

# **Evidence and guidance for better public services**

## **Making the most of the Evidence Ecosystem**



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Jonathan Shepherd's research on the production and management of evidence for public service reform led to the creation of the What Works Network. He was the independent member of the Cabinet Office What Works Council from 2013 to 2020 and is a member of the Home Office Science Advisory Council. Whilst a practicing professor of surgery at the University Hospital of Wales he founded the Violence Research Group at Cardiff University and co-founded the University's Crime and Security Research Institute where he now works.

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# Executive Summary

**Our safety, health, education, and much else depend on the effectiveness and efficiency of public services. This has never been so important. They depend in large part on their foundations of the best evidence, expert synthesis of this evidence, guidance derived from this synthesis, and services able to respond to guidance quickly. This process – the evidence ecosystem – the products of which are increasingly influential not just in national government, but also in school classrooms, the NHS, care homes, and police forces, is reviewed here.**

## Recommendations

- ◆ Standards for evidence generation, evidence synthesis and guidance production should be set across the What Works Network and incorporated into the Network's IMPACT principles. MHRA, CONSORT, Cochrane/Campbell, and AGREE standards should be the starting point in a systemic approach to this.
- ◆ Independent external review of the What Works Network should be commissioned and a comprehensive, streamlined quality assurance framework co-produced by the NAO or other suitable external organisation and the What Works Network.
- ◆ Organisations which carry out systematic reviews of evidence of intervention effectiveness and cost benefit should, by earning recognition through an accreditation process, be able to demonstrate that they meet Cochrane review standards.
- ◆ The NICE accreditation programme for guidance producers should be reopened to new applicants in the health and care sectors and adapted and extended across other What Works Centres and widely advertised in the sectors in which they operate.
- ◆ Technology appraisals, as carried out by NICE, should be used by other What Works Centres to assess technologies developed in their sectors, and the findings given statutory force, as with the findings of NICE technology appraisals in the NHS.
- ◆ The Research Assessment Framework in higher education should be adapted to facilitate assessment of the impact of What Works Centres.
- ◆ Methods used to increase safety in healthcare should be applied to ensure that distilled evidence and guidance derived from it prompts rapid change in the public sector.
- ◆ To increase responsiveness to authoritative guidance What Works Centres should develop formal relationships with service regulators and professional bodies in their sectors.

# Introduction

Public service effectiveness and efficiency depend in large part on their foundations of the best evidence available, expert synthesis of this evidence, the guidance and quality standards derived from this synthesis, and the ability of services to respond to guidance quickly. Weak foundations in these areas mean that opportunities to improve services and minimise waste will be missed and that interventions which do more harm than good will be retained.

The effects of the COVID-19 pandemic on national economies are substantial. In the UK, Bank of England estimates are of a 14% shrinkage<sup>1</sup> and in the United States current forecasts, taking account of resumption of economic activity in the summer or autumn of 2020, project declines in GDP of between 2.4% and 8.7% for 2020 relative to 2019.<sup>2</sup> In this context, the efficient use of public resources is more critical than ever. During the pandemic, however, scientific evidence, the synthesis of this evidence, and guidance for government ministers and practitioners based on this have established themselves steadily more securely as a basis for decisions. This process has been subject to continuous public and professional scrutiny and has not just survived but is now seen as crucial to decision making by governments and by front line practitioners. It is now time to ensure that this process is robust in a public services context.

For this process to deliver the best guidance and continuous public sector improvement, every link in the evidence chain needs to be strong. These links comprise different capabilities however – trials skills and capacity for evidence generation, synthesis skills and capacity for systematic reviews and meta-analyses, translation skills and capacity for guidance production, and adoption capability in every public service. Quality control capability is needed to test each of these links in the evidence ecosystem.<sup>3</sup> A range of standards is therefore required, for methods by which evidence is generated, reviewed, translated into guidance, disseminated, and applied across each public service.

Reflecting increased reliance on evidence-informed policy making and expansion in evidence production, scores, probably hundreds, of professional bodies and specialist societies

publish guidance for practitioners working in their sectors. National “What Works Centres” have also been established which, to varying extents, generate and synthesise evidence on the effectiveness and cost benefit of public service interventions in various policy areas, and translate distilled evidence into guidance and intervention toolkits for policy makers and practitioners. Together, these What Works Centres are estimated to cover more than £250 billion of public expenditure annually.<sup>4</sup>

