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Mapping the potential outcomes of basic income policies and how these might be evaluated

Trawsnewid **data** a **thystiolaeth** i **ddeallusrwydd iechyd cyhoeddus**

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Contents

1. Executive summary

This mapping report aims to support the identification and assessment of the potential individual and societal benefits that basic income schemes may bring. This has been done to support those making decisions about the design of the basic income pilot in Wales and its evaluation.

We systematically and comprehensively identified, organised and summarised the evidence available to answer the following questions:

1. What benefits or outcomes of basic income schemes have been demonstrated, proposed or modelled?

2. How could basic income schemes be evaluated?

1.1. Outcomes

The literature indicates that authors have considered a broad range of outcomes worthy of investigation and feasible to include in a pilot study. Outcomes ranged from direct economic outcomes to more indirect outcomes such as education, environment and communities.

We identified outcomes on topics relating to:

- Political, economic and employment (political, economy, labour market, household income/financial)
- Children and families (birth/pregnancy/prenatal, personal relationships)
- Communities (community activities, crime/antisocial behaviour, population size)
- Education and skills (child and adult education and training)
- Environment (environmental impact)
- Equity (inequality, poverty)
- Food (nutritional)
- Health (child health and development, health behaviours, healthcare utilisation, mental health and wellbeing, mortality, physical health)
- Housing (quality of housing)
- Leisure (leisure activity)
- Transport (transport).

1.2. Evaluation design

From basic income literature, we also confirmed that it has been feasible for a robust study design to be applied to a variety of basic income interventions. The following key points about evaluating a basic income pilot scheme were identified from the literature:

- The most robust method to evaluate a basic income pilot is a randomised control trial, possibly utilising clusters to allocate intervention and control. Where it is not possible or practical to include a control group, the use of synthetic control methods has been demonstrated to generate appropriate comparison groups[a].
- Outcomes need careful consideration prior to the implementation of a pilot
- Developing a theory of change or conceptual model can provide a framework to organise the potential relationships between the identified outcomes in order to prioritise or manage the evaluation
- Data should be collected prior to treatment allocation, and at six month intervals throughout the pilot and again after the intervention period
- Data collected should be quantitative and qualitative
- Data should utilise both existing administrative datasets and data specifically for the evaluation of a pilot
- A basic income trial should be implemented for longer than two years to allow outcomes of interest to emerge.

1.3. Challenges

If a pilot study in Wales was undertaken involving care leavers, as has previously been inferred, specific challenges when developing an evaluation for this population could include:

- As a small, specific and very vulnerable population, any findings will not be generalisable to the general Welsh population
- As participant numbers involved in the pilot are likely to be small, it may be difficult to show an effect
- Because care leavers are a specific group, it will be particularly difficult to identify a control group. If there is no control group, it will be very difficult to demonstrate that the basic income pilot has had any impact
- This population is likely to be spread across all parts of Wales. This may impact on the success of a pilot study as any benefits are only likely to be seen at individual rather than community level
- The duration of a pilot study and length of follow-up will need to be sufficient to allow this population time to adjust to independent living and then develop a feeling of lasting income security. This should allow them to build new habits and access any new opportunities that may become available to them. There may be a lag between the period during which they receive a basic income and the point at which impact becomes apparent
- It may be challenging to assess important environmental, economic and community outcomes in this population
- As a vulnerable population, outcomes including educational attainment, pregnancy, crime and anti-social behaviour, welfare reliance, health behaviours, mental health and wellbeing, housing and employment may be particularly important

[a] A synthetic control method utilises a weighted average of control states to best match the characteristics of those individuals in the control group for the outcome of interest and other observable characteristics at baseline. This method therefore combines elements of matching and difference-on-difference (DD) estimators.

- As a young population, this cohort's priorities may be very different compared to older populations, and thus careful consideration should be given to the outcomes observed to make this pilot useful.

2. Introduction

Income is a key determinant of health. It has a profound impact on overall living conditions and influences many health behaviours and health outcomes. Basic income schemes are based around regular cash payments given to specific societies or communities and are increasingly seen as a way to improve income security, reduce health inequalities and improve the health and wellbeing of populations[1].

Basic income appears to have first been advocated in the 16th century by Thomas More. Johannes Ludovicus Vives was asked to help the Burges government devise a plan to alleviate poverty in 1525. This included securing an assistance scheme targeted to the poor and was implemented in 1557. Thomas Paine proposed what could be considered a precursor of the modern citizen's income or basic income in 1795 when he laid out detailed taxation plans to landowners as a way to pay for the needs of those with no land in the America's[2]. More recently, the 1970s saw North America implement several basic income trials such as the Alaskan permanent fund, set up in 1976 and still in place today, which provided every inhabitant an annual dividend. A few years later, European countries began debating basic income policies, by 2016 it was being discussed worldwide[2]. Several countries including Canada, Denmark, Finland, Spain, and USA have undertaken social welfare experiments that incorporate different aspects of basic income[3]. Brazil, China, Iran, Kenya, Spain, and USA have ongoing experiments and Germany, Korea, Scotland and USA are planning to undertake basic income trials in the near future[3]. Stanford Basic Income Lab have recently launched a useful map that tracks past, on-going and proposed basic income experiments across the globe[3].

Economic recession and the COVID-19 pandemic have seen a revival of interest in basic income policies as a way to alleviate the impacts of income insecurity on the population[1,4-7]. In May 2021 Welsh Government announced its intention to pilot a basic income programme in Wales, with the aim of reducing poverty and health inequalities. This mapping work complements a report recently published by Public Health Wales which provided an overview of basic income schemes and the considerations necessary to support future development of the proposed pilot in Wales[5].

2.1 A definition of basic income

Basic income models vary enormously and there is no single accepted definition. They are based around regular cash payments delivered to everyone (universal), unconditionally and on an individual basis [5,6,8]. This means everyone within a population receives the same

regular amount of money, regardless of whether they work or not[9]. Basic income schemes incorporate some or all of these aspects. Six of the main types of schemes are[5]:

1. **Universal/unconditional basic income (UBI)**
   All citizens/residents receive a regular, unconditional sum of money
2. **Guaranteed annual income (GAI)**
   A term commonly used in North America for basic income and guaranteed minimum income models that provide an annual payment to recipients
3. **Guaranteed minimum income**
   A system of social provision, normally means tested or with a minimum criteria. Possibly made as an annual lump sum and considers how much a person/family requires to have a decent standard of living
4. **Negative income tax**
   Progressive income tax system where people earning below a threshold receive supplemental pay. This system has been interpreted as a form of basic income, but relies on a person being in employment, which is not a solution to unemployment-related low income
5. **Direct money transfer (cash transfer)**
   Payment to eligible people, sometimes a form of humanitarian aid, but also includes social security payments
6. **Social/citizen dividends**
   Payment to a population based on income derived from the exploitation of natural resources. Paid annually.

2.2 Potential benefits from basic income trials

Basic income may lead to a range of individual and societal impacts. A modified version of the theoretical model developed by Johnson et al.[10] clearly outlines the potential pathway leading to these impacts, as shown in figure 1.

Evidence of specific benefits observed from the many trials of basic income that have been undertaken to date include:

- Financial wellbeing and security[11]
- Food security[12]
- Housing security[13]
- Improved diet[13]
- Improved educational attainment[13,14]
- Improved mental wellbeing[15]
- Improved sleep quality[11]
- Increased birth weight[16]
- Increased confidence in finding employment[16]
- Increased nutrition[13,14]
- Increased probability of buying a house[14]
- Reduced childhood obesity[17]
- Reduced frequency of food bank usage[13]
- Reduced minor crime[18]
- Reduced perceived economic stress[15]
- Reduced property crime[17]
- Reduced stress[15]

- Reduced substance misuse[19]
- Reduction in accidents and injury requiring hospital treatment[20]
- Reduction in childhood and adult psychiatric disorders.[19]

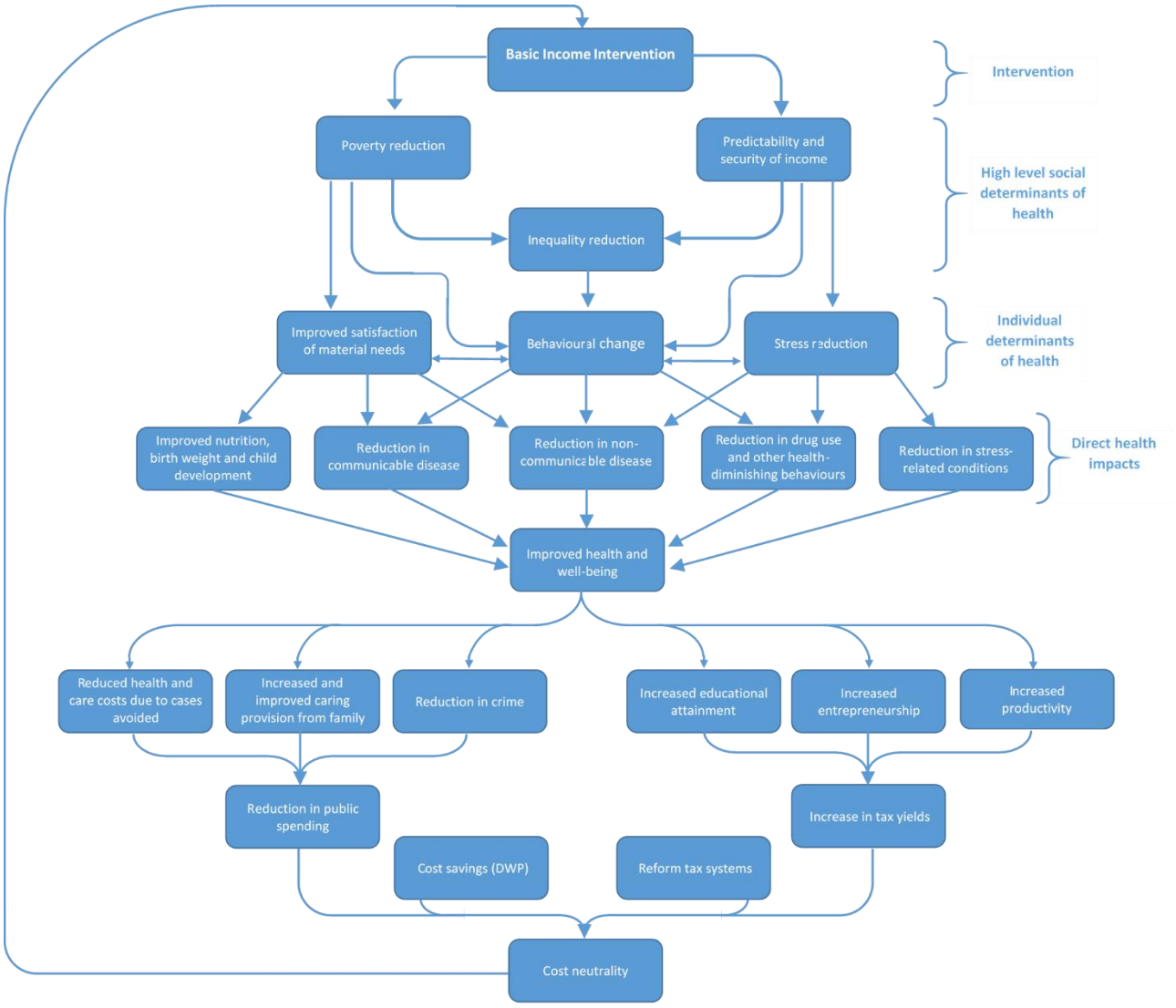

Figure 1: Potential beneficial impacts from basic income schemes. Reproduced from Johnson *et al*.[10]

3. Approach to mapping outcomes

Evidence mapping can be used to identify and structure a specific body of evidence. It involves systematic searching, selection and categorisation of the literature on a given topic.

