

Measuring child poverty: Material hardship

Purpose

Measuring child poverty: Material hardship provides the decision about the material hardship measure and the thresholds that Stats NZ will use to measure child poverty.

About measuring child poverty

The Child Poverty Reduction Act ('the Act') was introduced in 2018 to help achieve a significant and sustained reduction in child poverty in New Zealand. The Act requires government to set three-year and ten-year targets on four primary measures, and that the Government Statistician will report annually on [10 measures](#) of child poverty.

Stats NZ produces statistics on the economic well-being of New Zealanders, including children, from the Household Economic Survey (HES). The Ministry of Social Development (MSD) also reports on this in their annual Household Incomes Report and the associated report using non-income measures.

However, HES is currently not adequate for measuring child poverty at the level of precision necessary to effectively implement the Act, due to a relatively small sample size and sample bias for low-income or high-deprivation households. This is being addressed in HES 2018/19 through an increase in sample size and better targeting of low-income or high-deprivation households.

Summary

We explored multiple material hardship indexes in this paper, such as MWI, EU-13, and DEP-17 and decided to use DEP-17 as measure for material hardship. DEP-17 is a well-established deprivation index developed by the Ministry for Social Development (MSD) for New Zealand.

Thresholds will be set at a DEP-17 score of 6 or more for material hardship, and at a DEP-17 score of 9 or more for severe material hardship. This updates the thresholds that were initially set using 2008 data and brings these into line with thresholds internationally.

Background

Measuring material hardship

Non-income measures are important to study alongside income-based measures. The income, wealth, consumption, and material wellbeing framework discussed in the Ministry of Social Development (MSD) report (2018a) recognises that factors other than income can also affect material well-being. Using non-income measures provides a direct measure of the actual day-to-day

living conditions of households – the basics of food, clothing, accommodation, heating, and transport, and their ability to afford other items that most people would regard as essential.

For child poverty our interest is in material hardship or deprivation. Material deprivation refers to a person or family lacking essential consumption items because they cannot afford them (OCC Expert Advisory Group, 2012).

The Child Poverty Reduction Act 2018 requires the Government Statistician to report annually on 10 measures of child poverty. Three of those measures require information on material hardship. Non-income measures complement income information in identifying households living in hardship (and children in these households).

Stats NZ is required to report on the following:

“the percentage of children living in households in New Zealand in the financial year who fell within:

- c) Material hardship
 - i) Severe material hardship
 - j) Low income and hardship: less than 60% median equivalised disposable household income after housing costs (AHC) for the financial year and material hardship”

Previous reporting on material well-being

Stats NZ has collected non-income measures through the material well-being questionnaire (MWQ) in the household economic survey (HES) since the 2006/07 survey. MWQ asks about ownership of items, or doing certain activities, and the extent that people economise. It also asks respondents how they rate their life satisfaction and whether income meets everyday needs. In the 2015/16 HES collection year, and every three years following this, the questionnaire also includes specific child-focused material hardship questions, such as the ability to pay for school trips.

Until now, we have published selected results on ‘satisfaction levels’ and ‘adequacy of income to meet everyday needs’ as part of the annual release of HES information. We have not produced an index of material well-being from this data – MSD does this as part of their annual non-incomes report.

Material well-being and material hardship indexes

The material wellbeing of New Zealand households: trends and relativities using non-income measures, with international comparisons report by MSD (2018a) uses HES data to report on material hardship in New Zealand. The report is a rich source of information on research done over the years and describes three indexes that can be used to measure material hardship in New Zealand: MWI, DEP-17, and EU-13. These three are described below.

Material wellbeing index (MWI)

The material wellbeing index (MWI) is a revised version of the prototype economic living standards index (ELSI) developed by MSD in 2002. From 2012/13 onwards HES includes questions on material well-being, which make it possible to calculate the 24-item MWI. The MWI covers the whole spectrum of material well-being, ensuring some discrimination at the high end of material well-being as well as at the low end. However, as an index that was developed in New Zealand for New Zealand conditions, MWI does not enable us to compare material hardship internationally.

MWI includes questions around 'ownership or participation', 'economising', 'housing problems', 'freedoms/restrictions', and 'financial strain'. Its scoring is slightly different from EU-13 and DEP-17; higher scores equate to higher material well-being (and thus lower material hardship).

For reporting, MSD has defined an MWI score of nine or less out of 24 as indicating a low living standard and therefore a household experiencing material hardship. A score of five or less indicates a household experiencing severe material hardship.

DEP-17

The DEP-17 index focuses on the low living standards end of the spectrum and includes questions about 'enforced lack of essentials', 'economised, cut back, or delayed purchases a lot', 'in arrears more than once in last 12 months', and 'financial stress and vulnerability' (see [appendix 2](#)).

