



Food Insecurity: A Public Health Approach

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FOOD SECURITY – DEFINITIONS

Hot Springs Conference 1943 – 44

Governments met in Hot Springs, Virginia USA to consider goal of freedom from want regarding food & agriculture.

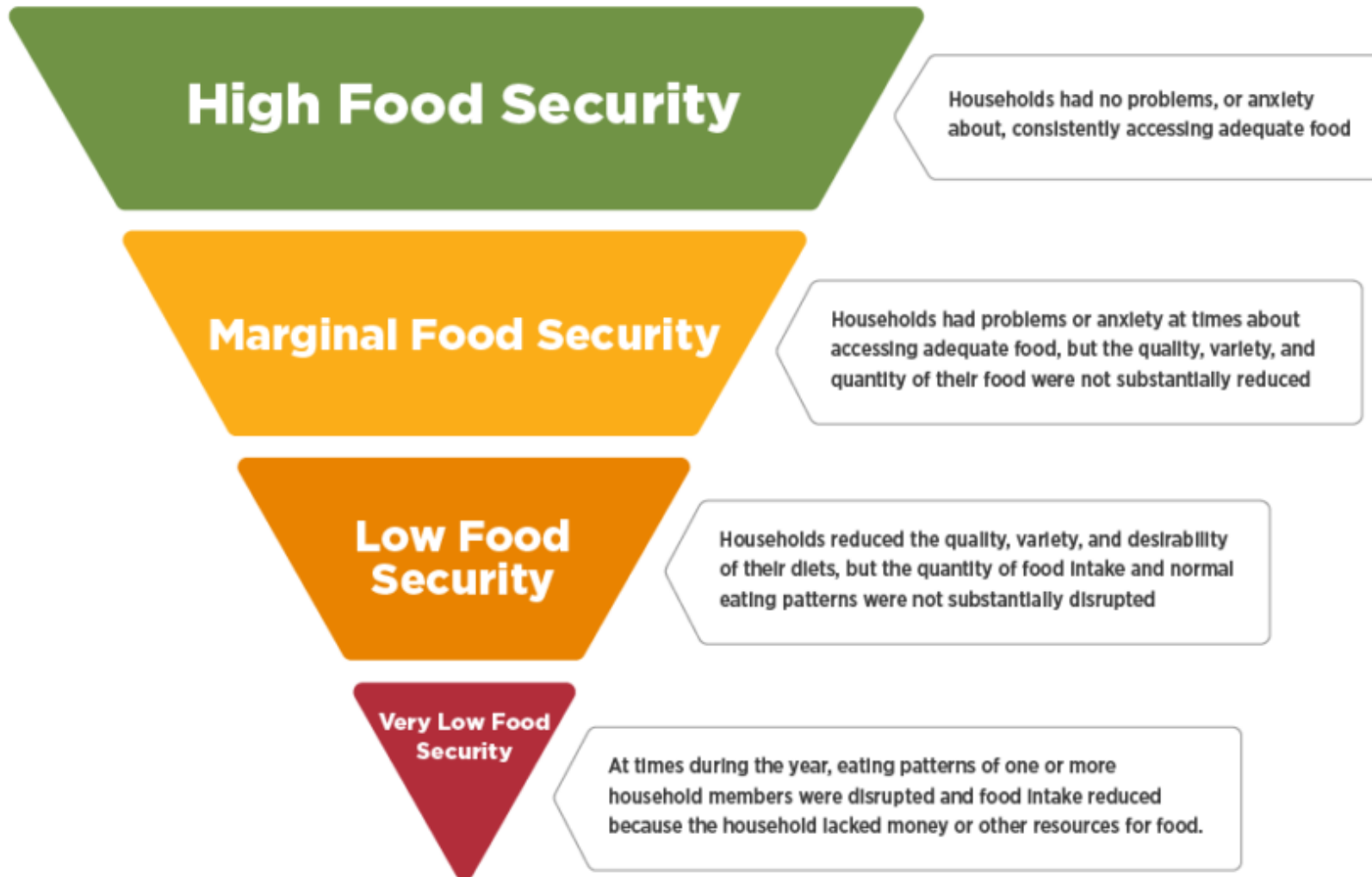
“Freedom from want” - a secure, adequate and suitable supply of food for every man, woman and child

“secure” - accessibility of the food

“adequate” - quantitative sufficiency of the food supply

“suitable” - nutrient content of the food supply.