We mapped the literature to identify potential and actual outcomes and evaluation designs for basic income schemes. We aimed to build on work already undertaken by Public Health Wales to inform the basic income pilot in Wales. In doing this we have not considered the impact that basic income schemes we identified may or may not have. Our purpose has been to identify the outcomes that have been measured, modelled or proposed and identify key elements of evaluation study design. To do this, we systematically organised and summarised the evidence available to answer the following questions:

1. What benefits or outcomes of basic income schemes have been demonstrated, proposed or modelled?

2. How could basic income schemes be evaluated?

We used a broad definition of the term basic income and included all basic income types listed in section 1.1. Although some of these may not be directly relevant to Wales, we wanted to identify potential impacts of basic income schemes to inform the evaluation of the Wales pilot. By including them all, we aim to identify the broadest range of potential impacts.

4. Findings

From a total of 7,301 records identified through searching we included 152; 62 evaluation studies, 24 modelling studies and 66 opinion pieces. Two of the evaluation studies identified were laboratory experiments utilising universal basic income and direct money transfer (cash transfer) programmes to measure labour supply effects, wages and effort. The modelling studies were mainly from high-income countries, but also included Brazil and Cote D'Ivoire in West Africa.

4.1. What types of basic income schemes have been evaluated?

We identified 26 different basic income programmes implemented around the world which provide a useful insight for the design of the Wales pilot scheme (see tables 1 and 2). The majority were direct money transfer (cash transfer) schemes (n=20) implemented after 2000. These were implemented in 19, mostly low- and middle-income, countries. High-income countries implementing basic income schemes included Canada, Finland, Spain and USA. As table 1 demonstrates, all the programmes implemented in high-income countries in the seventies were negative income tax and conducted in the USA.

Social/citizen's dividends and cash dividends were implemented in the 1980's and 1990's, also in USA. We didn't identify any new basic income programmes implemented within the USA since 2000, however two of these programmes are still ongoing. Canada has implemented two direct money transfer (cash transfer) programmes, and Spain and Finland have both implemented a guaranteed minimum income programme. The programmes implemented in low- and middle-income countries, were all direct money transfer (cash transfer) programmes (table 2).

Table 1: overview of programmes identified from high-income countries and the number of studies evaluating outcomes (not including modelling studies)

Programme name	**Type of basic income**	**Country**	**Year started & duration (approx.)**
Seattle-Denver Income-Maintenance Experiment (SIME/DIME)	Negative income tax	USA	1970 6 years
Rural Income Maintenance Experiment (RIME)	Negative income tax	USA	1970 2 years
New Jersey Pennsylvania Negative Income Tax Experiment	Negative income tax	USA	1970's 3 years
Gary Income Maintenance Experiment	Negative income tax	USA	1971 4 years
Manitoba Basic Annual Income Experiment (Mincome)	Guaranteed annual income	USA	1974 5 years
Alaska Permanent Fund Dividend	Social/Cash dividend	USA	1977 Ongoing
Eastern Band of Cherokee Indians Casino Dividend	Social/Cash dividend	USA	1996 Ongoing
Universal Child Care Benefit (UCCB)	Direct money transfer (cash transfer)	Canada	2006 10 years
Ontario Basic Income Pilot	Direct money transfer (cash transfer)	Canada	2017 1 year
B-MINCOME pilot	Guaranteed minimum income	Spain	2017 2 years
Finland Basic Income Experiment	Guaranteed minimum income	Finland	2017 2 years

Table 2: overview of programmes identified from low- and middle-income countries and the number of studies evaluating outcomes (not including modelling studies)			
Programme name	**Type of basic income**	**Country**	**Year started & duration (approx.)**
South African Child Support Grant (CSG)	Direct money transfer (cash transfer)	South Africa	1998 10+ years
Bono de Desarollo Humano	Direct money transfer (cash transfer)	Ecuador	2004 3 years
Unconditional Cash Transfer Program (UCTP)	Direct money transfer (cash transfer)	Indonesia	2005 1 year
the Uruguayan Plan de Atención Nacional a la Emergencia Social (PANES)	Direct money transfer (cash transfer)	Uruguay	2005 2 years
Rural-China School Subsidy Program (SSP)	Direct money transfer (cash transfer)	China	2006 unclear
Kenya Cash Transfer for Orphans and Vulnerable Children (CT-OVC)	Direct money transfer (cash transfer)	Kenya	2007 4 years
Hunger Safety Net Programme (HSNP)	Direct money transfer (cash transfer)	Kenya	2008 4 years
Namibia Basic Income Grant (BIG) pilot project	Direct money transfer (cash transfer)	Namibia	2008 2 years
Manicaland Cash Transfer Trial	Direct money transfer (cash transfer)	Zimbabwe	2009 2 years
Child Grant Programme (CGP)	Direct money transfer (cash transfer)	Zambia	2010 4 years
NGO GiveDirectly Unconditional Cash Transfer Program	Direct money transfer (cash transfer)	Kenya	2011 2 years
Multiple Category Targeted Program (MCP)	Direct money transfer (cash transfer)	Zambia	2011 3 years
Madhya Pradesh Unconditional Cash Transfers Project (MPUCT)	Direct money transfer (cash transfer)	India	2011 17 months
Mchinji Social Cash Transfer Pilot Scheme (SCTPS)	Direct money transfer (cash transfer)	Malawi	2013 1 year
Moderate Acute Malnutrition Out Study (MAM'Out)	Direct money transfer (cash transfer)	Burkina Faso	2013 18 months
World Vision Zimbabwe	Direct money transfer (cash transfer)	Zimbabwe	2015 6 months

4.2. What benefits or outcomes of basic income schemes have been measured, modelled or proposed?

Our search identified a large number of potential benefits or outcomes from both evaluation and modelling studies. By bringing together measures identified through evaluation, modelling and opinion sources, we provide a comprehensive list of outcome measures that have be considered by basic income programmes and might be useful to include in an evaluation. Details of our findings are in the basic income evidence map, in the Appendix (section 8.1). Although outcomes from all basic income programmes are potentially relevant to Wales, those from high-income countries are likely to be the most pertinent. Therefore we have grouped high- and low- and middle-income countries separately. We did not look at the impact of the identified measures as we were only interested in establishing which

outcomes had been considered worthy of measurement and had been successfully measured.

We grouped the outcome measures in the basic income evidence map using broad domains (table 3), based on those identified by Public Health Wales (2021)[5]. In the evidence map there are also more specific categories, and the outcomes measured by each evaluation or modelling study are listed, along with information regarding the type of basic income scheme, the country conducted and the study design.

Table 3 Outcome measures

Broad outcome category	Outcomes identified
Political, economic and employment	Political Economy Labour market Household income/financial
Children and families	Birth/pregnancy/prenatal Personal relationships
Communities	Community activities Crime/antisocial behaviour Population size
Education and skills	Child and adult education and training
Environment	Environmental
Equity	Inequality Poverty
Food	Nutritional
Health	Child health and development Health behaviours Healthcare utilisation Mental health and wellbeing Mortality Physical health
Housing	Quality of housing
Leisure	Leisure activity
Transport	Transport

Although outcome measures relating to health and labour market were common amongst all three source types, there were also distinct differences. We found that opinion pieces tended to focus on subjective outcomes, modelling studies tended to focus on direct outcomes, such as economic, and evaluation studies tended to be more focussed on practical impacts such as health, employment, and educational attainment.

Similarly, outcomes relating to politics were subjective and only found in opinion pieces. They included measures such as the change in relationship between citizens, employers and the state, promoting a sense of belonging or citizenship, communism and enhancing collective power of trade unions. Economic outcomes were mainly identified from modelling studies and included implementation costs/fiscal implications, economic output (GDP, growth rate/productivity), impact on welfare or benefits payments.

Equity outcome measures were generally only modelled in high-income countries. However, one controlled before and after study evaluating a guaranteed minimum income pilot project in Spain measured poverty outcomes. This recruited vulnerable households and

looked at severe material deprivation, energy poverty, food insecurity and housing insecurity. These outcomes were commonly assessed in low- and middle-income countries. We only identified income inequality measures in high-income countries from modelling studies. In contrast, we identified one modelling study from Brazil looking at income inequality. More commonly measured among the low- and middle-income country programmes was the impact on gender inequality, such as female dependency on men and female measures of control or empowerment.

Environmental impact outcomes were identified in a single modelling study from Finland which looked at the effect a universal basic income scheme would have on carbon footprint. Proposed outcome measures included promoting sustainable production and economic growth, recycling rates, activities that contribute to energy efficiency and changes in the extent to which people look after the physical environment in the areas where they live. None of the sources we identified mentioned pollution measures.

Measured educational outcomes among the high-income countries appeared to be quite broad relating to attainment and choice of schools. Only one source evaluated the effect on adult training. Modelled and proposed educational outcomes were more focussed on adult learning and suggested looking into investment and income maintenance during adult learning, inclusive and equitable quality education and lifelong learning, as well as investment in skills formation.

All country types measured the impact of diet quality or diversity, and nutritional intake. Frequency of meal skipping was only measured in high-income countries. Low- and middle-income countries also measured hunger, wasting and malnutrition, particularly among children.

Health was a common outcome and included measures such as physical health, mental health and wellbeing, health behaviours and healthcare utilisation. However, only modelling studies measured mortality outcomes and premature death in adults among the high-income country programmes. In contrast, child mortality was measured in a study conducted in Zambia. In addition, only one study from Uruguay measured smoking related impacts during pregnancy, but no other study looked at smoking behaviours or weight loss. Only the Spanish guaranteed minimum income pilot project measured children's health among the high-income countries, and no study appeared to measure the impact of children in care or with specific needs.

Only one high-income country programme, from Canada looked at quality of housing as an outcome measure. Proposed outcome measures included homelessness, perceptions of housing insecurity and participant confidence in their ability to remain resident in the community. No outcomes measured increase of housing stock in an area or whether participants had been able to improve their existing homes.

Outcomes relating to leisure activities were sparse, with only a Canadian programme measuring frequency of physical activity, and an American negative income tax programme measuring leisure choices of youth.

A single evaluation study, measuring the impact of the Ontario Basic income pilot investigated the ability of participants to transport themselves around the area. No measures were identified that investigated measures relating to the use of green transport, or public transport or if people chose to walk instead of drive.

4.3. How could basic income schemes be evaluated?

During identification of the outcomes, we found several common elements regarding the design and evaluation of a basic income programme. We identified a wide variety of study designs, durations and approaches to data collection. This section highlights our findings and provides key messages to implementing a robust evaluation of a basic income pilot in Wales.

