

# **Cost of Living, Wellbeing, and Service Demand**

## **November 2022**

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## Introduction and Background

NODA were approached by Norfolk County Council's Children's Services to provide a briefing note collating available evidence relating to the impact of economic downturn on the wellbeing of adults and the subsequent impacts on the wellbeing and outcomes of children and how this may translate into changes to demand for Children's Services.

### Key Points:

- Much evidence surrounding the implications of economic downturn on mental health has previously been collated following the Global Financial Crisis (GFC) of 2007-2008.
- According to the World Health Organisation (WHO) economic crises have an adverse effect on determining factors for mental health by weakening protective factors and strengthening the risk factors for poor mental health.
- The WHO's publication also cited evidence to suggest that people who experience unemployment, impoverishment, and family disruptions have a significantly greater risk of mental health problems, such as depression, alcohol use disorders and suicide than their unaffected counterparts.
- More contemporary reviews of relevant literature published since the GFC is largely concurrent with the WHO's assertions, reinforcing the relationships between economic downturn and increasing incidences of common mental health issues such as depression, anxiety, suicidal ideation/completions, and substance misuse.
- Economic pressure through its influence on parental mental health, marital interaction and parenting can have an impact on the mental health of children and adolescents.
- Existing literature largely asserts that child mental health deteriorates during economic recessions producing worse outcomes.
- Associations between unemployment, poverty and increased risk of child abuse and neglect (CAN) is also noted in the literature.
- According to a 2022 Community Care survey of UK social workers, the cost of living crisis is severely affecting people accessing children's and adults' services, reportedly fuelling a variety of issues including poverty, debt, mental ill-health and domestic conflict.
  - 49% of survey respondents, reported a large increase in the number of families receiving financial support.
  - 37% claimed to have seen a small increase in the number of families in receipt of financial support.
- A 10% increase in an area's deprivation was associated with a 62% increase in a child's chances of being referred to children's services, a 64% increase in the rate of child in need plans, a 69% rise in child protection investigation rates and an 80% increase in the rates of child protection plans.

## Impact of Economic Crises on Mental Health: Research Pre 2011

Much evidence surrounding the implications of economic downturn on mental health has previously been collated following the Global Financial Crisis (GFC) of 2007-2008. For example, in 2011 the World Health Organisation (WHO) produced their “Impact of Economic Crises on Mental Health Report”<sup>1</sup>. Within this publication it was suggested that economic crises have an adverse effect on determining factors for mental health by weakening protective factors and strengthening the risk factors for poor mental health. In this instance, examples of protective factors included:

- Social capital and welfare protection
- Healthy prenatal and childhood environments
- Healthy workplace and living
- Healthy lifestyles

Conversely, risk factors included:

- Poverty
- Poor education
- Deprivation
- High debt
- Poor prenatal nutrition
- Abuse, harsh upbringing, poor relationships with parents
- Intergenerational transmission of mental health problems
- Unemployment, job insecurity, job stress
- Alcohol or drug use

This report also highlighted how employment provides benefits to mental health, citing job security, a sense of control and social support at work as factors which promote good mental health in employees. In addition, stable employment and secure incomes were also noted as predictors of good mental health<sup>2,3</sup>. Conversely, poverty, financial difficulties and social deprivation were noted as significant risk factors for mental health problems<sup>4,5</sup>. At the time it was noted that the GFC was likely to impact lower income individuals and those made vulnerable through loss of income or housing the hardest<sup>6</sup>. Other potentially vulnerable groups mentioned were

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<sup>1</sup> Impact of Economic Crises on Mental Health, World Health Organisation, 2011

<sup>2</sup> Waddell, G., & Burton, A. (2006). *Is work good for your health and wellbeing?* TSO. <https://huddersfield.box.com/s/kmyygl6clmsap4m3femp6wb7joaxd87d>

<sup>3</sup> Sanderson, K., & Andrews, G. (2006). Common mental disorders in the workforce: recent findings from descriptive and social epidemiology. *Canadian journal of psychiatry. Revue canadienne de psychiatrie*, 51(2), 63–75.

<sup>4</sup> Fryers, T., Melzer, D., Jenkins, R., & Brugha, T. (2005). The distribution of the common mental disorders: social inequalities in Europe. *Clinical practice and epidemiology in mental health: CP & EMH*, 1, 14.

<sup>5</sup> Laaksonen, E., Martikainen, P., Lahelma, E., Lallukka, T., Rahkonen, O., Head, J., Marmot, M. (2007) Socioeconomic circumstances and common mental disorders among Finnish and British public sector employees: evidence from the Helsinki Health Study and the Whitehall II Study, *International Journal of Epidemiology*, 36 (4), 776–786

<sup>6</sup> Edwards R. (2008). Who is hurt by procyclical mortality?. *Social science & medicine*, 67(12), 2051–2058.

children and young people, single parent families, unemployed people, ethnic minorities, migrants, and older people<sup>7,8,9</sup>.

The potential for economic recession to produce widening social inequalities were also highlighted with the least well educated in society mentioned as being at the greatest risk of ill health following job loss<sup>10,11,12</sup>. Furthermore, the positive correlation between income inequality and rising suicide rates was also highlighted i.e. as income inequalities increase so does the rate of suicide<sup>13</sup>. However, it should be noted that a positive correlation does not establish a causation between the two.

The WHO's publication also cited evidence to suggest that people who experience unemployment, impoverishment, and family disruptions have a significantly greater risk of mental health problems, such as depression, alcohol use disorders and suicide than those unaffected.<sup>14,15,16,17,18,19,20,21,22,23</sup>

Men were also highlighted as being particularly vulnerable to deteriorating mental health<sup>24</sup>, suicide<sup>25</sup> and alcohol use<sup>26</sup> during periods of economic downturn. Young unemployed people were also identified as having a higher risk of experiencing mental health problems than young people who remain employed.

Regarding the impact of specific financial hardships on mental wellbeing, debt, financial difficulties, and housing payment problems were reported to lead to mental

<sup>7</sup> Solantaus, T., Leinonen, J., & Punamäki, R. L. (2004). Children's mental health in times of economic recession: replication and extension of the family economic stress model in Finland. *Developmental psychology*, 40(3), 412–429.

<sup>8</sup> Leinonen, J. A., Solantaus, T. S., & Punamäki, R.-L. (2003). Social support and the quality of parenting under economic pressure and workload in Finland: The role of family structure and parental gender. *Journal of Family Psychology*, 17(3), 409–418.

<sup>9</sup> Conger, R. D., Ge, X., Elder, G. H., Lorenz, F. O., & Simons, R. L. (1994). Economic Stress, Coercive Family Process, and Developmental Problems of Adolescents. *Child Development*, 65(2), 541–561.

<sup>10</sup> Kondo, N., Subramanian, S. V., Kawachi, I., Takeda, Y., & Yamagata, Z. (2008). Economic recession and health inequalities in Japan: analysis with a national sample, 1986-2001. *Journal of epidemiology and community health*, 62(10), 869–875.

<sup>11</sup> Morrell, S., Taylor, R., Quine, S., Kerr, C., & Western, J. (1994). A cohort study of unemployment as a cause of psychological disturbance in Australian youth. *Social science & medicine*, 38(11), 1553–1564.

<sup>12</sup> Edwards R. (2008). Who is hurt by procyclical mortality?. *Social science & medicine*, 67(12), 2051–2058.