<http://www.fao.org/3/MD776E/MD776E.pdf>



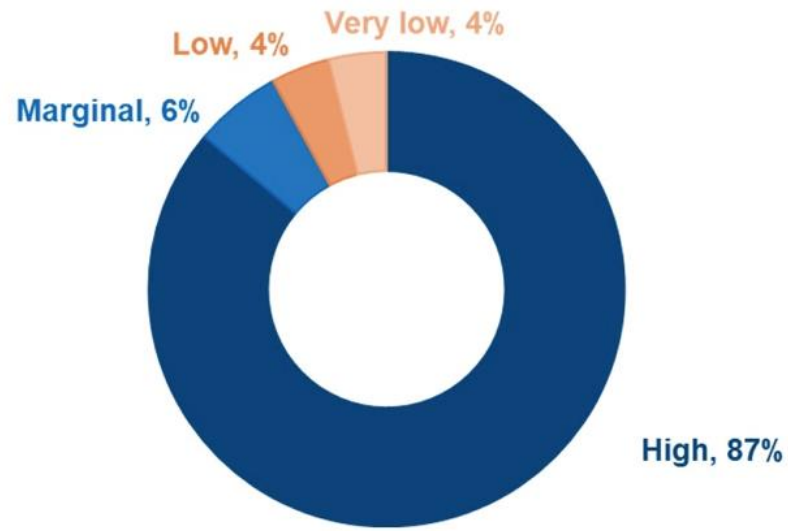
Source: Adapted from the USDA Economic Research Service.



What is the current situation?



Household Food Security



Most people lived in households with high household food security (87%) or marginal household food security (6%). A minority of households were food insecure, with low household food security (4%) or very low household food security (4%).



National Statistics

Family Resources Survey: financial year 2019 to 2020

Published 25 March 2021

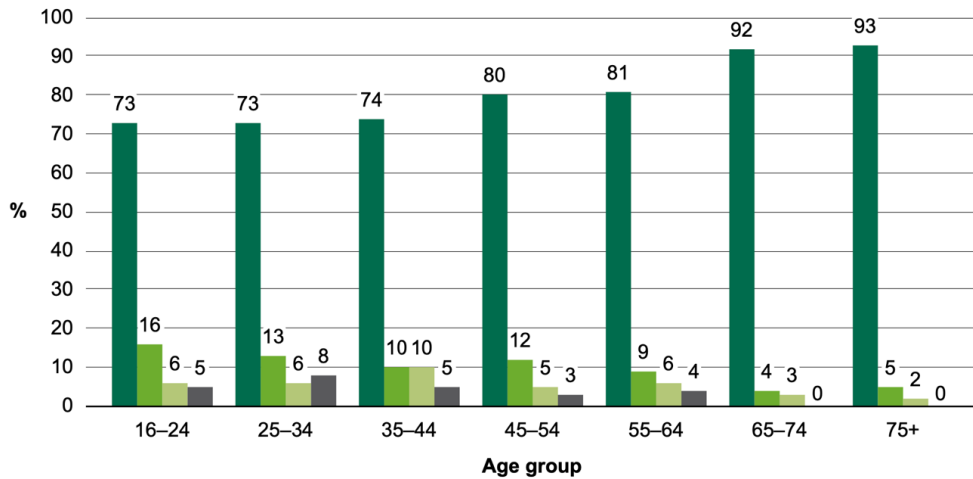
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Results from the Family Resources Survey (FRS) for the financial year 2019 to 2020, providing information on income and circumstances of UK households.

Food & You Survey 2018 (Wave 5)

Figure 1.8. Food security status by age group (Wave 5)



■ High food security
■ Marginal food security
■ Low food security
■ Very low food security



- **Food Standards Agency**
- **England, Wales & Northern Ireland**
- **Measured with USDA 10-question survey tool**

Factors affecting difference:

- **Age**
- **Households with children**
- **Working status**
- **Household income**

https://www.food.gov.uk/sites/default/files/media/document/food-and-you-wave5-combined-report-web-version_1.pdf

Food bank recipients – pre-Covid-19



- Children are disproportionate recipients of charity food (Garrett 2017).
- Foodbank usage rose alongside cuts to social security benefit (Loopstra et al., 2015).
- Individuals and households impacted by recent welfare reforms are more likely to receive food bank parcels (MacLeod et al. 2019).
- In-work poverty, disability, and unemployment rates all associated with foodbank use (Loopstra et al. 2019).
- A majority of food insecure households do not use foodbanks (MacLeod et al. 2019) – in part due to embarrassment (Purdam et al., 2016), or a reluctance to accept charity (Purdam et al., 2019).

State of Hunger Report Trussell Trust 2019

94% OF PEOPLE
REFERRED TO
FOOD BANKS
ARE DESTITUTE.



STATE OF
HUNGER



People referred to food banks:

- **Average income approximately 11% of national median household income.** Poverty threshold is 60% of median income.
- **23% were homeless; 9% were in emergency accommodation, 7% in temporary accommodation, 5% staying at a family or friends' house and 2% were rough sleeping.**
- Those with housing costs – many had costs close to total income within previous month.
- Areas of high housing pressure had substantially more take-up of food parcels

Health issues – nearly 75% reported health issues affecting someone in the household

- More than half reported mental health condition
- A quarter were affected by a long-term physical condition or illness
- 1 in 6 in six reported a physical disability.
- 10% had a learning disability



LOCKDOWN, LIFELINES AND THE LONG HAUL AHEAD:

The impact of Covid-19 on food banks
in the Trussell Trust network



Covid-19 Effect

Many more individuals and households have become reliant on food banks and wider community support.