The DEP-17 index was developed to make it easier to communicate on material hardship trends. It ranks households in virtually the same order as the MWI does and produces virtually identical trends to the MWI at several different thresholds, but end-users and the public generally find it much easier to interpret the DEP-17 scores.

A household's DEP-17 score is the sum of the deprivations the respondent identifies with. As with MWI, as this is a New Zealand-specific index it is not possible to do direct international comparisons for the level of material hardship in New Zealand.

In their reports to date, MSD has defined households in material hardship as those with seven or more deprivations; severe material hardship as households with nine or more deprivations.

From 2012/13 onwards, the HES material well-being questionnaire includes all 17 items (see [appendix 1](#)) used in the DEP-17 material hardship index that MSD developed (2018a).

EU-13

The European Union (EU) uses this 13-item index (called the material and social deprivation index by Eurostat) as its official measure for material hardship in households from 2017 onwards (Guio et al, 2017a). Using the EU-13 index as the official measure for material hardship in New Zealand would make it possible to compare our hardship level with those in EU countries.

The EU-13 questionnaire asks about both household and personal deprivations. The EU-13 score is the sum of all reported deprivations (MSD, 2018a). Households identified as lacking five or more of the 13 items are said to be in material hardship.

Similar items to those in EU-13 have been collected in the HES material well-being questionnaire since 2015/16 (see [appendix 1](#)). However, the HES questions are not the same as EU-13 describes. To allow international comparison and analysis of thresholds a concordance has been agreed. However, if we were to use EU-13 as the official measure for the Act, then questions would need to be changed to bring these into better alignment.

[Appendix 3](#) describes the concordance.

A child-specific material hardship index

For child poverty reporting we also considered using a child-specific material hardship index. Guio et al (2017b) proposed a new measure of child material and social deprivation in the EU. No specific child index has been created and used in New Zealand.

In all the above indexes the questions are asked of one randomly selected adult in the household. The material hardship score is then applied to all household members, including children.

It could be argued that it is important to measure hardship through items the child themselves may lack or miss out on. For example, certain families may 'protect' children from hardship by ensuring they have essentials while doing without items themselves. The HES for 2015/16 and 2018/19 included a suite of child-specific questions for school-aged children, as well as the individual adult and household items mentioned above. These questions were asked of the caregiver and not from the child.

Selecting an index

DEP-17 was chosen by Stats NZ as the index to measure material hardship. The index's ability to identify material hardship, have easy-to-interpret scores, produce consistent results over time, and being a familiar index specifically designed for New Zealand, makes DEP-17 the best index to use for measuring child poverty.

Identifying material hardship

"Poverty is generally understood as exclusion from a minimum acceptable way of life (standard of living) in one's own society because of inadequate financial and material resources" (MSD, 2018a, p8). The chosen index should therefore include items that the New Zealand public recognise as important material resources that every New Zealander should have. A lack of these items shows exclusion from a minimum acceptable way of life, and therefore material hardship is being experienced. The items should also be timely (ie include items people are currently using).

We need a measure that identifies material hardship and severe material hardship experienced in households, as well as one that discriminates well between those households.

DEP-17 and MWI rank households in almost the same order for the lower 20 percent of the population (MSD, 2018a). However, DEP-17 includes questions that identify the lack of essential items at the more-severe end of the spectrum; in contrast MWI is across all levels.

Both EU-13 and DEP-17 discriminate well between households at the lower end of the material hardship scale – they both identify items most people would consider important not to go without. However, DEP-17 has more questions available (than EU-13) to cover the more-severe end of the hardship spectrum.

Interpreting index scores

People using the data output will need an index that produces data that is easy to understand and use. The items in the index and scoring need to be easy to interpret. DEP-17 scoring is more straightforward than MWI – the more that households identify with an item, the higher its material hardship score.

Consistent results over time

Both MWI (and its predecessor ELSI) and DEP-17 have been used to report on material hardship for some time and has performed consistently. Data for DEP-17 has been collected since the 2012/13 HES, which means we could create a time series.

In contrast, the questions required for EU-13 have only been included in HES since 2015/16 and may need to be changed to give improved comparability, which would affect the time series. DEP-17 has also shown to have a good level of reliability over time, as measured using Cronbach's alpha. This

measures how closely related a set of items in a group are. For indexes of this type a Cronbach's alpha of 0.7 to 0.8 is considered acceptable and 0.8 to 0.9 is good.

Table 1 shows DEP-17 (and EU-13) Cronbach's alpha for several years.

