

What is the potential for community currencies to deliver positive public health outcomes? Case study of Time Credits in Wisbech, Cambridgeshire, UK

[Dr Gemma Burgess](#)

[University of Cambridge, Department of Land Economy, Cambridge Centre for Housing and Planning Research](#)

[Abstract](#)

[There is evidence that increased levels of community engagement and social participation can improve population health. Community currencies such as Time Credits are one way to support and encourage people to be more involved in their local community. As a result, they have attracted investment by local governments in the UK, with the hope of finding new ways to work with deprived communities, improve individual outcomes that lead to better health, and reduce the use of public services at a time of financial austerity.](#)

[The aim of this research was to evaluate the health related outcomes of volunteering through Time Credits in Wisbech, Cambridgeshire. The conceptual model developed during the research shows how Time Credits were expected to influence some of the social determinants of health and, by doing so, enhance health outcomes and reduce health inequalities. This in depth empirical study shows the potential of such activity to support pathways to better health, but equally demonstrates the challenges in quantifying such outcomes and in evidencing any reduction in the use of public services as a result.](#)

[Key words](#)

[Time Credits, Public health, Volunteering, Inequality, Social Isolation](#)

1 Introduction

Whilst community currencies that focus on time exchange have an ethos of exchanges built on a sense of obligation and reciprocity, rather than price determined by supply and demand, they are also a pragmatic response to ongoing financial austerity. In the context of the demands of an ageing population on adult social care services, and of a rise in socially related health problems putting pressure on the health service, local government is constantly seeking new ways to improve community health and to reduce the demand on costly public services. Co-production of services by public authorities with social enterprises, third-sector organisations and local communities is a way to try and deliver services in new ways and to do more with less.

The Cambridgeshire Time Credits programme is jointly funded by Cambridgeshire County Council and Cambridge Housing Society. It was established in July 2014, following a

successful completion of a nine-month pilot in Wisbech. Support for the development of multiple Time Credits networks across the county emerged as a response to the budget cuts that forced the County Council to identify new ways to engage local communities and to build community resilience.

The Public Health Practice Evaluation Scheme (PHPES) enables people who are introducing innovative public health initiatives to work in partnership with the National Institute for Health Research School for Public Health Research (NIHR SPHR) to conduct rigorous evaluations of their effectiveness. This scheme is particularly focused on local initiatives. Under this scheme, the aim of the research was to evaluate the outcomes of Time Credits in Wisbech, Cambridgeshire, with a focus on health outcomes. The goals of the research were to determine the initiative's potential to tackle social exclusion and loneliness, and to assess the extent to which it can improve wellbeing and increase community cohesion and social capital. This in depth, empirical study enabled an analysis of the potential pathways to better health that might be facilitated through participating in earning and spending Time Credits, a complementary currency that recognises time spent volunteering with Credits that can be spent on a range of activities. The research shows the potential of such activity to support pathways to better health, but equally the challenges in quantifying such outcomes and in evidencing any reduction in service use as a result.

2 Theoretical context: community approach to public health

One of the key contexts for the research was the recognition of the value of tackling health inequalities through community engagement. An important approach to reducing health inequalities is through improving social capital and reducing isolation (O'Mara-Eves et al, 2013; Public Health England, 2015). Chronic stress arising from factors associated with poverty – including lack of social capital, lack of control over life choices and inability to participate in the life of the community – has been linked to negative health outcomes, especially in relation to mental health (Quinn and Knifton, 2012).

There is solid evidence that increased levels of community engagement and social participation have a positive impact on health behaviours, physical and emotional health, and self-confidence, especially among disadvantaged populations (O'Mara-Eves et al, 2013; Public Health England, 2015). These benefits are so widely acknowledged that the National Institute for Health and Care Excellence (NICE) guidance endorses community engagement as a strategy for health improvement (Public Health England, 2015: 6).

The social and economic determinants of health affect people's health by determining what resources are available to them (Markkanen and Burgess, 2016). Variation in these resources (i.e. the social and economic determinants of health) results in 'health inequalities'. These are differences in people's health due to social, economic and geographical factors. Within the UK, in spite of universal access to health services, poor health remains strongly linked to social and economic disadvantage (Hawe and Shiell, 2000; NICE, 2012: 1).

The social and economic determinants of health that cause health inequalities are modifiable. Housing, education, employment, income, access to public services and personal behaviour can all be improved to enhance health outcomes and reduce health inequalities (O'Mara-Eves et al, 2013:3).

Reduction of health inequalities is one of the two overarching aims set out in *The Public Health Outcomes Framework for England, 2013 -2016*. Changes in the levels of health inequalities, however, can take years, or even decades, to manifest. Movement towards these outcomes, on the other hand, can be measured along the way (Markkanen and Burgess, 2016). The Department of Health considers that one of the four indicators to measure progress towards these overarching long-term goals is via improvements to the social and economic determinants of health.