4.3.1. Study design and participant selection

The most common design we identified was a controlled before and after design where data analysed in the evaluation included data collected at only one time point before implementation and one time point post start of the scheme (table 4). This is a weaker category of study design and can be prone to the impact of confounding factors but the inclusion of a control group manages this to some degree. The number of studies identified as this design was fairly evenly split between high- and low- and middle-income countries. Most sources that proposed evaluation designs for basic income schemes recognise a randomised controlled trial as the most robust and appropriate study design[21]. We identified 13 studies as randomised or cluster randomised controlled trials, but in most we could not identify how participants were randomised into control or treatment groups. This may reflect the difficulties of randomly allocating individuals in a trial of this type. Only one randomised controlled trial was implemented in a high-income country; the Finnish basic income experiment. All cluster randomised controlled trials were conducted in low- and middle-income countries, as were all studies with a qualitative element. We also identified a large number of modelling studies where the impact of a basic income schemes were simulated. This allows the impact of different types of schemes, for example different amounts of income and/or different sources of funding to be explored. Modelling is a useful alternative method of estimating potential impacts.

Where details of randomisation was available, most were a cluster design with villages or localities randomised to intervention or control, rather than individuals. Using clusters, or ‘saturation’ sites, may more accurately reflect likely impacts of a national basic income scheme than randomly selecting a portion of candidates for participation over a larger geographical area[21]. The use of ‘saturation sites’ may also give rise to a ‘social multiplier’ where recipient interactions with each other has a much wider impact than the payments alone and may reduce any stigma attached to receipt of payments[21]. Each has their merits and disadvantages and is discussed at length by Charlie Young in his report exploring how universal basic income experiment might work in the UK[21].

As table 4 demonstrates, the majority of study designs of evaluated basic income programmes included a control group to allow comparison and test effectiveness of the basic income pilot[21]. Of the 44 controlled studies identified, only 39% were conducted in high-income countries. Two of our included studies utilised a synthetic control method to construct an appropriate control. This is particularly useful in the absence of a suitable control group of participants, such as when only one region or area is to receive the intervention. The method chooses a weighted average of controls best matched to the intervention population for the outcome of interest and other observable characteristics at

baseline. This method relies on the ability to construct a credible comparator for the intervention group[22].

Table 4: Study designs identified from our search	
Study design	**Country**
Cluster randomised controlled trial	Low- and middle-income: 9
Cohort	Low- and middle-income: 1
Controlled before and after	High-income: 10 Low- and middle-income: 12
Controlled follow-up	High-income: 4 Low- and middle-income: 3
Cross-sectional	High-income: 1 Low- and middle-income: 1
Interrupted time series	High-income: 2
Lab experiment	2
Modelling	High- income: 20 Low- and middle-income: 4
Qualitative	Low- and middle-income: 4
Randomised controlled trial	High-income: 1 Low- and middle-income: 3
Repeat cross-sectional	Low- and middle-income: 1
Uncontrolled follow-up	High-income: 1 Low- and middle-income: 2
Uncontrolled before and after	High-income: 3 Low- and middle income: 3
NB: Three studies included a qualitative element in their data collection, so the total number of studies here is more than the total number of included studies	

4.3.2. Sample

Low- and middle-income country samples were often selected by villages, parishes or regions. Although not exclusively, many high-income countries appear to have selected participants through a strict inclusion criteria, usually targeting those on low income or from deprived areas, but over a larger geographical area. This approach is likely to be due to the diverse socio-economic status of individuals living in a specific area in a high-income country, when compared with a low- or middle-income country. Targeting populations such as those on low income or weaker employment prospects will also limit generalisability to entire populations[23].

We identified a large range of participant numbers in the basic income programmes. Although details of participant numbers were not always clear, the majority of studies included participating household numbers rather than individual participants. Those conducted among low- and middle-income countries included the largest numbers of households ranging from 1,912 to around 330,000. High-income countries generally included individual participants and numbers ranged from 706 to 12,500. To achieve statistical significance of any findings, it has been suggested the sample should include around 1,000, but preferably more[21]. If multiple test-groups are being measured, much larger sample sizes are necessary[21].

The basic income programmes conducted in high-income countries with control groups that we identified generally had much smaller intervention group numbers. The largest intervention sample was in the Finnish basic income experiment, a randomised controlled trial which involved a guaranteed minimum income intervention to 2,000 participants for a period of two years. There were 173,222 participants in the control group. Control groups in low- and middle-income country interventions were generally assigned to a delayed entry into the intervention. This did not appear to be the case among the high-income countries.

4.3.3. Duration

The duration of a pilot scheme should also be given careful consideration. Opinion sources indicate basic income programmes should last around two to three years because many outcomes would take some time to become apparent [21]. Johnson *et al.* and others point out that participants need to perceive their circumstances to be predictable and secure in order for behaviour change to be identifiable and health outcomes measured[10,21]. Therefore the duration of a pilot needs to be long enough to replicate a feeling of lasting income security and allow people to build habits and access any new opportunities that may open to them. If participants know an additional income is short-lived, it is less likely changes would be identified or reliably attributed to the basic income. With the exception of one study conducted in South Africa, most of the low- and middle-income country schemes were relatively short in duration, ranging from 6 months to four years. Basic income schemes among high-income countries lasted between one year and over 20 years, but 64% were five years or less.

4.3.4. Theory of change

As the relationships between a basic income scheme, influencing mediators and intended outcomes are complex, utilising a theory of change or conceptual model can provide a framework through which the relationships can be explored and important outcomes be identified[10]. There were a variety of different models identified in our evidence, which could potentially highlight the assessment and evaluation of secondary and tertiary impacts in order to fully understand any behaviour change identified[21,24,25].

4.3.5. Data collection

Outcomes and the data needed to measure them need to be identified. Data may be available from existing sources or additional data collection may be necessary. An

overwhelming majority of included evaluation studies (n=43) used data collected specifically for the basic income trial or programme under investigation, while 16 programmes used existing data sources. Many of the opinion sources suggest a mix of data collected specifically for the basic income programme, and utilising existing administrative datasets, such as that available from the Welsh Health Survey or the National Survey for Wales. However, also highlighted was that administrative data is often collected infrequently, which may limit its usefulness in measuring some outcomes[21]. A small number of studies included a qualitative element in their data collection. A qualitative element alongside quantitative data collection would enable a more in-depth evaluation and help to understand mechanisms behind the impact, not just that is has occurred. Of the opinion studies that discussed the topic, most agreed a mix of qualitative and quantitative data collection would be useful.

Data to measure outcomes should be collected before the programme starts, at baseline, at least once during the programme (or at frequent intervals depending on the duration of the pilot) and at least once after the pilot has finished[26]. Opinion pieces recommend data should be collected every six months[21]. More frequent data collection may result in fatigued participants who disengage from the study and less frequent collection of data may result in missing important outcomes, so it is important to decide on a data collection frequency that takes these into consideration.

5. Conclusions

- This report identified outcomes and evaluation designs for basic income schemes that have been implemented, modelled or proposed

- We identified a large number of broad ranging, but complex outcomes that could be measured in order to establish the impact of a basic income pilot scheme. Although many of the basic income programmes we identified may not be transferable to the Welsh context, the outcomes they measured are likely to be generalisable

- We also identified some important elements of study design, to ensure a robust evaluation of a basic income pilot can be carried out. These include:

    - A randomised controlled trial provides the most rigorous study design and has proved feasible in some cases
    - Participant selection should be given careful consideration. Utilising a ‘cluster’ or ‘saturation’ site may more accurately reflect a national basic income programme, and give rise to ‘social multipliers’
    - Targeting populations such as care leavers, those on low income or weaker employment prospects will limit generalisability to entire population
    - The sample size should be no less than 1,000 if statistical significance is to be achieved. If multiple test-groups are to be measured, much larger sample sizes are required

- The duration of a pilot scheme should be no less than two years, to allow time for some of the behavioural outcomes we identified to become apparent
- Data should ideally be used from existing sources, and collected specifically for evaluating the basic income intervention
- Frequency of data collection should consider the outcomes being measured, potential participant fatigue and missing important outcomes. As a minimum, it should be collected prior, at baseline, during and after the programme
- Data collection frequency may involve different data collection time points for different outcomes
- Data collected should include both quantitative and qualitative elements to enable a more in-depth understanding of the impacts being observed.

- Utilising a framework, model or theory of change may support the design of the evaluation and help decision makers decide which outcome measures are important and relevant to the Welsh population, on both an individual and societal level.

- Special consideration should be given to the population of a pilot study implemented in Wales. If, as has been inferred previously, care leavers were offered a basic income for a given period of time as part of a pilot scheme, there are a number of challenges that should be considered in the development of a scheme. As an extremely vulnerable population, they face unique challenges as they leave care and transition into independent living. The addition of financial security offered through a pilot as they enter independent living may place additional burden on them and they should be offered specific support for this. However, this may affect the objective nature of a pilot study. Specific considerations in terms of this population may also include:

    - As a small, specific and very vulnerable population, any findings will not be generalisable to the general Welsh population
    - As participant numbers involved in the pilot are likely to be small, it may be difficult to show an effect
    - Because care leavers are a specific group, it will be particularly difficult to identify a control group. If there is no control group, it will be very difficult to demonstrate that the basic income pilot has had any impact
    - This population is likely to be spread across all parts of Wales. This may impact on the success of a pilot study as any benefits are only likely to be seen at individual rather than community level
    - The duration of a pilot study and length of follow-up will need to be sufficient to allow this population time to adjust to independent living and then develop a feeling of lasting income security. This should allow them to build new habits and access any new opportunities that may become available to them. There may be a lag between the period during which they receive a basic income and the point at which impact becomes apparent

- It may be challenging to assess important environmental, economic and community outcomes in this population
- As a vulnerable population, outcomes including educational attainment, pregnancy, crime and anti-social behaviour, welfare reliance, health behaviours, mental health and wellbeing, housing and employment may be particularly important
- As a young population, this cohort's priorities may be very different compared to older populations, and thus careful consideration should be given to the outcomes observed to make this pilot useful.

