

# HEALTH STAR RATING (HSR) SYSTEM

## Background Paper

This paper provides background information to the PHAA Health Star Rating (HSR) system Policy Position Statement, providing evidence and justification for the public health policy position adopted by Public Health Association of Australia and for use by other organisations, including governments and the general public.

## Summary

The PHAA continues to be a supporter of the HSR system. However, there remain many areas where the PHAA will continue advocating for further reform and action to maximise public health impact and improve confidence in the system and in governments' efforts to improve population dietary intakes. These include making the system mandatory, reducing commercial conflicts of interest in governance of the system, making improvements to the nutrient profiling model and graphical display, implementing rigorous and independent monitoring and evaluation, and educating consumers about the use of the system. The PHAA also calls for governments to commit to continuing, strengthening, funding, and expanding the use of the HSR system, implement regular review cycles, and develop a broader National Food and Nutrition Policy to support and direct a range of comprehensive, multi-sectoral and evidence-based nutrition policies and programs.

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## Public health issue

1. High body mass index and poor diet are the second and third largest contributors to the total burden of disease in Australia.<sup>(1)</sup> These, as well as other leading risk factors for disease and death related to dietary patterns and food environments, are modifiable, i.e. they can be prevented. They must be addressed as a public health priority.
2. The 2013 Australian Dietary Guidelines (ADGs) provide evidence-based recommendations on foods, food groups, and dietary patterns that promote good-health and help prevent disease. The ADGs recommend choosing amounts of nutritious food and drinks that meet energy needs, enjoying a wide variety of nutritious foods every day, and limiting intake of foods containing saturated fat, added salt, added sugars and alcohol.<sup>(2)</sup> Very few Australians regularly consume a diet that aligns with the ADGs, however, with most having limited consumption of nutritious foods and excess intake of unhealthy and ultra-processed products.<sup>(3-7)</sup>
3. Front-of-pack labelling (FoPL) systems can provide easy-to-interpret information to help consumers make informed, healthier food purchases, as well as encourage reformulation of products by the food industry.<sup>(8, 9)</sup> FoPL should form part of a broad suite of policies to make food environments healthier, improve dietary patterns, and prevent diet-related disease.<sup>(10, 11)</sup>

## Background

### International innovation in front-of-pack labelling

4. Over 40 countries have implemented some form of government-led FoPL.<sup>(8)</sup> Different types of FoPL have different aims and mechanisms to achieve them. Recent policy developments include a shift away from 'softer' positive signposts that highlight healthier options within category, towards formats that include product unhealthfulness and intend to discourage consumption.<sup>(12-15)</sup> Evidence on the best-performing FoPL format is mixed, depending on the measure of performance being evaluated, but supports interpretive labels overall (i.e. those that display an assessment about the content of the food).<sup>(8, 9, 13, 15)</sup> A number of countries now have mandatory FoPL in a variety of formats.<sup>(9, 15, 16)</sup>
5. Emerging best-practice on FoPL worldwide offers potential insights for future HSR reform, including regulation on use of colour and placement on pack and exclusion of industry from discussions and decisions around critical aspects of FoPL policies.<sup>(9, 12, 15, 17, 18)</sup>
6. There is considerable interest in the impact of industrial food processing on health,<sup>(19-21)</sup> and there is increasing evidence of associations between high levels of consumption of ultra-processed foods (UPF) and a range of adverse health impacts.<sup>(20, 22-27)</sup> Processing is starting to be addressed in dietary guidelines and nutrient profiling models.<sup>(28, 29)</sup>
7. FoPL is being bundled together with other critical policies to control diet-related disease, e.g. restrictions on marketing to children, as per some newer and more comprehensive South and Central American regulatory schemes.<sup>(30)</sup>
8. The HSR system is being used to benchmark food and beverage products internationally, potentially supporting efforts to improve product composition. For example, the Access to Nutrition Initiative (ATNI) uses the HSR system to assess the healthiness of global food companies' product portfolios.<sup>(31)</sup>

The initiative aims to challenge industry and influence corporate environmental, social and governance (ESG) practices. Nutrition and related ESG considerations could potentially drive the food industry to increase action and accountability.<sup>(32)</sup> Nestlé, a multinational food company, is also applying the HSR system to benchmark its product range globally, in addition to applying relevant nutrient profiling models/FoPLs for countries in which it operates.<sup>(33)</sup> The HSR could provide a common nutrition benchmarking standard.

