

ACDPA Submission to the Standing Committee Inquiry into Diabetes August 2023

The Australian Chronic Disease Prevention Alliance (ACDPA) welcomes the opportunity to provide a submission to the 2023 Standing Committee Inquiry into Diabetes in Australia. ACDPA's submission addresses the second and fourth Terms of Reference, including recommendations for primary and secondary prevention of type 2 diabetes, obesity and other diet-related conditions, and inter-relationships between these conditions.

Key recommendations – Summary

- Adequately fund and implement the National Preventive Health Strategy 2021-2030, and support implementation of it and related strategies coherently across jurisdictions and communities.
- 2. Prioritise a Package of Measures Preventing Diet-Related Chronic Disease
 - a) Information: Mandate and continually enhance the Health Star Rating system on all processed and packaged foods.
 - b) **Promotion**: Enact Commonwealth legislation to **protect children from unhealthy food and beverage marketing** via comprehensive restrictions on product and brand promotions across various digital and broadcast mediums.
 - c) **Pricing**: **Apply a 20% levy on sugar sweetened beverage manufacturers** to incentivise reformulation, reduce population level sugar intake, and raise revenue.

Complementary food policy measures

- **Set new targets and timeframes for food reformulation** to enhance the healthiness of products, including salt, sugar, and fats.
- Improve affordability and access to healthy food options, particularly for Australians living in rural, regional, and remote communities.
- Establish independent, clear and transparent monitoring and enforcement.
- 3. Address other key modifiable risk factors and determinants for chronic diseases including type 2 diabetes and obesity, especially physical activity, alcohol and tobacco use, and physical inactivity.

About the Australian Chronic Disease Prevention Alliance

The Australian Chronic Disease Prevention Alliance (ACDPA) brings together Diabetes Australia; Cancer Council Australia; National Heart Foundation of Australia; Kidney Health Australia; the Stroke Foundation and the Lung Foundation. These leading non-government health organisations share a commitment to reducing burden of chronic disease attributable to modifiable risk factors and delayed detection. ACDPA members work together to support primary and secondary prevention of chronic diseases, focussing on chronic disease risk factors and determinants to reduce preventable illness; and promoting health checks to support people to understand, manage and reduce disease risk as early as possible.















1) Implement the National Preventive Health Strategy 2021-2030.

While Australians are living longer, we are living more of our lives in ill health, with more than half of Australians living with one or more chronic condition, including diabetes, cancer, lung disease, kidney disease, heart disease and strokeⁱ. Not only do these diseases often share determinants and risk factors, but they often also intersect to increase the risk of co-morbidity and complication (see later section).

Australia has committed to domestic and global targets to reduce non-communicable diseases and their major risk factors by 2025[‡] and 2030[‡]. Within the Australian context, this focuses on increasing the number of years lived in good health ^{†v}.

However, achieving the targets for improving lives and reducing burden of conditions such as obesity and type 2 diabetes through preventive health requires a courageous and decisive reset of policies at all levels of government, Commonwealth, State and Territory, and municipal. It requires resetting environments in which people live, work and play, food system, and urban planning; tackling disparities in education, housing, wealth and race; resetting the power dynamic between industries whose products and practices can cause harm, and communities such that the harms arising from ultra processed products and practices are mitigated so that communities, health systems stakeholders and governments aren't burdened with cost of avoidable illness and death.

Actions to address these chronic disease determinants and risk factors and reduce chronic disease burden and prevalence will also improve Australia's wellbeing and prosperity, supporting progress against Australia's *Measuring What Matters* framework health indicators. The Framework reflects the need for health in all policies coherence.

One of the most powerful unifying frameworks we have for action to improve health is Australia's National Preventive Health Strategy (NPHS) 2021-2030. As a collective of health focussed organisations, we each contributed to the development of the NPHS and strongly support the vision, aim and principles, and particularly want to reiterate the causes of ill health – which is relevant to this inquiry i. The NPHS outlines a number of key action areas, targets, and policy achievements by 2030, and to achieve these and see significant and lasting benefits for the Australian community, this strategy and the associated activities must be invested in. Investment in preventive health is known to be cost-effective, reduce burden on the already overburdened health system and benefit communities at large.