## **“What Works Centres cover more than £250 billion of public expenditure”**

## The What Works Network

In 2007 it was proposed that the model represented by the then National Institute for Clinical Excellence (NICE, see below) should be seen as a prototype excellence institute (What Works Centre) and replicated in other public services, and that a forum (the What Works Council) should be established for these organisations to share expertise on evidence.<sup>5</sup> After these proposals found favour at an Institute for Government conference in 2010, the Network was inaugurated by the UK Cabinet Office in 2013 when the Council met for the first time. Numbers of What Works Centres and the size of the What Works Council grew rapidly thereafter.<sup>4</sup> This growth reflects the realisation across sectors that the Network represents a new opportunity to build and maintain the evidence foundations of public services and to contribute to national government and, through service commissioners and practitioners, to increase the quality of local services. Most persuasively, the Network is a new, systematic way to meet people’s needs based on good science. These incentives are shared by many charitable bodies, trusts and foundations as well as publicly funded research organisations like the Economic and Social Research Council (ESRC<sup>6</sup> see below). Government support for the Network, not least from Sir Jeremy Heywood the former Cabinet Secretary, has been strong. Led from its inception by David Halpern, since 2015 the national What Works Advisor, the Network is vibrant, motivating, and developing rapidly. It is also increasingly relied upon by government. As an example, in

support of the most recent Spending Review, the UK Treasury commissioned evidence briefings, Treasury spending team training and input on guidance from the What Works Centres.

## **“The Network is vibrant, motivating, and developing rapidly.”**

Since its sphere of influence includes central government and essential services across the UK in which very substantial public funds are invested, the Network needs to be carefully nurtured.

To summarise, “What Works” is a UK government-led initiative designed to improve evidence generation and translation so that decision-making in the public sector can be improved.<sup>4</sup> Its aim is to increase effectiveness and efficiency across public services at national and local levels. What Works is based on the principles that good decision-making should be informed by the best evidence available, and that if evidence is not available, high quality methods should be used to generate it.

**What Works comprises a network of What Works Centres and a What Works Council** where Centres can share information and expertise about evidence and interact with funders, government scientific advisors and other relevant organisations. **Centres aim “to help ensure that robust evidence shapes decision-making at every level by:**

- ◆ Collating existing evidence on the effectiveness of programmes and practices
- ◆ Producing high quality synthesis reports and systematic reviews in areas where they do not currently exist.
- ◆ Assessing the effectiveness of policies and practices against an agreed set of outcomes.
- ◆ Filling gaps in the evidence base by commissioning new trials and evaluations
- ◆ Sharing findings in an accessible way.
- ◆ Supporting practitioners, commissioners and policymakers to use these findings to inform their decisions.”

**Criteria for What Works Network membership<sup>4</sup> are its IMPACT principles which require Centres to be:**

- ◆ **Independent:** Providing independent, unbiased advice to users, retaining editorial control over all research and products.
- ◆ **Methodologically Rigorous:** Using a clear and consistent process for evidence generation and synthesis; engaging with the wider academic and policy community to assure the quality of evidence products, for instance through peer review and giving primacy to findings from high-quality impact evaluations through a robust system for ranking evidence.
- ◆ **Practical:** Playing a leading role in driving the use and generation of evidence in a specific, pre-defined policy area across the United Kingdom; committing to the principle that it is both possible and useful to compare the effectiveness of different types of intervention and practice and making practical steps towards evaluating and improving the Centre’s own impact.
- ◆ **Accessible:** Putting the Centre’s target user group at the heart of all activities, and sharing evidence with users at no cost in formats that are easy to understand and that enable them to make practical decisions on the basis of “what works”.
- ◆ **Capacity-building:** Mobilising evidence and working to ensure that it is put into practice by decision-makers, and building user groups’ understanding of how and when to use and generate evidence so that they can make better use of the Centre’s evidence products and add to the international evidence base.
- ◆ **Transparent:** Providing comprehensive, easy-to-understand information about the methods and limitations behind the Centre’s output, and publishing both the research generated and the evidence around the impact of the Centre’s work.

The National Institute for Clinical Excellence<sup>7</sup> – now Health and Care Excellence (NICE), founded in 1999, was designated the UK’s first What Works Centre. NICE guides decision making in the NHS through technology appraisals, guidance, and quality standards. The independent regulator of health and social care services in England and Wales, the Care Quality Commission (CQC), uses NICE guidance and quality standards to inform its questions and key lines of enquiry.<sup>8</sup> These in turn inform CQC ratings, which are regularly reviewed. Since the role of clinical judgement in applying NICE guidance remains important, CQC does not

check compliance with NICE guidance; only the adoption of the conclusions of NICE Technology Appraisals is mandatory.

The What Works Centres produce guidance in various formats not just for service users but mainly for practitioners, policy makers and service commissioners. By the beginning of 2020 there were independent What Works Centres for education (the Education Endowment Foundation (EEF) established in 2011 to improve the educational attainment of the poorest pupils in English schools<sup>9</sup>), crime reduction (WWCR, part of the College of Policing founded in 2013<sup>10</sup>), early intervention (Early Intervention Foundation (EIF<sup>11</sup>)), local economic growth (WWG<sup>12</sup>), aging better (CAB<sup>13</sup>), wellbeing (WWW<sup>14</sup>), homelessness (Centre for Homelessness Impact (WWH<sup>15</sup>)), and children's social care (WWCSC<sup>16</sup>); affiliate centres for youth offending (Youth Endowment Fund (YEF<sup>17</sup>)), youth employment (WWIYE<sup>18</sup>), and transforming access and student outcomes (TASO<sup>19</sup>); and two independent associate centres: the Wales Centre for Public Policy (WCPP<sup>20</sup>) and What Works Scotland.<sup>21</sup> A What Works Centre for Adult Social Care is envisaged.

