

How do you develop systems leadership in public health? Insights from a scoping study

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Abstract

Objectives

Systems leadership is widely acknowledged to be needed to address the many 'wicked issues' challenging public health systems. However, there is a lack of evidence on how to develop public health professionals into effective systems leaders. This study scoped the possibilities for developing the systems leadership capacity of public health specialists in England.

Study design

This was a mixed methods qualitative scoping study design.

Methods

The study involved three stages. In the first, a rapid literature review mapped key documents in three relevant areas: systems leadership theory and practice; the changing context of public health in the UK; and training and development for UK public health professionals. In the second, 29 stakeholders were consulted to understand the context and needs for systems leadership development in public health. A third phase involved stakeholders co-designing a potential development framework for the project commissioners.

Results

Four main themes were identified: the nature and purpose of systems leadership; development needs and opportunities for public health specialists; the enabling environment; and wider contextual factors impacting on public health.

Conclusions

Key principles of, and a framework for, a systems leadership development approach are identified, which could be applied to any public health system.

Keywords

Public health; systems leadership; training and development

Introduction

The 2020-2021 COVID-19 pandemic is the latest in a series of 'wicked' problems that demand new forms of national and global leadership within public health systems, that is, the complex and interdependent elements of collective state, private and civil society action that determine population health.¹ Wicked problems in public health share a number of characteristics including that they have many interdependencies, are multi-causal and socially complex, sit outside the responsibility of any single organisation, have no clear solutions, and can give rise to solutions which have unintended consequences.² A classic example is the global rise in rates of obesity over the last several decades but others include climate change, alcohol and drug misuse, HIV/AIDS, health inequalities, injuries and violence. COVID-19 is proving an equally wicked problem despite the advent of effective vaccines. Increasingly, policy makers, academics, and other commentators see the potential to addressing these wicked problems in systems leadership, a relatively new concept that has emerged in global public policy over the last decade.^{3,4,5,6} As a new concept there is a relatively sparse evidence base underpinning systems leadership, particularly in public health,⁷ but there is a fair degree of consensus on its key elements and attributes. One of the more empirically-based frameworks was developed by Ghate and colleagues relating to children's services but equally applicable to public health.⁸ Ghate et al. describe systems leadership as having two key characteristics:

- (a) "it is a collective form of leadership" concerned with "the concerted effort of many people working together at different places in the system and at different levels," and
- (b) it "crosses boundaries, both physical and virtual, existing simultaneously in multiple dimensions."⁶

In the UK numerous authorities have called for more systems leadership in public health.^{9,10,11,12} But it has also been recognised that public health professionals' training may not adequately prepare them to effectively undertake the role of systems leaders, hence the project commissioned by Public Health England on which this paper is based.¹³

The main training route for senior public health roles in the UK is the five-year multidisciplinary specialty registrar training programme overseen by the Faculty of Public Health.¹⁴ Once registrars (or trainees) have completed their training, they are able to register as specialists with one of three regulators: the General Medical Council for doctors, the General Dental Council for dentists and the UK Public Health Register for all other backgrounds. Once on the relevant specialist register, the individual can be appointed to the post of consultant in public health by employers including the

National Health Service (NHS), local authorities or the national public health agencies of the four UK nations.

Prior to this study, we had little data on the training and development of public health specialists as systems leaders.¹¹ In England the situation was made more complex by the government's decision to transfer the public health function from the NHS to local government in 2013.¹⁵ Other complicating factors include the opening up of senior public health roles to qualified professionals from backgrounds other than medicine and the recognition of significant numbers of such non-medical public health specialists through a retrospective portfolio route rather than the traditional specialty registrar training programme.¹⁶ Non-medical public health specialists now predominate in English local authority public health teams,¹⁷ where the statutory director of public health (DPH) is expected to take on the systems leadership role.

The aim of this project was to scope the possibilities for developing systems leadership capacity amongst public health registrars and newly appointed consultants in public health. A project report is available with specific focus and recommendations for policy and practice in England;¹¹ this paper addresses the more general learning about the issues, opportunities and barriers to developing systems leadership in public health relevant to any international jurisdiction.

Methods

This was a rapid scoping study¹⁸ conducted to a tight six-month timescale by a team of six bringing together expertise in systems leadership (three members) and public health workforce development and delivery (three members). The project involved three stages. First, a rapid literature review was conducted to inform the next stage of stakeholder consultation; in the second stage stakeholders were consulted through a focus group and in-depth interviews to understand the context and needs for systems leadership development. A third phase involved stakeholders co-designing a potential new development framework for the project commissioners. The third phase output is specific to the English context and presented in the project report¹¹ and so not discussed here.