Table 1

Cronbach's Alpha for DEP-17 and EU-13		
	DEP-17	EU-13
HES 2013	0.86	-
HES 2014	0.87	-
HES 2015	0.88	-
HES 2016	0.85	0.77
HES 2017	0.88	0.81
HES 2018	0.88	0.81
Data source: MSD (2019), table 1		

Index for New Zealand

DEP-17 is designed for New Zealand and reflects the country's culture and norms. Its items are relevant and reflect what households in this country are expected to have or be able to do. Familiarity with a measure will create buy-in from people using the data. DEP-17 is already quite well-known in New Zealand so we should receive support for choosing DEP-17.

Why not child specific

A child-specific material hardship index has not been developed in New Zealand; internationally this work is still new so more research is needed before one could be created.

We want to choose an index that can be applied to the total population and to other sub-populations – to allow comparisons with households with children. We also know that general household conditions, such as housing conditions and transport availability, can have a significant effect on children's well-being.

For these reasons we have chosen to use a general index for measuring material hardship – DEP-17. Child-specific material hardship questions will continue to be asked in HES; these can be used to calibrate the chosen index and to better understand the situation of children within families (MSD, 2018a).

Deciding on a threshold for material hardship

Note: As explained in the MSD report to Minister Sepuloni on 7 September 2018 (MSD, 2018b) the material hardship rates for 2016 and 2017 have not been published for 2016 and 2017 by MSD. This is because of concerns around the unexpected and large declines in material hardship rates from the reasonably stable 2013 to 2015 trend. It is important to note is that the following analysis does not

report on official child poverty rates; we just use the data for exploratory analysis for setting thresholds.

Setting thresholds

We need to set thresholds for the purposes of the Act – to calculate the percentage of children living in New Zealand households in the financial year who fell within the material hardship and severe material hardship categories.

There is no straightforward way to decide a threshold. A judgement call is required to identify if a household has an unacceptably low living standard, and therefore meets the level of the material hardship threshold for the Act.

Thresholds were set using all people (total population, not just households with children). This was done because we want to be able to compare different types of households. However, analysis for households with children is also presented below.

In their reporting on material hardship using DEP-17, MSD have used a DEP-17 score of 7 or more as the threshold for material hardship and a score of 9 or more for severe hardship. This threshold was set following analysis of child-specific items collected in the 2008 Living Standards Survey, which found that at around a score of 7 there was a definite rise in the number of children in households who were lacking these basic child-specific items. A threshold set at 7 or more also gave hardship rates that were comparable to the EU-13 threshold – to achieve some international comparability.

An important consideration has been setting the threshold for material hardship at a level equivalent to the EU's standard threshold or as near as possible (Cabinet Business Committee paper, 2017, paragraph 36). Since the initial calibration was done using 2008 data, DEP-17 material hardship rates have fallen more than the EU-13 calculated rates. (MSD 2019).

As with the fixed line low-income measures, thresholds for an index like DEP-17 will need adjustment from time to time. The base financial year for the fixed line measure is being updated to 17/18 and it is a good time to also rebase the DEP-17 threshold. This will ensure a stable measurement regime for setting and monitoring targets.

Considering the need for international comparison, we have decided the threshold will be set at a DEP-17 score of 6 or more for material hardship, and a score of 9 or more for severe material hardship.

Analysis of proposed thresholds

Comparison with EU-13

Using the EU-13 measure, the EU's standard threshold is set at missing five or more of the 13 items. The EU does not currently define a severe material hardship threshold.

Figures 1 and 2 show the hardship rates for various possible thresholds compared with the EU-13 threshold of five or more (5+) missing items, for 2016 to 2018. The analysis is for all people (figure 1) and for children aged 0 to 17 years (figure 2).

