

High inflation and implications for health

A framework to examine the potential pathways through which high inflation may impact on health

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Australia, like many countries, has been experiencing very high inflation rates. Policy responses are focused on reducing inflation but often increase cost-of-living pressures in the short term. The health and wellbeing impacts on individuals, families and communities can be long-lasting – even intergenerational.

This paper summarises findings from key research that demonstrates the pathways through which high inflation may influence health. Cost-of-living pressures can create or increase material hardship, have psychosocial impacts, and lead to behavioural changes. These effects in turn influence one another, with the potential to negatively impact physical and mental health and healthy behaviours. Such changes can impact partners, children, and others. Incorporating a health and wellbeing lens in policy decisions can lead to a more holistic approach to what has traditionally been a purely economic response, mitigating negative health impacts and promoting better health outcomes.



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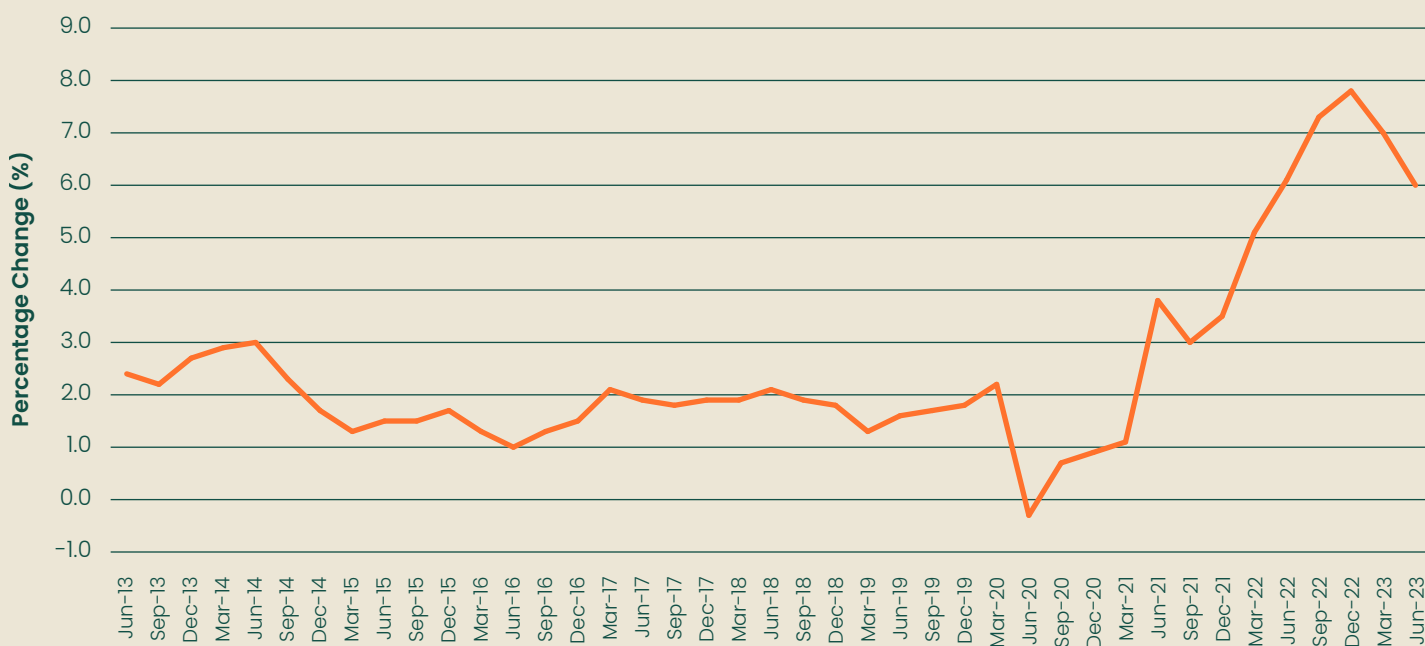
High inflation and cost of living crisis



Australia is experiencing its highest levels of inflation in 33 years due to a combination of local and international conditions. Inflation refers to a general increase in the prices of the goods and services that households typically buy.¹ Low and stable levels of inflation are considered beneficial. However, high levels of inflation can be harmful, particularly when household incomes are not keeping pace. This describes the current situation in Australia.

Following decades of relatively low and stable inflation, inflation (measured using the annual change in Consumer Price Index (CPI), rose sharply during 2022, reaching a peak rate of 7.8% in December 2022 [See Fig 1]. Although by June 2023, it reduced slightly to 6%, inflation still remains higher than the average growth in wages, which is leading to cost-of-living challenges.