6. Supplementary material

1. Technical appendix download.pdf

7. References

1. Gibson, Hearty and Craig (2020) Universal basic income: The public health effects of interventions similar to basic income: a scoping review. Lancet Public Health; 5: e165-76
2. Basic Income Earth Network. A short history of the Basic Income idea. BIEN. n.d. Available at https://basicincome.org/history/ [accessed 22/06/21]
3. Stanford Basic Income Lab [cartographer] (2020) Global Map of Basic Income Experiments [map]. Available at https://basicincome.stanford.edu/research/basic-income-experiments/ [accessed 22/06/21]
4. Johnson, M.T., et al. (2021) Modelling the size, cost and health impacts of universal basic income: What can be done in advance of a trial? Health Serv Outcomes Res Method. Available at https://doi.org/10.1007/s10742-021-00246-8
5. Jones, A. (2021) A basic income to improve population health and well-being in Wales? Cardiff: Public Health Wales NHS Trust
6. Haagh, L., and Rohregger, B. (2019) Universal basic income policies and their potential for addressing health inequalities: Transformative approaches to a healthy, prosperous life for all. WHO regional office for Europe
7. Johnson, M.T., AND Johnson, E.A. (2021) Examining the ethical underpinnings of universal basic income as a public health policy: prophylaxis, social engineering and 'good' lives. Med Ethics 2021;0:1–7. doi:10.1136/medethics-2020-106477
8. Basic Income Earth Network: About basic income. BIEN. n.d. Available at https://basicincome.org/about-basic-income/ [accessed 22/06/21]
9. Joseph Rowntree Foundation (2021) Is Universal basic income a good idea? Joseph Rowntree Foundation. Available at https://www.jrf.org.uk/universal-basic-income-good-idea [accessed 22/06/21]
10. Johnson, M.T., Johnson, E., and Nettle, D. (2020) Designing trials of universal basic income for health impact: identifying interdisciplinary questions to address. J Public Health. Available at https://eprints.lancs.ac.uk/id/eprint/149901/1/Designing_Trials_of_UBI_for_Health_Impact_Named.pdf [accessed: 22/06/21]
11. Adjuntament de Barcelona (2019) Report on the preliminary results of the B-MINCOME project (2017-2017): Combining a guaranteed minimum income and active social policies in deprived urban areas of Barcelona. Planning and Innovation Department Area of Social Rights, Barcelona City Council. Barcelona. Available at: https://ajuntament.barcelona.cat/dretssocials/sites/default/files/arxius-documents/results_bmincome_eng.pdf
12. West, S., Castro Baker, A., Samra, S., and Coltrera, E. (2021) Preliminary analysis: SEED's first year. Stockton Economic Empowerment Demonstration. Available at https://static1.squarespace.com/static/6039d612b17d055cac14070f/t/603ef1194c474b329f33c329/1614737690661/SEED_Preliminary+Analysis-SEEDs+First+Year_Final+Report_Individual+Pages+-2.pdf [accessed 22/06/21]
13. McDowell, T., and Ferdosi, M. (2021) The Impacts of the Ontario Basic Income Pilot: A Comparative Analysis of the Findings from the Hamilton Region. Basic Income Studies. 20200034. https://doi.org/10.1515/bis-2020-0034
14. Bawden, D.L., et al. (1976) The rural income maintenance experiment: Summary report by US Department of Health, Education and Welfare. Madison: Institute for Research and Poverty, University of Wisconsin

15. Kangas, O., Jauhiainen, S., and Simanainen, M. (2019) The basic income experiment 2017-2018 in Finland. Available at https://julkaisut.valtioneuvosto.fi/handle/10024/161361 [accessed 22/06/21]
16. Kehrer, B.H., and Wolin, C.M. (1979) Impact of income maintenance on low birth weight: evidence from the Gary experiment. J Hum Resour; 14(4):434–62
17. Guettabi, M. (2019) What do we know about the effects of the Alaska Permanent Fund Dividend? Anchorage, AK: University of Alaska, Institute of Social and Economic Research. Available at https://pubs.iseralaska.org/media/a25fa4fc-7264-4643-ba46-1280f329f33a/2019_05_20-EffectsOfAKPFD.pdf [accessed: 22/06/21]
18. Akee, R.K., et al. (2010) Parents' Incomes and Children's Outcomes: A Quasi-Experiment. American Economic Journal. Applied economics, 2(1), 86–115 https://doi.org/10.1257/app.2.1.86
19. Costello, E.J., Erkanli, A., Copeland, W., and Angold, A. (2010) Association of family income supplements in adolescence with development of psychiatric and substance use disorders in adulthood among an American Indian population. JAMA; 303(19) : 954–60
20. Forget, E.L. (2011) The town with no poverty. Can Public Policy; 37 (3): 283–305.
21. Young, C. (2018) Realising basic income experiments in the UK: a typology and toolkit of basic income design and delivery. London, RSA
22. Abadie, A., A. Diamond, and J. Hainmueller (2010): “Synthetic Control Methods for Comparative Case Studies: Estimating the Effect of California’s Tobacco Control Program,” Journal of the American Statistical Association, 105, 493–505
23. Hämäläinen, K., Verho, J., and Kanninen, O (2021) Removing Welfare Traps: Employment Responses in the Finnish Basic Income Experiment. Available at SSRN 3812272
24. Sun, S., et al. (2021) "Cash Transfers and Health." Annual Review of Public Health 42: 363-380
25. Ståhl, A.-C.F. (2019) UBI and Health. Health-promoting potentials of basic income: an analysis of the psychosocial environment in work and welfare. Citizen Network
26. Pinto, A.D., Perri, M., Pederson, CL., Aratangy, T., Hapsari, A.P. abd Hwang, S.W. (2021) Exploring different methods to evaluate the impact of basic income interventions: a systematic review. International Jounral for Equity in Health; 202:142 Available at https://doi.org/10.1186/s12939-021-01479-2

8. Appendix

8.1. Evidence maps of benefits or outcomes of basic income schemes

This appendix includes two evidence maps outlining studies from our systematic search that had measured or modelled the outcomes of basic income schemes. Table 1 provides detail on outcomes identified in high-income countries and table 2 outlines outcomes identified from low- and middle-income countries.

The tables have been divided into broad topic domains, with more specific categories within them. The outcome measures identified from each programme can be found in the right hand column. An overview of the studies has also been included, which includes the type of basic income model, the country and the study design. Where a category has been left blank, this is because no outcomes were identified.

8.1.1. Outcome measures from high-income countries

Category	Basic income model	Country of programme	Study design	Outcome measures
Political, economic and employment				
Political				
Economy	Guaranteed minimum income	Finland	Randomised controlled trial	Taxable income, amounts of social benefits paid, use of public employment services
	Universal basic income	France	Modelling	Consumption and effect on prices
	Negative income tax	Spain	Modelling	Tax implications - impact on tax collection
	Universal basic income	Sweden	Modelling	Relative prices of goods and services (base vs each scenario)
	Direct money transfer (cash transfer)	UK	Modelling	Distributional effects - change in weekly income - quintiles - high vs lower-level CBI vs universal

Category	Basic income model	Country of programme	Study design	Outcome measures
	Universal basic income		Modelling	credit, Costs and income tax rises, changes in household consumption, GDP, price inflation (CPI) Fiscal/cost implications, Distributional effects (by household income decile and benefit unit type), distributional and macroeconomic implications, distribution impact across different income groups, demand side changes - levels and patterns of spending (consumption in lowest quintile)
	Direct money transfer (cash transfer)	USA	Modelling	Welfare dynamics, investment in skill formation, impact on taxation
Labour market	Guaranteed annual income	Canada	Interrupted time series Controlled before & after	Labour market participation Labour supply (hours worked)
	Universal basic income	Europe (Finland, France, Italy and UK)	Modelling	Work incentives (participation tax rates)
	Guaranteed minimum income	Finland	Randomised controlled trial	Employment spells (employment days in nonsubsidized labour markets)
	Universal basic income	France	Modelling	Labour supply, unemployment rate, work status transitions
	Direct money transfer (cash transfer) Universal basic income	Germany	Modelling Modelling	Labour supply and income distribution WTE in employment, working hours Voluntary unemployment
	Direct money transfer (cash transfer) Guaranteed minimum income	Spain	Laboratory experiment Controlled before & after	Wage offers and increased effort If the participant works; if they do so full time and unlimited; if they are looking for work; if they are thinking of setting up a business (or they have done so recently); if they are receiving some training aimed at adults; and if any other member of the household works
	Direct money transfer (cash transfer)	UK	Modelling	Change in employment, change in employment rate, change in total weekly hours worked, labour supply, labour productivity, wage bargaining, size of labour force, unemployment rate, full-time equivalent employment

Category	Basic income model	Country of programme	Study design	Outcome measures
	Universal basic income		Modelling	Short term impact on labour supply, supply side changes - incentives and productivity (employment, average wages), number in different income brackets
	Direct money transfer (cash transfer)	USA	Controlled before & after	Employment variables (active labour force, employment status, and part-time employment status)
			Modelling	Changes in labour supply for women in aid to families with dependent children (AFDC) - % change in mean hours, % change in non-workers who begin work, % change in mean hours for men and women not originally in AFDC
	Negative income tax		Controlled follow-up	Married men experiencing one or more period of involuntary unemployment
			Controlled before & after	Work choices of youth
			Uncontrolled follow-up	Work activity (% employed, average earnings, average hours)
	Social/citizen dividend		Controlled before & after	Short-run labour market activity (number of hours worked in reference week)
	Universal basic income		Modelling	Impact on average hours worked
	Universal basic income	N/A	Laboratory experiment	Labour supply effects
Household income/financial	Direct money transfer (cash transfer)	Canada	Cross-sectional	Ability to pay for therapy, ability to purchase household items, ability to purchase essential clothing, ability to repay outstanding debt, preparedness for a financial emergency, financial reliance on others,
	Guaranteed minimum income	Finland	Randomised controlled trial	Yearly earnings of employment contracts
	Universal basic income	France	Modelling	Impact on disposable income
	Direct money transfer (cash transfer)	Germany	Modelling	Monthly gains and losses per capita by deciles of disposable income
	Guaranteed minimum income	Spain	Controlled before & after	Financial uncertainty, ability to cover an unexpected expense, the need to generate additional income by other means

Category	Basic income model	Country of programme	Study design	Outcome measures
	Direct money transfer (cash transfer) Universal basic income	UK	Modelling Modelling	Impact on take home wages Disposable income
	Direct money transfer (cash transfer) Negative income tax Universal basic income	USA	Modelling Uncontrolled follow-up Modelling	Family earnings/income Average earnings Parent to child transfer share of income
Children and families				
Birth/pregnancy/ prenatal	Negative income tax Social/Citizen dividend Negative income tax	USA	Controlled study Follow-up with synthetic control Modelling	Birth weight Fertility rate, birth spacing, abortions Fertility – number of children
Personal relationships	Direct money transfer (cash transfer) Guaranteed annual income	Canada	Cross-sectional Controlled before & after	Relationship with family Family dissolution
	Negative income tax	USA	Controlled before & after	Marital dissolution
Communities				
Community activities	Direct money transfer (cash transfer)	Canada	Cross-sectional	Frequency of socialisation, frequency of extracurricular activities, time devoted to unpaid personal interests
	Guaranteed minimum income	Spain	Controlled before & after	Probability of undertaking volunteering; probability of undertaking social leisure activities; probability of actively taking part in social activities; and probability of completing household tasks
Crime/antisocial behaviour	Direct money transfer (cash transfer)	USA	Controlled before & after	Classified into three categories: minor arrests (disorderly conduct, trespassing and shoplifting), moderate arrest (property crimes that do not involve serious harm to a person such as simple assault, felony larceny, and drug related offenses) and violent arrest (sexual assault, armed robbery, and assault with deadly weapons)

