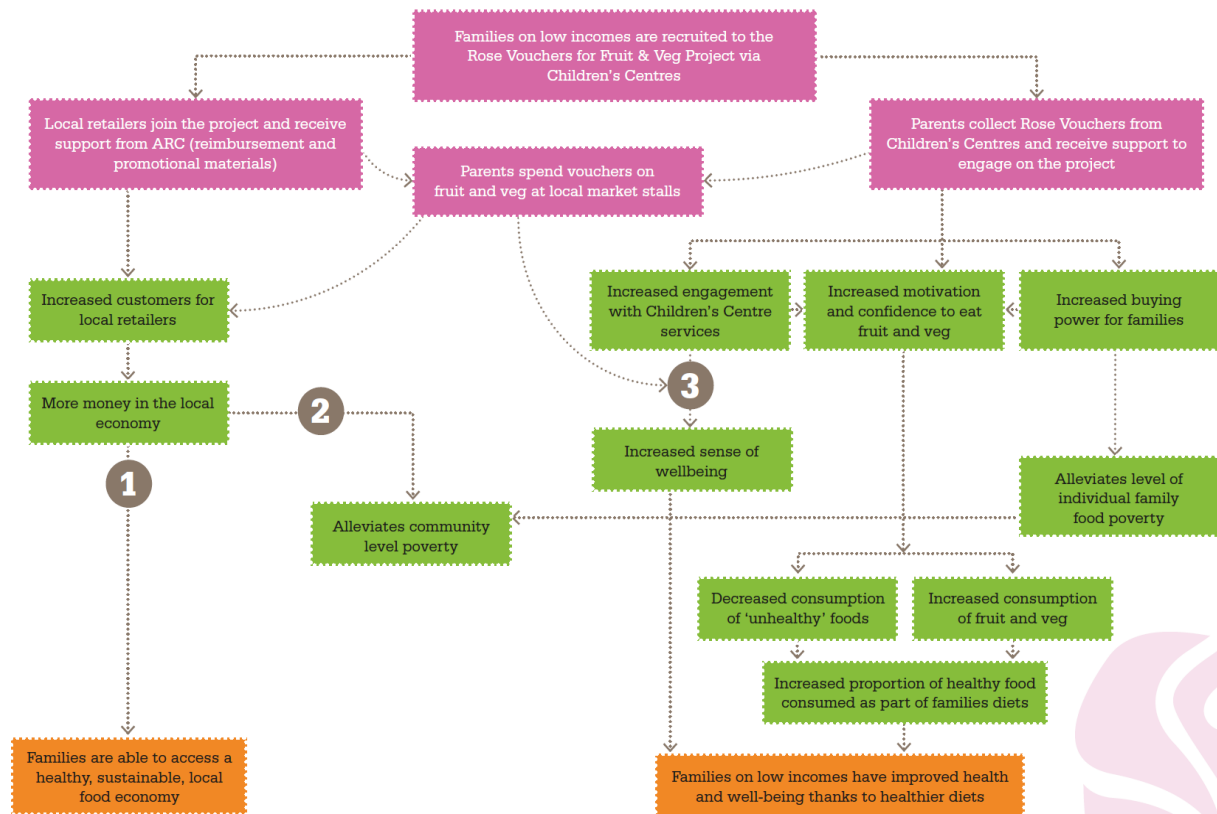
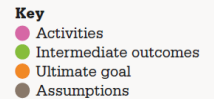
Despite these obstacles, the model of the Rose Vouchers for Fruit and Veg Project, in partnership with local partners and independent market retailers, is a nutrition and health intervention that thoughtfully addresses many of the core barriers families face in the fresh fruit and vegetable marketplace. The intervention is significant enough to have a powerful and long-term effect on individual lives and public health, and to contribute towards the parallel crises of childhood obesity and childhood malnutrition in deprived areas of the UK.

# Appendix

## Theory of Change



# Theory of Change



## Methodology: Food intake

### Key Questions

The food intake research was anchored by 3 key questions:

1. When families use Rose Vouchers, how much more fruit and vegetables do i) the main carer and ii) Rose Voucher eligible child eat?
2. When families use Rose Vouchers, are fruit and vegetables an addition or a supplement to other foods?
3. When families receive Rose Vouchers, is their diet more nutritionally balanced?

