This is the Author Post-print version of the paper published as follows in Health Promotion International:

Citation: Newman L, Ludford I, Williams C, Herriot M (2014), 'Applying Health in All Policies to Obesity in South Australia', *Health Promotion International*, doi: 10.1093/heapro/dau064

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Abstract

Public policy strategies impact on population health by acting on the effectiveness, availability and distribution of the social determinants of health. Reducing obesity and promoting healthy weight is a key focus of governments, health promoters and researchers and can benefit from a systems approach with 'upstream' policy action beyond the health sector. Although the literature identifies many areas for hypothetical non-health policy action, and in particular relating to food and activity environments, few have identified practical, politically viable and relatively cost-free processes by which non-health sectors would want to commit to such action. This paper details how the Government of South Australia used the Health in All Policies (HiAP) approach in the *SA HiAP Healthy Weight Project*. This mapped the core business and policy directions of 44 state departments against research on 'what works' to address obesity. Negotiations then developed high-level policy commitments to address factors promoting healthy weight which predominantly changed ways of working rather than requiring new expenditure, and also assisted departments in meeting their own goals; departmental chief executives endorsed the commitments. By starting from

departmental documents, and not restricting the project to departments with more 'obvious' obesity prevention potential, we gained commitment to a broader range of policy actions than identified elsewhere; for example for prisons, environment and botanic gardens, housing and vocational education. The *SA HiAP Healthy Weight Project* provides one example of a workable, evidence-based systems approach to increase commitment to practical and politically viable opportunities across government to address the non-health environments supporting healthy weight.

Keywords: obesity, prevention, health in all policies, South Australia

Introduction

Healthy public policy is one of five action areas contained in the Ottawa Charter for Health Promotion and is widely recognised as a key lever in developing healthy individuals and communities (Kickbusch, 2010). Public policy decisions and their subsequent implementation impact on the factors that shape population health by acting directly on the effectiveness, availability and distribution of the social determinants of health (Commission on the Social Determinants of Health, 2008). For example, economic and trade policies influence employment and the availability of goods and services such as food, while urban planning and housing policies shape the nature of neighbourhoods and access to green-space (Marmot 2010). Health promotion action has long worked to positively influence public policy decisions so that they create the conditions that lead to improved population health. The emergence of Health in All Policies (HiAP) in 2006 built on and extended on this tradition.

HiAP is a way of working across government to support and encourage all sectors to consider their policies' health impacts and to work together to improve population health through addressing the social determinants of health (Council of the European Union, 2006). 'Health in All Policies' is official policy of the European Union and is seen as an innovative strategy that goes beyond the previous approaches of 'intersectoral action' and 'healthy public policy' (Kickbusch 2010, p19). HiAP is a network approach to policy making which accepts that different interests exist in the policy arena and considers the importance of building relationships between policy makers to ensure policy outcomes (Kickbusch, 2010). Some of its key characteristics are that it aims for improved population health outcomes and sees 'closing of the health gap' as a shared goal across all parts of government; it addresses complex health challenges (such as obesity) through an integrated and dynamic policy response across portfolio boundaries; and it allows government to address key determinants of health in a more systematic manner (Kickbusch, 2010).

The Government of South Australia (SA) has been implementing a HiAP approach since 2007 and contributed to the development of the *Adelaide Statement on Health in All Policies* (WHO & Government of South Australia, 2010). The SA HiAP initiative is underpinned by central government leadership and accountability. The Department of the Premier and Cabinet works collaboratively with the HiAP Unit (located within the Department for Health & Ageing) to oversee the initiative's development, implementation and evaluation. The SA HiAP initiative is a partnership-based approach which develops evidence-based strategies and policy recommendations that contribute to other sectors' goals and at the same time maximise health gains. A systematic and flexible methodology - the Health Lens Analysis - has been

developed to explore interactions between SA's Strategic Plan (SASP) targets, broader public policy and improved population health outcomes, and to achieve policy action. Since 2008, work has been completed in areas such as migration and regional settlement, digital technologies, water resources, and Indigenous road safety (Kickbusch and Buckett, 2010; Government of South Australia, 2011).