The conceptual model developed during this research shows how Time Credits were expected to influence some of the social determinants of health and, by doing so, to enhance health outcomes and reduce health inequalities. The model is presented later in the paper with an indication of where the research identified the strongest evidence.

3 Time Credits

Time Credits are a way of recognising and celebrating the time people spend volunteering with a local organisation, community group, volunteer group or a statutory sector service provider. In exchange for their contribution, the volunteers 'earn' a Time Credit note, one for every hour they give. These can be 'spent' on a range of leisure and other opportunities, typically donated by organisations, local businesses and corporations, to allow the community members to take advantage of their spare capacity. They can also be spent on activities run by other community members, on activities at the organisation they were earned with, and to trade time and skills with other individuals.

Time Credits are a development of the traditional time banking model. Edgar Cahn is often accredited for 'inventing' time banking, building his Time Dollars model in the 1980s (Weaver et al, 2015) as a means of rebuilding social networks and neighbourhood support in response to reduced social spending in the US (Boyle and Bird, 2014; Gregory, 2012). The first UK time banking project was set up in 1998 in rural Gloucestershire and the movement has grown rapidly since then (Seyfang, 2003 and 2004; Boyle and Bird, 2014). In 2014, Timebanking UK (the umbrella organisation for time banks) had some 300 member organisations whose members had exchanged over 2 million time credits (Boyle and Bird, 2014).

Time banks are typically community-based organisations that provide the framework for giving and receiving services in exchange for units of time. One hour of time helping another member of the network equals one time unit, which can then be used to buy an hour of someone else's time (Cahn, 2004). The underlying logic is that of reciprocity and equality: the participants are

encouraged to spend as well as earn time units, and everyone's time is valued equally; in other words, the value is the time the participants give rather than the skill (Gregory, 2014).

Time banking has been developed on the idea of there being two economies: the 'market economy' and the 'core economy'. The market economy relies on people's material, intellectual, financial and physical assets that can be traded at a commercial price in a competitive market (Granger, 2013). It picks and chooses the people, communities and specialised skills it needs, enabling those with marketable skills and resources to get more while excluding people who lack these skills and resources, such as the poor, the elderly, the frail and the uneducated.

The 'core economy', on the other hand, consists of the non-monetary, unmeasured sector of the economy comprising family, neighbourhood and community, including unpaid housework and caring for family and relatives (Boyle, 2003; Cahn, 2004). In the 'core economy', exchanges are built on a sense of obligation and reciprocity rather than price determined by supply and demand. Unlike the market economy and the skills associated with this, the 'core economy' is often taken for granted and given little value (Cahn, 2004).

Co-production is a conceptual framework for bridging the two economies and elevating the function of the 'core economy' to a level equal to that of the market economy (Cahn, 2004). It regards the role of the social support provided by family and neighbours as essential in underpinning everything else in the economy and builds on a notion of all people as assets. Even those typically excluded from the traditional job market, such as the old, the young, the uneducated, disabled and ill, are regarded as capable of making an important contribution as everyone has something valuable to give (Boyle, 2003).

The concept of co-production was originally developed to describe the involvement of ordinary citizens in the production of public services (Pestoff, 2006: 17). In very general terms, co-production means working together for an agreed outcome. In relation to services, the term co-production is typically used to refer to a situation where professional services are designed, developed and/or delivered with, or by, people, instead of for them (for example, see Needham and Carr, 2009). Co-production may be best described by its underlying principles and values of mutuality, reciprocity and equality (Boyle, 2003; Boyle et al, 2006; Boyle and Harris, 2009; Scottish Government, 2011).

In recent years, the concept of co-production has been widely adopted to refer to the organised involvement of citizens in the production of public services – a practice that has become increasingly regarded as essential for sustaining the current levels of service provision in the changing economic context (Pestoff, 2006). In health and social services, for example, service user co-production can enable service providers to tap into their clients' non-financial assets, including skills, experiences and the ability to provide mutual support, to help improve these services (Needham and Carr, 2009).

Set up in 2009 by a social enterprise called Spice, Time Credits is an example of an adaptation of the time banking model that enables organisations and existing service providers to play a greater role. Like time banks, the Spice model uses Time Credits as a way of rewarding people for volunteering, only in this case the individual participants give their time to a local organisation, community group, volunteer group or a statutory sector service provider. In exchange for their contribution, they 'earn' printed Time Credit notes, one for every hour they give, which they can then 'spend' on a range of leisure and other opportunities, typically donated by organisations, local businesses and corporations to allow the community members to take advantage of their spare capacity (Weaver et al, 2015).

4 Time Credits in Wisbech

Wisbech is a historic inland port on the River Nene to the north of Cambridgeshire. Agriculture and food production are central to the town's economy, but the nature of the employment created is often unattractive to young local people, low-skilled, seasonal, erratic and insecure, and employs a high proportion of migrant labour. The town has above average levels of deprivation and a range of challenging social issues (Durrant and Burgess, 2016). High levels of recent migration have caused local tensions.