<sup>13</sup> De Vogli, R., & Gimeno, D. (2009). Changes in income inequality and suicide rates after "shock therapy": evidence from Eastern Europe. *Journal of epidemiology and community health*, 63(11), 956.

<sup>14</sup> Dooley, D., Catalano, R., & Wilson, G. (1994). Depression and unemployment: panel findings from the Epidemiologic Catchment Area study. *American journal of community psychology*, 22(6), 745–765.

<sup>15</sup> Clark, A., & Oswald A. (1994) Unhappiness and unemployment. *Economic Journal*, 104, 648–659.

<sup>16</sup> Murphy, G., & Athanasou, J. (1999) The effect of unemployment on mental health. *Journal of Occupational and Organizational Psychology*, 72, 83–99

<sup>17</sup> Dee T. S. (2001). Alcohol abuse and economic conditions: evidence from repeated cross-sections of individual-level data. *Health economics*, 10(3), 257–270.

<sup>18</sup> McKee-Ryan, F., Song, Z., Wanberg, C. R., & Kinicki, A. J. (2005). Psychological and physical well-being during unemployment: a meta-analytic study. *The Journal of applied psychology*, 90(1), 53–76.

<sup>19</sup> Dorling, D. (2009). Unemployment and health. *British Medical Journal*, 338, b829

<sup>20</sup> Lewis, G., & Sloggett, A. (1998). Suicide, deprivation, and unemployment: record linkage study. *BMJ (Clinical research ed.)*, 317(7168), 1283–1286.

<sup>21</sup> Gunnell, D., Harbord, R., Singleton, N., Jenkins, R., & Lewis, G. (2004). Factors influencing the development and amelioration of suicidal thoughts in the general population. Cohort study. *The British journal of psychiatry : the journal of mental science*, 185, 385–393.

<sup>22</sup> Agerbo E. (2005). Effect of psychiatric illness and labour market status on suicide: a healthy worker effect?. *Journal of epidemiology and community health*, 59(7), 598–602.

<sup>23</sup> Mathers, C. D., & Schofield, D. J. (1998). The health consequences of unemployment: the evidence. *The Medical journal of Australia*, 168(4), 178–182.

<sup>24</sup> Artazcoz, L., Benach, J., Borrell, C., & Cortès, I. (2004). Unemployment and mental health: understanding the interactions among gender, family roles, and social class. *American journal of public health*, 94(1), 82–88.

<sup>25</sup> Berk, M., Dodd, S., & Henry, M. (2006). The effect of macroeconomic variables on suicide. *Psychological Medicine*, 36(2), 181–189.

<sup>26</sup> Men, T., Brennan, P., Boffetta, P., & Zaridze, D. (2003). Russian mortality trends for 1991-2001: analysis by cause and region. *BMJ (Clinical research ed.)*, 327(7421), 964.

health problems<sup>27,28,29,30</sup>. Furthermore, the more debt an individual has, the more likely they are to have mental disorders overall.<sup>31</sup>

## Impact of Economic Crises on Mental Health: Research Post 2011

As previously stated, much of the above evidence predates and was collated and reviewed following the last financial crisis. Therefore, a review of more recent evidence is needed to corroborate the above findings and to ensure the evidence presented is as current as possible. The following research evidence has been sourced from systematic reviews which evaluate evidence published between 2008 to 2022. It should be noted that given the scale and scope of these reviews there may be overlap between individual research studies reviewed within each of these analyses. The following findings were highlighted and outlined in a 2016 review of the relevant literature conducted by Frاسquilho et al<sup>32</sup>:

### Changes in Prevalence of Mental Health Issues Pre/Post Recession

When contrasting psychological wellbeing before and after recession, multiple studies were found to illustrate the worsening of mental health issues. Studies further indicated a stronger impact on men over women, however it should be acknowledged the women still reported mental distress during recessions.<sup>33,34</sup>

In terms of changes in rates of common mental health disorders pre and post-recession, Hauksdóttir et al (2013) reported increased stress levels among the Icelandic population, although this was reportedly only significant for women and particularly for unemployed women<sup>35</sup>. Similarly, statistically significant increases in the prevalence of depression before and after recession in Greece was

<sup>27</sup> Skapinakis, P., Weich, S., Lewis, G., Singleton, N., & Araya, R. (2006). Socio-economic position and common mental disorders. Longitudinal study in the general population in the UK. *The British journal of psychiatry : the journal of mental science*, 189, 109–117.

<sup>28</sup> Taylor, M. P., Pevalin, D. J., & Todd, J. (2007). The psychological costs of unsustainable housing commitments. *Psychological medicine*, 37(7), 1027–1036.

<sup>29</sup> Brown, S., Taylor, K., & Price, S. W. (2005). Debt and distress: Evaluating the psychological cost of credit. *Journal of Economic Psychology*, 26(5), 642–663

<sup>30</sup> Reading, R., & Reynolds, S. (2001). Debt, social disadvantage and maternal depression. *Social science & medicine* (1982), 53(4), 441–453.

<sup>31</sup> Jenkins, R., Bhugra, D., Bebbington, P., Brugha, T., Farrell, M., Coid, J., Fryers, T., Weich, S., Singleton, N., & Meltzer, H. (2008). Debt, income and mental disorder in the general population. *Psychological medicine*, 38(10), 1485–1493.

<sup>32</sup> Frاسquilho, D., Matos, M., Salonna, F., Diogo, G., Storti, C., Gaspar, T., & Caldas-de-Alameida, J. (2015). Mental health outcomes in times of economic recession: a systematic literature review. *BMC Public Health* 16, 115

<sup>33</sup> Katikireddi, S. V., Niedzwiedz, C. L., & Popham, F. (2012). Trends in population mental health before and after the 2008 recession: a repeat cross-sectional analysis of the 1991-2010 Health Surveys of England. *BMJ open*, 2(5), e001790.

<sup>34</sup> Bartoll, X., Palència, L., Malmusi, D., Suhrcke, M., & Borrell, C. (2014). The evolution of mental health in Spain during the economic crisis. *European journal of public health*, 24(3), 415–418.

<sup>35</sup> Hauksdóttir, A., McClure, C., Jonsson, S. H., Olafsson, O., & Valdimarsdóttir, U. A. (2013). Increased stress among women following an economic collapse—a prospective cohort study. *American journal of epidemiology*, 177(9), 979–988.

observed.<sup>36,37</sup> In Spain an increase in the prevalence of anxiety was observed<sup>38</sup>, however this was reportedly not present in the Canadian population.<sup>39</sup>

Regarding changes in substance abuse related disorders, it was reported that in the US during the last recession alcohol use overall declined – however binge drinking was found to have increased<sup>40</sup>. During the last economic recession Spain reportedly observed a 4.6% increase in alcohol abuse and dependence<sup>41</sup>. Furthermore, in Argentina an increase in the consumption of lower quality alcohol was reported. It was therefore posited that this had the potential to produce further threats to health and wellbeing<sup>42</sup>.

In terms of changes in suicidal behaviours, a post recessionary increase in suicide rates in unemployed men was found in Sweden, potentially highlighting the delayed effects of economic downturn on mental wellbeing<sup>43</sup>. Similarly, a significant increase in suicidal ideation in men was found<sup>44</sup>. In the UK, time trend analyses highlighted an increase in suicide rates, particularly amongst men of working age. It was estimated that each 10% increase in the number of unemployed men was significantly associated with a 1.4% increase in male suicides<sup>45,46</sup>. European countries reportedly experienced a 6.5% rise in suicide rates after the recession<sup>47</sup>.