We encourage the committee to recommend prioritising funding and implementation of the *National Preventive Health Strategy 2021–2030*, and support implementation of it and related strategies – particularly obesity, alcohol, tobacco, and primary health – coherently across jurisdictions and communities. Investments and political commitment to tobacco control have helped to reduce some of the burden of diabetes and other chronic conditions, and continues to be an important policy priority, but other modifiable risk factors require comprehensive, coherent, and concerted action.















2) Healthy Diets – an urgent priority to reduce chronic disease burden

Unhealthy diets are Australia's second greatest risk factor for illness and early death including diet related type 2 diabetes and obesity, as well as cancers, stroke and kidney disease, and a top priority of the National Preventive Health Strategy to deliver more years of life lived in good health viii, ix. Only 1 in 10 Australian adults and children consume recommended and sufficient serves of nutritious foods like fruits and vegetables to meet the Australian Dietary Guidelines and thrivex, xi. Discretionary foods, often ultra processed and high in salt, sugar, and fat, commonly displace nutritious and health-promoting foods, particularly among young adults and those living with higher levels of socioeconomic and educational disadvantage^{xii}. Around one third of Australians' energy intake is from discretionary foodsxiii, xiv, xv. While NHMRC recommendations promote exclusive breastfeeding for the first 6 months of a child's life and continued breastfeeding for 12 months and beyond for optimal nutritional and health benefits for the baby and mother, only one third of children are still exclusively breastfed at six-months of agexvi. There is increasing evidence that ultra-processed foods are independently associated with diet related NCDs including type 2 diabetes, heart disease and obesityxvii,xviii. Industrially produced trans-fats are strongly associated with cardiovascular disease risk, and there is some evidence they may contribute to type 2 diabetes risk xix. Around one quarter of type 2 diabetes, stroke and bowel cancer burden, and half of heart disease burden can be attributed to dietary factors^{xx}.

Obesogenic environments in which unhealthy foods are prominent are contributing to the increasing prevalence of diet related chronic conditions, with obesity now recognised as a form of malnutrition^{xxi}. Mexico, Chile, Argentina, Norway, and England are among dozens of countries implementing strong, evidence-based policies helping to reverse diet-related chronic disease trends ^{xxii}, ^{xxiii}, ^{xxiv}, ^{xxv}.

- More than 100 jurisdictions have a form of tax on sugar-sweetened beverages.
- Warning labels are mandated on packaged foods in more than 16 countries.
- At least 40 countries restrict marketing of unhealthy foods in broadcast and/or digital media or plan to.

Other countries pioneering and implementing policies on these measures has enabled WHO to assess evidence of their effectiveness and cost effectiveness, now recommending them to protect children and adults from diet related NCDsxxvi. Australian governments have not fully implemented these most powerful tools to support Australians to enjoy healthier diets, leaving untapped opportunities to improve food environments, protect and improve health by ensuring that the healthiest food options are the most affordable, available, appealing, accessible, and appropriate xxviii, xxviii. WHO estimates that in many countries the return on investment for policies promoting healthier diets could be up to \$11.93 for every one dollar spent xxix.















Health Star Rating System

ACDPA recommends strengthening Australia's Health Star Rating (HSR) system, an important initiative which could better ensure people have honest, clear, up to date, easy to understand, information on food healthfulness and potentially harmful ingredients, encourage reformulation to healthier options, and facilitate healthier choices xxx.

Strengthening Australia's HSR system requires:

- Improving the algorithm and criteria for scoring food healthiness, including stronger salt and sugar thresholds, and scope to consider degree of processing;
- Improving the graphic design of HSR labels including with consideration to colour, size and position, and removal of competing claims and design features;
- Establishing regular biennial reviews and monitoring for updates and compliance;
- Supporting consumer awareness and understanding with public education;
- Protecting the HSR system from industry influence, bias and conflicting systems.
- Mandatory implementation across eligible packaged foods.

The George Institute has assessed that less than half of eligible products have a HSR applied to the package, most of which are on healthier (with a higher score) rather than less healthy (lower score) products, undermining the potential value of the system to consumers xxxi. There are many models of front of pack nutrition labelling with useful WHO guiding principles to support their development and refinement xxxii.

Restrict Marketing of Unhealthy Food

ACDPA recommends restricting unhealthy food marketing to help improve diets and reduce chronic disease, detailed in our 2018 position statement^{xxxiii}. Taking unhealthy food out of the spotlight will help improve the health and wellbeing of all Australians.