In contrast with Cambridgeshire as a whole, Wisbech is at the centre of a cluster of wards with high levels of deprivation and contains the two most deprived wards in the county, with some wards seeing the highest proportion of benefits claimants in Fenland. Life expectancy is 6.8 years lower for men and 5.0 years lower for women in the most deprived area of Cambridgeshire, Waterlees ward in Wisbech, than in the least deprived (Cambridgeshire JSNA 2014/15).

Other indicators where public health outcomes in Fenland are significantly worse than the average for England are excess weight and obesity amongst adults, and physical activity below the recommended levels (ibid). Levels of smoking are generally higher, as are fuel poverty and mental health referrals for both adults and children (ibid). Children in Fenland experience some of the highest levels of various 'vulnerability factors' relating to health, family or their environment, leading to relatively poor outcomes in later life. These include poor educational performance for both children and parents, low levels of breastfeeding and high levels of teenage pregnancy and young mothers, the overcrowding that is a specific issue in Fenland, as well as above average levels of hospital admission and self-harm (ibid). Skill levels are low and there is persistent worklessness amongst the local indigenous population. Local services, including local community focused organisations, have experienced budget cuts and continuing insecurity in funding.

There are 16 active local organisations where people can earn Time Credits. These include schools, homeless hostels, children's centres, an adventure playground and a project supporting people into employment. Activities that volunteers can do to earn Time Credits include reading with children, running after school clubs, gardening, office work, working in a café and kitchen,

and litter picking. Volunteers can spend Time Credits on activities such as the gym, swimming, going to the cinema, having beauty and hair treatments, attending social events and going to the theatre.

5 Methodology

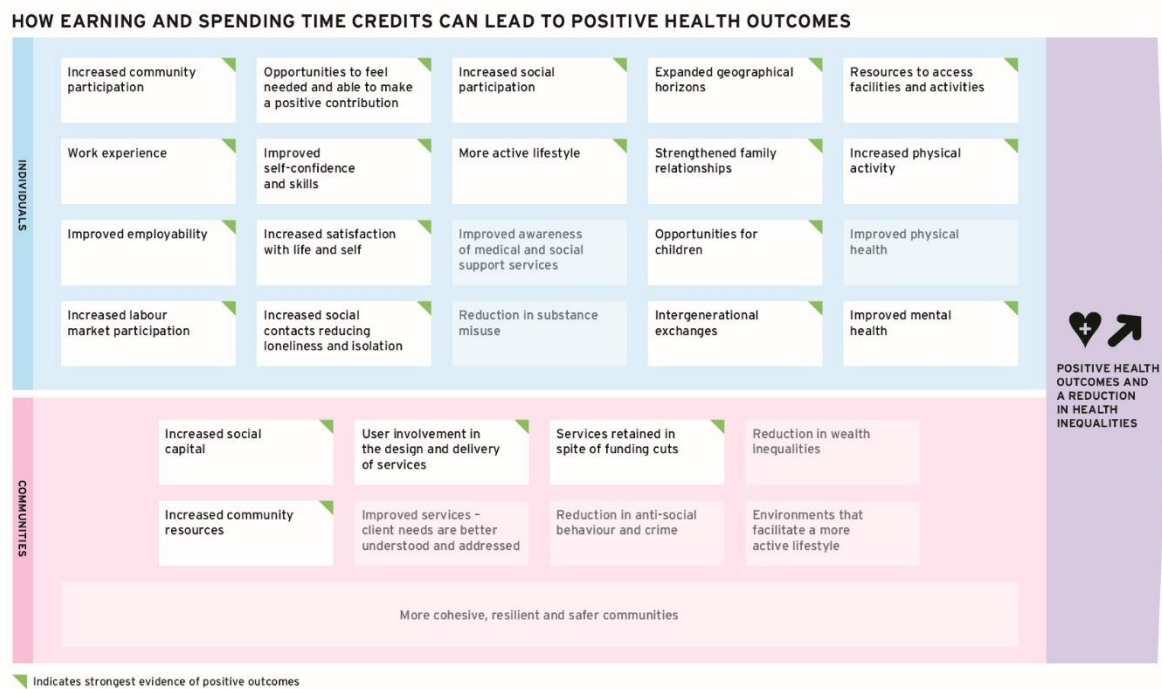
The aim of the research was to evaluate the outcomes of Time Credits in Wisbech, Cambridgeshire, with a focus on health. The research took a mixed methods approach using both quantitative and qualitative tools. It included interviews with key stakeholders, a literature review and a systematic review of the existing evidence of time exchange and health outcomes. Secondary data analysis and a longitudinal survey with Time Credits members was conducted, with an additional survey to existing members. In depth, face to face interviews were conducted with individual volunteers and with members of partner organisations. The research drew on ethnographic approaches to seek to understand both the individual and institutional context in which Time Credits function, in order to determine the relationships they have to public health outcomes.

6 Research findings: how Time Credits can lead to positive health outcomes

6.1 Positive outcomes for volunteers

A conceptual model was developed to guide the research. It was amended to reflect the research findings and shows how earning and spending Time Credits can lead to positive health outcomes (see Figure 1).

