What are the most promising policies to increase wellbeing?

A scoping review

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Summary

In this report, I briefly scoped out the public policies that promise to be most effective at increasing wellbeing. The policies we found as most promising according to our grading criteria are mostly policies that are also widely valued and pursued outside of a wellbeing lens: unemployment, strong relationships, increased access to nature, and opportunities to volunteer.

Outline

In Section 1 I introduce the aim of the project and previous attempts to review the most promising policies governments can take to increase subjective wellbeing.

In Section 2 I explain the methods I used for this quick scoping review.

In Section 3 I present the results of my search and ranking of policies. Due to time constraints, I focus on discussing the most promising policies.

In Section 4 I discuss the limitations of the project, and recommend the steps future research should take to continue this project.

1 Introduction

The Happier Lives Institute researches the best ways to maximise wellbeing in the world. They use data about people's subjective wellbeing (how well people feel or how they think their lives are going, SWB from here on out) instead of relying on more indirect measures such as income or health, because income and health are only good insomuch as they improve people's wellbeing. In this project I sought to provide an overview of the areas with the most promisingly high impact policy-based interventions.

There is a rich literature reviewing the determinants of SWB (Azizan & Mahmud, 2018; Dolan et al., 2008; Mouratidis, 2021; Pollard & Lee, 2002) and analysing the impact of policy's effect on SWB (see Frijters et al., 2020). These articles tend to indicate that employment, long-term partnerships, health, socio-economic attributes, social contacts, and personality traits are the most important drivers of SWB. However, little work has summarised this literature into policy recommendations. The previous work that explicitly recommends policies are books, such as Clark et al. (2018), Layard (2020), or Frijters & Krekel (2021). The latter proposes that expanding access to mental healthcare and reducing air pollution would be extremely cost-effective. But these attempts lack scope, systematicity and structure.

Buettner et al. (2020) is the only work we know of that tries to score or rank a large number of possible policies in at least a somewhat systematic way. They asked 12 happiness scholars to rate on a scale of 1 to 5 the effectiveness and feasibility of 56 policies (shown in Figure 1). Some of which overlap with the policies I looked at, many more they assess that I did not, and a few I evaluated that they did not. The policies I rank as most promising appear to differ substantially compared to Buettner et al. (2020), which I discuss more in Section 4.

Compared to Buettner et al. (2020) we attempt to use a more structured and transparent grading approach where we use a consistent rubric instead of subjective scores. Another difference is that we only review interventions that are well studied whereas Buettner et al. (2020) include less evaluated ones.

In this report I contribute to the literature by proposing a new method for scoring policies' effectiveness, which I use to identify which interventions appear relatively more promising than previous work suggested, and recommend future research accordingly.

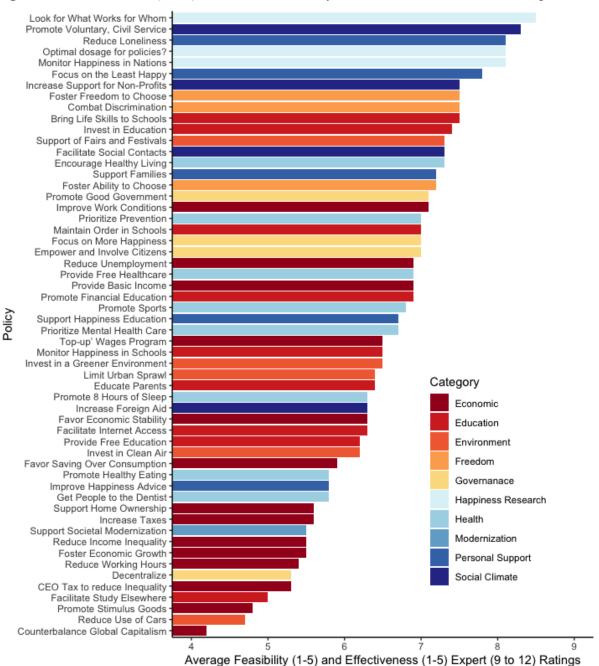


Figure 1: Buettner et al. (2020)'s summed feasibility and effectiveness scores for 56 policies

2 Methods

Generating a long list of possibly promising public policies

The aim of this review is to identify which policies appear most promising to improve people's wellbeing. The first step I took was to write the ideas that I had. I then noted the types of public policies mentioned in the handbook for wellbeing policy-making (Frijters & Krekel, 2021). I repeated the same process with several reviews on the determinants of SWB (Azizan & Mahmud, 2018; Dolan et al., 2008; Mouratidis, 2021; Pollard & Lee, 2002). Finally, I grouped the policies I found into 35 categories based on my intuition. These are about "environmental" issues (e.g. Air Pollution), "health" issues (e.g. Alcohol), "relationships" issues (e.g. Intimate relationship), and "economic" issues (e.g. Unemployment). For more details, look at Table 1 below.