The purpose of the first two research questions is to give more specific, measurable insights into how the Rose Vouchers affect family food intake, while the third is to gain a general idea of dietary balance.

## Tools

The evaluation insights into food intake came from a Short-form Food Frequency Questionnaire (SFFFQ) filled in by families when they signed up for Rose Vouchers, and the same SFFFQ at a follow-up evaluation over 6 months later. The SFFFQ was filled in with an evaluator during a workshop or a 1:1 phone call to contextualise answers and capture absences or nuances with open-ended questions. The SFFFQ used for this study is based on a validated dietary quality tool designed by the University of Leeds.<sup>26</sup> This validation, alongside its focus on assessing dietary quality specifically, was a reason this tool was chosen as the basis for the ARC food intake measurement. A short-term memory recollection, over other tools like 24-hour food diaries, was also deemed a good approach for families on the scheme with young infants whose diets can look very different day to day.<sup>27</sup>


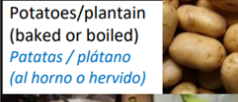

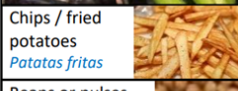
The SFFFQ also provided other advantages, like being able to provide images next to food groups, to limit barriers of comprehension and language, and to provoke wider discussions of commonly consumed foods not present. To increase confidence in the follow-up findings, I triangulated the food questionnaire answers with qualitative answers to ensure change is captured as truthfully to the family as possible.

The SFFFQ tool tracked 23 food items and included adaptations for cultural relevance and age. A frequency scale was used that measured how many times a day, a week, or less a specific item was consumed by both carer and child. Parents and carers were asked to provide answers for the child receiving Rose Vouchers, and if their family included more than one child under 5 years old, to answer for the child aged closest to 2-3 years old.

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<sup>26</sup> Cleghorn CL, Harrison RA, Ransley JK, Wilkinson S, Thomas J, Cade JE. Can a dietary quality score derived from a short-form FFQ assess dietary quality in UK adult population surveys? *Public Health Nutrition*. 2016 Nov;19(16):2915-2923.

<sup>27</sup> Scientific Advisory Committee on Nutrition (SACN) recommends a varied diet for infants from around 6 months of age.

		N/A (I'm pregnant or child too young for solid foods) <i>(Estoy embarazada o el niño/a es demasiado pequeño para los alimentos sólidos)</i>	Rarely or never <i>Rara vez o nunca</i>	Less than 1 a week <i>Menos de 1 a la semana</i>	Once a week <i>Una vez a la semana</i>	2-3 times a week <i>2-3 veces a la semana</i>	4-6 times a week <i>4-6 veces a la semana</i>	1-2 times a day <i>1-2 veces al día</i>	3-4 times a day <i>3-4 veces al día</i>	5+ times a day <i>5 o más al día</i>
 Vegetables (fresh, tinned, or frozen – but not potatoes) <i>Verduras (frescas, enlatadas o congeladas, pero no patatas)</i>	Me <i>Yo</i>									
	My child <i>Mi hijo/a</i>									
 Potatoes/plantain (baked or boiled) <i>Patatas / plátano (al horno o hervido)</i>	Me <i>Yo</i>									
	My child <i>Mi hijo/a</i>									
 Chips / fried potatoes <i>Patatas fritas</i>	Me <i>Yo</i>									
	My child <i>Mi hijo/a</i>									
 Beans or pulses like lentils, kidney beans, chickpeas <i>Frijoles o legumbres como lentejas, alubias, garbanzos</i>	Me <i>Yo</i>									
	My child <i>Mi hijo/a</i>									

## Assessing dietary balance

This study is a first attempt at judging the dietary impact of Rose Vouchers with greater specificity and with a more specific measurement tool. It uses a broad category of frequency of intake and portion amounts to estimate changes and help us to understand if, and where, Rose Vouchers help parents and carers create a more balanced nutritional diet for themselves and their children. It gives a better picture of dietary trends, and it is not meant as a replacement for a nutritional composition assessment (that would require micro-nutritional research and academic resources). To assess dietary balance, I have referred to the NHS guidelines regarding recommended portion sizes<sup>28</sup> and frequencies<sup>29</sup> for both early years children and parents and carers. Nutritional advice suggests children over 12 months should, and are likely to, eat roughly the same food as their parents and carers, but smaller child-size portions with judgements made from the carer. This means portion sizes can provide a reasonable, general insight into a child's dietary composition before and after Rose Vouchers despite the significant changes and fluctuations that occur in diet during early childhood.

