

Review of Evidence Universal Basic Income Pilot Project

Review of Literature and Theories of Change



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1. Introduction

This report reviews the evidence and explains the theories of change associated with the Government of Catalonia's Universal Basic Income Pilot Project. A theory of change describes the expected functioning of an intervention by specifying the chain of hypotheses that should lead to alleviating or resolving the social problem that underlies the intervention. It represents the theoretical foundations of a public policy applicable to any type of intervention that aims to generate changes in a social reality (Farré, Martí, Miras & Sanz, 2020).

A theory of change is a vital element for evaluating public policies. It defines a shared vision of how a public policy is expected to work, establishing a common language, definitions and expectations about the problem that justifies the policy, as well as its expected functioning and outcomes. It is a tool that acts as a benchmark, helping to compare whether what is occurring coincides with what is expected to happen, both theoretically and through a review of empirical literature (ibid.). This comparison will therefore form the basis of the evaluation and enable it to be rigorous.

With regard to the Government of Catalonia's Universal Basic Income Pilot Project, we are not referring to one but many theories of change, given that the universal basic income is expected to impact various economic and social spheres. The report reviews the existing evidence and details a theory of change for each of these spheres; in other words, it reviews studies that have already been evaluated in order to understand the effect that other similar interventions have had.

This document is organised in the following manner. Section 2 describes the scope and objective of the pilot project, including a brief description of it and discussion of two of its key elements: the characteristics of *basic* and *universal* income. Section 3 is the central part of this report, analysing as it does existing literature and elaborating the theories of change for each area. Finally, section 4 is the conclusion.

2. Scope and objective of pilot project

The idea of a universal basic income (UBI) is not new. Thinkers such as Paine, Spence, Fourier, Charlier and Stuart Mill were already discussing it in the 18th and 19th centuries, and economists and thinkers from both the left and the right have supported

it (Ghatak & Maniquet, 2019) – albeit with very different aims and means. The idea has been gaining political traction in relatively few years, and COVID-19 has once again made it the focus of debate. A significant number of countries throughout the world have conducted and are conducting pilot projects and trials to test universal basic or similar income policies – defined by the literature as *quasi-UBI* (Gentilini et al., 2019). Pilot projects and interventions date from the 1960s to the present day, ranging from Finland, Barcelona and the Netherlands to Namibia¹ and Kenya, the USA, Mexico, Canada, Iran, India, the Philippines and Mongolia.

Catalonia’s Basic Income Pilot Project is part of this new wave of interest in UBI and will involve spending between 85 and 90 million euros in total. The pilot project will consist of granting a UBI of 800 euros per month (300 euros in the case of minors) for 24 months to a total sample of 5,000 people throughout Catalonia² in order to fill several gaps in knowledge about its effects. **The pilot project specifically focuses on two of the lesser studied elements of UBI, at least within the context of developed countries: its characteristic of being *basic* as well as its characteristic of being *universal*.**

A *basic* income is understood as a large enough income as to cover basic needs. The literature suggests that, despite the abundance and diversity of UBI or quasi-UBI trials and interventions, few of these can be considered basic (Hasdell, 2020; Hoynes & Rothstein, 2019). The amount of the transfer is important as it has a direct effect on some of the outcomes of interest. By way of example, Hoynes & Rothstein (2019) indicate that the null effect of a UBI on labour participation in the case of Alaska and the Cherokee community may be related to the relatively small amount offered, and that it is not really known what would have happened if the amount had been larger. Until now, we only have studies of significant transfers from lottery winners, and there are doubts about the similarity of the effects³ (Hoynes & Rothstein, 2019).

Universal is used to describe an income that is not means-tested at the lower deciles of income distribution (i.e., not means-tested at low incomes), but an income that is provided regardless of one’s income level. Universality is also considered as a

¹ In line with Osterkamp (2013), this report does not take into account the results of this pilot project because of methodological problems.

² For more on methodological design, see Ivàlua’s report on evaluating the design of the pilot project (Borrell-Porta, de Quintana, Segura, León, Ramos & Vives-i-Bastida, 2023), as well as the design proposal report (Office of the Pilot Project & Ivàlua, 2023).

³ One of the reasons, among others, is because lottery winners are likely to be different from non-lottery winners.

characteristic to which more research should be devoted. The importance of doing so is that the condition of universality may result in aggregate impacts that are not equivalent to the sum of individual impacts. Banerjee, Niehaus & Suri (2019) have identified three types of effects. The first is what is known as *changing the identity of the average recipient*, whereby the average recipient will tend to be less poor and less vulnerable than recipients of minimum income programmes (Banerjee et al., 2019:966), and until now we have no evidence on how these individuals behave when they receive an unconditional, basic, individual transfer (Schutt, 2020). The second effect is that of spillovers, in particular the type of spillovers specific to saturation trials: spillovers to treated persons (Baird, Bohren, McIntosh & Özler, 2018). These are the effects on treated individuals because of higher treatment intensity; in other words, because of a larger share of the population being treated.⁴ Finally, the third mechanism is that of general equilibrium effects. The more people receive a UBI (or some other treatment), the more likely it is that prices and wages will change, and therefore similarly various outcomes such as consumption patterns, work and so on.

These three mechanisms have been relatively underexplored, although notable progress has been made recently. Of particular note is the theoretical and empirical research on the second mechanism – that of spillovers – with the aforementioned theoretical paper by Baird et al. (2018) and those covering the Kenyan trial by Haushofer & Shapiro (2016, 2018), as well as the paper by Egger, Haushofer, Miguel, Niehaus & Walker (2019) on general equilibrium effects, also located in Kenya. With regard to the first mechanism of changing the identity of the average recipient, we have only found one working paper (Schutt, 2020) that uses remittances to Colombia and an exogenous change in the exchange rate to analyse the diverse income effects of remittances in different outcomes.

As noted above, while Catalonia's pilot project is not strictly universal, its design does indeed address this characteristic. First, everyone except people with incomes above decile 10 is eligible – whereas most deciles are not eligible in means-tested income interventions. And second, the UBI pilot project in Catalonia sets out to combine a randomised controlled trial – for which a number of households are to be selected across

⁴ For example, the probability of the individual contracting COVID-19 is lower if the vaccinated population is larger than if only he/she is vaccinated. These spillovers are different from traditional ones, which can occur in non-universal interventions and are understood as the policy's impact on an untreated person (e.g. the unvaccinated individual has a lower probability of contracting COVID-19 if enough of the population has been vaccinated).

Catalonia whose members will individually receive a UBI – with a synthetic trial in two municipalities in Catalonia where all registered individuals (except decile 10) will receive a UBI. The synthetic trial, in the meantime, will allow us to analyse this first change, as well as spillover and general equilibrium effects (for more information on its design, see the report on the pilot project evaluation carried out by the Ivàlua team (Borrell-Porta et al., 2023), as well as the report on the pilot project design (Office of Pilot Project & Ivàlua, 2023).

There has been no intervention or pilot project to date within developed countries that has provided or will provide a sufficiently high income (around the poverty line) that is both universal within a community – as well as being individual, unconditional, and regular. Catalonia's would therefore be the first and only pilot project of its kind in developed countries.

3. Review of literature and theory of change

The Office of the Pilot Project to Implement Universal Basic Income in Catalonia is interested in learning about the impact on various outcomes of economic and social interest. In line with Bastagli et al. (2016), and for analytical purposes, **we have classified outcomes into micro, meso and macro.**

Micro-level changes

Micro-level changes are those occurring at an individual or household level as a direct consequence of receiving a UBI. We differentiate between first, second and third order changes within those at a micro level:

- First-order outcomes are those related to the direct use of cash that can be made of additional resources: consuming, saving and investing.
- Second-order outcomes are intermediate outcomes that would be short- and medium-term outcomes in the theory of change, including changes in behaviour – work, use of services, education, health, emotional well-being, values and attitudes.
- Third-order outcomes are those we expect to happen in the long term – i.e. at the end of the two-year period, or perhaps even later (and they will therefore not be observed). They are tied to the dimensions of the second-order outcomes, but are

more profound changes, such as changes in cognitive development, improvements in health and so on.

There are additionally a number of crosscutting outcomes on preferences and decision processes. These are changes in time use, gender and intra-household relations.

Meso-level changes

Bastagli et al. (2016) define the meso level as those changes originating from spillover and general equilibrium effects – changes in the local labour market, goods and services market, including prices, and social relations.