Air Pollution	Alcohol	Care load	Cash	Climate change
Core skills	Cultural services	Democracy	Disability	Exercise
Food	Housing	Immigration	Income inequality	Inflation
Pain	Mental health	Mindfulness	Nature	Noise
Parenting	Physical health	Safety & War	Smoking	Social relationship
Stereotypes	Transport	Unemployment	Urbanisation	Volunteering
Welfare system	Work	Intimate	Socio-Emotional &	Religion &
		relationship	Learning skills	Spirituality

Table 1: The 35 types of public policies to evaluate

Search strategy

The next step was to find an important proportion of the articles in the scientific literature for each type of public policy. I included the studies that I knew, and the relevant references from the Handbook for wellbeing policy-making (<u>Frijters & Krekel, 2021</u>) and from Dolan's systematic review (<u>2008</u>).

In addition, I looked at the first three Google Scholar pages for each public policy previously mentioned with the following query:

"(*Name of the search category*); AND (Well-being); AND (Quasi-experiment) OR ("Natural experiment") OR (RCT) OR ("randomized control trial") OR ("randomised control trial") OR (meta-analysis) OR ("meta analysis") OR ("systematic review") OR (Intervention)"

If I found no relevant references with this, I executed the same process with a simpler query: "(*Name of the search category*) AND ("Subjective Well-being")"

I did not perform an exhaustive systematic literature review, because of time constraints and because of the very large scope of this review. Thanks to this literature review, I found 379 references (see Table 2 for more details).

Source	Articles
Author's own knowledge	15
Dolan et al. (2008)	75
Frijters & Krekel (2021)	33
Google Scholar	225
Other	31
Total	379

Table 2: Articles found with the literature review

Grading process

Next, I graded and ranked each public policy. Here again, I didn't have the time to do a meta-analysis to compare the effect sizes of each public policy on people's wellbeing. That's why I decided to create five criteria on which to evaluate each candidate after reading each article collected.

The criteria were generated to take into account:

- A. The impact or importance of the problem I measured this with the average effect size.
- B. The amount and quality of evidence available about the policy I measured this by the average sample size, quality of evidence and generalisability of the evidence.
- C. The possibility to mitigate the issue with large-scale public policies (i.e. how tractable reform seems) I measured this by the applicability.

The five criteria are the following: sample size, effect size, quality of evidence, applicability, and generalisability. Each criterion was graded from 1 (low score) to 3 (high score). The scores were then added. For more details about the grading process, see Table 3.

Table 3: Grading process

criteria	1 (low)	2 (medium)	3 (high)			
Average sample size	The average sample size is under 100	The average sample size is between 100 and 1000	The average sample size is over 1000			
Average effect size	The average effect size is negative or null	The average effect size is small	The average correlation or standardised mean difference > 0.30.			
Quality of Evidence	There are at least three studies on the subject	At least one systematic review and 1 or more longitudinal studies or quasi-experiments, or 3 or more longitudinal studies / quasi-experiments	There is at least one meta-analysis/systematic review of interventions, or 5 or more RCTs			
Applicability of evidence to policy	There is no or weak evidence of policy adoption	The literature strongly suggests that it is possible to implement a policy on the subject	There is already evidence in the literature that a large-scale policy can be done			
Generalisability of evidence (Scalability)	Evidence exists on one limited sample of the population	I only have evidence on a specific culture / part of the population	I have evidence on the majority of the population			

A policy with a total greater than or equal to 13 (out of 15) was considered very promising, and a policy with a total of 12 was considered potentially promising. Categories for which I found less than 3 studies, or very heterogeneous ones, were excluded.

3 Results

In this section, I focus on discussing the results for the most promising policies. I present the grading, briefly review the literature of important factors in this policy area, and summarise key takeaways. I follow this by presenting the results for the less promising policies, but due to time constraints I was not able to discuss each policy in depth. See <u>this spreadsheet</u> for the raw results.

Each policy area involves a problem area that impacts people's wellbeing and which has one or more potential policy solutions. For example, alcohol is a policy area covering the problem of alcohol massive consumption and addiction: to tackle this problem, several interventions are mentioned in the literature, such as alcohol bans or therapies.

It is important to note that a very promising policy is not necessarily one of the best in expectation, but one for which there is good evidence in the literature that it can improve people's wellbeing at a large-scale. Some potentially more impactful policies might be overlooked due to a lack of data in the literature.

Moreover, there are more studies in developed countries in the wellbeing literature. Therefore, the most promising policies identified may be the most promising ones in rich countries. It is not always clear how well these might generalise to Low and Middle Income Countries (LMICs).

3.1 Most promising public policies

I now describe the public policies that received a grade greater or equal to 13 (shown in table 4 below), and that were therefore rated as very promising.

