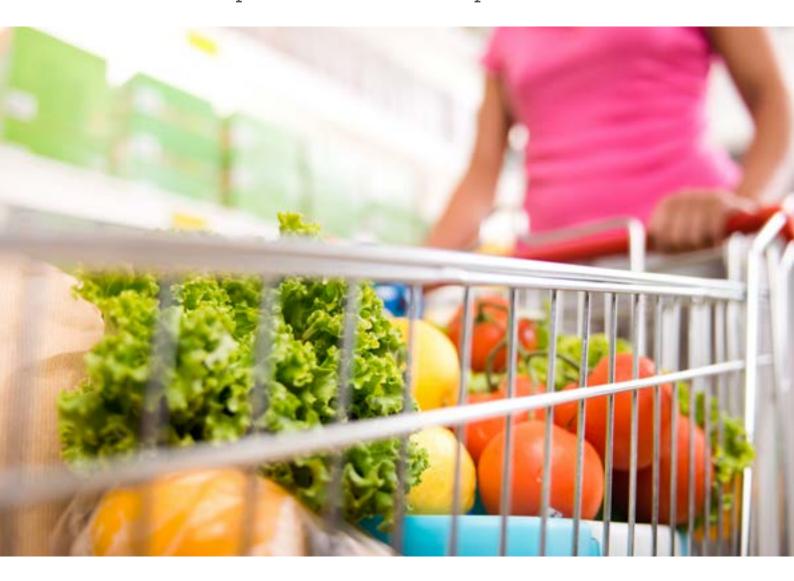
EATING BETTER FOR LESS

Incentivising fruit and vegetable consumption with price discounts at the point of sale



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Robin Hinks 2017

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1: Executive Summary and Key Recommendations

During the summer months of 2017 the Food Foundation's Research and Policy Officer visited the United States to explore 'fruit and vegetable incentive programmes' which create cost savings for healthier foods at the point of purchase for low-income shoppers. The purpose of the trip was to explore the feasibility of further developing and upscaling incentive projects in the UK by influencing public policy. This paper describes the findings and considers the potential application of the US experience in a UK context.

Features of an Incentive Project

Incentive programmes offer a triple-value proposition, benefiting:

- shoppers, their households, and health services by encouraging healthier diets through fiscal incentives;
- fresh produce growers, by increasing demand for fruit and veg; and
- retailers and local economies, by stimulating increased economic activity.

These three benefits have been crucial for bringing together opposing political interests in a triangle of stakeholders supporting investment in incentive schemes.

There is considerable variation in the design and delivery of US fruit and vegetable incentive programmes. Most use people's receipt of federally-funded food assistance programmes as a passport for project eligibility. Other "fruit and vegetable prescription" style programmes use a range of medical triggers – including adult and childhood overweight/obesity, hypertension and childhood asthma – and household food insecurity, as criteria for eligibility.

Incentive projects offer a range of fiscal benefits for programme participants, including:

- incentives that offer immediate savings on produce at the point of purchase;
- incentives which earn vouchers, to be redeemed against subsequent purchases; and
- "no purchase necessary" projects which offer participants a 100% subsidy for healthier food.

Most 'spend to save' projects offer a 1:1 match, with shoppers receiving \$1 in savings for every \$1 spent, though other saving ratios are also widespread.

Incentive projects were first developed in, and spread rapidly through, the farmers' market community, though brick-and-mortar retailers are increasingly being engaged as retail partners.

A wide range of public sector bodies have financed

incentive programmes, including federal-, state- and city-level departments, with responsibilities for agricultural support, health and wellbeing, and economic development.

The Evidence Base

A growing evidence base demonstrates the value of price incentives at the point of sale in increasing the purchase and consumption of fruit, vegetables and other healthier food.

A recent, systematic review concluded that 10% decreases in the price of healthier food are associated with 12% increases in consumption, and 14% increases in the consumption of fruit and vegetables specifically. This finding is supported by many intervention studies and modelling exercises.

The developing literature likewise demonstrates that shifts in purchases and consumption deliver health outcomes of benefit to programme participants and healthcare systems. The value of incentive programmes in supporting horticultural growers and other stakeholders is also becoming well understood.

Recommendations for the UK

To scale up incentive programmes in the UK through engagement with public sector stakeholders, this report recommends that

- Greater public support is secured for incentive programmes by promoting the triangular value propositionwhich is integral to the success of schemes in the USA and , highlighting the benefits as policy solutions to a range of interrelated challenges. These include the rising financial burden of diet-related, non-communicable disease and food insecurity and their impact on the healthcare system; and support for farmers following the UK's exit from the European Union.
- The existing Healthy Start programme's low uptake be immediately tackled so as to ensure all those entitled to the scheme benefit from it, the value of the vouchers be reevaluated and consider expanding the scheme to include a wider age range of children.
- UK incentive programmes utilise a range of triggers, in addition to the receipt of Healthy Start vouchers, to identify and enlist programme participants. These triggers could include an expanded age range of entitlement for Healthy Start household's receipt of free school meals; household prevalence or risk of dietary-related, non-communicable diseases; and household food insecurity.
- Fruit and vegetable prescription programmes actively engage organisations in the healthcare system, contributing

to wider government objectives to reduce demand for primary and secondary care

- Incentive programmes are piloted in rural areas, with deprived rural populations a primary beneficiary group, in order to demonstrate impacts on local producers and the local economy.
- Incentive programmes be made as simple as possible for shoppers, with any requirements around purchasing local produce built into the design of incentive programmes through memorandums of understanding with retail partners.
- Dialogue and engagement with the US community of practice is maintained.



2: The Challenge

People in the UK are struggling to eat enough vegetables. Diets low in vegetables are associated with more than 20,000 premature deaths/year in the UK, and our National Health Service is struggling to cover diet-related healthcare costs.

Successive governments' public policy response has been largely limited to attempts to better inform us about healthy eating. However, despite concerted "5 A Day" messaging from industry and government, we still buy the same amount of veg as we did in the 1970s.

A multitude of external factors shape our food choices – including the availability and accessibility of different products, the marketing and promotional activities of food businesses, and price. These factors collectively push us towards less healthy dietary behaviour. Food education alone cannot push our behaviour in the opposite direction.

For the past year, the Food Foundation's Peas Please project has been challenging food businesses and local and national governments to recognise and play their part in proactively shaping dietary behaviour to make it easier to eat veg. As Peas Please moves into its second year, this paper looks to the USA for lessons on how we can make veg accessibility easier for all through price incentives at the point of purchase.

Fruit and vegetable incentive programmes – projects that enable cost savings for healthier foods at the point of purchase for low- and no-income shoppers – are now found extensively across the USA.

Following in the footsteps of some trailblazing pilot projects, including New York City's Health Bucks Program founded in 2005 (New York City Department of Health and Mental Hygiene, 2010), Wholesome Wave – a US non-profit organisation – developed its early "Double Value Coupon Program" in 2007/08. This project initially used philanthropic funds to double the value of programme participants' federally-funded food assistance payments, if they spent this money on fruit and vegetables at participating farmers' markets.

Households eligible for the Supplemental Nutrition Assistance Program (SNAP, formally known as "Food Stamps"), Senior Farmers' Market Nutrition Program, and Women, Infants and Children (WIC) Farmers' Market Nutrition Program were among the early beneficiaries of the project, initially sited in Connecticut, California and Massachusetts.

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Enthusiasm for the project grew rapidly. Within four years, more than 50 partners, operating 300+ farmers' markets across half of all US states, were involved in Wholesome Wave's networks alone. New, interrelated projects — including the Fair Food Network's extensive 'Double Up Food Bucks' network — upscaled the coverage of incentive projects; increased the diversity of project types; and pulled in further public funds from a range of local and state-level agencies.