Given the timescale, it was not possible to conduct a systematic literature review, but key documents were collected in three relevant areas: systems leadership theory and practice; the changing context of public health in the UK; and training and development for UK public health professionals. Sources were identified by members of the research team on the basis of their knowledge of the field (three team members were full-time academics and three consultants/practitioners in public health and/or systems leadership), with additional sources

identified through the interviews described below. The first phase of the review yielded 51 primary sources, from which 20 key documents (all published within the last five years) were identified and summarised by one of four members of the team along the following criteria: (a) Why is this document a priority? (b) Type of document, (c) If empirical, what methods and data does it draw upon? (d) What are the key points (e.g. findings, recommendations) of the document? (e) What does this document tell us about systems leadership in public health? (f) Strengths of the document, (g) Limitations of the document, (h) Any other comments, and (i) Other relevant publications. The document summaries were shared amongst all members of the research team, with the main points explored and synthesised through an iterative consensus process involving building a visual map of key themes on white boards during an extended team meeting. In total, 66 publications were included in the review (a further 15 being identified through the interviews), of which 48 were on systems leadership theory and practice, 11 on the UK public health context and 7 on the training and development of public health professionals, thereby indicating the breadth and depth of literature in the first area compared to the other two.

An interview schedule of ten questions with additional prompts was developed based on a synthesis of the learning from the literature review. A maximum diversity sample of stakeholders was identified for interview including those working as public health specialists at different levels, those responsible for specialist training and leading figures in the Faculty of Public Health (FPH), the professional body for public health in the UK. Interviews generally took half an hour to forty-five minutes. A focus group was also held with public health registrars. 29 stakeholders participated in total. Interviews and the focus group were audio-recorded with consent, and thematically analysed.¹⁹

Results

Four main themes were identified: the nature and purpose of systems leadership; development needs and opportunities for public health specialists; the enabling environment; and wider contextual factors impacting on public health. For each of these themes a number of sub-themes were identified as illustrated by Figure 1.

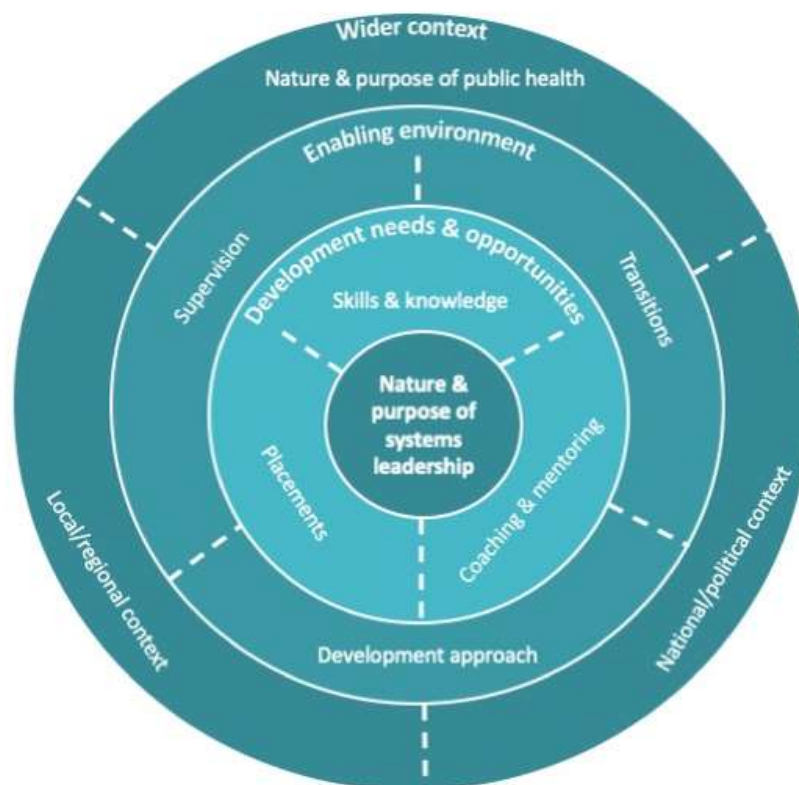


Figure 1 – Thematic analysis of key issues related to developing systems leadership in public health

1. Nature and purpose of systems leadership

There was widespread agreement among participants about the key features of systems leadership and it being a role they recognised and practised. Systems leadership was seen as leading across and beyond organisational boundaries, leading without authority, boundary spanning and creating change whilst not being in charge. A typical comment was:

"The term [systems leadership] means to me, a really significant part of the job that I do and which kind of frames what I think it is, is about influencing and leading across organizational boundaries where I wouldn't necessarily have direct authority. ... It's about making sure that where possible, people are thinking about the wider perspective of things, how things are linked together in the system, rather than just thinking about this particular part of the system." (Senior Public Health Professional)

It was noted that systems leadership occurs at all levels, not just DsPH or consultants. Moreover, given the complex nature of public health problems, it was suggested there has long been a need for public health professionals as systems leaders, but that this terminology has been adopted only recently, thus the inconsistency over how it is interpreted and deployed. Finally, it was

acknowledged that some public health specialists have focused on a more expert technical role rather than systems leadership, so the extent of systems leadership has varied across the public health system.

2. Development needs and opportunities for public health specialists

The second thematic category related to current and potential opportunities for registrars and consultants to develop their understanding and capacity for systems leadership. Three main areas were identified: skills and knowledge, placements, and coaching and mentoring.

The FPH specialty curriculum²⁰ provides the overarching framework for training public health specialists in the UK. The curriculum update in 2015 was regarded as a positive opportunity for leadership development. Overall, however, there were still concerns, particularly from registrars, that the curriculum still focused too much on acquiring technical skills (e.g. in epidemiology, health protection) at the expense of systems leadership.

“I think this comes down to a big problem that actually our training doesn't necessarily set us up to be leaders as much as it should. It sets us up to be able to complete a wide variety of small, discrete bits of work, but actually a lot of the skills that should stretch across everything we do are not so focused on.” (Public Health Registrar)

Even more important than the curriculum content, however, was access to learning through experience. Particular emphasis was given to the role of placements with educational supervisors who were involved in systems leadership and who gave genuine opportunities for a registrar to develop such skills themselves.

“First and foremost, they need to be placed in an environment where people are doing systems leadership and I'm not sure how many places are genuinely doing high quality systems leadership... They talk about it as though they are, but I don't know how many places are actually doing it well. I haven't seen that many examples of it myself.” (Senior Public Health Professional)

Coaching and mentoring were seen as an important aspect of development for registrars and consultants that can create an important bridge between formal and work-based learning. The potential benefits, however, are largely dependent on finding a suitable coach or mentor.

3. The enabling environment

The third thematic area was about the enabling environment for systems leadership development. This is about the wider context in which the training of public health professionals takes place and

the impact this has on the quality of developmental opportunities and the readiness of individuals to engage with them. Three key issues were highlighted, including: supervision, transitions and the development approach.

As well as supervisors needing understanding and experience of systems leadership themselves, there were other issues about how confident supervisors were to put registrars in leadership positions where they might make mistakes and cause reputational damage. In addition, recent organisations changes in England have led to greater work pressures on DsPH so education of registrars can be de-prioritised.

“The DPH and centre directors probably have the most sense of where the strong system leaders are. And if you're not careful, education goes on in one corner and especially now we've made being an educational supervisor so onerous, a lot of these [directors] say, I don't have time to do that, but I'll get my consultants to do that.” (Senior Public Health Professional)

It was noted that newly appointed consultants are expected to function at a high level from day one in very demanding roles and that the transition from the relatively protected role of registrar to a consultant is quite stark. This is a time of increased workload and great development need, but it is exactly when there is no longer a formal structure for development or mentoring (outside of line management), and no peer support network.

There was widespread agreement that systems leadership cannot be taught purely through formal training but more importantly needs to be experienced. Whilst there will be useful theoretical knowledge to underpin an understanding of systems leadership, learning needs to be embedded within everyday practice.

“It's so much more complicated than some of the other stuff that we do. You know, if you think about managing an outbreak, or doing a needs assessment or developing a strategy - those things are by comparison with system leadership - relatively simple skills. There's a technical element to them, but it's more about practicing against a fixed framework that you've learnt. The thing with systems leadership, is no system is exactly the same. And therefore, there's more understanding that is required before you start getting into the system or trying do anything with it, you need to understand what it looks like.” (Senior Public Health Professional)

4. Wider contextual factors impacting on public health

The fourth and final thematic area is the wider context of systems leadership and public health. Throughout the research, discussions often turned to the wider context of public health, and how structures, policies and processes at local, regional and national levels impact on each of the three previous areas.