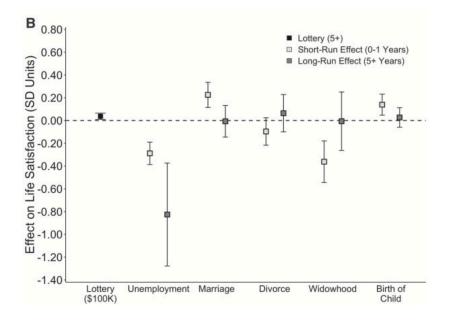
Sub-categories	Sample	Evidence	Effect	Applic- ability	Generali- sability	General Appeal (1-15)
Unemployment	3	2	3	3	3	14
Intimate relationships	3	3	3	2	2	13
Mindfulness	1	3	3	3	3	13
Interaction with nature	2	3	2	3	3	13
Volunteering	3	3	2	2	3	13
Green spaces	3	3	2	3	2	13

Table 4: The scoring for the most promising public policies

Unemployment

Unemployment has a very large effect, which may be greater in average than the effect of divorce or marital separation (<u>Clark & Oswald, 1994</u>). I found this effect to be surprisingly large. Figure 7b in Lindqvist et al. (<u>2020</u>) - where they combined their longitudinal results

with Clark and Georgellis (2012) - shows that the long-term effects of unemployment dwarf the negative impacts of other life events in terms of impact.



The feature that makes unemployment appear unusually harmful is the fact people do not *adapt* to unemployment (i.e. people's wellbeing does not return to the same point it was at before being unemployed). Namely, the decline of life satisfaction due to unemployment persisted even after regaining employment according to longitudinal studies (Lucas et al., 2004; Mousteri et al., 2018, Clark et al., 2018). Longitudinal studies which control for the possibility of selection effects (where people who are less happy might tend to become unemployed more often) still find a significant effect of unemployment on wellbeing (Korpi, 1997; McKee-Ryan et al., 2005).

There also appears to be a dose-response relationship between unemployment and its harm. Studies find that long-term unemployment hurts more than short-term unemployment (Dockery, 2003; McKee-Ryan et al., 2005; Mousteri et al., 2018), except for Clark and Oswald (1994) who use cross-sectional data.

However, there is less and more mixed evidence on the effects on how someone feels (their affect) compared to how they evaluate their life (life satisfaction). For instance, Knabe et al. (2010) find with cross-sectional data that the unemployed feel no worse than the employed because they spend more time on enjoyable activities, even though they enjoy each activity less than employed people. In Germany, von Scheve et al. (2017) find through longitudinal data that the unemployed adapt to the negative impact of unemployment on *affective* wellbeing within 1 to 2 years, which contrasts with previous findings - and their own replication of the phenomenon - that *life satisfaction* does not adapt. And in the USA, Song (2018) finds with a survey a negative impact of unemployment on women's but not men's affective wellbeing.

When I compare unemployment to inflation, two economic factors policy-makers must trade off against, I find with cross-sectional data that unemployment has a bigger effect on SWB than inflation (Blanchflower et al., 2014; Di Tella et al., 2001; Ruprah & Luengas, 2011). However, this is slightly less the case for countries in which people are especially worried about inflation, such as Germany, Austria or France (Blanchflower et al., 2014).

Whose wellbeing is the most affected by unemployment? According to numerous surveys, middle-class men of 30 to 49 years old are the most hurt by unemployment (<u>Clark, 2003</u>; <u>Clark & Oswald, 1994</u>; <u>Gerlach & Stephan, 1996</u>; <u>Hald Andersen, 2009</u>; <u>Mousteri et al., 2018</u>; <u>Sage, 2015</u>; <u>Theodossiou, 1998</u>); only Blanchflower et al. (<u>2014</u>) found that women and older people are more worried about unemployment.

Unemployment not only has large effects on the unemployed, but also on their family and the workforce more generally (<u>Hill, 2000</u>; <u>Clark et al., 2018</u>). Survey data indicates that unemployment hurts less when there are more unemployed people around, part of the negative effect of unemployment is then explained by the presence of an unemployment norm (<u>Clark, 2003</u>). On a society-wide level, Hill (<u>2000</u>) estimated that 40% of the costs of the 1999 recession came from the direct wellbeing costs of unemployment.

Individual differences also seem to matter. The positive effects of becoming reemployed may apply only to people who are satisfied with their new job, others who are reemployed in unsatisfactory jobs continue to experience the same levels of life satisfaction than in unemployment (Kinicki et al., 2000) or may be even worse off, according to a longitudinal study (Leana & Feldman, 1995). A meta-analysis of 104 empirical studies find that good personal coping resources (e.g. self-esteem, emotional stability) undermine the negative impact of unemployment, while financial strains and a lack of social support aggravate its effects (McKee-Ryan et al., 2005).