In 2014, these projects were expanded significantly, following the authorisation of the Food Insecurity Nutrition Incentive (FINI) grant programme in the 2014 Farm Bill – the act of Congress which determined the majority of federal agricultural support and subsidy policies and food assistance programmes for 2014-2018.

FINI allocated \$100 million federal funds to community projects that offered SNAP participants in underserved communities financial incentives for fruit and vegetables at the point of purchase (see Section 4208 of the Farm Bill). NGOs and community groups could apply for matched funds from the US Department of Agriculture to directly finance the costs of incentives, project management, marketing and communications, and project evaluation.

With funds released over four annual tranches, the first year of FINI alone supported projects in 27 US states, operating in more than 900 farmers' markets, 50 grocery stores and 70 non-traditional food retailers (Kate Fitzgerald, 2015b). Through these projects, a diverse and dynamic movement is delivering tangible benefits to low- and no-

income households, local economies, horticultural producers and retailers.

Incentive projects have developed concurrently in the United Kingdom. Since 2012, Alexandra Rose Charity's Rose Vouchers for Fruit and Veg project has been working within the London Boroughs of Hackney, Lambeth, and Hammersmith and Fulham. The project doubles the value of eligible participants' Healthy Start vouchers – the UK's food assistance programme for low income pregnant women, parents and children under the age of four – at participating street markets.

With the support of the Winston Churchill Memorial Trust, Robin Hinks, the Food Foundation's Research and Policy Officer, visited New Orleans, New York City and State, Philadelphia and Washington DC in July/August 2017.

Robin met with incentive programme participants; farmers' markets and retailers; their representative organisations; NGOs and community groups involved in the design and delivery of incentive programmes; national incentive advocates and food policy workers; public health officials; charitable foundations and grant-making bodies; staff of the US Congress' Agriculture Committee; the US Department of Agriculture; and multiple FINI programme directors at the national FINI conference.

The trip explored how incentive projects are working in practice, and explored the feasibility of further developing and upscaling incentive projects across the UK through engagement with public sector stakeholders.



3: Features of an Incentive Project

This section describes common features of incentive projects in the USA, and the variety of programme models found within these projects.

Logic model

Incentive projects have built triple value propositions into their logic models, positing that discounting fruit and vegetables at the point of purchase offers added value for:

- programme participants, their households, and health services – by making healthier food more affordable and accessible, participants are incentivised to purchase more than they have done previously, eliciting lasting behavioural and dietary change;
- 2. fresh produce growers by increasing demand for fruit and veg; and
- 3. retailers and the local economies in which they operate by stimulating greater levels of economic activity within historically disenfranchised communities which are underserved by retailers (Kramer and Zakaras, 2011).

The structure of an individual incentive project is determined, in part, by the relative weight which advocates place on each corner of this triangle of benefits during the development process.

Incentive projects that build a strong focus on adding value for producers – particularly medium-size farmers less able to tap in to large retailers' supply chains – will generally select a farmers' market as a retail partner. Here, producers can expect to receive close to 100% of revenue from their sales.

Conversely, projects with a strong emphasis on incentivising a maximum number of participants have "found it hard to resist moves towards larger shops [as retail partners]" (West Coast project director). This is because only ~0.5% of all SNAP sales nationwide are spent in farmers' markets, with the majority of US households shopping in supermarkets and "big box" supercentres (Morrison and Mancino, 2015).

Such decisions are rarely clear cut. One NGO stakeholder described how they are increasingly looking to retailers, "to meet shoppers where they are". However, they stressed the importance of forging partnerships with smaller, locally-owned convenience stores, to keep money within local economies, and to expose participants to healthier food on a regular basis when

they use convenience stores for "top-up shopping trips between their larger trips to the supermarket".

Trigger Mechanism

Most projects use the receipt of federally-funded food assistance programmes as a passport for project eligibility. The SNAP is the largest of these programmes, with $\sim\!45$ million eligible Americans receiving monthly SNAP benefits.

Around eight million Americans benefit from the Special Supplemental Nutrition Program for Women, Infants, and Children (WIC). Two million of these receive Farmers' Market Nutrition Program (FMNP) vouchers. Other programmes routinely target the FMNP voucher programme, for further incentivisation. A further one million older Americans receive vouchers from the Senior Farmers' Market Nutrition Program. These programmes are means-tested by income and age, though eligibility thresholds vary state-by-state.

Incentive projects – lacking the budget or capacity to incentivise all government-funded food assistance spend in a local area – use a variety of methods to further target access to their programme. Some, such as Washington DC's city-wide Produce Plus project, operate on a simple first-come, first-served basis. Others require participants to enrol in health and wellbeing classes in return for produce vouchers.

A newer grouping of "fruit and vegetable prescription" programmes uses a range of medical triggers – including adult and childhood overweight/obesity, hypertension and childhood asthma – as a passport for programme participation, often in tandem with the receipt of federal food benefits. Other prescription-style programmes have screened for reported levels of food insecurity to identify participants.

Saving and Redemption Mechanism

Incentive projects can be split into three groups:

- incentives that offer immediate savings on produce;
- "earn now, save later" programmes, where participants earn savings to be redeemed against later purchases; and
- "no purchase necessary" projects including Washington DC's city-wide Produce Plus programme and most fruit and vegetable prescription projects, which offer a 100% subsidy on healthier food.

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New York City's Health Bucks

New York City's Health Bucks program is one of the oldest in the country. Health Bucks are \$2 coupons redeemable for fruits and vegetables at all 130+ NYC farmers markets. First piloted in 2005, the City's Department of Health and Mental Hygiene distributed over 300,000 Health Bucks worth more than \$600,000 in fresh fruits and vegetables in 2016. They are distributed as a SNAP incentive through community-based organisations as part of nutrition and health programming. For every \$5 spent in SNAP benefits at the market, beneficiaries receive a \$2 Health Bucks coupon.

New York City has more than 110 farmers' markets that distribute Health Bucks, including 26 of which are open all year, with vouchers likewise available year-round since Fall 2016. The Department works with over 450 community organisations to distribute Health Bucks, with organisations able to apply for and/or purchase coupons to support their own nutrition education and other health-focussed activities.

Evaluations of the programme have used face-to-face surveys of farmers' market shoppers and telephone surveys of residents of neighbourhoods targeted by the programme. Responses have shown that those exposed to the project were more likely to report increased farmers' market spending, even when they were not using Health Bucks personally. Market shoppers also demonstrated higher levels of self-reported fruit and vegetable consumption than individuals who did not shop at participating markets, though these findings cannot be attributed specifically to the Heath Bucks project (Olsho et al., 2015)

Health Bucks has mainly been funded by the City of New York. The Department secured a FINI grant to extend Health Bucks distribution from 5 to 12 months, and to pilot a supermarket-based incentive programme and a fruit and vegetable prescription project.

For their expansion into stores, the City is targeting a small number of shops located in areas with poverty rates in excess of 20% and which utilise electronic point-of-sale systems, so that savings can be earned through existing loyalty card schemes. Reflecting the retail market of the city, initial retail partners in this pilot will be independently-owned stores.

The City's novel veg prescription project is teaming up with pharmacists as a key delivery partner. Three pharmacies are currently participating in the project, which is in its first six months of launching. The pharmacists identify eligible customers through in-person screening and invite them to access \$30/month in vouchers that can be redeemed on a no-purchase-necessary basis.

Pharmacists are offered an honorarium to participate in the pilot, but are also "sold" the programme on the hypothesis that the project may strengthen customers' relations with participating pharmacies: improving medical adherence — and store revenue — in the process. The Department is testing this hypothesise in its project evaluation and anticipates expanding into additional pharmacies.