Eighty minutes of daily television viewing equates to children seeing more than 800 unhealthy food advertisements per year xxxiv. High exposure to harmful advertising and powerful persuasive techniques influences children's food preferences, choices, and consumption xxxv, xxxvi. Comprehensive regulation is required to prevent children up to the age of 18 from being influenced by unhealthy food marketing xxxvii. Measures should address all forms of marketing and promotion, including product and brand marketing, and use a strong definition of unhealthy food. Policy should

- Protect children from digital marketing of unhealthy food
- Prohibit targeting of children with unhealthy food marketing
- Keep unhealthy food marketing off television, radio and cinema from 6am-9:30pm.
- Keep unhealthy food marketing out of public spaces and events

Marketing restrictions should be implemented alongside restricting promotion and sale of unhealthy foods in child-focused environments like schools. In July 2023, WHO and Unicef published a toolkit to help countries protect children from harmful food marketing xxxviii.















Sugar Sweetened Beverages Levy

ACDPA recommends a 20% levy be applied to sugary drinks through manufacturers as part of a comprehensive approach to reducing diet related chronic disease, as first outlined in our 2017 position statement on sugary drinks fiscal policy xxxix. A sugar sweetened beverage levy would encourage reformulation, reduce sugar consumption, and raise revenue which could support health food literacy and food provision initiatives, and primary health care.

Several models exist internationally, with increasingly strong evidence of efficacy of using taxes and levies to help reduce sugar intake, obesity and diet related NCD prevalence in priority populations. The World Bank recommends consideration of health taxes, such as those on sugar sweetened beverages and alcohol, as a fiscal policy to support COVID-19 economic recovery, particularly to support health system strengthening^{xl}. WHO has developed a manual for governments on sugar-sweetened beverage taxation policies to promote healthy diets^{xli}.

The Global Food Policy Program at University of North Carolina has documented how countries, including England, South Africa, Philippines, Portugal, Poland, Hungary, and Malaysia have implemented and benefited from sugar sweetened beverage taxes^{xiii}. Sugary drinks tax revenue has been directed to health promotion programs and health system strengthening, also helped reduce the health and financial burden of diet related NCDs in in lower socioeconomic demographics experiencing diet related NCDs, including type 2 diabetes, CVD and dental caries, more and with worse outcomes than other groups. For example, In Mexico, within 1–3 years of a sugary drinks tax being introduced, sugar consumption decreased through reduced purchasing behaviour and overweight and obesity among adolescent girls reduced by 3%. In the state of Philadelphia, USA, reductions in sugary drinks purchases and consumption were particularly pronounced among Hispanic, Latinx and students living with obesity.

For consideration in the Australian context is the UK's effective soft drinks industry levy's (SDIL) tiered model serves multiple purposes, with a primary objective of reducing population sugar intake as part of the UK's childhood obesity plan aiming to halve childhood obesity by 2030xiiii. Products with higher sugar concentration are taxed at a higher rate than those with lower sugar content, incentivising manufacturers to reformulate to minimise the levy required to be paid, potentially creating a price incentive for consumers to purchase lower sugar products. Like several other countries using hypothecated health taxes to offset externalities incurred by the health system, the UK levy revenue was directed to healthy school food and physical activity programs. The SDIL quickly reduced the sugar content of soft drinks, with most manufacturers reformulating soft drinks to lower the sugar content before the levy came into effect in 2018. Recently the soft drinks industry levy was associated with an 8% reduction in obesity in primary school aged girls, particularly among children in lower socio-economic groups xiv. A 20% levy on sugary drinks in Australia has previously been modelled as having the potential to achieve 175,000 health adjusted life years gains, health care cost savings of around \$1,733 million, and \$642.9 million in revenue per year, with potential further gains from appropriate hypothecation xIV.















Food Policy Package

ACDPA's recommendations to improve the nutrition quality of Australian diets are evidence informed and widely supported, and in line with Australia's National Framework for Chronic Conditions, National Preventive Health Strategy, National Obesity Strategy. They also align with global recommendations for NCD prevention as part of the WHO Global Action Plan on NCDs, and the WHO Acceleration Plan to Stop Obesity XIVI I.