Figure 1

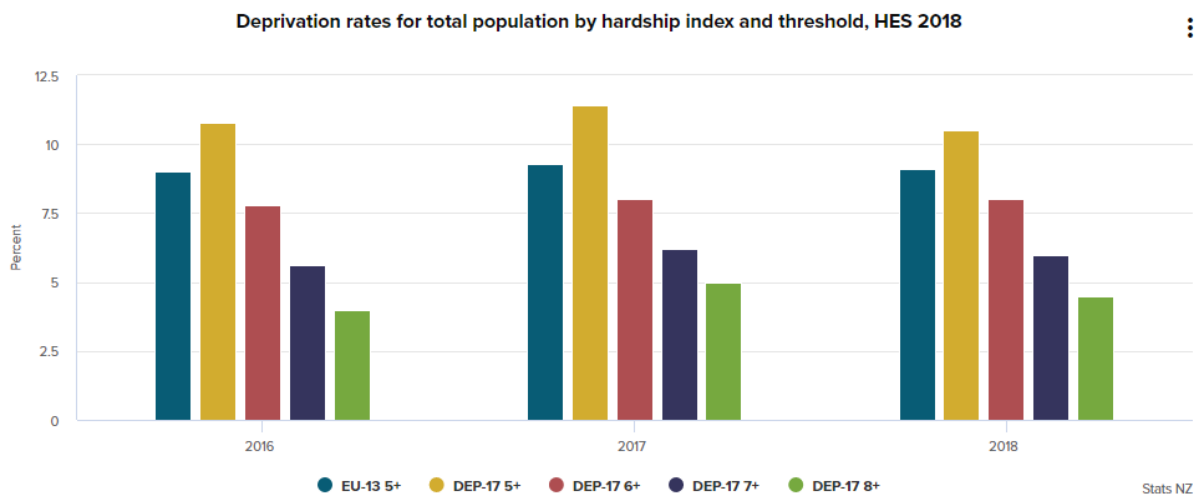
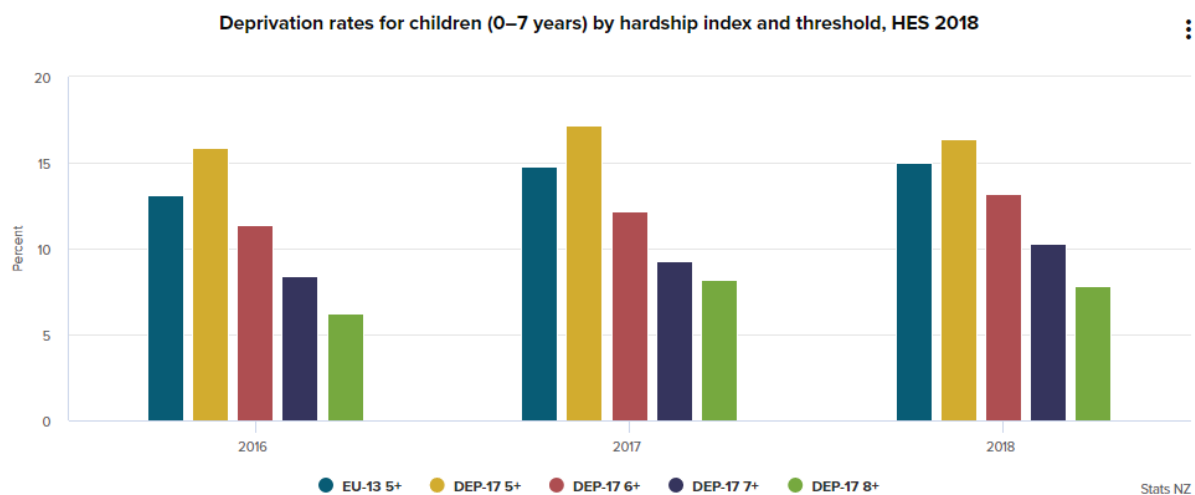


Figure 2



For all three years, the material hardship rates using the EU-13 threshold of 5+ missing items fall between the rates calculated using Dep-17 scores of 5+ and 6+. Rates tend to be closer to the DEP-17 rates at 6+.

These results show that a threshold between 5+ and 6+ missing items for DEP-17 would produce material hardship rates for both the total population and children that are equivalent to the EU-13 cut-off of 5+.

Support for chosen threshold

Table 2 illustrates the pattern of increasing hardship scores by item. It suggests five, six, or seven items missing is a threshold where people start to do without many of the items considered necessary for a good standard of living. At 9–11 items missing, people are severely constrained in what they have or can do.

The table shows the proportions of people who have a particular ‘deprivation’ by the number of deprivations they reported. For example, of the people who said they lacked two items, 47 percent said they could not afford the dentist and 29 percent could not pay an unexpected bill of \$500.

As expected this shows that people with low DEP-17 scores quite often lack or put off purchasing insurance, and put off visits to the dentist, but do not often compromise on items like meals with meat, or shoes and clothes. People who lack four, five, or six items is where we start seeing more severe limitations; for those with five missing items, 71 percent put off going to the dentist, 53 percent limit buying clothes and shoes for themselves, 45 percent cut back on local trips, and 34 percent put up with old appliances.

People who are missing nine of the 17 items have limitations across the spectrum – 35 percent did not have any suitable clothes for special occasions, 56 percent are unable to pay utilities bills, and 71 percent are not able to visit the dentist.

Note: These percentages by item are based on a small number of people.

Table 2

Proportion of population in households whose respondent reported an enforced lack of component items for DEP-17, by DEP-17 score, HES 2018 is available under Download data.

Note: We recommend you print this table in colour.