Category	Basic income model	Country of programme	Study design	Outcome measures
	Social/citizen dividend		Modelling	Property crime, burglary, larceny, vehicle theft, violent crime, murder, rape, aggravated assault, robbery
Population size	Direct money transfer (cash transfer)	UK	Modelling	Population size
	Negative income tax	USA	Uncontrolled study	Migration
Education and skills				
Education/training (child and adult)	Guaranteed minimum income	Spain	Controlled before & after	Child education, training for people over the age of 16
	Direct money transfer (cash transfer) Negative income tax Universal basic income	USA	Controlled before & after Controlled before & after Modelling	Educational attainment School choices of youth Impact on decisions about schooling
Environment				
Environmental	Universal basic income	Finland	Modelling	Carbon footprint
Equity				
Inequality	Direct money transfer (cash transfer)	Canada	Modelling	Income inequality - gainers and losers
	Universal basic income	Europe	Modelling	Distributional impact – winners and loser
	Universal basic income	France	Modelling	Inequality - Gini index, poverty gap, gainers and losers
	Direct money transfer (cash transfer)	Germany	Modelling	Inequality - Gini coefficient and the Atkinson measure
	Universal basic income	Israel	Modelling	Inequality - Gini index
	Negative income tax	Spain	Modelling	Inequality (Gini index and Reynolds-Smolensky index) - impact on households - winners and losers
	Universal basic income	Sweden	Modelling	Inequality, Gini coefficient
	Direct money transfer (cash transfer) Universal basic income	UK	Modelling Modelling	Gainers and losers - number Distributional variables - gains and losses in weekly equivalised disposable income, inequality - Gini coefficient, gainers and losers - number and pattern, impact on inequality (Gini coefficient), relative index of inequality,

Category	Basic income model	Country of programme	Study design	Outcome measures
				inequality - Gini coefficient disposable income, winners and losers - mean changes in household disposable income
	Direct money transfer (cash transfer)	USA	Modelling	Changes in need for welfare - % change in cases and payments for aid to families with dependent children (AFDC); % change in food stamp cases and payments on food stamps
Poverty	Universal basic income/negative income tax	Canada	Modelling	Poverty (head counts in poverty and % rate)
	Universal basic income	Europe	Modelling	Impact on poverty – poverty headcounts % change (poverty line 50% median household income)
	Universal basic income	Israel	Modelling	Poverty - household income, poverty rate
	Guaranteed minimum income Negative income tax	Spain	Controlled before & after Modelling	Severe material deprivation, energy poverty, food insecurity, housing insecurity Poverty
	Universal basic income	Sweden	Modelling	Poverty
	Direct money transfer (cash transfer) Universal basic income	UK	Modelling Modelling	Poverty - changes in poverty rate, change in child poverty rate, gross cost per person lifted out of poverty, gross cost per child lifted out of poverty Households and children living in poverty (below 60% median income before housing costs; below 60% median income after housing costs and below 50% of median income before housing costs), Impact on poverty for different groups, poverty headcounts, total population in poverty, children in poverty, working age adults in poverty, economically active working age adults in poverty, elderly people in poverty

Category	Basic income model	Country of programme	Study design	Outcome measures
	Direct money transfer (cash transfer)	USA	Modelling	% change in poverty rate and poverty gap, % below poverty line and % above 100%, 200% and more than three times poverty line, child poverty rates (defined as total resources falling under 100% of the supplemental poverty threshold), deep poverty rates (defined as total resources falling under 50% of the poverty threshold), extreme ($2 per day) poverty rate, defined here as annual cash incomes falling under a $2 per person, per day threshold
	Social/citizen dividend		Uncontrolled before & after	Poverty rates
Food				
Nutritional	Direct money transfer (cash transfer)	Canada	Cross-sectional	Quality of diet, frequency of meal skipping, nutritional intake, frequency of foodbank usage
	Negative income tax	USA	Controlled follow-up	Nutrient adequacy ratios and mean adequacy ratios
Health				
Child health and development	Guaranteed minimum income	Spain	Controlled before & after	Children's health
Health behaviours	Direct money transfer (cash transfer)	USA	Controlled before & after	Drug and alcohol incidence
Healthcare utilisation	Guaranteed annual income	Canada	Controlled before and after	Annual hospitalisation rates, rate of accidents, injuries, and mental health problems as causes for hospitalisation, rate of physician visits
			Cross-sectional	Change in emergency room visits, affordability of drugs
			Interrupted time series	Changes in hospitalisation rate
	Negative income tax	USA	Controlled before & after	Number of days spent in a hospital, the number of hospital stays, number of visits to physicians
Mental health and wellbeing	Direct money transfer (cash transfer)	Canada	Cross-sectional	Frequency of depression, stress, outlook on life, confidence
	Guaranteed minimum income	Spain	Controlled before & after	General wellbeing, wellbeing with financial situation, perceived happiness and satisfaction with life
	Negative income tax	USA	Controlled follow-up	Mean psychological distress scores

Category	Basic income model	Country of programme	Study design	Outcome measures
Mortality	Direct money transfer (cash transfer)	USA	Modelling	Increased longevity for mothers and their children - mortality hazard ratio, excess infant deaths
	Direct money transfer (cash transfer)	UK	Modelling	Premature mortality
Physical health	Direct money transfer (cash transfer)	Canada	Cross-sectional Uncontrolled before & after	Change in overall health BMI and obesity of parents
	Guaranteed minimum income	Spain	Controlled before & after	Self-perceived health; risk of developing mental illnesses; and quality of sleep
	Negative income tax Direct money transfer (cash transfer)	USA	Controlled before & after Uncontrolled before & after	Number and type of chronic illnesses, number of days spent in bed because of illness, the number of days of work (including housework for wives, school for children) lost due to illness Young adult BMI, height, weight, and obesity
Housing				
Quality of housing	Direct money transfer (cash transfer)	Canada	Cross-sectional	Quality of living conditions
Leisure				
Leisure activity	Direct money transfer (cash transfer)	Canada	Cross-sectional	Frequency of physical activity
	Negative income tax	USA	Controlled before & after	Leisure choices of youth
Transport				
Transport	Direct money transfer (cash transfer)	Canada	Cross-sectional	Ability to transport self around region or city
NB: For Modelling studies, the country refers to the data used				

8.1.2. Outcome measures from low- and middle-income countries

Category	Basic income model	Country of programme	Study design	Outcomes measured
Business, economy and employment				
Political				
Economy	Direct money transfer (cash transfer) Universal basic income	Brazil	Modelling Modelling	Output (assume economic), aggregate consumption, macroeconomic indicators, tax rate, share of total income earned by distribution quintiles, savings Budgetary impact
	Direct money transfer (cash transfer)	India	Controlled before & after	Access to government schemes
	Direct money transfer (cash transfer)	Kenya	Two stage controlled before & after study	Effects on consumption (including temptation goods), asset holdings
	Direct money transfer (cash transfer)	Namibia	Uncontrolled before & after Qualitative	Economic activity Economic activity, business opportunities
	Direct money transfer (cash transfer)	Uruguay	Uncontrolled before & after	Government benefits during pregnancy
	Direct money transfer (cash transfer)	Zambia	Randomised controlled trial	Consumption, productive investment, income and revenues
Labour market	Direct money transfer (cash transfer)	Brazil	Modelling	Labour productivity
	Direct money transfer (cash transfer)	India	Controlled before & after	Waged child labour effects, second economic activity, number of hours worked,
	Direct money transfer (cash transfer)	Indonesia	Uncontrolled before & after	Labour supply
	Direct money transfer (cash transfer)	Malawi	Controlled before & after	Work outcomes for children aged 6-17 years
	Direct money transfer (cash transfer)	Namibia	Qualitative	Employment
	Direct money transfer (cash transfer)	Uruguay	Uncontrolled before & after	Mother's formal sector earnings during pregnancy, mother works during pregnancy
	Direct money transfer (cash transfer)	Zambia	Cluster randomised controlled trial	Child labour participation (paid and unpaid)
Household/ personal financial	Direct money transfer (cash transfer)	India	Controlled before & after	Income sufficiency for food, household alcohol expenditure, borrowing for hospitalisation expenses, school spending (uniforms, shoes

Category	Basic income model	Country of programme	Study design	Outcomes measured
				and books), increase in income, investment in own farms (time and monetary), productive assets indebtedness of households
	Direct money transfer (cash transfer)	Indonesia	Uncontrolled before & after	household per capita expenditure growth (food and non-food expenditure)
	Direct money transfer (cash transfer)	Kenya	Two stage controlled before & after	Monthly consumption response (food, medical and education, alcohol and tobacco expenditures), asset holdings, income
	Direct money transfer (cash transfer)	Namibia	Uncontrolled before & after Qualitative	Income and expenditure Financial situation, household debt
	Direct money transfer (cash transfer)	Uruguay	Uncontrolled before & after	Income transfer during pregnancy, total household income during pregnancy
	Direct money transfer (cash transfer)	Zambia	Cluster randomised controlled trial Controlled before and after Repeat cross-sectional	Asset accumulation, children's material wellbeing (possession of shoes, blankets, clothes), finance/debt Household consumption Productive assets ownership
	Direct money transfer (cash transfer)	Zimbabwe	Qualitative	Antisocial expenses, paid school fees, prioritise household needs, health expenses met
Children and families				
Birth/ pregnancy/ prenatal	Direct money transfer (cash transfer)	Burkino Faso	Randomised controlled trial	Breastfeeding practices
	Direct money transfer (cash transfer)	Kenya	Cluster randomised controlled trial	Pregnancy
	Direct money transfer (cash transfer)	Uruguay	Uncontrolled before & after	Birth weight (provided on certificates completed by physicians at time of birth), gestational length (in weeks), premature birth, bottom decile of weight per gestational length, income transfer during pregnancy, average birthweight in area of residence, prenatal maternal weight, out of wedlock birth, fertility
	Direct money transfer (cash transfer)	Zambia	Controlled follow-up	Fertility
	Direct money transfer (cash transfer)	Zimbabwe	Cluster randomised controlled trial	Have a birth certificate
Personal relationships	Direct money transfer (cash transfer)	Kenya	Cluster randomised controlled trial	Early marriage

Category	Basic income model	Country of programme	Study design	Outcomes measured
	Direct money transfer (cash transfer)	Zimbabwe	Qualitative	Strengthen family union
Communities				
Community activities	Direct money transfer (cash transfer)	Namibia	Qualitative	Sense of community
	Direct money transfer (cash transfer)	Zimbabwe	Qualitative	Shared cash with neighbours
Crime/antisocial behaviour	Direct money transfer (cash transfer)	Namibia	Uncontrolled before & after Qualitative	Crime Crime, hunting and prostitution
Population size	Direct money transfer (cash transfer)	India	Controlled before & after	Migration levels
	Direct money transfer (cash transfer)	Namibia	Qualitative Uncontrolled before & after	Migration Community mobilisation
	Direct money transfer (cash transfer)	Uruguay	Uncontrolled before & after	Births within one year from baseline
	Direct money transfer (cash transfer)	Zambia	Controlled follow-up	Count of children aged 0 to 4 years at the household-level
Education and skills				
Education/ training (child and adult)	Direct money transfer (cash transfer)	Brazil	Modelling	Impact on education (%) (education and inequality); incomplete primary education, primary education, secondary education, college education, spend on schooling
	Direct money transfer (cash transfer)	China	Controlled before & after	Compulsory student academic, cognitive achievement, and enrolment outcomes
	Direct money transfer (cash transfer)	India	Controlled before & after	Enrolment/attainment
	Direct money transfer (cash transfer)	Kenya	Two stage controlled before & after	Education
	Direct money transfer (cash transfer)	Malawi	Controlled before & after	School enrolment, dropout, temporary withdrawal, schooling for children aged 6-17 years, missed school because of illness or injury in past month
	Direct money transfer (cash transfer)	Namibia	Uncontrolled before & after Qualitative	Education School attendance
	Direct money transfer (cash transfer)	Zambia	Cluster randomised controlled trial	Schooling, enrolment, school uniform purchase/school expenditure
	Direct money transfer (cash transfer)	Zimbabwe	Cluster randomised controlled trial	Attended primary school 80% of days in last month
Environment				