## Macro-Economic Indicators and Mental Health

Frasquilho et al's review also included the macro-economic indicators associated with mental health outcomes. For instance, data from cohort studies has indicated that high unemployment rates are associated with worsened mental wellbeing and higher mental distress levels<sup>48</sup>. Furthermore, a study of over 30 countries reportedly

<sup>36</sup> Economou, M., Madianos, M., Peppou, L. E., Patelakis, A., & Stefanis, C. N. (2013a). Major depression in the era of economic crisis: a replication of a cross-sectional study across Greece. *Journal of affective disorders*, 145(3), 308–314.

<sup>37</sup> Madianos, M., Economou, M., Alexiou, T., & Stefanis, C. (2010). Depression and economic hardship across Greece in 2008 and 2009: two cross-sectional surveys nationwide. *Social psychiatry and psychiatric epidemiology*, 46(10), 943–952.

<sup>38</sup> Gili, M., Roca, M., Basu, S., McKee, M., & Stuckler, D. (2013). The mental health risks of economic crisis in Spain: evidence from primary care centres, 2006 and 2010. *European journal of public health*, 23(1), 103–108

<sup>39</sup> Wang, J., Smailes, E., Sareen, J., Fick, G. H., Schmitz, N., & Patten, S. B. (2010). The prevalence of mental disorders in the working population over the period of global economic crisis. *Canadian journal of psychiatry. Revue canadienne de psychiatrie*, 55(9), 598–605.

<sup>40</sup> Bor, J., Basu, S., Coutts, A., McKee, M., & Stuckler, D. (2013). Alcohol use during the great recession of 2008-2009. *Alcohol and alcoholism (Oxford, Oxfordshire)*, 48(3), 343–348.

<sup>41</sup> Gili, M., Roca, M., Basu, S., McKee, M., & Stuckler, D. (2013). The mental health risks of economic crisis in Spain: evidence from primary care centres, 2006 and 2010. *European journal of public health*, 23(1), 103–108

<sup>42</sup> Munné M. I. (2005). Alcohol and the economic crisis in Argentina: recent findings. *Addiction (Abingdon, England)*, 100(12), 1790–1799.

<sup>43</sup> Garcy, A., & Vagero, D. (2013). Unemployment and suicide during and after deep recession: a longitudinal study of 3.4 million Swedish men and women. *American Journal of Public Health*. 103(6), 1031-1038

<sup>44</sup> Economou, M., Madianos, M., Peppou, L. E., Theleritis, C., Patelakis, A., & Stefanis, C. (2013b). Suicidal ideation and reported suicide attempts in Greece during the economic crisis. *World psychiatry : official journal of the World Psychiatric Association (WPA)*, 12(1), 53–59.

<sup>45</sup> Barr, B., Taylor-Robinson, D., Scott-Samuel, A., McKee, M., & Stuckler, D. (2012). Suicides associated with the 2008-10 economic recession in England: time trend analysis. *The British Medical Journal*, 345, e5142.

<sup>46</sup> Coope, C., Gunnell, D., Hollingworth, W., Hawton, K., Kapur, N., Fearn, V., Wells, C., & Metcalfe, C. (2014). Suicide and the 2008 economic recession: who is most at risk? Trends in suicide rates in England and Wales 2001-2011. *Social science & medicine*, 117, 76–85.

<sup>47</sup> Reeves, A., Stuckler, D., McKee, M., Gunnell, D., Chang, S., & Basu, S. (2012). Increase in state suicide rates in the USA during economic recession. *Lancet*. 380(9856), 1813–4.

<sup>48</sup> Davalos, M. E., & French, M. T. (2011). This recession is wearing me out! Health-related quality of life and economic downturns. *The journal of mental health policy and economics*, 14(2), 61–72.

indicated that increases in unemployment have a negative impact on suicide, particularly in Southern and Eastern Europe<sup>49</sup>.

The link between unemployment and depressive symptoms were also highlighted with the risk of depression and anxiety found to be significantly greater in unemployed individuals in several studies<sup>50,51</sup>. Unemployment was also found to be a predictor of risky behaviours such as driving under the influence of drugs<sup>52</sup>. Additionally, alcohol-attributable death rates were determined to be higher among the unemployed during recession<sup>53</sup>. Unemployed individuals are also at a higher risk of parasuicidal behaviour (non-fatal self-injury intended to cause bodily harm or death) and unemployment was found to be a risk factor for suicidal ideation and attempts<sup>54</sup>. According to an Australian study, in times of recession, unemployed males commit suicide at 4.62 times the rate of employed men and women 8.44 times more compared with employed women<sup>55</sup>.

Precarious or insecure work was also reported as another factor relating to declining mental health. For instance, cross-sectional data from during the recession in Italy, indicated that job stress was significantly related to workers' mental health and fear of the crisis<sup>56</sup>. This was supported by British evidence of an increased risk of depression and anxiety among such employees<sup>57,58</sup>. Mental distress was also reported as being stronger among precarious workers with high job insecurity. However, evidence is arguably mixed as a Swedish cohort study that found no significant differences in the effects of job insecurity on health between temporary and permanent workers<sup>59,60</sup>.

Regarding the implications of debt and financial hardship on mental health, in the USA, a cohort study indicated an increased incidence of anxiety and mood disorders. Substance use disorders were strongly associated with drops in

<sup>49</sup> Norström, T., & Grönqvist, H. (2015). The Great Recession, unemployment and suicide. *Journal of epidemiology and community health*, 69(2), 110–116.

<sup>50</sup> Riumallo-Herl, C., Basu, S., Stuckler, D., Courtin, E., & Avendano, M. (2014). Job loss, wealth and depression during the Great Recession in the USA and Europe. *International journal of epidemiology*, 43(5), 1508–1517.

<sup>51</sup> Jefferis, B. J., Nazareth, I., Marston, L., Moreno-Kustner, B., Bellón, J. Á., Svab, I., Rotar, D., Geerlings, M. I., Xavier, M., Goncalves-Pereira, M., Vicente, B., Saldivia, S., Aluoja, A., Kalda, R., & King, M. (2011). Associations between unemployment and major depressive disorder: evidence from an international, prospective study (the predict cohort). *Social science & medicine* (1982), 73(11), 1627–1634.

<sup>52</sup> Karjalainen, K., Lintonen, T., Impinen, A., Lillsunde, P., Mäkelä, P., Rahkonen, O., Haukka, J., & Ostamo, A. (2011). Socio-economic determinants of drugged driving—a register-based study. *Addiction (Abingdon, England)*, 106(8), 1448–1459.

<sup>53</sup> Shim, E., & Cho, Y. (2013). Widening social disparities in alcohol-attributable deaths among Korean men aged 40–59 years during the transitional period of the economic crisis (1995–2005). *International journal of public health*, 58(4), 521–527.

<sup>54</sup> Borges, G., Nock, M. K., Haro Abad, J. M., Hwang, I., Sampson, N. A., Alonso, J., Andrade, L. H., Angermeyer, M. C., Beautrais, A., Bromet, E., Bruffaerts, R., de Girolamo, G., Florescu, S., Gureje, O., Hu, C., Karam, E. G., Kovess-Masfety, V., Lee, S., Levinson, D., Medina-Mora, M. E., ... Kessler, R. C. (2010). Twelve-month prevalence of and risk factors for suicide attempts in the World Health Organization World Mental Health Surveys. *The Journal of clinical psychiatry*, 71(12), 1617–1628.