What Works Centres are funded by government departments and/or other public, private and third sector bodies. For example, YEF is funded by the Home Office, EEF by the Department for Education, and the EIF through contracts, grants, sponsorship, and donations from government, trusts and foundations, corporations, and individuals. Currently, EIF receives around three-quarters of its funding via a cross-government grant from a consortium of government departments and agencies, made up of the Department for Education, Department for Work and Pensions, Department of Health and Social Care, Ministry of Housing, Communities and Local Government, and Public Health England. Current or recent non-governmental EIF funders include ESRC and the Battersea Power Station Foundation. CAB is funded by the National Lottery Community Fund.

Funding for the What Works Centres includes a £125m founding grant from DfE for EEF for the period 2011-26, £69m revenue and operating income for NICE in 2018/9, £200m for the period 2019-28 from the Home Office for YEF, a £50m endowment from Big Lottery for the

Centre for Aging Better and £2.5m/year funding for a selection of Centres from ESRC. Funding for the What Works Centre for Crime Reduction is not accounted separately from College of Policing funding of £36m in 2017/8. ESRC (part of UK Research and Innovation funded through the science budget of the Government Department for Business, Energy, and Industrial Strategy) also co-funds related, non-What Works organisations such as the UK-wide Alliance for Useful Evidence, an open network which champions the use of evidence in social policy and practice.<sup>22</sup> ESRC support for some What Works Centres makes it easier for leading social scientists to evaluate the availability and quality of evidence underpinning public policy interventions, compare the effectiveness of interventions, and advise those commissioning and delivering interventions to ensure that their work can be evaluated effectively.

This is not the place for an exhaustive description of all the Centres. In summary, they function in a variety of different ways and in various parts of the evidence ecosystem. A few generate new evidence, in EEF's case from more than 160 randomised trials by 2019. NICE generates guidance, technology appraisals and quality standards but not primary evidence. YEF funds programmes designed to prevent youth offending and generates new evidence by funding the evaluation of these programmes. Most Centres publish evidence reviews. Some Centres publish toolkits of interventions and rank these according to the strength of evidence of effectiveness and cost benefit.

Centres increasingly translate their assessments of evidence into advice and guidelines on best practice. For example, EEF has produced guidance for teachers on topics such as improving literacy, teaching maths skills, and making the best use of teaching assistants; and WWW has published guidance for employers on investing in employee wellbeing. Some Centres publish reports designed to increase understanding of the causes of problems as well as reports on what works to solve or ameliorate them. For example, the Centre for Aging Better has published a report on the role and impact of language and stereotypes in framing old age and aging in the UK. The What Works Centres have become avowed 'bridge' institutions between the producers and users of evidence

and vary in the extent to which they advocate reform based on this evidence and the guidance they produce from it. This variation is apparent in Centres' overall aims. For example, CAB states, unequivocally, that it "changes policy and practice and works with partners across England to improve employment, housing, health and communities"<sup>13</sup> whereas the Centre for Crime Reduction "collates and shares research evidence on crime reduction and supports its use in practice."<sup>10</sup> EEF "aims to support teachers and senior leaders by providing evidence-based resources designed to improve practice and boost learning"<sup>9</sup> whereas EIF "champion(s) and support(s) the use of effective early intervention to improve the lives of children and young people at risk of experiencing poor outcomes."<sup>11</sup>

## The Challenges

In just six years the What Works Network has established itself across the public sector as a new means of improving services. It represents a UK evidence grid connecting evidence generators with evidence transformers and, perhaps less effectively so far, with evidence users in government and in school classrooms, local authorities, police command units, hospitals, and care homes, for example. But its rapid expansion also brings challenges.

### **"The What Works Network is a UK evidence grid connecting evidence generators, evidence transformers and evidence users"**

The IMPACT principles<sup>4</sup> offer a way to understand and meet these challenges. For example, there is no common currency for ways in which evidence is generated and synthesised, and no recommended quality assurance mechanism for these apart from peer review and prioritising unspecified "high quality impact evaluations through a robust system for ranking evidence." But there is little consensus on such a ranking. As a 2018 internal, What Works Network retrospective points out, "The What Works Centres have developed their own methodologies for conducting systematic reviews."<sup>4</sup> One guidance

producer said that, "...drawing evidence from across the centres is a bespoke process. Even within the network each centre has different evidence standards and resources. Expecting policymakers to get to grips with each one is unreasonable." Established, reliable methods are available however (see sections on the Cochrane and Campbell Collaborations below).