Figure 1: All groups CPI – Annual change (%)

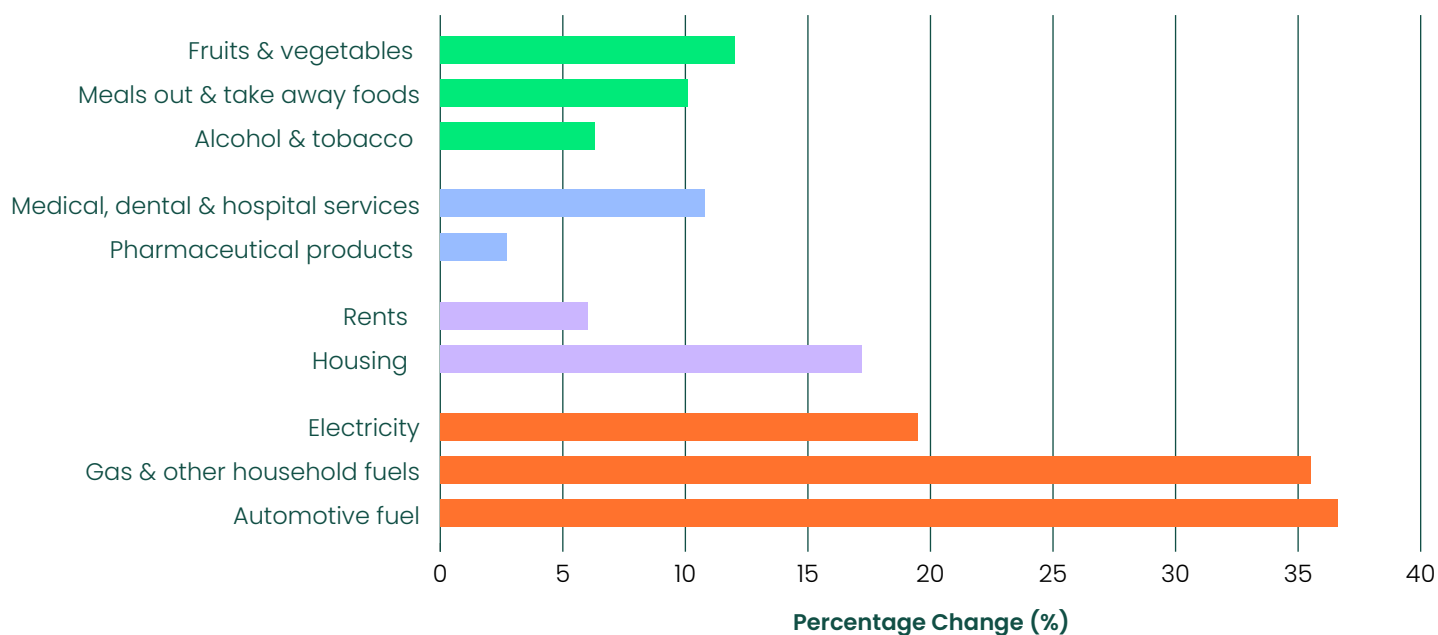


Note: Percentage annual change in CPI. Data Source: ABS²

Inflation in health-related commodities

Inflation has risen across a diverse range of goods and services. Of particular concern are the commodities crucial for maintaining health, such as food, healthcare, housing, and utilities. In the two years from March 2022 to 2023, the price of fruits and vegetables increased by 12%, medical, dental, and hospital services by 11%, housing by 17%, and gas and other household fuel by 36% [Fig 2]. Similar increases in prices are seen across all major cities of Australia.

Figure 2: Selected items, price changes over the past 2 years (%)



Note: Percentage change from March 2021 to March 2023. Data Source: ABS²

Who is impacted by high inflation?

While all households are hit by the higher costs of essential goods and services, its impacts are felt differently by different populations.

Rising interest rates (which are a policy measure designed to reduce inflation), have put additional financial pressure on mortgage-holders. A majority of households have been managing rising expenses and interest rates by cutting back on discretionary spending, dipping into savings accumulated during the pandemic or through additional employment.³ The labour market is strong – more Australians than ever are in paid work and some have increased their work hours.³

However, lower income households, which include renters and some mortgagors, spend a larger share of their income on housing and other essential items. With little savings buffer, these households have been hit the hardest by the rise in inflation and interest rates.³ It is therefore expected that they are the population group who experience the greatest financial strain and whose health may be most impacted by high inflation.