Figure 1: Developing a model to demonstrate how earning and spending Time Credits can lead to public health outcomes



6.2 Non-traditional volunteers

The research suggests that the Time Credits project has been successful in engaging with one particular category of volunteers. These ‘non-traditional volunteers’ (a term used by local organisations) can be defined as having little or no history of volunteering. The term refers to people who tend to be unemployed or on very low incomes, are in receipt of state benefits or may have long-term physical and mental health issues. They may be socially isolated and, crucially, have previously had little engagement with local community organisations. For this group, the research identified that the experience of earning Time Credits was overwhelmingly positive with strong evidence of both direct and indirect health benefits. The key pathways to health for this group are associated with improved confidence, community and social participation, and a reduction in loneliness.

6.3 Better physical and mental health

The research found that earning Time Credits can have both direct and indirect health benefits for individuals. People have experienced improvements in their physical health.

‘I was told that I need to keep my weight down. So I thought, if I come here, it’s better for me. If I’m on my feet all day, that’ll help me keep my weight down instead of sitting next door in my room all day, moping all the time, and succumbing to depression.’

They have also seen improvements in their mental health.

‘Since I’ve been working here, my depression has been a lot better and I’ve got a lot more confidence to talk to people...I’m more confident and upbeat, and I get up at a reasonable time.’

6.4 Reduced loneliness and social exclusion

A key finding has been the way in which earning and spending Time Credits has reduced loneliness and social exclusion.

‘I was getting lonely. I thought what am I going to do with myself?...I come out and I feel like wow, I’ve got my energy back.’

Earning and spending Time Credits has enabled people to feel that they are making a positive contribution, with positive knock on effects on their self-worth and wellbeing.

‘It has made me feel that I’m a person again. I feel appreciated. I’m not just a person at home doing housework.’

6.5 Case study – ‘Alice’

Alice had previously had a career working with children but poor health had kept her from working for nearly a decade. Time Credits made it possible to return to working with children at the Orchards School, something she loves doing. After a period of volunteering, the school gave her a formal paid job. Volunteering gave her an opportunity to share her skills and to make use of her previous experience and training. Most importantly, she became a valued member of a community:

‘When I went to the first Time Credits meeting, at that point, I never ever had anybody come visit me....the only people I spoke to were my neighbours. I always worried, because I am diabetic, if I’m ill that nobody would find me. Now, I go to that school every day, I may go in sad but I come out with a smile on my face...I finally got somebody, who, if I don’t turn up at school, they will come looking to see if I’m alright.’

6.6 Skills and employability

The research found evidence of improved self-confidence and skills development. Volunteering gave people work experience and, in some cases, paved their way into paid employment.

‘They have to learn about work patterns, that you have to start on time, not take cigarette breaks whenever you like. They found this very difficult. Even what to wear is hard to learn. These

are skills we take for granted....Some volunteers are now employed....I hope they are financially better off but the greater thing is that they feel better about themselves.’

6.7 Strengthening families

An important finding has been the way in which Time Credits have supported the strengthening of family and wider relationships. Families do activities together and, for some children, spending Time Credits is the only time they do anything outside the house as a family.

‘One lady, her kids never left the house but she will use Time Credits to take them out in the holidays.’

6.8 Case study – ‘Peter’

Peter was living in a hostel halfway house and had begun volunteering in the Ferry Project kitchen after his release from prison. Now he volunteers most days and treats it like a job. Peter described how he had learnt new skills and found a new passion. He feels like he’s giving something back to the community. He enjoys the voluntary work and it gives him a sense of achievement, and hopefully a route into paid employment. Spending Time Credits has enabled him to rebuild his relationship with his wife and daughter:

‘We are on benefits and the money only stretches so far....using the Time Credits, it gives me enjoyment to take my little girl to the movies with what I have earned. If it wasn’t for the Time Credits, we wouldn’t be doing that many things with her. And because we go out more, we are closer as a family.’

6.9 Outcomes for organisations and the community

The research found that being able to offer Time Credits has enabled local organisations and services to recruit more volunteers and to increase their capacity. But it has also challenged stereotypes and brought diverse people together in a way that makes the local community more cohesive.

‘It has also changed staff attitudes. Some staff thought that “these people” volunteering would be a hindrance not a help. Then they realised that they have skills. The staff started to see them in a different way...Understandings have changed.’

It has led to a recognition of the skills that exist in the community and a desire to nurture and support people into employment.

‘But what I am most proud of is getting people into jobs. These people would not apply for jobs and now they have paid jobs.’

The use of Time Credits has allowed organisations to develop a more reciprocal relationship with volunteers and, in some cases, to engage people in the design of services in a more co-productive way.

‘When people have nothing, it’s nice to be able to offer them something in return for their efforts.’