What can be done? *Flexicurity* - labour market reforms aiming to increase labour market flexibility and income security (Chadi & Hetschko, 2013; Origo & Pagani, 2009) - may facilitate access to employment, but has also detrimental effects for individual wellbeing due to decreased job security, according to cross-sectional data (Dawson et al., 2017). Active Labour Market Policies - which help individuals to enter the labour market by involving them in the workplace - appear to be effective at mitigating the costs of unemployment, while employment assistance (intensified advice) may be less effective on average as found in survey data (Sage, 2015; Strandh, 2001).

How neglected is reducing unemployment? Not very neglected. While reducing unemployment in high income countries appears a high priority, there may be relatively neglected opportunities for supporting pro-employment policies in countries like South Africa, where a third of the labour force is unemployed (<u>World Bank, 2021</u>).

Key takeaways

- Unemployment is extremely harmful because people do not adapt well to it.
- There is some disagreement between affective and evaluative measures of wellbeing on the impact of unemployment. Further research should clarify how much of a difference it makes depending on which measure you choose.
- Further policy work should:
 - Clarify whether countries are better off having lower unemployment rates (as it tends to be the case in Anglophone countries) or higher rates but higher unemployment benefits and job security (as in mainland Europe).
 - Clearly summarise how we should trade off between inflation and unemployment.
 - Explore if there are neglected pro-employment policies that would be tractably advocated for in high unemployment countries like South Africa.

Intimate relationship

In this section I consider the benefit of promoting intimate relationships with an emphasis on marriage or long-term partnerships.

There is a wide correlational literature supporting the idea that long-term partnerships are related to higher wellbeing (<u>Clark et al., 2018</u>). Marital quality is correlated positively with wellbeing according to a meta-analysis of cross-sectional and longitudinal studies (<u>Proulx et al., 2007</u>). Two surveys indicate that married people are even more satisfied than cohabiting individuals (particularly for relatively old unions), a difference known as the cohabitation gap (<u>Blekesaune, 2018</u>; <u>Brown, 2000</u>). The gap is commonly explained by the fact that marriage generally implies a stronger investment in the relationship (<u>Brines & Joyner, 1999</u>; <u>Nock, 1995</u>; <u>Reneflot & Mamelund, 2012</u>) with shared leisure activities (<u>Kalmijn & Bernasco, 2001</u>) and a clearer division of household tasks (<u>Davis et al., 2007</u>). Notably, this does not appear to be due to selectivity (i.e. this is not because happier people are more likely to get married; <u>Brown, 2000</u>).

Meta-analytic data reveal that parental divorce has a significant effect on the wellbeing of the parents and the children (Amato & Keith, 1991; Clark et al., 2018), and divorced people do not completely adapt to this change, according to a survey (Lucas, 2005). Moreover, the educational attainments of children of divorced parents are substantially lower than those from two-biological-parent families, single-mother families, or widows according to cross-sectional data (Biblarz & Gottainer, 2000). Nonetheless, the difference between divorced and married people is not entirely due to divorce: people who divorce were already less happy in their relationship even before marriage (Lucas, 2005).

Similarly, as shown by longitudinal studies, the gains of happiness due to marriage tend to reduce over time, there is an adaptation effect (<u>Stutzer & Frey, 2006; Luhmann et al., 2012;</u> <u>Musick & Bumpass, 2012; Lucas, 2005</u>). However, Clark et al. (<u>2018</u>) and Easterlin (2020) argue that the evidence is more consistent with the benefit of partnerships diminish but persist over long periods of time.

Can anything be done? Low parental education and occupational status are associated both with divorce and a part of its negative effect, which undermines a bit its negative effects (<u>Amato & Keith, 1991</u>). According to a meta-analysis of RCTs, relationship programs (i.e. programs that deal with topics such as communication, parenting or finances) have a large impact on relationship satisfaction on average (<u>Reardon-Anderson, 2005</u>).

Is improving the quality of relationships neglected? Many right-of-centre parties express support for families, so this seems like a relatively attended topic by politicians and policy-makers. However, it seems plausible that policy-makers could be interested in evidence about the best policies to improve intimate relationships.

Key takeaways

- Marriages and long-term relationships matter a lot, and people are long lastingly affected by separation.
- Future research should clarify which policies appear feasible. For example, how cost-effective and feasible would subsidising marriage counselling be?
- Note that it might be extremely badly perceived for the state to actively get involved in people's relationships.

Green spaces

The idea behind green spaces is to add more natural elements to urban areas, i.e. increase the supply of nature near where people live.

