Australian Health Promotion Association (AHPA®) Summary of Supporting Evidence for the Inquiry into Diabetes in Australia

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Overview

AHPA® provided a submission to the Inquiry into Diabetes in a Australia. Two AHPA® representatives also appeared before the Standing Committee at a Public Hearing on 16 February 2024. The following is a summary of additional evidence requested by the Standing Committee and/or offered by AHPA® Board members Associate Professor Freya MacMillan and Dr Dimitri Batras. This summary is accompanied by zip folder with copies of the evidence, where available, in full-text. The explanatory notes pertaining to the additional evidence in this summary is grouped into the following categories:

- Evidence on food hubs and other food security strategies, with examples from Aboriginal and Torres Strait Islander communities
- Evidence for peer support models of diabetes prevention and management
- Provide some information about government level campaigns working alongside other sectors
- Send some literature on the health star rating in Australia and ways to strengthen food labelling approaches and understanding, colour coding.
- The Health Promotion workforce model report - Wellbeing SA
- A short definition of the commercial determinants of health and some literature on the commercial determinants of health and sugar tax

Evidence on food hubs and other food security strategies, with examples from Aboriginal and Torres Strait Islander communities

- *Food hubs evidence work.* Dr Freya MacMillan is currently in the process of evaluating the Box Divvy food hub (food coop) model across Greater Western Sydney, looking at the effects of joining this model over the first 6 months of using it on food security, lifestyle behaviours and clinical health outcome measures. Additionally, Freya's colleague Dr Cristy Brooks is undertaking a survey of Box Divvy's 11,000 hub users to explore food security. Freya would be happy to share outputs as they are published from this work.
- *Food co-operatives: A potential community-based strategy to improve fruit and vegetable intake in Australia (Mihrshahi, 2020).* This study involved surveying food-coop users across the Sydney region (which included 61 Box Divvy hubs – previously branded as Harvest Hubs). At the time, most hubs were in high socio-economic status areas (Box Divvy is more widely spread now), those who used the food coops consumed higher vegetable intake and were more likely to meet fruit and vegetable intake recommendations, than those that did not use food coops.
- *Evidence for improving food security in Aboriginal communities in NSW (Davies, 2022):* Highlights key factors contributing to food insecurity in Aboriginal and Torres Strait Islander communities are affordability, systemic causes and crises which exacerbate food insecurity. Solutions need to be led and governed by community, must integrate cultural knowledges and should involve interagency collaboration.
- *Acting on Food Insecurity in Urban Aboriginal and Torres Strait Islander Communities (Browne, 2009):* Although dated (2009), this paper reports on the challenges faced for Aboriginal and Torres Strait Islander people that reside in urban or regional areas of Australia and also summarises and provides examples of best practice examples from across the country with recommendations for future action.

Evidence for peer support models of diabetes prevention and management

- *Outcomes of a church-based lifestyle intervention among Australian Samoans in Sydney – Le Taeao Afua diabetes prevention program (Ndwiga, 2020):* A community activation and peer support community-based lifestyle intervention delivered in South Western Sydney by Samoan peer supporters over 3-8 months resulted in a HbA1c reduction of -0.4% across all participants (-1.0% in those that already had diabetes), almost doubled physical activity participation, and improved diabetes knowledge. Dr MacMillan and Professor David Simmons are now co-leading a NHMRC Partnership project testing the model at scale across 48 Pasifika churches in Greater Western Sydney and South Eastern Sydney (trial in progress). Additionally, they have included peer support within an integrated care model in the Wollondilly Diabetes Program (Zarora, 2021), are currently piloting a technology-enabled peer support model in the Wollondilly Diabetes Program- Lifestyle Plus study (pilot study underway) and are currently working with Tharawal Aboriginal Medical Services to adapt this technology-enabled peer support model for Aboriginal communities (in progress).
- *Using Community Based Research Frameworks to Develop and Implement a Church-Based Program to Prevent Diabetes and its Complications for Samoan Communities in South Western Sydney (Ndwiga, 2021):* Describes how community-based participatory research frameworks underpinned *Le Taeao Afua*.
- *Results from a European multicenter randomized trial of physical activity and/or healthy eating to reduce the risk of gestational diabetes mellitus: The DALI lifestyle pilot (Simmons,*

2015) and Cost-effectiveness of healthy eating and/or physical activity promotion in pregnant women at increased risk of gestational diabetes mellitus (Broekhuizen, 2018): The intervention, which included peer support targeting lifestyle behaviours (healthy eating and physical activity), was tested across 9 different European countries and resulted in less gestational weight gain and lower fasting glucose than an intervention only including physical activity support in obese pregnant women. The healthy eating and physical activity promotion intervention was cost-effective for QALYs after delivery. This study was led by David Simmons (based in South Western Sydney now).