Most "spend to save" projects use participants' spend on fruit and vegetables to generate savings for fruit, vegetables and occasionally other healthy products. Other schemes have used participants' spending on all grocery shopping to generate savings for fruit and vegetables. A small minority, meanwhile, see participants generate savings from fruit and vegetable spend that can be redeemed against other groceries.

Most "spend to save" projects offer a 1:1 match, and spending minimums are sometimes imposed to encourage purchasing: with participants receiving a \$1 for \$1 match when spending more than \$5 on fruit and vegetables, for example. Other saving ratios are also found – with a \$2 saving for \$5 spend ratio used extensively. No optimal incentive level has been identified in the developing academic literature (see Section 5).

A further differentiation can be made between "invisible" projects – where savings are automatically deducted at the point of sale or transferred on to existing loyalty cards – and "visible" projects, that utilise a range of vouchers, tokens and coupons to pass savings to participants. Fruit and vegetable prescription projects generally use a "prescription pad", filled out and returned to participants by clinical or community staff for redemption with a retail partner.

Much attention has been paid to the relative merits, and redemption rates, of different saving and redemption mechanisms (see Bibliography and Useful Resources). A majority of retail partners and participants spoken to expressed a preference for less-visible and instantaneous savings. These would reportedly be more convenient for shoppers and marketers/clerks alike, as they would maximise redemption rates whilst limiting the need for time-consuming, potentially-stigmatising voucher distribution at the point of sale. Others pointed to elements of the literature that suggest visible voucher-based programmes are particularly effective drivers of behavioural change, due to their dual price-discounting and advertising effect (Dong and Leibtag, 2010).

Ultimately, no one-size model fits all. A project's logic model, retail partnerships, technological considerations, and other stakeholders' interests should be considered when selecting suitable saving and redemption mechanisms.

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Project Stakeholders

NGO and Community Stakeholders

A majority of projects – including all FINI projects – are run through an NGO lead, responsible for coordinating the financial, technological, technical, and marketing and promotional aspects of an incentive project.

One concern for publicly-funded incentive projects is the risk of them "failing" a reactionary "tabloid test" – in other words, being perceived as either an unwarranted "welfare handout, or a tax transfer for supermarkets" (UK antihunger advocate). US project directors reported that having accountable NGOs with clearly defined missions act as project leads helped to negate these criticisms, regardless of the actual validity of the concerns.

NGO partners play a role in the delivery of incentive projects. For instance, a common model for farmers' market-based incentive projects incorporates a central kiosk staffed by a local NGO partner. The partner collects vouchers from participants, processes shoppers' welfare-funded spend, distributes coupons for redemption with individual stallholders, and processes subsequent bank transfers with vendors.

Community groups are also routinely engaged to promote incentive projects, identify and enrol participants through peer-

Retail Stakeholders

Incentive projects were first developed in, and spread rapidly through, the United States' fast-growing farmers' market community of single or multiple temporary stalls selling produce directly from farmers. With more than 8,000 registered markets operating in the US, these markets are far more common, and found in a more diverse range of communities, than their equivalents in the UK.

A partnership with a farmers' market can help deepen the health impact of incentive programmes. Farmers' markets play a demonstrable role in fostering social networks (Kate Fitzgerald, 2015a) and providing social opportunities for learning (Bateson, 2015), both of which "contribute to the development of cultures of health" (Westcoast FINI project director).

However, a variety of barriers – both material and experiential – can limit low- and no-income households' access to many farmers' markets. Price points, geographic locations, seasonal and weekly opening times, and social-cultural and psychological barriers can negatively affect the most vulnerable shoppers (see, for example, (Lucan et al., 2015)). These barriers have led some incentive projects to look towards stores as retail partners, to widen the health impacts of their programmes.

Where stores have been engaged, these have generally been independent or small-chain convenience stores, and small-

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to-peer networks, and signpost people at the point of sale to wraparound health and wellbeing services.

Incentive projects are either operated by a single NGO or community group, or through interlinked networks. The two largest networks – Wholesome Wave and Fair Food Network's Double Up Food Bucks – operate with a national scope, working with local NGO and community partners to adopt and adapt nationally-tested incentive models.

This networked approach allows for the dissemination of best practice, and delivers economies of scale during the planning, promotion, delivery and evaluation of an incentive programme. However, tensions have emerged between NGOs operating at different scales within the incentive community. The matched requirement of FINI, which requires NGO leads to raise matching funds from other sources, has entrenched power inequalities in the NGO community. These inequalities put at risk the agency and voice of local community groups and experts-by-experience in the development and delivery of incentive programmes.

chain, full-service grocery stores. Only a very limited number of projects have partnered with national "big box" supermarket chains as retail partners, with often "disappointing initial results, [as corporate offices] have not been as responsive and engaged as [project directors and other stakeholders] would have liked" [NGO Stakeholder].

A representative of the National Grocers Association (NGA) argues that the business model of national supermarket chains is not conducive to incentive projects. This is reportedly due to the need for any successful incentive project to alter the highly-regulated working patterns of store staff, and engage multiple departments at both the local and national level (e.g. produce leads, marketing and design teams, and point-of-sale technologists — a vital and often outsourced function).

Conversely, as independent and small chain stores compete with larger retailers, not only on price but also over "values and community engagement", the NGA report a clear dual benefit for their members' participation in incentive programmes: first, the prospect of increased sales and revenue, and secondly, increased community engagement.

DC Greens' FVRx Program

DC Greens is a non-profit organisation that uses the levers of food education, food access and food policy to advance food justice in Washington, DC. Since 2012, the organisation has been working with Wholesome Wave, the DC Department of Health, AmeriHealth Caritas, health clinics, and the city's farmers' markets to operate a fruit and vegetable prescription project. The programme adopts and adapts Wholesome Wave's FVRx (Fruit & Vegetable Prescription Program) model, which has been applied with success nationwide.

Partly funded by the city's Department of Health, Produce Rx has been attached to existing obesity-prevention projects run by community health centres. The project – which runs from June to November each year – now enrols nearly 500 direct and indirect participants annually. Around 130 adults and children are passported into the project following screenings for diet-related chronic illness and food insecurity by community health centres. Participants are subsequently issued prescriptions valued at slightly over \$1/day for each member of their household, which are redeemable at city farmers' markets for vouchers that can be used to purchase fresh fruit and vegetables.

Project participants are required to attend a group nutrition education class each month to obtain their prescriptions, where they also receive nutrition information and observe a cooking demonstration, featuring fruit and vegetables available at the farmers' market. At these sessions, participants' health data are also collected, which are used to measure impacts of the project. As the programme ends for the season, participants are also informed about other nutrition assistance programmes for which they may be eligible. This helps to build an "off ramp" from the seasonal prescription scheme.

Pooled data from 2012-2016 participants indicate that 50% of incentive project participants achieve a reduction in BMI through the course of a season. Programme participants have also been shown to visit their primary care clinic 54% more often than participants in a group wellness programme who were not receiving the incentive, indicating that Produce Rx is an effective tool to encourage individuals to visit their primary care providers more regularly.

From the point of view of community healthcare providers, the project requires a light-touch involvement. One centre already ran Medicaid-funded health classes just targeting those eligible for state-supported healthcare due to limited resources. The centre has had to allocate an extra ~4 hours of staff time/week – both clerical and clinical – to identify and enrol participants into the programme. For the healthcare provider, a key desired outcome is an improved relationship between patients and staff. Survey data indicate that participants develop considerably better relationships with their healthcare provider as a result of their participation in the project ((DC Greens, 2016) additional details in conversation).

Project directors and advocates anecdotally report that, unlike the "generally consistent" results now seen from farmers' market-based projects, there has been greater variability in the success of store-based retail projects. However, the academic literature has yet to robustly compare the health impacts and other outcomes seen between farmers' market-based and instore projects.