How might inflation impact health?

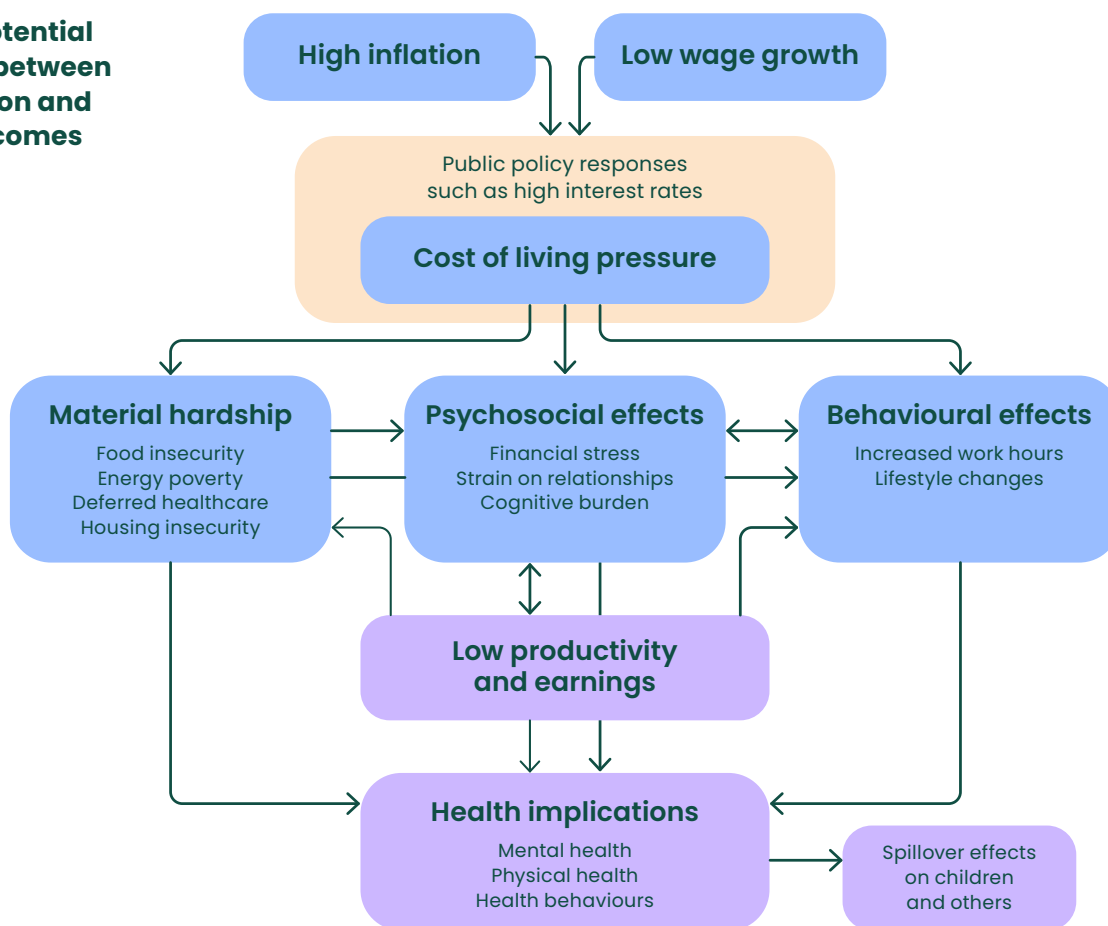
Figure 3 illustrates the potential pathways through which inflation can impact various aspects of health. High inflation along with low wage growth leads to cost-of-living increases, which can lead to a series of material, psychosocial, and behavioural consequences.⁴ These effects can be further exacerbated by policy responses, such as interest rate rises.

Material hardship includes food insecurity, energy poverty, deferred healthcare, and housing insecurity, and results from the inability to afford essential goods and services. Psychosocial effects include financial stress, strained relationships and cognitive burden, and arise due to immediate challenges and future concerns of not being able to meet basic needs. Behavioural effects involve changes in behaviours in response to cost-of-living increases, and include longer work hours, altering lifestyle choices like dining habits, alcohol and other substance use, participation in health promoting activities (e.g. exercise), and relocating due to unaffordability of housing options.

Behavioural effects can have psychosocial consequences (e.g. increased stress from more work or relocating). Moreover, psychosocial effects can lead to reduced productivity and lower earnings, further compounding material, psychosocial and behavioural effects.