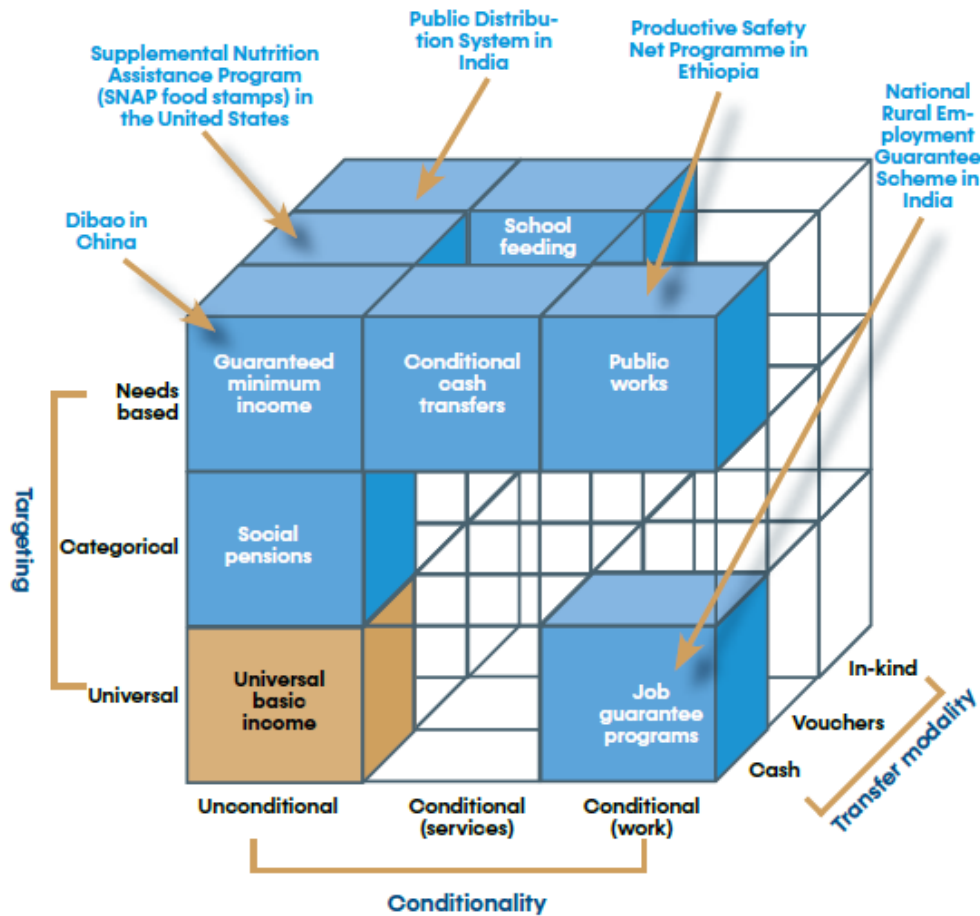
Macro-level changes

The macro level is understood as changes that may occur at a more aggregate level, beyond a specific municipality, such as level of poverty, inequality, productivity, growth and so on. The pilot project is not saturated at the level of Catalonia, so we do not expect major changes at this level. We nonetheless believe that we can indeed analyse these outcomes at a municipality level – which is our saturation level – and that interesting results can be obtained.

All these outcomes, to a greater or lesser extent, have been studied in welfare state literature. The conclusions vary according to the type of intervention analysed; therefore, we should include all relevant interventions that help us to understand what we already know when reviewing UBI literature. At the same time, one needs to draw boundaries and prioritise those interventions that can specifically inform us about the potential impact of a cash transfer that has similar characteristics to a UBI. This exercise will help us to establish certain limits in a growing literature, in addition to the gaps in this literature and ultimately the added value of the Catalan intervention.

The UBI pilot project in Catalonia is therefore an intervention **in which three aspects converge** that are a source of debate in welfare state literature: universality (granted to everyone or according to income or some other category), conditionality (unconditional or conditioned to some kind of activity, such as looking for a job), and the type of transfer (cash or in kind). Gentilini et al. (2019) illustrated this confluence with a three-dimensional cube (Figure 1).

Figure 1 – Social assistance cube by Gentilini et al. (2019)



The literature review commences from this confluence and focuses on cash-transfer interventions, transforming the cube into a two-dimensional square in which unconditional, universal interventions are prioritised. However, given that there are relatively few interventions and pilot projects in the world that can be classified in the strict sense of the term as universal basic income (Hasdell, 2020:13), and that lessons from other interventions – conditional and/or means-tested (non-universal) – are also to some extent illustrative of economic and social impacts, these will also be included in this review.

The location of interventions is also important. Interventions based on cash transfers exist in both economically developed and developing countries,⁵ but impacts may differ greatly depending on the level of welfare state and labour market deployment (Hasdell, 2020). The review will therefore focus on developed countries, although it will also

⁵ Reference is made throughout this text to developed and developing countries to refer to *economically* developed and developing countries.

include reviews of interventions in developing countries and discuss their relevance to the pilot project in Catalonia.

Finally, an aspect that is not discussed in Gentilini et al. (2019), but is indeed found in other studies (see, for example, Hasdell, 2020), is the characteristic of *basic*. The economic and social impacts of a cash transfer may differ according to their size; some impacts only occur above a certain level of income (e.g. some work decisions), or they may not have a linear relationship with income, so we will also differentiate interventions according to this aspect when reviewing the literature.

This review will therefore include all studies, reviews and umbrella reviews of cash transfers that have been done throughout the world, highlighting especially those that have been (simultaneously) unconditional and universal, basic and in developed countries. We have also included studies of means-tested unconditional income, studies with interventions of non-basic income, and studies in developing countries. Studies of interventions that are both conditional and means-tested have been excluded. Where included, this was because the literature review included analyses of both conditional and unconditional studies that are difficult to separate. Table 1 lists all the aspects taken into account in the literature review and their prioritisation. Table 3 and Table 4 in the appendix respectively include the list of the studies and interventions analysed – with the academic articles reviewed – and the list of the systematic reviews of evidence taken into account.

Table 1 – Aspects of reviewed literature

Characteristics of prioritised interventions	Characteristics of other interventions included
Unconditional + universal	Unconditional + means-tested on certain income or demographic groups Conditional provided they are part of reviews where unconditional interventions are also discussed and their conclusions cannot be separated
Sufficient income granted to cover basic needs	Insufficient income granted to cover basic needs
Developed countries	Developing countries

The review is organised into types of outcomes and includes a brief theory of change for each outcome, in addition to empirical evidence of change.

1.1. Micro-level changes

Poverty, consumption, investment and savings

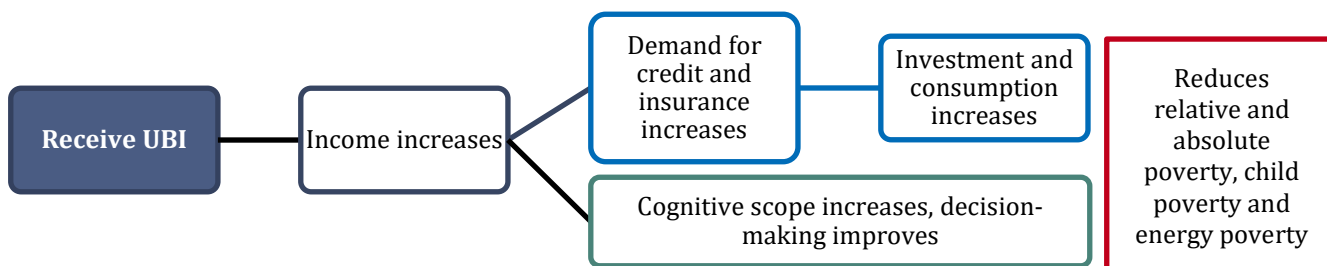
Poverty

A cash transfer of a basic, unconditional and universal amount is expected to have a **positive effect on absolute poverty** and thus reduce it. Regarding relative poverty, a direct positive effect is expected given the current distribution of income and that the amount granted is high. This stems from the fact that the relative poverty line is measured in proportion to median income; therefore some individuals with an income below the line before the fixed transfer will have an income above the new line after the transfer. A UBI will additionally have a particularly positive impact on low-income earners. Given that it is an unconditional transfer, it eliminates a possible poverty trap; in other words, an incentive (fiscal in many cases) to remain in poverty in order not to lose a social transfer, thereby helping to reduce poverty.

While the relationship between poverty and an increase in non-wage income seems undisputed, the causal mechanisms are more difficult to unravel. Several explanations – such as the lack of credit or insurance markets – are predominant in developing countries (although the evidence is not entirely robust) (Banerjee et al., 2019), but not in developed countries, where such markets generally do exist. **One explanation that is gaining traction is that of “psychology”**. Mullainathan & Shafir (2013) speak of **cognitive load** to suggest that poverty and scarcity lead to a mental, cognitive load that prevents people living in poverty from thinking and acting rationally in areas such as work, family, health and so on. Figure 2 summarises the mechanisms of change presented by using different colours, with the expected outcomes marked in red.

The empirical evidence in developing countries is solid in the sense that overall, the interventions analysed demonstrate this positive effect (Hasdell, 2020). On the other hand, **there is no review in developed countries that reports changes in the level of poverty** (Hasdell, 2020). The pilot project can therefore provide knowledge in this area, both on the direct impact of a cash transfer on poverty and on the causal mechanism of cognitive load. We will similarly be able to examine the different types of poverty: relative and absolute poverty, child poverty and energy poverty.

Figure 2 – Theory of change: UBI and poverty

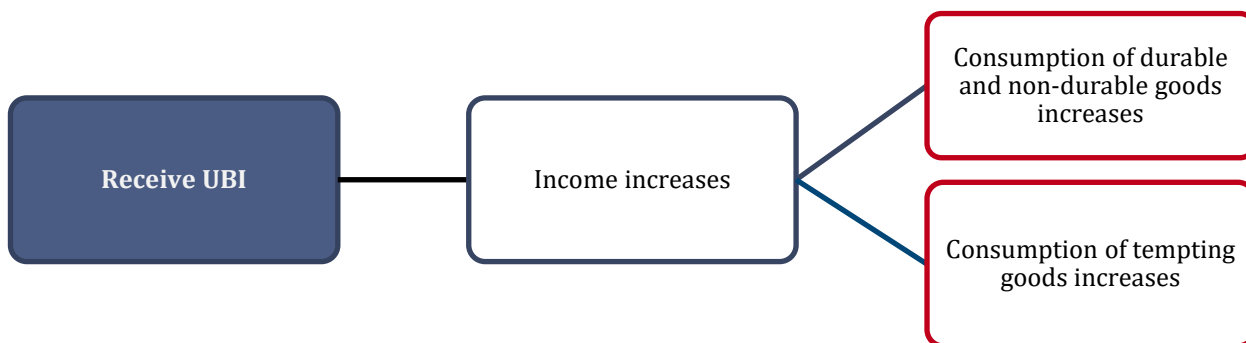


Consumption

An increase in non-wage income is expected a priori to have a **positive impact** on consumption through an increase in revenue (see Figure 3, with expected outcomes marked in red). The empirical evidence so far seems to indicate this trend. This is suggested by a meta-review of literature (Hasdell, 2020), a study looking at lottery winners in Massachusetts (Imbens, Rubins & Sacerdote, 2001; Marinescu, 2018), and the Alaska intervention (Kueng, 2015).⁶ While the latter identifies an effect on non-durable goods, the lottery study identifies that consumption occurs more in durable goods. This difference could be due to the fact that the lottery was in this case paid annually, therefore a large transfer was received that could be spent on paying for more expensive goods in absolute terms. The effect on consumption is positive when it comes to developing countries. This is confirmed by a meta-review of literature (Hasdell, 2020), the randomised control trial study in Kenya focusing on short-term impacts (Haushofer & Shapiro, 2016), and also trials in Madhya Pradesh, India (Davala et al., 2017, MPUCT Report). More interestingly, the latter two studies, in addition to a literature review by Evans & Popova (2014), confirm that the effect of a cash transfer on so-called *temptation goods* (alcohol, cigarettes and the like) is non-existent.