Category	Basic income model	Country of programme	Study design	Outcomes measured
Environmental				
Equity				
Inequality	Universal basic income	Brazil	Modelling	Inequality - Gini coefficient, distributional effects - per capita household disposable income - winners and losers
	Direct money transfer (cash transfer)	India	Controlled before & after	Women's empowerment (including control over finances, education, labour force participation)
	Direct money transfer (cash transfer)	Kenya	Two stage controlled before & after	Female empowerment
	Direct money transfer (cash transfer)	Namibia	Qualitative	Women dependency on men, female measure of control, social protection
	Universal basic income	West Africa	Modelling	Estimated poverty line
	Direct money transfer (cash transfer)	Zambia	Cluster randomised controlled trial with qualitative element	Women's intrahousehold decision making
Poverty	Direct money transfer (cash transfer) Universal basic income	Brazil	Modelling Modelling	Poverty rate Poverty - % individuals in poverty
	Direct money transfer (cash transfer)	India	Controlled before & after	Access to drinking water
	Direct money transfer (cash transfer)	Kenya	Two stage controlled before & after	Food security
	Direct money transfer (cash transfer)	Malawi	Cluster randomised controlled trial	Household food and nutrition security
	Direct money transfer (cash transfer)	Namibia	Uncontrolled before & after Qualitative	Levels of poverty Household poverty
	Direct money transfer (cash transfer)	Uruguay	Uncontrolled before & after	Value of food card during pregnancy
	Universal basic income	West Africa	Modelling	Inequality (Gini and Atkinson indexes)
	Direct money transfer (cash transfer)	Zambia	Randomised controlled trial Cluster randomised controlled trial Controlled before & after	Poverty Relative/subjective poverty, food security Poverty indicators (included per capita expenditure, household food security, and (non-productive) asset ownership)

Category	Basic income model	Country of programme	Study design	Outcomes measured
			Repeat cross-sectional	Food security
Food				
Nutritional	Direct money transfer (cash transfer)	Burkino Faso	Uncontrolled follow-up with qualitative elements Randomised controlled trial	Acute malnutrition (or wasting) Daily energy and macro- and micronutrient intakes and food group consumption
	Direct money transfer (cash transfer)	India	Controlled before & after	Eating habits, child's diet/household food consumption
	Direct money transfer (cash transfer)	Kenya (North)	Controlled before & after	Expenditure on food, types of food consumed, nutritional intake
	Direct money transfer (cash transfer)	Namibia	Uncontrolled before & after Qualitative	Hunger and malnutrition Child malnutrition, nutritious food, hunger
	Direct money transfer (cash transfer)	Zambia	Controlled before & after	Diet diversity, food consumption
Health				
Child health and development	Direct money transfer (cash transfer)	Burkina Faso	Randomised controlled trial	Wasting, child's anthropometric measurements and stunting, malnutrition, mid-upper arm circumference, self-reported morbidity (diarrhoea, fever, respiratory tract infections)
	Direct money transfer (cash transfer)	Ecuador	Cluster randomised controlled trial	Language outcomes (child's language score (Fundación MacArthur Inventorio del Desarrollo de Habilidades Comunicativas - Breve (IDHC-B)) measured by asking if a household owned a story book; whether a child was bought a toy in the last 6 months; or whether a child attended day care, child combines words, health outcomes (child had received a parasite treatment in the last 12 months; whether a child received iron or vitamin A supplements in the last 6 months; or whether a child had a visit to a health centre during which the child's growth was recorded and monitored): height for age z scores - (measured using stadiometers and converted using WHO standards), haemoglobin concentrations, food index Harsh parenting HOME score (0-11 scale)

Category	Basic income model	Country of programme	Study design	Outcomes measured
	Direct money transfer (cash transfer)	India	Controlled before & after	Child vaccine coverage, minor illness and injuries, child weight-for-age scores
	Direct money transfer (cash transfer)	Kenya	Cluster randomised controlled trial	Illness in children 0 - 7 years
	Direct money transfer (cash transfer)	Malawi	Cluster randomised controlled trial Controlled before & after	Child health outcomes (measured as current economic vulnerability to food and nutrition insecurity, diet quantity and quality) Health outcomes for children aged 6-17 years, child illness in past month, illness that stopped normal activities in past month
	Direct money transfer (cash transfer)	Zimbabwe	Cluster randomised controlled trial	Nutrition of young children, up-to-date vaccinations
	Direct money transfer (cash transfer)	Zambia	Repeat cross-sectional	Child morbidity, stunting and wasting
Health behaviours	Direct money transfer (cash transfer)	Kenya	Cluster randomised controlled trial Cross-sectional	HIV related behavioural risk among adolescents (sexual debut, ever had sex after the program began, 2 or more partners in the last 12 months, 2 or more unprotected sex acts in the last 3 months) Sexual activity and number of sex partners, alcohol use, and drug use among adolescents
	Direct money transfer (cash transfer)	Namibia	Uncontrolled before & after Qualitative	Alcohol Alcohol intake
	Direct money transfer (cash transfer)	Uruguay	Uncontrolled before & after	Mother smoked during first trimester of pregnancy
	Direct money transfer (cash transfer)	Zambia	Controlled follow-up	Contraceptive use at the women level
Healthcare utilisation	Direct money transfer (cash transfer)	Ecuador	Cluster randomised controlled trial	Child had a visit to a health centre during which the child's growth was recorded and monitored – assessed as part of child health measure
	Direct money transfer (cash transfer)	India	Controlled before & after	Illness and injuries among children under 18 years requiring hospitalisation, choice in the type of health service to use and timing of seeking health care
	Direct money transfer (cash transfer)	Kenya	Cluster randomised controlled trial	Health care seeking in the event of an illness among children 0 - 7 years
	Direct money transfer (cash transfer)	Malawi	Cluster randomised controlled trial	Use of health services for child's worst illness in past month
	Direct money transfer (cash transfer)	Namibia	Qualitative	Access to medication, health clinic visits

Category	Basic income model	Country of programme	Study design	Outcomes measured
Mental health and wellbeing	Direct money transfer (cash transfer)	Ecuador	Cluster randomised controlled trial	Mothers' depressive symptoms score (0-60 scale)
	Direct money transfer (cash transfer)	Kenya	Two stage controlled before & after Controlled study Cohort	Psychological wellbeing Depressive symptoms (CES-D10 scale), hope Psychological wellbeing (likelihood of depression, anxiety, post-traumatic stress symptoms, positive future outlook)
	Direct money transfer (cash transfer)	Malawi	Controlled before & after	Mental health indicators (10-item short form of the 20 item CES-D scale)
	Direct money transfer (cash transfer)	South Africa	Controlled follow-up Uncontrolled follow-up	Mental health (10-CES-DS scales) Mental health (10-CES-DS scales)
	Direct money transfer (cash transfer)	Zambia	Controlled before & after Repeat cross-sectional	Perceived stress among females (assessed using the Cohen Perceived Stress Scale (PSS) Women's happiness, satisfaction regarding child's wellbeing (including satisfaction with their children's health and positive outlook on their children's future)
Mortality	Direct money transfer (cash transfer)	Zambia	Repeat cross-sectional	Child mortality
Physical health	Direct money transfer (cash transfer)	India	Controlled before and after	Response to illness (medication or more intake of food)
	Direct money transfer (cash transfer)	Kenya	Two stage controlled before & after Controlled study	Cortisol hormone levels, general health Physical health measures
	Direct money transfer (cash transfer)	Namibia	Uncontrolled before & after	Physical health
	Direct money transfer (cash transfer)	South Africa	Controlled follow-up Uncontrolled follow-up	Physical health and lifestyle factors Physical health and lifestyle factors
	Direct money transfer (cash transfer)	Uruguay	Uncontrolled before & after	Maternal health, mother weight
Housing				

Category	Basic income model	Country of programme	Study design	Outcomes measured
Quality of housing	Direct money transfer (cash transfer)	India	Controlled before & after	Basic living conditions - change of toilet arrangements, cooking and lighting energy sources
Leisure				
Leisure activity				
Transport				
Transport				
NB: For Modelling studies, the country refers to the data used				

8.2. Bibliography of included sources

8.2.1. Evaluation studies

1. Aizawa, T. (2020) Do cash transfers increase nutritional intakes? Experimental evidence from an unconditional cash transfer in Kenya. Health policy and planning **35**(7): 784-798
2. Ajuntament de Barcelona (2019) Report on the preliminary results of the B-MINCOME project (2017-2018). Combining a guaranteed minimum income and active social policies in deprived urban areas of Barcelona. Barcelona, Ajuntament de Barcelona. Working paper 17690. DOI 10.3386/w17690
3. Akee, R., et al. (2013) Young Adult Obesity and Household Income: Effects of Unconditional Cash Transfers. American economic journal: Applied economics **5**(2): 1-28
4. Akee, R.K.Q., Keeler, G. and Costello, EJ. (2010) Parents' Incomes and Children's Outcomes: A Quasi-Experiment Using Transfer Payments from Casino Profits. American Economic Journal: Applied Economics **2**(1): 86-115
5. Amarante, V., Manacorda. M., Miguel, E., and Vigorito, A. (2011) Do Cash Transfers Improve Birth Outcomes? Evidence from Matched Vital Statistics, Social Security and Program Data. W. P. 17690
6. Angeles, G., et al. on behalf of the Malawi Social Cash Transfer Evaluation Team (2019) Government of Malawi's unconditional cash transfer improves youth mental health. Social Science & Medicine **225**: 108-119
7. Bazzi, S., Sumarto, S and Suryahadi, A. (2012) Evaluating Indonesia's Unconditional Cash Transfer Program, 2005-6. 64.
8. Beck, S., Pulkki-Brännström, A., and San Sebastián, M. (2015). Basic income – healthy outcome? Effects on health of an Indian basic income pilot project: a cluster randomised trial. Journal of Development Effectiveness **7**(1): 111-126. http://dx.doi.org/10.1080/19439342.2014.974200
9. Berman, M. (2018). Resource rents, universal basic income, and poverty among Alaska's Indigenous peoples. World Development **106**: 161-172.
10. SEWA Bharat (2014). A little more, how much is it. India, UNICEF.
11. Bibler, A., Guettabi, M. and Reimer, M. (2019) Universal cash transfers and labor market outcomes. Available at SSRN 3357230
12. Bonilla, J., et al. (2017) Cash for Women's Empowerment? A Mixed-Methods Evaluation of the Government of Zambia's Child Grant Program. World Development **95**: 55-72
13. Brugh, K.N. (2016) Impacts of an unconditional cash transfer on household food and nutrition security and child health outcomes in Malawi, The University of North Carolina at Chapel Hill. **AAI10245796**
14. Cain, G.G. and Wissoker, D.A. (1990) A reanalysis of marital stability in the Seattle--Denver income--maintenance experiment. American Journal of Sociology **95**(Mar 90): 1235-1314
15. Calnitsky, D. and Latner, J.P. (2017) Basic income in a small town: Understanding the elusive effects on work. Social Problems **64**(3): 373-397.
16. Elesh, D. and Lefcowitz, M.J. (1977) The effects of the New Jersey Pennsylvania negative income tax experiment on health and health care utilization. Journal of Health and Social Behavior **18**(4): 391-405
17. Fernald, L. C. and Hidrobo, M. (2011) Effect of Ecuador's cash transfer program (Bono de Desarrollo Humano) on child development in infants and toddlers: a randomized effectiveness trial. Social science & medicine **72**(9): 1437-1446.
18. Forget, E. L. (2011) The Town with No Poverty: The Health Effects of a Canadian Guaranteed Annual Income Field Experiment. Canadian Public Policy. **37** (3): 283-305. https://www.jstor.org/stable/23050182.
19. Forget, E. L. (2013) New questions, new data, old interventions: The health effects of a guaranteed annual income. Preventive Medicine **57**(6): 925-928.