Green spaces are good for people's wellbeing. Numerous surveys show that living close to green spaces is linked to higher levels of life satisfaction and lower levels of stress (Knight et al., 2022; Krekel et al., 2016; McCormick, 2017; White et al., 2013; Yuan et al., 2018). And a longitudinal study finds that the benefits appear to last over time: movers to greener areas improved their wellbeing sustainably, whereas the wellbeing of movers to less green areas decreased before moving, and went back to the previous level when they arrived due to adaptation¹ (Alcock et al., 2014). Particularly, cross-sectional data indicate that going from no green space to some, is more important than making a green space even lusher (Bertram & Rehdanz, 2015). Indeed, the marginal utility of green spaces around people's residence increases at a diminishing rate (Bertram & Rehdanz, 2015). Based on this analysis, green spaces appear to be insufficient in Berlin (Bertram & Rehdanz, 2015).

What are the possible mechanisms for green spaces increasing wellbeing? Two cross-sectional studies found that green areas could buffer the effects of chronic noise on

¹The authors set out two possible explanations: "There are at least two possible interpretations. First, the anticipation of moving to a less green area may have negatively impacted mental health. Such negative anticipation effects are observed preceding divorce, for instance. Second, declines in mental wellbeing may have precipitated the moves themselves. For instance, it could be that individuals who were becoming increasingly unhappy in greener areas, perhaps due to fewer facilities or job opportunities, decided to move to less green urban areas and once they had done so their mental health improved again."

wellbeing (Dzhambov & Dimitrova, 2014). Experimental results are more mixed: Yang et al. (2011) found a significant positive, whereas Joynt and Kang (2010) and Maffei et al. (2013) didn't find a significant effect. A positive correlation was found between the decrease in cortisol level (a biomarker of stress) through the day and the percentage of green spaces (Thompson et al., 2012). A fMRI study revealed that viewing urban scenes activated the attention and visual parts of the brain, and that participants then had a diminished ability to recover from fatigue (Tang et al., 2017)

Is investment in green spaces neglected? Parks are quite popular, but they trade off against housing prices, which likely have a negative impact on SWB. Perhaps the policy with the fewest trade offs would be those that wouldn't crowd out housing such as planting more trees along streets. What about the wellbeing effects of greening "grey" flood management infrastructure?

Key takeaways

- Green spaces have a positive effect on SWB, and may buffer against the negative effects of chronic noise.
- There's a lack of strong causal evidence on the subject, and future research that would provide this would be valuable.
- Further research should also identify what the best ways to increase happiness through green spaces are (e.g. more parks, trees near roads, lower fees for parks, increase policing for parks in high crime areas).

Volunteering

In this section I consider the promise of policies to increase how often people volunteer their time for altruistic causes: even if there is a lack of evidence on large-scale policies on the subject, these could be interventions that nudge people to volunteer (<u>Jiang et al., 2021</u>; <u>Payne et al. 2020</u>), or more generally financial support to increase volunteering opportunities.

Surveys, meta-analysis and RCTs point in the same direction: frequent long-term (> 6 months) volunteering has a significant and prolonged positive impact on wellbeing and mental health in the general population (Binder & Freytag, 2013; Greenfield & Marks, 2004; Jenkinson et al., 2013; Jongenelis et al., 2022; Thoits & Hewitt, 2001; Wheeler et al., 1998), and in older adults (Jiang et al., 2021). However, three RCTs find non-significant results in the case of short-term volunteering, i.e. volunteering less than 6 months (Jiang et al., 2021; Jongenelis et al., 2022; Pettigrew et al., 2020). Volunteering may also lengthen lives: a meta-analysis of five studies identified a 22% reduction of mortality among volunteers compared to non-volunteers (Jenkinson et al., 2013). But this is correlational, and plausibly driven by selection effects.

It appears that volunteering specifically gives a sense of purpose (<u>Greenfield & Marks, 2004</u>). Indeed, volunteers who couldn't volunteer anymore after the reunion of Germany have seen their wellbeing decrease (<u>Meier & Stutzer, 2008</u>). While happy people are also more likely to

volunteer, it appears that there is still a positive effect of volunteering (<u>Meier & Stutzer, 2008;</u> <u>Thoits & Hewitt, 2001</u>). Nevertheless, the positive effect of volunteering is not found for the happiest people in the population according to a survey (<u>Binder & Freytag, 2013</u>): this may be because volunteering actually has a protective role against a lack of purpose.

Key takeaways

- Volunteering has a positive effect on wellbeing, but this is likely to be a defence against a lack of purpose.
- Causal evidence indicates that volunteering only has a beneficial effect if it lasts long enough (> 6 months).
- Even if large-scale volunteering RCTs have been conducted, evidence on actual public policies is lacking.
- Further research is needed on the best interventions to help people through more volunteering opportunities.

Interaction with nature

Nature-based interventions are interventions that increase people's interaction with nature. These interventions can consist in spending lunch breaks in natural surroundings, going in nature to be in a contemplative state, or even exercising in nature. Note that the distinction between this intervention and "green spaces" is one of supply and demand. Expanding green spaces means more nature, increasing nature interactions means a greater demand or use of natural spaces.

