

Topping up existing trials - a syndicated approach to wellbeing research

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About the authors

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About the What Works Centre for Wellbeing

We are an independent collaborating centre and the aim of our work is to improve wellbeing and reduce misery in the UK. We believe that this is the ultimate goal of effective policy and community action. By accelerating research and democratising access to wellbeing evidence, we develop and share robust evidence for governments, businesses, communities and people to improve wellbeing across the UK.

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Introduction and background

The UK Government has made an ongoing commitment to collecting data on citizen wellbeing since 2011, when the UK's Office for National Statistics (ONS) began a large-scale effort to track wellbeing in terms of *multidimensional quality of life*, as part of the Measuring National Well-being (MNW) programme. It set out a list of measures used to monitor and report on progress in 10 wellbeing domains, including our health, where we live, what we do, and our relationships.

Britain is also home to a thriving research community concerned with the measurement of subjective wellbeing (SWB) - an increasingly active area that brings together over 30 years of wellbeing research from the philosophical and social sciences.

Wellbeing as an overall outcome and measure of social progress sits at the heart of many government policies. Education, employment, and health are important in their own right, and are also key drivers of people's wellbeing by contributing to their quality of life. If employment does not contribute to wellbeing - either directly through imparting a sense of purpose, or indirectly through the economic benefits of wages, what is it really for?

Despite the rising number of randomised trials in the UK that allow us to understand the impacts of a growing range of policies and other interventions, the field of wellbeing continues to be dominated by cross-sectional, correlational studies in which a measure of wellbeing is correlated with a characteristic thought to influence it.

Outside the medical literature, the use of wellbeing measures in trials is largely confined to evaluations of psychological and behaviour change interventions, targeting at-risk clinical and non-clinical groups.

We know far too little about the effects of UK public and social policy on wellbeing as only a handful of trials have incorporated generic wellbeing measures into their protocols.³ So far, areas have included: Transport (commuting), Psychological therapies, School wellbeing/resilience programmes and Clean air/green space.

Failure to measure impacts on wellbeing increases both the false discovery rate of trials, and the false negative rate. Interventions, like cultural experiences, may have limited benefits in terms of educational attainment, but might improve people's wellbeing and satisfaction with their life. Other interventions, like intense after school or weekend tutoring, might have positive effects on educational attainment, but simultaneously reduce wellbeing, and have long term, detrimental impacts on people's life satisfaction.

³ For further details and examples see Strategic Priorities: 3. Coverage of outcome measures pages 9-10.

Placed into this context, there is a powerful need to learn more about: 'what works' for wellbeing; whether wellbeing benefits are positively or negatively correlated with other outcome measures; and what types of interventions are most beneficial to wellbeing. Given the intersection between wellbeing and other outcomes, and a huge range of interventions for which wellbeing is a second order outcome, this cannot be limited to the study of interventions that are explicitly focused on improving wellbeing, must take a broader look at the effects of interventions more generally.

In this paper, we will:

1. Lay out the challenge that we face in identifying the impacts of interventions on wellbeing.
2. Present a potential solution in the form of the Wellbeing Top-Up Fund.
3. Describe both the practice and the strategy that we will use to administer this Fund over the coming years.

The challenge

There are a number of challenges associated with increasing the evidence base around the impact of interventions on wellbeing.

Focus

Wellbeing impacts are relevant to the work of *all* government departments. This diffuses responsibility for, and interest in, wellbeing across a huge range of stakeholders, and makes research in this area challenging.

Beyond analytical interest from the cabinet office, there is not a central government department with responsibility for citizen wellbeing, and so there is no obvious central source of focus for research into wellbeing.

This is unlike many other What Works Centres in the wider network which have central government funding administered by their relevant government department. For example, the Department for Education, which is sponsor for the Education Endowment Foundation and What Works for Early Intervention and Children's Social Care.

Funding

Randomised controlled trials are expensive to conduct. For example, an intervention might need to be delivered to hundreds or thousands of participants in order to achieve the statistical power needed for a robust trial.

Often substantial outlay is required to make this happen and to administer the intervention to such large numbers (although low cost interventions do, of course, exist). There are additional costs of funding the evaluation itself, often running to hundreds of thousands of pounds, and data collection via surveys.

