

Abstract: Producing food in English and Welsh prisons

Most prison food research focuses on aspects of consumption rather than production yet farming, horticulture and gardening have been integral to the prison system in England and Wales for more than 170 years. This paper explores the interplay between penological, therapeutic and food priorities over the last fifty years through an examination of historical prison policies and contemporary case studies associated with the Greener on the Outside for Prisons (GOOP) programme. Findings are discussed in relation to how joined-up policy and practice can impact positively on whole population health and wellbeing within and beyond the prison setting.

Introduction

While food plays a critical role in the physical and mental wellbeing of people in prison, impacting on many aspects of prison life such as culture, relationships and the construction of positive identities, it is often overlooked as a key feature of incarceration (WHO, 2015). Furthermore, within research and narratives of prison food about nutritional or dietary requirements, food habits or the meaning of food (e.g. Smoyer & Lopes, 2017), to-date there has been an emphasis on the consumption rather than production of prison food which this paper seeks to address.

Between 1990 and 2019, the UK prison population almost doubled, it now stands at just over 82,500 (Ministry of Justice, 2019), representing the highest incarceration rate amongst western European jurisdictions (Sturge, 2018). Within the prison populations the most socio-economically disadvantaged communities, where levels of social exclusion are most marked, are significantly over represented (Ismail & de Viggiani, 2018). Research revealing the strong association between offending behaviour and poor health, low levels of educational attainment and wider deprivation suggests a 'vicious cycle' with most prisoners coming from and returning to the poorest or most socially excluded sections of society (Bradshaw et al., 2004). Prisons therefore represent a key organisational setting for health promotion activities (Whitelaw et al., 2001), and not least for initiatives that seek to improve nutrition (Gray et al., 2018).

The prison service in England and Wales currently spends approximately £15m annually on prison food, of which the government requires 25% to be grown in the UK. For a budget of approximately £2 per prisoner per day, catering managers are required to source

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63 ingredients for three meals that can be described as “wholesome, nutritious, well prepared
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65 and served, reasonably varied and sufficient in quantity” (National Offender Management
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67 Service, 2010). With a focus on gardening and farming, this paper explores how penological,
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69 therapeutic and food priorities have shaped prison food production in England and Wales
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71 since 1970 using a combination of primary and secondary data including case studies,
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73 qualitative interviews and historical accounts.
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80 Prison food production is a complex topic not least because terms (e.g. agriculture, farming,
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82 growing, horticulture and gardening) can have multiple, often loosely defined or
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84 interchangeable meaning and associated practices. For the sake of brevity and clarity, we
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86 have chosen three activities associated with prison food production: gardening, horticulture
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88 and farming, and to differentiate between them on the basis of scale, spatiality and scope.
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90 Gardening is a relatively small-scale activity (e.g. raised beds) that can be accommodated
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92 within the built environment including high security, or limited space prisons. Garden
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94 produce typically supplements the diet of the gardeners. Horticulture is a medium-scale,
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96 usually commercial activity that can be accommodated within the boundaries of lower-
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98 grade prisons subject to sufficient space to erect ‘liminal’ structures (e.g. greenhouses or
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100 polytunnels) proximal to the prison. These liminal structures extend the timescale over
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102 which seasonal produce (e.g. salad crops) can be grown as they offer a degree of protection
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104 (e.g. from bad weather) for plants and those who tend them. Farming typically involves
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106 commercial, large-scale crop growing and animal husbandry which enables it to meet the
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108 demand for fresh produce from multiple prisons. However, as the history of prison farming
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110 shows, commercial imperatives, although important, have neither been the sole nor the
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112 principal reason for large-scale, in-house food production (Wright, 2017).
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128 **Connecting Nature and Health**
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130 The consistent message from a diverse body of research is that contact with the natural
131 environment improves psychological health and mental well-being (e.g. Barton et al., 2016;
132 Maller et al., 2006; Ward Thompson et al., 2012). Amongst disparate ways of connecting
133 with nature, gardening and 'care farming' are heralded as a means to promote health, well-
134 being and flourishing across the life-course for a wide range of disadvantaged and
135 vulnerable people in diverse contexts (Elsey, Murray & Bragg, 2016; Fournier, Geller &
136 Fortney, 2007; Hine, Peacock & Pretty, 2008; Sempik, Aldrige & Becker, 2005). Although
137 there have been few robust, independent studies, reviews and qualitative studies suggest
138 that prison gardening and farming can have a positive indirect impact on health and
139 wellbeing through fostering a sense of connection to nature, a healthier diet, increasing
140 opportunities for meaningful activity, social connectedness, relaxation or physical exercise
141 (Fournier et al., 2007; Husk, Lovell & Garside, 2018; Wagenfield et al., 2018).
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159 The benefits of physical activity in both community settings and prison populations are well
160 established (Meek, 2014; 2018) but traditionally such activity has been provided through
161 access to the prison gym or exercise yard, with a focus on weight lifting and team sports. For
162 example, the National Audit Office (2006) report on prisoner diet and exercise failed to
163 consider the wider benefits of gardening as a either a form of exercise or a way to address
164 heavy reliance on convenience foods. However, at a time when older prisoners represent
165 the fastest growing population within our prisons, there have been calls for a more diverse
166 and creative physical activity offering in our prisons to ensure that more vulnerable, inactive
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183 or less physically abled prisoners are also able to benefit from the social, psychological and
184 physical benefits (Meek, 2018). Non-exercise activities like gardening are widely
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186 acknowledged as a way to supplement existing opportunities available to people in prison to
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188 be physically active (Elger, 2009), with those who are least active most likely to benefit in
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190 terms of long-term health (Matthews et al., 2015).
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196 Differentiating between the effects of physical activity and contact with nature can be
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198 difficult within contemporary studies of prison farming and gardening programmes (e.g.
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200 Brown et al., 2015) (Moran & Turner, 2018), as is accounting for the positive effect of simply
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202 being outside (Elsey et al., 2016). For example, research amongst prison staff found that
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204 84% reported that being outside was calming irrespective of how they used external spaces
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206 (e.g. for exercise, quiet contemplation, relaxation or respite) (Wagenfield et al., 2018).
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208 However, rather than trying to partial out the relative contribution of being outside, eating
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210 well, connecting with nature or physical exercise, a 'settings approach' seeks to understand
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212 how health promoting activities like gardening are embedded within institutional cultures,
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214 structures, processes and routines (Dooris, 2012).
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221 **Prison Setting and Population**