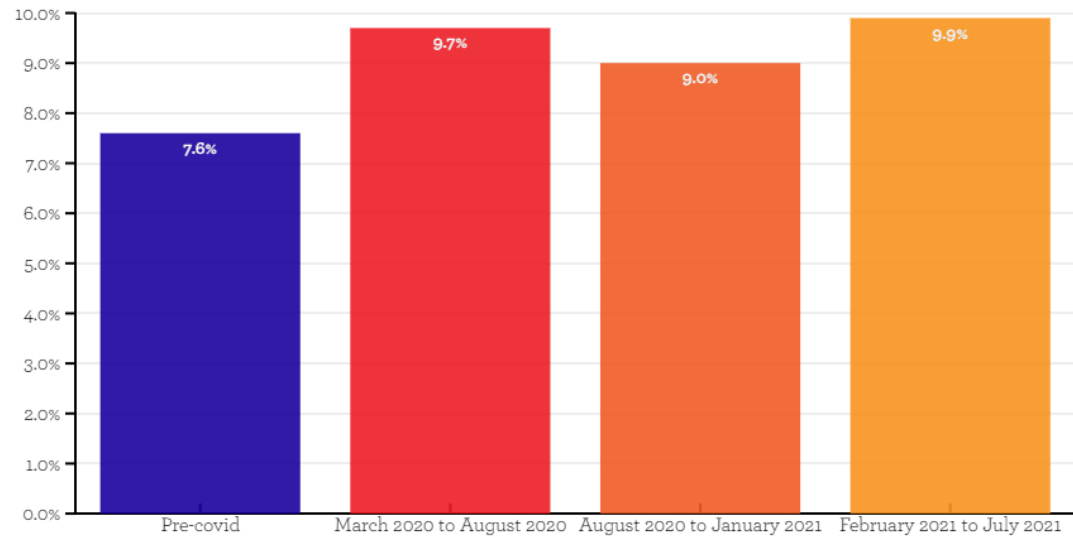
The Trussell Trust

81% increase in emergency food parcels during the last two weeks of March 2020 compared to the same period in 2019

122% rise in parcels for children

Food insecurity has slightly risen in the past six months now affecting 5.2 million adults

Percentage of adults experiencing food insecurity*:



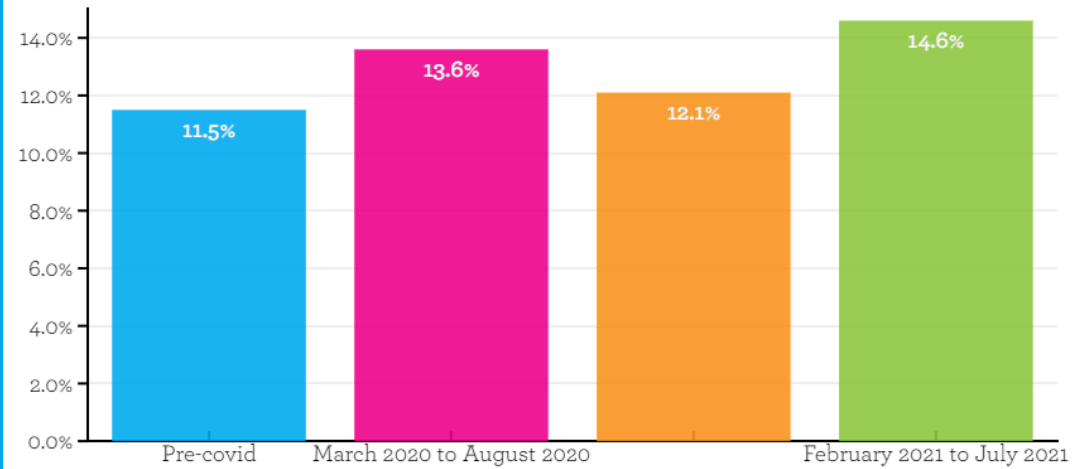
*Food insecurity during the pandemic (6-month recall period) compared with pre-Covid (12-month recall period).
Pre-covid source: Food Standards Agency, Food and You Survey 2018. Analysed (to allow direct comparison).



2.5 million children live in households that have experienced food insecurity in the past six months.

These levels are approximately 27% higher than before Covid.