Comprehensive packages of measures introduced in quick succession or concurrently would be appropriate for Australia given the need for urgent reform to improve nutrition. Packaged approaches have been found to be effective in several South American countries, for example Chile introduced a package of measures between 2015-2017 which restricted marketing, enhanced mandatory labelling and restricted availability of unhealthy foods in schools; within seven years exposure to unhealthy food and beverage marketing, and unhealthy food and beverage purchases had decreased, and changes in behaviour were larger than those in countries where comparable but individual policy measures, such as sugary drinks taxes, were implemented xiviii, xiix.

ACDPA recommends a package of evidence based, highly recommended food systems policies be implemented urgently. These measures can improve food options for all, make healthier choices easier, and reduce the burden of diet related chronic conditions:

- Mandate and continually enhance the Health Star Rating system on all processed and packaged foods.
- Protect children from unhealthy food and beverage marketing via comprehensive restrictions on product and brand promotions in broadcast, print and digital media, and food packaging advertising. This should also include more robust and enforced restrictions on marketing of alcohol products.
- Apply a 20% levy on sugar sweetened beverages to incentivise reformulation, reduce population level sugar intake, and raise revenue for health.

Additional measures to improve the nutritional quality of the food supply

- Set new targets and timeframes for food reformulation to enhance the healthiness of products, including salt, sugar, and fats, including eliminating and replacing industrially produced trans fats.
- Mandate added sugar labels across the packaged food supply.
- Improve affordability and access to healthy food options, particularly for Australians living in rural, regional, and remote communities.

To ensure the efficacy of new regulations,

- Establish independent, clear and transparent monitoring and enforcement processes with penalties to deter companies from breaching regulations.
- **Develop and implement national evidence based health promotion campaigns** to improve nutrition literacy, influence behaviour, strengthen self-efficacy and increase public support for improving the food environment.















3) Other Risk factors and complementary measures - Physical Activity

Physical inactivity is a major contributor to diabetes, obesity, and other chronic diseases including mental health), accounting for up to 5.2% of Australia's total disease burden. It's responsible for nearly one-quarter of disease burden related to type 2 diabetes!. Physical inactivity and sedentary behaviour contributes to endocrine diseases including diabetes, obesity, cardiovascular disease and some cancers.

Engaging in sufficient physical activity offers protection and therapeutic benefits, helping prevent unhealthy weight gain, improve metabolic risk factors (like blood pressure, cholesterol, and blood sugar levels), and reduce the physical and mental health impacts of diabetes, obesity, and other chronic conditions by up to 40%. Iii

Australia has set ambitious targets aligned with the WHO Global Action Plan on Physical Activity 2018-2030. The goals include reducing insufficient physical activity among all age groups by at least 15% and increasing the percentage of Australians meeting strength-training guidelines by 2030^{|||||}, ^{||v|}.

The obesogenic environment in Australia limits opportunities for physical activity due to factors like urban planning conflicts, changing work patterns, and increased technology and screen-based activities. Despite the perception of Australia as a sporting nation, around three-quarters of adults do not meet physical activity and muscle-strengthening guidelines. Over 80% of children and young people also fail to meet the 24-hour Movement Guidelines. Supporting children to be active has lifelong benefits, including improved health and academic performance. Policies supporting physical activity have wider-reaching benefits, including economic growth, environmental sustainability, safer communities, increased liveability, and improved overall well-being. These policies can also help reduce other chronic disease risk factors and address underlying social determinants contributing to chronic diseases.

The prevalence of physical inactivity in Australia has remained high for over two decades, with efforts to support active children falling short. The 2022 Australian Physical Activity Report Card rated Australia poorly for physical activity levels and sedentary behavior in children ix. Although the built environment and organized sports receive relatively high marks, there's significant room for improvement in active transport, strategies, investments, and school settings. Similarly, the 2022 WHO Global Status Report on Physical Activity highlighted areas where Australia can enhance efforts to create active societies, environments, and individuals Opportunities for improvement include street design, walking and cycling infrastructure, road safety, transport policies, and national physical activity communication campaigns.

Investments to promote physical activity in adults have also been insufficient. Only 15% of Australians meet recommended levels of moderate to vigorous physical activity ^{|xi}. However, modelling suggests that even small, sustained increases in daily activity could yield significant population health benefits. For example, adding just 15 minutes of brisk walking five days a week could reduce disease burden by 13%, and 30 minutes of activity on five days a week could lead to a 26% reduction in disease burden ^{|xii}|.















A systems approach is necessary to achieve global and national targets in line with the Global Action Plan on Physical Activity, Global Action Plan for Prevention and Control of NCDs and National Preventive Health Strategy 2021-2030, and to maximise co-benefits.