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226 Underpinned by a number of principles (e.g. equity, participation, empowerment,
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228 partnership and sustainability), the settings approach reflects an ecological model that takes
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230 account of the dynamic, complex interactions between personal, organisational and wider
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232 environmental factors that influence health (Dooris, 2009). Applying this framework to the
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234 the justice context, it is clear that that a health-promoting prison must be safe and secure,
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243 and underpinned by principles of human rights, respect and decency (Baybutt et al., 2014;
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245 Department of Health, 2002). Imprisonment itself will not reduce the likelihood of re-
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247 offending and therefore activities must focus on improving skills and removing barriers,
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249 such as an absence of hope, that impede successful rehabilitation (Lindstrom & Eriksson,
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251 2006; Mann, Fitzalan Howard & Tew, 2018). In an era of limited public spending it is argued
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253 that gardening is low cost, crucially offering the opportunity to bridge and 'join up' public
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255 health and criminal justice agendas to enhance learning and improve resettlement
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257 prospects (Baybutt & Chemlal, 2015).
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264 Good prison health concerns the whole of society with prisoners coming from and returning
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266 to the wider community. Therefore, accessing people in the environments in which they
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268 lead their lives and make life choices is an essential approach to tackling health inequalities
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270 and promoting public health. Wider benefits of good prison health includes lowering the
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272 costs of imprisonment by improving the health of the whole community; reducing public
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274 health expenditure; improving reintegration into society and reducing reoffending; reducing
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276 inequalities; and reducing the size of prison populations (WHO, 2015). It is argued therefore
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278 that the prison setting offers a unique opportunity to address health and social issues
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280 however, translating the health promoting prisons concept into practice is a real challenge
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283 (Baybutt & Chemlal, 2015).
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289 **History of Prison Food Production**