## Industry involvement in the Health Star Rating system

9. There is increasing recognition of the need to ensure transparency, rigour, and public scrutiny of government food and nutrition policy, regulation, and norm-setting activities to ensure they are adequately protected from undue commercial influence.<sup>(18, 34, 35)</sup> Industry involvement in design and decision-making can lead to a policy having less public health impact.<sup>(36, 37)</sup> Industry interference in the development and implementation of FoPL policies has been noted by the WHO and others.<sup>(8, 9)</sup>
10. Throughout HSR's development and implementation, there have been concerns about undue commercial influence on the system. The development of the HSR system included food industry representatives in key positions. The HSR Advisory Committee (HSRAC), charged with overseeing the implementation of the system, which includes making decisions and providing input to government bodies on various issues affecting food products, has included food industry representatives since its inception. A Technical Advisory Group (TAG) appointed to assist with a review of the HSR system also included representatives of the food industry in key roles. In each of these instances, industry stakeholders have had considerable influence despite potential commercial conflicts of interest.
11. Furthermore, the development and five-year review of the HSR system were both underpinned by limited, self-selected samples of products provided commercial-in-confidence by food industry stakeholders, limiting the ability to validate the information provided, guarantee representativeness of the food supply, or published detailed results. While input and access to information on individual products was restricted even amongst members of the groups tasked with developing and reviewing the system, a food company representative played a leading role in technical and policy considerations. This may have had significant consequences for the technical basis of the HSR system. In addition, while the nutrient profile model underpinning the HSR system is based on FSANZ's Nutrient Profiling Scoring Criterion model, this was itself derived from the United Kingdom Ofcom nutrient profiling model but modified following industry lobbying and despite concerns raised by government and public health representatives.<sup>(38-40)</sup> There has been acknowledgement that a more comprehensive, transparent, and independent database of products would help with reviewing and monitoring of and confidence in the HSR system,<sup>(41)</sup> as well as the development and evaluation of other relevant policies. However, the current Branded Food Database in development by FSANZ will also rely on data optionally provided by food companies and is being guided by food industry representatives, while companies can choose to keep some or all of the data they provide private.<sup>(42)</sup>
12. Greater transparency and improved efforts to limit commercial conflicts of interest in processes (or, preferably, to eliminate sources of conflicts altogether, as per best practice in public health regulation) are necessary to ensure public health stakeholders' continuing support of the HSR system.

## Development of the Health Star Rating system (2006-2014)

13. In 2009, Australian and New Zealand Food Ministers endorsed a Front of Pack Labelling Policy Statement that noted that a FoPL system can support consumer decision-making, support other relevant health and nutrition strategies, and improve food environments, including through

“improvements to the healthiness of the food supply”.<sup>(43)</sup> In 2011, the Blewett review of food labelling law and policy recommended the development of an interpretive FoPL (Recommendation 50),<sup>(44)</sup> with Food Ministers agreeing to support this recommendation.<sup>(45)</sup> Across 2012-2014, various committees and sub-groups, comprised of government officials and representatives from industry and consumer and public health organisations (including the PHAA), progressed work towards an interpretive FoPL system.

14. In 2014, Food Ministers endorsed the HSR system as a FoPL system, to be implemented voluntarily over 5 years with progress reviewed after two years.<sup>(46)</sup> Food Ministers agreed that HSR could initially remain voluntary subject to ‘consistent and widespread uptake’, and noted that if voluntary implementation was found unsuccessful at two years a mandatory approach would be required.<sup>(46)</sup> No metrics or other clear objectives were set at this time. Prior to formal endorsement and commencement of the HSR system, a HSR website launched by the Commonwealth Department of Health was withdrawn within a matter of hours following intervention by the then-Assistant Minister for Health and her chief-of-staff, who had links to unhealthy food companies.<sup>(47-49)</sup>
15. The HSR system considers both “negative” (energy, saturated fat, total sugars, sodium) and “positive” (protein, fibre, and fruit, vegetable, nut, and legume) components of a food, per 100g/mL. Products receive a rating from 0.5-5.0 stars, with more stars considered healthier on balance. The system aims to provide a relative measure of overall healthiness to allow comparisons between products, and products are assigned to six different categories to facilitate comparisons.