Table 2 Proportion of population in households whose respondent reported an enforced lack of items (for DEP-17), by DEP-17 score HES												
Component	1	2	3	4	5	6	7	8	9	10	11	12+
	Percent											
Meal with meat, fish or chicken	0	1	1	3	3	7	1	8	11	21	25	39
Have good shoes	0	1	2	3	5	7	11	19	35	19	33	56
Have suitable clothes	0	2	3	7	6	13	17	15	35	50	36	71
Able to give gifts	1	4	6	5	15	17	33	28	29	19	38	60
Have home contents insurance	14	23	31	33	45	47	65	75	64	61	58	89
Buy fresh fruit or vegetables	0	2	1	8	12	9	13	26	24	52	72	85
Buy cheaper or less meat	6	18	24	33	35	56	61	57	73	66	94	96
Put up feeling cold	4	8	16	16	31	28	31	40	57	55	71	77
Put off doctor's visits	1	9	9	14	29	32	29	47	69	60	75	72
Put off dentist's visits	28	47	55	60	71	74	73	74	71	89	85	98
Cut back on local trips	5	10	22	32	45	56	58	63	63	86	90	83
Delay replacing/repairing appliances	2	5	19	28	34	32	43	52	51	77	74	89
Could not pay utilities	1	5	12	18	17	22	30	34	56	44	63	68
Could not pay for car	1	2	6	18	13	26	44	36	37	41	51	59
Borrow to meet costs	2	8	16	21	25	37	43	48	48	58	55	81
Limited buying clothes/shoes	5	16	26	42	53	60	68	81	80	95	91	98
Afford unexpected \$500 expense	29	38	52	59	63	77	80	96	74	100	98	99

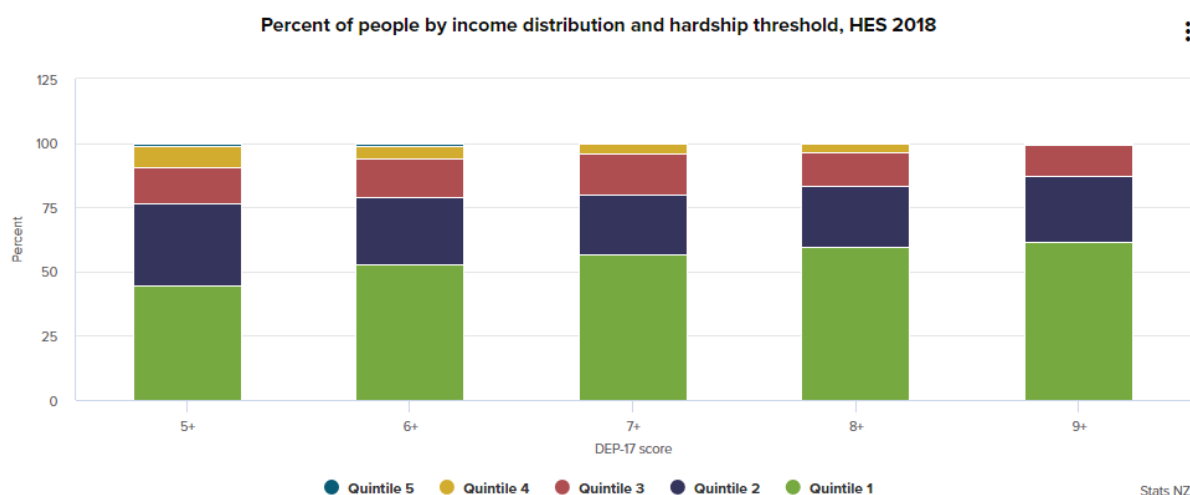
Source: Stats NZ

Comparison with income

Households with low income are likely to (and quite often do) experience material deprivation, but there is not a direct correlation between the two. Households can still have a higher living standard (and a lower material deprivation score) despite their low income – they may have other resources to call on, or they may not see the items included in the index as necessities (not because they don't have them due to a lack of money). In contrast, households with a high income can still experience material deprivation.

Figure 3 shows how the income distribution of people varies with different DEP-17 thresholds. At the threshold of a DEP-17 score of 6 or more, the majority of households have income in the bottom two quintiles with a few households also appearing in the other 3 quintiles. In the severe hardship threshold of a score of 9 or more, the proportion in the low-income quintiles increased.

Figure 3



Conclusion

We decided to use the DEP-17 index as a measure for material hardship. Its results are easily interpretable and items in the index focus on the severe side of the hardship spectrum (which have specifically been designed for New Zealand). The index has proven to be consistent and reliable.