<sup>55</sup> Milner, A., Morrell, S., & LaMontagne, A. D. (2014). Economically inactive, unemployed and employed suicides in Australia by age and sex over a 10-year period: what was the impact of the 2007 economic recession?. *International journal of epidemiology*, 43(5), 1500–1507.

<sup>56</sup> Giorgi, G., Arcangeli, G., Mucci, N., & Cupelli, V. (2015). Economic stress in the workplace: The impact of fear of the crisis on mental health. *Work (Reading, Mass.)*, 51(1), 135–142.

<sup>57</sup> Butterworth P, Leach LS, McManus S, Stansfeld SA. Common mental disorders, unemployment and psychosocial job quality: is a poor job better than no job at all? *Psychol Med*. 2013;43(8):1763–72.

<sup>58</sup> Meltzer, H., Bebbington, P., Brugha, T., Jenkins, R., McManus, S., & Stansfeld, S. (2010). Job insecurity, socio-economic circumstances and depression. *Psychological medicine*, 40(8), 1401–1407.

<sup>59</sup> Sirvio, A., Ek, E., Jokelainen, J., Koironen, M., Järviöskö, T., & Taanila, A. (2012). Precariousness and discontinuous work history in association with health. *Scand J Public Health*, 40(4), 360–7.

<sup>60</sup> Virtanen, P., Janlert, U., & Hammarström, A. (2011). Exposure to temporary employment and job insecurity: a longitudinal study of the health effects. *Occupational and environmental medicine*, 68(8), 570–574.

household incomes<sup>61</sup>. A cohort study from New Zealand demonstrated a high level of association between inequalities in wealth and psychological distress, stating that people reporting low levels of wealth had three times greater distress than those reporting higher levels of wealth<sup>62</sup>. Longitudinal data also illustrates that housing payment problems and indebtedness have a negative effect on mental health<sup>63</sup> and on the onset of depression and anxiety<sup>64</sup>. Furthermore, English cohort and cross-sectional studies found that people facing debt are also at higher risk of depression<sup>65</sup> and are twice as likely to think about suicide<sup>66</sup>.

A further review of the literature conducted by Guerra and Eboeime (2021) highlights the following findings which are largely consistent with the above in terms of the relationship between economic downturn and poorer mental health outcomes<sup>67</sup>:

## Depression

For instance, when looking specifically into the impacts on depression/depressive symptoms, increases in mental healthcare utilisation for depressive symptoms were also noted in this review<sup>68,69,70,71</sup>. Furthermore, countries with a higher unemployment rates after the GFC compared to before had increased likelihood and severity of depressive symptoms<sup>72,73,74</sup>. The likelihood of chronic mental illness was found to increase with national unemployment rates during the GFC<sup>75</sup>. Additionally,

<sup>61</sup>Sareen, J., Afifi, T. O., McMillan, K. A., & Asmundson, G. J. (2011). Relationship between household income and mental disorders: findings from a population-based longitudinal study. *Archives of general psychiatry*, 68(4), 419–427.

<sup>62</sup>Carter, K. N., Blakely, T., Collings, S., Imlach Gunasekara, F., & Richardson, K. (2009). What is the association between wealth and mental health?. *Journal of epidemiology and community health*, 63(3), 221–226.

<sup>63</sup>Taylor, M. P., Pevalin, D. J., & Todd, J. (2007). The psychological costs of unsustainable housing commitments. *Psychological medicine*, 37(7), 1027–1036.

<sup>64</sup>McLaughlin, K. A., Nandi, A., Keyes, K. M., Uddin, M., Aiello, A. E., Galea, S., & Koenen, K. C. (2012). Home foreclosure and risk of psychiatric morbidity during the recent financial crisis. *Psychological medicine*, 42(7), 1441–1448.

<sup>65</sup>Meltzer, H., Bebbington, P., Brugha, T., Jenkins, R., McManus, S., & Stansfeld, S. (2010). Job insecurity, socio-economic circumstances and depression. *Psychological medicine*, 40(8), 1401–1407.

<sup>66</sup>Meltzer, H., Bebbington, P., Brugha, T., Jenkins, R., McManus, S., & Dennis, M. S. (2011). Personal debt and suicidal ideation. *Psychological medicine*, 41(4), 771–778.

<sup>67</sup>Guerra, O., & Eboeime, E. (2021). The impact of economic recessions on depression, anxiety, and trauma-related disorders and illness outcomes—a scoping review. *Behav. Sci.* 1(9), 119.

<sup>68</sup>Wang, Y., & Fattore, G. (2020). The impact of the great economic crisis on mental health care in Italy. *The European journal of health economics : HEPAC : health economics in prevention and care*, 21(8), 1259–1272.

<sup>69</sup>Medel-Herrero, A., & Gomez-Beneyto, M. (2019). The impact of the 2008 economic crisis on the increasing number of young psychiatric inpatients. Impacto de la crisis económica del 2008 en el número de jóvenes hospitalizados por patología psiquiátrica. *Revista de psiquiatria y salud mental*, 12(1), 28–36.

<sup>70</sup>Thekiso, T.B.; Heron, E.A.; Masood, B.; Murphy, M.; McLoughlin, D.M.; Kennedy, N. Mauling of the “Celtic Tiger”: Clinical characteristics and outcome of first-episode depression secondary to the economic recession in Ireland. *J. Affect. Disord.* 2013, 151, 455–460

<sup>71</sup>Rodrigues, D., & Nunes, C. (2018). Inpatient Profile of Patients with Major Depression in Portuguese National Health System Hospitals, in 2008 and 2013: Variation in a Time of Economic Crisis. *Community mental health journal*, 54(2), 224–235.

<sup>72</sup>Buffel, V., Van de Velde, S., & Bracke, P. (2015). The mental health consequences of the economic crisis in Europe among the employed, the unemployed, and the non-employed. *Social science research*, 54, 263–288.

<sup>73</sup>Barr, B., Kinderman, P., & Whitehead, M. (2015). Trends in mental health inequalities in England during a period of recession, austerity and welfare reform 2004 to 2013. *Social science & medicine*, 147, 324–331.

<sup>74</sup>Tapia Granados, J.A.; Christine, P.J.; Ionides, E.L.; Carnethon, M.R.; Díez Roux, A.V.; Kiefe, C.I.; Schreiner, P.J. Cardiovascular Risk Factors, Depression, and Alcohol Consumption During Joblessness and during Recessions among Young Adults in CARDIA. *Am. J. Epidemiol.* 2018, 187, 2339–2345

<sup>75</sup>Lo, C. C., & Cheng, T. C. (2014). Race, unemployment rate, and chronic mental illness: a 15-year trend analysis. *Social psychiatry and psychiatric epidemiology*, 49(7), 1119–1128.

individual level employment was found to decrease depressive symptoms across European nations and for American men during the GFC<sup>76,77,78</sup>.

As with previous evidence mentioned above, men appear to be a particularly vulnerable group with multiple studies finding a stronger relationship between depression and unemployment for men than for women.<sup>79,80,81,82,83,84,85</sup> Job insecurity has also been associated with increased odds of depression/depressive symptoms between 1.3–1.86 times in Europe, the UK, and the USA, or a 33.5% increase in depressive symptoms<sup>86,87,88</sup>. Housing insecurity was a significant mediating factor in depressive symptoms associated with the 2008 GFC, meaning that measures of housing insecurity such as foreclosures, mortgage repayment difficulties and evictions may provide an explanation for the relationship between declining economic conditions and depressive symptoms<sup>89,90,91,92,93,94,95</sup>.

