Mixed methods process evaluation of the Leicestershire community kitchens scheme

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Executive Summary

Overview

This is a report of the process evaluation of the Leicestershire community kitchen scheme in Hinckley and Bosworth. The scheme began in 2017 with the implementation of three community kitchens operating on a weekly basis to educate residents about cooking methods to reduce household food waste (HHFW). The community kitchens were initially funded by Sainsburys and branded ‘waste less save more’ community kitchens. Today, there are six community kitchens, funded either by the council or by participant donation. The community kitchens occur fortnightly, alternating with a craft session, with the aim of educating residents about household food waste in addition to providing them with an opportunity to socialise. The craft sessions are funded by participant donation and are open to anyone (i.e., individuals who do and do not attend the community kitchen sessions) to attend. Because over 50% of the individuals who attend the community kitchens also attend the craft sessions, the current evaluation focuses on the community kitchens while also taking into consideration the potential influence participating in the craft sessions may also have on health and wellbeing outcomes.

A report of the three original 2017-2018 community kitchens suggested they were effective in reducing household food waste. However, participants also reported a range of other health and wellbeing impacts, including increased socialisation, reduced loneliness and increased self-confidence and employability. Given that Leicestershire County Council’s primary focus has been on the role of the community kitchen scheme in reducing household food waste, the exact health and wellbeing impact of participation is unclear. Consequently, the current process evaluation aimed to understand what the health and wellbeing impacts of participating in community kitchens (and craft sessions) are for participants and how these are being achieved by addressing four research questions:

1. What health and wellbeing changes do participants attribute to the community kitchen scheme and are those different from the those attributed to the craft sessions?
2. How are the health and wellbeing changes achieved? (e.g., what are the mechanisms of change that lead to these health and wellbeing impacts?)
3. How does context effect the health and wellbeing impacts (e.g., what is common to all kitchen and what varies)?
4. What population groups are the community kitchens reaching? (e.g., who is intended to benefit from attending, who is attending and why?)

Methods
This was a mixed methods study. Data collection included a survey of those attending community kitchen and craft sessions (n=37), group observations of community kitchen (n=4) and craft sessions (n=2) and individual qualitative interviews (n=20). Participants included community kitchen and craft participants, volunteers who help run the sessions, and Hinckley and Bosworth Borough Council staff whose work includes provision of the community kitchens and craft sessions.

Findings
Process evaluation findings demonstrate the community kitchens and craft sessions provide attendees with an opportunity to meet and socialise with others while learning new skills or trying something new. The community kitchens offer a safe environment that is inclusive of background, ability and gender that fosters socialisation, independence, and confidence among participants. The community kitchens and craft sessions were found to be highly valued by attendees but that reducing household food waste was not an integral aspect of the community kitchens from the participants perspective. Reducing household food waste failed to be mentioned during half of the community kitchens sessions observed and several participants reported having no awareness of the association between the community kitchens and household food waste during the interviews. Participants also discussed its integration into the community kitchens as being historical, having only been part of the community kitchens when they were first initiated in 2017.

The opportunity to socialise was the health and wellbeing impact most reported and valued by participants, with many of the participants reporting having made friends with other attendees. Attendance at community kitchens was also shown to be important for participant’s sense of independence providing them, for example, with respite from caring responsibilities or conversely from being cared for. The community kitchens and craft sessions offered attendees who were carers or who were cared for an opportunity to do something by themselves, for themselves.

Although participants reported having experienced several health and wellbeing impacts, the current process evaluation cannot attribute these to the community kitchen initiative alone with confidence. Most participants interviewed reported attending several other community-based
activities. Consequently, contextual factors (beyond the community kitchens) may have contributed to the health and wellbeing impacts reported by participants. Some participants reported that the perceived health and wellbeing outcomes (e.g., growth in confidence, lower anxiety) were the result of their engagement in the community and community-based activities in general rather than specifically the kitchen or craft sessions.

Attendance at the community kitchens and/or craft sessions was facilitated by engagement in the cooking activities originally run by Hinckley and Bosworth Borough Council prior to 2017. It was later increased by referrals made by Local Area Co-ordinators or by participant word of mouth and engagement in other community activities. Advertisement for the community kitchens and craft sessions was reported to be (currently and previously) limited, particularly for individuals not associated with the community buildings (e.g., community houses, churches, library) in which the sessions took place because advertisement was restricted to these environments.

Participants reported several challenges in sustaining the implementation of the community kitchens and to successful expansion of the scheme. Central to this was the lack of volunteers to run the Community Kitchens and thus the importance of Hinckley and Bosworth Borough Council staff to organise and facilitate the group. The need to recruit, train and retain suitable volunteers to take on the responsibilities of running the session independently (i.e., without the guidance and support from Hinckley and Bosworth Borough Council staff) is therefore particularly pertinent if the scheme is to be expanded across Leicestershire. Increasing the accessibility of community kitchen locations and better advertising was also suggested as being an aid to successful expansion of the scheme as was ongoing provision of funding to maintain support for new and existing kitchens through the provision of volunteer recruitment and training, food and craft related resources, facility maintenance, and co-ordination of the intervention.

Conclusion and recommendations

The community kitchen intervention continues to be implemented in Leicestershire in the borough of Hinckley and Bosworth with six active kitchens. It is a valued community-based intervention, considered worthwhile by the individuals who attend and the volunteers and staff members who help implement the sessions. The primary health and wellbeing impact reported by those participating in the community kitchen scheme was increased socialisation. This was said to be achieved by offering the residents of Leicestershire, particularly those at risk of social isolation and/or loneliness (e.g., widowed, retired, disability) opportunities to socialise and learn new skills within a group environment that facilitated active participation and collaboration. As such, the
community kitchen scheme was shown to attract the participation of individuals more likely to be socially withdrawn by circumstance (e.g., retired, widowed, cognitive or physical disability).

A successful expansion of the community kitchen scheme across Leicestershire requires identification of accessible and applicable locations in which to implement the intervention in addition to the recruitment and retention of suitable volunteers to facilitate the community kitchen sessions. The scheme requires continued financial support and wider advertisement to realise its full potential as an effective and successful intervention to promote reducing household food waste and the health and wellbeing co-benefits highlighted in this report. If the community kitchens are to have a sustainability impact, the focus on reducing household food waste will need to be reintegrated into the sessions so that they once again become a core concept around which each session is planned and implemented. For the community kitchens to result in improved social health, they need to build on the concept of active collaborative participation and emphasise social support.
Introduction

Background and Purpose

Cooking interventions have been used to improve eating behaviours, nutritional status, weight related outcomes, and cooking skills (Aycinena et al., 2017; Rees et al., 2012; Reicks et al., 2014). Systematic reviews have repeatedly demonstrated cooking interventions to lead to favourable outcomes (Reicks et al., 2014) amongst the general population and in specific patient populations (e.g., patients with eating disorders; Lock et al., 2012).

Community kitchens are community-based cooking programmes in which small groups of people meet on a regular basis to plan, cook and share healthy, affordable meals. Community kitchens are designed for anyone to participate in and can be run anywhere there is a kitchen (e.g., churches, schools, community buildings). The main difference between community kitchens and other food assistance programmes (e.g., soup kitchens) are their collaborative, participatory nature, and their potential to foster social skills and support (Loopstra & Tarasuk 2013). Community kitchens have thus been implemented by communities as a public health strategy to reduce social isolation, improve food security and cooking skills, and empower participants.

Most of the research literature on community kitchens (sometimes referred to as collective kitchens) comes from studies conducted in Canada, Australia, and Scotland (Sahyoun et al., 2019). The primary aim of this research has been to examine the impact of community kitchens on health promotion and food security. The results of these studies suggest community kitchens are an effective public health strategy for improving nutrition (Engler-Stringer & Berenbaum., 2005; Iacovou et al., 2012; Lee et al., 2010; Marquis et al., 2001). For example, participants have repeatedly been found to report improvements in their intake of nutritious food (Crawford & Kalina., 1997; Engler-Stringer & Berenbaum, 2006; Engler-Stringer & Berenbaum, 2007; Tarasuk & Reynolds, 1999), a greater diversity of food (Engler-Stringer & Berenbaum, 2006) and a reduction in fast food consumption (Marquis et al., 2001). It has also been suggested that the dietary impacts from participating in community kitchens have also been suggested to have flow-on effects to other family members, because community kitchen participants feed their families healthier food (Fano et al., 2004).

Previous research shows there to be a consensus on the positive value of community kitchens. However, there has been debate over whether participation in community kitchens increases financial wellbeing and food security (Fano et al., 2004; Tarasuk, 2001; Tarasuk & Reynolds, 1999). Researchers argue that the financial impact of community kitchens and the association between CK
participation and food security requires further investigation because community kitchens have limited capacity to resolve food insecurity issues as they do not alter the economic status of the household (Tarasuk & Reynolds, 1999).

While previous research on community kitchens does not tend to focus directly on the social impacts and experiences of participation, feeling socially supported and less isolated and lonely consistently emerge as results (Engler-Stringer & Berenbaum, 2005; Fano, et al., 2004; Fernandez, 1996; Racine & St-Onge, 2000; Ripat, 1998; Tarasuk, 2001; Tarasuk & Reynolds, 1999). For example, Racine & St-Onge (2000) found that some of the most frequent outcomes reported by participants of a collective kitchen were decreased isolation, friendship development, mutual aid, moral support, increased self confidence and self-esteem and increased participation in other community events/organisations, all of which related to increased feelings of being socially supported. Moreover, Fano et al., (2004) found that social interactions and support were the main reasons participants gave for why they joined a community kitchen programme. Other benefits of participating in a community kitchen programmes have included development of skills and thus access to, and securement of, employment (Fano et al., 2004; Lacovou et al., 2013; Racine et al., 2009). However, these community kitchen impacts are also less well understood.

**Leicestershire community kitchen**

An increased awareness of the positive impact reducing food waste can have for the environment led Leicestershire County Council (LCC) to establish three community kitchens in 2017. These were established with funding from Sainsburys as part of their Waste Less Save More project. The kitchens were held weekly, with the overarching aim being to engage individuals from all walks of life, with household food waste issues and build capacity to deal with food waste effectively and sustainably among residents in Leicestershire. It was additionally hoped that participation in the community kitchens would produce a wider range of benefits for the individuals and communities Leicestershire County Council serve such as financial and social benefits.

