

Local Policy Lab Report

Exploring opportunities and challenges associated with health promotion through vegetable growing on an acute hospital site.

This project was carried out by Michael Leadbetter and Rejoice Hassan in 2024 for the Local Policy (Sustainability) Fellowship. The report was authored by Michael Leadbetter for Dr Lizzie Moore (Oxford Local Nature Partnership) and Dr Rosie Rowe (Oxfordshire County Council).

Contact: michael.leadbetter@queens.ox.ac.uk/michael.leadbetter@arch.ox.ac.uk

The author request to be cited in any publications/reports arising from this document.

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Key recommendations

This report has three key findings:

- Greenspace projects for wellbeing are more likely to succeed when they start small with a specific community.
- The NHS is in the midst of a wellbeing crisis affecting both staff and patients. The potential NHS partner we engaged with expressed enthusiasm and support for a project initially targeted at staff wellbeing.
- Setting up a pilot ‘green wellbeing lab’ could be a good way to achieve this.

Structure

Key recommendations	1
Introduction.....	2
The Challenge and the Big Picture	2
Analysis we Conducted.....	2
Findings Emerging from Analysis	3
Considerations Emerging from Analysis	4
Findings.....	5
Next steps.....	5
Acknowledgements.....	6
List of citations	6

Introduction

Our project brief was to explore opportunities and challenges with health promotion through vegetable growing at hospital sites. The purpose of the project was to understand current opportunities and challenges, identify which stakeholders would need to be involved, and determine how such an initiative could be developed sustainably as a partnership across organisations.

The Challenge and the Big Picture

This project is informed by two intersecting sustainability challenges: the benefits of greenspace and the challenges and opportunities faced by the NHS. Greenspace provides a wide range of important benefits across four areas (Kingsley, 2019). First, greenspace is vital for climate change action, biodiversity and sustainability (Lai et al., 2019, Royer et al., 2023, Nursey-Bray et al., 2015). Second, greenspaces provide proven wellbeing benefits (Hartig et al., 2014, Röbbel, 2016, Egli et al., 2016, Li, 2018). Third, spending time in and contributing to greenspaces through vegetable growing improves physical health and mobility, fights loneliness, and has great potential for addressing food justice (Astell-Burt et al., 2024, Lampert et al., 2021, Asma Ben-Othmen et al., 2023, Park et al., 2010). Finally, greenspaces are also important tools for building, deepening, strengthening and enhancing community (Jennings and Bamkole, 2019, Cattell et al., 2008, Egli et al., 2016, Nursey-Bray et al., 2015). Greenspaces and activities conducted in them are wellbeing multipliers.

One limitation, but also opportunity, is that this is a relatively new and emerging area of research and treatment. As such, there is a need for carrying out further research, especially longitudinal and quantitative studies (Hansen et al., 2017). In part, this is because community gardens and green spaces have been underutilized as wellbeing interventions (Zoellner et al., 2012). However, there are good grounds for optimism with existing studies finding positive outcomes (Houlden et al., 2021, Spano et al., 2020, Leavell et al., 2019).

Meanwhile, the NHS is facing a wellbeing crisis affecting both staff and patients (Shemtob et al., 2022, Gemine et al., 2021, Dominic et al., 2021, Millar, 2019, Samarasekera, 2023). Health providers are in the process of developing strategies and treatments for leveraging wellbeing benefits through greenspace prescribing (Fixsen and Barrett, 2022, Fixsen and Polley, 2020, Leavell et al., 2019, Sun et al., 2023). At an institutional level, NHS hospital sites play a special role as ‘anchor’ organisations embedded in community (Reed et al., 2019, Vize, 2018), while also being one of the UK’s biggest landowners likely with underutilised greenspace assets (Corben, 2023). There is an opportunity here to bring together the wellbeing benefits of greenspaces and vegetable growing to develop stepping stones towards solving these challenges. In doing so, the project could address a major challenge in the NHS and Oxford community while promoting the wellbeing benefits of greenspace. These challenges and opportunities connect with four UN sustainable development goals (SDGs): Three, good health and wellbeing; 11, sustainable cities and communities; 13, climate action; and 15, life on land.