<sup>76</sup>Brenner, M.H.; Andreeva, E.; Theorell, T.; Goldberg, M.; Westerlund, H.; Leineweber, C.; Magnusson Hanson, L.L.; Imbernon, E.; Bonnaud, S. (2014). Organizational downsizing and depressive symptoms in the European recession: The experience of workers in France, Hungary, Sweden and the United Kingdom. *PLoS ONE*, 9, e97063

<sup>77</sup>Axelrad, H., Sabbath, E. L., & Hawkins, S. S. (2017). The impact of the 2008 recession on the health of older workers: data from 13 European countries. *European journal of public health*, 27(4), 647–652.

<sup>78</sup>Dagher, R.K.; Chen, J.; Thomas, S.B. Gender Differences in Mental Health Outcomes before, during, and after the Great Recession. (2015) *PLoS ONE*, 10, e0124103.

<sup>79</sup>Kendrick, T., Stuart, B., Newell, C., Geraghty, A. W., & Moore, M. (2015). Changes in rates of recorded depression in English primary care 2003-2013: Time trend analyses of effects of the economic recession, and the GP contract quality outcomes framework (QOF). *Journal of affective disorders*, 180, 68–78.

<sup>80</sup>Buffel, V., Van de Velde, S., & Bracke, P. (2015). The mental health consequences of the economic crisis in Europe among the employed, the unemployed, and the non-employed. *Social science research*, 54, 263–288.

<sup>81</sup>Barbaglia, M. G., ten Have, M., Dorsselaer, S., Alonso, J., & de Graaf, R. (2015). Negative socioeconomic changes and mental disorders: a longitudinal study. *Journal of epidemiology and community health*, 69(1), 55–62.

<sup>82</sup>Economou, M., Angelopoulos, E., Peppou, L. E., Souliotis, K., & Stefanis, C. (2016). Major depression amid financial crisis in Greece: Will unemployment narrow existing gender differences in the prevalence of the disorder in Greece?. *Psychiatry research*, 242, 260–261.

<sup>83</sup>Rodrigues, A. P., Sousa-Uva, M., Fonseca, R., Marques, S., Pina, N., & Matias-Dias, C. (2017). Depression and unemployment incidence rate evolution in Portugal, 1995-2013: General Practitioner Sentinel Network data. *Revista de saude publica*, 51, 98.

<sup>84</sup>Park, J. E., Lee, J. Y., Sohn, J. H., Seong, S. J., & Cho, M. J. (2015). Ten-year trends in the prevalence and correlates of major depressive disorder in Korean near-elderly adults: a comparison of repeated nationwide cross-sectional studies from 2001 and 2011. *Social psychiatry and psychiatric epidemiology*, 50(9), 1399–1406.

<sup>85</sup>Pelekasis, P., Kampoli, K., Ntavatzikos, A., Charoni, A., Tsionou, C., & Koumariou, A. (2017). Depressive symptoms during adverse economic and political circumstances: A comparative study on Greek female breast cancer patients receiving chemotherapy treatment. *European journal of cancer care*, 26(6), 10.1111/ecc.12687.

<sup>86</sup>Buffel, V., Van de Velde, S., & Bracke, P. (2015). The mental health consequences of the economic crisis in Europe among the employed, the unemployed, and the non-employed. *Social science research*, 54, 263–288.

<sup>87</sup>Meltzer, H., Bebbington, P., Brugha, T., Jenkins, R., McManus, S., & Stansfeld, S. (2010). Job insecurity, socio-economic circumstances and depression. *Psychological medicine*, 40(8), 1401–1407.

<sup>88</sup>Forbes, M. K., & Krueger, R. F. (2019). The Great Recession and mental health in the United States. *Clinical Psychological Science*, 7(5), 900–913.

<sup>89</sup>Ritchie, A., Hrabok, M., Igwe, O., Omeje, J., Ogunsina, O., Ambrosano, L., Corbett, S., Juhas, M., & Agyapong, V. (2018). Impact of oil recession on community mental health service utilization in an oil sands mining region in Canada. *Int. J. Soc. Psychiatry*, 64, 563–569

<sup>90</sup>Forbes, M. K., & Krueger, R. F. (2019). The Great Recession and mental health in the United States. *Clinical Psychological Science*, 7(5), 900–913.

<sup>91</sup>Cagney, K. A., Browning, C. R., Iveniuk, J., & English, N. (2014). The onset of depression during the great recession: foreclosure and older adult mental health. *American journal of public health*, 104(3), 498–505.

<sup>92</sup>Gili, M., Roca, M., Basu, S., McKee, M., & Stuckler, D. (2013). The mental health risks of economic crisis in Spain: evidence from primary care centres, 2006 and 2010. *European journal of public health*, 23(1), 103–108

<sup>93</sup>McLaughlin, K. A., Nandi, A., Keyes, K. M., Uddin, M., Aiello, A. E., Galea, S., & Koenen, K. C. (2012). Home foreclosure and risk of psychiatric morbidity during the recent financial crisis. *Psychological medicine*, 42(7), 1441–1448.

<sup>94</sup>Bernal-Solano, M., Bolívar-Muñoz, J., Mateo-Rodríguez, I., Robles-Ortega, H., Fernández-Santaella, M., Mata-Martín, J., Vila-Castellar, J., & Daponte-Codina, A. (2019). Associations between Home Foreclosure and Health Outcomes in a Spanish City. *Int. J. Env. Res. Public Health*, 16, 981.burgar

<sup>95</sup>Burgard, S. A., Seefeldt, K. S., & Zelner, S. (2012). Housing instability and health: findings from the Michigan Recession and Recovery Study. *Social science & medicine* (1982), 75(12), 2215–2224.

## Self-Harm

Rates of self-harm were found to increase during or after periods of recession. Characteristics associated with higher rates of self-harm included unemployment, job insecurity, financial stressors, and housing insecurity. In Ireland, self-harm rates among men were 31% higher than if pre-recession trends had continued. For women, the self-harm rate was 22% higher. This reportedly resulted in 5,029 excess hospital presentations for the treatment of self-harm in men and 3,833 for women in the five-year period following the 2008 GFC<sup>96</sup>.

## Suicide/Suicidal Ideation

In terms of the impact of recession on suicidal ideation and attempts, income inequality and personal economic distress has been associated with an increased risk of suicidal ideation and attempts in South Korea<sup>97</sup> and Greece<sup>98</sup>. The median age of people who attempt suicide increased following the GFC to middle-aged adults, particularly those approaching retirement<sup>99,100,101</sup>.

As for the completion of suicide, in a study of Suicide Mortality Rates (SMRs) in the USA between 1928 and 2007, rates were found to consistently increase during recessions and decrease during expansions. In Japan, Europe, and the Americas, male SMRs were seen to increase disproportionately to female SMRs<sup>102,103,104,105,106,107,108</sup>.

Overall, the 2009 male SMR across 55 countries increased by 3.3% (or 5124 excess suicides)<sup>109</sup>. The SMR for working-aged men (25–64 years) increased by between 4.2% and 12% in European studies, while no significant change was seen for

<sup>96</sup>Corcoran, P., Griffin, E., Arensman, E., Fitzgerald, A. P., & Perry, I. J. (2015). Impact of the economic recession and subsequent austerity on suicide and self-harm in Ireland: An interrupted time series analysis. *International journal of epidemiology*, 44(3), 969–977.