To support people to be more active across their lives, we recommend

- Sustained, funded and well-researched public education on physical activity, incorporating the forthcoming 24-hour movement guidelines.
- A systems approach to promoting and facilitating physical activity with strengthened integration of physical activity promotion and indicators in policies and programmes across settings including education, transport, built environment and urban design, health care, and sport and recreation.
- **Development and implementation of a National Physical Activity Action Plan,** bringing together these recommendations and systematically addressing challenges and opportunities for a more active population.

3) Other Risk Factors and Complementary Measures – Alcohol

ACDPA recommends Alcohol use is an independent and diet-related risk factor for development and/or antagonism of chronic conditions including diabetes, cardiovascular diseases, endocrine and gastrointestinal conditions, obesity and some cancers.

In Australia, alcohol is among the top 5th risk factors for disease burden ^{|xiii}. Alcohol can increase blood pressure, hypoglycaemia among those on insulin, and interfere with medications for chronic conditions. Moderate alcohol use is a factor in unhealthy weight gain, as ethanol is nutrient poor and high in kilojoules, and Australian analysis has found that of those who report alcohol use approximately 16% of daily energy intake comes from alcoholic beverages, with discretionary energy intake highest among older adults ^{|xiv}, |xv

The Australian Dietary Guidelines recommend limiting alcohol consumption to balance dietary energy intake, in light of the increasing rates of overweight and obesity. Informed by the latest evidence, the World Heart Foundation's 2022 policy brief on alcohol and cardiovascular health notes that *Contrary to popular opinion, alcohol is not good for the heart...* and *Alcohol consumption increases the risk of many CVDs* lixvi. Limiting or avoiding alcohol is important to prevent alcohol related chronic disease and/or reduce alcohol related complications among people living with chronic conditions.

To reduce alcohol related harm, **we recommend stronger investment and implementation of the National Alcohol Strategy 2019–2028 lxvii**, aligning with WHO's
Global Alcohol Action Plan lxviii, recommendations for NCD prevention and control lxix,
supported by WHO's SAFER alcohol initiative lxx, and identified as priorities in Australia lxxi.

Building on existing investments in alcohol-free pregnancies, we recommend attention to the following policy priority areas to reduce alcohol related chronic disease harm:

 Protect the community from alcohol marketing (with restrictions on exposure to promotions through traditional and social media, and sport broadcasts, particularly those impacting children).















- Address cheap alcohol that fuels harm (including with tax and pricing reforms). Economic and health-impact modelling found that alcohol price increases (for example, a uniform and annually indexed volumetric tax) could be one of the most cost-effective measures to reduce obesity in Australia.
- Empower the community by **raising awareness of the harms caused by alcohol** (including through information and education campaigns, and labelling relating to health risks and energy content).
- Create healthy public policy free of industry influence.

3) Other risk factors and complementary measures - Tobacco

Smoking, and exposure to tobacco smoke, are an independent risk factor for diabetes and complications, and remains the leading preventable cause of disease burden in Australia properties and experience complications either due to its direct impact on insulin management, or due to the impact on other risk factors such as blood pressure which can increase risk of other chronic conditions including cardiovascular and kidney diseases. People with diabetes who smoke are also at risk of other tobacco related conditions including pancreatic cancer, and people who smoke are at an increased risk for type 2 diabetes

 ACDPA recommends the committee reiterate support for continued government investment and commitment to the implementation of the National Tobacco Strategy 2023-2030, and support coordinated and coherent action across Australian jurisdictions to ensure coherence.

3) Other complementary measures – Determinants of Health

The National Preventive Health Strategy identifies determinants of health, factors often outside the immediate control of individuals, as important to promoting health and wellbeing and reducing the burden of chronic disease. We recommend greater consideration of two particular aspects of determinants.