In 2009, South Australia's Healthy Weight target was identified as a priority for HiAP since, despite significant effort (Government of South Australia, 2010), it was deemed unlikely to be met given the size of the obesity epidemic and the challenges of obtaining the required comprehensive policy commitment from non-health sectors using traditional health promotion approaches. Under the umbrella of the state's *Eat Well Be Active Healthy Weight Strategy 2006-2010* (South Australian Department of Health, 2006) there were some examples of cross-sector action, such as introducing school canteen policies through the education sector. However, in developing the next iteration of this strategy (for 2011-2016) the Government's Health Promotion Branch identified that support was needed for more high level strategic policy action by sectors other than health. The SA Department for Health and Ageing has lead responsibility for the SASP target on Healthy Weight: to "increase the proportion of South Australians aged 18 and over with healthy weight by 10% by 2014" (Government of South Australia, 2007). In South Australia, 67% of adults are overweight or obese, two-thirds have low levels of exercise, 93% have inadequate fruit and vegetable consumption, and 25% of children are overweight or obese (Australian Bureau of Statistics, 2012; University of Adelaide, 2010).

The cost of overweight and obesity to health systems and governments in developed countries is well documented (eg Withrow and Alter, 2011). In Australia, estimates were AU$37.7 billion dollars in 2008/09 (Medibank Private, 2010) while in the USA and UK the direct costs of treating obesity are estimated at US$147 billion and £4.2 billion respectively (Finkelstein *et al*., 2009; UK Department of Health, 2011). Finding ways to reduce or prevent further increases in population levels of obesity, or to address major risk factors, are therefore a key focus of health promotion professionals, governments and researchers. A number of works have identified the diet- and physical activity-related determinants of obesity as possible policy intervention areas (Foresight Programme & Department for Business Innovation & Skills, n.d; WHO, 2008; WHO, 2009a; WHO, 2009b). Internationally and in Australia, high level strategies have been developed to address overweight and obesity, including the *Australian National Preventative Health Strategy (Obesity)* (Preventative Health Taskforce, 2009), the *Surgeon General's Vision for a Healthy and Fit Nation* (US Department of Health and Human Services, 2010) and *Healthy Lives Healthy People* (UK Department of Health, 2011). These typically include policies and programs to alter obesogenic environments and provide incentives and opportunities for healthy eating and increased physical activity (Walls *et al*., 2011).

However, as with other issues affecting population health, significant responsibility and opportunity to address overweight and obesity also sit beyond the health sector (Egger and Swinburn, 1997; Lang and Rayner, 2007). Further, we know from other major public health issues such as smoking and road safety that *policy* changes are critical to success and complement community programs and education strategies (eg Warner, 2005). Researchers also suggest that much policy action to change environments and practices to support healthy eating and physical activity in order to reduce obesity and improve health outcomes could be taken in non–health sectors such as primary production, transport, and housing, and in government laws and regulations (Ewing *et al*., 2003; Frank *et al*., 2004; Swinburn, 2008;

Wallinga 2010). It is argued that integrating actions in both health and non-health sectors could greatly increase policy influence and sustainability in terms of addressing obesity (Gortmaker *et al*., 2011).

Sacks, Swinburn and Lawrence (2008) state that "all sectors and levels of government… have multiple opportunities to contribute to reducing obesity", and they propose a framework to map the policy environment and identify gaps, barriers and opportunities. Shill *et al*.'s (2012) consultations with policy makers in Australian state governments identified potential policy action relating to healthy food promotion, such as regulating unhealthy food marketing and limiting fast food outlets via planning regulations. Nevertheless, "policy makers need coherent directions on which they feel they can deliver" (Lang and Rayner, 2007) and **to date there have been few attempts to develop a specific practical process whereby non-health sectors can incorporate the research evidence on obesity into their current policy directions**. There is little evidence about what would encourage non-health sectors to include actions to address obesity into their core business, given that obesity is often perceived to be the health sector's responsibility. Addressing health issues such as obesity requires a policy development process that accounts for the needs of both the health and non-health sectors, and HiAP is one initiative that supports this work.

This paper details the development and implementation of the *SA HiAP Healthy Weight Project* during 2010 and 2011. It explains the process development and results which comprised four stages:

1. Developing the evidence framework for healthy weight policy levers
2. Developing the document analysis process
3. Identifying the policy opportunities in SA government departments
4. Consulting with the departments to develop policy recommendations.