RCTs show that nature-based interventions had a positive impact on wellbeing for employees (<u>Gritzka et al., 2020</u>; <u>Ho et al., 2022</u>), for patients with a physical disease (<u>Trøstrup et al., 2019</u>), and for children (<u>Sobko & Brown, 2021</u>). However, Tillmann et al.'s systematic review (<u>2018</u>) find more mixed results.

Different nature-based interventions have different levels of effectiveness. According to meta-analytic data and RCTs, nature-savouring (i.e. mindful appreciation of natural elements) is the only intervention where every study showed a significant positive impact, whereas exercising in nature and having green office spaces (Brito et al., 2021; Passmore et al., 2022) or having a campus with green spaces for students (van den Bogerd et al., 2020) had more mixed findings, where only a bit more than half of the studies reviewed had positive effects for this latter case.

Nature connectedness is about "feeling close to, and an integral part of nature" (<u>Pritchard et al., 2020</u>). This construct is correlated positively with wellbeing (<u>Nisbet et al., 2011</u>; <u>Pritchard et al., 2020</u>). Moreover, Nisbeth et al. (<u>2011</u>) found with a survey that environmental courses boost students' nature connectedness, and that this partly explained people's increase in vitality, i.e. "feeling alive and energetic": as such, nature connectedness may be one of the pathways through which nature-based interventions improve wellbeing.

Key takeaways

- Nature interventions vary considerably, but interventions that promote a mindful appreciation of nature appear particularly promising.
- Further research should find which interventions are the most cost-effective on a large-scale.

Mindfulness

Mindfulness interventions aim to increase the attention people pay to positive experiences and vice versa for negative experiences. Common examples are meditation or yoga. When speaking of large-scale public policies, evidence is lacking, but these could be educational policies (e.g. mindfulness at school, for university students), or interventions for vulnerable audiences (e.g. patients in the hospital).

According to meta-analytic data and numerous RCTs, meditation (and yoga) programmes have a moderate to large positive effect on people's wellbeing and mental health across a range of populations: non-clinical samples (Querstret et al., 2020), in prisons across cultures (Auty et al., 2017), for parents of children with ASD and their children's behaviours (Cachia et al., 2016), for parents of children with developmental disabilities (Chua & Shorey, 2021), for adolescents (Primasari & Yuniarti, 2021), for students (De Vibe et al., 2018; De Vibe et al., 2013; Halladay et al., 2019; McConville et al., 2017; Xu et al., 2022), for employees (Kersemaekers et al., 2018; Scheepers et al., 2020), for unemployed adults (Roemer et al., 2021). A small to moderate positive effect was found for people with chronic somatic diseases (Bohlmeijer et al., 2010), for advanced cancer patients (Zimmermann et al., 2018), for healthcare professionals (Lomas et al., 2019), for pregnant women (Matvienko-Sikar et al., 2016), for distressed individuals (Nyklíček & Kuijpers, 2008), for teachers (Zarate et al., 2019). Mindfulness meditation apps also seem to work quite well as found by a meta-analysis of RCTs (Gál et al., 2021). A meta-analysis also finds that longer meditation programs are more effective than more intensive ones (Auty et al., 2017)

Key takeaways

- There is good causal evidence that meditation (and yoga) programs improve people's SWB, and that this is true for a wide range of audiences.
- Publication bias may be a problem on this subject.
- There is no evidence of large-scale policies aiming to increase population mindfulness.
- Further research should be done on the cost-effectiveness of policies to increase mindfulness (in schools for example).

Other areas previously explored by HLI that are promising

In our previous research, HLI has uncovered a few areas with policy implications that I think would score as very promising if they were graded here. I will briefly present them.

Income is an important factor in wellbeing (see <u>Clark et al., 2018</u>). I won't discuss how best to increase income here, the efficacy of which is debated as a national policy (<u>Plant, 2022</u>). However, a meta-analysis of 45 studies by McGuire et al. (<u>2022</u>) found that cash transfers in LMICs increase subjective wellbeing by 0.10 standard deviations (SDs) after an average follow-up of two years.

Mental health is one of the most important factors for wellbeing, with effects greater than income or work and similar to relationships (see <u>Clark et al., 2018</u>). Researchers at the Happier Lives Institute (HLI) found that task-shifted group psychotherapy was 9 times more cost-effective than cash transfers (<u>McGuire et al., 2022</u>). They find that psychotherapy has large effects on individuals, which also likely spillover to the rest of the household.

In an upcoming report, the staff at HLI find that lead exposure potentially has large and potentially lifelong effects on people's wellbeing. Policies aimed at removing lead from products, especially paint, seem very promising, especially in LMICs where lead exposure remains high.

In another upcoming report HLI staff find that chronic and terminal pain can have severe effects on wellbeing. Solutions are less clear here, but it seems that improving access to opioids for terminal pain in LMICs would be promising.