The thresholds are set at a DEP-17 score of six or more missing items for material hardship, and a score of nine or more for severe material hardship. This meets the government’s intention of the measure being as near as possible equivalent to the EU-13 standard threshold. A time series can be created for DEP-17 using this new threshold. Using such a threshold would mean slightly higher reported material hardship rates for children than when using the 7 or more threshold.

While the threshold has changed from seven or more to six or more, we propose leaving the more severe threshold at missing nine or more items of 17. We considered moving to eight or more, which could be a valid threshold, but concluded that nine or more gives a bit more space from the ‘standard’ threshold. It is unlikely that anyone would dispute that people reporting nine or more deprivations are severely deprived.

References

- Cabinet Business Committee paper (6 December 2017). [Legislating to Drive Action to Reduce Child Poverty](#). CBC-17-sub-0048 at [36], [PDF, 24p]. Retrieved from <https://dpmc.govt.nz>.
- Children’s Commissioner’s Expert Advisory Group on Solutions to Child Poverty (2012). [Solutions to Child Poverty in New Zealand evidence for action](#). [PDF, 84p]. Retrieved from www.occ.org.nz.
- Guio, A, Gordon, D, Najera, H, & Pomati, M (2017a) [Revising the EU material deprivation variables](#). Eurostat. [PDF, 66p]. Retrieved from <https://ec.europa.eu>.
- Guio, A, Gordon, D, Marlier, E, Najera, H, & Pomati, M (2017b) [Towards an EU measure of child deprivation](#) *Child Indicators Research, Vol 11*(3), 835–860. Retrieved from <https://link.springer.com>.
- Ministry of Social Development (2018a). [The material wellbeing of New Zealand households: trends and relativities using non-income measures](#). [PDF, 56p]. Retrieved from www.msd.govt.nz.
- Ministry of Social Development (2018b). [Reporting on low-income and material hardship trends for](#)

[children in the 2018 Household Incomes Report](#). MSD report to Minister for Social Development, Hon Carmel Sepuloni. [PDF, 19p]. Retrieved from www.msd.govt.nz.

Ministry of Social Development (2019). [Background paper on EU-13, DEP-17 and MWI-24 to assist with discussions with Stats NZ on the material hardship measures for the CPRA](#). Retrieved from www.msd.govt.nz.

New Zealand Government (2018). [Child Poverty Reduction Act 2018](#). Retrieved from www.legislation.govt.nz.

Appendix 1: Household Economic Survey (HES) material well-being questions, with index indication

Question introduction	Question	EU-13	DEP-17	MWI
I'm now going to ask you about some things you may or may not have or do. Do you have	a meal with meat, fish or chicken (or vegetarian equivalent) at least each second day?	✓	✓	✓
	a good bed?			✓
	two pairs of shoes in a good condition that are suitable for your daily activities?	✓	✓	✓
	suitable clothes for important or special occasions?		✓	✓
	home contents insurance?		✓	✓
	access to a car or van for personal use?	✓		
Do you	have access to both a computer and internet connection at home?	✓		
	have a get together with friends or extended family for a drink or meal at least once a month?	✓		
	give presents to family or friends on birthdays, Christmas or other special occasions?		✓	✓
	usually have a holiday away from home for at least a week every year?	✓		✓
	have a holiday overseas at least every three years?			✓
I'm now going to read out a list of things some people do to help keep costs down. This is not about choosing to spend less. It is about being forced to keep costs down to pay for other basic things that you need. In the last twelve months have you had to do any of these to keep costs down? (Not at all, a little, a lot)	go without fresh fruit or vegetables?		✓	✓
	buy cheaper cuts of meat or buy less meat than you would like?		✓	✓
	continue wearing clothing that was worn out?	✓		✓
	postpone or put off visits to the doctor?		✓	✓
	postpone or put off visits to the dentist?		✓	✓
	do without or cut back on trips to the shops or other local places?		✓	✓

	spend less on hobbies or other special interests than you would like?	✓		✓
	put up with feeling cold?		✓	✓
	delay replacing or repairing broken or damaged appliances?		✓	✓
	delay replacing or repairing broken or worn-out furniture?	✓		
Does your accommodation, have no problem, a minor problem or a major problem with:	dampness or mould?			✓
	heating and/or keeping warm in winter?	✓		✓
When buying, or thinking about buying, clothes or shoes for yourself	how much do you usually feel limited by money available?		✓	✓
Imagine that you have come across an item in a shop that you would really like to have. It has a price tag of \$300. It is not an essential item for accommodation, food, clothing or other necessities – it is an extra	If this happened in the next month, how limited would you feel about buying it?			✓
If you (or your partner) had an unexpected and unavoidable expense of \$500 in the next week, could you pay it within a month without borrowing?			✓	✓
And what if you (or your partner) had an unexpected and unavoidable expense of \$1,500 in the next week? Could you pay that amount within a month without borrowing?		✓		
About how much money, on average, do you have each week for spending on things for yourself without consulting anyone else?		✓		
In the last twelve months, have any of the following	You could not pay electricity, gas, rates or water bills on time?	✓	✓	✓