Again, no one-size model fits all, and the variety of incentive project models found in the US is a crucial success factor for the movement (Kate Fitzgerald, 2015b). However, a project's logic model will affect the choice of retail partner(s), which will, in turn, affect further aspects of the project. For instance, while significant innovations have been made in monitoring SNAP sales within farmers' markets (see Bibliography and Useful Resources), the evaluation of incentive programmes' impacts on purchasing habits can be optimised with store-based retail partners, where incentives are integrated with existing loyalty card schemes, "gift card-style" swipe cards and other point-of-sale technology.

However, such partnering with store-based retail can limit opportunities to build cross-redemption opportunities into incentive projects. Since their outset, single incentive projects have regularly been run across multiple farmers' markets, operated by multiple organisations. This cross redemption is regularly cited as a crucial success factor for a project: maximising people's awareness, and the usability, of schemes. However, multiple grocery store owners and managers reported that cross redemption between retailers is a "red line" which most were unwilling to cross. Reasons cited included:

- the logistical challenge of using incentives across multiple point-of-sale operating systems;
- resistance to shared branding requirements between stores;
- the perceived risk of seeing savings earned in one's own store spent elsewhere.

Educational Stakeholders

Many incentive projects partner with nutrition education programmes, such as SNAP-ED classes – federally funded, community-run projects, that engage SNAP recipients with nutrition and physical activity classes. Programme directors and advocates report that this combination of financial incentives with experiential education helps maximise the behavioural impacts of incentive programmes. The integration of incentive projects with health classes also delivers a further addedbenefit. Repeated contact between project participants and other stakeholders allows for a more comprehensive monitoring and evaluation of project outcomes through the regular collection of surveys, health measurements, and other metrics.

The academic literature (see Section 4) has yet to robustly identify differences in outcome for projects that incorporate health classes, and the requirement to attend regular classes to access incentives may prevent vulnerable people with unpredictable and irregular lifestyles from accessing programmes.

Some projects have adopted innovative payment methods to help stabilise participating producers' cashflows throughout a growing season. One Midwest project uses voucher redemption forecasts to make block payments to farmers at the start of a growing season. Farmers who commit to participate in the following year can roll over any shortage or surplus of allocation to the following season if needed.

Production Stakeholders

A mix of farm types – including single-crop and mixed-crop growers, organic and non-organic farmers – have participated in projects. Reflecting the original development of incentive programmes in farmers' markets, incentive programmes have tended to partner with small- to medium-size horticultural growers.

Producers benefit from incentive projects directly by selling through farmers' markets and, in some areas, incentivised Community Supported Agriculture schemes. Alternatively, farmers benefit indirectly, through the growth of in store-based retailers' fresh produce sales.

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Financial Stakeholders

A wide range of public partners have financed incentive programmes, including the matched element of projects supported by federal FINI funds. For example, the state of Washington match funds a state-wide market match programme. Public funds have also come from multiple cities, including New York City and Philadelphia, channelled through departments with remits for public health and economic development.

A range of third sector and public/private philanthropy organisations further funds incentive programmes. As described in Section 5 and the case studies here, projects are also achieving increasing success in accessing funds from organisations operating within the United States' health system.

The value of having a diverse portfolio of funders is being felt now given the current uncertainties facing the future of the FINI grant – with the 2014-18 grant now fully spent, and no guarantee of its re-authorisation, as discussed in Section 5.

Further Stakeholders

Monitoring and evaluation are crucial for an incentive project,



both to demonstrate the impact of the programme, and to robustly track transaction numbers. This task becomes particularly onerous once public support is introduced to a project, demanding a more robust audit trail. These challenges are particularly difficult with low-tech retail partners, but have been largely overcome through collaboration with tech specialists to develop mobile- and tablet-based monitoring and evaluation tools. One example is the FM Tracks tool, which is currently being utilised to track incentive use in over 400 farmers' markets.

As explored in the case studies here and in Section 5, a range of actors operating in the US health system engage in incentive programmes to identify and enlist participants, offer complimentary health and wellbeing classes, and assist in project monitoring and evaluation.

4: What works? Examining the Evidence Base

An increasingly robust evidence base supports the value propositions made by fruit and vegetable incentive projects in the US – and the key premise that price is a key driver of fruit and vegetable purchases (Andrews, Bhatta and Ploeg, 2013; Bateson, 2015; Lin and Ver Ploeg, 2015).

There are limitations to the current literature, however. Few studies have compared the relative impact of different project models. Additionally, much (though not all) data concerning person-level outcomes for participants focus on self-reported changes in purchasing and consumption, collected through convenience samples – rather than the robust collection of health metrics.

Purchasing and Consumption

Through the modelling of price elasticities and national demand data, researchers have demonstrated that targeted incentives that subsidise healthier food purchases could be a more effective tool with which to increase the consumption of healthier food than non-targeted approaches (e.g. across-the-board increases in the value of SNAP; LIN et al., 2010).

A recent, systematic review of 22 studies which examines food price changes and diets concluded that a 10% decrease in the price of healthier food is associated with a 12% increase in consumption, with a 95% Confidence Interval (CI) range of 10-15%. This paper considered a range of intervention studies, including incentive projects. The paper's meta-evaluation of nine studies which examined price decreases of fruit and vegetables specifically, found that a 10% decrease in price is associated with a 14% increase in consumption (11-17% CI; Afshin et al., 2017).

The largest single-project study of fruit and vegetable incentives to date – the USDA-sponsored Healthy Incentive Pilot – consisted of a randomised study of 7,500 SNAP-eligible households in one Massachusetts county, with 7,500 households receiving a 30 cent saving for every SNAP dollar spent on fruit and vegetables, and \sim 48,000 acting as a control group, in receipt of the standard SNAP assistance. The project found statistically significant evidence that incentivised participants spent over \$6 more per month on fruit and vegetables than the control group, and consumed over 25% more fruit and vegetables (Wilde et al., 2016).

These findings are mirrored by data collected through other large-scale, self-reporting surveys (see, for example, Fitzgerald, 2015b; Olsho et al., 2015; Lindsay et al., 2013; Young et al., 2013). Other research projects have demonstrated that increases in consumption were most likely to occur for incentive users with diet-related health conditions, such as type 2 diabetes (Freedman et al., 2013).

While much of the literature focuses on farmers' markets, purchasing and consumption data collected through projects run with grocery, corner store, food hub and delivery route retail partners are likewise promising (Wholesome Wave, 2016).

Health Outcomes and Food Security

There is good evidence that incentive programmes elicit positive health impacts for project participants. Meta-evaluation of four papers which examined fruit and vegetable prices and bodyweight suggests a 10% decrease in price is associated with reduced body mass index (-40g/m2, -80g – 0g CI; Afshin et al., 2017). Other project evaluations have observed statistically significant decreases in food insecurity among incentive project participants (Savoie-Roskos et al., 2016).

These findings are supported by robust modelling exercises. A recent paper used outcome data from a fruit and vegetable incentive project to model the health impacts of a hypothetical nationwide fruit and vegetable incentive project attached to SNAP. The paper concluded that a nationwide use of incentives could result in type 2 diabetes prevalence being decreased by 1.7% (1.2 - 2.2 CI); heart attacks by 1.4% (0.9 - 1.9 CI); stroke by 1.2% (0.8 - 1.6 CI); and obesity by 0.2% (0.1 - 0.3 CI) (Choi, Seligman and Basu, 2017).

A further 2013 systematic review of US price elasticity studies found that prices for fruit and vegetables were negatively associated with bodyweight for low-income adults and children. The study concluded that price subsidies for fruit and vegetables could be an effective tool to reduce obesity (Powell et al., 2013).

The wider literature supports the premise that increased fruit and vegetable consumption is inversely associated with mortality and morbidity. A recent international cohort study of ~140,000 individuals in 18 countries found statistical association between higher consumption of fruit, vegetables and legumes and reduced cardiovascular disease, myocardial infarction, cardiovascular mortality, non-cardiovascular mortality, and total mortality (Miller et al., 2017).

