What we learned about risk of food insecurity in 2016

In the 2016 survey, in multivariate models, the following characteristics were associated with higher risk of any food insecurity:

- Younger age groups (16 to 24 and 25 to 34)
- Non-white identity
- Children in the household
- Low levels of education
- Unemployment
- Life-limiting health problems or disability
- Incomes in the lowest income quartile

There was not a significant difference between men and women or by marital status once other characteristics were accounted for.

Adults who were 65 years of age or older had a lower risk of food insecurity compared to those aged 45 to 54.

Only three characteristics were significantly associated with increased risk of severe food insecurity (see Figure 1). These were:

- Unemployment
- Long-term health problems or disability that limited daily activities
- Being in the lowest income quartile

What we learned about how vulnerability to food insecurity changed since 2004

When we compared an average low-income adult from the 2004 sample to an average low-income adult in the 2016 sample, there was a much higher probability of being food insecure in 2016 (Figure 2).

Among adults with life-limiting health conditions or disabilities, the rise in risk was significantly more pronounced compared to adults without these conditions (Figure 3). The rise in risk of food insecurity was not significantly different for adults who had children compared to those without, or for adults who were unemployed compared to those who were working. All of these groups experienced rises. However, risk did not change at all for adults who were retired.
What are the implications of this study?

The findings suggest that food insecurity affects the most economically-deprived adults in the UK. Though not necessarily surprising, it underscores how food insecurity is a consequence of poverty.

Those most vulnerable to severe food insecurity are those at the bottom of the income distribution, those who are unemployed, and those with life-limiting disabilities. Severe food insecurity is devastating for health and costs health systems more, underscoring the urgent need to address this level of deprivation. Those most likely affected are groups who have experienced reduced social security support, which suggests this support is currently inadequate to prevent food insecurity.

When we compared economically deprived adults from the 2016 study to those in the 2004 study, we found them to be at much higher risk of food insecurity, especially adults with disabilities. This suggests that it is getting harder for economically deprived groups to afford enough food. The incomes of a growing number of households appear to be insufficient to meet basic needs. Price rises, wage stagnation, and the economic downturn have all made things harder for low-income households and the retrenchment of social security likely means this support is no longer sufficient to buffer these hardships. There is an urgent need for social security to be realigned with the real costs of living.

What we did

We used data from the 2016 Food and You survey, which covers adults in England, Wales, and Northern Ireland, to analyse what characteristics are associated with any level of food insecurity and increasingly severe food insecurity.

We matched adults in the lowest income quartile from the Food and You survey to adults who took part in the 2003–2005 Low Income Diet and Nutrition survey. This allowed us to create two comparable groups of low-income adults and enabled us to uncover whether food insecurity is indeed higher today than it was in 2004 among a group of otherwise similar low-income adults. We also asked: have adults with particular characteristics, namely those with children, those with disabilities, or those who are unemployed, become more likely to experience food insecurity than adults without these characteristics?


How is household food insecurity measured and classified?

To measure food insecurity in the Food and You Survey, adults were asked if they, or any other adults in their household, experienced any of the following:

- Worrying food supplies might run out
- Food supplies not lasting long enough and not being able to get more
- Being unable to afford balanced meals
- Reducing the size of meals or skipping meals altogether
- Reducing the size of meals or skipping meals in three or more months of the past year
- Eating less than one should
- Feeling hungry but not being able to eat
- Losing weight because there wasn’t enough money for food
- Going a whole day without eating
- Going a whole day without eating in three or more months of the past year

These questions are from the validated USDA Household Food Security Survey Module and measure food insecurity among adults and households.

ANY food insecurity: any experience of food insecurity.

MARGINAL food insecurity: indicating only one experience of food insecurity.

MODERATE food insecurity: indicating at least two of the experiences of food insecurity, but not more than five. These adults have likely experienced compromised diet quality and possibly not eating enough.

SEVERE food insecurity: indicating at least six of the experiences of food insecurity. These adults have experienced not having enough food.

* The way the USDA Food Security Survey Module is coded differs between different countries. In the USA, researchers only count people who indicate three or more experiences as food insecure. They define another category called “marginal food security” as one or two responses. The Food Standards Agency used this coding when they produced their report on food insecurity in the UK in 2017. In Canada, researchers use the coding described above in their report on household food insecurity, and we’ve used this here because the characteristics of households who confirm one response are different from those who affirm no responses and those who affirm two or more.

** How is household food insecurity measured and classified?