In a bid to achieve these aims, the community kitchens were designed around application of the core principals of the Waste and Resources Action Programme (WRAP, 2014) resources: 1) meal planning; 2) understanding labelling on food; 3) using shopping lists; 4) storing and using leftovers; 5) portioning properly; and 6) food storage advice, in addition to providing participants with a food waste diary and recipe book. Preliminary results from an internal report commissioned by Leicestershire County Council of the three community kitchens established as part of the Waste Less Save More project, suggested community kitchens were effective interventions for reducing
household food waste. Based on data from food waste measurements and diaries collected from participants, the report showed that over the course of six–eight weeks, the community kitchen participants recorded a 33% reduction in household food waste. Participants also reported a range of other health and wellbeing impacts as a result of participation, including socialisation, reduced loneliness and increased self-confidence and employability.

However, because Leicestershire County Council’s primary focus was on the role of community kitchens in reducing household food waste, the health and wellbeing impacts of participation in the community kitchens was unclear. Further, while the original community kitchens were held on a weekly basis, today the kitchens are held fortnightly alternating with a craft session. These craft sessions are voluntary and open to individuals irrespective of whether they participate in the community kitchens. This schedule amendment occurred because volunteers found the organisation of community kitchens on a weekly basis to be challenging in terms of time and responsibility (e.g., shopping, planning). The craft sessions offer the community kitchen participants an alternative session to participate in when the community kitchens are not running. Because more than 50% of the participants who attend the community kitchens sessions also attend the craft sessions, any health and wellbeing impacts can no longer be attributed to participation in the community kitchen sessions alone. The health and wellbeing impacts may also be the result of participation in the craft session.

The focus of the current evaluation was on process outcomes rather than impact and focused on identifying what health and wellbeing outcomes are likely to be experienced because of participation in the community kitchen (and craft sessions) and how these health and wellbeing outcomes are achieved. A logic model for the health and wellbeing impacts of the community kitchen and craft sessions was developed (See appendix 1 Figure A1) in collaboration with the Leicestershire County Council (LCC) and wider stakeholders (i.e., Hinckley and Bosworth borough council staff). The logic model sets out the inputs and activities of the community kitchen and craft sessions in addition to the intended immediate and final outcomes of participation. The logic model also suggests the mechanisms through which these outcomes may be achieved in addition to the possible health and wellbeing impacts. This logic model informed the aims, objectives, and methods of the process evaluation.

Aims and Objectives

Because the aim of the community kitchens in Leicestershire has been to reduce household food waste, the link between the community kitchen activities and suggested health and wellbeing
impacts remains unclear. Consequently, the current study aims to identify the perceived health and wellbeing impacts of participating in community kitchens, how these are achieved and whether the logic model we have developed with LCC is valid. This evaluation will therefore focus on process, rather than impact. The results will aim to assist LCC identify the most important health and wellbeing outcomes from participating in the community kitchens so that routine data collection materials and methods can be set up to help provide evidence of the value of the community kitchen scheme. Identifying the health and wellbeing outcomes of the community kitchen could also help LCC identify potential future priority locations and populations for community kitchens based on health need. The current process evaluation has four research questions:

1. What health and wellbeing changes do participants attribute to the community kitchen initiative and are these different from those attributed to the craft sessions?
2. How are the health and wellbeing changes achieved? (e.g., what are the mechanisms of change that lead to these health and wellbeing impacts?)
3. How does context effect the mechanisms of change and health and wellbeing impacts? (e.g., what is common to all kitchens and what varies?)
4. What population groups are community kitchens reaching? (e.g., who are intended to benefit from attending, who is and is not attending and why?)

Methods

Data collection
This was a mixed methods study. Data collection methods included a survey with community kitchen and craft participants, group observations and individual qualitative interviews with community kitchen and craft volunteers, participants, and Hinckley and Bosworth Borough Council staff. The study explored the perceptions of individuals who attend the community kitchens, those that attend the craft sessions, and those that attend both. Survey data aimed to help identify who is attending the community kitchen and craft sessions, while qualitative data aimed to allow a more in-depth exploration of participants’ experiences. Observations aimed to enable researchers to directly observe the contextual influences of the community kitchens and craft sessions in addition to participant interactions with each other and the volunteers and experiences of participation.
LCC were involved in the development of the study protocol and design of the data collection tools. The study team also undertook a two hour online public involvement workshop with previous community kitchen participants and volunteers. During the workshop, they were consulted about the participation information sheet (PIS), data collection methods and recruitment strategy. The workshop took place before recruitment began to ensure study materials and methods were relevant, inclusive and accessible.

Qualitative and quantitative data collection was done face-to-face, by telephone or online depending on participant preferences, availability and access to facilities and resources (e.g., internet and/or computer access). The distribution of participant surveys was assisted by the community kitchen and craft session volunteers and Hinckley and Bosworth Borough Council staff who work directly with the community kitchen and craft sessions.

**Data collection 1: Survey**

The first method of data collection was a paper copy of a survey distributed to all community kitchen participants (n=45) as well as all participants who only attended the craft sessions (n=6). Survey distribution was undertaken at the beginning of the session by the volunteers, Borough Council staff or by the researcher from the University of Bristol during one of the planned observations. The questions were essentially the same for the community kitchen and craft participants, but wording was changed to be appropriate for each group. Participants could either complete the survey online (i.e., via a computer, tablet, or mobile phone) or by completing a paper version. Participants who were unable to complete a paper or online survey (e.g., individuals with low literacy) were offered the opportunity to complete the survey via telephone or face to face with one of the researchers. All versions of the survey included a full participant information sheet, detailing the study aims, objectives, study team, use of data, data confidentiality and a consent form. Surveys allow researchers to collect a large amount of data on a broad range of topics in a relatively brief period. Consequently, the surveys for the current study were used to gather data on participant sociodemographic, general health, mental health, social interactions, and social support (See Appendix 2 for a copy of the survey).

**Sociodemographic:** Participants were asked to indicate their gender, age, highest level of education achieved (i.e., did not attend school, high school, college, undergraduate degree, postgraduate, other), current employment status (i.e., full time, part time, elf employed, unemployed, student, retired, unable to work for physical or mental health reasons, unable to work due to being a carer, home maker), average household income (£0-14,999, £15,000-£24,999, £25,000-34,999 £35,000+)
current housing situation (i.e., own, own home, rent from private landlord, rent though social housing, live with parents, house/flat share) and food expenditure/security. Food expenditure and security was measured using nine items adapted from the USDA ERS survey (Coleman-Jensen et al., 2014), which asked participants about their ability to afford and access food (e.g., “I feel I can easily buy healthy food in my neighbourhood”) on a five-point Likert scale (1=strongly disagree, 5= strongly agree).

General Health: Participants were asked to indicate the status of their general health (i.e., very good, good, fair, bad, very bad, don’t wish to say).

Mental Health: Participants were asked to complete the Mental Health Inventory (MHI-5; Berwick et al., 1991). The MHI is a condensed version of the Mental Health Inventory with 38 items developed in 1975. The inventory comprises five questions about mood over the past month, and measures psychological well-being and the absence of psychological distress. Each item is rated on a six-point Likert scale (1=all the time – 6=none of the time).

Social interaction and satisfaction with social support: Participants were asked to complete the subscale of the Duke Social Support Index (DSSI-10) which comprises 10 items measuring the number and quality of social relationships (McDowell & Newell, 1996; Wardian et al., 2013). Four items measured the number of social interactions (e.g., how many times during the past week did you spend time with someone who does not live with you?) and six items measured satisfaction with social support (e.g., when you are talking with your friends and family, do you feel you are being listened to?).

Open survey questions also gathered data on participants perceptions of the aims of the community kitchen or craft session, the perceived health and wellbeing impacts from participating and the perceived benefits and disadvantages of attending.

Data collection 2: Group observation

Marshall and Rossman (1989) define observation as “the systematic description of events, behaviours and artifacts in the social setting chosen for study” (p.79). Observations enable the researcher to describe existing situations through observing and participating in those activities. Observations provide researchers with ways to check for nonverbal expressions of feelings, determine who interacts with whom, grasp how participants communicate with each other and check for how much time is spent on various activities (Schmuch, 1997). Observations also allow researchers to observe events and obtain information that participants may not directly reveal or share with the researcher during an interview. Consequently, observations were considered an ideal
method for data collection for the current study to develop a holistic understanding of the
community kitchens, including the fortnightly craft sessions, the contextual influences, the health
and wellbeing impacts and the mechanisms through which they are achieved (DeWalt & DeWalt,
2002).

Four of the six established community kitchens were observed during May - July 2022. The four
kitchens were selected based on participant characteristics (e.g., gender) and location (i.e., rural, or
urban). Three of the selected kitchens were gender specific (i.e., one for men only, two for women
only). The other kitchen was mixed gender. All bar one of the community kitchens were in urban
areas. Two craft sessions were also observed, one that was attended to by participants who also
attended the community kitchens and one that included participants who only attended the craft
sessions. It was hoped that by observing these two craft sessions, the researcher would be able to
observe if and how the craft sessions differed in terms of participants and contextual factors.
Observing sessions that included participants who did and did not attend the community kitchens
allowed for the research to explore contextual influences on health and wellbeing impacts in
addition to exploring potential reasons for why individuals choose not to attend the community
kitchens. The sessions were held in community houses, churches, and libraries in Hinckley and
Bosworth and were geographically between three and 10 miles apart from each other.

Observations of the selected kitchens and craft sessions involved the researcher observing
adherence to the core elements of the community kitchen (i.e., activities and WRAP resources), how
the community kitchen and craft sessions worked, what was happening and why, what were regular
and irregular activities, participant interactions with each other and the volunteers and what impact
they may be having on the health and wellbeing of participants. The researcher also used an
observation framework to gather detailed field notes (see Appendix 3). Additionally, observations
provided an opportunity for the researcher to familiarise themselves with participants and the
community kitchen and craft settings. This was assumed to facilitate the research process, provide
the researcher with opportunities to directly observe the influence of contextual factors, provide the
researcher with additional questions to be included in the qualitative interviews in addition to
equipping the researcher with information and experiences that could be directly referred to during
the interviews. The researcher also used the group observations as an opportunity to recruit further
participants to complete the survey and interviews.