Societal Impacts

The person-level health benefits associated with these schemes could have positive impacts on public sector budgets. The modelling exercise described above concluded that a nationwide fruit and vegetable incentive project attached to SNAP would save costs at a national level, due to long-term reductions in cardiovascular disease and type 2 diabetes (Choi, Seligman and Basu, 2017).

Analysis of inpatient costs for Massachusetts' Medicaid

population – those eligible for state-supported healthcare—further demonstrated that the rate in the growth of state-wide Medicaid costs fell by \sim 75% following an across-the-board increase in SNAP payments. This increase in shoppers' purchasing was particularly associated with changes in healthcare costs for people with chronic illnesses and high risk of food insecurity (Sonik, 2016).

Demographics

Project data indicate that incentive programmes of all types have been targeting vulnerable communities. Evaluation of incentive projects funded through FINI in 2015 suggests ~50% of projects were operating in communities with poverty rates in excess of 20% (Wholesome Wave, 2016).

Where incentive projects are run, they tend to produce positive impact for particularly vulnerable groups. A longitudinal study of 300 economically-disadvantaged female programme participants in three US cities found that shoppers with low levels of both formal education and fruit and vegetable consumption were most likely to increase consumption following participation in an incentive project (Dimitri at al., 2014).

Preliminary analysis of Detroit's Double Up project – which ran in both farmers' markets and grocery stores – likewise demonstrated that 90% of project participants fell below the Federal Poverty Level and were less well off than the city's wider SNAP population. Focus groups highlighted disproportionately high levels of experiential food insecurity and diet-related health conditions among project participants (Cohen et al., 2014).

Impacts for Farmers and Retailers

The evolving literature highlights a range of benefits for other stakeholders participating in incentive projects. Projectled, independent, and academic evaluations consistently demonstrate that incentive projects, "support the proliferation of markets, expand their customer base, and increase direct

spending by producers" (Kate Fitzgerald, 2015).

Multiple single-project studies have identified statistically significant increases in SNAP spending at participating farmers' markets, and additional revenue for participating farmers (see, for example, Kramer and Zakaras, 2011). Increases in revenue of around 50% are regularly reported following participation in an incentive programme (Baronberg et al., 2013; Lindsay et al., 2013).

Project evaluations have also demonstrated that incentive projects can increase the use of federal and state welfare assistance at participating retail partners, securing new customers for participating vendors. Assessment of a South Carolina farmers' market incentive programme saw the use of food assistance increase from 10% of all transactions to 25% (Freedman et al., 2014).

A 2014 Fair Food Network survey of more than 350 farmers selling through incentivised markets found that over 60% of respondents reported earning more money due to their involvement in a Double Up project, with 10% reporting that increased sales had required them to take on extra workers. A 2013 survey found that ~33% of producers selling through rural Double Up projects planned to put more land into production due to their participation, with 60% stating they would start to use 'season extenders' as a result to their participation in the project (Kate Fitzgerald, 2015). A further producer survey conducted in New York State found that:

- 90% of farmers participating in an incentive programme reported selling more fruit and vegetables as a result;
- ~75% reported making more money; and
- ~60% reported that participating had expanded their customer base (Field and Fork Network, 2015).

The number of farmers and farmers' markets benefiting from these projects is impressive. Data pooled from 13 medium- to large-scale incentive projects – those operating in multiple retail locations, cities and/or states – funded in the first year of FINI alone, identified more than 4,000 farmers selling produce through FINI-incentivised retail outlets (Farmers Market Coalition, 2017).

A recent, systematic review of 22 studies which examines food price changes and diets concluded that a 10% decrease in the price of healthier food is associated with a 12% increase in consumption, with a 95% Confidence Interval (CI) range of 10-15%. This paper considered a range of intervention studies, including incentive projects. The paper's meta-evaluation of nine studies which examined price decreases of fruit and vegetables specifically, found that a 10% decrease in price is associated with a 14% increase in consumption (11-17% CI) (Afshin et al., 2017).

5: Recommendations for the UK

This final section details realisable strategies through which to upscale the use of incentive programmes in the UK through engagement with public sector stakeholders. The lessons were developed through conversations with, and observation of, the US incentive community.

Project-level challenges can be overcome through dialogue with the US community of practice

The visit to the States gave a taste of the very real, and challenging, barriers that would be faced when upscaling incentive projects in the UK. However, the nascent US community of practice developing around incentive projects demonstrates two key facts:

- A one-size-fits-all approach is not needed passionate engagement from a range of stakeholders is a more critical success factor than a project's exact model (Kate Fitzgerald, 2015).
- Cooperation and dialogue with established projects can avoid the need for projects to "reinvent the wheel" when overcoming common fundraising, communications and marketing, technological and organisational challenges.
 The list of references, "Useful Resources", appending this paper provides only a small sample of the numerous guides, toolkits and resources available to prospective programmes of all types looking for solutions to these challenges.

While day-to-day contact between US projects may at times be limited, the value of the community of practice is demonstrated by the decision of the directors of large FINI projects to pool project-level data to produce summary reports of FINI's initial results. This decision was made due to the slow pace of the USDA-commissioned grant-level evaluation of FINI, which will not be published in time to inform the development of the 2018 Farm Bill.

Dialogue with the US has already proven invaluable to incentive programmes in the UK, with Alexandra Rose Charity consulting with Wholesome Wave when setting up both their market match and fruit and vegetable prescription programmes. While an upscaled UK incentive community might look quite different from the USA's, continued dialogue with the States would be particularly valuable for projects that are engaging with public sector stakeholders for the first time.

Continued transatlantic dialogue would bring reciprocal benefits for US stakeholders. Wider political circumstances within the States threaten the continuation of FINI-style federal support. This in turn risks a reduction in the US community of practice, and a loss of institutional expertise and knowledge.

A strengthening of contacts with a developing UK stakeholder community would mitigate against this.

Healthy Start participation, alone, could be an insufficient eligibility requirement for scalable UK incentive programmes

Reflecting US models, early incentive programmes in the UK have attached incentives to Healthy Start vouchers at a primary eligibility trigger, akin to the US Women's Infant and Children's programme. While the Alexandra Rose Charity has demonstrated great success in the areas it has run, the visit to the USA gave an indication of the potentially insurmountable challenges that would be faced when upscaling such programmes to benefit more participants in more areas in the UK.

Close to 45 million of the USA's 325 million population receive the SNAP, with more still accessing WIC and Senior FMNP vouchers. Only a fraction of these welfare recipients has benefited from an incentive project. Yet, for a retailer (farmers' market or store-based) operating in a low-income area, attaching incentives to these welfare programmes offers a clear business rationale for retail participation. Three grocery store retail partners reported that their primary motivation for participation was based on the expectation of improved spending power for their core SNAP customers, who made up over 50% of all customers in each store.

Yet, despite these reasonable expectations for increased returns – with many large-scale projects distributing several hundreds of thousands of dollars a year in incentives into local economies – and the promise of honorariums for those piloting incentives, these same retail partners described significant challenges that had almost caused them to drop out of participation.

For example, the involvement of stores, particularly small chain grocery stores, has often required expensive and complex adaptations of a point-of sale-system to accommodate discounts. For small chain and independent stores, costs have at times exceeded \$100,000 for an upgrade. Furthermore, retail partners routinely require an "aggressive on-boarding process", followed by ongoing training and support, to ensure staff at all levels are adept at handling incentivised transactions correctly and with dignity, even when they are used to routinely handling SNAP, WIC, and/or Senior FMNP spend (East Coast project director).