<p>happened to you (or your partner) because of a shortage of money?</p> <p>(not at all, once, more than once)</p>	<p>You could not pay for car insurance, registration or warrant of fitness on time?</p>	✓	✓	✓
	<p>You could not pay rent or mortgage on time?</p>			
	<p>You borrowed from friends or family to meet everyday living costs?</p>		✓	
	<p>You received help in the form of food, clothes or money from a welfare/ community organisation such as a church or foodbank?</p>			
<p>I would like you to think about how well (your/you and your partner's combined) total income meets your everyday needs for such things as accommodation, food, clothing and other necessities</p>	<p>Would you say you have not enough money, only just enough money, enough money, or more than enough money?</p>			
<p>I'm now going to ask you a very general question about your life. This includes all areas of your life, not just what we have talked about so far.</p>	<p>How do you feel about your life right now?</p>			
<p>Is the reason you don't have (...), because you don't want it, because of the cost, or some other reason</p>	<p>a meal with meat, fish or chicken (or vegetarian equivalent) at least each second day?</p>			
	<p>a good bed?</p>			
	<p>two pairs of shoes in a good condition that are suitable for your daily activities?</p>			
	<p>suitable clothes for important or special occasions?</p>			
	<p>home contents insurance?</p>			
	<p>access to a car or van for personal use?</p>			
	<p>have access to both a computer and internet connection at home?</p>			

	have a get together with friends or extended family for a drink or meal at least once a month?			
	give presents to family or friends on birthdays, Christmas or other special occasions?			
	usually have a holiday away from home for at least a week every year?			
	have a holiday overseas at least every three years?			

Appendix 2: DEP-17 questions and scoring

Category	Question introduction	Question
<p>Enforced lack of essentials (an enforced lack is when the item is not had because of cost.</p> <p>Score = 1 if enforced lack, 0 otherwise</p>	<p>I'm now going to ask you about some things you may or may not have or do. Do you have</p>	a meal with meat, fish or chicken (or vegetarian equivalent) at least each second day?
		two pairs of shoes in a good condition that are suitable for your daily activities?
		suitable clothes for important or special occasions?
		home contents insurance?
		give presents to family or friends on birthdays, Christmas or other special occasions?
<p>Economising behaviours</p> <p>(not at all, a little, a lot)</p> <p>Score=1 if "a lot", 0 otherwise</p>	<p>I'm now going to read out a list of things some people do to help keep costs down. This is not about choosing to spend less. It is about being forced to keep costs down to pay for other basic things that you need. In the last twelve months have you had to do any of these to keep costs down?</p>	go without fresh fruit or vegetables?
		buy cheaper cuts of meat or buy less meat than you would like?
		postpone or put off visits to the doctor?
		postpone or put off visits to the dentist?
		do without or cut back on trips to the shops or other local places?
		put up with feeling cold?
		delay replacing or repairing broken or damaged appliances?
<p>Restrictions</p> <p>(not at all limited, a little limited, quite limited, very limited)</p> <p>Score=1 if very limited, 0 otherwise</p>	<p>When buying, or thinking about buying, clothes or shoes for yourself</p>	how much do you usually feel limited by money available?
<p>Restrictions</p> <p>(yes, no)</p>		If you (or your partner) had an unexpected and unavoidable expense of \$500 in the next week, could you pay in a month without borrowing?

Score =1 if no, 0 otherwise		
Financial stress and vulnerability (not at all, once, more than once) Score = 1 if more than once, 0 otherwise	In the last twelve months, have any of the following happened to you (or your partner) because of a shortage of money?	You could not pay electricity, gas, rates or water bills on time?
		You could not pay for car insurance, registration or warrant of fitness on time?
		You borrowed from friends or family to meet everyday living costs?