**Data collection 3: Interviews**

To gather in depth participant perceptions of the health and wellbeing impacts of the community
kitchens and craft sessions, the mechanisms through which these are achieved and contextual
influences, semi-structured interviews were undertaken with individual participants of the community kitchen and participants who only attended the craft sessions. Participants participated in the interviews online, via the phone or face to face depending on their preferences, availability, and access to facilities. The interviews were guided by a topic guide (see Appendix 4) which was informed by our research questions, PPI discussions and data from the community kitchen and craft session observations and survey. Questions explored the participant experiences of participating, social interactions, perceived impacts of the community kitchen and/or craft session, the influence of contextual factors and the perceived advantages and disadvantages of the community kitchen and/or craft session. The interviews also explored reasons for attending or not attending the different sessions and what could be done to increase attendance.

To gather additional in-depth information, volunteers from the kitchen and craft sessions in addition to the Hinckley and Bosworth Borough Council staff who work directly with the community kitchens and craft sessions were also recruited to participate in an interview. Similarly, to the interviews with participants, these explored perceptions of the benefits of participating in community kitchens, the craft sessions, the mechanisms of change, the health and wellbeing impacts that result from participation, whether health and wellbeing impacts differ between participants who attend the kitchens and craft sessions and for whom attendance at the community kitchens and/or craft sessions benefit the most. Interview topic guides were adapted so that they were applicable to intended audience (i.e., CK or craft participants, volunteers, or staff). Individuals who participated in the interviews were reimbursed £15 for their time.

Analysis

Mixed methods survey

Quantitative data were analysed descriptively using STATA. Analyses are descriptive in nature because the sample was too small to examine the relationships between variables formally or to detect any differences between the participants of the community kitchen and craft sessions.

Results for sociodemographic data are presented in percentages due to the categorical nature of the responses. Percentages vary according to the number of participants completing each question (i.e., missing data). Results for computed variables (i.e., food security, mental health, social interaction, and satisfaction with social support) are presented as mean scores (see Table 1). Reliability of items used for each computed scale was measured using Cronbach’s alpha. Cronbach alpha scores of 0.6-.07 indicate an acceptable level of reliability and 0.8 or greater indicate a very good level.
Food expenditure and security scores were computed by summing the responses to the nine items (range 1-5) measuring food security and then dividing the sum score by the total number of items (i.e., 9). Scores ranged from 1-5 with higher scores indicated greater food security (Cronbach alpha, α=93).

Mental health was measured by five items (MHI-5). Scores for individual items were summed (range 0-30) with higher scores indicating better mental health (Cronbach alpha, α=.81).

Participants’ level of social interaction was measured using four items from the DSSI-10. Scores ranged from 4-12 with higher scores indicating good social interaction (Cronbach Alpha, α=.42).

Satisfaction with social support was measured using six items scored on a 1–3-point scale. Scores were summed (range 6-18) with higher scores indicating higher satisfaction with social support (Cronbach alpha, α =1.0).

Observations
The researcher reviewed what was witnessed, along with what participants said and the notes from the observation frameworks from each of the observed community kitchens and craft sessions, and assigned codes based on the research questions. A narrative synthesis for the community kitchens and craft sessions, exploring similarities and differences, is provided for the kitchen and craft sessions separately.

Interviews
Each of the interviews was transcribed verbatim, imported into NVivo software, and analysed using thematic analysis (Braun & Clarke 2019). Thematic analysis is an accessible, flexible, and increasingly popular method of qualitative data analysis. The steps of thematic analysis used were:

1) transcription and familiarisation with the data
2) inductive coding to attach meaningful labels to textual data and generate initial codes
3) review all the transcripts codes for patterns
4) review of the patterns and initiation of themes
5) definition of the themes

Using inductive coding, the researcher coded meaningful segments of the test and researchers met on several occasions to discuss the codes and achieve agreement on its interpretation. The final set of codes was applied to all the transcripts. Codes were then grouped into categories, and themes
were identified. Textual data analysis is presented as a summary accompanied by illustrative verbatim quotations.

Findings

Survey

A total of 45 individuals who attend the six community kitchens in Leicestershire were asked to complete a survey with 33 doing so (73.3% response rate). Of these, a total of 26 (78.8%) were women and 7 (21.2%) were men. Of the six individuals who only attend the craft sessions, four completed the survey (66.7% response rate), all of whom were women. Results for sociodemographic, food security, mental health and social interaction and satisfaction are shown in Table 1 according to community kitchen and craft participants.
Table 1  
**Sociodemographic, food security, mental health and socialisation of community kitchen and craft participants**

<table>
<thead>
<tr>
<th>Sociodemographic n(%)</th>
<th>Community kitchen (N=33)</th>
<th>Craft (N=4)</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Age</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>25-34</td>
<td>2 (6.1)</td>
<td>0 (0.0)</td>
</tr>
<tr>
<td>35-44</td>
<td>0 (0.0)</td>
<td>0 (0.0)</td>
</tr>
<tr>
<td>45-54</td>
<td>5 (15.2)</td>
<td>0 (0.0)</td>
</tr>
<tr>
<td>55-64</td>
<td>5 (15.2)</td>
<td>0 (0.0)</td>
</tr>
<tr>
<td>65-74</td>
<td>10 (30.3)</td>
<td>4 (100)</td>
</tr>
<tr>
<td>75-84</td>
<td>9 (27.3)</td>
<td>0 (0.0)</td>
</tr>
<tr>
<td>85+</td>
<td>1 (3.0)</td>
<td>0 (0.0)</td>
</tr>
<tr>
<td><strong>Employment</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Employed</td>
<td>2 (6.1)</td>
<td>0 (00)</td>
</tr>
<tr>
<td>Unemployed</td>
<td>1 (3.0)</td>
<td>0 (0.0)</td>
</tr>
<tr>
<td>Retired</td>
<td>13 (39.4)</td>
<td>4 (100)</td>
</tr>
<tr>
<td>Unable to work (physical)</td>
<td>3 (9.1)</td>
<td>0 (0.0)</td>
</tr>
<tr>
<td>Unable to work (mental)</td>
<td>2 (6.1)</td>
<td>0 (0.0)</td>
</tr>
<tr>
<td>Home maker</td>
<td>2 (6.1)</td>
<td>0 (0.0)</td>
</tr>
<tr>
<td>Other^2</td>
<td>7 (21.2)</td>
<td>0 (0.0)</td>
</tr>
<tr>
<td><strong>Disability</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>No</td>
<td>17 (51.5)</td>
<td>4 (100)</td>
</tr>
<tr>
<td>Yes</td>
<td>9 (27.3)</td>
<td>0 (0.0)</td>
</tr>
<tr>
<td>Prefer not to say</td>
<td>4 (9.1)</td>
<td>0 (0.0)</td>
</tr>
<tr>
<td><strong>Highest level of education</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>High school</td>
<td>16 (48.5)</td>
<td>1 (25.0)</td>
</tr>
<tr>
<td>College</td>
<td>11 (33.3)</td>
<td>2 (50.0)</td>
</tr>
<tr>
<td>Postgraduate</td>
<td>1 (3.0)</td>
<td>1 (25.0)</td>
</tr>
<tr>
<td>Other</td>
<td>3 (9.1)</td>
<td>0 (0.0)</td>
</tr>
<tr>
<td><strong>Housing situation</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Own own home</td>
<td>18 (54.6)</td>
<td>4 (100)</td>
</tr>
<tr>
<td>Rent (private landlord)</td>
<td>1 (3.0)</td>
<td>0 (0.0)</td>
</tr>
<tr>
<td>Rent (social housing)</td>
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</tr>
<tr>
<td>Live with parents</td>
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<td>0 (0.0)</td>
</tr>
<tr>
<td>House/flat share</td>
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<td>0 (0.0)</td>
</tr>
<tr>
<td>Other</td>
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<tr>
<td><strong>Income</strong></td>
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<tr>
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<tr>
<td>£15,000-24,000</td>
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<td>1 (25.0)</td>
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<tr>
<td>good</td>
<td>11 (33.3)</td>
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</tr>
<tr>
<td>fair</td>
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<td>Bad</td>
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<td>Do not wish to say</td>
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<tr>
<td><strong>Food security (M; range 1-5)</strong></td>
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<td>4.8</td>
</tr>
<tr>
<td><strong>Mental health (M; range 0-30)</strong></td>
<td>21.9</td>
<td>24.0</td>
</tr>
<tr>
<td><strong>Social interaction (M; range 4-12)</strong></td>
<td>9.1</td>
<td>8.8</td>
</tr>
<tr>
<td><strong>Satisfaction with social support (M; range 6-18)</strong></td>
<td>15.2</td>
<td>17.3</td>
</tr>
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</table>

Note: M=Mean, percentages vary due to missing data, includes a combination of being unemployed and unable to work for physical and mental needs (6.1%), being unable to work due to physical and mental needs (9.1%) being unemployed and a homeowner (3.0%), being employed and a homeowner (3.0%)
Observations

Observation data – community kitchens

How does the community kitchen work?

Hinckley and Bosworth Borough Council cover the costs of the venue hire for the kitchens that are run outside of the community houses. While some kitchens are financially subsidised by Hinckley and Bosworth Borough Council, others (i.e., those run independently by volunteers) ask participants to make a financial contribution towards the running costs (e.g., ingredients).

The community kitchens are community-based cooking activities in which a small group of people (6-12) meet to prepare one or two meals together. They are collaborative sessions that foster and support social and practical skills. The community kitchens are open for anyone to attend. They cater for individuals of varying need and ability. However, some of the community kitchens are gender specific.

What is happening, and why

The community kitchens are collaborative activities. Individual participants arrived at the venue to find the ingredients, equipment, and recipes out on a large table, around which they found a chair/place to participate from. The volunteer or staff member running the session warmly welcomed all the participants as they arrived, informing them about what they will be making during the session. Participants interacted easily with one another, engaging in light-hearted conversations, catching up with each other since they had last met. When all the participants were settled, the volunteer or staff member distributed activities amongst them. They either worked independently, together as a pair or in two groups to make a savoury and sweet dish. If working in groups, one group made the savoury dish while the other made the sweet dish. Distribution of tasks was dependent on number of participants and which recipe had been chosen for the session. Distribution of tasks was also delegated based on participant needs and abilities. While the volunteers who run the sessions tended to get involved in the cooking activities, Hinckley and Bosworth Borough Council staff, tended to take more of a back seat, facilitating the session rather than participating.

What are regular and irregular activities
During each session, participants gathered around a large table to collaboratively work on the recipe/s that had been decided for the session. Sometimes, depending on participant requests and what ingredients were in season, only a sweet or savoury recipe was chosen. Participants worked collaboratively, but this was on an individual, couple or group basis, either being given a particular ingredient to work with or a particular element of the dish. Sometimes, all the participants got to make their own individual savoury and sweet dish. All the kitchens bar one that were observed, shared out the food that was made during the session amongst the participants, and took it home with them. At one community kitchen, participants always ate the meal that they had prepared together at the end of the session and then they took any leftovers home with them.

