

Editorial

Reducing wasteful innovation

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Healthcare organisations are increasingly being asked to innovate in order to improve or maintain quality of care while reducing costs. Innovation includes new ways of doing and new ways of thinking. Innovation is so strongly linked to the ‘health and wealth’ agenda underpinning current health policy that many initiatives have developed locally, regionally and nationally as a result.¹ This has, in turn, led to an explosion in funding to support innovation and a multitude of innovations being introduced or tested. The focus has been on creating the environment to generate innovation and then implementing such innovations.²

The literature on innovation has focused on getting innovations into practice: their implementation or diffusion.^{3,4} Introducing innovations without proper development and modelling or rigorous evaluation of their effects, costs or consequences, including unintended consequences, can itself be wasteful. This means that healthcare organisations will need to access a range of expertise to evaluate the effects of innovations. They will require expertise to: (1) be able to understand which innovations are likely to be effective and which themselves may lead to harms and what types of harms these may include; (2) evaluate the effects of interventions or determine whether evaluations will be sufficiently robust to answer questions around effectiveness and cost-effectiveness of an innovation; and (3) understand the strength of evaluations that have been conducted to show whether an innovation is indeed an improvement.

The types of expertise required for the development and evaluation of innovation are wide-ranging. These include knowledge of sociological and psychological theory, skills in improvement science and capability in methods of research and evaluation, as well as specific familiarity about how these should be applied in the context of specific healthcare settings. Developing innovative interventions in the absence of such expertise, without conducting preliminary modelling studies or carrying out large-scale trials of innovations without conducting feasibility or pilot trials, might lead to the inappropriate implementation of ineffective or inadequate innovations and is a potential waste.

For example, although user involvement in the development of innovations is critically important,

the way that users are involved can have important effects on the outcomes. Involving service users in one study fundamentally changed the scope and direction of an intervention for insomnia to all those with insomnia, rather than focusing only on people with mental health problems (<http://tinyurl.com/oqzvp4g>). A solution-driven focus may lead to a narrower emphasis on usability and to a more restricted focus of any evaluation, whereas a problem-driven approach has the potential to increase the relevance of an innovation and broaden the scope of its development and evaluation.⁵

Careful modelling of an innovation implies gathering evidence from the literature, designing the innovation with stakeholders and modifying the novel technology or process during the process of development.⁶ It is important to conduct feasibility studies before undertaking large-scale evaluations because an intervention could be improved or abandoned at that stage – lack of funding to do this is a potential waste of resources.⁷ Improvement science is becoming increasingly important for the development and evaluation of interventions.^{8,9}

Organisations considering commissioning or developing innovations therefore need to ask a number of key questions. These include:

- How will the innovation be conceived: will it originate from a problem-focused or solution-driven perspective?
- How will the innovation be developed: will it be developed with the involvement of key stakeholders, particularly patients and practitioners?
- How will the innovation be modelled, shaped and tested: will there be an opportunity for the innovation to be modified during its development?
- How will the innovation be evaluated: is there the right range of expertise for this to be done in a meaningful way?
- Finally, will we have the range of resources and expertise to develop or commission innovations in a way that will be useful to service users and the organisations involved?

With the current drive towards innovation and entrepreneurialism in healthcare, we need to think about

responsible innovation, 'whereby potential negative health, societal and environmental impacts of all new products, services and processes are considered in a transparent way from the early stages on, and whereby uncertainty, ignorance and the possibility of surprises are acknowledged'.^{1,10}

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PEER REVIEW

Commissioned; not externally peer reviewed.

CONFLICTS OF INTEREST

None declared.

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