Analysis we Conducted

The project moved through four phases:

1. **Design and planning**

We began with an initiation meeting. In consultation with our academic mentor and partners, we defined the project scope and developed a data collection and analysis plan, as well as a research plan in the form of a Gantt chart. We developed an approach to conduct a scoping review of available literature and cases of vegetable growing and associated gardening activities at NHS sites, along with stakeholder interviews to build understanding of the NHS context.

2. Scoping review, data collection and interviews

To examine cases of success and challenges, we developed a data extraction tool which allowed us to record 16 relevant cases. For each of these cases, seven factors were recorded, including: site name/identifier, deployed intervention, implementation location, stakeholders involved, benefits offered (to nature and people), success factors, challenges, opportunities to be leveraged, and source of data. Other reviewed literature has been integrated throughout this report. We developed a structured interview question sheet and aimed to conduct two interviews with NHS staff/stakeholders; however, only one was available during the project timeframe. The second staff member could be interviewed as part of a next-stage project.

3. Data analysis

We analysed the extracted data and interview transcripts for general and specific findings to explore the opportunities and challenges associated with health promotion through vegetable growing at hospital and NHS sites.

4. Report development and sharing resources

The final stage involved sharing resources (now completed) and providing a report on findings (this document).

Findings Emerging from Analysis

The data extraction tool provided a variety of potential insights and could be leveraged further by our partners. There are many different kinds of interventions listed here, covering a variety of scales, types, and locations. A common aspect of many green space projects, especially those targeted at patients, was that they required NHS staff to volunteer their free time to the project, as at Guild Park in Lancashire. While NHS volunteers in this instance achieved a great deal, given the NHS wellbeing and burnout crisis, this may negate some of the perceived wellbeing benefits for other sites, especially larger hospitals.

An alternative is the Nature Recovery Ranger initiative, in which a professional greenspace officer is hired to create usable green spaces and run programmes. This has been effective across various NHS sites such as the Mount Vernon Cancer Centre in London, Liverpool's Broadgreen Hospital, and Southmead Hospital in Bristol. However, Guild Park and others reveal that success can be enhanced when a variety of activities are run in conjunction with vegetable growing, such as cooking workshops or exercise classes. This allows for an increased array of entry points, increasing participation at the site.

A project that we were especially impressed by was the Lambeth GP Food Co-op. This involved building gardens at GP surgeries and NHS hospitals to educate people in growing food, provide socialisation opportunities, with food being sold to NHS staff and NHS hospital caterers. This improved wellbeing for participants through people learning new skills, having

opportunities to socialise, improved access to healthy food, and contributed to the local economy. The project has covered up to 15,000 people across sites such as King's College Hospital, Brixton Hill Surgery, Pulross Intermediate Care Centre, and many others. Here, the King's Fund was useful in setting up the initiative (a potential future resource for this initiative). A significant factor in the success of the Lambeth initiative is that it engages with smaller established groups in regular contact, so for instance, a GP practice and regular patients. This means that it is initiated within an existing community that can later be expanded, but the existing community are the core users, with opportunities for expanding and upscaling the intervention as success develops.

We also conducted a semi-structured interview with Olivia Clymer, who leads NHS partnerships. We learned that a patient-focused initiative would likely meet with lower levels of enthusiasm and support. However, a project focused on addressing the NHS wellbeing crisis would have more success and may be able to receive support and resources from a variety of sources. For example, some potential financial support could be available from the NHS, as well as additional labour and expertise (in kind) provided by charity days. We discussed that starting with a smaller and established community within the Radcliffe Hospital or other hospital site could be the best way to commence. For example, starting with a small-scale vegetable growing initiative for staff living on-site could be achievable (This meshes onto one of the key learnings from the Lambeth GP Co-op of targeting a specific established community). Furthermore, as this is a community that works across different hospital roles, this could provide opportunities for organically growing participation through different departments and networks that staff living onsite are connected to. Olivia has also been involved with setting up community gardens in the past and has a strong understanding of practical requirements which would be helpful for the project.