Percentage of households with children experiencing food insecurity*:

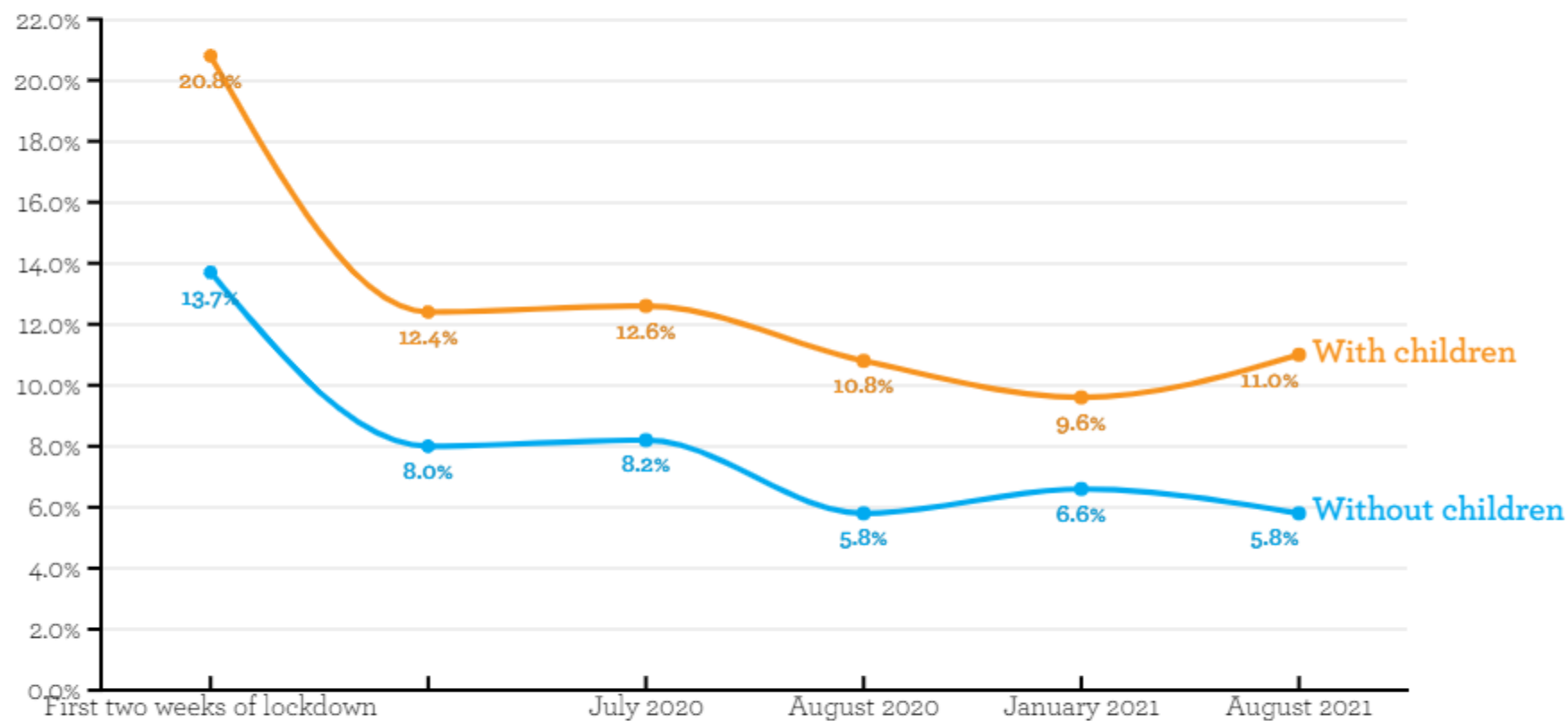


*6-month recall period
Pre-covid source: Food Standards Agency, Food and You Survey 2018. Analysed (to allow direct comparison).



Food insecurity in the past month in households with children (11.0%) have been almost twice as high as households without children (5.8%).

Percentage of households experiencing food insecurity*:

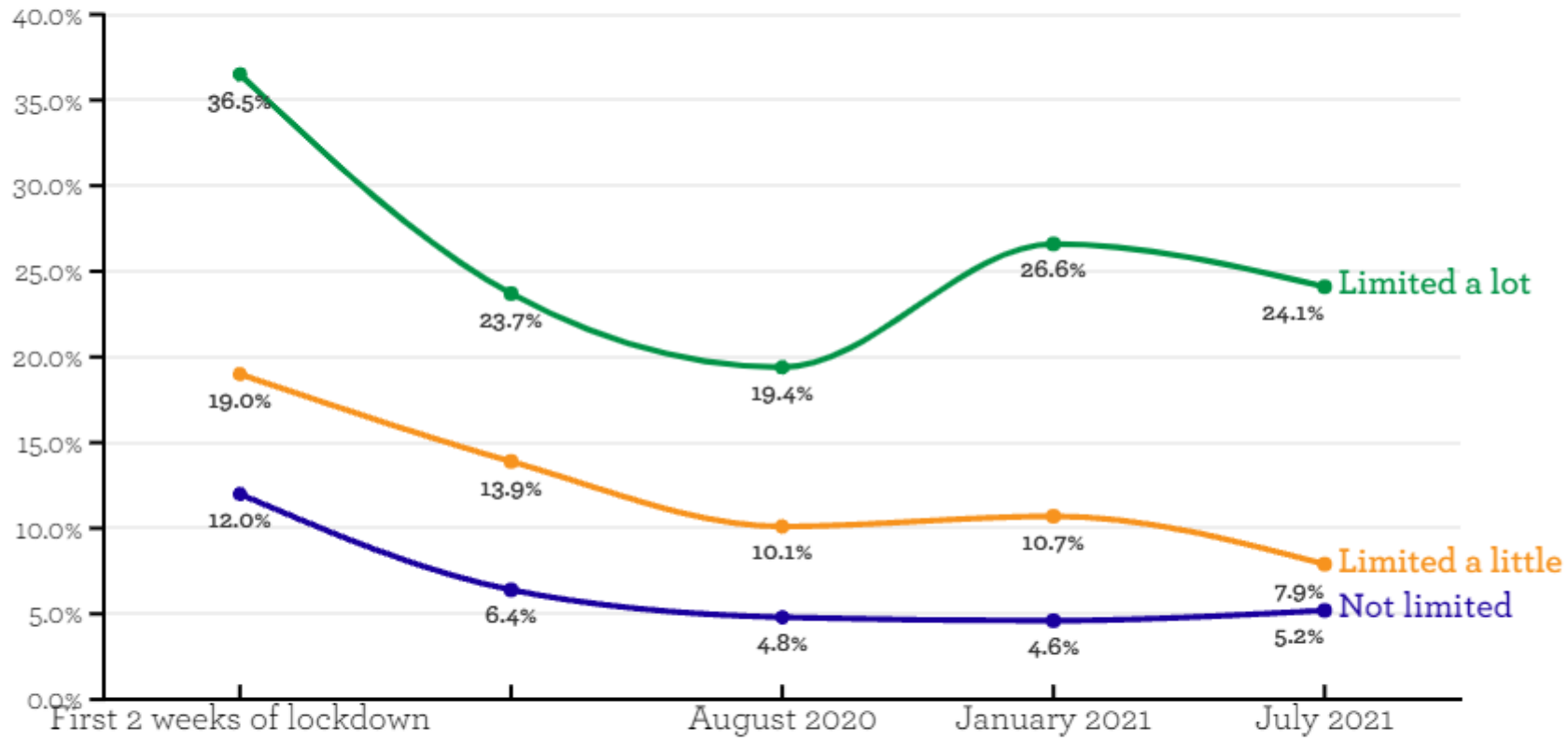


* 1-month recall period



People limited a lot by disabilities remain nearly five times as likely to experience food insecurity as people not limited by disability.

Percentage of households experiencing food insecurity*:



* 1-month recall period



Food poverty set to worsen as September's Universal Credit cliff edge approaches

August 26, 2021

Food banks are trying to prepare for what looks set to be a busy and difficult winter, says Sabine Goodwin

Independent food banks have come to expect a busy August as the UK's social security safety net continues to be eroded. As parents try to find ways of scraping together the cost of new school uniforms and taking care of their children through the school summer holidays, money for food runs dry. But this summer is different—there is a sense of foreboding among members of the [Independent Food Aid Network](#) (IFAN).

A perfect storm is brewing—the impending [overnight cut to Universal Credit](#), the [end of the furlough scheme](#), and [a dramatic increase in energy prices](#). All these devastating changes are planned for the start of October.