### First five years of implementation (2014-2019)

16. The HSR system was the subject of considerable media attention across the first five years of implementation.<sup>(50-56)</sup> Much of this was negative, in part stemming from misunderstandings of how the system was intended to be used, but also resulting from legitimate concerns about the operation of the algorithm, oversight of the system, and the selective application and “gaming” of the system by industry. Many public health and consumer organisations, including the PHAA, tended to support the system in the media while continuing to voice concerns privately and publicly.
17. Alongside this, a significant body of evidence on the HSR system’s performance was developed, including dozens of peer-reviewed publications and government-commissioned reports. While the majority of this evidence supported HSR continuing, it also highlighted areas where HSR must be strengthened to improve public health impact and gaps in data on critical indicators of success.<sup>(12, 41, 57, 58)</sup> This reflects long-standing concerns with voluntary, spectrum-type and/or nutrient-based FoPL, particularly with regards to the potential for the system to be adopted for marketing (“health washing”) purposes.<sup>(12, 29, 59-62)</sup>
18. During the initial implementation phase, research focussed on:
  - a. Consumer understanding and application of the HSR system, including comparisons to other label types.<sup>(63-69)</sup>
  - b. Assessing the performance of the HSR nutrient profiling model.<sup>(12, 57, 70)</sup>
  - c. Alignment with existing policies and alternative measures of healthiness, including processing.<sup>(59, 71-80)</sup>
  - d. Reformulation in response to implementation of the system.<sup>(81, 82)</sup>

19. The development and implementation of the HSR system also provided important lessons for public health and consumer advocates.<sup>(63, 83)</sup>
20. As of 2019, five years after implementation commenced, HSRs were found to be displayed on only 41% of products.<sup>(84)</sup> Together, retailers Coles, Woolworths and Aldi were responsible for 56% of total uptake, while companies represented by industry groups involved in the development and implementation of the system were less significant contributors to uptake. Products that would receive higher ratings were found to be far more likely to display the system, demonstrating the potential for the HSR system to be adopted by companies more for marketing purposes.

### Five-year review (2017-2019)

21. Between 2017-2019, HSR was subject to a 'Five-year Review' to consider if, and how well, the system was meeting its objectives.<sup>(85)</sup> The Review was conducted by an independent consultancy, who convened multiple rounds of public consultations and private discussions and delivered ten final recommendations in mid-2019.<sup>(41)</sup> Some of these recommendations reflected improvements requested by public health and consumer stakeholders, including PHAA. This included the removal of the energy icon only (non-interpretive) display option, and some limited improvements to the HSR algorithm, including closure of a prominent loophole (the "as prepared" rules), some marginal strengthening of the treatment for sodium and sugar, and the downgrading of scores for high-sugar fruit juices. However, many meaningful updates that could address a lack of consumer and public health confidence in the system and improve public health impact were not adopted, including mandating the system, improvements to governance structures that limit industry influence, stronger penalties for sugar and sodium content, introducing added sugar into the algorithm, and removal or mitigation of other settings that produce anomalous results (e.g. the "protein tipping point").
22. Across 2019-2020, Food Ministers responded to the ten recommendations, supporting each but noting that some remained subject to additional work and/or funding being made available, while some further work was also conducted by government agencies and bodies to support decision-making.<sup>(45, 86-89)</sup> The introduction of changes following the review commenced in November 2020, with a two-year implementation period (to November 2022) plus an additional stock-in-trade provision for long-lasting products (until November 2023) set.
23. Importantly, targets for uptake across the number of stock-keeping units intended to apply the HSR system were agreed by Ministers,<sup>(90)</sup> noting however that there has only been a general commitment to consider the potential to mandate the system if these targets are not met:<sup>(86, 87)</sup>
  - a. Interim target 1 – 50% of intended products by 14 November 2023.
  - b. Interim target 2 – 60% of intended products by 14 November 2024.
  - c. Final target – 70% of intended products by 14 November 2025 (five years after the introduction of updates following the five-year review, 11 years after implementation of the system).
24. The PHAA was an active participant (both individually and in collaboration with other public health and consumer stakeholders) throughout the five-year review.<sup>(91-97)</sup>