### **"Even within the network each centre has different evidence standards and resources. Expecting policymakers to get to grips with each one is unreasonable."**

Evidence needs to be generated when a new intervention supported by a plausible theory of change appears, when comparisons of the relative effectiveness and cost benefit of two competing interventions are lacking, and when evidence that an intervention is effective is available but not information about how it can be implemented. Some What Works Centres fund and supervise evaluations of effectiveness and cost benefit themselves. Others need close links with evidence generators, through research and development schemes like the National Institute for Health Research in the NHS<sup>23</sup>, or the ESRC, for example. Further ways to contribute to the research agendas of these funders need to be identified.

Taking practical steps towards evaluating and improving the Centre's own impact is also a key IMPACT principle. This is clearly important, but it is left to individual Centres to do this when a common approach, commissioned centrally, would yield actionable recommendations across Centres as well as Centre specific recommendations. The organisation Frontier Economics has been commissioned by ESRC to examine the value of its (limited) investments in What Works Centres, but several Centres are not funded by ESRC.

Centres are committed to providing independent, unbiased "advice"<sup>4</sup> (not formal guidance) about what works but the scope of this is not defined. Commitment to sharing evidence with evidence users is also an IMPACT principle but this stops

short of a commitment to promote guidance. This reflects current ambivalence in the IMPACT principles towards Centres' practice and policy changing roles; whether or not they have a campaigning function is not clear. The IMPACT principles could usefully include commitment to translating distilled evidence into formal guidance, as published by NICE and in EEF's guidance reports. Since storytelling as well as quantitative evidence is important in achieving policy and practice change, this could be emphasised as well.<sup>24</sup> The What Works Network is only as good as the impact it achieves.

## Advice, guidance and professional judgement

Debate about the role of evidence, advice, and guidance, and where the roles of decision makers and scientists begin, overlap and end, has been sharpened in the COVID-19 outbreak. For example, the deputy chief scientific advisor in England has said "We have been very focused on trying to give really high-quality advice, completely rooted in evidence".<sup>25</sup> Clearly, in this context, the evidence, however well it is distilled, is not enough. Translation by scientific advisory groups, such as the Advisory Group for Emergencies (Sage), and What Works Centres into published advice, guidance or recommendations is also needed. Prescription goes too far, however. As NICE acknowledges, there needs to be room for professional judgement in applying guidance; guidance is not something to be obeyed or disobeyed. In this context Sir Adrian Smith, the incoming Royal Society president, has said that ministers should stop claiming simply to be obeying scientists.<sup>25</sup> Similarly, in a surgeon's outpatient clinic, or in a school classroom, professionals should take full account of guidance in the decisions they make, and be accountable for doing this, but exercise discretion in its application.

As already noted, NICE also publishes technology appraisals the findings of which, by statute, must be implemented in the NHS within three months. Such an approach seems relevant for other What Works Centres which assess evidence of effectiveness of technological innovations, for example the Centre for Crime Reduction in assessments of the effectiveness of police

officers' body worn cameras. But mandatory implementation is not applicable in many other contexts. EEF guidance on improving behaviour at school, for example, concludes that universal systems are unlikely to work for all students and for those pupils who need more intensive support with their behaviour, and that a personalised approach is likely to be better.<sup>26</sup> The schools regulator, Ofsted,<sup>27</sup> could use these findings to formulate questions in school assessments but because professional teacher judgements are important for deciding which approach to adopt, mandatory implementation is not needed.

Mobilising evidence – disseminating and promoting it – and "...ensur(ing) that it is put into practice..." are two quite different things. This distinction needs to be drawn more clearly so that What Works Centres' functions are not confused with, or duplicated by, those of service regulators.

## Transparency

Turning to the last IMPACT principle, transparency, it is stated that Centres should "...provide comprehensive, easy-to-understand information about the methods and limitations behind the Centre's output; publishing both the research generated and the evidence around the impact of the Centre's work." But "research" is not defined, and even easy to understand information about methods may be a distraction to the users of Centres' guidance and toolkits – for example a police commissioner or a clinical commissioning group – who just want to know from an organisation with the necessary credentials what works and what represents best value. For quality assurance though, trials should comply with published trial standards; systematic reviews should comply with Cochrane/Campbell standards<sup>28,29</sup> (see below); and guidance should be compiled according to AGREE standards.<sup>30,31</sup> At present, such standards have rarely been set or audited. Accreditation arrangements – the means of earning recognition in each of these areas – and a process for assessing the impact of Centres on the sectors in which they work and which they aim to improve are also needed.