⁶ This last result is somewhat uncertain, given that a prior study (Hsieh, 2003) identified no effect.

Figure 3 – Theory of change: UBI and consumption



Investment, savings and debt

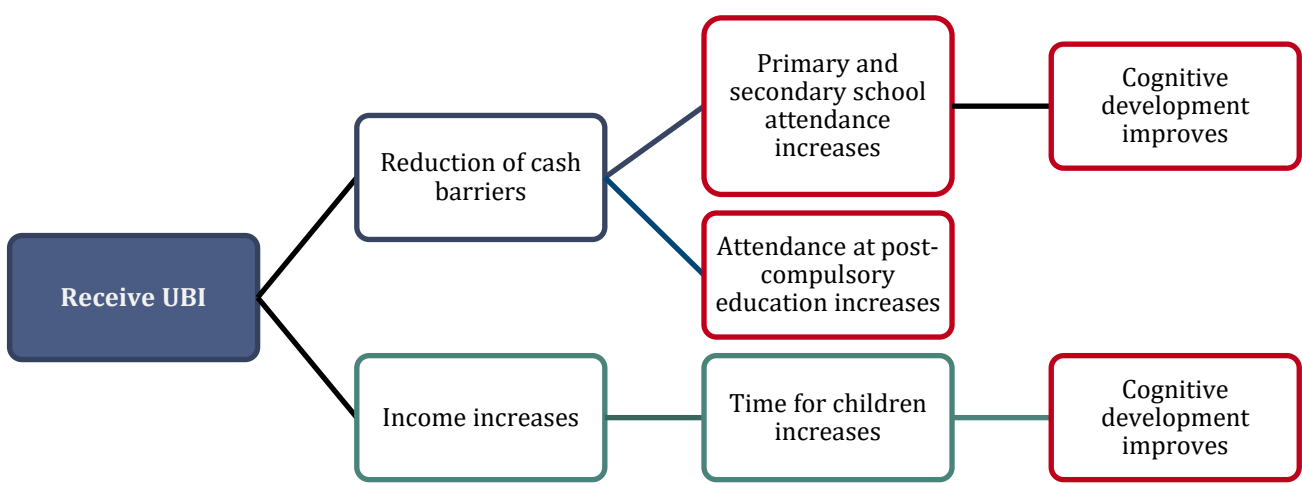
The effect on investment, savings and debt is less direct. The increase in non-wage income from a cash transfer could be saved and used to pay off existing debts or to invest. The evidence primarily comes from developing countries, where the impact on savings is generally, but not always, positive (Hasdell, 2020; Bastagli, 2016). Kenya’s intervention between 2011 and 2013 had a positive impact on assets (Haushofer & Shapiro, 2016), and the interventions in Madhya Pradesh reduced household debt (MPUCT Report).

Therefore, given the **limited empirical evidence for developed countries** on poverty, consumption, consumption of temptation goods, investment, debt and savings, it is important that the Catalonia pilot project includes these outcomes in its analysis.

Education

Two types of outcomes are relevant when referring to education: attendance outcomes and the probability of passing or graduating at a certain level, and cognitive outcomes. The impact on education is expected to be **positive**. The causal mechanism identified by the literature on developing an increase in non-wage income in education is the removal of obstacles to school attendance (Bastagli et al., 2016), and the most direct effect should therefore be seen in outcomes such as attendance. These inevitably would be expected to have an impact on long-term cognitive development. In the case of developed countries, the impact on cognitive outcomes would be expected to come primarily from an increase in the time that parents can spend with their children. Figure 4 summarises the various mechanisms of change presented by using different colours, with the expected outcomes marked in red.

Figure 4 – Theory of change: UBI and education



The empirical evidence in developed countries is mixed. Interventions based on negative income taxes in the United States in the 1960s (Marinescu, 2018, 2019), as well as the Mincome intervention in Canada (Marinescu, 2018) and the intervention in the Cherokee community (Akee et al., 2010) all suggest a positive effect on attendance outcomes and the probability of graduating at the age of 18. The former also provides evidence of a positive impact on cognitive development. Nonetheless, no effect on school grades (a proxy for cognitive development) is found in the study of lottery winners in Sweden (Cesarini et al., 2016; Marinescu, 2018). The authors suggest that one potential reason may be that Sweden already has a **strong welfare state**, with universal education, and that revenue growth has no impact within this context. The impact on outcomes such as attendance for developing countries is clearly positive, although there is no significant improvement in cognitive development (Hasdell, 2020).

The evidence from developed countries comes mostly from countries with a level of welfare state that is quite different from that of Catalonia. In fact, the latter is more similar to the Swedish welfare state, given that primary and secondary education is universal. Following this argument, if the hypothesis of the authors of the lottery analysis is true, we would not expect any significant impact in outcomes of attendance or absenteeism, although we could expect impacts on the cognitive aspect arising from more time that parents can devote to their children. At the same time, **no studies have been found that examine the impact on non-formal education and training beyond that of compulsory education.** We would expect to find a positive impact as this is not

universal, although the fact that the pilot project is shorter in duration than many university degrees may lessen the magnitude of the impact.

Health

Health is positively associated with socio-economic indicators such as income, education and job prestige (Cesarini et al., 2016; Wilson & McDaid, 2021), so we would therefore expect an increase in non-wage income to have a positive effect on the health of individuals receiving it. The causal mechanisms are diverse, and academic papers are often rather empirical and do not make these fully explicit. The premise of this report is the approach of Benzaval et al. (2014) – very similar to more recent research such as that of Johnson et al. (2021) – which stems from a systematic review of the theory and divides the various mechanisms identified into three groups: material, psycho-social and behavioural mechanisms.

Material: according to Benzaval et al. (2014), the material mechanism suggests that income affects a person's living conditions, and that these impact on his/her health. While several authors suggest that once living conditions exceed a limit (e.g. drinking water), their relationship with health disappears, others stress that needs are relative and therefore affect health beyond that minimum. The material conditions identified as relevant by the literature are the neighbourhood in which one lives, job situation, and housing and family situation. Living in a poor neighbourhood is often associated with more pollution, less traffic safety, less access to green spaces and a higher prominence of unhealthy eating establishments. Similarly, precarious work is often also accompanied by more occupational hazards, less control over work and thus less decision-making power over when to rest, when to stop to avoid falls, etc. Finally, housing conditions – sanitation, affordable access to heating and air conditioning, ventilation, dampness and so on – also have a direct impact on health, as does the diet a household can afford. We would therefore expect an increase in non-wage income to affect mental and physical health through a move to a better neighbourhood, changing types of work, and moving out of energy poverty and extreme poverty.

Psychosocial: psychosocial theories focus on stress as a mechanism for the influence of income on health (Benzaval et al., 2014; Cesarini et al., 2016; Mullainathan & Shafir, 2013). First, insufficient income may lead to stressful circumstances – little control at the workplace, poor reconciliation between paid and unpaid work and so on – and second, it can lead to feelings of social disadvantage and stigma that are stressful for an individual. These feelings of stress have a direct impact on a person's health.

Behavioural: theories highlighting behavioural mechanisms argue that people on lower incomes are more likely to engage in unhealthy behaviour, such as smoking, drinking alcohol, eating unhealthily or not exercising (Benzaval et al., 2014; Cesarini et al., 2016). There are several causes that can lead to this behaviour. First, harmful behaviour is used as a coping mechanism in difficult situations. Second, individuals with lower incomes focus more on the present and do not think as much about the future, which may lead them to behave in more risky ways in terms of health. And third, people tend to behave in ways that are similar to our social group, perpetuating behaviour that we observe and with which we identify (Benzaval et al., 2014).

Children's health is also the subject of interest in this pilot project, and authors who have studied it (see for example Cesarini et al., 2016; Akee et al., 2018) identify mostly material – improvable living conditions – and psycho-social mechanisms – especially parental stress – as keys to explaining differences in children's health.

Theoretical identification of mechanisms is generally more difficult to translate into practice, given that many mechanisms are intertwined and difficult to identify. The study will therefore focus more on outcomes, although an attempt will be made to capture what happens both qualitatively and quantitatively to mechanisms.