Social Determinants of Health -

Social disparities are significant drivers of Australia's burden of chronic disease. Chronic conditions contribute to around 64% of the disease burden among Aboriginal people and Torres Strait Islanders, 2.6 times higher rate of preventable hospitalisation, and account for 70% of the life expectancy gap compared with non-Indigenous populations locity. People living in remote areas of Australia, where limited and delayed access to preventive, community and primary health services are common, are up to 2.5 times more likely to be hospitalised for potentially preventable reasons including chronic conditions located to Australia who experience a high burden of chronic disease are people who migrated to Australia more than 10 years ago and have low English language proficiency, and people living in poverty with limited means to access enablers of health – such as good housing, nutritious food and adequate income to cover out-of-pocket medical costs located located















needs to tackle structural inequities and disparities – poor housing, employment and income limiting financial resources for healthier foods and access to care, climate change impacting healthy food supplies, education compromising literacy, remote and rural communities. Exposure to chronic disease risk factors disproportionately impacts populations who also experience disparities in access to risk assessment, screening for early detection, and affordable, appropriate treatment and care for chronic diseases lixxviii.

• Recommended actions on social determinants of health includes development and implementation are illustrated in strategy 2.6 of the National Obesity Strategy, relating to income, housing, education, food security and a health in all policies approach, and the development of further recommendations under that strategy.

Commercial Determinants of Health

The Commercial Determinants of Health include how corporate and economic actors can have both positive and negative impacts on people's health through their products and practices including portfolio composition, ESG priorities (and whether health and wellbeing are factors), and policy influencing practices (such as corporate political activity like lobbying and donations across portfolios which can bias, dilute, distract, delay and compromise decisions in the best interests of health and wellbeing) lixxix.

Health is often created outside of the health sector, so it is essential to consider the health impact of policy decisions made outside of it, and actively protect and manage conflicts of interest in policy development and decision making such that health is undermined by decisions regarding trade-offs. This is particularly important for food, alcohol and tobacco related policies IXXX. Unicef has produced guidance for governments on managing and preventing industry interference in policy making to protect public health interests

Analysis from Australia and overseas increasingly challenges the merits of industry selfregulation in areas requiring urgent action and demonstrate that regulatory approaches are more cost-effective and have greater health gains than voluntary approaches to improve diets and reduce obesity |xxxii, |xxxiii. The Health Star Rating system is an example where a voluntary model has not been as effective as it should have been due to low industry uptake. In the more than a five years since established less than half of eligible products have HSR displayed, generally not on products with low ratings, undermining the potential and value of the system. ACDPA continues to be concerned, as previously expressed, about non-regulatory and voluntary approaches to food regulation, and urges the committee to recognise the risks of further delaying progress with similar self-. There is a clear leadership role for government regulatory and voluntary approaches in setting and implementing mandatory regulatory approaches. We also support the role of government in monitoring, enforcing, and evaluating approaches to improve the food system with independence and transparency. We highlight that proposals to improve the food system should be based on evidence and free from political interference or lobbying.

To mitigate the risks of harmful commercial determinants of health we recommend:

• Review the terms of the Healthy Food Partnership while concurrently advancing efforts to regulate in areas in which the food industry's self-regulatory response















is stalling progress, particularly mandating front of pack labelling with the Health Star Rating system and meeting reformulation targets, and reducing exposure of children to unhealthy food marketing.

- Considering establishing stronger mechanisms to protect policy and programmes from the influence of harmful vested interests. This could include a comprehensive conflict of interest and stakeholder engagement policy to ensure that all food policy and alcohol is developed without inappropriate influence from the food and related industries.
- Implement a true Health in and for All Policies approach to ensure the health
 impacts of policy decisions across all levels of government benefit and do not
 undermine health. This may involve systematic implementation of health impact
 assessments as part of existing cost benefit analysis and could consider
 optimising co-benefits of investments for health and other priorities.

Diabetes, Obesity and Other their Relationships with Other Diseases:

On average, Australians enjoy some of the longest lives in the world, but increasingly we live in poor health, with more than half of Australians living with one or more chronic disease including diabetes, cardiovascular disease, cancer, kidney disease, stroke and lung disease [XXXXV], [XXXXVI]. Chronic conditions accounted more than one third of national health expenditure in 2019–20 [XXXXVIII] As the population ages, these costs are anticipated to grow. The Grattan Institute estimates the social, personal, health system costs of chronic disease at over \$100 billion each year [XXXXVIII]. There is a disproportionate prevalence and burden of diabetes, overweight and obesity amongst some population groups, including people living in rural, regional, and remote areas, people from lower socioeconomic areas, and Aboriginal and Torres Strait Islander peoples.