## Overlap and complexity

Overlap between Centres' interests is also becoming a problem. For example, EEF, YEF, WWW and WWCS all publish guidance on services for young people. As an example outside the What Works Network, the Institute for Effective Education at the University of York working with the Center for Research and Reform in Education at Johns Hopkins University in the United States publishes "Best evidence in brief" to "empower educators with evidence".<sup>32</sup> EEF, the What Works Centre for education, has much the same aim, "to support teachers and senior leaders by providing evidence-based resources designed to improve practice and boost learning". The Centres for Better Aging and Adult Social Care also have overlapping interests. Most Centres have published guidance on responding to the Covid-19 epidemic. In contrast, the Royal College of Emergency Medicine (RCEM) – the UK and international professional body for specialists in emergency medicine – decided not to publish guidelines for doctors working in hospital emergency departments because it was realised that for consistency it was better to rely on a single source of guidance from central government and because in rapidly changing circumstances a small organisation like RCEM could not keep up with the need to repeatedly revise such guidance.<sup>33</sup> New evidence in increasing volume is being published in many other contexts as well. Overlap may be preferable to gaps in provision, but this needs to be managed, especially when, as now, guidance is being produced by different, unaccredited producers on the same issue.

## The flood of evidence and guidance

As the examples above show, substantial increases in the quantity of published evidence, evidence reviews and guidance and numbers of organisations publishing these are not confined to the What Works Network. Universities, think tanks, foundations, trades unions, specialist societies and other organisations in education, healthcare and other sectors also review evidence and publish guidance. Not surprisingly, as a UK government minister put it recently, "I'm

overwhelmed by evidence." With this volume of evidence and numbers of sources of guidance, lack of quality standards and accreditation arrangements for producers make it exceedingly difficult for users to decide which guidance is authoritative. Worse still, this tsunami of evidence from multiple and unregulated sources may act as a deterrent to seeking and using guidance. As a special adviser put it, (I am) "quite cynical of evidence presented to me as everyone has 'evidence' to back themselves up." In turn, demand for guidance and the evidence from which it is derived is undermined. This negative effect on demand means that high-quality guidance which is available can be ignored, to the detriment of decision making. Guidance and the evidence which underpins it still needs to be contestable, however. The independent shadow monetary policy committee is an established, organised example of how this can be done in a specific context.

In summary, standardisation of evidence synthesis, guidance production and delineation of the evidence mobilisation roles of What Works Centres and those of service regulators are lacking, as are accreditation ("earned recognition") arrangements for organisations which synthesise evidence and publish guidance. Standardisation and delineation in these areas would increase guidance quality, simplify an overly complex evidence ecosystem, and build bridges which would accelerate public service improvement. At a time when effective public services and the efficient use of public resource have never been more important, this action is needed to ensure that the methods for finding out, promoting and adopting what works best and what represents best value are clear, and used.

## Standardisation and earned recognition

Choosing interventions wisely will always need careful judgement by policy makers, commissioners and practitioners alike but the current volume, complexity and duplication of evidence synthesis and guidance on many important decisions in public services could be simplified if consistent, authoritative standards are set across public services. Such standards

and arrangements for earned recognition are already available in parts of the evidence ecosystem in some sectors and could be extended more widely. Since achieving this is a system challenge, independent, external review of the What Works Network would be helpful.

**“Arrangements for earned recognition are already available in some sectors and could be extended more widely”**

## **Trial standards**

Taking the different elements in turn, in healthcare, the Medicines and Healthcare products Regulatory Agency (MHRA<sup>34</sup>), an executive agency of the Department of Health and Social Care, regulates clinical trials of medicines and medical devices. Such trials standards could be extended to public services other than health in the same way that the Campbell Collaboration has translated the evidence synthesis functions of the Cochrane Collaboration into other policy areas.

Consolidated Standards of Reporting Trials (CONSORT<sup>35</sup>) have been developed to alleviate the problems arising from inadequate reporting of randomised trials in healthcare. They are a standard way for authors to report trial findings and interpret them. The CONSORT Statement comprises a checklist and a flow diagram. The checklist standardises trial design, analysis, and the interpretation of findings; the flow diagram shows the progress of all participants through the trial. CONSORT is endorsed by prominent general and specialty medical journals and by Cochrane and Campbell Collaborations. CONSORT is part of a broader effort to improve the quality of research used in decision-making in healthcare. This approach to standardisation and transparency could be adopted in other public services contexts. In 2019 the UK government's chief scientific adviser, Sir Patrick Vallance, told the What Works Council that he was keen to see more standardisation in research reporting.<sup>36</sup>