- *Impact of Community Based Peer Support in Type 2 Diabetes: A Cluster Randomised Controlled Trial of Individual and/or Group Approaches (Simmons, 2015) and Can Peer Support be Cost Saving? An Economic Evaluation of RAPSID (Wingate, 2017):* The world's largest trial of peer support for those with diabetes, led by Professor David Simmons. 8-12 months of peer support resulted in improved blood pressure and one to one and group diabetes peer support over 8-12 months were cost saving in this UK setting.
- *Development and piloting of a community health worker-based intervention for the prevention of diabetes among New Zealand Maori in Te Wai o Rona: Diabetes Prevention Strategy (Simmons, 2008).* This community-based peer support model resulted in significant weight loss in those at highest risk of diabetes (with impaired IGT/IFT). This model was adapted for the Australian setting in the Le Taeao Afua study in South Western Sydney. This work was led by Prof David Simmons.
- *Predictors and Effects of Participation in Peer Support: Prospective Structural Equation Modeling Analysis (Ayala, 2023):* This paper pulled data from 7 peer support interventions in those with existing diabetes from across the world to explore predictors of who benefits the most and who is most likely to participate and found that those at most disadvantage have the most benefit and highest participation in peer support models. Those that self-rate has having low social support to manage their diabetes and with higher depression ratings also are more likely to participate in peer support. Those that engaged the most in the peer support programmes had the greatest benefit in HbA1c.
- *Peer support interventions for adults with diabetes: A meta-analysis of Hemoglobin A1c outcomes (Patil, 2016):* A systematic review of pooled data from across 17 studies showing that peer support significantly improves HbA1c, with bigger improvements found in the studies including minority communities.
- *A peer-support lifestyle intervention for preventing type 2 diabetes in India: A cluster-randomized controlled trial of the Kerala diabetes prevention program (Thankappan, 2018):* This community based diabetes prevention peer support program in India resulted in improvements in cardiovascular risk factors and quality of life. Although a decrease in diabetes incidence was found, this was not significant. However this was only a 24 month study and it can take several years (5-10 years often) with large numbers of participants to show changes in incidence.

Provide some information about government level campaigns working alongside other sectors

- A Systematic Review of Key Factors in the Effectiveness of Multisector Alliances in the Public Health Domain - Bonnie Wiggins, Kim Anastasiou, David N. Cox, 2021 (sagepub.com) (PDF attached): This systematic literature review by Wiggins and colleagues (2021) assesses factors influencing synergistic multisector alliances in public health from 2009 to 2019. It identifies key elements such as clear purpose, positive coordination, information sharing,

and outcome evaluation contributing to successful alliances. The study highlights the importance of integrating these factors into public health alliance management to enhance synergy and navigate complexities effectively.

- An umbrella review of intersectoral and multisectoral approaches to health policy - ScienceDirect (PDF attached): This study by Amri and colleagues 2022 reviews evidence from various approaches, identifying facilitators and barriers like communication and funding. With insights into implementation, it guides governments in advancing intersectoral health policies and achieving broader goals like the Sustainable Development Goals and health equity.

Send some literature on the health star rating in Australia and ways to strengthen food labelling approaches and understanding, colour coding.

- Analysing the use of the Australian Health Star Rating system by level of food processing | International Journal of Behavioral Nutrition and Physical Activity | Full Text (biomedcentral.com) (PDF attached): The study by Dickie and colleagues (2018) analyses the use of Health Star Ratings (HSR) on new packaged foods in Australia, categorized by processing levels. Ultra-processed foods dominate HSR display (74.4%), with most UP products showing ≥2.5 stars, raising concerns about misrepresentation of healthiness and potential behavioural nutrition risks due to weaknesses in the HSR system's design and governance.
- Effect of voluntary Health Star Rating labels on healthier food purchasing in New Zealand: longitudinal evidence using representative household purchase data | BMJ Nutrition, Prevention & Health (PDF attached): The study by Bablani et al (2022) assesses the impact of Health Star Rating (HSR) labels on food purchasing behaviour in New Zealand. While there was no significant association between HSR labelling and the quantities of different foods purchased, there was evidence of lower sodium and protein, and higher fibre purchases in HSR-labelled products, likely due to reformulation efforts to achieve better HSR ratings. Overall, robust evidence of HSR labels altering consumer behaviour was not found.
- The impact of voluntary front-of-pack nutrition labelling on packaged food reformulation: A difference-in-differences analysis of the Australasian Health Star Rating scheme | PLOS Medicine (PDF attached): The study by Bablani and colleagues (2020) investigates the impact of voluntary adoption of the Health Star Rating (HSR) scheme on food reformulation in Australia and New Zealand. It concludes that while the voluntary adoption of HSR has prompted small reformulation changes, the effectiveness is limited as labels are primarily placed on already healthy products. It suggests that mandating HSR adoption by unhealthy products could maximise reformulation efforts, thereby improving the healthiness of packaged foods.