The paper then explains how the team negotiated high level policy commitments to progress obesity prevention opportunities with a range of non-health departments. It took approximately 12 months to complete phases 1 to 4.

Methods

Developing the Evidence Framework

Flinders University led the development of an evidence framework from the research literature on healthy weight causes and pathways in order to identify policy levers that could influence healthy weight. However, as reported elsewhere (e.g. Shapiro, 2009), such evidence is not readily available, despite the enormous demand for scientifically robust evidence about "what works" to reduce obesity. The UK's Foresight Programme (n.d.) has concluded that "there are no proven, national-level precedents for action to reverse obesity", that "determining what is a driver, an influence, a trend or a sub-factor is a difficult process" and that:

> "most of the research we reviewed focused on identifying and defining problems; we found insufficient evidence of effective programmes that have reduced obesity, from which learning might be extrapolated and applied to other situations. Indeed, we were told that these do not exist. Finding (or if necessary creating) practical examples of successful national-level programmes or structures might be a fruitful area of further work" (Foresight, 2007).

Similarly, the World Health Organization (WHO, 2009a; 2009b) has mapped evidence for effective action to address unhealthy diets and physical inactivity, but could not identify many actions beyond social marketing or health campaigns, community-based or workplace/school-based health activities, or health promotion. The WHO review confirms the Foresight's finding that the evidence base is not well developed in identifying *practical* higher level policy actions or structures to address obesity, even though others have *modelled* evidence of potential policy options (see e.g. Gortmaker *et al.* 2011). Nevertheless, while the evidence for intervention effectiveness at policy level is not always available, high energy intake and low physical activity are the main variables influencing healthy weight (Swinburn, Gill and Kumanyika, 2005). In developing the evidence framework for this project, the policy action required to increase healthy weight in the population was therefore defined as actions that can influence diet and physical activity as the two key levers to reduce overweight and obesity (Foresight Programme & Department for Business Innovation & Skills, n.d; Walls *et al.* 2011; WHO, 2008; WHO, 2009a; WHO, 2009b). Figure 1 summarises the simple logic framework document that we developed ready for the consultation phase, in order to be able to show policy makers from non-health sectors the logical flows from causes of obesity to opportunities within their policy areas to address the social determinants of obesity, rather than focusing on individual behaviour change – which is the more commonly perceived response.

The research evidence on "what works" to reduce obesity, or what could make plausible contributions within high level policy, was drawn upon when analysing all policy documents and was not restricted, for example, to looking for opportunities within the most obvious sectors (Gortmaker *et al.* 2011 identify those with the greatest influence as being finance, education, agriculture, transport and urban planning). In the SA project we looked for opportunities to influence food and physical activity environments in all sectors, including less obvious ones such as departments responsible for Housing, Prisons, and the Botanic Gardens.

Developing the Document Analysis Process

The second stage was to identify and map the social determinants of healthy weight onto the policies and core business of non-health departments. Initially it was not clear whether to target this work at Ministerial portfolios, departments, departmental sub-divisions, or trading entities. An exploration of websites and reflection on our previous research (Newman, Baum & Harris 2006), suggested that departments and some sub-divisions were the most appropriate level since most had corporate documents identifying core business, policies, and planned directions (e.g. corporate plans, annual reports). Four departments were examined to test whether links could be made between the research evidence and their core business. This enabled the team to start identifying departments with the most potential to engage in healthy weight action; this excluded areas such as child protection, for example, where corporate documents suggested that it would be inappropriate to approach them about the topic of

obesity due to the urgent nature of their work (e.g. protecting children and families). The next sections explain the practical application and results of the process.