<sup>97</sup>Hong, J., Knapp, M., & McGuire, A. (2011). Income-related inequalities in the prevalence of depression and suicidal behaviour: a 10-year trend following economic crisis. *World psychiatry: official journal of the World Psychiatric Association (WPA)*, 10(1), 40–44.

<sup>98</sup>Madianos, M., Economou, M., Alexiou, T., & Stefanis, C. (2010). Depression and economic hardship across Greece in 2008 and 2009: two cross-sectional surveys nationwide. *Social psychiatry and psychiatric epidemiology*, 46(10), 943–952.

<sup>99</sup>Economou, M., Madianos, M., Peppou, L. E., Theliritis, C., Patelakis, A., & Stefanis, C. (2013b). Suicidal ideation and reported suicide attempts in Greece during the economic crisis. *World psychiatry: official journal of the World Psychiatric Association (WPA)*, 12(1), 53–59.

<sup>100</sup>Konstantakopoulos, G., Pikouli, K., Ploumpidis, D., Bougonikolou, E., Kouyanou, K., Nystazaki, M., & Economou, M. (2019). The impact of unemployment on mental health examined in a community mental health unit during the recent financial crisis in Greece. *Psychiatrike = Psychiatriki*, 30(4), 281–290.

<sup>101</sup>De Beurs, D., Hooiveld, M., Kerkhof, A., Korevaar, J., & Donker, G. (2016). Trends in suicidal behaviour in Dutch general practice 1983–2013: A retrospective observational study. *BMJ Open*, 6, e010868

<sup>102</sup>Corcoran, P., Griffin, E., Arensman, E., Fitzgerald, A. P., & Perry, I. J. (2015). Impact of the economic recession and subsequent austerity on suicide and self-harm in Ireland: An interrupted time series analysis. *International journal of epidemiology*, 44(3), 969–977.

<sup>103</sup>Ruiz-Perez, I., Rodriguez-Barranco, M., Rojas-Garcia, A., & Mendoza-Garcia, O. (2017). Economic crisis and suicides in Spain. Socio-demographic and regional variability. *Eur J Health Econ*, 18(3), 313–320.

<sup>104</sup>Jeon, S.Y., Reither, E.N. & Masters, R.K. (2016). A population-based analysis of increasing rates of suicide mortality in Japan and South Korea, 1985–2010. *BMC Public Health* 16, 356.

<sup>105</sup>Chang, S.; Stuckler, D.; Yip, P.; Gunnell, D. (2013). Impact of 2008 global economic crisis on suicide: Time trend study in 54 countries. *BMJ*. 347, f5239.

<sup>106</sup>Pompili, M., Vichi, M., Innamorati, M., Lester, D., Yang, B., Leo, D.D., & Girardi, P. Suicide in Italy during a time of economic recession: Some recent data related to age and gender based on a nationwide register study. *Health Soc. Care Community*, 22, 361–367.

<sup>107</sup>Norström, T., & Grönqvist, H. (2015). The Great Recession, unemployment and suicide. *Journal of epidemiology and community health*, 69(2), 110–116.

<sup>108</sup>Borrell, C., Mari-Dell'Olmo, M., Gotsens, M., Calvo, M., Rodríguez-Sanz, M., Bartoll, X., & Esnaola, S. (2017). Socioeconomic inequalities in suicide mortality before and after the economic recession in Spain. *BMC Public Health* 2017, 17, 1–8.

<sup>109</sup>Chang, S.; Stuckler, D.; Yip, P.; Gunnell, D. (2013). Impact of 2008 global economic crisis on suicide: Time trend study in 54 countries. *BMJ*. 347, f5239.

women<sup>110,111</sup>. Across 18 American countries, SMRs for men rose 6.4% (or 3175 excess suicides) following the 2008 GFC, compared to a 2.3% rise among women in the Americas<sup>112</sup>. Other studies in the USA found that the 2008 GFC explained 30% of the change in short and long-term SMRs observed up to 2016<sup>113,114</sup>. Eviction was found to increase odds of suicide 5.94 times among Swedish adults following the 2008 GFC<sup>115</sup>.

In sum, existing literature indicates the profound negative impact that economic downturn can have on adults and is an important factor when considering the potential impact on children, given the WHO's assertion that intergenerational transmission of mental health problems is a significant risk factor for poor mental health outcomes both in the short and long term.

## Economic Downturn and Wellbeing in Children

While the evidence around the effect of economic recession on the wellbeing of adults is plentiful and well documented, the evidence surrounding the direct impact on children is more limited by comparison. While providing commentary on the effect of economic downturn on mental wellbeing in adults, the WHO's publication above also refers to the impacts on children and young people. For instance, it was reported by the WHO that economic pressure through its influence on parental mental health, marital interaction and parenting can have an impact on the mental health of children and adolescents<sup>116,117,118</sup>.

Furthermore, the publication cited deficits in cognitive, emotional, and physical development as the potential effects of extreme poverty on children<sup>119</sup>. Women, children and low-income families were identified as being particularly impacted by cuts to education and health budgets. In EU countries, each \$100 per person spent on family support programmes such as support for the costs of children/dependants

<sup>110</sup>Chang, S.; Stuckler, D.; Yip, P.; Gunnell, D. (2013). Impact of 2008 global economic crisis on suicide: Time trend study in 54 countries. *BMJ*. 347, f5239.

<sup>111</sup>Pompili, M., Vichi, M., Innamorati, M., Lester, D., Yang, B., Leo, D.D., & Girardi, P. Suicide in Italy during a time of economic recession: Some recent data related to age and gender based on a nationwide register study. *Health Soc. Care Community*, 22, 361–367.

<sup>112</sup>Chang, S.; Stuckler, D.; Yip, P.; Gunnell, D. (2013). Impact of 2008 global economic crisis on suicide: Time trend study in 54 countries. *BMJ*. 347, f5239.

<sup>113</sup>Agarwal, P., Waggle, D., & Sandweiss, D.H. (2017). Suicides as a response to adverse market sentiment (1980–2016). *PLoS ONE*, 12, 1–10

<sup>114</sup>Borrell, C., Mari-Dell'Olmo, M., Gotsens, M., Calvo, M., Rodríguez-Sanz, M., Bartoll, X., & Esnaola, S. (2017). Socioeconomic inequalities in suicide mortality before and after the economic recession in Spain. *BMC Public Health* 2017, 17, 1–8.

<sup>115</sup>Rojas, Y., & Stenberg, S. Å. (2016). Evictions and suicide: a follow-up study of almost 22,000 Swedish households in the wake of the global financial crisis. *Journal of epidemiology and community health*, 70(4), 409–413.

<sup>116</sup>Solantaus, T., Leinonen, J., & Punamäki, R. L. (2004). Children's mental health in times of economic recession: replication and extension of the family economic stress model in Finland. *Developmental psychology*, 40(3), 412–429.

<sup>117</sup>Leinonen, J. A., Solantaus, T. S., & Punamäki, R.-L. (2003). Social support and the quality of parenting under economic pressure and workload in Finland: The role of family structure and parental gender. *Journal of Family Psychology*, 17(3), 409–418.

<sup>118</sup>Conger, R. D., Ge, X., Elder, G. H., Lorenz, F. O., & Simons, R. L. (1994). Economic Stress, Coercive Family Process, and Developmental Problems of Adolescents. *Child Development*, 65(2), 541–561.

<sup>119</sup>Marmot, M. G., & Bell, R. (2009). How will the financial crisis affect health?. *BMJ (Clinical research ed.)*, 338, b1314.

and parental leave reduced the effect of unemployment on the suicide rate by 0.2 percentage points<sup>120</sup>.