These effects collectively have implications for both health and health-related behaviours. These include, but are not limited to, worsening mental health, higher vulnerability to cold and heat wave-related mortality, a rise in chronic conditions, poor nutrition, and changes in smoking, alcohol and substance abuse and physical activity. While most health impacts are likely to be detrimental, some changes in behaviours (e.g. less consumption of alcohol/tobacco due to less affordability) may positively impact health. In the following sections, recent empirical studies with rigorous study designs are reviewed to better understand how inflation affects the health and well-being of individuals.

Figure 3: Potential pathways between high inflation and health outcomes



Material Hardship

According to a 2023 survey, more than half of Australians (53%) find it difficult to meet their basic needs, causing challenges such as missing meals or eating less, consuming less nutritious food, struggling with utility bills and even forgoing doctor appointments or medications.⁵ These circumstances can have far-reaching implications on health and health related behaviours.

Food insecurity

Food insecurity occurs when there is a lack of access to nutritionally adequate and safe foods. Rising food prices, particularly for fruit and vegetables and other nutritious foods, leads to an increase in food insecurity.

In Australia, households with low economic resources and poor labour market attachment, who receive welfare payments, are at higher risk of food insecurity than those in receipt of the age pension or no payment at all.⁶ While poverty and food insecurity are closely related, evidence from the U.S. indicates that among adults and the elderly, food insecurity is predictive of poor nutrition, over and above poverty.⁷

Studies from high income countries show that food insecurity is associated with a higher risk of depression, chronic illness, nutrient deficiency and obesity in adults and children, although the causal effect is less clear.⁸ Economic analysis of the implementation of the Food Stamp Program in the U.S. suggests that reducing food insecurity causes an improvement in children's health and bodyweight, and leads to a reduction in days of school missed due to illness.⁹

Further health impacts could occur if there is a relative increase in the price of fresh fruits and vegetables against less healthy takeout and fast food options [see Fig 2]. It has been shown that changing the relative price of healthy foods compared to more energy-dense foods has a small effect on food choices and body weight overall, but the effect is much larger among lower socioeconomic populations.^{10,11} This suggests individuals facing cost-of-living pressures may shift towards cheaper, lower-quality food options, which can lead to obesity and poor nutrition.¹¹

Energy poverty

The steep costs of utilities such as electricity and gas can result in energy poverty, where households cannot afford reasonable heating or cooling. In Australia, energy poverty is linked to challenges in maintaining sufficient warmth during winter and ensuring suitable cooling in the summer.¹² This indicates that energy poverty can cause both cold and heat related health issues in Australia.

Several studies using Australian longitudinal data collectively highlight the strong relationship between energy poverty and adverse health outcomes. These studies capture energy poverty through a combination of both subjective indicators (reflecting inability to heat homes due to financial constraints) and objective indicators (evaluating the proportion of household income allocated to energy expenses).

Increases in energy poverty lead to significant reductions in self-assessed general health¹² and overall life satisfaction.¹³ Additionally, individuals who cannot afford adequate home heating experience a decline in mental health.¹⁴



Deferred healthcare

Experimental evidence shows that when the price of health care increases, individuals will forgo health services, even those that are considered necessary.¹⁵ Even small increases in out-of-pocket costs can lead individuals to cut back on essential medications, ultimately resulting in increased mortality.¹⁶

In Australia, affordability is a major barrier to visiting the dentist for oral health maintenance and treatment.¹⁷ Forgoing dental visits leads to untreated cavities and worse oral health.¹⁸

More generally, delayed health care increases the risk of health complications, longer hospital stays, emergency admissions and poorer health outcomes,¹⁹ which are not only detrimental to the individual and their family, but also increase health system costs. Delays in seeking care during the COVID-19 pandemic led to fewer cancer diagnoses at a treatable stage, which is estimated to have led to worse prognosis and reduced survival.^{20,21}



Housing insecurity

Housing insecurity is the lack of stable or adequate living arrangements, and often stems from the broader issue of housing affordability. As the costs of rent or mortgage payments rise, households, especially low-income households, become increasingly at risk of housing insecurity.