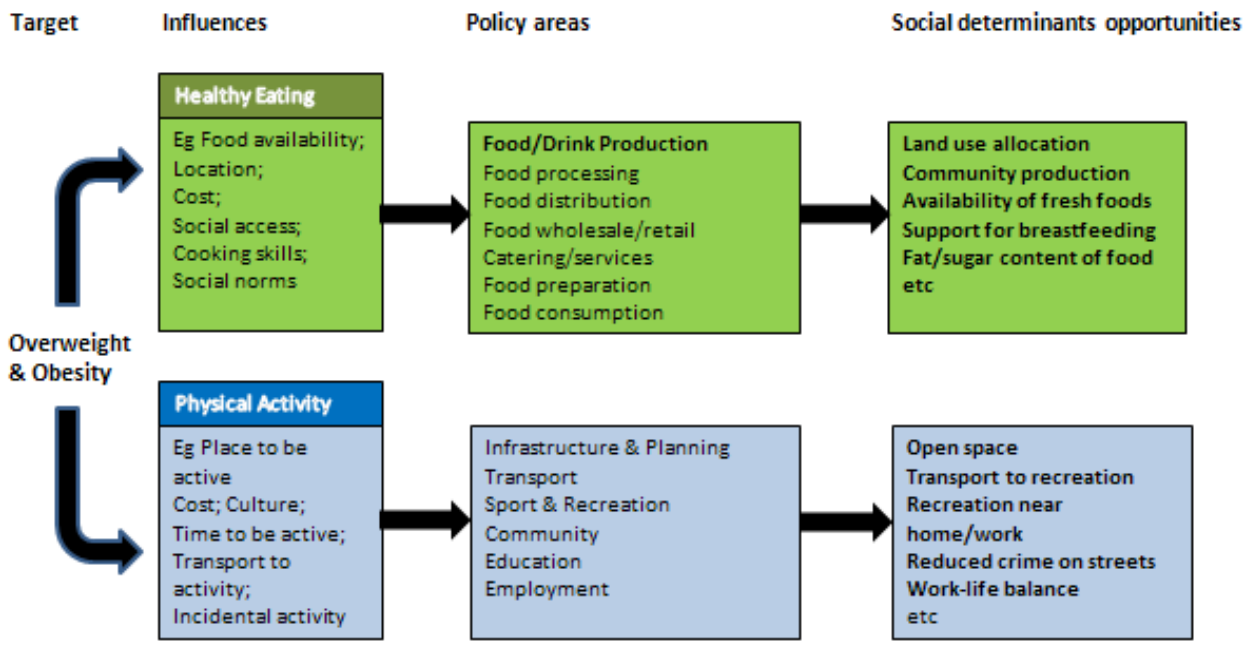

Figure 1
Logic Framework for illustrating policy opportunities to address the social determinants of obesity to policymakers across multiple sectors
Source: compiled by the authors based on Sacks, Swinburn & Lawrence (2008)

RESULTS

Identifying the Policy Opportunities in South Australia

Sacks et al (2008) and Gortmaker *et al.* (2011) identify a range of potential policy opportunities for state governments to address broader determinants of overweight and obesity, which they say governments 'should prioritise'. However, they do not detail a rationale for why non-health departments would have any interest or impetus to address overweight and obesity when these are not their obvious concern and addressing them may not contribute to achieving their strategic goals, and especially if they see overweight and obesity as primarily a health department responsibility. A key component of the SA Healthy Weight Project, therefore, was to articulate a logic pathway from the obesity evidence to non-health policy in order to clearly demonstrate these pathways to non-health departments so that they could see both how taking action on healthy weight could benefit their core business and what practical actions might look like for them. It should also be noted that there was widespread understanding of the significance of the obesity epidemic and the need for urgent action by governments.

Firstly, we identified the current or immediate future policy directions of 44 selected departments and divisions. Information about core business and strategic directions was obtained from public documents (e.g. annual reports, corporate plans). In several cases we identified a significant number of sub-departments/divisions which appeared to warrant individual analysis since the business of each division was significantly different. For example, Housing SA was mapped as one division of the Department for Families & Communities. The Department for Transport Energy & Infrastructure was also separately analysed as four divisions but after the consultation phase these were combined into a single department to develop policy recommendations.