Adherence to the core elements of the community kitchen (activities and WRAP resources)

The cooking activity took precedence during each of the sessions observed. All participants arrived expecting to engage in cooking. The theme of reducing household food waste was not mentioned during two of the community kitchens that were observed. When reducing household food waste was introduced and discussed, the topic felt unnatural or forced, possibly introduced because of the researcher’s presence rather than it being a core element of the session. Nonetheless, all the community kitchens made use of the resources associated with WRAP and reducing household food waste (e.g., measuring cups) or had them out (e.g., recipe book) and accessible for participants to review and use.

Participant interactions with each other and volunteers

Participants and volunteers/staff socialised easily. Interactions were relaxed and centred around the activity at hand. Participants were busy for the duration of the community kitchen session. The majority of in-depth or more serious discussions (e.g., health/personal issues) occurred during the breaks (i.e., when what is being made is being cooked/in the oven). However, these types of conversations were rare. Most often, conversations were light-hearted and full of banter. In all the groups observed some individual personalities were more dominant than others with some participants shying away from conversation and being more likely to observe social interactions than participate. Conversations tended not to centre on ill health, current political affairs, or personal problems. When personal problems were touched upon it was never for long and the other participants in the group tended to be supportive.
Impact on health and wellbeing

The community kitchens offered an opportunity for individuals to socialise. For some participants, depending on need and ability level, the kitchens offered an opportunity to learn new skills or cook independently (i.e., without presence of carer). The kitchens also offered an opportunity for the participants to have a change of scenery and time to themselves away from the other responsibilities (e.g., caring) or people in their lives (e.g., husband). They also offered participants with disabilities an opportunity to socialise and engage in an activity without their carer being present.

Observation data – craft

How does the craft session work?

The aim of the craft session is to provide an opportunity for individuals to engage in crafting activities together and learn new skills. As with the community kitchens, if the craft sessions are not held in the community houses or in a library, the costs of the venue are covered by Hinckley and Bosworth Borough Council. The session is open to all individuals however, participants tend to be more able because of the independent rather than collective nature of the activity.

Participants who attend the craft sessions are asked to make a voluntary financial contribution (i.e., £3) to the crafts that they choose to make. Participants can choose from a variety of different craft kits available. Therefore, participants were often engaged in different crafts during the session. Participants were more likely to engage in similar crafts in preparation for occasions. For example, during the queen’s jubilee many of the participants decided to make bunting.

What is happening and Why

The craft sessions are an opportunity for a small number of individuals to get together and engage in a craft. Individual participants arrived at the venue to find the craft that they have been working on during the last session, or other crafts available if they have previously finished what they were working on. Participants gathered around a large table, interacting with each other easily. Conversation happened from the outset of the session and continued all the way through uninterrupted. Participants engaged in the crafts by themselves and although they sometimes asked
others for advice the activity was completed independently. The volunteers/staff distributed the crafts, facilitated the session, and actively engaged in the craft activity and associated conversations.

Participant interactions with each other and volunteers

Participants and volunteers/staff socialised easily. Interactions were relaxed creating a welcoming environment. Participants were busy with their craft but also with socialising. Conversations varied amongst participants, from light-hearted banter to discussion about what was happening in their daily lives and any issues they were experiencing. Participants tended to have conversations with the people that were sat directly next to them, but they did also engage with others. Some participants were more dominant than others in terms of personality, conversation, and general presence during the session.

Impact on health and wellbeing

The craft sessions offered an opportunity for individuals to socialise. For some participants, the craft sessions also offered respite from caring responsibilities and a chance to engage in an activity by themselves.

Interviews

Qualitative data is presented as a summary accompanied by illustrative verbatim quotations (see Table 2). Within illustrative quotations the use of [...] indicated part of the quotation was not presented because it was not relevant, whereas (text) indicated additional text was added for clarity (i.e., readability, comprehensibility). Grammatical errors were corrected and idioms (e.g., ‘like, ‘you know’, ‘kind of’) removed. Verbatim quotations were labelled according to whether they were from a staff or volunteer (S/V) or participant (P) and accompanied by a participant number.

Recruitment outcome

A total of 20 interviews were conducted with individual community kitchen (n=14) and craft (n=1) participants, volunteers (n=3) and Hinckley and Bosworth Borough Council staff (n=2)

Thematic analysis
Thematic analysis produced a total of 52 codes that were grouped into 14 categories (see Appendix 5 for a table summary of findings). Five themes were identified from these categories (see Figure 1).
Figure 1. Thematic map of themes, categories and codes.
Themes

Finding out about the session and ease of attending

Prior to the community kitchen scheme, Hinckley and Bosworth Borough Council ran a food and friendship group during which participants cooked different recipes. Because of their involvement in running cooking sessions with the community, Hinckley and Bosworth Borough Council staff were approached by LCC and asked to help implement a new cooking scheme to help reduce household food waste – the community kitchens. The food and friendship group participants were subsequently asked if they would like to engage in training to help run the community kitchen sessions as volunteers.

The community Kitchens were therefore formally initiated in 2017 and branded Waste Less Save More community kitchens. Attendance at both the craft and kitchen sessions was initiated by the participant themselves, by word of mouth of participants or for the community kitchen sessions via referrals from the Local Area Co-ordinator. Consequently, the kitchens were better known about by the participants who had participated in the food and friendship cooking sessions, or actively sought out community-based activities. There was a general agreement among all participants that the community kitchens were poorly advertised. Advertisement of the community kitchens was, and continues to be, limited to Facebook pages associated with the community houses, the churches in which the community kitchens take place, or with the council, in addition to the local paper. Adverts were consequently reported to be more accessible to particular groups of individuals:

“It says council run. But it’s under the church. It’s not. It’s not necessarily, making itself known to people that aren’t necessarily linked with the church” P10

In addition to the accessibility of the adverts, the lack of information included in the adverts (e.g., dates, times, and locations) was also suggested as to prohibiting awareness and involvement in the community kitchens. As a result, participants reported that prior to their active engagement in the sessions, they had a lack of understanding about the community kitchens, including who they were intended for (e.g., specific groups or general public) and what the sessions involved (e.g., cooking lessons, free food).

There was also ambivalence among the participants in terms of session location and ease of attendance with some participants reporting the location to be a barrier to participation. For example, the community houses were originally established to bring services into a poor area. Consequently, the location was associated with deprivation and anti-social behaviour both of which were perceived by some to be barriers to participation, particularly for new individuals considering attending:
“Those flats that the Community house is in. If you ask 90% of [...] people, what happens in them Flats, they’ll say it’s full of criminals” S/V19

Session location was also reported to have a negative impact on ease of participation. For example, less physically able participants, and participants who were unable to drive, reported difficulties with accessing the location due to lack of direct public transport:

“The bus is only every hour and a half, it’s difficult to get out of the village” P2

“You know I can only get the bus to a certain place then I’ve got to get either another Taxi or walk up, which for me just takes ages and I’ll be exhausted by the time I get there” P11

Experiences of attending

Overall, participants provided positive feedback about the community kitchen and craft sessions. Staff, volunteers, and participants perceived the community kitchens to be a good idea, the sessions to have value and enjoyed being involved or attending:

“I think it’s (the community kitchen) a good idea” P12

“I think it’s (the community kitchen) really good. I think it’s a really good idea. I love it” P3

“I just enjoy it so much” P2

Reasons for attending the sessions included them being a source of social interaction and company, offering structure and routine for participants who lived alone and offering an opportunity for participants to have time to themselves, learn new cooking skills and have a break from other responsibilities (e.g., caring). Attendance at both the craft and kitchen sessions was initiated by the participants themselves, by word of mouth of participants, or for the community kitchens via referrals from Local Area Co-ordinators. Staff, volunteers, and participants all reported that they enjoyed the sessions, some reporting them to be the highlight of their week, but that the activity (i.e., cooking, craft) was not central to their enjoyment. The opportunity to socialise was reported to be the primary reason for attending in addition to the element of the session most enjoyed by participants. The session activity (i.e., craft of cooking) was reported to be a bonus of attendance:

“So it’s not about the actual cooking of the thing, I think it’s probably as well to sit and eat a meal with somebody” S/V19

“I think sometimes the socialising has become more important” P7
“It’s important for me then that I can socialize and meet up with people, you know, not sit in the flat on my own, getting very down and depressed” P11

The participants were also very positive towards the staff and volunteers who ran the session, highlighting their roles and contributions to the session to be integral to the intervention’s implementation:

“The girls are good. The girls that that do it are good. They keep us on track” P6

While overall the sessions were reviewed very positively there were a couple of reported negatives and suggestions for improvement. Negatives included the location of the sessions and them being difficult to get to, having to cook something that the participant did not like or could not eat due to dietary requirements and the sessions not running during school holidays. Suggestions for improvement included increasing the frequency and length of the sessions, the complexity of the recipes for more able participants and the kitchen facilities and equipment.