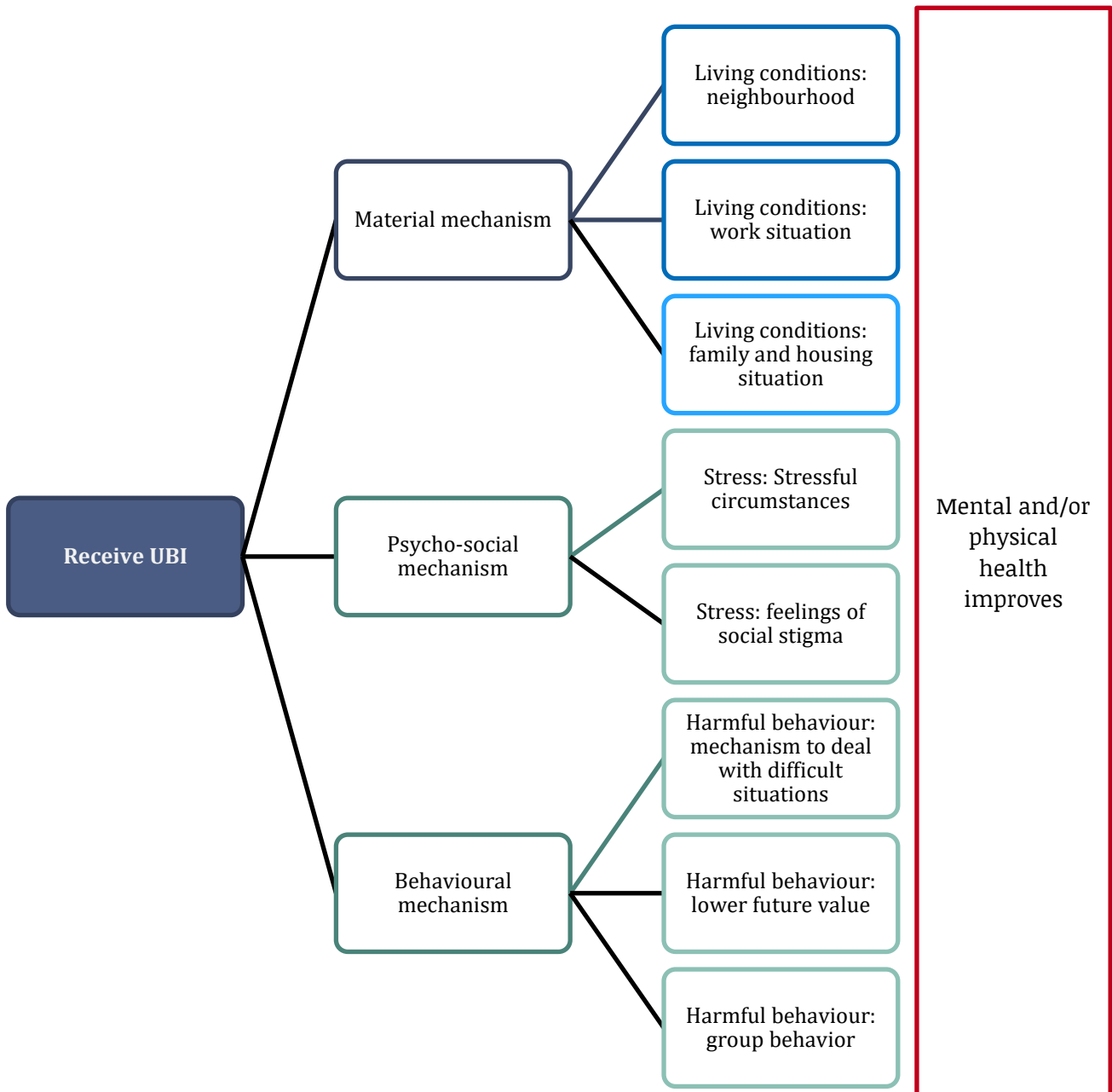
The outcomes of interest are diverse and focus on both mental and physical health. Our premise has been the research by Cesarini and his co-authors (2016), who focus on deaths and hospitalisations as well as their causes. They distinguish between “hypotheses-based causes”, in which they include medical conditions that may stem from psycho-social and behavioural mechanisms – diabetes, heart disease, hypertension, cerebrovascular diseases, alcohol consumption, accidents and smoking – and “common” causes, such as cancer, respiratory diseases, cardiovascular diseases and the like. In addition, they also focus on the prescription of medicines, both for mental health and for diseases that have their causes in the aforementioned mechanisms, and finally they also elaborate a health index.

Both objective and subjective data will be analysed for the pilot project, thereby filling a gap in the literature, given that many studies rely only or mostly on subjective data (Wilson & McDaid 2021). Objective data will be taken from records of deaths, hospitalisations and diagnoses made, differentiating those that are related to social determinants of health and those that are not. In line with the theory of change, we would expect to see a reduction in deaths, hospitalisations and diagnoses related to social determinants of health. We will also examine data on medicines prescribed for

both mental and physical health, data on both public and private services used, unmet needs and private health expenditure. The pilot project would be expected to reduce the number of medicines prescribed and unmet needs. An increase in the consumption of private services may also be plausible, although the magnitude may not be high given the universality of public health care. Finally, subjective health will be assessed with a standardised mental health scale. The registration data will be the same for child health outcomes, including the addition, if possible, of birth weight and prematurity.

Data on fuel poverty and extreme poverty (material mechanism), data on mental burden (psychosocial mechanism) and on consumption of temptation goods (behavioural mechanism) will also be studied to understand a little more about the role of each mechanism. Figure 5 summarises the theory of change, with different colours indicating various mechanisms of change and the outcome marked in red.

Figure 5 – Theory of change: UBI and health



The empirical evidence is surprisingly mixed. The interventions in the Cherokee community, Finland and Canada (Mincome) have had positive effects on several aspects of health, both mental and physical: number of hospitalisations, psychiatric, behavioural and mental health disorders, self-perceived stress, depressive symptoms

and cognitive functioning, obesity and anxiety (Akee et al., 2010; Akee et al., 2018; Wilson & McDaid, 2021; Wolfe et al., 2012; Marinescu, 2018; Merrill, Neves & Laín, 2022). This is also the case for interventions in Alaska and trials from the 1960s in the United States (Siddiqi, Rajaram & Miller, 2018) that looked at the impact on infant birth weight and the Apgar test. An interesting aspect of two studies related to the Cherokee community is that the mediating factor leading to better mental health is not a reduction in poverty, but an increase in the time parents spend with their children (Costello et al., 2003; Akee et al., 2018).

In contrast, the study analysing the impact on lottery winners in Sweden, as well as the B-Mincome intervention in Barcelona, finds no significant impact on health – both physical and mental (Cesarini et al., 2016; Todeschini & Sabés-Figuera, 2019). In the case of Barcelona, no significant impact is specifically found on self-perceived health, the likelihood of having a serious mental or physical health problem, or the likelihood of having a diagnosed anxiety or depression problem. In contrast, a significant positive effect on sleep quality is found (Todeschini & Sabés-Figuera, 2019, pp. 63-69). As for developing countries, the interventions in India did indeed have positive effects on health, although no significant effect was found in the Kenyan intervention (MPUCT Report, Davala et al., 2017; Haushofer & Shapiro, 2016).

The literature review suggests there are still **many questions** in the field of health. Wilson & McDaid (2021) highlight three. First, most of the trials and interventions that have been conducted analysing the effects on health have low-income or unemployed individuals as their target population; **we therefore do not know the effect that a UBI may have on other types of individuals** (middle-income, different age groups, women and so on). Second, many interventions use subjective measures of health, but **there is little information on objective measures**. And third, **spillover effects** have not been measured in developed countries (there is evidence of reduced stress among non-participants in developing countries).

In terms of the particular case of the pilot project in Catalonia, the relevance of active mechanisms in developing countries is limited, given that the cost of public health care at the time of use is already zero, and we are not dealing with a conditional transfer. Barcelona and Sweden are the most similar cases when it comes to developed countries, and both interventions focused on low income and/or unemployed people, with voluntary participation. **The fact that the evidence is mixed, alongside the very design of the pilot project in Catalonia – with a saturation design targeting low and middle**

incomes – suggests that health is a aspect of great interest both theoretically and empirically for the pilot project.

Labour market

Participation in labour market

The theoretical impact of a cash transfer on labour participation – both extensive and intensive (hours) – **is unclear** (Banerjee et al., 2017). Neoclassical economic theory predicts that, as long as we consider leisure a desirable good (a *normal* good in economic jargon), an increase in non-wage income will lead to a reduction in work in order to enjoy more leisure – something that is known as the *income effect* (Borjas, 2012).

This income effect, however, has been questioned by other branches of economics. In a 1986 study by Dasgupta & Ray, development economics argued theoretically that an increase in income would allow individuals to overcome malnutrition and become productive workers in poor, malnourished environments (Dasgupta & Ray, 1986). The argument has also been used outside of extreme contexts of malnutrition and relates to **contexts where leisure is perceived as an inferior good**. Behavioural economics suggests that a situation of poverty leads to a very low marginal utility of labour and the income effect for very low incomes is therefore very weak, zero, or even negative (Gamel et al., 2006; Bastagli et al., 2016; Calnitsky & Latner, 2017; Mullainathan & Shafir, 2013). In other words, when the income of the person in question is minimal, an increase in income may not be enough to make him/her decide to work less (i.e. he/she needs it all to survive, the income from work and additional income), and this income may in some cases increase the marginal utility of work and improve labour participation. Institutional economics similarly suggests that an increase in income can alleviate debt and liquidity problems, thereby helping to start a business or to focus on finding better paid, productive work (Bastagli et al., 2016; Banerjee et al., 2017).

Other authors do not question the income effect, but instead one of the assumptions of neoclassical theory: **the binary between leisure and work** (Ferber & Nelson, 2009; Calnitsky & Latner, 2017). The income effect may indeed be strong and translate into leaving the formal labour market, but this does not necessarily imply more leisure. Leaving the formal labour market for young people may translate into further education, and it may translate into child and dependent care (especially) for some women. Similarly, there are studies that emphasise that leaving the labour market may be due to various causes. In other words, if those leaving the formal labour market are

usually older people or people in poor health, the sociological interpretation of the income growth impact should necessarily be different if leaving the labour market is mostly produced by people in their prime working age.

Additionally, in a context where the cash transfer is not only given to low-income individuals, **diversity becomes an interesting element to analyse**. While neoclassical theory persuasively argues that diversity of preferences should be left out of the model because it has a stylised, generalizable model, it is also true what Banerjee et al. (2019) suggest that one of the interesting aspects of universality is to understand what happens to the behaviour of individuals not found in the low-income group. **One aspect discussed extensively in feminist economic literature is care work**. Using Becker's human capital arguments (Becker, 1985), in addition to the feminist literature focusing on gender norms and their influence on labour market decisions and care work (see for example Ferber & Nelson, 2009), we suggest that care work may be a "normal" good for women with low levels of education, although it may be considered an inferior good for women with higher levels of education (Folbre, 2001). A cash transfer could therefore be used by women with lower levels of education to leave the formal labour market, while women with higher levels of education could use it to outsource care work.