## **Evidence synthesis standards**

Turning from evidence production to evidence synthesis, the international Cochrane Collaboration<sup>28</sup> organises health research findings to facilitate evidence-based choices about health interventions involving health professionals, patients, and policy makers. Cochrane's sister organisation, the Campbell Collaboration<sup>29</sup>, promotes evidence-based decisions and policy through the production of systematic reviews in business and management, climate solutions, crime and justice, disability, education, international development, knowledge translation and implementation, methods, and social welfare. Cochrane and Campbell systematic reviews collate evidence that fits pre-specified eligibility criteria to answer a specific research question. They aim to minimise bias by using explicit, systematic methods documented in advance with a protocol. Cochrane's community of contributors includes researchers, practitioners, health service users, policy makers, editors, translators, and others, all of whom share a commitment to generating reliable, up-to-date evidence. Editorial support and publication of Cochrane Reviews is co-ordinated by topic-related Cochrane Review Groups, organised into eight Networks.<sup>28</sup> This activity is underpinned by a central executive team which provides strategic support and direction and leads initiatives to improve and assure the quality of review activity. Cochrane publishes five main types of systematic reviews and has developed a rigorous approach to the preparation of each:

- ◆ Reviews of the effects of interventions
- ◆ Reviews of diagnostic test accuracy
- ◆ Reviews of prognosis
- ◆ Overviews of reviews
- ◆ Reviews of methodology

This categorisation is not wholly applicable to sectors other than health, but it emphasises that the purpose of evidence synthesis needs to be defined. Clearly, in the context of “what works” the first category is most relevant.

These two international organisations have developed and refined rigorous evidence synthesis standards which are set out in their successive handbooks. However, these

standards have yet to be used as a benchmark for formal or informal accreditation of organisations which synthesise evidence. In his introduction to the latest Cochrane handbook, Professor Julian Higgins, senior editor, goes only as far as to “encourage those conducting systematic reviews to update their knowledge and skills with the help of this Handbook”.<sup>37</sup> He states that “We are keen to ensure that Cochrane Reviews are useful to end users, including health professionals, policy decision makers and consumers.” But these worthy sentiments are not supported by the framework for earned recognition which is needed to maximise the chances that this will happen.

## Guidance standards

Turning to standards and earned recognition for guidance producers, NICE evaluates the process of practice guideline development and the quality of reporting using the Appraisal of Guidelines for Research and Evaluation (AGREE) Instrument.<sup>30,31</sup> AGREE II, comprises 23 items organised into six quality domains, and is a valid and reliable, internationally recognised standard for the production of practice guidelines. This NICE Accreditation Programme assesses guidance producers in the health sector so that guidance users and commissioners can recognise sources of quality information.<sup>38</sup> High demand for this accreditation illustrates the benefits this can have for guidance producers. “Life is so much easier now” commented one. Other drivers for seeking accreditation (earned recognition) are that it provides a way for organisations, including small specialist societies, to demonstrate, including internationally, that they are performing well. For NICE, accreditation provides an important way to celebrate and incentivise high standards. Disadvantages for organisations seeking accreditation include the time necessary to complete the necessary processes – this usually takes around three months. For NICE, this process is not without cost, for example costs associated with an accreditation committee.

The production of guidance is not an academic exercise. Guidance based on distilled evidence of effectiveness always relates to a specific intervention or programme and is designed to affect the decisions of policy makers and/or practitioners who deliver services at substantial

cost to taxpayers. Guidance has the potential to generate harm as well as good. On this basis, the freedom to publish guidance needs to be constrained to ensure that guidance is formulated according to recognised standards.

More than 60 organisations have achieved this NICE accreditation including many medical Royal Colleges and their Faculties, many specialist societies, and a range of UK and international publicly and privately funded healthcare organisations. These display the NICE Accreditation Blue Iris Mark on guidance produced through the approved process which assures health professionals that they are accessing the best information available to enable them to make informed decisions. Applying this open, transparent, light touch yet rigorous model in other sectors would bring consistency in the way guidance is presented and generate a publicly available list of accredited guidance producers.

## Regulation

Poor and excessive regulation can limit growth, but regulation is necessary for the proper ordering of any economy and to ensure that people and their investments are protected.<sup>39</sup> In the context considered here, this is needed to quality assure the generation and synthesis of evidence on what works and what doesn't in the public sector together with the production of policy and practice guidance based on this distillation of evidence. The wider application of standard setting and accreditation arrangements already in place in some parts of the evidence ecosystem fit with recent emphasis on the importance of the wider societal impacts of regulation and of a more transparent and more proportionate system for regulatory appraisal.<sup>39</sup> As noted, the What Works Network covers services costing £250 billion annually.<sup>4</sup> On this basis, proportionate regulation is justified and, with the examples already cited in mind, could be achieved without creating new regulators and the need to invoke the One-In-Two-Out Rule or add to the red tape challenge.<sup>39</sup>

Close relationships between Centres and service regulators are important if regulators such as Ofsted, CQC and Her Majesty's Inspectorate of Constabulary and Fire and Rescue Services (HMICFRS<sup>40</sup>) are to respond promptly to

authoritative guidance that policy and/or practice needs to change. If distilled evidence shows that, say, children's educational attainment would be very likely to suffer if a technological advance in education was not adopted, then EEF could consider publishing its appraisal to this effect and look to government to give this the same force as the findings of a NICE technology appraisals in health or care services. Although Ofsted occasionally refers to EEF guidance reports,<sup>41</sup> it has not so far used this guidance to inform its inspection framework in a systematic or formal way. However, since Ofsted aims to ensure that "schools are able to introduce and implement change effectively"<sup>41</sup> and EEF provides the evidence and guidance on where such change is needed, a more structured, purposeful relationship between the two organisations seems important.