Participants were asked about the potential reasons why not all participants participate in both the community kitchen and craft sessions. Participants reported that they were limited in terms of the amount of time they could spend out of the home due to personal responsibilities and that others may have a lack of interest due to their own cooking ability being more advanced than other participants:

“Two ladies from the crafts went (to the community kitchen), they said […] it was really frustrating, because they were like, we’ve seen this man trying to peel a potato and another one trying to chop garlic and we were like, quick give it to me” S/V18

Health and well-being impacts

Staff, volunteers, and participants perceived there to be many benefits from attending the craft and cooking sessions, for themselves and other particular groups of individuals (e.g., individuals who live alone). For example, learning new cooking skills and trying new foods were frequently reported by the community kitchen participants, as was learning new crafts by participants who attended the craft sessions. Other benefits reported included increasing knowledge about nutrition and learning to be healthier, the physical exercise gained from attending the sessions (i.e., walking to the session) and educating individuals about how to reduce household food waste. These reported benefits were linked to the health and wellbeing impacts experienced and reported by staff, volunteer, and participants. Attending the community kitchens and/or craft sessions were associated with increased confidence, social and physical activity and socialisation and support. These impacts were particularly felt by
participants with a mental or physical illness (e.g., anxiety) and participants who were widowed, lived alone, or had retired and were more isolated from everyday social interactions (e.g., employment):

“It just gave me more confidence and stuff. Because obviously I suffer with anxiety and it’s helped me, [...] make friends and talk to people more and interact with people” P3

The health and wellbeing impacts reported by participants were not however attributed solely to be a result of participating in the community kitchens and/or craft sessions alone. They were attributed to be the result of participating in a combination of community activities:

“I can’t say it’s the kitchen that’s impacted my everyday life” P11

“I’m thinking it started (growth in confidence) when they (another participant) started going down to the church on Wednesday” P14

Participants also reported participation to have resulted in new friendships. These friendships were however largely confined to the sessions with interactions beyond the sessions rarely occurring. The socialisation, friendship and supportive environment offered by the community and craft sessions were reported to be missed during the school holidays. Participants reported that stopping the sessions for a short or prolonged period would have a negative impact on them and their wellbeing:

“Oh god yes, [...] we miss it when the holidays are on and we don’t meet” P2

**Contextual and environmental factors**

All the participants attending the community kitchen and/or craft sessions tended to be active in the community, attending at least one other community-based activity once a week. Individuals who were perceived to benefit the most from participating in the sessions, by participants staff and volunteers, were those who were retired, lived alone, had caring responsibilities or those that had a particular physical and/or cognitive health impairment. The sessions, in particular the cooking sessions, were reported to offer an inclusive environment for participants with a variety of different personalities and dispositions to interact with one another:

“I just think it its beneficial for everybody to get to know people of all different abilities and different disabilities” P2

The sessions were reported to offer an opportunity for participants to interact and engage in banter and light-hearted conversations with others about everyday activities. Overall participants tended to engage in more conversations during the craft session than the cooking because the activity was less demanding.
of their physical and cognitive attention. Moreover, although more serious topics were discussed (e.g., illnesses) sometimes during the sessions, participants reported that they did not touch on personal issues in an effort to keep the atmosphere light-hearted and less invasive. Participants reported that they were more likely to seek other community networks (e.g., church) or approach friends and family to discuss any personal issues they were experiencing.

“We’re talking about holidays or people going away uhm you know, so it’s just general chitchat sort of thing, but not too invasive or whatever” P10.

Expansion of the scheme

While the community kitchen sessions were overall perceived to be positive in their current format, suggestions were made for successful expansion of the scheme. Borough Council staff and volunteers reported that running the sessions (particularly the community kitchens) involved a large amount of responsibility. Community kitchen volunteers were expected to choose the recipe for the week, do the shopping for the ingredients, look after the participants, and co-ordinate the activities during the session. Hinckley and Bosworth Borough Council staff reported some volunteers to have given up their volunteer roles due to the associated demands of the role. Participants who had previously volunteered, reported the responsibilities of the role to have become increasingly challenging as they had got older. The responsibilities of volunteering to facilitate the community kitchen sessions were thus perceived and reported to be deterrents for participants to become volunteers, particularly those who were older and less physically able. Successful expansion of the community kitchens was therefore suggested to involve the recruitment and retention of suitable volunteers (e.g., able individuals who were willing to take on the responsibilities of the community kitchens).

“It’s the volunteers that need to be recruited and retained” S/V18

Although recruitment of volunteers was perceived to be a barrier to expansion among staff and volunteers, there was a general agreement that the recruitment of participants to newly established kitchens would not be problematic because of the benefits experienced from participating in the community kitchens.

Suggestions for expanding the scheme, in particular the community kitchens, to other audiences (e.g., younger, employed) included changing the time and location of the groups so that they were not perceived to be associated with particular groups (e.g., churches) or demographics (e.g., deprived) and more accessible to individuals with other responsibilities (e.g., employed, have children). Other
suggestions for varying the demographic of participants and expanding the scheme beyond Hinckley and Bosworth included successful advertising of the sessions more widely, highlighting what the sessions were about in addition to the numerous benefits reported to be experienced because of participating and the provision of funding or financial contributions from participants.

**Main differences between community kitchen and craft session**

Based on the surveys, observations and interviews several differences between the community kitchen and craft sessions were identified.

1. The craft session was observed to offer participants more opportunity to engage in social exchanges than community kitchens. Participants were more likely to engage in in-depth conversations because they were less likely to be interrupted by the activity, they were engaged in.

2. While the community kitchens were observed and reported to be more physically and cognitively demanding for participants than the craft sessions, they were observed to offer a more supportive environment. Participants worked collaboratively and offered each other practical support whereas during the craft session participants were engaged in their own personal craft and were hesitant to physically help others. It was observed and reported that during the community kitchens, participants with particular needs, were actively supported by volunteers, staff, or other participants within the group.

3. Although like the community kitchen sessions, the craft sessions were open to all individuals to attend, they were observed to be less suitable to less able-bodied individuals. For example, individuals who were unable to do intricate crafts (e.g., sewing) due to having a health condition or disability (e.g., Parkinson’s, arthritis) were less likely to attend the craft sessions. The lack of inclusivity of the craft session was exemplified by the lack of collaboration during the sessions compared to that which was shown during the community kitchens. Therefore, the session was observed to be less suitable to individuals who need assistance. These observations were reinforced by the quantitative survey (see above page 5-9). These data suggest craft participants are less likely to have a disability than individuals who attend the community kitchens.

4. Although both men and women were found to attend the community kitchen and craft sessions, women were more likely to attend both. Further, the men observed and reported to be more likely to attend the community kitchens because they had been referred by Local Area Coordinators rather than them actively seeking out community-based activities to participate in.
Strengths and Limitations of the Process Evaluation

Location of the community kitchen and craft sessions may have had an impact on recruitment for surveys and interviews. The researcher was unable to attend all sessions and actively recruit participants due to proximity. Although 33 participants for the community kitchen survey and 4 for the craft survey were successfully recruited, more may have been recruited if the researcher had had more first-hand interactions with the participants. The researcher may have also been able to assist with recruiting participants less likely to actively volunteer to participate, increasing the sample representativeness. For example, the presence of the researcher during recruitment may have helped to recruit participants unable to complete study materials by themselves because the researcher could have offered their time to help them complete the survey. Further, only participants who were verbally proficient had the opportunity to participate in the interview. The researcher’s presence may have resulted in other opportunities or methods of participation being considered (e.g., written interview). Recruitment of other groups of individuals, in addition to ex community kitchen attendees (i.e., individuals who had dropped out of attending the community kitchens) could improve the generalisability of the results obtained and help ascertain more information about who the community kitchens are not reaching, recruiting and retaining.

Other limitations included the measures being self-report and most of the surveys being completed during the community kitchen or craft sessions. Participants could have discussed answers with one another or responded to questions in what they considered the socially acceptable or desirable way. Completion of the surveys during the community kitchen and craft sessions may have also contributed to missing data (e.g., income), and poor reliability of the social interaction scale because some participants may have felt uncomfortable disclosing certain personal information in the presence of others. Moreover, while observation methodology provides researchers with opportunities to experience and describe existing situations, and obtain information that participants may not directly reveal, participants behaviour may have been influenced by the presence of the researcher. The researcher’s presence may have indirectly influenced the way participants interacted and communicated with one another and the sessions activity. Notwithstanding these limitations, strengths include the process evaluation using multiple methods for data collection (i.e., cross section survey, observation, and interviews) and input from relevant stakeholder and Patient and Public Involvement (PPI) from the start and throughout the duration of the study.
Conclusions

Results from the current process evaluation point to the community kitchen and craft scheme as being a valued and worthwhile community-based intervention. The community kitchen concept continues to be implemented in Hinckley and Bosworth with six active kitchens. This evaluation set out to answer four specific research questions:

1. What health and wellbeing changes do participants attribute to the community kitchen scheme and are these different from those attributed to the craft sessions?

The primary impact of participation in the community kitchens and/or craft sessions was increased socialisation. Community kitchens are therefore suggested to contribute to reducing the risk factors associated with social isolation, for example, reduced wellbeing, mortality, depression, and cognitive decline (e.g., Patterson & Veenstra, 2010; Heikkinen & Kauppinen, 2004; Wilson et al., 2007). This is important when considering the population groups community kitchens appear to attract. Most participants were older adults, a population group that social isolation and loneliness have been highlighted to be problematic for because of decreased economic and social resources, functional limitations, and the death of significant others (Courtin & Knapp, 2017). In addition to being reported to be experienced by older adults, increased socialisation was also reported as a benefit of community kitchens by participants with varying cognitive and physical needs and abilities along with the co-benefits of education (i.e., increased skills and knowledge) improved sense of confidence, independence, and general mental health. These health and wellbeing impacts were perceived to be the same from participating in the community kitchen and craft sessions. However, the participants sense of independence was suggested to be different depending on the session attended. While the community kitchens offered participants an opportunity to gain independence by attending and engaging in an activity without the presence of a carer, the craft session offered participants an opportunity to exercise their independence, by providing them with an opportunity to engage in an activity away from their caring responsibilities.

2. How are the health and wellbeing changes achieved? (e.g., what are the mechanisms of change that lead to these health and wellbeing impacts?)
The perceived health and wellbeing impacts were observed and reported to be achieved by offering participants the opportunity to regularly attend and engage in an activity while also improving skills (cooking or craft) and/or learning something new. The participatory and collaborative nature of the activity was particularly important, to promote social interaction and support. This reinforces previous research that suggests effective interventions to be those that offer a social activity and/or support within a group format and when participants are encouraged to be actively involved in the activity (Dickens et al., 2019).

3. How does context effect the mechanisms of change and health and wellbeing impacts (e.g., what is common to all kitchen and what varies)

While attendance at the community kitchen and/or craft session was attributed to contribute to the health and wellbeing outcomes being experienced by participants, contextual factors were also reported to have an influence. Contextual factors that influenced the perceived health and wellbeing impacts were those both within and beyond the sessions. For example, participants reported that attending other community activities had encouraged their attendance at the community kitchen, and vice versa. Therefore, the perceived impacts experienced are likely to be attributable to wider social interactions and engagement with the community and community activities rather than specifically the community kitchens. The community kitchens were also found to offer particular groups of individuals, particularly those with social, cognitive, or physical needs, a safe environment in which to engage with other individuals. Individual demographics are therefore also likely to influence the degree to which health and wellbeing impacts are experienced with particular individuals benefiting more from having the opportunity to engage in the community kitchen sessions than others.

4. What population groups are the community kitchens reaching? (e.g., who is intended to benefit from attending, who is attending and why?)