Drawing on our knowledge of program logic, and a health-focused framework developed for the *ActNow BC* initiative (Government of British Columbia, n.d.), we developed an individual document for each department and/or division which identified links between the research evidence for non-health policy action on healthy eating and physical activity, and how this related to that particular department's policy directions and core business. We made key additions to the British Columbia framework to translate the evidence into the South Australian policy context. While the ActNow BC model reported on various ministries' commitments on smoking, nutrition, alcohol and physical activity, it had a stronger focus on programs rather than policies and did not identify core business benefits for non-health departments. We extended the ActNow BC model by adding a summary of core business and policy directions, and how working to address obesity could benefit the department. This identified new policy actions and also recognised existing policy actions which, according to the literature, were already addressing obesity prevention but were not identified as such by the department. Of the 44 departments and divisions reviewed, a detailed analysis was conducted for 19. The 19 were selected based on the range and importance of the policy opportunities identified, their potential to act, and available information on their current activities. Other departments were not pursued due to a range of reasons, most notably a lack of adequate data about their business and goals, and where the connection between the departments' core business and healthy weight policy levers was not as strong. Two key departments were excluded – Education, and Sport & Recreation – since they were already committed to significant levels of collaborative work with the Department for Health and Ageing to reduce obesity.

Using the example of the departmental division Housing SA, the process identified environmentally sustainable design as one driver of core business and highlighted opportunities within this to address healthy weight. This included extending the scope of the *Environmentally Sustainable Design Strategy* to include infrastructure for home food production and gardening (e.g. fitting rain water tanks to properties for public tenants, landscaping home and community gardens for fruit and vegetable growing). Benefits to Housing SA's low socioeconomic consumers were identified as an increased range of affordable food options, and physical activity opportunities through gardening. The most difficult stage of the Healthy Weight Project was identifying benefits ('wins') for the other department - a fundamental principle of the SA HiAP approach. This was challenging because the link between healthy weight (addressing social determinants, food environments or physical activity) and the core business of government agencies was often not clear and required 'lateral thinking' to draw the pathways between the departments' goals with the evidence around policy action for healthy weight. For example, one Housing SA goal was to increase social cohesion and to reduce vandalism and crime in public housing. Therefore, developing community gardens to increase fruit and vegetable production (for reduced reliance on unhealthy food and a more physically active population) was also identified as

holding the potential to increase neighbourly support and contact among the tenant population, which could contribute to the Housing Department's goal of increased social cohesion and reduced crime.

Once the mapping process was complete for the 19 departments and divisions, they were prioritised for the next phase of consultation on the basis of the degree of importance of their policy potential and whether they were already involved in current or previous HiAP projects. For example, since policy related to food marketing to children is identified as one of the three most effective strategies to increase healthy eating (Haby et al 2006; Marmot Review 2010), it was important to consult with the state Office of Consumer and Business Affairs since it has some policy influence in this area (even though much of the relevant legislation is at the national level). While the main focus was on policy changes a department could make to core business, opportunities were also identified to support healthy weight initiatives for departments' own workforces, and the State's public sector workforce as a whole. A separate document was developed with strategies that all departments could implement to support their workers to achieve and/or maintain healthy weight (this is not discussed in this paper).

Consultation with Departments to develop Policy Recommendations

The HiAP Unit led the consultation, negotiation and endorsement of the healthy weight policy recommendations, initially drawing on existing relationships with senior policy makers and using these relationships to access additional decision makers. The Unit undertook face-to-face consultations with 11 of the 19 departments. It took six months to explore the departments' and divisions' ability and willingness to be involved in the HiAP process, and to review and refine (and sometimes augment) the recommended policy actions. The consultation phase allowed accuracy checking of the content and feasibility of proposed recommendations. In several cases, information about the departments' core business required refinement because publicly available documents had not reflected current activities. The consultation phase was critical to determine whether the recommendations were viable within the current political environment. While most issues were easily resolved, some required more extensive negotiation and refinement.

The HiAP Unit supported each department to gain endorsement of their final set of policy recommendations from their Chief Executives. The recommendations were then provided to the Executive Committee of Cabinet (a high level cross-government group responsible for overseeing HiAP) for noting. Policy commitments from 10 departments and divisions were incorporated into the new *Eat Well Be Active Strategy for South Australia 2011-2016* (SA Department of Health, 2011) and examples are shown in Table 1, including for Housing SA.[2] It is particularly important to note that one of the departments identified by Gortmaker *et al.* as being one with the greatest influence to address obesity, was approached during the consultation phase but declined to participate due to concerns over the project's alignment with their core business, potential cost implications and political timing. For confidentiality reasons, we are not able to provide details of potential policy actions which were identified for departments which were not negotiated to the recommendation stage.