The impact of economic downturn on children was also investigated by Golbertstein et al (2019) who reported child mental health worsens in a weakening economy<sup>121</sup>. In this study, economic conditions were assessed using unemployment rate and House Price Index (HPI). Mental health outcomes for children were assessed using the Strengths and Difficulties Questionnaire (SDQ). It was reported that as state unemployment rates fell, child mental health improved. Additionally, increases in the HPI lead to significantly better (i.e. lower) SDQ scores and decreases in unemployment rates lead to improved mental health severity. Similarly, increases in HPI, (i.e. improving economic conditions), lead to significantly improved mental health severity. The effects of unemployment rates and housing prices on the SDQ and emotional difficulty outcomes were found to be stronger and only statistically significant for lower-education families. No differences between ethnic groups were found when examining the impact of economic conditions on children's mental health. It was also noted that parental employment may be an important factor in determining the effect of economic conditions on child mental health but is perhaps not the sole factor and others may also explain the effects of economic conditions on children's mental health.

Further research conducted by Costa et al (2020) examined the impact of lifestyle changes during the GFC on the development and wellbeing of children in Portugal<sup>122</sup>. It was found that following the crisis 48.6% of parent participants reported that they had to use their savings, and 6.8% reported that they had to change to a more economic housing during the GFC. The questions addressing the changes to life that occurred during the crisis were associated with more frequent psychosocial problems, depression, anxiety and stress symptoms and with poorer Health Related Quality of Life (HRQoL) outcomes among children.

Particularly pertinent to current rises in energy costs, Mohan (2022) found that there were 1.64 greater odds of maternal depression estimated for households characterised as being in energy poverty that contained young children<sup>123</sup>. For energy poor households with older children (9 years and above), the odds of maternal depression were also higher. Fathers of young children had greater odds of depression in energy poor households although the negative effect on mental health was not statistically significant for fathers of older children. Given the WHO's assertion that parental mental health may have an impact on the mental health of children, it may be inferred that the current energy crisis could have an impact on children.

<sup>120</sup> Stuckler, D., Basu, S., Suhrcke, M., Coutts, A., & McKee, M. (2009). The public health effect of economic crises and alternative policy responses in Europe: an empirical analysis. *Lancet (London, England)*, 374(9686), 315–323.

<sup>121</sup> Golberstein, E., Gonzales, G., & Meara, E. (2019). How do economic downturns affect the mental health of children? Evidence from the National Health Interview Survey. *Health economics*, 28(8), 955–970.

<sup>122</sup> Costa, D., Cunha, M., Ferreira, C., Gama, A., Machado-Rodriguez, A., Rosado-Marques, V., Nogueira, H., Silva, M., & Padez, C. (2020). Children mental health after the 2008 global economic crisis: Assessing the impact of austerity in Portugal. *Children and Youth Services Review*, 118,

<sup>123</sup> Mohan, G. (2022). The impact of household energy poverty on the mental health of parents of young children, *Journal of Public Health*, 44(1), 121–128

## Poverty, Abuse and Neglect

Abuse, harsh upbringing and poor relationship with parents were also named by the WHO as significant risk factors for poor mental health, therefore the relationship between economic hardship and child abuse and neglect also requires consideration.

The higher incidence of child neglect and abuse among the unemployed, was noted in a review conducted by Ng et al (2013), asserting that research has consistently highlighted that job loss and inability to find work were more common among known abusers than would occur by chance<sup>124,125</sup>. However, research conducted by Schenk-Fontaine et al (2017) indicated that though job losses did not affect the frequency of reports of child maltreatment, job losses did increase the share of reports of child maltreatment that were relatively severe<sup>126</sup>. This effect reportedly endured for 9 months following job losses and was only evident in economically disadvantaged communities. Furthermore, according to Schnieder et al (2017) the GFC was associated with increased risk of child abuse but a decreased risk of child neglect<sup>127</sup>. Results also indicated that economic uncertainty during the GFC, as measured by the Consumer Sentiment Index and unemployment rate, had direct effects on the risk of abuse or neglect, which were not explained by individual-level measures of economic hardship or poor mental health.

According to the Joseph Rowntree Foundation (JRF), there is a substantial body of evidence of a strong association between family poverty and the likelihood of a child experiencing child abuse or neglect (CAN)<sup>128</sup>. In their 2016 publication “The relationship between poverty, child abuse and neglect: an evidence review”, it was noted how evidence for this association occurs internationally, over time, for children of different ages, genders, health status and ethnicities and for different forms, definitions, and measures of CAN and poverty. However, the limitations of the evidence base for this association within the UK was noted, including criticism of methodologies and use of proxy measures, and lack of detail. JRF concluded that the indicators of poverty were the strongest risk factor both for investigations for child maltreatment and registration on the child protection register. Parental background factors such as being young, poorly educated and from a background of poverty were also reported to increase the chances of children being vulnerable to CAN, while stronger social support for mothers reportedly reduced the risk. The following evidence is highlighted and outlined in the publication:

<sup>124</sup>Ng, K. H., Agius, M., & Zaman, R. (2013). The global economic crisis: effects on mental health and what can be done. *Journal of the Royal Society of Medicine*, 106(6), 211–214.

<sup>125</sup>Krugman, R. D., Lenherr, M., Betz, L., & Fryer, G. E. (1986). The relationship between unemployment and physical abuse of children. *Child abuse & neglect*, 10(3), 415–418.

<sup>126</sup>Schenk-Fontaine, A., Gassman-Pines, A., Gibson-Davis, C. M., & Ananat, E. O. (2017). Local Job Losses and Child Maltreatment: The Importance of Community Context. *The Social service review*, 91(2), 233–263.

<sup>127</sup>Schneider, W., Waldfogel, J., & Brooks-Gunn, J. (2017). The Great Recession and risk for child abuse and neglect. *Children and youth services review*, 72, 71–81.

<sup>128</sup>Joseph Rowntree Foundation (2016). The relationship between poverty, child abuse and neglect: an evidence review. [Retrieved Oct 2022](#)

Gillham et al's analysis of 5,551 referrals and 1,450 registered cases of abuse and neglect in Glasgow between 1991 and 1993 found strongly significant correlations between neighbourhood deprivation and levels of male unemployment and registered child physical abuse, and less strong correlations with measures of neighbourhood poverty or with sexual abuse or neglect<sup>129</sup>.

Furthermore, Harman and Kaur plotted changes in the annual rates of children on child protection plans (CPP) in 14 local authorities in the English West Midlands between 2001/2 and 2010/11 against changes in the annual rate of people on Jobseeker's Allowance (JSA), a measure of unemployment. Regression analysis suggested that 83% of the changes in CPP rates could be attributed to changes in JSA rates<sup>130,131</sup>.

Winter and Connolly studied the relationship between 342 referrals to some childcare social work teams in Northern Ireland between 1998 and 2000 and deprivation scores for the nine wards in which the children lived. They found that differences in referral rates for either child protection, childcare concerns or family support between wards were closely related to ward deprivation scores<sup>132</sup>.

Bywaters et al analysed the relationship between deprivation scores for LSOAs and the proportion of children on child protection plans (CPP) in 13 local authorities in the English West Midlands, covering 10.5 per cent of all children in England, 4,963 of whom were on CPPs on 31 March 2012. Here Index of Multiple Deprivation (IMD) scores were used as proxies for family socio-economic circumstances. CPP rates in neighbourhoods among the most deprived 10 per cent in England as a whole were almost 11 times higher than rates in the most advantaged 10 per cent (decile) of neighbourhoods<sup>133,134</sup>.