The community kitchen scheme was initiated to be open to all individuals, with varying needs and levels of cooking ability, to attend and learn how to reduce household food waste. The process evaluation has shown the intended inclusivity of the community kitchens to be successfully achieved with participants having physical, cognitive, or social needs. Results from the survey showed the primary group of attendees to be older individuals, who were retired or individuals who were unable to work, with associated low incomes. Despite participant needs and economic status, results showed participants to
overall have food security, good mental health and high levels of social interactions and satisfaction with social support. Most participants reported proactively attending due to personal circumstances that limit their level of social interaction (e.g., retired, widowed, living alone), or being encouraged by carers or referred by Local Area Co-ordinators. Attendance offered social individuals an opportunity to increase their socialisation while also offering individuals at risk of social isolation an opportunity to increase their confidence and mental and/or physical health.

Overall, the reduction in household food waste theme, the initial premise on which the intervention was developed, no longer remains the focus of the community kitchen (see Appendix 6 for an updated version of the Logic Model based on the results obtained). If the implementation of the community kitchen in Leicestershire is to have an environmental impact, the focus on reducing household food waste will need to be reintegrated into the sessions so that once again it becomes the core concept around which each session is planned and implemented. For the community kitchens to continue to result in improved social health, it would be beneficial if they were built on the premise of active collaborative participation and emphasise their contribution to the provision of social support, particularly for socially withdrawn and vulnerable groups of individuals.

A refocus on environmental improvements and the benefits of participating for social health is also likely to facilitate the branding and advertisement of the community kitchens, supporting successful implementation of the kitchens in accessible and applicable locations in addition to the recruitment, training, and retention of volunteers. Together, this will help drive the expansion of the community kitchen scheme across Leicestershire, beyond the borough of Hinckley and Bosworth and increase the likelihood of the health and wellbeing co-benefits highlighted in this report, being experienced.

**Recommendations**

Results from the current process evaluation carried out by PHIRST Insight, point to the value of the community kitchens as a public health intervention primarily offering increased socialisation particularly for those at risk of social isolation and/or loneliness (e.g., widowed, retired, disability). The social opportunity the community kitchens offered also had a positive impact on participants confidence and mental and/or physical health. No disadvantages of attending the community kitchen and/or craft sessions were reported. However, some weaknesses were revealed by participants, volunteers, and staff, including difficulties with session location, associated travel costs, regularity of sessions and lack of
suitable volunteers. There are a few areas for consideration when planning the future of the community kitchen scheme and the possible expansion of the scheme across Leicestershire.

1. **Focus on Environment and household food waste:** The focus on the environmental theme has become less prominent since the implementation of the scheme in 2017.
   - *If LCC want the community kitchens to have an environmental impact again, there needs to be a refocus on the environmental theme, reinvesting in the WRAP processes and the reduction of household food waste. We recommend that this should have significant priority when initiating new kitchens in other boroughs in Leicestershire.*

2. **Health and wellbeing impacts:** The primary perceived health and wellbeing impact reported to be experienced was increased socialisation.
   - *If LCC want to consider the health and wellbeing impacts from participating instead of, or in addition to the reduction in household food waste, LCC need to invest in the community kitchens potential to reduce social isolation and/or loneliness. We recommend that LCC highlights the benefits of participating in the community kitchen scheme through appropriate advertising and dissemination of the report’s findings. Any newly established community kitchens should be built on the definition of being participatory, collaborative activities that promote social interaction and support, and should emphasise inclusiveness to increase participants from various demographics. When considering further expansion of the kitchens, LCC could also consider need based on social isolation within the county population.*

3. **Food security:** Although mean scores for food security were good, individuals participating in the community kitchens had lower mean scores than those participating in the craft sessions.
   - *food security should continue to be considered and monitored by LCC, particularly when initiating new community kitchens because of the current cost of living crisis.*

4. **Recruitment of suitable volunteers:** The sustainability and successful expansion of the community kitchen scheme is hindered by the inability to recruit and retain suitable volunteers to facilitate existing or new community kitchens independently (i.e., without Hinckley and Bosworth Borough Council staff).
   - *LCC needs to invest in a recruitment drive focussing on inclusiveness to attract volunteers from different demographics (e.g., younger) who can take on the associated responsibilities of running the sessions. This is particularly pertinent to the expansion of the scheme beyond Hinckley and Bosworth as other boroughs don’t have council staff to facilitate such community activities.*
5. **Retention of suitable volunteers**: For consistency it is important to retain suitable volunteers to establish and co-ordinate community kitchens independent of Hinckley and Bosworth Borough Staff. 
- *LCC needs to invest in retaining suitable volunteers that have been recruited by offering training and supporting to implement and facilitate new community kitchens across Leicestershire.*

6. **Location of kitchens**: It appears that the locations of the community kitchens could be potential barriers to participation (e.g., reputation of area, purpose of building, accessibility by public transport). 
- *LCC needs to carefully consider the impact the location of the community kitchen, in addition to the building’s reputation/association, could have for the group of individuals they want to target for participation.*

7. **Accessible and applicable advertisement**: A lack of accessible and applicable advertisement for the community kitchens could contribute to lack of participation, particularly from individuals beyond specific groups. 
- *Advertisement should be accessible and applicable to all individuals (i.e., not only individuals associated with the buildings in which the kitchens take place) and incorporate the aims and benefits of participating in the community kitchens suggested in the current process evaluation. LCC should consider using new methods, areas, and population groups (e.g., sports clubs, parent associations) to attract different demographics.*

8. **Community kitchen content**: The community kitchens are accessible to all individuals with various needs and levels of ability, however most individual who attend are older individuals or individuals who are unable to work. 
- *LCC could consider targeting particular groups of individuals and tailoring community kitchens accordingly so that recruitment results in the participation of younger individuals from diverse backgrounds. Targeting particular groups could also help ensure participants get the most out of participation. For example, community kitchens could be tailored to meet the needs of different ethnic groups or could offer more complex recipes for more able individuals.*

9. **Monitoring benefits**: The process evaluation has revealed several perceived health and wellbeing impacts for participation in the community kitchens, but continuous monitoring would be beneficial, in particular if changes are made to the kitchens or the programme is to be expanded following our recommendations above.
The health and wellbeing impacts experienced because of participation should continue to be monitored, particularly when implementing new community kitchens across Leicestershire. LCC may want to consider implementing a revised version of the survey employed in the current process evaluation (see Appendix 7) when participation begins and then every six months following. This will allow impact of participation on socialisation, support, loneliness, and mental health to be captured across time in addition to participation in general being monitored.
References


Appendices

Appendix 1: Original logic model

What are the public health benefits of the Leicestershire Community Kitchen Scheme?

**Target population:** residents of Leicestershire, those attending community kitchens

1. Craft sessions replace Community Kitchens on a fortnightly basis. Craft sessions are open to individuals who do and do not attend Community Kitchen sessions.

2. HHFW = Household Food Waste

---

**Figure A1. Community kitchens Logic Model**
Appendix 2: Mixed method survey

Evaluating the Leicestershire Community Kitchen Scheme

Mixed method survey

The following questions ask about you, your health and wellbeing and your experiences of the community kitchens. There are no right or wrong answers. If you are not clear about a particular question, have any questions or would like help completing the survey, please contact China (china.harrison@bristol.ac.uk, 07790 773945), one of the community kitchen volunteers or ask Rachel, Shirley or Melitza from Hinckley and Bosworth Borough Council.

Section 1: Routine attendance data

Please tell us which community kitchen you attend/ed

- The Meadows community centre
- Newbold Verdon Baptist church
- Ratby Methodist church
- Earl Shilton community house
- Gwendoline community house
- Barwell community house

Please tell us in years and/or months, how long you have been attending the community kitchen

Years:____ Months____

If applicable, please tell us what month and year you stopped attending the community kitchen

Months_____ Year:____

Please tell us how regularly you attend/ed the community kitchen

- Weekly
- Fortnightly
- Monthly
Please would you tell us, in your own words, why you started participating in the community kitchen?
__________________________________________________________

If applicable, please would you tell us, in your own words, why you stopped participating in the community kitchen?
__________________________________________________________

Section 2: Demographics

What is your gender?

- Male
- Female
- Other
- Prefer not to say

What are the first four characters of the postcode of your current address?
_________________________ (open text)_________________________

Please tell us your age:

- Under 18
- 18-24
- 25-34
- 35-55
- 45-54
- 55-64
- 65-74
- 75-84
- 85+
The Equality Act (2010) defines a person as having a disability if he or she ‘has a physical or mental impairment that has a ‘substantial’ and ‘long term’ negative effect on your ability to do normal daily activities’. Do you consider yourself to have such a disability?

- Yes
- No
- Do not wish to say

Section 3: Socioeconomics and food security

What is the highest level of education you have completed

- Did not attend school
- High school
- College
- Undergraduate degree
- Postgraduate
- Other (please specify) ____________________

What is your current work situation?

- Employed full time
- Employed part time
- Self-employed
- Unemployed
- Student
- Retired
- Unable to work (physical health)
- Unable to work (mental health)
- Unable to work (carer)
- Home maker

What is your approximate average household income?

- £0-£14,999
- £15,000-£24,999
- £25,000-£34,999
- £35,000+

What is your current housing situation?
○ Own my own home
○ Rent from a private landlord
○ Rent through social housing
○ Live with parents
○ House/flat share

How strongly do you agree or disagree with the following statements? (5-point Likert scale; strongly disagree, slightly disagree, neutral, slightly agree, strongly agree)

○ In the last year, me and/or my family has had enough of the kinds of food we want to eat
○ I feel that I can easily buy healthy food in my neighbourhood
○ In the last year I have worried that the food I have at home would run out before I had money to buy more
○ In the last year, I, or someone else living with me, has cut the size of our meals, or skipped meals because there was not enough money for food
○ In the last year I have been hungry but did not eat because there was not enough money for food
○ I feel I have access to a kitchen and the things I need to cook with to make meals for me and other members of my household
○ I feel confident preparing and cooking meals using fresh ingredients
○ I often spend less on food to be able to afford other things
○ I feel that myself and/or people I live with often do not have enough money to buy the food we need

If you feel you often don’t have enough money to buy food, please tell us why you think that is

_________________________ (open text box)_______________________________________________________________

Section 4: health and wellbeing (physical, mental and social)

General Health status (SHH)

Please tell us how your health is in general. Would you say it is:

○ Very good
○ Good
○ Fair
○ Bad
○ Very bad
Don’t wish to say

Mental health status (MHI-5)*

Please read each question and tick the box that best describes how things have been FOR YOU during the past month using the 6-point scale (all the time, most of the time, a good bit of time, some of the time, a little of the time, none of the time). There are no right or wrong answers.