290 In England and Wales, prison farms have been producing food for consumption by prisoners
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292 and staff since 1852, when farming was introduced to HMP Dartmoor to provide a healthy
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294 and hard day's work in the open air (Lander, 1992). Considered an important means of
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303 providing 'useful and rewarding work for inmates', farms became an integral feature of the
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305 Borstal system (youth detention centres) as they became established in the early 1900s.
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308 Between 1939-1945 the 'Dig for Victory' campaign led to the intensive cultivation of
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310 household and prison gardens to produce quantities of vegetables for dietary use.
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313 Throughout the 1950s and 60s, the remit of the 'Farms and Gardens Section' included the
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315 'Control and supply of vegetables for dietary at Prisons and Borstal Institutions' alongside
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317 providing employment, education and training for prisoners (e.g. Farms and Gardens
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319 Section, 1955). To meet the demand for food across the prison service the service
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321 requisitioned poor quality, marginal land, that required extensive reclamation e.g. former
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323 WWII airfields. Thus, farming and penological practices coincided around notions of work as
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325 rehabilitative for land and prisoners.
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331 In accordance with 'appreciative inquiry' (Liebling, Price & Elliott, 1999) and a 'snowball'
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333 method of recruitment, twenty-two face-to-face interviews were conducted between May
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335 2015 and October 2016 with people who were knowledgeable about the history of prison
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337 food production in England and Wales. The interviewees included a former Director General
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339 of the Prison Service, uniformed and civilian staff and two prisoners (one male, one female).
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341 Following the interviews, seven of the interviewees (two current and five former prison
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343 service employees) provided texts and audio-visual material (e.g. published and unpublished
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345 reports; national, local and professional media articles; audio recordings, photographs and
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347 letters from prisoners) which were 'closely read' (e.g. Scholliers, 2013). Particular attention
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349 was paid to historical sources which were referenced by multiple interviewees notably,
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351 proceedings from annual farm management conferences held 1956-1995 (HM Prison
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353 Service, undated).
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366 In the early 1970s penal policy around food production became explicitly therapeutic with
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368 the Department of Industries and Supply (DIS) (1971) describing farming as: 'A dignified and
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370 healthy occupation which teaches good work habits, and broadens the outlook of many
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372 town dwellers and in one way or another affects us all in our daily lives...As distinct from the
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374 'gardening' activities...the justification for commercial farming and horticultural activities
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376 within the Prison Service lies with the contribution it can make towards the wellbeing and
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378 rehabilitation of the inmate.' Prison farms, according to the staff who managed them in the
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380 1970s, "not only taught about living things, but about life itself, and in so doing broadened
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382 horizons, extended capabilities, increased self-respect and gave pleasure and sustenance to
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384 many." (Farm Management Conference, 1977, p.228 in Wright, 2017), a year later it was
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386 suggested that: "Commercial farming could be abandoned and a policy of therapeutic
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388 farming adopted" (Farm Management Conference, 1978, p.243 in Wright, 2017). However,
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390 although the physical and mental health benefits of farming and horticulture, and to a lesser
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392 extent gardening, were widely acknowledged, these benefits remained largely anecdotal
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394 rather than empirically validated e.g. 'For the urban dweller a period of working on a farm
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396 or similar activity can provide a therapeutic change, the mental and physical benefits of
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398 outdoor work are obvious and require no emphasis.' (HM Prison Service, 1997).
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406 Food self-sufficiency, which had been promoted during the 'Dig for Victory' campaign,
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408 remained a key objective within prison policy. By the early 1990s, the Prison Service in
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410 England and Wales was able to supply commercial standard produce to all 147 prisons,
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412 enough to feed the entire prison population (47,000 prisoners). However, as the prison
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414 service entered a more punitive, privatised, 'postrehabilitation' era (Garland, 1991) those in
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423 charge of the prison service began to question the legitimacy and credibility of having
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425 farming and farmers at the heart of imprisonment (Wright, 2017). Rather than advocating
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427 food production as 'therapeutic' or 'hard work', a mechanism of reform or rehabilitation,
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429 the ruling assumption became one of 'prison works', a means of incapacitating and
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431 punishing to satisfy popular political demands for public safety and retribution (Garland,
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435 1991).