There is consistent evidence from longitudinal studies in Australia that show poor housing affordability is associated with worse mental health, irrespective of baseline mental health.^{22,23} This association occurs over and above the effects of general financial hardship on mental health. Further evidence shows that individuals in their 60s are particularly vulnerable to adverse mental health effects,²⁴ and compared to home owners, renters are more susceptible to the detrimental mental health consequences of unaffordable housing.^{25,26}

There are widespread flow-on consequences of poor housing affordability such as living in poor quality housing, relocating to more affordable areas or homelessness. International longitudinal evidence indicates that persistent poor housing conditions are associated with worse mental health and compromised physical health, particularly impacting respiratory conditions and overall wellbeing.^{22,27,28} Relocating to unfamiliar communities leads to increased stress and mental health issues.²⁹ Homelessness is associated with a higher risk of severe physical and mental health problems and mortality.³⁰

Material hardship lead to:



- Poor nutrition
- Chronic illness
- Mental health issues
- Complex healthcare needs

Psychosocial Effects

Financial stress

Financial stress arises from the inability to meet essential needs, such as a lack of money to buy food, pay bills on time, and afford adequate housing. Such situations can induce persistent worry and trigger feelings of demoralisation and uncertainty about the future.³¹ There is consistent evidence from Australian longitudinal studies that financial hardship is strongly associated with an increase in psychological distress, including symptoms of anxiety and depression.^{32,33} The association is particularly pronounced among unmarried individuals, the unemployed, those with lower income levels and renters.^{34,35} Further evidence indicates there is a cumulative impact of sustained financial hardship.³⁶

Financial stress experienced within households also have profound effects on the psychological well-being of children.³⁷⁻³⁹ These effects can be long-lasting and extend to adulthood.⁴⁰

Strain on relationships

Income shocks resulting from high cost of living can exert significant strain on the dynamics of family and social relationships.⁴¹ Robust evidence from the U.S. suggests that sudden income shocks can have detrimental effects on the stability of spousal relationships.^{41,42} These strained relationships, in turn, can have profound mental health effects, affecting not only adults⁴³ but also children within these households.^{44,45}



Cognitive burden and health-related behaviours

Cost of living pressures impose a cognitive burden on people, reducing their capacity to make decisions. Evidence from natural experiments show that when people aren't adequately protected from severe financial hardship their ability to focus properly is effected, and they may experience reduced decision-making capacity, including with regard to health choices.^{46,47}

This cognitive burden also impacts productivity. Evidence suggests workers managing financial stress are often less productive and may make more mistakes.⁴⁸ This can lead to reduced earnings and exacerbate the lack of funds to meet essential needs.

The effect on risky behaviours is less clear. Individuals may use alcohol, tobacco or other substances as a coping mechanism to navigate difficult economic times.⁴⁹⁻⁵¹ However, the higher price of discretionary items may reduce consumption. For example, there is some evidence that during times of financial stress and economic downturns there is reduced demand for cigarettes.^{52,53}

Psychosocial effects lead to:



Mental health issues
Spillover mental health effects
Risky health behaviour



Smoking

Behavioural Effects

Increased work hours and changes in life style

The pressures of increased living costs might drive individuals to seek additional income by increasing their working hours.³ In the last year Australians worked an extra 86 million hours (4.6% increase).⁵⁴ Although the additional employment income helps to alleviate financial stress and related consequences, the increase in work hours results in less time available for leisure or other health promoting activities, such as exercise and cooking meals.

Evidence from Germany indicates that among full time workers, working longer work hours reduces self-assessed health, especially among women and parents of young children who generally face greater time constraints.⁵⁵

An increase in work hours is considered a key explanation for why adults of working age in the U.S. decrease their physical activity, eat less healthy diets and gain weight when the economy is strong and employment rates are high.^{52,56}

The reduction in time spent on physical activity or other leisure/social activities may also have detrimental consequences for mental wellbeing.

Behavioural effects lead to:



Stress and mental health issues



Time for leisure and physical activity

Policy Implications

There is a dual need for policies which improve access to health care for individuals impacted by high inflation, and for policies that prevent ill-health in times of high inflation. It is difficult to know which health impacts will be the greatest as different people will manage their squeezed budgets differently across food, energy, housing and other essential items. However, the financial strain alone will be detrimental to mental health, and this will be felt most acutely by low income households. Ensuring affordable and timely access to mental health support for those most vulnerable to cost-of-living pressures will have important spill-over benefits for workplace productivity, health decisions and behaviours, as well as children and other family members.

Moreover, there is a need to embed health and wellbeing impacts into the trade-offs between alternative policy responses to rising inflation.



Traditional policy responses, such as increasing interest rates, exacerbate cost-of-living pressures in the short-term, while the consequences of health impacts may be long-lasting. Consideration of health impacts and alternative responses to inflation will be critical as Australia moves towards an economy that prioritises equity, health and wellbeing.

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