7 Challenges and limitations

The research identified a number of challenges and limitations in securing positive health outcomes through volunteering with Time Credits. There are some pathways to positive health outcomes through earning and spending Time Credits, shown in Figure 1, that the research was not able to identify strong evidence for. These included improved awareness of medical and social support services; reduction in substance misuse; improved physical health; improved services, client needs being better understood and addressed; reduction in anti-social behaviour and crime; reduction in wealth inequalities; environments that facilitate a more active lifestyle; more cohesive, resilient and safer communities. Although theoretically possible, there was no strong evidence of these outcomes. This section of the paper discusses some of the challenges that may preclude the clear achievement of positive health outcomes.

7.1 Hoarding Time Credits

Some people hoard their Time Credits rather than spend them which means they are missing out on the benefits that comes from spending Time Credits.

‘I save them. I have a huge ‘wodge’ at the moment.’

Gifting Time Credits is encouraged within the model and some of the volunteers interviewed had given Time Credits to family or friends. The accumulation of Time Credits without spending them is a phenomenon noted in many systems of complementary currencies and, whilst this might pose a challenge to realisation of the notion of reciprocity embedded in the ethos of time exchange (Clement et al 2017), it also prevents the realisation of the potential health benefits that could be achieved through spending Time Credits.

7.2 Issues around value

A particular challenge is the recognition that volunteers place a clear value on the time they have spent volunteering and want to see this value reflected in the spend activities. Volunteers do not necessarily want to spend their Time Credits on low cost activities, such as after school clubs that cost £1, or discos and events with a £2 entry fee, when they can spend them on higher cost activities, such as the cinema, which might otherwise be prohibitively expensive.

‘We can’t charge two Time Credits and only £2 as that is two hours of time for people who have earned them.’

Some organisations have offered spend opportunities which take time and resources to organise and had no volunteers want to participate. In some cases, this has been because volunteers felt they could get ‘better value’ on other spend opportunities.

‘They are always thinking about getting their value. Value is a big thing. And being able to go together. People understand value. They don’t want to spend their Credits if it is not good value. Some will say “it is below minimum wage if I work for an hour and spend it on that”. When we did bingo, no one took it up because it was only £2. After school clubs are only £1. When [two Time Credits volunteers] took their kids to the cinema, they walked a mile and a half to the cinema and made it into a whole day out, they went to McDonalds afterwards. It was the only thing their children did in the holidays.’

There is also a potential problem relating to the development of a black market for Time Credits, where people sell Credits on at a low value; this devalues the currency but also raises the problem of people using the cash to spend on unhealthy behaviours such as drinking alcohol.

7.3 Lack of spend activities

Volunteers in Wisbech only use a small range of spend activities. At the moment, most volunteers spend their Time Credits on going to the cinema, going swimming, and on hair and beauty treatments, with some also spent on social events. These are very valued. However, it does mean that the project is very reliant on three external organisations being willing to continue to accept Time Credits.

In addition, the majority of interviewees felt that there was a lack of local spend opportunities in the area.

‘Spend is limited because of our geographical area.’

This is partly because Wisbech is relatively isolated and because many volunteers cannot afford transport.

‘But it is hard to spend them here as none of the volunteers can afford transport. It would be ideal if they could spend them on transport, like get on the bus. But you can’t spend them on things like that. So spend is difficult. That’s the trouble, there are lots of rules.... So there are only two main options to spend them on. There is not much else in Wisbech. And none have transport. There just isn’t much local spend.’

7.4 Challenges in developing internal spend opportunities

One of the key challenges identified by organisations in working with Time Credits has been developing spend opportunities that are internal or community based. Community spend aims to provide local and accessible activities so people don't have to travel to find ways to spend their Time Credits. Most are reliant on volunteers spending their Time Credits on external activities, most frequently the cinema, swimming and the gym. Organisations face a number of constraints in developing their own spend options. One is staff time and resources available. Some staff are already over-stretched and trying to offer spend opportunities outside of their working hours, or the opening hours of their organisation, is too difficult. Sometimes there has been no take up because people are nervous about doing things that feel out of their usual comfort zone and immediate circle of acquaintances.

'We tried day trips to the sea and joined with [Time Credits organisation] but no one came as they did not want to go on the bus with other people they did not know.'

Organisations also said that people prefer to spend Time Credits on something they can do as a family, often also with other families, and will not spend on more individualised activities. One challenge for organisations has been negotiating how to offer Time Credits when they also use volunteers for fundraising activities. Some organisations have taken the view that their staff have always volunteered for certain fundraising activities, that too many Credits would be accrued, and that it is not appropriate when relatively large amounts of money are being raised. This has created some tension within organisations.

'We won't pay Time Credits for an event earning over £500. And if the staff are happy doing things anyway, like the disco, they don't need to earn Time Credits. It was very difficult. Some people did not speak to me for a while.'

Other organisations have also not offered certain activities as spend opportunities as they charge for these as part of the organisation's fundraising and need the income.

'Spending opportunities are hard and budgets are so tight. We would like to say use the Time Credits for the school disco but it is money making for fundraising so it would take funds away from the school. We have a summer fair but it is for fundraising. We don't rent out rooms much but we need what we get and can't rent them out for free.'