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439 Following a series of internal and external reviews, the integral prison food production
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441 system that included farms, horticulture, vegetable preparation units and a national food
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443 distribution network was disbanded. Between 2003-2006, Phil Wheatley, the Director
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445 General, who prior to joining the service had worked as a landscape gardener, authorised a
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447 controversial programme to replace traditional prison farms with horticultural facilities
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449 (McEwan, 2009; Wright, 2017). "When the population is going up and they say you have got
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451 to manage a bigger population than you think, well we are probably better off looking after
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453 prisoners than Suffolk Punch horses." (Phil Wheatley in Wright, 2017, p. 132). By 2006, 95%
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455 of prison farmland had been sold or returned to its original owners, food production had
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457 become contracted out to a small number of private companies and the therapeutic and
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459 penological value of commercially-oriented prison farming was largely forgotten (Wright,
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464 2017).

465 466 467 468 **Growing food in prisons in England and Wales: the case of Greener on the Outside for** 469 470 **Prisons (GOOP)**

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473 Despite nationwide privatisation of prison food production, a surprising quantity of farms
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475 and horticultural facilities as well as knowledgeable staff remain in the prison service. In
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483 2008, shortly after centralised prison agriculture and horticulture in England and Wales
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485 ended, Greener on the Outside for Prisons (GOOP), a programme of therapeutic gardening,
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487 was established in the North-West of England. Working in partnership with individual
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489 prisons, GOOP sought to either extend the reach of existing provision or create new
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491 gardening projects.
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497 The GOOP programme has been developed in an integrated way, explicitly working across
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499 the whole prison system in order to promote a rehabilitative culture. There have been a
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501 number of different mixed-method research studies assessing the benefits of the GOOP
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503 programme using prisons as case studies. Measures employed within the case studies have
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505 included tailored Green Gym© questionnaires to assess physical activity and the Warwick
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507 Edinburgh Mental Wellbeing Scale (WEMWBS) to gauge mental wellbeing amongst
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509 prisoners and staff in adult male and female prisons in the North West (Baybutt, Dooris &
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511 Farrier, 2018; Baybutt, Farrier & Dooris, 2012) as well as a process evaluation exploring
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513 'what works and why'.
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520 There are a wide range of examples of GOOP produce being used in education for both
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522 cooking skills and learning about the origins and different types of fresh grown food in
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524 recognition that when people in prison can learn and practise cooking, these skills may lead
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526 to employment during or following prison (WHO, 2015). By enabling participants to try the
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528 food they have grown (e.g. beetroots, cucumber, tomatoes, peppers, chillies and lettuce in
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530 salads) GOOP enables additional benefits such as an increased awareness of how to eat
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532 more healthily while in prison and beyond with families.
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546 GOOP works best when there is whole prison engagement that draws upon referral systems
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548 from healthcare or drug services for example to deliver a range of needs-led, locally
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550 determined gardening initiatives whereby key skills and accredited horticultural
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552 qualifications are embedded into the core of GOOP delivery; and, where produce can be
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554 used for education, returned back into the prison system through catering processes and/or
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556 linked into commercial activities such as sales to staff, visitors and the local community.
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562 In the context of the current UK prison reform agenda [that seeks effective and sustainable](#)
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564 [prisoner management and rehabilitation \(Ismail & de Viggiani, 2018\)](#) and against a backdrop
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566 of public sector constraint and concern about the high incidence of violence, suicide, self-
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568 harm and poor mental health among prisoners, GOOP has empirically demonstrated that
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570 gardening can benefit the physical and mental health and wellbeing of prisoners and make a
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572 significant contribution to the creation of safe, secure, supportive and health-enhancing
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574 environments (Baybutt et al., 2018; Farrier, Baybutt and Dooris, 2019; Farrier and Kedwards,
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576 2015). These impacts are increasingly widely recognised as being the result of joined-up
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578 'whole system' working. Consequently, GOOP's whole system approach centred around
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580 gardening and the production of prison food is increasingly informing national policy and
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582 practice (e.g. Meek, 2018) with GOOP becoming 'mainstreamed' within public sector prisons
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584 in Northern England
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592 **The Future of Producing Food in Prisons in England and Wales**
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603 Currently, over half of the state prisons in England and Wales (70 of 118) have some form of
604 horticultural activity taking place, and 44 public sector prisons are engaged in commercial
605 horticultural activity taking place, and 44 public sector prisons are engaged in commercial
606 horticultural (Coveney, 2019). Procurement strategies are being revised and in regions like
607 horticultural (Coveney, 2019). Procurement strategies are being revised and in regions like
608 the north-west, establishments are re-introducing gardening as a means of supplying their
609 own and nearby prison kitchens with produce, whilst offering meaningful employment and
610 training suitable for a wide range of prisoners.
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616 For prisons, this means adopting a system-wide public health strategy, embedding health
617 within the core business of the system and addressing health impacts of imprisonment and
618 inequalities, necessary for effective and sustainable prisoner management and
619 rehabilitation (Ismail & de Viggiani, 2018).
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630 Despite the perception that prison horticulture is not as space efficient as classrooms or
631 workshops for occupying prisoners (Moran & Turner, 2018), horticultural facilities are
632 included in plans for Glen Parva, a new Cat C prison, due to open in 2021. The £170m
633 rebuild will accommodate 1600 inmates and the main blocks are being designed around
634 allotments and polytunnels. Rather than obfuscate the social and human costs of
635 incarceration (Jewkes & Moran, 2015), 'greening' the prison estate can foster real and
636 enduring connections, with nature, staff and other prisoners, connections that are known to
637 improve prisoners' psychosocial outcomes (Baybutt et al., 2012; 2018; Smoyer, 2015;
638 Wright, 2017). Integrating horticulture and gardening in the prison estate enables prisoners
639 to 'cut produce in the morning, eat it in the evening' and challenges dominant narratives
640 about prison food systems as uncaring, punishing and disempowering (Smoyer & Lopes,
641 2017).
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Discussion