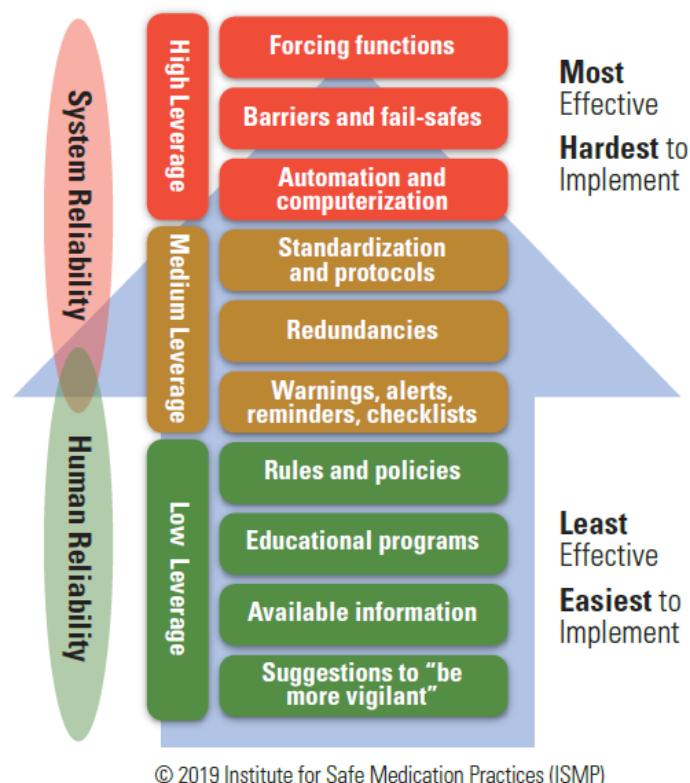
The current association between the What Works Centre for Crime Reduction and HMIC may be the closest among Centre-regulator relationships. The Centre is represented on all HMIC reference and steering groups and contributes to inspection criteria. The Inspectorate has found that some police forces produce their own 'crime prevention toolkits' the quality of which is not clear, and, in 2015, that "...when officers and staff were asked how they knew 'what worked' there was limited awareness, understanding and use of the existing evidence base and how to access it; just over half of forces were unable to provide consistent evidence of being able to identify what works."<sup>42</sup> Clearly, such findings are a useful basis on which to build.

If practitioners can reasonably be expected to take full account of guidance produced by the What Works Centre in their sector, it seems reasonable for the regulator/inspectorate in that sector to seek assurance that this has happened.

In this context, evidence and guidance users are service regulators. In the context of campaigning for change, users of evidence and guidance also include policy professionals, professional bodies, and service commissioners. These different roles need to be clearly understood so that What Works Centres know where to forge the necessary links to achieve their impact.

The roles of service regulators in making sure that evidence and guidance changes practice have rarely been considered. This is surprising

since such "forcing functions" are especially powerful levers for change. In contrast, the much softer "Understanding of the behavioural needs of research (not evidence or guidance) users" has been identified as potentially relevant to a knowledge mobilisation campaign.<sup>43</sup> This constitutes "available information", an example of a comparatively weak lever. The hierarchy of policies relevant to safe medication practice is relevant here.<sup>44</sup>



## Professional bodies and the Evidence Declaration

Since What Works Centres aim to promote evidence-informed change in public services as well as in government their target user groups must also include the professional bodies which set standards in and for their various professions. These institutions have found and sustain ways to advance standards based on reliable evidence. Examples include the medical Royal Colleges, the Chartered College of Teaching, and the College of Policing which are powerful influences on decision making by over a million UK public sector professionals. They mobilise evidence through continuously honed assessments which lead to career-advancing institutional membership and fellowship. Without

demonstrating knowledge of relevant evidence and the skills to apply it in practice, success is unlikely. They also do this through publication of evidence-based policy statements and through institutional support of career-long professional development. Their peer-reviewed journals, profession-leading education programmes and networks of advisers are further ways in which professional bodies promote evidence.<sup>45</sup>

These organisations, almost all self-funded, provide powerful incentives for professionals to excel – prestigious prizes and medals, eponymous honorary lectureships, and professorships. These are often awarded for excellence in evaluation and development and then, through personal example, for pioneering and promoting better practice based on this. In 2017, 27 UK professional bodies signed a formal declaration that they “expect all their members to take full account of evidence and evidence informed guidance in their daily decisions and advice to individuals and organisations.”<sup>46</sup> This declaration also includes a commitment to support rigorous evaluation – to support the generation of new evidence.