Two small chain retail partners, operating in very different circumstances and cities, informed me that they "simply could not justify, from a business perspective, making these kinds of investment," if incentives were earned on WIC welfare spend alone.

Farmers' markets and sellers of course do not face identical challenges, but likewise need to adapt and scrutinise their business models to successfully integrate with an incentive programme.

Alexandra Rose Charity's trailblazing work provides a proof-of-concept demonstration that it is possible to run an incentive project tied to Healthy Start as a primary eligibility trigger in the UK. However, US project directors and producers routinely stated that, as incentive programmes were upscaled – integrated, for example, into city or state-wide programmes – there had to be a significant increase in both an NGO lead's internal capacity, and in levels of in-kind support from retail and other partners. This appears unlikely to occur with projects which incentivise Healthy Start spend alone.

A further risk associated with attaching incentive programmes to Heathy Start was raised by US food justice advocates. The take-up rates of Healthy Start in the UK are low and falling – with fewer than 70% of those families eligible for Healthy Start receiving vouchers in October 2016 (Healthy Start Alliance, 2016). Urgent policy attention and action are needed to halt and reverse this trend.

A similar dynamic is found in the United States, where participation in WIC has been falling continuously for 6 years (USDA, 2017). One national food justice organisation argues that disproportionate policy attention placed on incentive

For this reason, UK initiatives should look to further eligibility triggers for programme participation. These could include households' eligibility for free school meals, or a range of health-based triggers, described below.

Use health metrics as supplementary eligibility requirements

The nascent growth of fruit and vegetable prescription programmes points to the value of incorporating health-based eligibility requirements into UK incentive programmes. The use of additional health-based eligibility triggers, such as overweight/obesity, dietary-related health conditions or food insecurity, would help guarantee prospective retail partners a large enough population to warrant participation in an appropriately-funded programme within a geographically-targeted area. All of the above problems are found in endemic levels across the UK, particularly within deprived communities.

US project directors also reported that prescriptionstyle programmes, that feature inbuilt health requirements for participation, proved a particularly effective counter to reactionary voices decrying publicly funded incentives as unwarranted spend.

Dialogue with the US has already proven invaluable to incentive programmes in the UK, with Alexandra Rose Charity consulting with Wholesome Wave when setting up both their market match and fruit and vegetable prescription programmes. While an upscaled UK incentive community might look quite different from the USA's, continued dialogue with the States would be particularly valuable for projects that are engaging with public sector stakeholders for the first time.

programmes – which ultimately only benefit a small slice of those who are eligible for the WIC – has displaced attention from the more fundamental decline in WIC participation; the organisation is appealing for increased coverage and value for the core scheme. This viewpoint was further validated through conversations with a number of clinical staff involved in the delivery of WIC services.

UK incentive programmes have been purposefully designed to signpost community members to Healthy Start vouchers, helping bolster participation in the welfare programme at a local level; but if UK food policy organisations look to promote incentive programmes as a public policy response to societal-level challenges, care should be taken to ensure they are promoted as a viable policy solution in their own right, rather than as a band aid to the vital but poorly-delivered Healthy Start programme.

While organisations operating in the UK's health system face considerable financial and capacity challenges, a compelling case can be made to "sell" large-scale fruit and vegetable prescriptions as a public policy option, and secure both in-kind and, potentially, financial support from public sector health organisations. Particular interest should be paid, then, to Alexandra Rose Charity's piloting of a UK prescription project in London.

A fruit and vegetable prescription project run in Binghamton in the States by the Rural Health Network of South Central New York secured \$100,000 of state financing to support its programmes. These aimed to reduce demand for Medicaid-funded health treatments through upstream public health interventions. Similar funding sources are available for US incentive programmes due to provisions in the Affordable Care Act (the ACA, commonly known as "Obamacare"), which

requires non-profit hospitals to deliver a range of community benefits in order to retain their beneficial tax status.

Though the UK's healthcare system is radically different from that of the US, similar currents are shaping contemporary health policy in the UK. The Department of Health's Mandate to NHS England, NHS England's Five Year Forward View, and the Government's wider integration agenda for health and social care all advocate a similar system for building preventative activity into the UK's healthcare system.

"The future health of millions of children, the sustainability of the NHS, and the economic prosperity of Britain all now depend on a radical upgrade in prevention and public health." (NHS England, 2014)

In practice, individual NHS Trusts and Clinical Commissioning Groups are becoming deputised – and financially incentivised – to reduce demand for primary and secondary care through, for example, the Sustainability and Transformation Partnerships. These required health commissioners and local authorities to develop whole-population health strategies, with a focus on reducing demand on hospital admissions.

Evidence-based partnerships between NHS clinical commissioners, providers and incentive projects would speak directly to these goals. In the US, GP surgeries, health clinics and hospitals have all been enlisted in fruit and vegetable prescription programmes with similar value propositions (though, as described in this report's case studies, some medical organisations are attracted to the commercial impacts of prescription programmes).

There are obvious benefits to partnering with a health organisation operating at a level higher than an individual provider, because capacity and financial burdens could be spread across multiple centres. A Binghamton-based prescription programme, for example, piloted its project across the catchment area of two hospital systems and three primary care clinics – minimising the time investments required from each to identify and enlist project participants.

However, not all prescription-style projects involve primary or secondary medicine organisations. The Food Trust's Heart Smarts project, run in Philadelphia, partners with corner stores in underserved communities. Community health advisors are placed directly in-store to provide nutrition education and health screening to customers, with vouchers disseminated to high-risk shoppers to be spent in-store on healthier food items. This project is noteworthy in that no means tests are used in the trigger mechanism: instead, all shoppers are invited to undergo an in-store health screening, of the sort routinely offered by UK pharmacists and other retailers.

As discussed in Section 4, a project's logic model and core stakeholder groups help determine other aspects of an incentive programme. Given the government's focus on integrating the UK's health and social services, a strong case could be made to routinely select farmers' and street markets – rather than larger brick-and-mortar retailers – for incentive programmes embedded within healthcare systems.

One key manifestation of the government's integration agenda has been the promotion of social prescriptions by medical practitioners. These are referrals to non-clinical services and are designed, in part, to bolster the social capital and networks of patients, to stimulate reductions in the use of front-line medical services. See, for example, the government's Health and Wellbeing Fund, developed to enable voluntary, community and social enterprise organisations to develop social-prescribing models.

The role of street and farmers' markets in signposting shoppers to community resources – such as community gardens and green spaces – would develop a value-added dimension to incentive programmes. This dimension would be less well delivered by partnerships with supermarkets and larger retailers.

The extensive public estate of the UK's NHS also offers an enhanced opportunity for health-based incentive projects in the UK, in that health providers and commissioners are better able to directly integrate retail opportunities into the medical environment. The national Commissioning for Quality and Innovation (CQUIN) payment framework for the improvement of staff health and wellbeing already offers financial incentives to NHS trusts providers which demonstrate that "healthy options are available [for staff and patients]". Similarly, NHS England's 10 characteristics of good hydration and nutrition, a requirement for the NHS' Core Contract for hospitals, requires providers to progress actions for patients with malnourishment risks. A trust's participation in an incentive project, integrated with in-trust retail partners, could be used as evidence of a trust meeting various payment-linked framework requirements.

By drawing more medical organisations into incentive projects, wider benefits could be produced for those concerned with food poverty. In the USA, which already has a national measurement programme for food insecurity, an increasing number of medical organisations are screening for food insecurity – motivated both by the requirements of the Affordable Care Act, and by their involvement in prescription programmes – and incorporating this data into patients' medical records.

In the UK, which lacks a national food insecurity measurement programme, the generation of data on food insecurity prevalence would be particularly valuable: both to better quantify the scale of food insecurity within the UK, and to robustly investigate links between food insecurity and health outcomes.