Given the lack of focus in government and other major funders on wellbeing, it is difficult to get funding for interventions focused on wellbeing, or which capture wellbeing as a primary outcome.

Where wellbeing trials do exist in this space - for example What Works for Children's Social Care's *Happier, Healthier Professionals* programme - they tend to focus on low cost interventions. This means that our evidence base is skewed towards interventions that are low cost and easy to implement.

Measurement

Measurement of wellbeing in a trial context is challenging, with evaluators needing to select one of several possible outcome measures. Given the small number of trials conducted in the area of wellbeing, it is unlikely that many evaluators or researchers in domains outside of wellbeing are very familiar with the variety of measures available, and they may be unaware of how to identify the best measure. As such, to the extent that wellbeing measures are used in trials, they might not be the best ones for the task at hand, nor may they create a pool of trials with common outcome measures that can be used to build an evidence base. Without strong evidence from trials, it is also difficult to know ahead of time which measures are the most reliable for use in trials.

In an ideal scenario, trials would test the overall wellbeing effect of a given policy on a generic wellbeing measure - such as the change in Life Satisfaction - and identify clear primary and secondary pathways that are expected to affect wellbeing. If pathways were understood to be completely independent of each other, they would be added into the programme's Theory of Change. In practice, pathways to wellbeing improvements are not clearly distinct. For example, a policy which moves an individual from unemployment to employment may have a positive effect on their Life Satisfaction as a result of increased personal income and reduced levels of anxiety.

Statistical Parsimony

Much of the What Works Network pursues policies of statistical parsimony - that is, using the simplest possible analytical model, and conducting the smallest number of statistical tests possible, in order to maximise the rigour of the trial.

This approach has its origins in the nature of statistical testing. The default setting is to test for statistical significance at 5% - that is, that we aim to be 95% confident that two numbers (the treatment and control group averages, for example),

are different to one another, and hence 95% confident that the treatment effect is greater than 0. This percentage gives rise to our type one, or false positive, error rate - 5%. We expect trials run well, for intervention where there is no effect, to report a false positive about one time in twenty. The more statistical tests we run, the more likely it is we get a false positive on any given trial. This can be corrected for, for example using a Bonferroni correction which adjusts the level of proof we need to say that the effect is statistically significant in line with the number of tests that we run. This deals with the challenge of multiple statistical tests, but increases the sample size we need to have a well-powered trial.

The risks to rigour; the costs of ever larger trials; and the need to pre-specify outcomes in order to avoid statistical malpractice have pushed the What Works movement in the direction of single tests for primary outcomes, with relatively little flexibility. This has the effect of squeezing the space that can be occupied by 'second order' outcomes like wellbeing.

The Wellbeing Top-Up Fund

In response to the challenges, the What Works Centre for Wellbeing is embarking on a new research venture to achieve a low cost step change in the number of trials that measure wellbeing as an outcome. This initiative is called the Wellbeing Top-Up Fund.

What is the Fund?

A small fund established by the What Works Centre for Wellbeing in partnership with the Cabinet Office's Evaluation Task Force.

The Fund aims to:

- Identify trials that are either ongoing or under development, where funding is already agreed for the trial itself and its evaluation.
- Fund evaluators to collect data on wellbeing in addition to other outcomes being collected.
- Collect these data in a wellbeing trial data archive.
- Increase capacity among evaluators.