3.2 Less promising public policies (grades less than of 13 / 15)

Due to time constraints, I was unable to write up comments about my review of the literature for less promising policies I graded, so instead we present in Table 5 the scores for the interventions that didn't make the cut as the most promising interventions.

Sub-categories	Sample	Evidence	Effect	Applica bility	Generalis ability	General Appeal (1-15)	Promise
Care load	3	2	2	2	3	12	Somewhat
Outdoor air pollution	3	2	2	2	3	12	Somewhat
Noise reduction	3	2	2	2	3	12	Somewhat
Commuting time	3	2	2	3	2	12	Somewhat
Shorter working week	3	2	2	3	2	12	Somewhat
Climate policy	3	2	2	2	3	12	Somewhat
Disability	3	2	2	2	3	12	Somewhat
Income inequality	3	2	2	2	3	12	Somewhat
Inflation	3	1	2	3	3	12	Somewhat
Tobacco	3	2	2	3	2	12	Somewhat
Healthcare system	3	2	2	3	2	12	Somewhat
War	3	2	3	1	2	11	Less
Democratic institutions	3	2	2	1	3	11	Less
Travel mode	3	2	2	2	2	11	Less
Housing for homeless	2	3	1	3	2	11	Less
Other drugs	3	2	1	3	2	11	Less
Attitudes to climate	2	1	2	2	2	9	Least
Population density	3	2	1	1	2	9	Least

Table 5: The scoring for the most promising public policies

4 Discussion

Limitations

Because this project was conducted during a short period of time, it suffers from several notable limitations, and should be used only to form an initial opinion on policies that look particularly promising.

First, the grading system could be improved. Despite the systematicity of the grading, the criteria are rather qualitative and I may have made biased judgements. In addition, the grading doesn't allow to make a clear distinction between categories where only small-scale RCTs have been conducted (e.g. mindfulness) from categories where large-scale public policies were implemented (e.g. unemployment): this may put some interventions as more applicable at a large-scale than they really are. The grading system was also a bit too coarse to rank interventions well. Because of that, I ended up with grades between 14 and 9, most of them being between 13 and 11. If I redid this, I would try to create a finer grading system that allows for more gradations of quality.

Secondly, this review doesn't cover all the public policies that could have been promising. Because of a lack of time and heterogeneous articles, I have not graded probably promising policies such as exercise, mental health issues, physical health issues, crime, bullying, socio-emotional skills, and stereotypes (sexism, racism...). Furthermore, this review ignores animal suffering and existential risks (or large-scale problems in the mid to long-term future), and gives little weight to death.

Thirdly, some issues stem from wellbeing science as a nascent field: the most promising public policies are often the most studied policies. Moreover, there is a lack of studies on wellbeing in poorer countries: this review may then be biassed towards developed countries, and probably miss very promising policies in less developed ones.

Lastly, this project emphasised the potential effectiveness of policies, but it was outside the scope of this project to include a consideration of policy costs. But what I think we should be interested in are the most cost-effective policies that have the highest probability of passing if put to a vote.

Additional considerations

Before talking about the final recommendations, I want to distinguish policies that target problems external to people (e.g. unemployment, air pollution) from those that aim directly at improving people's mental health and skills (also called *boosts*; <u>Hertwig & Grüne-Yanoff</u>, 2017).

Interventions that aim at improving people's socio-emotional and learning skills (Wigelsworth et al., 2019) or mindfulness (e.g. Nyklíček & Kuijpers, 2008) might have an

even greater impact than measured, because they may have a long-lasting positive effect on a wide range of issues. For example, engaging more in emotion-focused coping (e.g. mindfulness, distraction, journaling), by opposition to problem-focused coping (i.e. thinking a lot about how to solve the problem), lessens the negative effect of care load (Van Den Wijngaart et al., 2007), of unemployment (McKee-Ryan et al., 2005), or of chronic diseases (Bohlmeijer et al., 2010). These positive effects may not generally be measured by those interventions, as they should manifest only in the long-run.

On the other hand, two points may favour interventions that target problems external to the individual. First, shaping more favourable environments can indirectly increase people's socio-emotional and learning skills. For example, cash transfers in the USA (Akee et al., 2018) and in Uganda (Mehra et al., 2018) developed people's agreeableness and conscientiousness (and neuroticism), which are positively correlated with wellbeing (DeNeve & Cooper, 1998). By opposition, unemployed people (Boyce et al., 2015) or people in chronic job insecurity (Wu et al., 2020) became less conscientious and more neurotic. Secondly, developing such skills in oppressed or poor populations might have a detrimental effect. Indeed, more agreeable people may have a harder time negotiating a raise and end up more often in financial hardship (Matz & Gladstone, 2020), and tend to participate less in political protests, which could constitute a way out of a difficult situation (Brandstätter & Opp, 2014).