A further data-related benefit could be secured by embedding UK incentive programmes into the health system. A community health clinic in Washington DC stated that their clinical expertise and capacity to conduct health checks with programme participants through regular touchpoints had dramatically improved the monitoring and evaluation of incentive programmes in the area. Their collection of BMI measures made project evaluation easier, from both an ethical and a practical perspective.

The clinic anticipated a significant deepening of the peerreviewed literature on incentive programmes in future, as an increasing number of prescription-style incentive programmes partnered with healthcare organisations moved out of their pilot stage. This is fortuitous timing. While this paper details an increasingly robust literature on the positive impact of incentive programmes, some policy makers in Washington are, reportedly, expecting more robust and triangulated data on the health impacts of incentive programmes as the public policy option of incentives matures.

"Not enough people are getting weighed; we will want to see more of this if FINI moves past its pilot," (Republican congressional Staff).

Speak to multiple political constituencies when engaging public sector stakeholders

The UK's austerity landscape does not appear to lend itself to a significant allocation of public sector support for incentive programmes, from health system organisations or elsewhere. However, examination of the advocacy and communications work that was run to secure the FINI in 2014, and has now been reactivated in an attempt to re-authorise a similar grant in the 2018 Farm Bill, points to a viable advocacy route for UK stakeholders.

The 2014 Farm Bill contained close to \$1 trillion planned programmes' spend over ten years. Although 80% of this funding was allocated to SNAP and nutrition programmes (Plumer, 2014) – and the \$100 million FINI grant ultimately paled in comparison to this – the initiative "could not be [just] slipped into the Bill":

"Congress pays undue attention to the Agricultural Committee. Members of the Committee pay undue attention to the Nutrition subcommittee [responsible for developing FINI, SNAP, and other nutrition programmes]. Members of the subcommittee pay undue attention to anything to do with food welfare. Poor diets and rising costs to taxpayers are 'hot button' topics for both [the Democratic and Republican parties], everyone wants to see action in this area and everyone keeps their eye on the costs," (Republican congressional Staff).

With this concentrated attention, advocates for incentive projects found that their already established triangular value proposition's ability to speak to multiple constituencies was, "the crucial factor, the magic sauce," that secured FINI's authorisation in the Farm Bill, with the support of politicians who had seemingly diametrically opposed interests (national incentive advocate).

Vitally, the value proposition of incentive projects spoke clearly to:

- "[Politicians] with inner city or deprived constituents, who have direct experience of the... damage caused by poor diets and a lack of food, who discuss these experiences every day with their base," and
- "those in Washington who want a smaller State, and see SNAP shoppers' cola and chips as an obvious target for reduced tax spending," (Democrat congressional staff).
 During negotiations around the 2014 Farm Bill, the second of these groupings proved a particularly powerful force in Washington, and on the Committee. However, this prompted a counter reaction – and the formation of an unlikely and at times uneasy alliance between retailers and anti-poverty

Vegetable prescriptions and medical adherence

Fruit and vegetable prescription programmes alone would not guarantee a positive impact on people's consumption habits and health. For one, medical adherence – the tendency for those on prescribed medicine to complete their course – is "abysmal" in the United States, falling well below 50% for many types of treatment (Goldring Center for Culinary Medicine). There is no guarantee that adherence to a fruit and vegetable prescription programme would be any better

Medical adherence improves when patients are better informed about – and involved in – the decision to prescribe a course of medicine (NICE, 2009). In the same way, a strong focus on "translational nutritional quidance" could be one

tool to overcome this challenge when delivering fruit and vegetable prescription programmes. This involves medical staff, both clerical and clinical, developing trusted relations with patients, and being afforded time to discuss the links between diet and health.

US medical practitioners are reportedly, "poor at translating to patients the evidence base of the last decade [linking diets] and health and wellbeing". Nutritional guidance is particularly poor in the underfunded community medicine sector, where time and resource constraints seriously limit all but the most self-motivated staff from engaging with patients, due to, "the rapid and highly regulated flow of patients passing through clinics" (Goldring

Center for Culinary Medicine). For this reason, the Goldring Center for Culinary Medicine has been working with medical training establishments across the US and internationally, to impress on medical trainees the importance of diets to health. The Center's aim is for future clinical staff to be more prepared and able to alter their patient flow and schedules, to allow time for discussing nutritional issues.

The Center is currently developing a UK version of their training programme, with members of the Royal College of General Practitioners. A fruit and vegetable prescription project integrated with this training scheme could give medical staff a clear focal point from which to dispense advice and guidance.

campaigners – to protect current levels of SNAP funding. The mobilisation of small business owners, who argued that placing restrictions on SNAP spending would place undue demands on retailers, "best persuaded [Republican members of the Agricultural Committee] that, from a purely practical point of view, restrictions on SNAP weren't a viable route to take," (Republican congressional staff).

"[Incentive advocates] were [at this time] waiting in the wings, and redirected [Republican Committee] members' attentions to incentives. Just as they decided they couldn't use a stick, they were given the carrot [of incentive programmes]. Given a business-friendly way for SNAP shoppers to 'spend better'" (Republican congressional staff).

In a time of increasing polarisation in Washington and across the US, this partnership between unlikely allies helps maintain the Agriculture Committee as, "one of the last bastions of bipartisanship. [Each side] might not speak the same language, but mutual friends have clearly explained to both [political parties] that [their] mutual interests can be supported by single projects like FINI," (Democratic congressional staff).

Incentive programmes could be sold as a mutually agreeable middle ground in the UK's political discourse around health and wellbeing, which has become increasingly polarised. While the UK lacks an institutionalisation of "food stamps-style" policies, the major parties' support for the levy on sugar-sweetened beverages demonstrates the potential acceptability of fiscal health interventions.

Caution should be exercised to ensure the promotion of incentive programmes does not dilute both external and internal pressure for more far-reaching food system reforms. However, incentive programmes should certainly be acceptable, in principle, to all the major parties, each of which called for continued attention on childhood obesity and health inequalities in their most recent election manifestos.

The third major constituency addressed by advocates when promoting incentive programmes as a policy solution were those representing the interests of producers and rural economies. In securing, and now re-authorising, the FINI, this was reportedly, "the essential group to bring on board," (national incentive advocate).

The Farm Bill covers both agricultural support — traditionally channelled overwhelmingly to large commodity croppers, with, "speciality crops" of horticulture only getting a dedicated section in 2008 — and food-based welfare programmes. Prior to 2008, welfare-style food assistance programmes made up less than 50% of total Farm Bill spend, but being a relatively ring-fenced entitlement programme, this ratio has risen with increasing need and now exceeds 75% of the total Farm Bill budget. This has accentuated, "a protective sense of ownership from the still powerful farming community and rural Republican politicians, who feel the Farm Bill is now not doing enough to promote [farmers'] interests," (Southern US project director).

With the national federal budget facing cuts of 20% in

2017/2018, there is a need to speak directly to these concerns and ensure any continuation of FINI is sold as a de facto rural subsidy scheme. For this reason, advocacy work at the national level has placed a primary emphasis on the rural producer and local economy corners of incentive programmes' triangular value proposition.

Taken alone, "incentivisation is one of many reasonably effective health interventions with a reasonably robust evidence base. Combining health concerns with an emphasis on increasing local and domestic production capacity better supports incentives as a policy option," (national incentive advocate). "With so many obvious winners, politicians see it as something government should be doing, from a philosophical and practical point of view," (national incentive advocate).

There is nothing new in this advocacy approach: much is already made of the "multiplier effect" of the main SNAP programme, and its value in subsidising American producers and rural economies. However, with the main agricultural lobbyist voices in the US typically dominated by large commodity and cereal croppers, who enjoy the lion's share of state support through crop insurance projects, "more creative justifications, with stronger links to health, had to be deployed," (Republican congressional staff), to allow for the passage of the initiative through Congress.