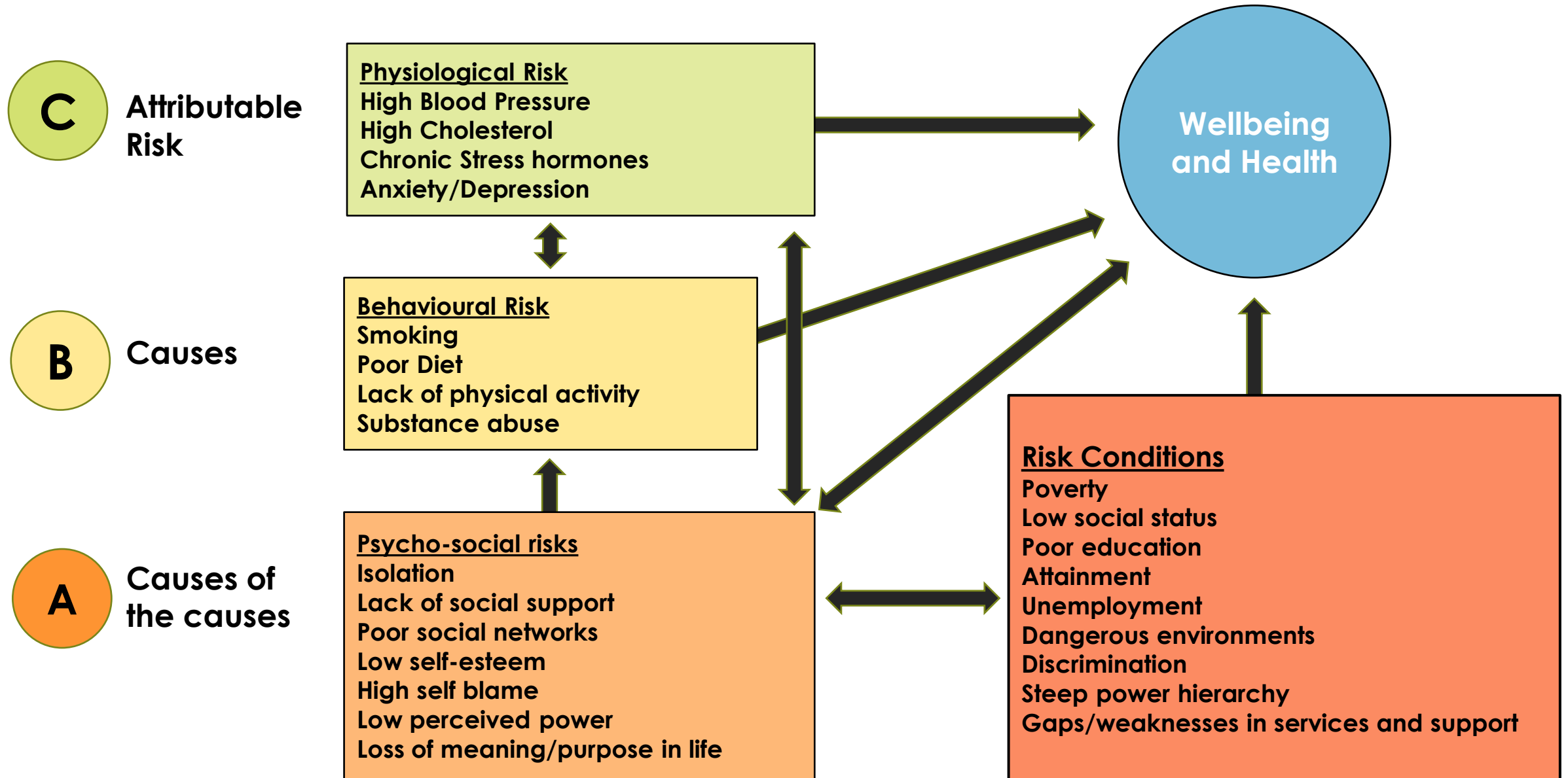
Despite the efforts of IFAN, and many other charities, to campaign for [a cash first approach to food insecurity](#)



What are the health & wellbeing impacts?