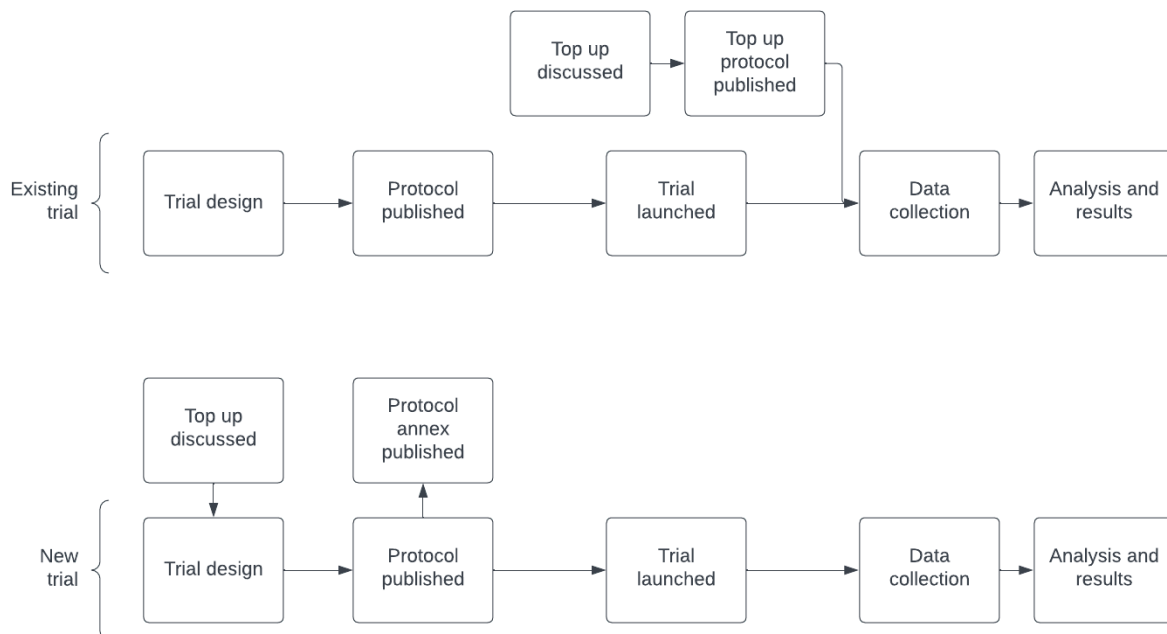
A syndicated model of research

Although the Fund is focused on wellbeing, it also serves as a pilot of a different way of doing research and evaluation, through syndication. This allows other What Works Centres, or government departments, that have an interest in the outcomes of particular trials or evaluations to contribute a relatively modest amount to the funding of evaluations and to allow their outcomes of interest to be collected.

Although this model runs the risk of free-riding (as it requires a primary funder of the trial to exist), the existence of funding within government departments and What Works Centres for trials in particular domains makes this unlikely. Instead, interventions that take place in schools (for example those funded by the EEF), could, where appropriate, also collect outcomes not just for wellbeing, but for youth violence, which is of interest to the Youth Endowment Fund, or longer term impacts on higher education, or youth employment (of interest to the centre for Transforming Access and Student Outcomes in Higher Education, or the Youth Futures Foundation respectively).

Most importantly, this syndicated model of research funding can allow less-well-funded What Works Centres, or areas that are of less core focus for government, to learn from trials that are already happening. Compared with funding new, additional trials of the same intervention to test for a different outcome, this approach preserves rigour, maintains the ethical case for the trial to exist in the first place, and saves public money.

The diagram below shows we envision the Top-Up Fund working with other trials:



Growing capability

Alongside the learnings from individual trials, we hope that the Top-Up Fund will provide an opportunity to upskill evaluators in wellbeing measurement. We have seen that even relatively modest investments by What Works Centres in a particular area can see increases in the capacity of evaluators. For example, in

researching serious youth violence, or child protection, in response to the creation of What Works Centres in those areas.

Building towards meta-analysis

Over time, we hope to be able to move towards rigorous meta-analyses of effect sizes on wellbeing within and across different policy domains. Although it is unlikely that we will reach this stage as a part of this pilot, we will make decisions that do not preclude future meta analysis.

How will the Fund work?

What Works Centre for Wellbeing will administer the Fund. We will work with other What Works Centres, government departments, and evaluators, to identify trials that are either currently in the field, or which are in development, and which meet particular criteria:

- Alignment with strategic priorities of the Fund (see below).
- Sufficiently large to detect moderate effect sizes.
- Makes use of primary data collection.
- Has participant wellbeing as a potential outcome, ideally in its theory of change.

Having identified up to fifteen suitable trials, the evaluator of each trial will be invited to submit a short application to the Top-Up Fund for funding of up to £5,000). This funding is intended to pay for additional primary data collection, in the form of adding wellbeing questions to surveys which will already be administered, and analysis of these questions.