Olivia suggested that a next step would be to have a meeting with estates managers and develop a survey canvassing staff interest, which could be disseminated through their internal intranet. We discussed that the project could be run as one or two pilot studies, perhaps starting with the Radcliffe Hospital onsite residential staff or existing sustainability or wellbeing groups, as an established community with a view to expanding across the hospital. A second project could focus on carers and families at the Nuffield Orthopaedic, which has a high number of long-term patients (carers, families, and long-term patients are also a priority group for the NHS).

Considerations Emerging from Analysis

Being able to leverage NHS resources for wellbeing and in-kind contributions, as well as engaging with a specific community, would overcome some of the key barriers, challenges, and obstacles to community greenspace success identified in existing studies (Diaz et al., 2018). These include lack of resources (e.g., soil, tools, equipment), lack of volunteers, budget limitations, inadequate stakeholder support, and issues with site selection/securing a site (Diaz et al., 2018). Starting on a small scale with an established NHS community, e.g., residential onsite staff, would provide a potential core group of participants. Existing literature on community and policy interventions across various fields of health, policy, and landscape management stresses the value of both starting small and the importance of pilot projects for creating a low-stakes project learning environment for potential large-scale impact (Vreugdenhil and Rault, 2010, WHO, 2011, Van Teijlingen and Hundley, 2002, Mulroy, 2000). This could also provide the project with an important advantage.

Given the NHS wellbeing crisis, the important wellbeing benefits of greenspace, and the potential for engaging with an existing onsite NHS community, a pilot project model would be a helpful approach. Here, a 'learning through doing' approach would be appropriate for exploring 'what are the effective ways of bringing greenspace benefits to NHS staff', with an eye to expanding the programme to families and carers with appropriate NHS support (Schank et al., 2013, Reese, 2011). This would enable one or several staggered pilot projects, trying out different strategies for developing greenspace wellbeing interventions. In these cases, the primary goal/metric of success would be learning from the pilot projects. This creates a lower-stakes context in which, for example, if a particular community garden/intervention did not go to plan, lessons could be learned, and a next project developed. This also provides opportunities for growing and deepening the collaboration with NHS partners beyond a single project. This project could be framed as the 'Oxford Green Wellbeing Lab', and university and Oxford University Hospitals partners could also be engaged to support the project. This would increase project visibility, help raise support, participation and resources, as well as generate and multiply impact.

Findings

Analysis of successful projects, literature and interviews has led to four findings.

1. **Green space is a crucial aspect of wellbeing and sustainability in the broadest sense.** Staff wellbeing is a key NHS priority, and wellbeing is an important way of framing and communicating the future project. Making staff wellbeing a priority increases NHS commitment and access to NHS resources.
2. **Similar projects have succeeded when partnering with established communities/networks** like NHS Wellbeing Groups, or NHS Sustainability Action groups, and have focused on specific outcomes.
3. **Successful projects start small**, evaluate and learn along the way. This creates a low stakes environment for growing collaborations and partnerships. Success is determined by project learnings; thus if a particular pilot project initiative doesn't go to plan, the collaboration can continue, and is enhanced with new insights.
4. **Start small and grass roots** with a specific and wellbeing pilot project to test learn, and optimise, which can then be upscaled into a long-term, resilient, and sustainable collaboration.
5. **Future facing opportunity/stretch goal**, Working towards an 'Outdoor Oxford Greenspace Wellbeing Lab'. This presents opportunity to bring together NHS staff, policymakers, and researchers from Oxford's Universities, enhancing local action for a big-picture global challenge

Next steps

We have identified six stepping stones for achieving our partners' aims:

1. Lobbying for support from NHS Estates and NHS directors will be crucial.
2. Work with NHS partners to design a staff needs and interest survey to inform the green space project.
3. Identify a specific NHS community to work with (we have identified three potential NHS communities at the Radcliffe Hospital to work with: a wellbeing working group, sustainability working group, and onsite residential staff).

4. These could support working with partners towards a public health funding bid.
5. Begin to develop a timeline/task/resource list for implementation.
6. Start planning stepping stones to upscale the project for either more staff or possibly developing a parallel pilot to include carers and families at the Nuffield Orthopaedic Hospital.

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