A similar dynamic could soon be at play in the UK, where the horticultural sector has historically derived a relatively low amount of public sector farm subsidies. Through the EU's Common Agricultural Policy, an average horticultural farm receives eight times less subsidy than an average, more land-extensive cereal producer (DEFRA, 2017a). With all UK farmers facing an uncertain future as we move out of the CAP, and with a need to justify continued public support for the farming sectors following Brexit, there is perhaps a greater opportunity to "sell" incentive programmes to the horticultural community, as a tool that can deliver demonstrable benefits for the sector — which will, in turn, be promoted for its role in delivering wider public goods.

This value proposition has proved "remarkably useful at building a soft and powerful coalition of interests between hunger advocates, farmer markets, farmer representative groups, and public health advocates," (National incentive advocate). Even though formal contact between the groups is limited, this shared interest has played a critical role in securing and developing incentive programmes in the US.

The practicalities of securing FINI

The passing of FINI was made possible by the early championing of incentives by Senator Stabenow, who worked closely with the Fair Food Network, which operates out of her Michigan constituency. Stabenow "was determined to roll up and get things done, talk to both parties to get a proposal on the table". She provided a vital early boost to incentive advocates seeking federal support for incentive programmes.

Just as Stabenow has, "a holistic interest in horticulture"

(National incentive advocate), the acquisition of a similar champion could be secured through discussions with relevant All Party Parliamentary Groups in the United Kingdom.

In addition to Senator Stabenow, other incentive advocates were, "instrumental in developing FINI" (Republican congressional staff). These included the director of Wholesome Wave – previously a Senior Director of the US Department of Agriculture and a key initiator of the WIC and Senior FMNPs – together with a consultant with a background in advocating for rural concerns, who was highly adept at, "translating the value of retail programmes to agricultural interests". By building deep, long-lasting, mutually supportive relationships with staff of both parties and both Houses of Congress, incentive advocates with direct experience of programme delivery assisted in drafting key preparatory documents and proposing legislative text for the Agriculture Committee.

In preparation for the 2018 Farm Bill, these same advocates helped shape a rolling series of hearings, and both formal and informal briefing sessions held in Washington and around the country, to impress on more sceptical members the full value of incentive projects (see, for example, (Hesterman, 2016)). They also helped to cultivate "good news stories" and photo opportunities for politicians; and connected Committee members to doctors, farmers and programme participants who had lived experiences of food insecurity. This strategy was, reportedly, "a far more effective way to get Washington to listen, than bringing in another academic, another lobbyist, to speak about the initiative" (national incentive advocate).

Link incentive programmes to cross-governmental and intergovernmental work programmes

As described throughout this report, incentive projects can be used to promote healthier eating, narrow health inequalities, and provide de facto agricultural support to farmers.

Advocates for incentive programmes both inside and outside of Westminster and Whitehall should not shy away from explicitly promoting incentives as a policy solution to these challenges. Indeed, UK stakeholders should purposefully link incentive projects to other departmental and cross-governmental objectives. The ability for incentives to generate retail opportunities in historically disenfranchised communities could, for instance, speak directly to BEIS' Industrial Strategy work programme.

Speaking to multiple departments simultaneously could help solidify the original triangular value proposition built into incentive programmes, and prevent programme "mission creep". While the USDA performs functions akin to both DEFRA and the Department of Health in the UK, having federal support for incentives funnelled through one Department has meant the initiative has been strongly connected to wider agricultural interests. Several Washington staffers suggested parts of the US' wider farming community have looked

enviously at the FINI settlement for horticulture and might consider pushing for a "FINI for dairy" settlement in the latest Farm Bill. This could dilute the public health ambitions of incentive programmes.

Incentive programmes in the UK should also look to access and exploit opportunities at the local level, particularly the new Combined Authorities and metro mayors that are anxious to innovate with new models of health care, public health and social care. The role of city mayors in developing incentive projects has been well documented in the States (Kramer and Zakaras, 2011).

Locate incentive pilots in rural areas

With the UK's incentive community still nascent, there is good reason to run further small- to medium-size incentive programmes via a mixture of public, private and third sector funding sources. These will provide proof-of-concept demonstrations to policy makers, regarding the value of incentives as scalable policy solutions to a range of societal challenges.

Experiences in the States suggest there is good reason to site some such pilot programme within rural areas. First, this would help secure the attention of key decision makers in Westminster/Whitehall. US programmes "have been shameless in starting incentive schemes in the backyards of members [of the Agriculture Committee, and state representatives that could help set up programmes in their home state]. We want to make sure they learn about incentive programmes when talking to folk at their town hall [meetings], during their elections" (Southern US project director). With Agriculture Committee seats on both sides of the Atlantic highly sought after by politicians with rural constituencies, there is obvious value in siting an incentive programme in an appropriate rural area.

Furthermore, with low-income rural residents a hidden and vulnerable demographic group with distinct socio-economic vulnerabilities and dietary risks on both sides of the Atlantic (see, for example, DEFRA, 2017b)(Dean & Sharkey, 2011), there is a clear, value-based rationale for siting incentive pilots in rural areas.

More strategically, rural-based programmes, "make clear to everyone the interlinks between shoppers and producers, and how [incentive programmes] benefit both these groups" (New York State project director). When placed in a rural area, the three points of an incentive project's value proposition are brought closer together, with rural residents often finding themselves benefiting directly in multiple ways from programme participation. For example, they may benefit simultaneously as consumers, producers, and/or local economic actors. This aids the development of readily understandable, narrative-based accounts of an incentive programme's value.

Build localism and other considerations into the subtext of incentive programmes

As discussed, advocates for incentive programmes can make their case by highlighting the programmes' potential for expanding opportunities for local, and small- to medium-size producers. However, stakeholders' experiences suggest caution should be exercised in building such considerations into the "front end" of an incentive programme.

US farmers' markets are dominated by tradespeople who sell produce direct from farms in the local area to the consumer. As incentive projects moved to stores, there was an understandable desire to maintain this local dimension. As a result, many grocery projects initially required that, in order to be eligible for a discount, either a customer's food purchases or their discounted produce — or both — be derived from the local area (often defined as "within-state").

However, a consensus is now emerging – at least among larger projects – that this introduces confusion on the part of the consumer, plus onerous organisational requirements on the part of NGO leads and retail partners. To maintain a link between incentives and locally-produced food, many NGOs are now including minimum stocking requirements and/or reporting requirements into their memorandums of understanding with retail partners. Through promotional activity, customers are kept aware of incentive programmes' local links, but are spared an extra barrier to purchasing instore.

Programmes have also built requirements for food prices into retailers' contracts and memorandums of understanding (so that prices of pre-discounted produce are not artificially raised during the course of an incentive programme) – along with specifications for growing techniques and produce variety.

This method could be used in the UK to prescribe retail partner compliance with other standards, without placing a direct burden on consumers. These might include labour protection, product availability, adherence to fair trading initiatives and a ban on the promotion of less healthy produce. This could be a valuable tool to negate potential concerns that publicly-supported incentive programmes may unfairly subsidise retail partners.

A similar dynamic could soon be at play in the UK, where the horticultural sector has historically derived a relatively low amount of public sector farm subsidies. Through the EU's Common Agricultural Policy, an average horticultural farm receives eight times less subsidy than an average, more land-extensive cereal producer (DEFRA, 2017a). With all UK farmers facing an uncertain future as we move out of the CAP. and with a need to justify continued public support for the farming sectors following Brexit, there is perhaps a greater opportunity to "sell" incentive programmes to the horticultural community, as a tool that can deliver demonstrable benefits for the sector which will, in turn, be promoted for its role in delivering wider public goods.

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More information on the Food Foundation's Peas Please initiative can be found in Veg Facts and the project webpage.

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