Globally, prisoners tend to come from marginalised and socially disadvantaged sections of society and exhibit a high incidence of ill health, linked to social exclusion and multiple complex needs (Baybutt et al., 2018). Therefore, as a setting, prisons offer a unique opportunity to invest in the health of disadvantaged and marginalised populations and address health inequalities and social exclusion (Woodall, 2016).

Growing fresh, seasonal produce for use in prison kitchens is a purposeful and meaningful activity with a wide range of benefits for the individual, the institution and wider society. There are many pathways whereby growing food as a leisure, therapeutic or commercial activity, can enhance prisoner health and wellbeing, whether it be through improving life skills, creating a sense of ownership, building relationships between participants or in enabling physical exercise (e.g. Baybutt et al., 2012, 2018; Brown et al., 2015; Grimshaw & King, 2002; Meek, 2018; Wright, 2017).

Participation in farming, horticulture and gardening in the prison setting can provide a key role in mitigating health inequalities. However, there is a need for a paradigm shift to deliver new (and resurrect old) ways of delivering and reframing 'health' in order to embrace holistic approaches to wellbeing and impact beyond the prison setting. Such a shift is evident in the current *National Partnership Agreement for Prison Healthcare in England, 2018 -2021*, between the Ministry of Justice, HM Prisons and Probation Service, Public Health England, Department of Health and Social Care and the National Health Service which focuses on three core, shared objectives: improving the health and wellbeing of

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722
723 people in prison and reducing inequalities; reducing reoffending and supporting
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725 rehabilitation by addressing health related offending behaviour; and supporting access to
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727 and continuity of care throughout the prison estate, pre-custody and post-custody into the
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729 community.
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734 Historical and contemporary accounts of food growing initiatives within and across prisons
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736 suggest that farming, horticultural and gardening can make a notable contribution to
737
738 achieving these objectives. Whilst there has been a tendency to focus on how imprisonment
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740 extends beyond the confines of the prison (e.g. Foucault, 1977; Moran, Turner & Schliehe,
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742 2018), there has been a paucity of research on how food production practices, like the 'Dig
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744 for Victory' campaign, influenced prison policy and practices. The successful production of
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746 food in prison, that impacts positively on health and wellbeing in its broadest sense, is
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748 dependent on bridging across systems and a commitment to joined-up working both within
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750 and beyond the prison (Baybutt & Chemlal, 2016). There is an historical precedence for this
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752 with prison farms and gardens (Wright, 2017) which we argue represents an opportunity
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754 currently being missed in the design and running of our contemporary prisons. Gardening,
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756 horticulture and agriculture demonstrate a legitimate opportunity to bridge and develop
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758 public health, criminal justice and sustainability agendas with historical and contemporary
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760 initiatives demonstrating that participating in the production of prison food can enhance
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762 physical and mental health, promote learning and skills, increase employability prospects
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764 and promote models of good citizenship (Baybutt & Chemlal, 2016; Farrier et al., 2019;
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766 Wright, 2017).
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773 774 **References** 775 776 777 778 779 780

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