## Whole System Appraisal

At present, the What Works Network provides the only link between evidence production, evidence synthesis, guidance production, and guidance adherence. Although external quality assurance is needed across this whole evidence ecosystem, for example through the National Audit Office (see below), the arrangements for this need to be co-produced. A transparent, streamlined, common approach is needed across services.

strategic objectives



*NAO and What Works Interests in Common*

The National Audit Office (NAO<sup>47</sup>), overseen by the Public Accounts Commission, scrutinises public spending to drive public service improvement.

Its work includes value-for-money studies, local audit, investigations, and international activities. It identifies systemic issues and shares its cross-government insight through guides setting out good practice. NAO scrutiny of the What Works Network would have much wider scope than the forthcoming review of ESRC’s investments in a minority of What Works Centres. At a time of great uncertainty in the aftermath of the UK’s exit from the EU and the COVID-19 epidemic, such a wide-ranging review is likely to generate many recommendations across the public sector, including on where new Centres are needed, how simplification can be achieved, and where new bridges need to be built. This seems especially important during another period of financial restraint on public bodies when government is looking to deliver services in new ways and with fewer resources. To date, the only report on the What Works Network was produced by the What Works Team itself.<sup>4</sup> Independent NAO assessment would be the first comprehensive external appraisal. Like the What Works Network, NAO focuses on the issues of greatest priority, developing and applying knowledge, increasing its influence, public service improvement and delivering high performance.<sup>47</sup>

## Demonstrating What Works Centre impact

The UK Research Excellence Framework (REF) was the first national assessment of research carried out in higher education institutions (HEIs) to include the impact of research outside academia.<sup>48</sup> In the most recent, 2014 REF, impact was defined as ‘an effect on, change or benefit to the economy, society, culture, public policy or services, health, the environment or quality of life, beyond academia’.<sup>48</sup> Just like universities, What Works Centres engage with a range of public, private, and charitable organisations. The REF impact database makes the impact case studies widely available. This approach therefore offers a starting point for demonstrating What Works Centre impact and Network impact more widely. As part of the 2014 REF, UK HEIs submitted 6,975 impact case studies demonstrating, often from multidisciplinary work, the substantial impact of their research on wider society — both within the UK and overseas.<sup>48</sup>

## Discussion

The need for simplification of the What Works Network has already been recognised, for example by pooling resources, sharing data, running joint trials, and collaborating to accelerate evidence use. Effort to join up behind the scenes, for example between EEF, EIF and WWCS on evidence reviews on digital interventions for children, illustrate that impetus to collaborate already exists. Joint, rather than single centre trials could show where interventions achieve multiple outcomes or have negative interaction effects, for example by improving attainment but also, perhaps, reducing wellbeing.

Formal, external review would help to identify further opportunities to collaborate and reduce duplication, for example of work to synthesise evidence on services for young people. The insights which external review would generate would facilitate network as well as knowledge exchange, for example within and between the devolved nations and English cities and regions.

Proportionate regulation could also improve the influence and impact of What Works Centres and other organisations by making it easier for practitioners, commissioners, policy makers, and public service users to locate and access quality assured guidance. Extending rigour in the synthesis of evidence and the guidance on which guidance is built is also justified to match increasing rigour and higher standards in evaluation. Here, for example, sponsored by No. 10, the What Works Team has formed a joint evaluation sciences team with HM Treasury and have been working on a cross-government Evaluation Transformation Programme. The March 2020 Budget<sup>49</sup> signals this:

Section 1.62: “All new spending will be accompanied by a rigorous new focus on outcomes. To support this the government is conducting an exercise across departments to identify savings and projects that do not provide value for money or support these priorities. The government will redirect this spending through the Comprehensive Spending Review (CSR) to help achieve its priorities. The CSR will also set out plans to improve the use of data, science, and technology across the public sector, and to ensure all programmes are supported by robust

implementation and evaluation plans.

Section 1.68: In order to ensure that government programmes deliver for the public, it is crucial that spending decisions are based on robust evidence and evaluation of their impact. At the CSR, the government will assess the state of evaluation across all departmental spending programmes and require every department to produce plans to improve evaluation of its work. This will lead to more evidence-based allocation of public funding and better outcomes in the long term.”

Clearly though, if these steps are not accompanied by comprehensively applied standards in evidence synthesis and guidance production, their effectiveness and reach are likely to be limited. This recommendation fits with ministers’ 2018 reflections on The What Works Network.<sup>4</sup> “The What Works’ initiative is now more firmly embedded in the training and development of the policy profession – the backbone of the civil service – than ever before. But we can go further – and we need to. We have hugely talented public sector leaders, but we can still do more to make the best evidence available to them, and to ensure that the time and money invested in our public services are used to the best possible effect.” To return to the national grid analogy, the new connections recommended here would do much to ensure that the power of evidence drives service improvement.

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