20. Gregson, S. (2009) Manicaland Cash Transfer Trial for Children in Zimbabwe. https://clinicaltrials.gov/show/NCT00966849.
21. Haarmann, C.H., et al. (2009) Making the difference! The BIG in Namibia. Basic Income Grant Pilot Project. Assessment Report.
22. Haarmann, C., Haarmann, D.J., and Herbert, U.E. (2019) Basic Income Grant. Otjivero, Namibia - 10 years later. Economic & Social Justic Trust**:** 60.
23. Haigner, S., et al. (2012) Keep on working: Unconditional basic income in the lab. Basic Income Studies **7**(1).
24. Hämäläinen, K., Verho, J., and Kanninen, O (2021) Removing Welfare Traps: Employment Responses in the Finnish Basic Income Experiment. Available at SSRN 3812272.
25. Handa, S., Natali, L., Seidenfield, D., and Tembo, G. (2016) The impact of Zambia's unconditional child grant on schooling and work: results from a large-scale social experiment. Journal of Development Effectiveness **8**(3): 346-367.
26. Handa, S., et al. (2018) Can unconditional cash transfers raise long-term living standards? Evidence from Zambia. Journal of Development Economics **133**: 42-65
27. Handa, S., et al. (2015) Impact of the Kenya Cash Transfer for Orphans and Vulnerable Children on early pregnancy and marriage of adolescent girls. Social Science and Medicine **141**: 36-45.
28. Handa, S., Pettifor, A., Thirumurthy, H., and Halpern, C. (2012). Effect of a national social cash transfer program on HIV risk behavior in Kenya. Journal of the International AIDS Society **15**: 166.
29. Handa, S., Seidenfeld, D., Davis, B., and Tembo, G. (2016) The Social and Productive Impacts of Zambia's Child Grant. Journal of policy analysis and management **35**(2): 357-387.
30. Haushofer, J. and Shapiro, J. (2013) Household Response to Income Changes: evidence from an Unconditional Cash Transfer Program in Kenya.
31. Haushofer, J. and Shapiro, J. (2016) The short-term impact of unconditional cash transfers to the poor: Experimental evidence from Kenya The quarterly journal of economics **131**(4): 1973-2042.
32. Heinrich, C. J., Hoddinott, J., and Samson, M. (2017) Reducing Adolescent Risky Behaviors in a High-Risk Context: The Effects of Unconditional Cash Transfers in South Africa. Economic Development and Cultural Change **65**(4): 619.
33. Hjelm, L., Handa, S., de Hoop, J., and Palermo, T. (2017) Poverty and perceived stress: Evidence from two unconditional cash transfer programs in Zambia. Social Science & Medicine **177**: 110-117.
34. Houngbe, F., et al. (2017) Unconditional Cash Transfers Do Not Prevent Children's Undernutrition in the Moderate Acute Malnutrition Out (MAM'Out) Cluster-Randomized Controlled Trial in Rural Burkina Faso. The Journal of Nutrition **147**(7): 1410-1417.
35. Huang, C., et al. (2017) Investments in children's health and the Kenyan cash transfer for orphans and vulnerable children: evidence from an unconditional cash transfer scheme. Health policy and planning **32**(7): 943-955.
36. Hum, D. and W. Simpson (1991) Income maintenance, work effort, and the Canadian Mincome experiment. Ottawa, Ont, Economic Council of Canada : Canada Communication Group--Pub. [distributor].
37. Hum, D.P.J. and Choudhry, S. (1992) Income, work and marital dissolution: Canadian experimental evidence. Journal of Comparative Family Studies **23**: 249-265.
38. Jokipalo, V.A. (2019) Basic Income, Wages, and Productivity: A Laboratory Experiment. Basic Income Studies **14**(2).
39. Jones, D. and Marinescu, I.E. (2020) The Labor Market Impacts of Universal and Permanent Cash Transfers: Evidence from the Alaska Permanent Fund. Rochester, NY, Social Science Research Network.
40. Keeley, M. C. (1980) The Effect of a Negative Income Tax on Migration. The Journal of Human Resources **15**(4): 695-706.
41. Kehrer, B. H. and Wolin, C.M. (1979) Impact of income maintenance on low birth weight: evidence from the Gary Experiment. The Journal of Human Resources **14**(4): 434-462.

42. Kilburn, K., et al. (2017) Short-term Impacts of an Unconditional Cash Transfer Program on Child Schooling: Experimental Evidence from Malawi. Economics of education review **59**: 63-80.
43. Kilburn, K., et al. (2016) Effects of a large-scale unconditional cash transfer program on mental health outcomes of young people in Kenya. Journal of Adolescent Health **58**(2): 223-229.
44. Lebihan, L. and Mao Takongmo, C.O (2019) Unconditional cash transfers and parental obesity. Social Science and Medicine **224**: 116-126.
45. Luseno, W.K. (2012) Effect of the Mchinji Social Cash Transfer Pilot Scheme on children's schooling, work and health outcomes: A multilevel study using experimental data. **AAI3545561**.
46. Luseno, W.K., et al. (2014) A multilevel analysis of the effect of Malawi's Social Cash Transfer Pilot Scheme on school-age children's health. Health policy and planning **29**(4): 421-432.
47. McDowell, T. and Ferdosi, M. (2020) The Experiences of Social Assistance Recipients on the Ontario Basic Income Pilot. Canadian Review of Sociology **57**(4): 681-707.
48. Natali, L., et al. (2018) Does money buy happiness? Evidence from an unconditional cash transfer in Zambia. SSM - Population Health **4**: 225-235.
49. Ndlovu, T. and S. Ndlovu (2019) Are cash transfers the panacea to local involvement in humanitarian decision-making? Evidence from World Vision projects in Umzingwane. Jamba **11**(1): 486.
50. O'Connor, J. F. Madden, J.P. (1979) The negative income tax and the quality of dietary intake. The Journal of Human Resources **14**(4): 507-517.
51. Ohrnberger, J., et al. (2020) The effect of cash transfers on mental health: Opening the black box – A study from South Africa. Social Science and Medicine **260**.
52. Ohrnberger, J., et al. (2020) The effect of cash transfers on mental health - new evidence from South Africa. BMC Public Health **20**(1): 436.
53. Palermo, T., et al. (2016) Unconditional Government Social Cash Transfer in Africa Does not Increase Fertility. Journal of population economics **29**(4): 1083-1111.
54. Seidenfeld, D., et al. (2014) The impact of an unconditional cash transfer on food security and nutrition: the Zambia Child Grant Programme. IDS special collection: turning rapid growth into meaningful growth: sustaining the commitment to nutrition in Zambia: 36-42.
55. Shangani, S., et al. (2017) Unconditional government cash transfers in support of orphaned and vulnerable adolescents in western Kenya: Is there an association with psychological wellbeing? PLoS ONE **12**(5).
56. Thoits, P. and Hannan, M. (1979) Income and psychological distress: The impact of an income-maintenance experiment. Journal of Health and Social Behavior **20**(2): 120-138.
57. Tonguet-Papucci, A., et al. (2017) Unconditional seasonal cash transfer increases intake of high-nutritional-value foods in young Burkinabe children: Results of 24-hour dietary recall surveys within the moderate acute malnutrition out (MAM'Out) randomized controlled trial. Journal of Nutrition **147**(7): 1418-1425.
58. Tonguet-Papucci, A., et al. (2017) Beneficiaries' perceptions and reported use of unconditional cash transfers intended to prevent acute malnutrition in children in poor rural communities in Burkina Faso: qualitative results from the MAM'Out randomized controlled trial. BMC Public Health **17**(1): 527.
59. Venti, F. (1984) The effects of income maintenance on work, schooling and non-market activities of youth." The review of economics and statistics. Vol.66(1), p.16
60. Wright, S. (1975) Work response to income maintenance: Economic, sociological, and cultural perspectives. Social Forces **53**(4): 552-562.
61. Yonzan, N., et al. (2020) Economic Incentives Surrounding Fertility: Evidence from Alaska's Permanent Fund Dividend, National Bureau of Economic Research.
62. Zhou, L., et al. (2020) Do cash transfers have impacts on student Academic, cognitive, and enrollment outcomes? Evidence from rural China. Children & Youth Services Review **116**: N.PAG-N.PAG.

8.2.2. Modelling studies

1. Aka, F.B. (2016) Feasible Utopia: Cutting Poverty Rate In Half Using Basic Income Grants in Regions And Cities Of Cote DIvoire. Regional and Sectoral Economic Studies 16(2): 87-104.
2. Bezerra de Siqueira, R. B. N., Jose Ricardo (2021) A Universal Basic Income For Brazil: Fiscal and Distributional Effects of Alternative Schemes. EconPapers.
3. Browne, J. and Immervoll, H. (2017) Mechanics of replacing benefit systems with a basic income: comparative results from a microsimulation approach, Institute of Labor Economics.
4. Connolly, K., et al. (2020) Modelling the Economic Impact of a Citizen's Basic Income in Scotland.
5. Daruich, D. and Fernández, R. (2020) Universal basic income: A dynamic assessment, National Bureau of Economic Research.
6. Dorsett, R. (2020) A Bayesian structural time series analysis of the effect of basic income on crime: Evidence from the Alaska Permanent Fund. Statistics in Society 184(1).
7. Ferreira, P.C., et al. (2021) Universal Basic Income in Developing Countries: Pitfalls and Alternatives.
8. Fitzroy, F.R. and Jin, J.Y. (2010) Efficient redistribution: comparing basic income with unemployment benefits.
9. Hearty, W., et al. (2020) Assessing the Feasibility of Citizens' Basic Income Pilots in Scotland: Final Report, Prepared by the Citizens' Basic Income Feasibility Study Steering Group
10. Horstschräer, J., et al. (2010) An Unconditional Basic Income in the Family Context-Labor Supply and Distributional Effects. ZEW-Centre for European Economic Research Discussion Paper(10-091).
11. Johnson, M.T., et al. (2021) Designing trials of Universal Basic Income for health impact: identifying interdisciplinary questions to address. Journal of public health (Oxford, England).
12. Kalaniemi, S., et al. (2020) Downscaling consumption to universal basic income level falls short of sustainable carbon footprint in Finland. Environmental Science and Policy 114: 377-383.
13. Keeley, M.C. (1980) The Effects of Negative Income Tax Programs on Fertility. The Journal of Human Resources 15(4): 675-694.
14. Kim, R.Y., et al. (1996) Is the whole greater than the sum of the parts? Interaction effects of three non-income-tested transfers for families with children. Social Work Research 20(4): 274-285.
15. Macdonald, D. (2016) A Policymaker's Guide to Basic Income, Canadian Centre for Policy Alternatives.
16. Magnani, R. and Piccoli, L. (2020) Universal basic income with flat tax reform in France. Journal of Policy Modeling 42(2): 235-249.
17. Malmaeus, M., et al. (2020) Basic Income and social sustainability in post-growth economies. Basic Income Studies 15(1).
18. Malul, M., et al. (2009) A universal basic income: Theory and practice in the Israeli case. Basic Income Studies 4(1).
19. Martinelli, D.L. (2017) The Fiscal and Distributional Implications of Alternative Universal Basic Income Schemes in the UK. Bath, University of Bath.
20. Muennig, P., et al. (2015) More Money, Fewer Lives: The Cost Effectiveness of Welfare Reform in the United States. American Journal of Public Health 105(2): 324-328.
21. Pérez, G.R. and Fernández, F.A (2019) Implementing a negative income tax. Net cost, poverty and inequality effects. Hacienda Publica Española, 2019, vol. 228, num. 1, p. 83-108.