Nearly 40% of disease burden, including avoidable illness and early death, could be prevented by addressing what are often shared modifiable risk factors, including diet, levels of physical activity, alcohol and tobacco use and conditions including hypertension, high fasting plasma glucose, and overweight and obesity laxxix, xc. Furthermore, factors outside of a person's immediate control can make it more challenging for people to reduce their risk, and some populations experience higher prevalence of certain chronic conditions than others. Determinants – including social factors such as race, gender, age, education level, housing and wealth exacerbate a disproportionate burden of both exposure to harm and disease.

Type 2 Diabetes in Australia (please also refer to Diabetes Australia's submissions)

More than 1,305,000 million Australians are registered as living with diagnosed type 2 diabetes, with more than 500,000 Australians estimated to be living with undiagnosed type 2 diabetes ^{xci}. Type 2 diabetes makes up around 86 to 90 per cent of all cases of diabetes, of which around two-thirds could be prevented or delayed. In 2022, type 2 diabetes contributed to more than 125,000 disability adjusted life years and 2.3% of disease. Up to 55% of type 2 diabetes as attributable to obesity, and 26% to dietary risks.















According to the Australian Institute of Health and Welfare in 2019-20, more than \$3 billion was spent on diabetes treatment and care in the health system, of which around \$2 billion was spent on type 2 diabetes xcii. Indirect costs of diabetes are estimated to be even higher, with modelling suggesting a \$2.1 billion loss in GDP for 2015, projected to increase to \$A2.9 billion in 2030 attributable to diabetes and its impact on productive life years xciii.

With some of the most preventable burdens in Australia, it's imperative for Australia to take urgent to action to prevent more Australians from developing type 2 diabetes, to support those living with all types of diabetes to lose weight to support diabetes management and to support people wanting to attempt type 2 diabetes remission.

Obesity in Australia

As a biological risk factor for several chronic conditions in addition to type 2 diabetes, obesity is of considerable concern to ACDPA. Overweight and obesity prevalence in Australia is estimated to be among the highest in the world, affecting two thirds of adults and one quarter of children xciv, xcv. The World Obesity Federation projects that without accelerated action, based on current trends, obesity will continue to increase across the Australian population, which will in-turn have implications for related chronic disease burden and increasing social and economic burden, until at least 2035xcvi. The economic costs of obesity as a risk factor have been estimated at up to \$14.9 billion annuallyxcvii.

As a chronic condition and risk factor for other chronic conditions, overweight and obesity are responsible contributes to increased risk of cardiovascular disease, stroke, type 2 diabetes, chronic kidney disease, depression, osteoarthritis and more than a dozen types of cancer^{xcviii} People living with one chronic condition – such as diabetes or obesity, are more likely to develop another, increasing complexity of disease management, emphasising the importance of early detection and intervention to ensure optimal care and reduce disease progression.

It is estimated that healthy weight could reduce diabetes by 55%, chronic kidney disease by 42%, uterine cancer by 49%, hypertensive heart disease by 51%, stroke by 22% and breast cancer by 22%, among other reductions.*

The WHO recognises childhood obesity as a particularly urgent challenge with short- and long-term consequences.^c Childhood obesity is a direct cause of childhood morbidities, including gastrointestinal, musculoskeletal and orthopaedic complications, sleep apnoea, and early onset of CVD and type-2 diabetes. In addition, potential psychological consequences include behavioural and emotional difficulties, stigmatisation, poor socialisation and decreased educational attainment. Childhood obesity also predicts adult obesity.^{ci} Preventing childhood obesity is essential for short and long-term health.

Action to reduce type 2 diabetes, obesity and overweight has many co-benefits, including reducing impact and progression of other chronic diseases, with co-morbidity (living with two or more chronic conditions) increasingly prevalent and leading to complications for treatment and care. Preventive health investments benefit everyone – people not living with disease as well as those living with conditions, because healthier environments make it easier for everyone to be healthier and enjoy higher quality of life for more of their lives.















Relationships between Chronic Conditions

Diabetes and Obesity (please refer to Diabetes Australia's submissions)

Stroke

In 2020, 27,428 Australians experienced stroke for the first time, and there were more than 445,000 survivors of stroke living in our community. Onless action is taken, it is estimated by 2050, Australians will experience an additional 23,000 new strokes annually, and there will be an additional 374,000 survivors of stroke living in the community. Importantly, the vast majority of strokes can be prevented, and primary stroke prevention remains the most effective means of reducing the burden of stroke in Australia (Key modifiable risk factors for stroke include overweight and obesity and type 2 diabetes.)