Finally, **the effect on the labour market is also uncertain at an aggregate level**. Leaving the formal labour market can have **overall equilibrium effects** by decreasing supply, increasing wages and thus increasing the demand for goods and services, and ultimately the demand for labour (Banerjee, 2017). On the other hand, the fact that a UBI model cannot be implemented as it is intended – and the tax system cannot therefore be changed – makes it impossible to understand what would happen at an aggregate level, as we cannot calculate the change effects of the tax system.

Figure 6 summarises the mechanisms of change for individual effects and Figure 7 for aggregate effects.

Figure 6 – Theory of change: UBI and labour market – individual effects

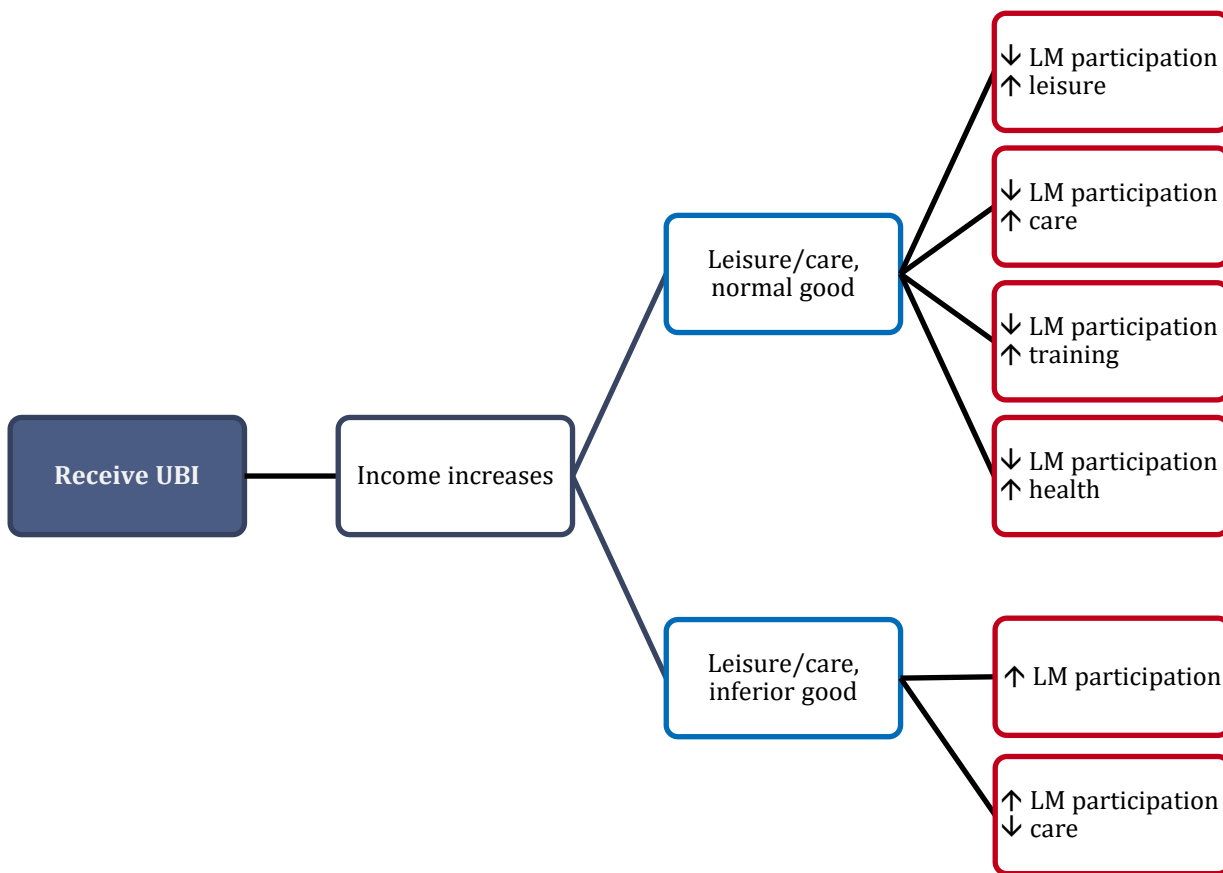
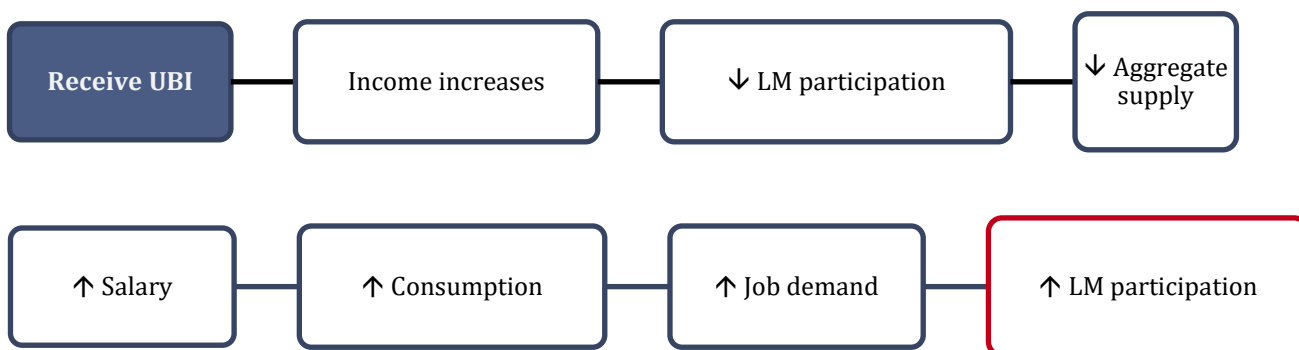


Figure 7 – Theory of change: UBI and labour market – aggregate effects



The empirical evidence so far is inconclusive, although some patterns can be seen. Where cash transfers have been enough to cover basic needs in developed countries, their effect on labour market participation has been **small but negative**. This is the case of the negative income tax trials in the United States in the 1960s, in which a 10% increase in unearned income was found to translate into a reduction in hours worked equivalent to 2-4 weeks per year (Marinescu, 2018, 2019). But these trials contained problems in

methodology and design, and these therefore need to be taken into account when interpreting the results (ibid). The results of Canada's Mincome trial in the town of Dauphin conclude that the cash transfer led to a reduction in labour participation of approximately 11 percentage points. Nonetheless, it is important to note that individuals, far from leaving the labour market for leisure, were engaged in care work, training or had health and disability problems (Calnitsky & Latner, 2017). Finally, a study of lottery winners in Sweden – in which the prize was given in monthly instalments – finds that winning \$140,000 reduces labour market participation by 2 percentage points, although the effect disappears after ten years (Cesarini et al., 2017; Marinescu, 2018). The only study where a positive impact is found is in the Netherlands, although what was being examined here was the effect of removing conditionality (Verlaet et al., 2021).

For interventions in developed countries *where the cash transfer was not enough to cover basic needs*, **the results are also ambiguous, although they indicate no or minor effects**. In the case of the intervention in the Cherokee community (Akee et al., 2010; Wolfe et al., 2012), as well as the intervention in Finland (Merrill, Neves & Lain, 2022), the authors find that the transfer has no significant effect on labour participation. The intervention in Alaska is analysed by two studies with different conclusions. Jones & Marinescu (2018) conclude that there has been no significant effect on labour participation, and they believe that this null effect may be due to general equilibrium effects, whereby the reduction in labour participation may have been offset by an increase in labour demand (Jones & Marinescu, 2018; Marinescu 2018). In contrast, Feinberg & Kuehn (2018) do indeed find an effect on the number of hours worked (with elasticities of between -0.15 and -0.10 for men), especially for married women, which is the group that reduces its labour participation the most (elasticity of between -0.18 and -0.11). The authors conclude that the reductions are rather modest and perhaps not large enough to offset the gains from the programme.⁷ A reduction in labour participation of 9.5 percentage points is found in the Barcelona intervention (Verlaet, Todeschini and Ramos, 2022), known as B-Mincome. This effect is explained by a reduction in the labour participation of individuals living with children, suggesting a substitution of formal work in the market by informal care work. Finally, reviews of interventions conducted **in developing countries identify no effect on labour participation** (Banerjee et al., 2017; Banerjee et al., 2019; Salehi-Isfahani & Mostafavi-Dehzoeei, 2018).

⁷ They mention the paper by Jones & Marinescu (2018) in the discussion of their results and suggest that the synthetic control method used cannot properly capture the Alaska-specific demand effects, as these remained high because of oil activity even as the rest of the country was beginning to suffer a recession.

Therefore, what the empirical evidence so far tells us is that **the income effect seems to be present in developed countries, but in a reduced form**. Moreover, the **critique of the work-leisure binary seems to be well-founded**, given that people who reduce work participation do not seem to do so in order to devote it to leisure. **Care work emerges in several studies as an alternative to formal work**, thus the diversity of the impact of cash transfers is an interesting point to examine. Finally, the fact that **general equilibrium effects** are perceived in Alaska means that it is worthwhile examining them to understand the phenomenon better. On the other hand, the result in developing countries of a null effect suggests that the consideration of leisure as an inferior good appears to be appropriate in this context (and perhaps not as much in a context such as that in Catalonia).

Entrepreneurship

The literature on entrepreneurship stresses **lack of liquidity as a relevant factor in entrepreneurship**, and the empirical evidence – based on studies of inheritances, increases in home values and levels of accumulated wealth – largely supports the hypothesis (Evans & Leighton, 1989; Evans & Jovanovic, 1989; Blanchflower & Oswald, 1991; Hotz-Eakin et al., 1994; Johansson, 2000; Fairlie & Krashinsky, 2012; Schmalz et al., 2017).

