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Editorial

The benefits and challenges of evidence based public health: the experience of the National Institute for Health and Care Excellence

Beneficios y retos de la salud pública basada en la evidencia: la experiencia del National Institute for Health and Care Excellence

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Public health activities can contribute to the reduction of persistent health inequalities that exist both between and within countries.[1] At a global level, there is political commitment to support such activities, evidenced by World Health Organisation (WHO) Member States signing up to the sixty fifth World Health Assembly resolution *Reducing health inequities through action on the social determinants of health*.[2] Many countries, including England and Spain have followed through to identify the most effective context specific actions required to bring about fair and equal opportunities for health.[3,4] However, publishing such reports is not sufficient to achieve equity goals, without the necessary willingness and capacity to act.

The Centre for Public Health (CPH) at the National Institute for Health and Care Excellence (NICE) aims to contribute to the implementation of such actions through the production of evidence based guidance. CPH provides national guidance on the promotion of good health for those working in the NHS, local authorities and the wider public and voluntary sector. It makes recommendations for England on what is known from research and practice about the effectiveness and cost effectiveness of interventions and broader programmes.

So what benefits does the NICE public health approach hold and what are the challenges?

The most obvious benefit is the robust processes and methods which have secured NICE's reputation as one of the most productive and best organized developers of guidance in the world.[5,6] Together they ensure that guidance is: based on a rigorous assessment of the evidence; developed by independent committees; regularly informed by the public, patients, and service users; guided by potential implementers of it; and subjected to ongoing consultation with stakeholders to ensure its rigour and appropriateness. In professional circles at least the guidance is trusted.[7] The credibility of the organisation has grown through a commitment and willingness to undergo ongoing public scrutiny of its work.[8]

More specifically for public health, CPH ensures its guidance is aligned with a strong public health approach. This is illustrated in a number of ways.

First, it is set within the context of a social determinants and health inequalities approach to population health. Guidance development is supported by a conceptual framework[9,10] that ensures the multiple layers of influence on health are accounted for. This framework describes four vectors –population, environment, society and organisations – which are used to articulate the mechanisms of cause and interventions. They highlight how guidance might be developed to alleviate differences in health experience at population and sub-population levels. Guidance developed to reduce harm from the misuse of alcohol provides an example of its use in practice.[11] A range of recommendations were made including: minimum pricing on alcohol (population level); restrictions on advertising (industry focussed) and locally based brief interventions by primary care and other professionals. The purpose of the guidance was to uphold a basic principle of public health. That is, to promote a range of interventions that can act synergistically to bring about multiple health and often social benefits.

Secondly, CPH strives for methodological diversity, which Bonnefoy et al.[12] argue is essential for building an evidence base for action on the social determinants of health. Evidence is not appraised on the basis of adherence to a single evidence hierarchy where a particular method (or design) is given priority. Instead, it is assessed on whether the research method used is appropriate for the question being asked (and the decision needing to be made) and the extent to which its own methodological principles are well executed.[13] This approach compensates for the fact that evidence derived from a single source, rarely provides simple answers of what to do. For example, CPH guidance *Hepatitis B and C – ways to promote and offer testing* employed both quantitative and qualitative research to help produce it.[14] The former highlights what works in general. The latter describes how the barriers to accessing available services can be overcome for those most at risk of infection. Taking a mixed method approach to the collection and synthesis of evidence ensures that public health guidance is based on a better understanding of how interventions might be applied effectively in real life.[11,15] Given the complexity of solutions to most public health issues and that evidence only provides the starting point for a set of plausible actions, methodological pluralism is essential to ensure guidance is fit for purpose.[11,16]

Assessing value for money is a core function of NICE. It is an opportunity to present the economic case for public health and as such provides a third benefit. Despite a paucity of public health economic studies and the methodological difficulties associated with assessing interventions,[17,18] NICE methods allow estimates of cost effectiveness to be made based on extrapolations of effectiveness data.

All published recommendations for action are deemed to be cost effective. Owen et al.[19] found that overall the public health interventions assessed by CPH, as judged against the NICE threshold[20]

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are good value for money and cheap. Economic appraisal work has been further developed to include the 'return on investment' (ROI) initiative. Using tobacco control as an example, it has developed a tool to support local decision-making and prioritisation. It examines a portfolio of tobacco control interventions using local data to assess the economic returns that can be expected by them individually or in combination in the short to long term.[21]

Of course, the benefits described above are my personal choice and as an employee of NICE might be subject to bias. The reader can review the most recent editions of the CPH process and methods manuals to decide for themselves whether the NICE public health approach has relevance for the Spanish context.[22]

NICE guidance can make a contribution to health goals but challenges exist to ensure its advice is followed.

Public health guidance is not mandatory! Whilst the organisation has an obligation to make certain that its guidance is robust and credible, expressed appropriately, and disseminated in ways that encourage the widest possible use,[23] its implementation is subject to the enthusiasm of professionals. Given the wide range of professionals required to bring about public health goals, this is a challenge. In the health service, some staff are employed directly to implement NICE guidance. However, the responsibility for public health in England is now with local government. Evidence based culture in this setting is not so well known, used or even accepted. A general lesson for guidance producers is to ensure they pay attention to the needs of those who are in a position to implement it. The next big task for CPH is to make its work relevant for local government. The potential of the ROI initiative to highlight financial gains becomes paramount in this scenario.

As yet there have been no formal evaluations of the uptake of CPH guidance, nor the impact it might have had on any particular outcome –perhaps the latter is too tall an order? However, the implementation programme at NICE produces a range of tools and resources to support local activities and collects examples of practice that highlight how guidance has supported practice.

To reiterate, neither the production of evidence alone, nor guidance produced as a result of it will have an impact on health goals unless an imperative for action exists and the public health workforce is ready to act. With regards to the latter, CPH guidance often includes recommendations which make explicit the necessary conditions for success (i.e., for interventions to be implemented effectively). Such conditions usually operate at a systems level. For example, guidance developed to improve the ways in which communities are involved in the health development process[24] included a set of pre-requisites which were seen as essential for community based approaches to work. Pre-requisites included: long term investment commitment; organisational and cultural change; and sharing of power between communities and statutory agencies.

Where political readiness is required, the implementation of recommendations can be a little more difficult. The introduction of a minimum price for alcohol as recommended by guidance in 2010 has yet to be achieved. The role of NICE is not to tell the government what to do but to present authoritative recommendations based on robust analysis of the evidence. Evidence for macro level interventions in this case is strong, some suggesting[25] their impact on population health has more potential than any locally based intervention. Those working in public health will be familiar with the role of sustained advocacy to complete the 'evidence jigsaw' when policy change is not forthcoming.[16]

Disinvestment in public health is always a possibility given the often long-term nature of its benefits, but this becomes more acute in times of austerity and public sector cuts. Sustaining and advancing, the science and art of evidence based public health in this context becomes ever more critical. The capability of NICE methods and processes provide a good starting point for this task.

Is learning from NICE transferable? Of course it is, but context matters. The success of NICE has depended as much on the process by which its guidance is produced as the science upon which it is based. For public health, this by necessity involves context specific; assessments of population health goals; an understanding of how best to configure local systems and circumstances for effective implementation; and perhaps most importantly identification, commitment and engagement of all those actors who have an opportunity to create the optimum conditions for health.

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