The JRF also asserted that there is a social gradient in CAN, meaning at a population level each incremental increase in family socio-economic disadvantage correlates with an increased chance of CAN rather than distinguishing solely between families living in poverty and those that are not.

The JRF provide UK poverty statistics based on the Households Below Average Income dataset provided by the Department of Work and Pensions (DWP). In this instance JRF use 60% of median income after housing costs adjusted for household size and composition as their threshold for poverty. Applying these rates to the Norfolk population may give an estimation and indication of how different family types in Norfolk could be affected by poverty. It should be noted that applying

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<sup>129</sup>Gillham, B., Tanner, G., and Cheyne, B. (1998) 'Unemployment rates, single parent density and indices of child poverty: their relationship to different categories of child abuse and neglect'. *Child Abuse & Neglect*, 22(2), pp. 79–90

<sup>130</sup>Harman, D. and Kaur, C. (2011a) Impact of recession on demand for children's services: 1st report. West Midlands Regional Report. Walsall: Walsall Council

<sup>131</sup>Harman, D. and Kaur, C. (2011b) Impact of recession on demand for children's services: 2nd report. West Midlands Regional Report. Walsall: Walsall Council

<sup>132</sup> Winter, K. and Connolly, P. (2005) 'A small-scale study of the relationship between measures of deprivation and child-care referrals'. *British Journal of Social Work*, 35 (6), pp.937–952

<sup>133</sup>Bywaters, P., Brady, G., Sparks, T., and Bos, E. (2014a) 'Inequalities in child welfare intervention rates: the intersection of deprivation and identity'. *Child and Family Social work*, pp. 1–12

<sup>134</sup>Bywaters, P., Brady, G., Sparks, T., and Bos, E. (2014b) 'Child welfare inequalities: new evidence, further questions'. *Child and Family Social work*, pp. 1–12

national figures to the Norfolk population assumes that poverty is uniformly distributed across the UK which in reality may not be the case. It should also be noted that the threshold is calculated based on 2019/20 median incomes i.e. before the Covid-19 pandemic.

| <b>Number of Children in the Family</b> | <b>JRF Poverty UK Rates (%)</b> | <b>Norfolk Households with Dependent Children in Poverty Estimate</b> |
|---|---------------------------------|---|
| One Child                               | 24                              | 10,800  |
| Two Children                            | 24                              | 8,500   |
| Three or More Children                  | 47                              | 6,700   |
| <b>Total</b>                            |                                 | <b>26,000</b>   |

Source: JRF Poverty Statistics and ONS, 2018-based household estimates

**Note: Figures may not total due to rounding**

The JRF also provide child poverty rates at the local authority (district) level. Applying these rates to the estimated child population (aged 0-15 years) may provide an estimate of the number of children in Norfolk that may be experiencing poverty. Population estimates are based on ONS 2020 mid-year population estimates.

| <b>Local Authority</b>       | <b>JRF Child Poverty Rate (%)</b> | <b>Number of Children in Poverty Estimate</b> |
|------------------------------|-----------------------------------|---|
| Breckland                    | 29                                | 7,100   |
| Broadland                    | 23                                | 5,000   |
| Great Yarmouth               | 33                                | 5,800   |
| King's Lynn and West Norfolk | 29                                | 7,700   |
| North Norfolk                | 30                                | 4,300   |
| Norwich                      | 35                                | 8,300   |
| South Norfolk                | 22                                | 5,700   |
| <b>Norfolk</b>               |                                   | <b>43,900</b>                                 |

Source: JRF Poverty Statistics and ONS 2020 mid-year population estimates

**Note: Figures may not total due to rounding**

In July 2022, JRF also published a briefing outlining the deepening of poverty in the UK. In this instance, "very deep poverty" was defined by JRF as having less than 40% of median income, after housing costs, adjusted for household size and composition". Between 2002/03 and 2019/20 the risk of living in very deep poverty reportedly increased by over half for people living in large families (i.e. those with three or more children). It was also reported that prior to the Covid-19 pandemic,

people with three or more children were twice as likely to be behind on their essential bills, living in a cold home, or not eating properly compared to people in smaller families with children. In Norfolk there are an estimated 14,200 households with three or more children<sup>135</sup>

The impact of rising “very deep poverty” on lone parent families were also highlighted, claiming that between 2002/03 and 2019/20 the risk of living in very deep poverty has increased by a third for people in lone-parent families. It was also reported that immediately before the onset of the pandemic, lone-parent families were three times more likely to be behind on bills or living in a cold house, and five times more likely to be unable to afford to eat properly compared to couples with children. In Norfolk, there are an estimated 23,000 households defined as lone parent households with dependent children<sup>136</sup>

It should be noted that poverty can be measured in different ways and there is no universally accepted definition<sup>137</sup>. For instance, the House of Commons estimate that the number of children in the UK in relative low income (below 60% of the median income for 2020/21) before housing costs in 2020/21 was approximately 19%. However, after housing costs this is estimated to be around 27%. In terms of absolute low income (income below 60% of inflation-adjusted median income in some base year, usually 2010/11) before housing costs the rate of child poverty in the UK was estimated as 16%. After housing costs this rate stood at around 23%.

As of the 3<sup>rd</sup> of November 2022, the Bank of England anticipate that the UK will enter a period of economic recession at the end of 2022 and project that it to continue throughout next year and into the first half of 2024<sup>138</sup>, providing a timeframe for when families are likely to be impacted by poorer economic conditions.

## Potential Changes to Service Demand

In terms of how this may translate into changes to service demand given the current economic pressures and increased cost of living, according a 2022 Community Care survey of UK social workers, the cost of living crisis is severely affecting people accessing children’s and adults’ services, reportedly fuelling a variety of issues including poverty, debt, mental ill-health and domestic conflict<sup>139</sup>.

Overall, 49% of survey respondents, reported a large increase in the number of families receiving financial support under children’s social care legislation – such as section 17 of the Children Act – in their areas. A further 37% claimed to have seen a small increase in the number of families in receipt of financial support. According to Community Care, social workers claimed to foresee additional strain on family

<sup>135</sup> ONS, 2018-based household estimates

<sup>136</sup> ONS, Census 2021

<sup>137</sup> [House of Commons Library, Retrieved Nov 2022](#)

<sup>138</sup> [BBC News, Bank of England expects UK to fall into longest ever recession, Accessed, November 2022](#)

<sup>139</sup> Community Care Survey (2022), retrieved Oct 2022, <https://www.communitycare.co.uk/2022/08/26/cost-of-living-crisis-severe-impact-people-accessing-childrens-adults-services-social-workers-warn/>

budgets, further increasing tensions in people's homes, leading to more conflict, abuse and neglect. It should be noted that this survey took place prior to any government announcement of financial support on energy bills.

Research conducted by the Hood and Goldacre (2021) at Kingston University provides insight into the potential impact of poverty on service demand<sup>140</sup>.

Researchers found that a 10% increase in an area's deprivation was associated with a 62% increase in a child's chances of being referred to children's services, a 64% increase in the rate of child in need plans, a 69% rise in child protection investigation rates and an 80% increase in the rates of child protection plans.

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<sup>140</sup> Hood, R., & Goldacre, A. (2021) The social gradient in English child welfare services : an analysis of the national children's social care datasets. (Project Report) Kingston University and St Georges, University of London. 58 p. (Unpublished). [Summary](#) retrieved Oct 2022