In line with this literature, Feinberg & Kuehn (2020) have examined the impact of the Alaska Permanent Fund to find that it has a positive impact on entrepreneurship, although this weakens over time. They also analyse the impact for men and women separately to find that there is almost a null effect for women. They conclude that the fund has exacerbated the differences in entrepreneurship between men and women. Another paper, using lottery winnings in Sweden, also finds that the probability of entrepreneurship increases among people who have won the lottery (Lindh & Ohlsson, 1996).

Gender relations and gender-based intimate partner violence

Women's financial independence is seen as an essential tool to fight against gender-based violence. But the evidence on the effects that financial benefits can have on this factor is **ambiguous** and points to two directions. On the one hand, the literature indicates that (conditional and non-conditional) income transfers can increase the resources of women, improve their access to training and generally increase their bargaining power and independence, thereby lessening their exposure to intimate

partner violence. In contrast, other studies suggest that women's increased financial independence may increase violence as it threatens the role of men as the main breadwinner and they resort to violence as a mechanism of control and dominance (Bastagli et al., 2016).

Most evidence on these phenomena is from developing countries. For example, examining the effects of the Oportunidades programme in Mexico, Bobonis et al. (2013) find that female recipients are less likely to be victims of physical violence, but are more likely to receive threats of violence from their male partner. These results suggest that an increase in women's income could lead to an increase in threats of violence. In contrast, Haushofer et al. (2019) find that unconditional transfers to both men and women in Kenya reduce intra-household violence.

The literature also indicates a diversity of effects: once again, in an evaluation of the effect of the Oportunidades programme in Mexico, Angelucci (2008) reports that the effects of the programme on intimate partner violence vary according to the amount and cultural beliefs of men: violence was reduced by 37% in households where women received smaller transfers, while conversely, aggressive behaviour by men with traditional views of gender roles increased in households where women received larger transfers.

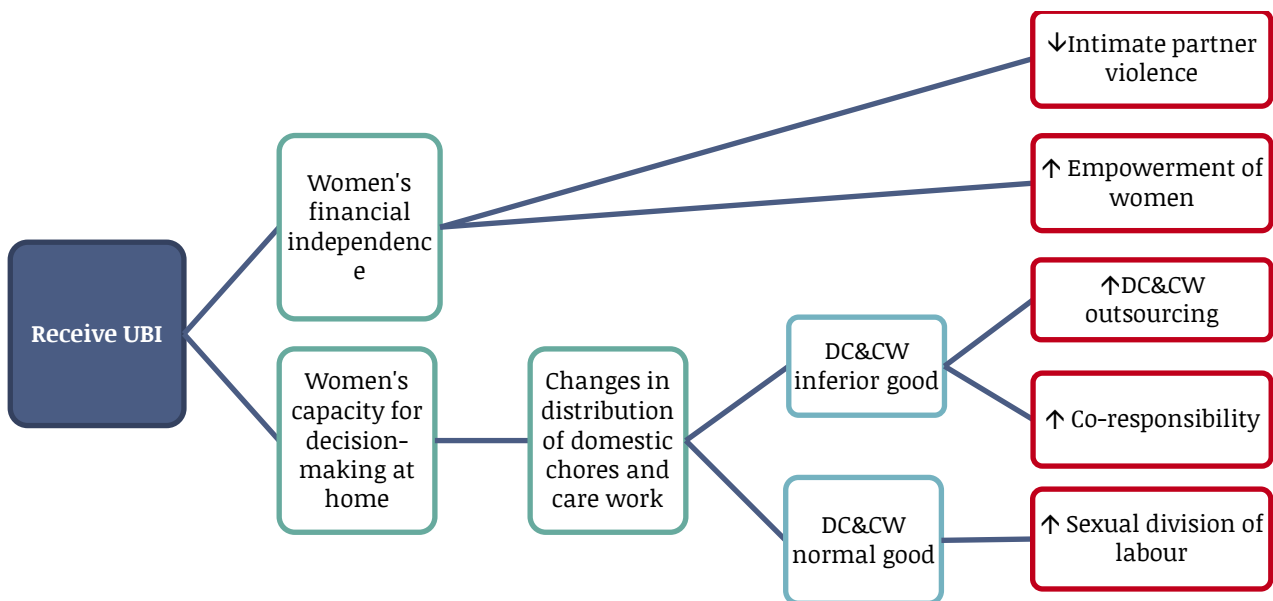
The evidence is also inconclusive in developed countries. Some relationship between financial vulnerability and intimate partner violence has generally been found (Golden et al., 2013). Furthermore, evidence suggests that the lack of financial independence for women is one factor that can lead them to endure violent relationships (Cancian & Meyer, 2014). Nonetheless, the evidence on the effect of basic income or similar financial benefits is inconclusive. Calnitsky & Gonalons-Pons (2021) in Canada find no effect in the case of the Mincome trial.

The results are also inconclusive in terms of empowerment. Furthermore, **most studies are in developing countries and these examine indicators that are less relevant to the Catalan context** (marriages, pregnancy, use of contraceptive methods and so on). Bastagli et al. (2016) indicate that several studies have tested the effect of income transfers on the decision-making power of women, especially in terms of their ability to make financial decisions. The results vary markedly, with some studies reporting a positive effect of the transfer on the decision-making capacity of women in households. However, other studies identify no effect.

Finally, there is **very little evidence on the effects that a UBI may have on the distribution of domestic and care tasks within households**. The hypotheses about its effect are once again **ambivalent**. On the one hand, it is believed that increasing women’s financial independence may increase their bargaining power at home and improve the distribution of tasks. On the other hand, feminist literature suggests that it could reinforce the sexual division of labour as it provides a financial incentive for women to perform unpaid household tasks and not participate in the labour market (Berbel, 2017; Gheaus, 2008), while not creating any incentive for men to increase their dedication to these domestic chores. Given that women are in a structurally worse position in the labour market, a UBI could lead to lower female participation in employment and thus reinforce the sexual division of labour.

In short, in the case of the pilot project in Catalonia, analysing the effect of a UBI on intimate partner violence, empowerment and the division of domestic chores and care work is very relevant **given the lack of studies in developed countries and the ambiguity of the existing evidence** on these phenomena.

Figure 8 – Theory of change: UBI and gender



Subjective well-being and autonomy

The available evidence indicates a **positive relationship between income and subjective well-being**. Kahneman & Deaton (2010) explore the relationship between income and subjective well-being by considering emotional well-being and life

satisfaction. Emotional well-being refers to the emotional quality of everyday life; in other words, the frequency and intensity with which we experience positive and negative emotions and how these make life pleasant or unpleasant. Life satisfaction, on the other hand, refers to how people assess their lives when reflecting on them. The authors find a strong positive relationship between income and both factors for people with incomes below \$75,000. Similarly, a variety of evidence identifies a strong relationship between poverty and emotional distress and dissatisfaction with life, suggesting that the effect of income on subjective well-being changes with relative inequality: higher inequality leads to greater dissatisfaction (Griffin et al., 2017). These results indicate that improvements in subjective well-being may be greater if a UBI is received by a particular community.

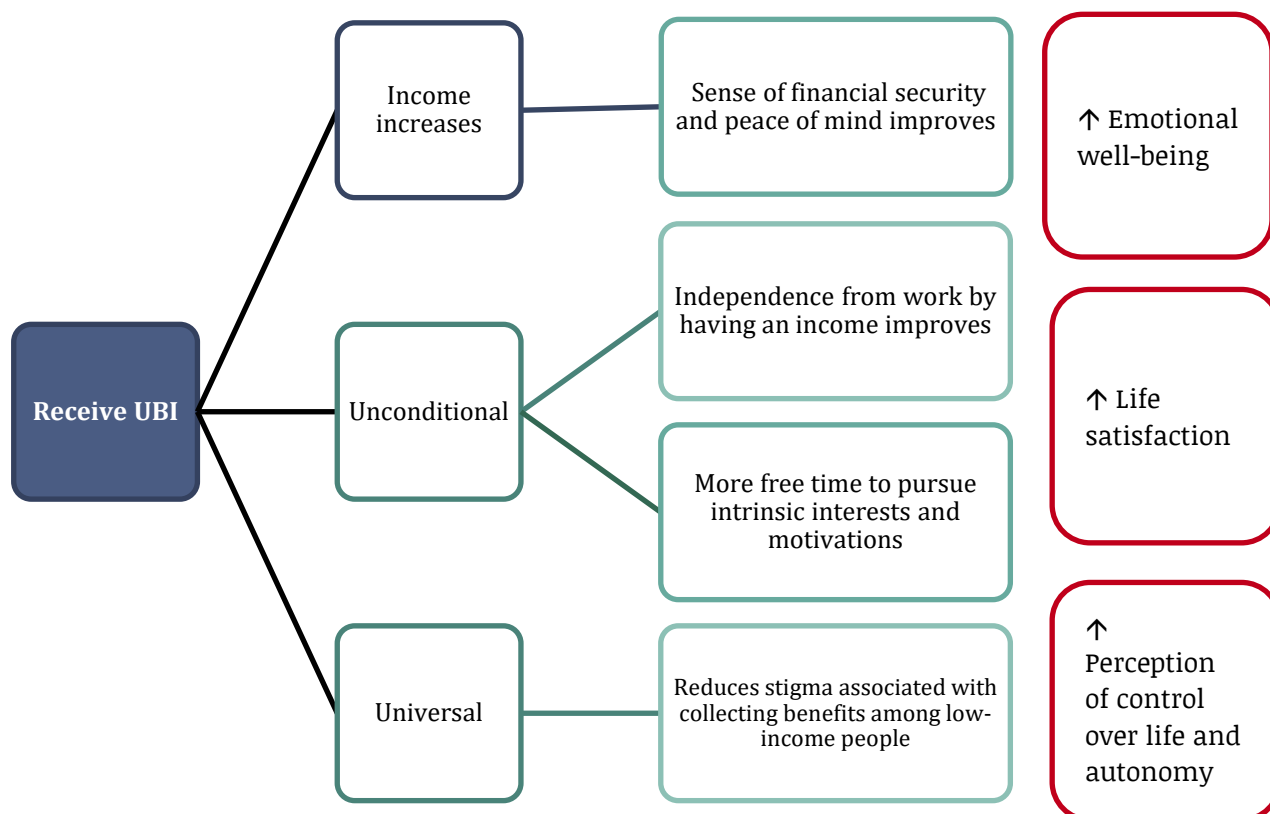
In line with these studies, the evidence on the effects of a UBI on the subjective well-being and **life satisfaction** of recipients is consistent. Results from several trials in developed countries suggest that a UBI has a **very positive effect** on these factors. For example, the evaluation of the UBI pilot project implemented in Finland indicates that UBI recipients were more satisfied with their lives and experienced less mental stress, depression, sadness and loneliness (Kangas et al., 2019). Similarly, the evaluation of the B-Mincome programme found an increase in life satisfaction of more than fourteen percentage points (Todeschini & Sabes-Figuera, 2019), and Davala et al. (2017) also report a positive effect of a UBI on life satisfaction and social relations in the municipality where the whole community receives it. There is also an interest in exploring these factors when it comes to the pilot project in Catalonia.