Whilst the 2013 transfer of public health from the NHS to local authorities enhanced the capacity for public health to influence place-based issues, it weakened links with other aspects of health service provision and created a sense of turmoil within the profession.²¹ This situation has been reinforced by the heavy cuts in funding for local government over this period.²² Within this context, it was suggested that the public health profession may be at risk, and severely constrained in its capacity to achieve the scale of outcomes it would hope.

“There are some places where people can really make a difference to the public's health because of the opportunities that they're able to leverage. And there are other places where they're just struggling to survive... And that's not all down to individual factors. That's also a systems effect ... so if we're going to try to help people to learn, we need to put them in places where there are reasonably good systems to operate in.” (Senior Public Health Professional)

An important aspect of responding to the local context is taking a ‘place-based’ approach, which requires registrars and consultants to lead within complex, multi-stakeholder partnerships – navigating contested issues and competing agendas. A key aspect of this work requires the development of political astuteness and the capacity to work with and alongside local political leaders.²³

“I think from a local government perspective, one of the really key things which has still not particularly come through the training programme is around working in a political system ... You absolutely need to have some requirement for people to have engagement with elected members because it's such a different way of working.” (Senior Public Health Professional)

Discussion

This study identified and explored key themes in developing systems leadership amongst public health specialists. Although the context is England-specific, the four thematic areas we identified are not specific to public health in England. There was a high degree of consensus amongst participants on the crucial issues including the need for the supervisors of trainees themselves to have understanding and experience of systems leadership and for trainees to be given opportunities to

take leadership roles despite the risks of not always performing effectively. The underpinning theory of systems leadership can and should be learned in formal educational settings, but real learning on effectively undertaking systems leadership can only be gained through experience. The importance of the wider context was also stressed, particularly the barriers to effective systems leadership if the public health system is underfunded or fragmented.

There have been a number of commentaries and reviews on systems thinking in public health,^{24,25, 26} but to date only one empirical study on public health systems leadership.⁵ More is known on systems leadership in other sectors, e.g. the business world or children’s services.^{2,6,27}

The need to develop public health professionals’ leadership skills is commonly emphasised in international public health competency frameworks,^{28,29,30,31} sometimes linking leadership with systems thinking^{25,27} but rarely referred to explicitly as systems leadership.

This is one of the first academic studies on the development of systems leadership by public health specialists. It builds on a coherent conceptual framework for systems leadership^{6,11} and is empirically based in the experiences of public health specialists and trainees in England. It illustrates that systems leadership is a collective process not an individual one, so that one cannot think about the development of individual systems leaders outside of the wider context of the public health systems they are working within. There are a number of implications from this for pedagogy and training programme design for public health specialists as illustrated by Figure 2.

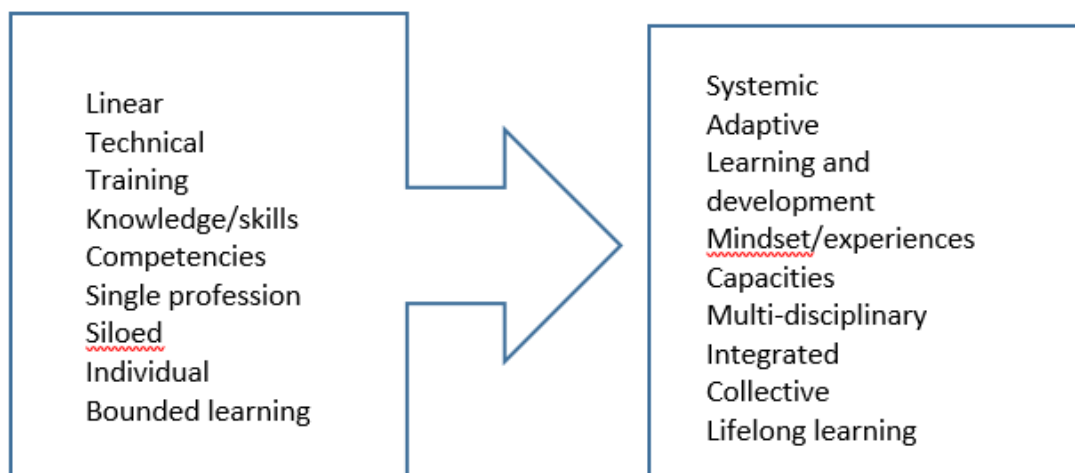


Figure 2 – Shifting perspectives on pedagogy and training programme design

Systems leadership requires leaders to develop their understanding, awareness and capacity to lead across multiple levels - beginning with leading self, leading within teams and organisations, leading collaborations and partnerships, leading local system(s), and leading a wider system/across systems, as illustrated in Figure 3.