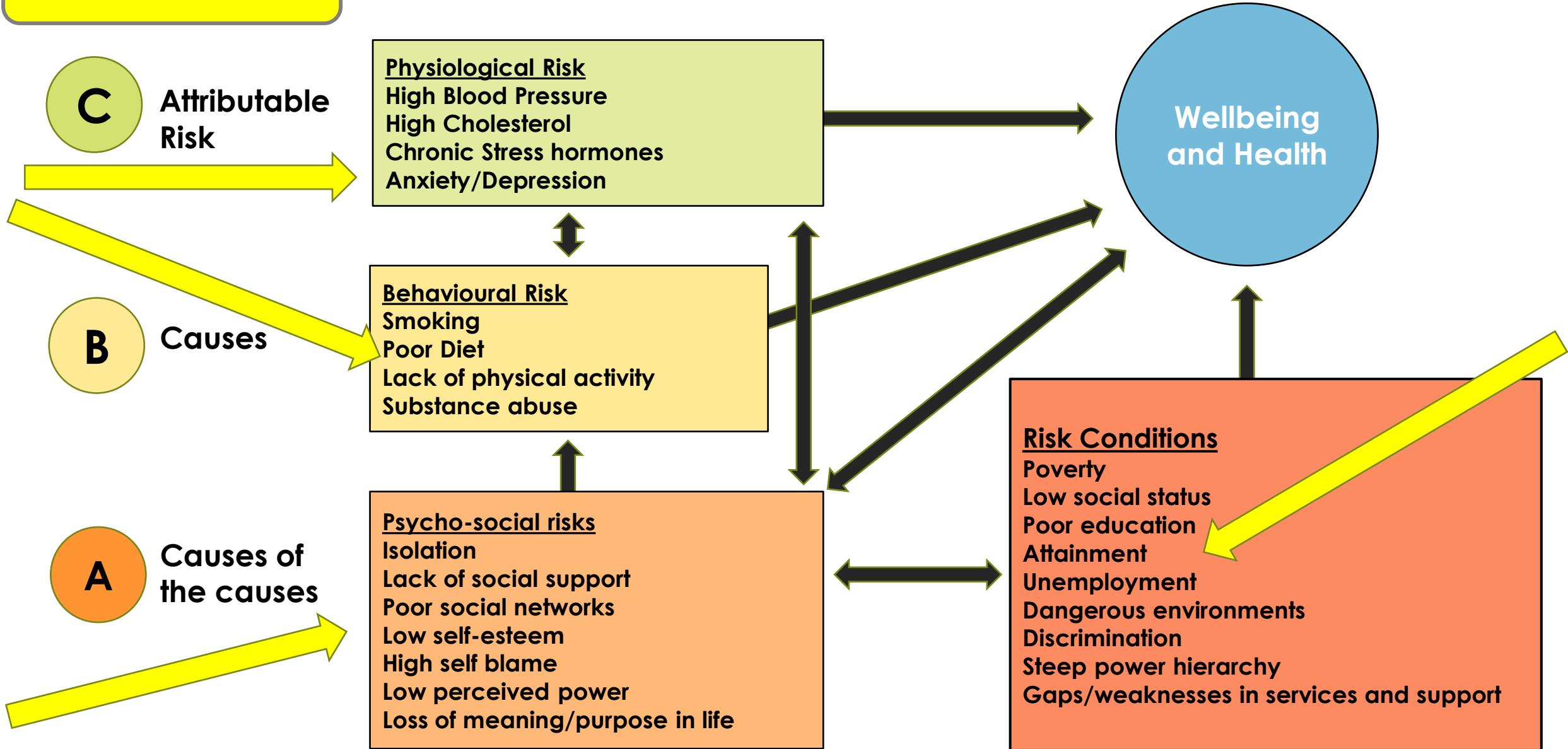


Intervening at different levels of risk



Food Insecurity?

Intervening at different levels of risk



Public Health Impacts of Food Insecurity

Children and Young People – Increased risk of behavioural, academic and emotional problems; increased aggression and anxiety levels; increased suicidal ideation; migraine headaches; a transient impact on toddler development (associated with parental food insecurity); IGT and T2D; and weight gain in childhood (American Academy of Pediatrics 2015; Blackburn et al 2021; Gunderson and Ziliak 2015 ; Hernandez and Jacknowitz 2009; Jyoti et al. 2015; Nagata et al 2019; Shankar et al 2017)

Working-age adults – Increased risk for a range of chronic diseases, including diabetes, hypertension, hyperlipidaemia, NFALD, CVD, obesity levels; poor sleep outcomes; depression and stress. (Golovaty et al 2020; Gunderson and Ziliak 2015; Petrovic et al 2018; Pourmotabbed et al 2020; Wang et al. 2015; Yau et al. 2020)

Older adults – Limitations to activities involved in daily living; depression and anxiety (Gunderson and Ziliak 2015)

Whole population – Increased risk of social and mental health; increased health care costs in infancy and adulthood (de Cuba et al. 2018; Dowler et al. 2011; Tarasuk et al. 2015)

Children & Young People and Food Insecurity

Topic area	Papers	Key Findings
Quality of life, development & achievement	5	<ul style="list-style-type: none"> <li data-bbox="792 248 2418 351">• Dose-response relationship between diet quality and health-related Quality of Life in children and adolescents (Wu et al., 2020) <li data-bbox="792 419 2333 579">• Household food insecurity associated with poor early childhood development, specifically in high-income countries associated with developmental risk, poor math and vocabulary skills (de Olivera et al., 2019) <li data-bbox="792 648 2333 808">• Across developed countries, even marginal levels of household food insecurity associated with behavioural, academic and emotional problems in children, beginning as early as infancy (Shankar et al., 2017) <li data-bbox="792 876 2359 1036">• Substantial evidence supports link between childhood food insecurity and attention deficit hyperactivity disorder (ADHD), with impacts on pediatric ADHD symptoms and possible lasting effects into adulthood (Lu et al., 2019) <li data-bbox="792 1105 2384 1368">• The ability to afford, access and acquire nutritionally adequate and culturally appropriate foods is associated with IGT and T2D in children and adolescents. More longitudinal cohort studies on a larger, more representative sample need to be conducted to determine the extent of this relationship. (Diabetes 2021 Jun; 70(Supplement 1): https://doi.org/10.2337/db21-888-P)

American Academy of Pediatrics, 2015

Lack of adequate food linked with increased risk of behavioural, academic and emotional problems from preschool through adolescence.

Children of all ages living with food insecurity are at risk of lower cognitive indicators, dysregulated behaviour and emotional distress.

Food Insecurity and Child Health (Thomas et al., 2019)

Compared to rates had they not been food insecure, children in food-insecure household had:

- 19% higher rate of lifetime asthma diagnosis
- 27.9% higher risk of depressive symptoms
- 179.8% higher rates of foregone medical care
- 25.9% higher rates of emergency department use