In line with these considerations and results, a positive impact of the benefit on life satisfaction is expected and this should be even more significant given the amount of the benefit to be granted.

Apart from the effects of a UBI on life satisfaction, we also intend to examine **whether it improves the real autonomy and freedom of recipients**. In line with the normative arguments in favour of a UBI, it is expected that it will improve the perception of autonomy, free choice and control over their lives of recipients. **Not much empirical evidence exists** on these issues because they have not been outcomes of interest in many trials. Nonetheless, it is becoming a key issue in the discussion on transfers. Banerjee & Duflo (2019), for example, argue against conditional income transfers and in favour of unconditional ones because they promote the dignity and autonomy of recipients. Furthermore, for people on low incomes, the suggestion is that a UBI would

reduce the stigma attached to receiving certain benefits, thereby also contributing to emotional well-being. The pilot project will assess the effects of a UBI in this regard. The theory of change is summarised in Figure 9.

Figure 9 – Theory of change: UBI and subjective well-being and autonomy



Values and attitudes

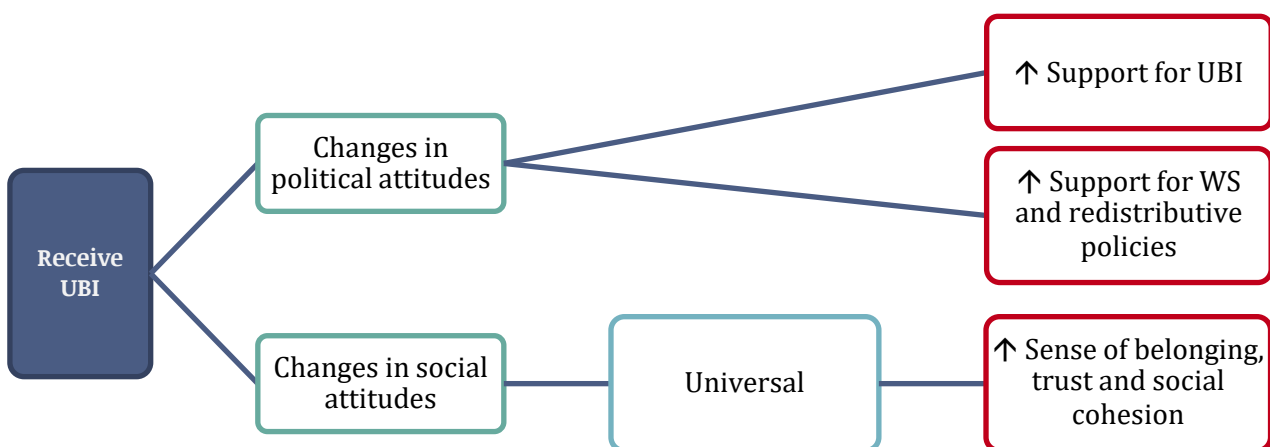
The pilot project intends to study the effects of a UBI on the attitudes and values of recipients in various ways. The aim is specifically to analyse whether a UBI changes political and social attitudes, attitudes towards the welfare state (WS), and attitudes towards a UBI and its components.

With regard to attitudes towards a UBI, there has been a growing number of studies on the subject in recent years. The evidence is diverse according to context and individual factors such as ideology (Schwander & Vlandas, 2020), and it also varies markedly according to the component or characteristic of the UBI, with more support for the basic,

unconditional condition and less for the logic of universality (Rincón et al., 2022; Vlandas, 2021). There are also studies suggesting that, although attitudes towards a UBI are positive, when explaining the implications of the policy in terms of funding, support for a UDB is reduced (Green et al., 2021). But what **has not been examined is precisely the effect of becoming a UBI recipient on attitudes towards this intervention**. The pilot project therefore provides a unique opportunity to analyse this factor. Nettle et al. (2021) show that the pandemic has changed attitudes towards a UBI, making it perceived as a more efficient, simpler policy, thereby reducing the perception that it benefits undeserving people and reduces work activity. These results suggest that attitudes towards a UBI are likely to change as a result of receiving the benefit.

As for the effect of a UBI on **political and social attitudes and attitudes towards the welfare state, there is no explicit evidence** because this has not been analysed in the pilot projects under review. Nonetheless, the literature on the effects of policies on the attitudes of citizens has a long tradition and suggests that policies play a very important role in modifying social attitudes and support for specific policies (Pierson, 1994). The pilot project once again provides an ideal opportunity to explore whether the perception of a UBI changes the social and political attitudes of recipients. Figure 10 summarises the theory of change.

Figure 10 – Theory of change: UBI and values and attitudes



1.2. Meso- and macro-level changes

As noted in section 2.2, one of the added values of the pilot project in Catalonia is exploring the effects of universality, in the sense that one of the trials conducted is a saturated trial at municipality level. This design helps us to assess changes at a meso- and macro-level, such as the use of social, health and educational services, changes in the aggregate level of inequality and poverty, spillover effects on relational aspects, such as the associative and cooperative fabric, political participation and social conflict, and general equilibrium effects on the labour market (unemployment and wages) and the market for goods and services.

Spillover and general equilibrium effects

There is currently **little empirical evidence** on the impact of a cash transfer on these types of meso-level changes, in particular spillover and general equilibrium effects. The intervention in Alaska is the only example in developed countries, although the study does not in fact directly examine general equilibrium effects, but instead ventures that these may be behind the zero impact of the social dividend on labour participation.

There are five trials in the context of developing countries – two in Kenya, two in Mexico and one in the Philippines – and these have been thoroughly examined by including a spillover and/or general equilibrium analysis. One of the trials in Kenya (Haushofer & Shapiro, 2018) focuses on spillover effects in untreated households and finds that they decrease their level of consumption, most likely because they sell some of their assets to households that have more money to buy them. In contrast, one of the Mexican trials (Progresa) finds that a means-tested cash transfer increases the consumption of households in the same town. The causal mechanism is an increase in access to the credit market and an increase in cash “gifts”. The other three trials focus heavily on the impact on **prices** and the **results are different**. In the Mexico intervention (linked to the Food Support Programme, PAL), the effect on prices is positive yet minor, although its effect in less developed towns is quite major because of their isolation from the domestic market (Cunha, Giorgi & Jayachandran, 2018). Similarly, the Kenya intervention, where the income given is a lump sum distributed once, found a fiscal shock of about 15% of GDP, a very small price increase and a fiscal multiplier of 2.7 (Egger, Haushofer, Miguel, Niehaus & Walker, 2019). Finally, in an intervention in the Philippines, the programme

significantly increased local prices and had a negative impact on children's physical development (Filmer, Friedman, Kandpal & Onishi, 2018).

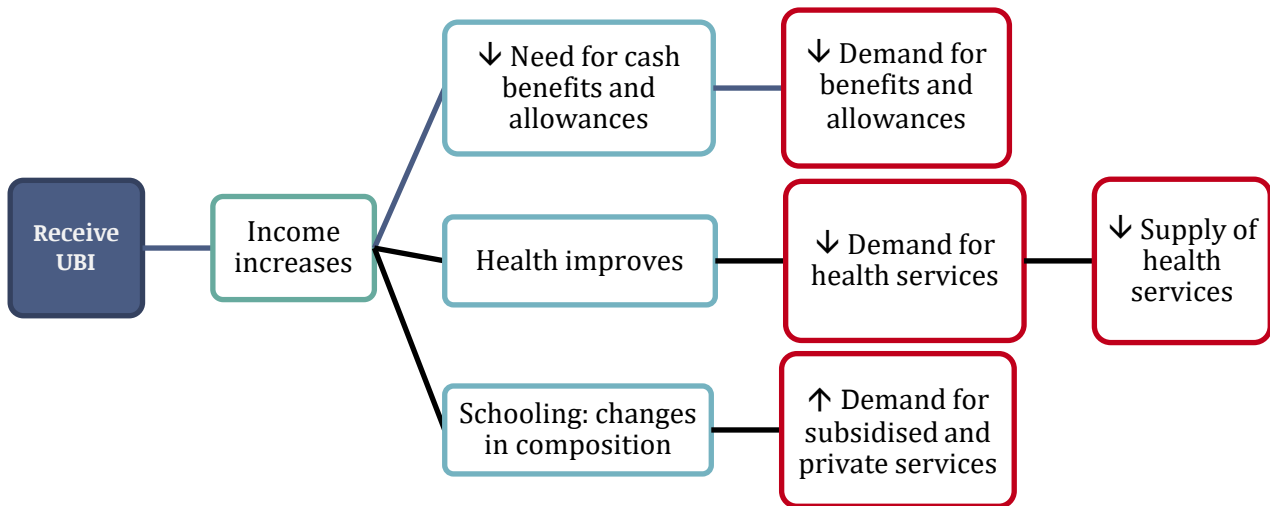
The lack of evidence in developed countries, as well as the evidence with mixed results in developing countries, therefore suggests that it is important to analyse spillover and general equilibrium effects.