- During the past month, how much of the time were you a happy person?
- How much of the time, during the past month, have you felt calm and peaceful?
- How much of the time, during the past month, have you been a very nervous person?
- How much of the time, during the past month, have you felt downhearted and blue?
- How much of the time, during the past month, have you felt so down in the dumps that nothing could cheer you up?

Social support and connectedness (DSSI-10)

Social interaction*

1. Other than members of your family, how many people in your local area do you feel you can depend on or feel close to? (Scoring: None (1), 1-2 people (2), more than 2 people (3))

2. How many times during the past week did you spend time with someone who does not live with you? That is, you went to see them, or they came to visit you, or you went out together? (Scoring: None (1), once (2), twice (2), three times (3), four times (3), five times (3), six times (3), seven or more times (3)).

3. Number of times in past week talked with friends/relatives on the telephone in the past week (either they called your, or you called them)? (Scoring: None (1), once (1), twice (2), three times (2), four times (2), five times (2), six times (3), seven or more times (3)).

4. Number of times in the past week attended meetings of clubs, religious groups, or other groups that you belong to (other than work) (Scoring: None (1), once (1), twice (2), three times (2), four times (2), five times (2), six times (3), seven or more times (3)).

*Sum the scores for items 1-4. The scale ranges from 4-12 with higher scores indicating more social interaction. There is no imputation for missing items.

Social satisfaction*

1. Does it seem that your family and friends (people who are important to you) understand you? (Scoring: Hardly ever (1), some of the time (2), most of the time (3))
2. Do you feel useful to family and friends (people who are important to you)? (Scoring: Hardly ever (1), some of the time (2), most of the time (3))

3. Do you know what’s happening-going on with family and friends? (Scoring: Hardly ever (1), some of the time (2), most of the time (3))

4. Do you feel you have a definite role in the family and among your friends? (Scoring: Hardly ever (1), some of the time (2), most of the time (3))

5. When you are talking with your friends and family, do you feel you are being listened to? (Scoring: Hardly ever (1), some of the time (2), most of the time (3))

6. Can you talk about your deepest problems with at least some of your family and friends? (Scoring: Hardly ever (1), some of the time (2), most of the time (3))

*Sum of codes with higher scores indicating more social support. There is no imputation for missing items.

A score for Duke social support index is calculated as the sum of 10 items with mean imputation for up to two missing items.

**Section 5: Aims and impact of community kitchens**

Please tell us, in your own words, what you think is the purpose of the community kitchens?

_________________________________________________________ open text ________________________________________________________________________

Has anything changed for you since you started attending the community kitchens?

- o Yes
- o No

If yes, please tell us, in your own words, what has changed and how.

_________________________________________________________ open text ________________________________________________________________________

Please tell us, in your own words, what you consider to be the advantages or benefits of attending the community kitchen

_________________________________________________________ open text ________________________________________________________________________

Please tell us, in your own words, what you consider to be (or could be) the disadvantages of attending the community kitchen for you or for others

_________________________________________________________ open text ________________________________________________________________________
The researchers from the University of Bristol would like to talk to individuals about their experiences of attending community kitchens. If you are interested in participating in a short interview, please leave your email address of phone number so that one of the researchers can contact you with more information and details about how to participate. Those who choose to participate in the interview will be given a £15 voucher as a thank you for their participation.

Email ___________________(open text)_____________________________

Phone number _________ _(open text)_____________________________
## Observation framework

**Activities**
- What actions and behaviours are people engaged in? What are the modes people work in, and the specific activities and processes they go through?

**Environments**
- What is the overall setting in which the activities are taking place?
- What is the character and function of the space overall, of each individual’s space and shared spaces? How are people behaving in the environment?

**Interactions**
- What are the basic interactions occurring between a person and someone or something else? What is the nature of routine and interactions between people and between people and objects?
- What effect do people have on activities and environment?

**Objects**
- What are the details that form the environment? What are the items the people are interacting with?
- How do objects relate to people, activities, and interactions? How do the objects relate to the activities?

**Users**
- Who are the people being observed? What are their personal qualities? How do they engage with other people? What are their roles and relationships? What are their values and predispositions?
Appendix 4: Interview topic guide

Evaluating the community kitchen scheme
Topic guide for Semi-structured Interview: community kitchen participants

Note:
This topic guide is indicative. It is a guide to the topics to be covered during the interviews (and not a script) therefore the order of topics, and the precise way they are addressed, will be flexible according to the circumstances.
Writing in italics does not form part of the interview and is for researcher purposes only.

Sample introduction
- Thank you for agreeing to participate
- Introduce background information about CKs and potential impact
- Recordings, confidentiality, and anonymity
- Any questions

Ice breaker questions (data on who is attending and contextual influences)
1. Would you tell us a bit about yourself and how you heard about the community kitchens?
2. What made you decide to start attending the community kitchens?
   a. Did you know someone who was already attending?
   b. How was the community kitchen advertised – was it for a particular group (e.g., bereaved men)

What is happening during community kitchens (data on contextual influences and participant experiences)
3. Please would you talk us through what happens during a typical community kitchen session?
4. Please would you tell us what you think of the community kitchens?
5. What have your experiences of attending been so far?
   a. What have you enjoyed?
   b. What have you not enjoyed?
   c. What have you found to be useful?
   d. Is there a particular element of the community kitchen session that you like?

What is happening during community kitchens (data on social interactions)
6. How do you feel participating in activities with other individuals?
7. How supported do you feel during the community kitchen session?
8. How supported do you feel when you are not at the community kitchen?
9. What types of discussions happen during community kitchens?
   i. what is your role in these discussions?
10. How do you think participation in the community kitchens has influenced the way you interact and socialise with other people?
   i. Do you socialise more?
   ii. Do you feel comfortable in social situations?

Impact of community kitchen on everyday life (perceived impacts, mechanisms of change, advantages, and disadvantages of CK)
11. How do you think participating in the community kitchen has influenced your everyday life?
   a. In what way?
      i. Could you tell us a little bit more about this?
12. What, if any, new things have you learnt from attending community kitchens?
   i. Could you tell us a little bit more about that?
   ii. How has what you have learnt transferred into your everyday life?
13. Overall, what impact do you think participating in community kitchens has had on you?
   a. Why do you think this is?
      i. What have you found to be the most helpful?
      ii. What have you found to be the least helpful?
14. Have there been any distinct changes in your life since you started participating in the community kitchen.
   a. Please would you tell me a little bit more about this?
15. What benefits, if any, would people gain from attending the community kitchens?
16. Do you foresee any potential harm or negatives from attending the community kitchens?
17. Is there anything about the community kitchens that you would improve?
   a. Could you tell us a little bit more about this?
18. Is there anything else you would like to mention about your participation in the community kitchens?
   a. Do you have any other feedback or comments you would like to share?
## Appendix 5: Summary of findings

### Table 2
**Mapped themes, categories and illustrative quotations from participants (P), staff and volunteers (S/V)**

<table>
<thead>
<tr>
<th>Themes</th>
<th>Inductive categories = Nr of codes within category</th>
<th>Illustrative quotations</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>PARTICIPANT EXPERIENCES OF ATTENDING</strong>&lt;br&gt;Participant reasons and experiences of attending community kitchen and/or craft sessions</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Reasons for attending&lt;br&gt;7 codes within sub-category</td>
<td>“It was more really to socialise” P3</td>
<td>“I wouldn’t say they’re (participants) all there for different reasons, 90% of the reason they’re there is obviously for companionship and to do to meet other people” S/V19.</td>
</tr>
<tr>
<td></td>
<td>“Because I do live on my own. That’s why a lot of us go actually” P2</td>
<td>“Because they’re on their own” S/V1</td>
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<td></td>
<td>“Physically, mentally, or necessarily from a practical point of view, because like the guy whose wife got dementia, he’s suddenly had to take on all the cooking” P10</td>
<td></td>
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<tr>
<td></td>
<td>“it’s been a way of meeting people” S/V15</td>
<td>“It’s been a way of meeting people” S/V15</td>
</tr>
<tr>
<td></td>
<td>“It gives you that structure to your living” P7</td>
<td></td>
</tr>
<tr>
<td></td>
<td>“I heard about the kitchen’s, through my Local Area Health Co-ordinator” P11</td>
<td>“I heard about the kitchen’s, through my Local Area Health Co-ordinator” P11</td>
</tr>
<tr>
<td></td>
<td>“Just have a bit of me time without any other outside pressures” P17</td>
<td>“Just have a bit of me time without any other outside pressures” P17</td>
</tr>
<tr>
<td>Elements of session most enjoyed&lt;br&gt;4 codes within sub-category</td>
<td>“He enjoys cooking very much” P5</td>
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<td></td>
<td>“I enjoy the crafts” P6</td>
<td>“I enjoy the crafts” P6</td>
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<tr>
<td></td>
<td>“New ideas. Yeah, different ways to make […] food more enjoyable” P3</td>
<td>“New ideas. Yeah, different ways to make […] food more enjoyable” P3</td>
</tr>
<tr>
<td>Feedback&lt;br&gt;2 codes within sub-category</td>
<td>“She just she just loves getting out” P9</td>
<td></td>
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<td></td>
<td>“I think they’re a fantastic thing” P11</td>
<td>“I think they’re a fantastic thing” P11</td>
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<td></td>
<td>“The girls that are doing it are excellent. They are. They’re really good” P6</td>
<td>“The girls that are doing it are excellent. They are. They’re really good” P6</td>
</tr>
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<td>--------</td>
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</tbody>
</table>
| Reasons for not attending | 1 code within sub-category  
Negatives and suggested improvements/amendments | 2 codes within sub-category | "We couldn’t do it. We cook and it was really frustrating because the, you know they were like we’ve seen this man trying to peel a potato and another one trying to chop garlic” P18  
“Only when they cook something I can’t eat because I am diabetic” P2 |
| Negatives and suggested improvements/amendments | | “Really wish (there) were more of them then and something a bit [...] closer” P11  
“Instead of just doing like quick, easy meals, we do get a little bit more advanced I suppose” P13 |