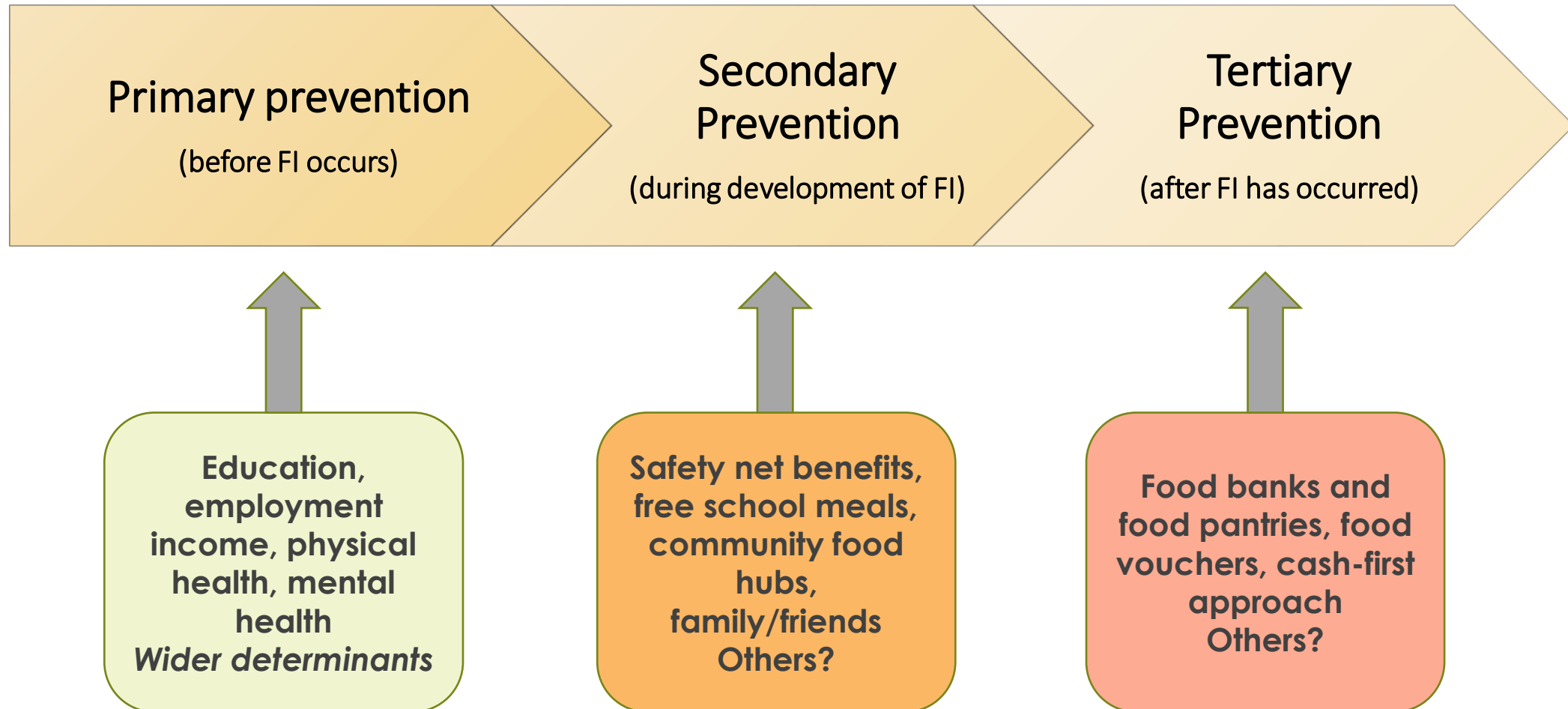
No significant differences emerged for most communicable diseases, such as ear infections or chicken pox, or conditions that may develop more gradually, including anemia and diabetes.

Ad-hoc search results regarding FI and CYP

“The inability to consistently provide food creates stress in families contributing to depression, anxiety and toxic stress, which make optimal parenting difficult regardless of social class.”

(AAP, 2015. p.e1432)

Public health approach to food insecurity: What are we trying to do?





HOUSE OF LORDS

Select Committee on Food, Poverty,
Health and the Environment

Report of Session 2019–20

Hungry for change: fixing the failures in food

Why don't people just make soup?

Persuade family that they might like soup

Need to acquire a recipe

Ingredients to purchase – maybe need to travel to find them

Local shop may only offer small quantities (higher cost/unit)

Shop will have other easier (less healthy) options on display, possibly with promotions

Kitchen equipment required for recipe may not be adequate

Following a new recipe (especially if new skill) may be stressful and time consuming

If soup goes wrong, or if household members don't like it then a second meal may be needed. Wasted money.

Separately, these issues may be manageable. Together they represent a true barrier to accessing a healthy diet.

“When there are so many easy, cheap and reliable alternatives available, this process is a distinctly unappealing proposition.”

HOL 2020, p.221

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Thank you.

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<https://www.smf.co.uk/wp-content/uploads/2020/12/Measuring-mitigating-child-hunger-Dec-20.pdf>

Food Insecurity and Obesity

Some evidence to suggest there is an independent link between food insecurity levels and obesity, but it is a bit equivocal. Evidence strongest for adult women, mixed in terms of children; men don't seem to be at risk of obesity from food insecurity (Morales and Berkowitz 2016)

Some studies with interesting findings that may add to the discussion:

- A 2019 US study found among **bariatric surgery patients, close to 18% were food insecure and an additional 27.6% were marginally food insecure.** (Price et al 2019)
- **Food insecurity is associated with maladaptive eating behaviours and overeating;** authors concluded it may amplify susceptibility to weight gain via overeating during times of unlimited food access (Stinson et al. 2018)
- **Food insecurity experienced in adolescence for girls may be an independent risk factor for unhealthy weight control behaviors** (Hooper et al 2020)