22. Reed, H. and Lansley, S. (2016) Universal Basic Income: An idea whose time has come? London, Compass.
23. Richardson, E., et al. (2018) Impact of income-based policies on population health and health inequalities in Scotland: a modelling study. The Lancet 392: S75.
24. Shaefer, H.L., et al. (2018) A Universal Child Allowance: A Plan to Reduce Poverty and Income Instability Among Children in the United States. The Russell Sage Foundation journal of the social sciences : RSF 4(2): 22-42.
25. Torry, M. (2019) Static microsimulation research on Citizen's Basic Income for the UK: a personal summary and further reflections. E. W. P. Series and EM13/19.

8.2.3. Opinion studies

1. Aka, B.F. (2016) "Quantitative impacts of basic income grant on income distribution in Cote d'Ivoire: Time to change our societies." Revista Galega de Economía 25(1): 163-179.
2. Allas, T. et al. (2020) An experiment to inform universal basic income, McKinsey & Company: 7.
3. Andersson, J.O. (2010) "Basic income from an ecological perspective." Basic Income Studies 4(2).
4. Basic Income Network (2017). Food Insecurity, Basic Income Canada Network.
5. Basic Income Network (2017). Gender and Family Status, Basic Income Canada Network.
6. Basic Income Network (2017). Health, Basic Income Canada Network.
7. Basic Income Network (2017). Poverty, Basic Income Canada Network.
8. Bonciu, F. (2018) "Possible Implications of Universal Basic Income and Universal Basic Assets on Economic Growth and Development." Global Economic Observer 6(1): 88-93.
9. Boso, À. and Vancea, M. (2012) "Basic income for immigrants? The pull effect of social benefits on migration." Basic Income Studies 7(1).
10. Change, P.F.S. (2017) Universal Basic Income: A Psychological Impact Assessment. London, PAA.
11. Clark, C.M. and Kavanagh, C. (1996) "Basic income, inequality, and unemployment: rethinking the linkage between work and welfare." Journal of Economic Issues 30(2): 399-406.
12. Coote, A. and Yazici, E. (2019) Universal basic income. A union perspective. France, Public Services International.
13. Crawford Urban, M. and Yip, C. (2017) Basic Impact Examining the Potential Impact of a Basic Income on Social Entrepreneurs. Ontario, Mowat Centre.
14. Eskelinen, T. and Perkiö, J. (2018) "Micro-investment perspective and the potential of the universal basic income." Development Policy Review 36: O696-O709.
15. Fischer, Y. (2020) "Basic Income, Labour Automation and Migration–An Approach from a Republican Perspective." Basic Income Studies 15(2).
16. Gheaus, A. (2008) "Basic income, gender justice and the costs of gender-symmetrical lifestyles." Basic Income Studies 3(3).
17. Goldsmith, P.S. (2010) The Alaska Permanent Fund Dividend: A Case Study in Implementation of a Basic Income Guarantee. Alaska, Institute of Social and Economic Research, University of Alaska Anchorage.
18. Goldsmith, S. (2002) "The Alaska Permanent Fund Dividend: An Experiment in Wealth Distribution." 9th International Congress: 22.
19. Goodman, C., et al. (2021) Piloting a Basic Income in Wales. Hampshire, Autonomy.
20. Gupta, R., et al. (2021) "The Role of UBI in Mitigating the Effects of Psychosocial Stressors: A Review and Proposal." Psychological reports: 332941211005115.
21. Harrop, A.T.C . (2017) Universal basic income and the future of work. London, TUC.

22. Hearty, W., et al. (2020) Assessing the Feasibility of Citizens' Basic Income Pilots in Scotland: Final Report, Prepared by the Citizens' Basic Income Feasibility Study Steering Group
23. Jackson, A. (2017) "Basic income: A social democratic perspective." Global Social Policy 17(1): 101-104.
24. Jaeger, D. V. and Wodchis, E. (2017) Collaborative Public Health Technical Submission to Ontario's Basic Income Pilot Project Consultation.
25. Johnson, M., et al. (2019) "Exploring the Health Case for Universal Basic Income: Evidence from GPs Working with Precarious Groups." Basic Income Studies 14(2).
26. Johnson, M. T. and Johnson, E (2019) "Stress, domination and basic income: Considering a citizens' entitlement response to a public health crisis." Social Theory & Health 17(2): 253-271.
27. Johnson, M. T., et al. (2021) "Designing trials of Universal Basic Income for health impact: identifying interdisciplinary questions to address." Journal of public health (Oxford, England).
28. Jones, N. and Marquez, E.V. (2014) "Is cash the answer? Lessons for child protection programming from Peru: The Juntos (together) program has the potential to improve children's care and protection." Child Abuse & Neglect 38(3): 383-394.
29. Joshi, V. (2017) "Universal basic income supplement for India: A proposal." Indian Journal of Human Development 11(2): 144-149.
30. Koslowski, A. and Duvander, A-Z (2018) "Basic income: the potential for gendered empowerment? ." Social Inclusion, Vol 6 (No 4).
31. Mackenzie, J., et al. (2016).= The Basic Income Guarantee. Edinburgh, Reform Scotland.
32. Martinelli, L. (2017) Assessing the case for a Universal Basic Income in the UK. Bath, Institute for Policy Research, University of bBBath: 100.
33. McKay, A. (2001) Rethinking Work and Income Maintenance Policy: Promoting Gender Equality Through a Citizens' Basic Income. Feminist Economics 7(1): 97-118.
34. Milner, D. (1920) Higher production by a bonus on national output; a proposal for a minimum income for all varying with national productivity,. London, G. Allen & Unwin Ltd.
35. Mulvale, J.P. and Frankel, S. (2016) Next steps on the road to basic income in Canada. Journal of Sociology and Social Welfare 43(3): 27-50.
36. Nguyen, L. D. H. (2021) On the implementation of the universal basic income as a response to technological unemployment. International Journal of Management Research and Economics. 1 (13) 1-6. https://doi: 10.51483/IJMRE.1.3.2021.1-6
37. Nir, E. (2010) Near-Universal Basic Income. Basic Income Studies 5.
38. Noguera, J.A. and De Wispelaere, P. (2006) A plea for the use of laboratory experiments in basic income research. Basic Income Studies 1(2).
39. OECD (2017) Basic income as a policy option: Can it add up?, OECD.
40. Painter, A. and Thoung, C. (2015) Creative citizen, creative state: the principled and pragmatic case for a Universal Basic Income., RSA.
41. Pateman, C. (2004) Democratizing Citizenship: Some Advantages of a Basic Income. Politics and Society 32(1): 89-105.
42. Raphael, D., et al. (2019) Canada considers a basic income guarantee: can it achieve health for all? Health promotion international 34(5): 1025-1031.
43. Rasoolinejad, M. (2019) Universal Basic Income: The Last Bullet in the Darkness. ArVix pre print. Available at: https://arxiv.org/pdf/1910.05658.pdf
44. Robertson, J. (1996) Towards a new social compact: citizen's income and radical tax reform. Political Quarterly 67(1): 54-58.
45. Robeyns, I. (2001) Will a Basic Income Do Justice to Women? Analyse & Kritik 23(1).
46. Roznawska, A. (2016) Universal Basic Income: Providing a Foundation for the Citizen's Exercise of Democratic Rights. Victoria University of Wellington Legal Research Paper, Student/Alumni Paper No. 8/2017.

47. Sadiq, K. and du Preez, H. (2020) The case for a universal basic income in South Africa: A conceptual approach. South African Journal of Accounting Research: 1-24.
48. Sage, D. and Diamond, P. (2017) Europe's New Social Reality. The case against Universal Basic Income. London, Policy Network.
49. Schneider, H. (2017) Universal basic income—empty dreams of paradise. Intereconomics 52(2): 83-87.
50. Scotland, N.H.S. (2017) Universal Income, NHS Health Scotland.
51. Segal, H.D. (2016) Archived - Finding a Better Way: A Basic Income Pilot Project for Ontario.
52. Sheffield, U L. (2018) Working paper: Proposal for a Sheffield Pilot., UBI Lab Sheffield.
53. Ståhl, A.-C.F. (2019) UBI and Health. Health-promoting potentials of basic income: an analysis of the psychosocial environment in work and welfare. Citizen Network.
54. Standing, G. (2013) India's experiment in basic income grants. Tackling Inequality 3(5).
55. Standing, G. (2015) Why Basic Income's emancipatory value exceeds its monetary value. Basic Income Studies 10(2): 193-223.
56. Statham, R., Parkes, H., and Gunson, R. (2021) Securing a living income in Scotland: Towards a minimum income guarantee. Scotland, IPPR.
57. Strengmann-Kuhn, W. (2002) Working poor in Europe: A partial basis income for workers? Available at SSRN 386540.
58. Sun, S., et al. (2021) "Cash Transfers and Health." Annual Review of Public Health 42: 363-380.
59. Tcherneva, P.R. (2007) What are the relative macroeconomic merits and environmental impacts of direct job creation and basic income guarantees?.
60. Tcherneva, P.R. and Wray, L.R. (2005) Can basic income and job guarantees deliver on their promises? Available at SSRN 1009629.
61. The Centre for Social Justice (2018) Universal Basic Income. An Effective Policy for Poverty Reduction?, The Centre for Social Justice.
62. Thompson, M. (2020) Universal Basic Income as emergency measure and enduring reform. Liverpool, University of Liverpool.
63. Van Parijs, P. (2004) Basic Income: A Simple and Powerful Idea for the Twenty-First Century. Politics and Society 32(1): 7-39.
64. Vanderborght, Y. (2006) Why trade unions oppose basic income. Basic Income Studies 1(1).
65. Widerquist, K. (2006) The bottom line in a basic income experiment. Basic Income Studies 1(2).
66. Wright, E.O. (2004) Basic Income, Stakeholder Grants, and Class Analysis. Politics and Society 32(1): 79-87.
67. Young, C. (2018) Realising basic income experiments in the UK: a typology and toolkit of basic income design and delivery. London, RSA.