Evaluators who are successful will be asked to populate a one page protocol addendum (see Annex A), which will be published on the open science framework and the What Works Centre for Wellbeing website. This protocol will detail the analysis plan for the wellbeing data collected. In most cases this will be a facsimile of the analysis strategy for the trial itself).

When data are collected, evaluators will analyse the data per the protocol and a short addendum to their final report will be published by What Works Centre for Wellbeing. We will also investigate data archiving in line with the policies of various other What Works Centres.

At the end of the Fund in March 2023, we will publish a synopsis report summarising the project's findings, as well as our learnings from the administration of the Fund itself.

Strategic priorities

Outlined below, the Fund's three main strategic priorities are intended to maximise the learning from the pilot scheme to facilitate future iterations of the Top-Up Fund and the future of wellbeing trials in the UK in general.

1. Coverage of domains

As wellbeing matters across a wide variety of domains, we aim to cover a wide variety of policy and practice areas, to be as broadly useful as possible. This will also enable us to better prioritise future trials funding under any future version of the Fund.

We will aim to cover at least three and up to five of the policy domains listed below:

- Ageing
- Early Years
- Education
- Child protection and children's social care
- Youth employment
- Social mobility and higher education
- Youth justice and serious youth violence
- Access to justice
- Mental Health
- Youth and social skills

2. Coverage of evaluators

We aim to build capacity in the evaluation sector around the use of wellbeing measurement in randomised controlled trials. We will do this by:

- Topping up trials being conducted by at least five different evaluating organisations.
- Funding no more than five evaluation top-ups for any given evaluator.
- To hold a workshop on wellbeing measurement attended by half of the evaluators on the Early Education Foundation evaluation panel, which is the largest and best established What Works Centre panel).

3. Coverage of outcome measures

The Top-Up Fund will aim to measure a diversity of generic wellbeing measures within trials, which will act as a proxy for the multi-dimensional concept of wellbeing. Generic wellbeing measures will cover the components of Subjective Wellbeing, encompassing evaluations, emotions, and psychological functioning. These will span the three key areas of SWB research:

1. The evaluative approach, which focuses on the cognitive evaluation of the conditions of one's life. Self-report measures have been developed that ask individuals to provide a global assessment of their lives as a whole or of specific domains of life;
2. The hedonic approach, which focuses on experiences of happiness, and the presence of positive and negative affect;
3. The eudaimonic approach which sees individuals as possessing underlying psychological needs which include a sense of purpose in life, a sense of autonomy, and the presence of positive relationships;

While we will target trials with outcomes that are known wider determinants of wellbeing, will not seek to include non-evaluative, domain-specific measures (eg. Improved physical health) This will ensure the evidence generated by the Top-Up Fund remains consistent across trials, allowing for the comparison of effect sizes, while also affording a degree of flexibility.

Our aim will be to collect each of the following measures in at least two trials each:

Wellbeing Domain	Outcome	Measure/Scale
Generic wellbeing (single-item)	Life Satisfaction;	Satisfaction with Life Scale (SWLS); ONS Life Satisfaction measure; USOC Satisfaction with Life measure.
Generic wellbeing (composite)	Subjective Wellbeing	ONS4 Personal Wellbeing; WHO-5
Mental Wellbeing	Mental Wellbeing	Warwick-Edinburgh Mental Wellbeing Scale (WEMWBS)
Psychological Wellbeing/Flourishing	Positive Psychological functioning	Ryff Psychological functioning scale
Affect	Positive affect; Negative affect	PANAS-20
Domain-specific satisfaction	Satisfaction with Health; Job satisfaction;	Satisfaction with Health; Job satisfaction;

Discussion

Wellbeing measurement is widespread, but occurs too rarely in the context of randomised trials, despite wellbeing being the ultimate goal of many policies and practices. Not knowing the wellbeing impacts of different interventions across a wide variety of domains may mean that we under-fund and undersupport some interventions that have positive wellbeing impacts, or overfund interventions that might achieve some other goal at the expense of wellbeing.

The Wellbeing Top-Up Fund, which will see an increase in the number of trials funded to collect wellbeing data alongside their main outcomes, will use this novel approach to data collection to help begin to close our knowledge gap around wellbeing impacts, and to help us set future directions for learning what works for wellbeing.