## Sample size

To calculate dietary change for children receiving Rose Vouchers, I have focused on the responses for children aged 12-48 months (n = 14; 2 children were under 6 months, 6 were under 12 months). This sample decision was made because infants under 12 months have a diet that changes rapidly and is unique to the infant; a

<sup>28</sup> Advice for parents and carers of healthy-weight children [www.nhs.uk/live-well/healthy-weight/childrens-weight/healthy-weight-children-advice-for-parents/](http://www.nhs.uk/live-well/healthy-weight/childrens-weight/healthy-weight-children-advice-for-parents/)

<sup>29</sup> Eating a balanced diet, NHS [www.nhs.uk/live-well/eat-well/how-to-eat-a-balanced-diet/eating-a-balanced-diet/](http://www.nhs.uk/live-well/eat-well/how-to-eat-a-balanced-diet/eating-a-balanced-diet/)

core reason why there is little official nutritional guidance on infant intake on a national (SACN) and global scale (WHO). Moreover, the diets of infants under 12 months will still involve a lot of formula and/or breast milk.<sup>30</sup>In comparison there is clearer guidance for infants over 12 months in terms of both portion sizing and frequency of weekly consumption that can provide an agile benchmark of change, even as children grow.

## Methodology: Health impact

### Key Questions

The food intake research was anchored by 3 key questions:

1. When families use Rose Vouchers, what health symptoms are eased or improved for i) the main carer and ii) Rose Voucher eligible child, if any?
2. What are the most significant quality of health improvements?
3. Is there an effect on number of visits to the GP?

The purpose of the first two research questions is to gather insight into the scale of health and wellbeing benefits that families experience while on the Rose Vouchers project. The third is to gain a general idea of rates of sickness and impact on NHS services.

### Tool

Families (n = 22) who took part in the Short-Form Food Frequency Questionnaire also indicated their view of their health in general on a scale of very good to very bad. Alongside this they were asked if they, or their child, had experienced any of the following health conditions: Diabetes Type 2 or Insulin resistance; High blood pressure or high cholesterol; Constipation (2 or more times the last 12 months); Overactive bowels (e.g., diarrhoea 2 or more times the last 12 months); Changes in weight (i.e., a history of noticeable weight gain and weight loss, such as a stone gained or lost within 12 months); Trouble sleeping and concentrating; Fatigue and low energy; Anxiety and/or low moods for days at a time. At the follow-up session the families were asked if there had been any change to these indicators of health and if so if they had improved or decreased 'a bit' or 'a lot'. This scale was filled out with an evaluator alongside open-ended questions at workshops or 1:1 phone calls.

The health symptom scale was shaped by the reported outcomes from previous Rose Voucher evaluations, alongside research into common health improvements from improved nutrition for adults and infants.

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<sup>30</sup> Feeding in the first year of life: Scientific Advisory Committee on Nutrition (SACN) report. 2018. "The types of food, flavours and textures offered should become increasingly diverse throughout the complementary feeding period. SACN noted that new foods may need to be presented to infants on many occasions before they are accepted, particularly as infants get older."



Since receiving Rose Vouchers, have there been any specific health and wellbeing changes for you and your children?

		Much worse	A bit worse	The same (I still struggle)	The same (I didn't struggle with this before)	A bit better	A lot better
<b>Energy levels</b>	Me						
	Children						
<b>Concentration on tasks</b>	Me						
	Children						
<b>Sleep</b>	Me						
	Children						
<b>Digestion – constipation, overactive bowels / diarrhoea</b>	Me						
	Children						
<b>Maintaining a healthy weight</b>	Me						
	Children						
<b>Feeling stressed and anxious</b>	Me						
	Children						

How much of the health and wellbeing changes indicated are because of Rose Vouchers? Please circle one answer below.

None of it

Some of it

Most of it

All of it