Some felt that they could not charge Time Credits for certain activities as they would have to charge actual cash to other organisation members and thought this would create tension and was against their ethos.

'We could offer something here but, if we charge Time Credits, we would have to charge money to other people and they would complain. They already pay rent so people would see it as a problem if we charged them for things here.'

Organisations are aware of the rationale to develop internal and community spend opportunities, and of the expectation to deliver a community spend offer, but felt they were doing what they could within the constraints they face.

‘We can’t come up with it given the circumstances. I am only paid 9 to 3 in term time and I have my own pressures outside of work and my own family. But if I thought it would work, I would give up the time. We offered it and no one took it up. No one took up the after school clubs. They don’t think it is good value.’

7.5 Pressures on staff

Generally, managing Time Credits within an organisation does take up staff time; most said that it took up more time than they had expected but that it was not unmanageable.

‘I am so short of time. It is overwhelming sometimes. Things like the data input spreadsheet could easily slip so as soon as I get half an hour I start.’

Monitoring and data input is time consuming but people manage, although they stressed that they could not cope with any more than the existing monitoring.

‘The admin part is ok if you keep on top of it. It is more time consuming than I expected but it is manageable. I wouldn’t want it to be any more.’

Some organisations have found that offering Time Credits can incur organisational costs, for example, when paid staff have to oversee earning opportunities and so other paid staff are needed to cover their normal duties. However, it is worth recognising that these additional costs can be offset by, for example, a reduction in the cost of garden maintenance.

‘One of the difficulties with Time Credits is that although they can be earned through activities such as tending to the garden, it often requires a paid staff member to also be there, overseeing the earning activity. As a result, enabling the residents to earn Time Credits comes at a cost as more paid staff are required to cover the time other paid members of staff are spending supervising the Time Credit earners.’

7.6 The network

Wisbech has a fairly well developed partner network and they come together quarterly at a network meeting. Those who attend find the meetings useful in part, mainly because they like to hear what others are doing and check that they are doing ok. However, communication between partners is limited to the meetings and the same people tend to go to the meetings every time. Some staff said that they do not have time to attend.

‘We don’t have much contact with the other Wisbech partners except at the network meetings. They are sometimes useful but it is often the same issues mentioned and the same people who go.’

Organisations are encouraged to identify how network meetings will best serve the development of their Time Credits initiative, to take a lead in shaping future meetings and to suggest and deliver content.

7.7 Challenges in offering Time Credits

There have been internal problems at some organisations unrelated to Time Credits that have made maintaining a volunteering system difficult. There are also a small number of organisations that are keen to join the Time Credits network but have struggled to find the best way to offer Time Credits. This is the case for a couple of organisations that already have volunteer schemes in place, and so have been trying to think of a slightly different way for people to volunteer and earn Time Credits. There can also be an issue of equity, where it is deemed inequitable to offer Time Credits to the volunteers in one local organisation when there is another branch of the organisation whose volunteers would not be able to earn Time Credits because they are out of the project catchment area.

7.8 Existing volunteers

The qualitative research identified evidence of positive outcomes for volunteers. However, the strongest benefits may be concentrated on a core of regular, non-traditional volunteers. For the people who were already volunteering, but had subsequently been offered Time Credits, they were a nice thing to have, but they were not critical in motivating them to volunteer and there had been little change in their circumstances.

‘I first came into contact with the school when my daughter started but I started volunteering about four years ago when my son went to pre-school. When Time Credits started, I was already volunteering and I would do it without them.’

A further example is a volunteer who was in employment and was already volunteering before being offered Time Credits.

‘I have children at the school. I have a teaching degree. I have been a dental nurse for eight years but I miss teaching....I wanted to do something for me. I enjoy my job but I like being with children....I would volunteer without Time Credits but it is a bonus. I help groups, reading, with music classes. I prefer to volunteer rather than to increase my hours at work. Even if I increased my hours, I would still volunteer.’

Volunteering is very important to them, but they were already regular volunteers and there is little evidence that for this group there are additional health related benefits generated by earning Time Credits for the activities. There are potential benefits accrued from spending

Time Credits, although some of this group had not explored opportunities to spend their Time Credits. It is apparent that earning Time Credits is potentially transformative for some volunteers but is not a profound experience for others.

7.9 Structural context

It is important to be realistic about what offering Time Credits can achieve. In a place where there are fundamental structural issues of poverty, deprivation, unemployment, low levels of education, poor health and poor lifestyle choice, one community project cannot be expected to 'fix' these problems, particularly in a context of reduced funding for local services.

8 Evidence gaps: quantification

The biggest remaining gap in evidence is that of quantification. The research has found evidence of positive outcomes from some volunteers, but it has not been possible to quantify the degree of change. There are several reasons for this. In order to measure change in people's health, wellbeing and circumstances, a baseline of these measurements is needed before people begin volunteering and this should be taken again, after a period of time, to capture any change. However, the Wisbech project was quite well established by the time the evaluation began and the sample of people who joined as new volunteers during the research was not large enough to collect a robust sample of measurements. For attempts to measure and quantify change to be successful, they need to be built into a project to collect data from the beginning, rather than retrospectively. There is also a need to establish a meaningful comparator of similar people who did not join the Time Credits scheme.