Table 1
Healthy weight policy opportunities, research evidence, and example recommendations from the SA HiAP Healthy Weight Project.
Source: compiled by the authors.

POLICY AREAS EXAMPLES (from Sacks, Swinburn & Lawrence, 2009)	**EVIDENCE FROM OUR LITERATURE REVIEW** for policy interventions to reduce obesity	**EXAMPLES OF POLICY RECOMMENDATIONS** from the HiAP Healthy Weight Project incorporated into the South Australian *Eat Well Be Active Strategy 2011-2016* (see SA Department of Health 2011).	**LINKS TO GOALS OF THE DEPARTMENT** identified during the HiAP project
UNDERLYING DETERMINANTS OF HEALTH **Social Affairs** >Community Housing	Groups vulnerable to food insecurity are more likely to consume energy dense, nutrient poor foods (Drewnowski & Darmon 2005a, 2005b). Ensuring an affordable supply of fresh, nutrient rich foods is key to maintaining healthy weight (WHO, 2008). Public housing residents are often people on low incomes and in higher needs groups (Palmer et al 2004), the same groups who are more vulnerable to obesity, physical inactivity and lower fruit and vegetable consumption. In 2009, Housing SA had approximately 50,000 rental properties providing public rental housing to 44,462 households, and 394 Aboriginal customers in social housing.	**Housing SA** Landscaping: Housing SA to develop a strategy that enables landscaping of both front yards and backyards of all new and existing Housing SA properties; landscaping design to aim to support Housing SA tenants to garden, increasing their opportunities for healthy eating eg gardens could include fruit trees and vegetable beds with dripper sprinkler systems in place. Existing tenants with sound gardening skills to support new housing tenants to use landscaped gardens. Housing SA to support the development of tool libraries to aid tenants to explore and undertake healthy eating opportunities eg gardening. *Integrated Design*: New Housing SA strategy to continue to support an integrated design process taking account of health benefits as part of all new significant developments, eg consideration given to placement of house on the block and open space to provide activity opportunities for tenants.	Expands the Department's current focus on Environmentally Sustainable Housing Design, which for example includes installing rainwater tanks on all new properties. Community gardening can contribute to Housing SA's goal of socially connected tenants, which in turn can reduce repair and maintenance costs due to vandalism.
HEALTHY SETTINGS **Government Prisons** > healthy eating > physical activity	Prisoners report that being involved in developing and maintaining prison gardens, and training in cooking, are positive opportunities for developing skills, self-sufficiency, and self-esteem which make them more employable on their return to the community (Jiller 2006). Australian prisoners have limited physical activity opportunities: (AIHW 2010); prisoners in SA want at least	**Department of Correctional Services** Work with SA Health to develop healthy shopping, cooking and eating packages and information sheets for prisoners on pre- and post-release. Implement policies and structures for healthy eating, for example training for kitchen staff, contracts that focus on healthy food distributors, selling healthy foods from the canteen, and making water always available.	Promoting healthy lifestyles and skill development will assist prisoners to be physically and mentally fitter for rehabilitation and community service. Provides new opportunities to achieve the Department's KPIs of increasing 'hours out of cell' for prisoners.