Therefore, by measuring a limited set of variables and the evolution of wellbeing on quite a narrow timeframe, it is hard to capture these long-term effects, and to know in which conditions each of these two types of interventions is the best.

Comparing results to Beuttner et al.

Beuttner et al. (2020), as discussed in the introduction, averaged experts scores for the effectiveness and feasibility of 56 policies. There was an overlap of 14 policies I graded or that HLI has assessed, which I show below. For this subset of overlapping policies, we seem to disagree substantially. Notably, I think prioritising mental healthcare, increasing employment, reducing air pollution and shortening work weeks are relatively more promising policies than Buettner et al. (2020). Likewise, I think that supporting democratic institutions is much less promising – mostly because it's unclear how to effectively make a nation more democratic. Nevertheless, some important areas of agreement can be highlighted: we agree that more opportunities to volunteer and relationship programs are particularly promising, and that targeting travel modes, income inequalities, or population density is not the surest and most efficient way to improve people's wellbeing.

Policy	Beuchot Rank	Buettner Rank	Rank difference
Mental Healthcare	1	10	9
Unemployment	2	9	7
Outdoor air pollution	7	13	6
Shorter working week	9	15	6
Cash transfers	3	8	5
Green spaces	6	11	5
Travel mode	12	16	4
Income inequality	11	14	3
Care load	8	б	-2
Population density	14	12	-2
Volunteering	4	1	-3
Marital quality & relationship programs	5	2	-3
Healthcare system	10	7	-3
Democratic institutions	13	4	-9

Table 6: Comparing the promise of the policies between my ranking to Buettner et al.'s

Note: A smaller number means a higher rank.

Final recommendations

In this report, I have underlined what appear to be the most effective policies, according to the economics of wellbeing literature. I have thus tried to explain why unemployment, intimate relationships, green spaces, volunteering, interaction with nature and mindfulness interventions could constitute the most promising policies.

However, I have not taken into account their neglectedness: this is nonetheless a quite essential factor to take into account when considering what the most cost-effective ways of improving people's lives are.

Because of this, we have graded the neglectedness of each category based on our priors. We have not done this in the main analysis, because this ranking is entirely subjective, in opposition to the one shown in the results part, which is based on the literature.

Policy	Score given by the review (5 to 15)	Neglectedness score (1 to 3)	Score with neglectedness	
Unemployment	14	1	15	
Intimate relationship	13	2	15	
Volunteering	13	2	15	
Interaction with nature	13	2	15	
Mindfulness	13	2	15	
Care load	12	3	15	

Table 6: Including neglectedness to the most promising policies

In this ranking, green spaces received a score of 1 out of 3. It is then no more in the most promising policies to promote, according to us. Unemployment received the same score of 1, because most countries already try to mitigate it: however, because it had a score of 14 out of 15, we still consider policies that try to tackle this issue very promising. Lastly, we graded care load policies as very neglected: because of that, care load takes its place in this top list of the most cost-effective public policies. So, the 6 categories of the most cost-effective policies found in this review are: unemployment, intimate relationship, volunteering, interaction with nature, mindfulness, and care load.

All in all, what surprised me the most in this review is the following:

- We have good evidence that unemployment is a large-scale important issue, which is in most cases much worse than inflation.
- Boosting people's access to nature is a particularly promising way to increase their life satisfaction.
- Public policies about mindfulness, access to nature, opportunities to volunteer, intimate relationships, and care load (and mental healthcare from HLI's previous works) may be overlooked, and require further research.
- Bans (on smoking, on alcohol) appear to often have a negative or neutral effect on SWB (by opposition to personalised support against addiction).
- Housing programs for homeless may encounter severe brakes.
- Population density in itself doesn't seem to be a problem.

Some burning questions remain. Here is a list of some of them:

- How would this scoring system change if it only focused on causal evidence (i.e. RCTs, experiments)?
- What is the impact of the most promising policies, and especially unemployment, on poorer countries?
- What are the best ways to increase happiness through green spaces (e.g. more parks, trees near roads)?
- To what extent is it possible to do effective large-scale interventions on intimate relationships, volunteering, interaction with nature, and care load? And what would be the effect of large-scale mindfulness training programs (in schools for example)?
- What's the cost-effectiveness of policies for which we have causal evidence of being implemented at scale? Possible policies to study that have causal evidence of their implementation at scale are the increased rollout of mental health services in the UK, the reduction of air pollution in China (DPRC), the legalisation of medical marijuana in the USA, and numerous other alcohol or tobacco-related bans or taxes.
- What is the impact of policy interventions we did not grade: socio-emotional skills, exercise, and discrimination?
- What would be the most promising public policies when considering long-term effects, and including animal suffering and existential risks?

Data

To see the data used for this project, see this spreadsheet.