There was also a degree of research fatigue amongst the study population. As Wisbech was the pilot for Time Credits in Cambridgeshire, volunteers had already been surveyed about their views of the project. There was also a reluctance to participate in some forms of data collection, such as surveys, possibly reflecting confidence and literacy levels, and people preferred to share their experiences in dialogue through interviews.

8.1 Savings to health and adult social care

As Batterink et al (2017) point out, requests to study the impact of complementary currencies prevail, as investors look for quantifiable records to justify their financial support to such schemes. One of the repeated requests from local government during the research was whether evidence could be collected to demonstrate a return on investment. However, without being able to quantify any degree of positive change, it is not possible to demonstrate measureable savings to health and adult social care, the ultimate goal of the Council's investment in the programme. The research has identified potential pathways to better health but there is a lack of quantifiable evidence.

This does also in part reflect the circumstances of the particular group of volunteers active in Wisbech. Few had immediate or high level health needs, so any benefits are likely to only be realised over the long term. There are few older people who volunteer who are in receipt, or likely to be in receipt in the near future, of direct support from adult social care services. There is no direct evidence of any reduction in service use in the short term.

Benefits in terms of any reductions in the use of public services are likely to be long term. It would therefore be difficult to measure them over these time periods and to attribute them to participation in volunteering. As mentioned, there is also a general context of poverty and poor lifestyle that weighs against the immediate benefits of volunteering. Time Credits are also a diffuse intervention so establishing cause and effect between earning and spending Time Credits and the specific outcomes is difficult, particularly when there may be other types of engagement with volunteers through other means. [The issue of cause and effect is important. Whilst this research with people earning and spending Time Credits showed some benefits e.g. in terms of physical and mental health, it is possible that the highlighted benefits could be linked to the development of mutual exchange systems and solidarity in general \(rather than solely as a result of earning or spending Time Credits\). These, however, might be based on different types of community currency, and also on volunteers with little interest in Time Credits, as in the case of the existing volunteers.](#)

There is strong qualitative evidence of positive change as a result of earning and spending Time Credits, particularly amongst ‘non-traditional volunteers’, but any direct health changes have not been proven beyond the qualitative evidence. The evidence is also of positive changes in the known determinants of health, rather than in actual measurable health improvements. For example, there is evidence of improvements in social isolation, and therefore an implied potential improvement in health, because loneliness is a known and proven determinant of poor health, but actual health improvement has not been evidenced. There was no direct evidence of a reduction in health-related services and this was not mentioned in interviews.

9 Conclusions

Time Credits are a relatively simple concept, but they are a complex community intervention with numerous interconnected outcomes and multiple pathways to positive change in relation to health and health behaviours. The research shows that earning Time Credits can have both direct and indirect health benefits for individuals. People gained a sense of purpose and felt that they were making a positive contribution to a community which increased their life satisfaction and improved their mental health. They became more physically active and more socially connected. There is also evidence of increased confidence and development of skills and work experience to support moving into paid employment.

Spending Time Credits gave members resources to access activities and services that they would not otherwise be able to afford. Time Credits were spent on activities which lead to a more active lifestyle, such as swimming, with direct health benefits. They were also spent on

family activities which lead indirectly to positive health outcomes by improving social capital, social participation and overall wellbeing.

However, one of the main characteristics of Time Credits, and the improvements in social relations they bring, may not only lie in giving a fair value to labour but also in the equity and sustainability of the exchanges that the Time Credits enable. As described above, some of the volunteers interviewed complained about the lack of spending opportunities for their Time Credits, or were not prepared to spend them on services they considered to be of too low value. This may be helped by a more effective economic and organisational commitment on the part of local government, especially towards increasing sustainable spend opportunities for Time Credits earned by non-traditional volunteers. Whilst it may not sit easily with the current ethos and management structure of Time Credits, it may be useful if the system could enable non-traditional volunteers to spend part of their Time Credits on sustainable local food, services and local public transport.

Additional research would benefit from focusing on the issue of quantifying positive change, attributing positive change to the use of the community currency and establishing any direct and indirect savings to public services as a result. This could mean a longitudinal study tracking people over the longer term and specifically monitoring their use of services over this time. It would also require mapping additional support and influences on participants. This would probably also require a comparator group of similar people to track who did not volunteer. Further studies would need to consider using measures other than self-reported health, which are notoriously inaccurate, and correlations between self-reported health and direct measures of health are generally only low-to-moderate. Research more focused on specific target groups such as older people or people with mental health problems for example, may show more observable impacts of volunteering on specific vulnerable groups where impact might be more salient. A further piece of research would be to test whether the findings from the study in Wisbech are similar in different geographical areas and socio-economic contexts.