## Current situation

25. While the outcomes of the five-year review provided some promising progress, there are still many areas where the review process and recommendations and subsequent implementation of changes do not address the full breadth of concerns raised by public health and consumer groups. Though the PHAA has been, and continues to be, a strong supporter of the HSR system, the PHAA and others must continue advocating for improvements to maximise public health impact and improve confidence in the system.
26. Over 80% of Australian consumers support displaying HSR on all products.<sup>(98)</sup> There are high levels of consumer support for the government to support stricter standards for food labelling, using simple indicators to support consumers to make more informed decisions and improve the food supply.<sup>(99, 100)</sup>
27. There is some evidence that HSR is positively influencing reformulation.<sup>(81, 82)</sup> Industry reformulation in responses to HSR is associated with decreases in consumer purchasing of sodium and protein and a rise in fibre.<sup>(101)</sup> While current reformulation efforts have been marginal, mandatory adoption of the HSR system could lead to further beneficial changes in the nutritional quality of packaged foods.<sup>(98)</sup> Reformulation policies to reduce the amounts of sugar, salt, and saturated fats was supported by 77% of Australians in a recent survey.<sup>(99)</sup>
28. A mandatory approach to the implementation of HSR on eligible products is required to maximise benefits to consumers. Though uptake of HSR labelling steadily increased between 2014 and 2019, between 2019 and 2022 the proportion of eligible products displaying HSRs has stagnated and remains at 41% in Australia.<sup>(84, 102)</sup> Uptake has primarily been amongst healthier products with low uptake on unhealthy products, which limits reformulation and ability to influence consumer behaviour.<sup>(84, 101, 103)</sup> Until such time that the HSR system is mandated, food and beverage companies should be encouraged by governments and shareholders to report on their implementation of HSR overall and by product category.
29. Further development of the HSR nutrient profiling model is needed to resolve current anomalies that see unhealthy products scoring highly, consider how to address growing concerns around novel packaged foods and ultra-processing, and incorporate other developments in nutrient classification systems.<sup>(29)</sup> This includes:
  - a. Ensuring better alignment with dietary guidelines to encourage consumption of healthier whole foods and discourage consumption of ultra-processed products and others high in added sugars, salt and saturated fats.
  - b. Replacing total sugars with added sugars in the algorithm, once there is a requirement to list added sugars in the NIP; the absence of added sugars in the NIP was flagged in the five-year review as a barrier to making this essential change.<sup>(41)</sup> This will improve alignment with national and international dietary recommendations<sup>(71, 104)</sup> and there is strong community support for improving labelling of added sugars on packaged food labels.<sup>(99, 100)</sup>
  - c. Reviewing treatment of positive nutrients in HSR (protein, fibre, and fruit, vegetable, nut, and legume content) to ensure positive points are only awarded in the case of genuine health benefit and to prevent situations where unnecessary or marginal amounts offset negative components and maintain or increase scores.
  - d. Setting progressively stricter thresholds and/or rescaling the relationship between points and ratings to incentivise ongoing reformulation and healthy product development, and to avoid a situation where an increasing number of products would score at the higher end of the rating scale.

30. Strengthening of the HSR system in other ways is also needed to improve its public health impact. This includes:
- a. Improving the graphical display of the HSR system. Evidence suggests that FoPL that use colour are more effective than black and white labels, while simplifying the HSR visual depiction to only display the summary rating improves consumer understanding.<sup>(17, 105, 106)</sup> A HSR graphic minimum size, in mm, should also be considered.
  - b. Considering how the HSR system can better assist consumers in avoiding unhealthy products.<sup>(105, 107)</sup>
  - c. Reviewing and implementing safeguards to protect HSR against commercial conflicts of interest, ensure HSR governance committees have adequate public health representation, and enshrine an overriding commitment to achieving public health benefits.
  - d. Considering the application of HSR system to other settings (e.g. online retail digital labelling and food service menu labelling) and for other purposes (e.g. healthy procurement policies, restrictions on unhealthy food marketing)
  - e. Revising and continuing the HSR education campaign to promote ADG messages and how to use FoPL to improve food literacy, awareness, and understanding, particularly for vulnerable population groups.
  - f. Recommending government monitoring of the HSR system and ensuring that it is rigorous, independent, and transparent.

## Recommended actions

31. Governments must commit to continuing, strengthening, funding, and expanding the use of the HSR system to support public health impact. This should include:
- a. Support for implementation and uptake by both industry and consumers.
  - b. Updates to the HSR algorithm to ensure better alignment with relevant dietary guidelines.
  - c. Changes to the graphical display to improve consumer use and understanding of the labels.
  - d. Making the system mandatory.
  - e. Improvements in governance structures and processes to minimise commercial conflicts of interest.
  - f. Adoption of the system in other retail settings and as the basis of other public health policies.
32. 5-year review cycles, with the explicit aim of maximising public health benefits, should be instituted and conducted rigorously, independently, and transparently. The next review cycle (five years post-introduction of changes following the five-year review) should assess progress against uptake targets, consumer use and understanding, and the implementation of changes made following the 2019 review.
33. Governments should also, as a priority, develop a comprehensive National Food and Nutrition Policy and commit funding to develop, implement, and evaluate actions under the policy. The policy should:
- a. Support a range of comprehensive, multi-sectoral, and evidence-based nutrition policies and programs.<sup>(109)</sup>
  - b. Support relevant actions outlined in the National Preventive Health Strategy (2021-2030) and the National Obesity Strategy (2022-2032).
  - c. Include regular updates to the ADGs, a national food, diet and nutrition monitoring program, a publicly available food composition database, and ongoing consumer education/nutrition literacy campaigns.

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