Appendix 3: Concordance used to estimate EU-13 rates for New Zealand

Question in EU-13 ⁽¹⁾ Inability of a household to: (answer categories 'Yes', 'No, can't afford it', 'No, for other reason')	Question in HES	Directly comparable?	Coding used in EU-13 comparable
face unexpected expenses	<p>And what if you (or your partner) had an unexpected and unavoidable expense of \$1,500 in the next week? Could you pay that amount within a month without borrowing?</p> <p>The question in HES asks about the particular amount of \$1,500. For EU-13: 'For each country, the amount is set at a suitable value close to ($\pm 5\%$) of the per month national income poverty line (60% of median) for the one-person household. There is no adjustment for household size or composition' (MSD, 2018a, p. 20)</p>	Yes	No = 1
afford a one-week annual holiday away from home	Do you usually have a holiday away from home for at least a week every year?	Yes	No = 1
avoid arrears (in mortgage or rent, utility bills or hire purchase instalments)	<p>In the last twelve months, have any of the following happened to you (or your partner) because of a shortage of money?</p> <ul style="list-style-type: none"> • You could not pay rent or mortgage on time? • You could not pay electricity, gas, rates or water bills on time? 	This question is split into two questions by HES. HES also does not ask about hire purchase instalments, which could result in undercounting hardship.	Use once or more for either question = 1
afford a meal with meat, chicken or fish every second day	I'm now going to ask you about some things you may or may not have or do. Do you have a meal with meat, fish or chicken (or vegetarian equivalent) at least each second day?	Yes	No=1
afford to keep the home adequately warm	I'm now going to read out a list of things some people do to help keep costs down. This is not about choosing to spend less. It is about being forced to keep costs down to pay for other basic things that you need. In the last twelve months have you had to do any of these to keep costs down?	Need to decide if we use "a little" and "a lot" or just "a lot" as being closest to the "no" response in EU-13. Including "a little" is likely to over-inflate hardship levels. The decision: the risk of	Put up with feeling cold "a lot" = 1

	Put up with feeling cold? (not at all, a little, a lot)	possible understatement was less than the risk of over statement when using the alternative.	
afford to have a car/van for personal use	Do you have access to a car or van for personal use?	Yes	No = 1
replace worn-out clothes with some new (not second-hand) ones	In the last twelve months have you had to do any of these to keep costs down? Continue wearing clothing that was worn out? (Not at all, a little, a lot)	EU-13 is asking if a respondent would be able to. HES asks about whether someone has delayed the purchase.	Use continue wearing worn out clothes "a lot" = 1
have two pairs of properly fitting shoes	I'm now going to ask you about some things you may or may not have or do. Do you have two pairs of shoes in a good condition that are suitable for your daily activities?	Yes	No = 1
spend a small amount of money each week on him/herself	About how much money, on average, do you have each week for spending on things for yourself without consulting anyone else? Options at <\$10 pw or < \$25 pw	The EU-13 questions ask about if a respondent can afford to spend a small amount of money on him/herself, where the HES asks about how much money they can spend on him/herself. Need to decide how much a small amount is.	<\$10 per week = 1
regularly participate in a leisure activity such as sport, cinema or concert.	In the last twelve months have you had to do any of these to keep costs down? Spend less on hobbies or other special interests than you would like?	The EU-13 question asks if a respondent can have regular leisure activities; HES asks if someone has spent less on hobbies or other special interests. EU question is specific about being outside the home. Not directly comparable. HES question may overstate hardship compared with EU if both "a little" and "a lot" are included.	Have used 'spend less on hobbies/special interests a lot' = 1

get together with friends/family for a drink/meal at least monthly	Do you have a get together with friends or extended family for a drink or meal at least once a month?	Yes	No = 1
have an internet connection	Do you have access to both a computer and internet connection at home?	Yes, but we need to acknowledge that EU-13 does not include a computer since many people now access the internet using their smartphone or tablet (Guio et al., 2017a). Therefore, it is possible some households are given a higher score when not having access to a computer while having a smartphone (and no need for a computer).	No = 1
replace worn-out furniture	In the last twelve months have you had to do any of these to keep costs down? Delay replacing or repairing broken or worn out furniture? Not at all, a little, a lot	EU-13 asks whether a respondent would be able to; HES asks whether someone has delayed the purchase.	Used economise "a lot" = 1

Appendix 4: Child poverty measures

The 10 measures to be included in child poverty reporting, as listed in the Child Poverty Reduction Act 2018, are outlined here.

The percentage of children living in households in New Zealand in the financial year who fell within:

- a) Low income: less than 50% median equivalised disposable household income before housing costs (BHC) for the financial year.
- b) Low income: less than 50% median equivalised disposable household income after housing costs (AHC) for the base financial year.
- c) Material hardship
- d) Poverty persistence
- e) Low income: less than 60% median equivalised disposable household income before housing costs (BHC) for the financial year.
- f) Low income: less than 60% median equivalised disposable household income after housing costs (AHC) for the financial year.
- g) Low income: less than 50% median equivalised disposable household income after housing costs (AHC) for the financial year.
- h) Low income: less than 40% median equivalised disposable household income after housing costs (AHC) for the financial year.
- i) Severe material hardship
- j) Low income and hardship: less than 60% median equivalised disposable household income after housing costs (AHC) for the financial year, and material hardship.



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