Time Credits provide opportunities to be active citizens, to share experiences and skills, and to make positive contributions that foster a sense of inclusiveness. The research suggests that Time Credits are a way to engage local people to develop more inclusive, cohesive and resilient communities. However, being able to quantify such outcomes in such a way that would enable a robust calculation of a return on investment was not feasible, and the evidence of positive change to health and health determinants is very qualitative.

References

- Batterink L., Kampers E. and van der Veer J. (2017) Doing it together. Studying the implementation of new social currency in the Netherlands. *International Journal of Community Currency Research* 21 (Winter): 22-35.
- Boyle D. (2003) *The Co-Production Principle and Time Dollars*. <http://timebanks.org/wp-content/uploads/2014/01/Co-ProductionPrinciple.pdf>. Last accessed 14/10/2015.
- Boyle D., Clark S. and Burns S. (2006) *Co-Production by People Outside Paid Employment*. York and London: Joseph Rowntree Foundation and the New Economics Foundation
- Boyle D. and Harris M. (2009) *The Challenge of Co-production: How equal partnership between professionals and the public are crucial to improving public services*. London: NESTA
- Boyle D. and Bird S. (2014) *Give and Take: How timebanking is transforming healthcare*. Gloucester: Timebanking UK
- Cahn E. (2004) *No More Throw-away People: The Co-Production Imperative (2nd edition)*. Washington DC: Essential Books
- Cambridgeshire and Peterborough Clinical Commissioning Group (2015) *Cambridgeshire JSNA: Summary Report 2014/15*. Cambridge: Cambridgeshire County Council and Cambridge and Peterborough Clinical Commissioning Group.
- Clement N., Holbrook A., Forster D., Macneil J., Smith M., Lyons K. and McDonald E. (2017) Timebanking, co-production and normative principles: putting normative principles into practice. *International Journal of Community Currency Research* 21 (Winter): 36-52.
- Durrant D. and Burgess G. (2016) *Time Credits in Wisbech*. Cambridge: Cambridge Centre for Housing and Planning Research.
- Granger P. (2013) *Valuing People and pooling resources to alleviate poverty through time banking*. London: Rushey Green Time Bank.
- Gregory L. (2012) Time and punishment: a comparison of UK and US time bank use in criminal justice systems. *Journal of Comparative Social Welfare* 28(3): 195-208.
- Hawe P. and Shiell A. (2000) Social capital and health promotion: a review. *Social Science & Medicine* 52 (2000): 871 – 885.

Markkanen S. and Burgess G. (2016) *The potential for Time Credits to generate public health outcomes – a conceptual model*. Cambridge: Cambridge Centre for Housing and Planning Research.

Needham C. and Carr S. (2009) Co-production: An emerging evidence base for adult social care transformation. *SCIE Research Briefing* 31. London: Social Care Institute for Excellence.

National Institute for Health and Care Excellence (2012) *Health inequalities and population health. NICE local government briefing*.

<https://www.nice.org.uk/advice/lgb4/chapter/introduction>. Last accessed 20/10/2016.

O'Mara-Eves A., Brunton G., McDaid D., Oliver S., Kavanagh J., Jamal F., et al. Community engagement to reduce inequalities in health: a systematic review, meta-analysis and economic analysis. *Public Health Research* 1(4).

Pestoff V. (2006) Citizens and Co-Production of Welfare Services: Childcare in Eight European Countries. *Public Management Review* 8(4): 503–19.

Public Health England (2015) *A Guide to community-centred approaches for health and wellbeing*. London: Public Health England.

Quinn N. and Knifton L. (2012) Positive mental attitudes: how community development principles have shaped a ten-year mental health inequalities programme in Scotland. *Community Development Journal* 47(4): 588 – 603

Scottish Government (2011) *Evaluation of Local Housing Strategies Co-Production Pilots with Disabled People*. Scottish Government Social Research, available online at <http://www.gov.scot/resource/doc/365083/0124090.pdf>. Last accessed 05/01/2016.

Seyfang G. (2003) With a little help from my friends. Evaluating time banks as a tool for community self-help. *Local Economy* 18(3): 257-264.

Seyfang G. (2004) Time banks: rewarding community self-help in the inner city. *Community Development Journal* 39(1): 62-71.

Weaver P., Dumitru A. and Lema Blanco I. (2015) Transformative Social Innovation Narrative: Timebanking, *TRANSIT: EU SSH.2013.3.2-1 Grant agreement no: 613169, 31 March 2015*.

Acknowledgements

The research was funded by the NIHR School for Public Health Research (SPHR) Public Health Practice Evaluation Scheme (PHPES) which operates in collaboration with Public Health England. The views expressed are those of the author(s) and not necessarily those of the NHS, the NIHR or the Department of Health.

The Cambridge Centre for Housing and Planning Research (CCHPR) carried out this research in collaboration with Spice, the Cambridgeshire County Council Community Engagement Team, Cambridge Housing Society, and the Cambridge Institute of Public Health (CIPH).