**HEALTH AND WELLBEING IMPACTS**
Reported or perceived impact from attending community kitchen and/or craft sessions

| Impact of participating | 7 codes within sub-category | “Brought me out of my shell so to speak” S12  
“Some of them have made like friends you know prop like proper friends” S/V19  
“I think I’m more prepared to mix a bit more than perhaps what I did before where I was quite insular” P10  
“I think people who spend a lot of time on their own would really benefit” P17  
“I’m sure if I was to want their support, need their support then I would get it” P17  
“When we’re there, when we’re cooking we all more or less support each other and we will help each other” S12  
“Really very good for me mentally” P17  
“She’s socialising and it’s helped her mental health enormously” P9 |
| Learning and benefits | 8 codes within sub-category | “I can’t say it’s the kitchen that’s impacted my everyday life [...] it’s a combination of everything, really” P11  
“I have learnt a lot of culinary skills, so yes I have learnt” P2  
“So, I get the exercise of walking there or walking back” P7  
“Socialize with the bonus of you’ve got your dinner and pudding” P1  
“Craft obviously improved their, sewing” P15 |
<table>
<thead>
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<th>Illustrative quotations</th>
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<tbody>
<tr>
<td>Learning to cook healthier” P15</td>
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<tr>
<td>“well, being able to help the cost of living at the moment” P20</td>
<td>“well, being able to help the cost of living at the moment” P20</td>
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<tr>
<td>“I like the fact that you can get out of date food [...] you can utilize all that food that would normally go to waste and put it to good use” P11</td>
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<td></td>
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<tr>
<td>Impact of not participating</td>
<td>“We miss it when the holidays are on and we don’t meet” P2</td>
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<tr>
<td>1 codes within sub-category</td>
<td></td>
<td></td>
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<tr>
<td>Context</td>
<td>“Knitting, colouring, Mindfulness, crafting, sewing” P8</td>
<td></td>
</tr>
<tr>
<td>1 code within sub-category</td>
<td>“I belong to this church. I belong to WI. and there’s Church of England up the road, I support their coffee mornings” P16</td>
<td></td>
</tr>
<tr>
<td>Interactions and environment</td>
<td>“Have a laugh and just general banter” S/V1</td>
<td></td>
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<tr>
<td>5 codes within sub-category</td>
<td>“Think with the craft there is more interaction actually” P15</td>
<td></td>
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<tr>
<td>Participant demographics</td>
<td>“Some of them talk about like if their relatives are ill or and they’re upset and they’re worried” S15</td>
<td></td>
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<tr>
<td>4 codes within sub-category</td>
<td>“You feel that you want to make it inclusive for everybody” P7</td>
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<tr>
<td>EXPANSION OF THE CK SCHEME</td>
<td>“they’re all different personality type ladies, which is a good in one way because you don’t want to sit in a room full of people that like yourself” P19</td>
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<tr>
<td>Information that should be considered when expanding the scheme</td>
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<tr>
<td>Considerations for expansion</td>
<td>“I would say, come on. Take us as we are. It’s very laid back. There’s no pressure. None what’s so ever and if you don’t like it, you don’t have to come again” P6</td>
<td></td>
</tr>
<tr>
<td>8 codes within sub-category</td>
<td>“it won’t worry me if we paid to come” P16</td>
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<tr>
<td>CONTEXTUAL AND ENVIRONMENTAL FACTORS</td>
<td></td>
<td></td>
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<tr>
<td>Contextual and environmental factors including information about the participants</td>
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<tr>
<td>FINDING OUT ABOUT THE CK AND EASE OF ATTENDING</td>
<td>Evolution of CK, and work needed to set them up</td>
<td>“They would do like a six week course” P18</td>
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<tr>
<td></td>
<td></td>
<td>“Personally, wouldn’t have had a clue that it even existed, but obviously I got put in touch with the coordinator through my GP and from that they understand what’s going on in the community” P11</td>
</tr>
<tr>
<td></td>
<td></td>
<td>“You know I can only get the bus to a certain place then and then I’ve got to get either another Taxi or walk up, which for me is you know it Just takes ages and ill be exhausted by the time I got there so” P11</td>
</tr>
<tr>
<td></td>
<td></td>
<td>“I’d need transport to get down there” P13</td>
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</tbody>
</table>

Note: P=community kitchen or craft participant, S/V=staff or volunteer.
Appendix 6: Amended logic model

What are the public health benefits of the Leicestershire Community Kitchen Scheme?

Target population: residents of Leicestershire, those attending community kitchens

Craft sessions replace Community Kitchens on a fortnightly basis. Craft sessions are open to individuals who do and do not attend Community Kitchen sessions.

Resources/input

Activities provided

Function of CK and craft sessions

Immediate outcomes

Final outcomes and impacts

Increased knowledge, skills and awareness

Socialisation

Mental Health

Confidence

Independence

Education

Contextual factors:
participant characteristics (e.g., gender, location, existing knowledge, capabilities, resources, mental health), other community-based activities engaged in (e.g., crochet, mindfulness, day trips)

Funding

Adult education tutor

Trained volunteers

Facilitator

Community buildings

Kitchen facilities

Recipe book

Community kitchens

Socialisation

participation

collaboration

Socialisation

participation

Improved cooking and craft skills and knowledge

Education

Increased opportunities to socialise
Appendix 7: Participant and health and wellbeing monitoring survey

Future participation and health and wellbeing monitoring
Survey 1: initial

Section 1: Routine attendance data
Please tell us which community kitchen you attend/ed
______________________________________________________________

Please would you tell us how you heard about the community kitchens?
______________________________________________________________

Please would you tell us, in your own words, why you started participating in the community kitchen?
______________________________________________________________

If applicable, please would you tell us, in your own words, why you stopped participating in the community kitchen?
______________________________________________________________

Section 2: Demographics
What is your gender?

- Male
- Female
- Other
- Prefer not to say

Please tell us your date of birth
Day ___ Month ___ Year ___
The Equality Act (2010) defines a person as having a disability if he or she ‘has a physical or mental impairment that has a ‘substantial’ and ‘long term’ negative effect on your ability to do normal daily activities’. Do you consider yourself to have such a disability?

- Yes
- No
- Do not wish to say

**Section 3: Socioeconomics and food security**

What is your current work situation?

- Employed full time, employed part time, self-employed, unemployed, student, retired, unable to work (physical health), unable to work (mental health), unable to work (carer), home maker

**Section 3: Food security**

How strongly do you agree or disagree with the following statements? (5-point Likert scale; strongly disagree, slightly disagree, neutral, slightly agree, strongly agree)

- In the last year, me and/or my family has had enough of the kinds of food we want to eat
- I feel that I can easily buy healthy food in my neighbourhood
- In the last year I have worried that the food I have at home would run out before I had money to buy more
- In the last year, I, or someone else living with me, has cut the size of our meals, or skipped meals because there was not enough money for food
- In the last year I have been hungry but did not eat because there was not enough money for food
- I feel I have access to a kitchen and the things I need to cook with to make meals for me and other members of my household
- I feel confident preparing and cooking meals using fresh ingredients
- I often spend less on food to be able to afford other things
- I feel that myself and/or people I live with often don’t have enough money to buy the food we need

If you feel you often don’t have enough money to buy food, please tell us why you think that is

__________________________(open text box)__________________________

**Section 4: Health and wellbeing (physical, mental, and social)**
Please tell us how your health is in general. Would you say it is:

- Very good
- Good
- Fair
- Bad
- Very bad
- Do not wish to say

Mental health status (MHI-5)*

Please read each question and tick the box that best describes how things have been FOR YOU during the past month using the 6-point scale (all the time, most of the time, a good bit of time, some of the time, a little of the time, none of the time). There are no right or wrong answers.

- During the past month, how much of the time were you a happy person?
- How much of the time, during the past month, have you felt calm and peaceful?
- How much of the time, during the past month, have you been a very nervous person?
- How much of the time, during the past month, have you felt downhearted and blue?
- How much of the time, during the past month, have you felt so down in the dumps that nothing could cheer you up?

Social support and connectedness (DSSI-10)

Social interaction*

1. Other than members of your family, how many people in your local area do you feel you can depend on or feel close to? (Scoring: None (1), 1-2 people (2), more than 2 people (3))

2. How many times during the past week did you spend time with someone who does not live with you? That is, you went to see them, or they came to visit you, or you went out together? (Scoring: None (1), once (2), twice (2), three times (3), four times (3), five times (3), six times (3), seven or more times (3)).

3. Number of times in past week talked with friends/relatives on the telephone in the past week (either they called your, or you called them)? (Scoring: None (1), once (1), twice (2), three times (2), four times (2), five times (2), six times (3), seven or more times (3)).

4. Number of times in the past week attended meetings of clubs, religious groups, or other groups that you belong to (other than work) (Scoring: None (1), once (1), twice (2), three times (2), four times (2), five times (2), six times (3), seven or more times (3)).
Social satisfaction*

1. Does it seem that your family and friends (people who are important to you) understand you? (Scoring: Hardly ever (1), some of the time (2), most of the time (3))

2. Do you feel useful to family and friends (people who are important to you)? (Scoring: Hardly ever (1), some of the time (2), most of the time (3))

3. Do you know what is happening/going on with family and friends? (Scoring: Hardly ever (1), some of the time (2), most of the time (3))

4. Do you feel you have a definite role in the family and among your friends? (Scoring: Hardly ever (1), some of the time (2), most of the time (3))

5. When you are talking with your friends and family, do you feel you are being listened to? (Scoring: Hardly ever (1), some of the time (2), most of the time (3))

6. Can you talk about your deepest problems with at least some of your family and friends? (Scoring: Hardly ever (1), some of the time (2), most of the time (3))

*Sum of codes with higher scores indicating more social support. There is no imputation for missing items.

A score for Duke social support index is calculated as the sum of 10 items with mean imputation for up to two missing items.

Loneliness (UCLA loneliness scale)

1. How often do you feel that you lack companionship?

2. How often do you feel left out?

3. How often do you feel isolated from others?

1=hardly ever, 2=some of the time, 3=often. The scores for each individual question can be added together to give a possible range of scores from 3 to 9. Scores between 3-5 =not lonely, scores 6-9=lonely.

Section 5: Aims and impact of community kitchens

Please tell us, in your own words, what you think is the purpose of the community kitchens?

___________________________________open text___________________________________
Please tell us, in your own words, what you consider to be the advantages or benefits of attending the community kitchen

___________________________________ open text __________________________________

Please tell us, in your own words, what you consider to be (or could be) the disadvantages of attending the community kitchen for you or for others

___________________________________ open text __________________________________

__________________________________________________

Future participation and health and wellbeing monitoring

Survey 2: every six months following initial

*Survey 1 to be given with the addition of the following questions

Has anything changed for you since you started attending the community kitchens?

○ Yes
○ No

If yes, please tell us, in your own words, what has changed and how.

___________________________________ open text __________________________________
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