Changes in use of social, health and education services

The effects of a cash transfer on the use of social services may arise from behavioural changes because **several needs may already be covered by a transfer** – needs such as food aid, emergency housing assistance and the like. A significant increase in non-wage income is also expected to lead to improvements in health, thereby **reducing the use of health services**. In turn, a change in demand could lead to a change in the supply of services, although the duration of the pilot project may not be long enough to observe a statistically significant change. We would not expect too much of a change in demand when it comes to the use of educational services because they are free at the time of use, although there could be a change in the composition of demand between different types of education – public and subsidised. Moreover, we would also expect a cognitive shift at an aggregate level that would stem from children and minors whose families are no longer in poverty.

There is no pilot or intervention scheme to our knowledge that has focused on the use of these services, so the pilot project can therefore make a relevant and unique contribution in this respect.

Figure 11 – Theory of change: UBI and use of social, school and health services



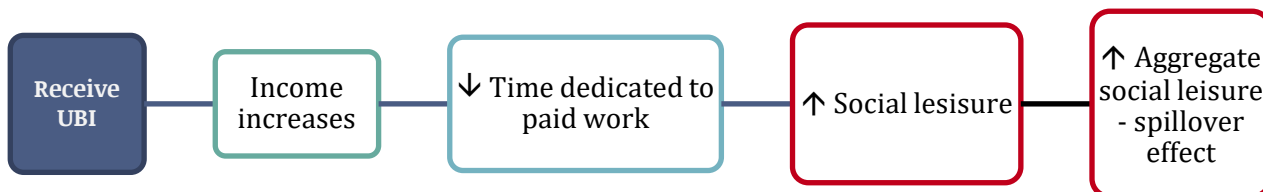
Changes in associative and cooperative fabric, political participation and social conflicts

The mechanism by which a cash transfer is expected to have an effect on the associative fabric is, on the one hand, a **change in the use of time**, as the transfer makes it possible to reduce working hours and dedicate them to “social” or individual leisure, and, on the other hand, **spillover effects** – this can lead to a copycat effect if more people participate in the associative fabric.

There is **little evidence on these aspects**. The B-Mincome programme in Barcelona shows that the transfer, when conditioned with labour activation policies, has a positive impact on “social” leisure (Todeschini & Sabés-Figuera, 2019). In contrast, trials in the Netherlands identify no effect on social participation (Verlaat et al., 2021).

In the face of limited evidence, the pilot project’s focus on these aspects can bring much added value.

Figure 12 – Theory of change: UBI and associative fabric



Changes in the level of inequality and poverty

As we have mentioned, the pilot project is not saturated at the level of Catalonia, so we therefore do not expect major changes at this level. However, we believe that outcomes such as inequality and poverty are those that we can analyse at the municipality level – which is our saturation level – and that worthwhile results can be obtained.

In line with the relative poverty argument, relative inequality, which is what we usually measure, will also automatically experience a reduction. As for absolute inequality, on the other hand, no direct effect is expected. Beyond these mechanical changes, a UBI can lead to behavioural changes that can change inequality in either direction.

Table 2 below presents a summary of the gaps in the literature that can help to focus the pilot project.

Table 2 – Summary of gaps in the literature

Outcome	Gaps in the literature
Poverty	<ul style="list-style-type: none"> • Impact of cognitive load on poverty • Little evidence for developed countries
Consumption	<ul style="list-style-type: none"> • Impact on temptation goods • Relative impact on durables and non-durables
Investment, savings and debt	<ul style="list-style-type: none"> • Little evidence for developed countries
Education	<ul style="list-style-type: none"> • Mixed evidence of cognitive impact in developed countries • Little evidence for non-formal training
Health	<ul style="list-style-type: none"> • Relatively little empirical evidence for developed countries

<i>Outcome</i>	<i>Gaps in the literature</i>
	<ul style="list-style-type: none"> • Little empirical evidence for mechanisms • Little empirical evidence of effect on individuals other than low-income individuals • Little evidence using objective measures
Labour market	<ul style="list-style-type: none"> • Questioning of work-leisure binary • Little evidence on impact on care work • Little evidence on potential diversity between individuals of different incomes • Little evidence on entrepreneurship and job search
Gender and intra-household relations	<ul style="list-style-type: none"> • Relatively little empirical evidence for developed countries • Ambivalent theoretical framework
Well-being and autonomy	<ul style="list-style-type: none"> • Little empirical evidence on autonomy (much evidence on life satisfaction)
Values and attitudes	<ul style="list-style-type: none"> • Little evidence on impact of pilot project on attitudes towards UBI • Little evidence on impact on attitudes towards welfare state
Spillover and general equilibrium effects	<ul style="list-style-type: none"> • Little and ambiguous evidence on labour market participation, health and consumption
Changes in use of social services, health and education	<ul style="list-style-type: none"> • Little empirical evidence
Changes in associative and cooperative fabric, political participation and social conflict	<ul style="list-style-type: none"> • Little empirical evidence
Changes in level of inequality and poverty	<ul style="list-style-type: none"> • Little evidence for developed countries

4. Conclusions

This report presents a comprehensive review of the literature and theories of change for each area, detailing what we expect to happen according to a theory of change, what we know from past interventions, and what gaps still remain in the literature. It is a useful exercise for several reasons. First, **it confirms that the pilot project has the potential to provide information** on a variety of socio-economic areas that are the target of the pilot project's analysis, as evidence is still scarce for certain areas, inconclusive in others, or there are diverse effects worth analysing. Second, **it will allow, as stated in the introduction, a rigorous evaluation of the pilot project**, given that it puts in writing and makes clear what is expected to be found, minimising the risk of misinterpreting the results. And third, it forms the **basis to produce the survey** to be handed out to the pilot project participants, as it helps to provide an understanding of where to focus and which areas and questions are crucial and important.

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6. Annex

Table 3 – Interventions analysed for review of literature

Place of intervention	Name of intervention	Year(s) of intervention	Bibliography examined
Urban areas in New Jersey and Pennsylvania, rural areas in Iowa and North Carolina, and in Gary (Indiana), Seattle (Washington), Denver (Colorado)	N/N, negative income tax interventions	Various years according to location, overall from 1968 to 1982	Marinescu (2018), Marinescu (2019), Siddiqi et al. (2018)
Winnipeg and Dauphin (Manitoba), Canada	MINCOME	1974-1979	Calnitsky & Gonalons-Pons (2021), Calnitsky & Latner (2017), Hoynes & Rothstein (2019), Marinescu (2018), Siddiqi et al. (2018), Wilson & McDaid (2021)
Alaska, USA	Alaska Permanent Fund Dividend	1982-today	Feinberg & Kuehn (2018), Feinberg & Kuehn (2020), Hsieh (2003), Jones & Marinescu (2018), Kueng (2015), Marinescu (2018), Siddiqi et al. (2018)
North Carolina, USA	N/N, opening of a casino on Eastern Cherokee Reservation	1997-today	Akee et al. (2018), Akee et al. (2010), Costello et al. (2003), Wilson & McDaid (2021), Wolfe et al. (2012)
Finland	Basic Income Experiment Evaluation Project	2017-2019	Kangas et al. (2019), Merrill, Neves & Laín (2022), Wilson & McDaid (2021)
Barcelona	B-MINCOME	2017-2019	Todeschini & Sabés-Figuera (2019), Verlaat et al. (2022), Wilson & McDaid (2021)
Utrecht, Zeist and other cities, The Netherlands	N/N	2018-2020	Verlaat et al. (2021), Wilson & McDaid (2021)
Kenya	N/N, RCTs in Kenya	2011-2013	Haushofer & Shapiro (2016), Haushofer & Shapiro (2018), Egger et al. (2019)

Place of intervention	Name of intervention	Year(s) of intervention	Bibliography examined
Otjivero, Namibia	N/N, UBI trial in Namibia	2008-today	Osterkamp (2013)
Madhya Pradesh, India	N/N, UBI trial in India	2012-2013	MPUCT Report, Davala et al. (2017)
Iran	N/N	2011- today	Salehi-Isfahani & Mostafavi-Dehzoeei (2018)
Mexico	Progres/Oportunidades	2003-today	Angelucci (2008), Bobonis et al. (2013), Cunha et al. (2019)
Philippines	Pantawid Pamilya Pilipino Program	2008-today	Filmer et al. (2018)
Massachusetts, USA	N/N, lottery winners	Mid-1980s	Imbens et al. (2001), Marinescu (2018)
Sweden	S/N, lottery winners	1986-2003	Cesarini et al. (2016, 2017), Lindh & Ohlsson (1996), Marinescu (2018)

Note: N/N implies that the name is not known or there was no specific name.

Table 4 – List of literature reviews used

Review authors	Type of review	Type of interventions covered	Outcomes	Type of countries covered	Specific interventions
Hasdell (2020)	Review of review	UBI, CCT	Various	Developed and developing	Various
Gentilini et al. (2019)	Review of literature	UBI	Various	Developing	Various
Marinescu (2018)	Review of literature	Various	Various	Developed	NIT, interventions in Cherokee community, Alaska, lottery winners
Bastagli et al. (2016)	Review of literature	CCT, UCT	Various	Developing	Various
Banerjee et al. (2017)	Review of literature	CCT, UCT	Labour market	Developing	Various
Banerjee et al. (2019)	Review of literature	CCT, UCT	Various	Developing	Various
Hoynes & Rothstein (2019)	Review of literature	Various	Various	Developed	Alaska, Cherokee community, Manitoba (Canada)
Siddiqi et al. (2018)	Review of literature	Various	Various	Developed	Alaska, Manitoba (Canada)
Evans & Popova (2014)	Review of literature	Various	Temptation goods	Developed and developing	Various
Wilson & McDaid (2021)	Review of literature	Various	Health	Developed	Finland, Barcelona, Netherlands, Cherokee community, Manitoba (Canada)

Note: CCTs are conditional cash transfers, and UCTs are unconditional cash transfers. Developed and developing countries are understood as economically developed and developing countries.



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