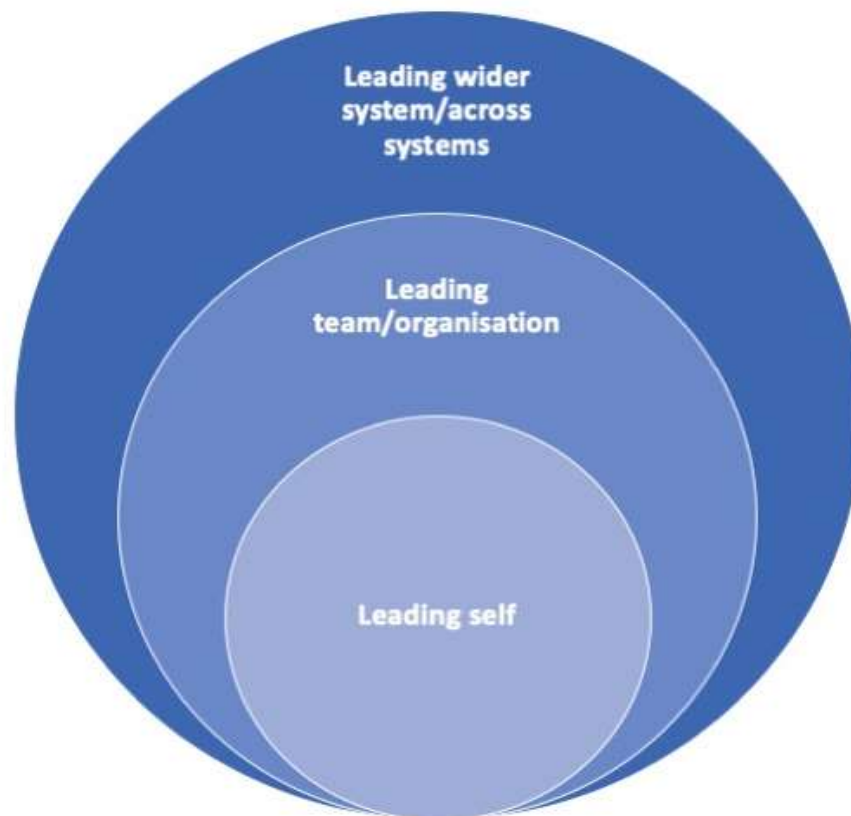


Figure 3 – Levels of systems leadership development and learning

Synthesising insights from the literature review and our stakeholder consultations, several key principles of a systems leadership development approach emerge as applicable to any public health system. The public health context is complex and is constantly evolving. Learners need to be supported to explore and develop their capacity to be curious throughout their professional development. They should be encouraged to explore the skills of inquiry and ‘not knowing’ – moving the expectation of the learner from always being the technical expert in public health with a ‘right’ answer, towards a skilful practitioner who is able to critically reflect in their unique and complex system.

A competency-based approach will only take learners so far in their systems work. If learners continue to be strongly driven to only seek and record clear evidence on meeting specific competences around

system leadership then they may miss the opportunity to learn more widely within a system or contextualise this unique learning.

Issues around complexity and systems leadership are often best understood through guided experiences and opportunities. Supervisors may be reluctant to allow learners open access into their local systems without confidence in their abilities (due to possible reputational risk). This may mean that low risk learning environments may be needed to practice these skills. In higher risk environments learners could be encouraged to do systems mapping as observers of the system they are located in rather than intervening in the system themselves.

Development support for supervisors may also be crucial for this work. Some supervisors may not be familiar with ideas around systems leadership or systems thinking. Without this knowledge supervisors may struggle to identify the right learning projects for learners or effectively support their reflection and learning from experience.

In addition to the required technical competencies required, public health learners will need to increase their skills in curiosity, networking and coaching, as these skills are often seen to be far more significant qualities of effective leadership in current public health environments. Learning approaches should be experiential and attempt to bring learning into a live system. Learners will need support to not only engage in such projects as technical public health experts but also as network leaders.

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Statement of ethical approval

As this was a consultancy project involving co-design with project participants, ethical review was not required by the Faculty Research Ethics Committee, however principles of informed consent were followed.

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Competing interests

None declared.

Author contributions

R.B., D.E. and C.J. conceived and designed the study. All authors collected and analysed the data. D.E. drafted the manuscript and R.B., C.J., R.M., M.P. and E.T. contributed to revisions of the manuscript. All authors read and approved the final manuscript.

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