- Approximately 24 percent of all strokes in 2020 occurred in people 54 years of age
 or younger.¹ If trends continue this is set to increase.¹ Increasing rates of stroke in
 people under the age of 65 have also been observed internationally^{civ}. The
 increasing rates of stroke in younger people worldwide are thought to be due, at
 least in part, to an increase in the rate of modifiable stroke risk factors such as type
 2 diabetes and obesity and overweight.
- In Australia, the economic cost of stroke exceeded \$6.2 billion in 2020, with a further \$26.0 billion in lost wellbeing due to short and long-term disability, and premature death. V Stroke is one of the leading causes of disability in Australia, and in 2020, a third of stroke events resulted in a disability which impeded the survivor of stroke's ability to carry out activities of daily living unassisted.
- A global study that examined risk factors for ischaemic and intracerebral haemorrhagic stroke in 22 countries showed that the population-attributable risk (PAR) for stroke due to diabetes is 5 percent. The PAR for stroke due to obesity (as indicated by waist-to-hip ratio) is 26.5 percent.^{cvi}
- Diabetes can lead to pathologic changes in blood vessels throughout the body, and where blood vessels in the brain are directly affected, this can lead to stroke.² Importantly, for patients with uncontrolled glucose levels, their mortality from stroke is higher, and their outcomes post-stroke are poorer.^{cvii}
 For those with type 2 diabetes, controlling their diabetes is an effective way to prevent initial strokes as well as stroke recurrence.

Kidney Disease (refer to Kidney Health Australia's submission for further information)

• Diabetes is a significant risk factor for chronic kidney disease (CKD) in Australia with up to 40% of (CKD) attributable to diabetes, rising to 70% amongst First Nations Australians cviii. Diabetes and CKD share several risk factors and often coexist, complicating outcomes. Kidney disease antagonises diabetes, and diabetes antagonises CKD, leading to worse health and mortality outcomes for people living with multiple conditions cix, cx.















Heart Disease (Refer to the submission of the National Heart Foundation)

Diabetes and obesity independent risk factors for cardiovascular disease (CVD), and commonly co-exist. People with diabetes are at least twice as likely to develop CVD, two in three adults with type 2 diabetes report also having CVD, and people with type 2 diabetes are at an increased risk of death and disability due to CVD^{cxi}.

Cancer (refer to Cancer Council Australia's submission for further information)

Obesity related cancers have approximately quadrupled since 1983, including mouth, pharynx and larynx cancers; oesophageal cancer (adenocarcinoma); stomach cancer (cardia); pancreatic cancer; gallbladder cancer; liver cancer; colorectal cancer; breast cancer (postmenopause); ovarian cancer; endometrial cancer; prostate cancer (advanced); kidney cancer)^{cxii}. Recent estimates of the lifetime burden of cancer (2016-2098) show that 333,100 future cancers will be attributable to overweight or obesity^{cxiii}. Type 2 diabetes also increases risk of several cancers, including pancreatic, liver, endometrial, colorectal, and breast cancers ^{cxiv}.

Lung Disease

Lung conditions currently affects approximately 1 in 3 Australians. There are more than 30 common types of lung disease, including for example, lung cancer, pulmonary fibrosis, asthma, chronic obstructive pulmonary disease (COPD, often understood as emphysema). The interrelationship between diabetes and lung disease is traditionally under recognised in the public domain, but evidence continues to emerge on causation and the pathophysiology. Current evidence indicates:

- Type 2 diabetes affects multiple organs, including the lungs^{cxv}.
- Both type 1 and type 2 diabetes can influence the onset, severity, and
 progression of lung diseases^{cxvi} People with diabetes experience oxidative
 stress, which can cause complex disorders affecting the lung tissue. High blood
 sugar levels promote the growth and proliferation of cancer cell in the lungs.
 Long-term diabetes can damage the blood vessels in the body, and this also
 applied to the pulmonary vessels.
- Lung disease (as well as respiratory symptoms including pneumonia) are more commonly observed in people with diabetes than in people of the same age without diabetes^{cxvii}
- Poor lung function is also associated with a higher future risk of diabetes (and other chronic conditions)^{cxviii}

Appropriate management of underlying chronic conditions and risk factors is essential to reduce the burden of lung disease and diabetes. Preventative health efforts are vital, including for risk factors like tobacco smoking and physical activity, and vaccination against infectious diseases like influenza and pneumococcal cxix.















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