The Health Promotion workforce model report- Wellbeing SA

- This report for Wellbeing SA titled: '*An evidence-informed review to support the development of the South Australian Health Promotion Workforce Strategy'* was offered as additional evidence for the Standing Committee to review. Among other important findings and recommendations outlined in the Executive Summary, this report is a useful reference point for the Standing Committee to obtain information concerning the different tiers and diversity within the health promotion workforce. Please refer to page 15 of the report for more information about the different roles and tiers of the health promotion workforce, there is

also a useful image depicting the three tiers on the same page. (attached in sub folder of zip folder)

- The link of this work with the National Preventive Health Strategy is highlighted in the quote below on page 11 of the report:

> "The focus on the health promotion workforce in this report is aligned with the objectives of the National Preventive Health Strategy (NPHS) which identifies 'enabling the workforce' as a key principle, noting that Future public health workforce planning is vital, as is increasing the capacity and capability of the overall health workforce (p38). Of particular importance to this review is the NPHS policy achievement aspiration (by 2030) that the public health workforce is 'future proofed' through enhancing the availability, distribution, capacity and skills of the workforce. This focus reflects the sector's advocacy for workforce planning and support for the workforce".

A short definition of the commercial determinants of health and some literature on the commercial determinants of health and sugar tax

- In 2016 Ilona Kickbusch and colleagues' publication in the Lancet defined the commercial determinants of health as "strategies and approaches used by the private sector to promote products and choices that are detrimental to health" (Kickbusch et al., 2016): Kickbusch I, Allen L, Franz C. The commercial determinants of health. Lancet Glob Health. 2016 Dec;4(12):e895-e896. doi: 10.1016/S2214-109X(16)30217-0. PMID: 27855860.
- The Lancet series on the commercial determinants of health published in 2023 provided the following definition for the commercial determinants of health in Paper 1 of the series Gilmore et al., 2023 "…the systems, practices and pathways through which commercial actors drive human health and health equity" (Gilmore, A. B., Fabbri, A., Baum, F., Bertscher, A., Bondy, K., Chang, H-J., Demaio, S., Erzse, A., Freudenberg, N., Friel, S., & Hofman, K. J. (2023). Defining and conceptualising the commercial determinants of health. *Lancet, The (UK edition)*, *401*(10383), 1194-1213. https://doi.org/10.1016/S0140-6736(23)00013-2)
- Access the full *Lancet* Series on CDOH here. and the Series infographic here is also attached in the zip folder.
- VicHealth provided a useful summary of the key messages from the Lancet Series on the Commercial Determinants of Health including but not limited to a Policy Brief for policy leaders and politicians (which is attached)
- Sugar Tax: Information for the Standing Committee on what is and is not feasible when it comes to evaluating sugar taxes. Criticisms from entities that claim that there is no evidence for sugar tax is unfair to make as it is not easy nor ethical to evaluate in a traditional clinical trial manner, so the Standing Committee need to consider what are acceptable methods for assessing the impacts of sugar tax. The paper by Ng and colleagues is useful here: Ng, S.W., Colchero, M.A. & White, M. How should we evaluate sweetened beverage tax policies? A review of worldwide experience. *BMC Public Health* **21**, 1941 (2021). https://doi.org/10.1186/s12889-021-11984-2
- Sugar Tax: Modelling done in Australia and shows the health care costs and benefit to the population if tax was put in place for sugar - Veerman JL, Sacks G, Antonopoulos N, Martin J. The Impact of a Tax on Sugar-Sweetened Beverages on Health and Health Care Costs: A Modelling Study. PLoS One. 2016 Apr 13;11(4):e0151460 https://doi.org/10.1371/journal.pone.0151460 PMID: 27073855; PMCID: PMC4830445.
- Sugar Tax: This paper by Liu and colleagues pools evidence from across the globe on the cost effectiveness of sugar taxation - Liu, S., Veugelers, P.J., Liu, C. *et al.* The Cost Effectiveness of

Taxation of Sugary Foods and Beverages: A Systematic Review of Economic Evaluations. *Appl Health Econ Health Policy* 20, 185–198 (2022). https://doi.org/10.1007/s40258-021-00685-x

- Sugar Tax additional sources:
    - Allen WMK, Allen KJ. Should Australia tax sugar-sweetened beverages? J Paediatr Child Health. 2020 Jan;56(1):8-15. DOI: 10.1111/jpc.14666 Epub 2019 Nov 29. PMID: 31782574.
    - Eykelenboom M, Olthof MR, van Stralen MM, Djojosoeparto SK, Poelman MP, Kamphuis CB, Vellinga RE, Waterlander WE, Renders CM, Steenhuis IH; PEN Consortium. The effects of a sugar-sweetened beverage tax and a nutrient profiling tax based on Nutri-Score on consumer food purchases in a virtual supermarket: a randomised controlled trial. Public Health Nutr. 2022 Apr;25(4):1105-1117. doi: 10.1017/S1368980021004547. Epub 2021 Nov 3. PMID: 34728000; PMCID: PMC9991614.
    - Cabrera Escobar, M.A., Veerman, J.L., Tollman, S.M. *et al.* Evidence that a tax on sugar sweetened beverages reduces the obesity rate: a meta-analysis. *BMC Public Health* **13**, 1072 (2013). https://doi.org/10.1186/1471-2458-13-1072