	half of the hours spent out of their cells to be structured activities; providing open space, gardens and recreational activities facilitates this (Smith, 2003).	Tie existing activities (eg market gardening) to horticulture skills and qualifications. Encourage prisoners in physical activity and provide prisoners with active travel to community service activities.	Diversifying activities helps meet KPI to increase the number of prisoners in vocational training.
National Parks	Ensuring an affordable supply of fresh, nutrient rich foods is key to maintaining healthy weight (WHO, 2008).	**Department of Environment & Natural Resources** Botanic Gardens: pursue opportunities to expand the Kitchen Garden program into schools and homes across the state, particularly focusing on disadvantaged communities.	Directly aligns with the Botanic Garden' focus on supporting sustainable horticulture.
FOOD ENVIRONMENTS **Primary production** > subsidies and taxes	Revise agricultural policies; provide technical advice and market incentives for local horticulture, including urban horticulture (WHO, 2008). Obesity could be reduced by subsidising or encouraging farmers to grow more fruit and vegetables (Wallinga, 2010).	**Primary Industries & Regions SA** Audit PIRSA's activities in primary production and agricultural sectors to identify the contribution these make to healthy eating; PIRSA and SA Health could work to identify gaps and opportunities to strengthen the role of these sectors in contributing to healthy eating through, eg upskilling primary producers to respond to changing market demand. **Department of Planning, Transport & Infrastructure .** Food security and increasing access to healthy food: ensure land-use and development plan policies support ongoing local horticulture industries; encourage local food production through provision of space for community gardens during structure planning and development plan policy.	Helps department meet its goals relating to the SA Food Strategy. Can assist Department to achieve goals of supporting competitive industries and developing self-reliant communities.
Food Processing (eg food safety) **Food Distribution (**eg transport)	*No policy recommendations adopted in this project*		
Food Marketing > restrict marketing of unhealthy food >promote healthy food >marketing practices in schools	Regulatory control of food marketing and advertising to children is one of the 3 most effective strategies to address healthy eating (Haby et al 2006; Marmot Review 2010).	**Department of Planning, Transport & Infrastructure** Sponsorship and advertising: With consideration of national recommendations on fast food advertising, review sponsorship/advertising on public transport vehicles and sites of high-fat/salt/sugar foods, drinks and fast food. **Consumer & Business Services (Attorney General's Department)** Prioritise monitoring and investigation of consumer complaints relating to misleading food advertising; explore potential to reduce misleading advertising	Contributes to core business of consumer protection, especially for children.

		and promotion in relation to unhealthy products under Australian consumer law.	
Retail > products sold in schools	Regulatory control of food marketing and advertising to children is one of the 3 most effective strategies to address healthy eating (Haby et al 2006; Marmot Review 2010).	**Dept of Further Education, Employment, Science & Technology - TAFE SA** Provide healthy eating options for tertiary/vocational campuses through healthy food requirement for canteen procurement policy. **Department of Environment & Natural Resources (DENR)** <u>Botanic Gardens:</u> Continue to provide healthy food options at DENR-managed food outlets in national parks.	TAFE supports development of a healthy, sustainable workforce which contributes to increased industry productivity and profitability. Meets aim of continued focus on improving recreation and tourism facilities.
Catering/food services: >Nutrition information in restaurants > Standards for foods served in workplaces		**Dept of Further Education, Employment, Science & Technology – TAFE SA** <u>Courses & training:</u> Integrate healthy eating principles into relevant existing tertiary and vocational courses (eg hospitality courses).	Can support achievement of the Department's goal to contribute to sustainable industries (through training of 80,000 students per year).
PHYSICAL ACTIVITY ENVIRONMENTS **Infrastructure & planning** >urban planning and roads	Transport planning should encourage active travel and other opportunities for physical activity; 10% of transport budget should be allocated to walking and cycling (Marmot Review 2010).	**Department of Planning, Transport & Infrastructure** <u>Designing for physical activity</u>: Design pedestrian- and cycling-friendly streetscapes and off-road routes to connect open space and other key local destinations eg links between infrastructure (e.g. State Aquatic Centre) and active transport. <u>Cross-government support</u> Continue to support policies that facilitate healthy weight outcomes through key cross-government bodies responsible for planning and infrastructure e.g. Government Planning Coordinating Committee and the Integrated Design Commission.	Helps meets target for improved road safety - fewer cyclist fatalities and serious injuries. Planning for more active transport reduces road congestion which helps meet State Plan target of reducing greenhouse gas emissions.
Education > physical education in schools & school facilities	*No policy recommendations adopted in this project – Department for Education already involved in various initiatives in this area.*		
Employment > building design standards	Improved access to recreation activities is effective in increasing physical activity (Swinburn et al 2005).	**Department of Planning, Transport & Infrastructure** <u>Government buildings</u>: Give preference, at lease at renewal or major refurbishment, to government buildings with infrastructure that supports healthy eating and physical activity, eg buildings with active transport access, accessible stairwells, secure	Helps meet State Plan target to improve investment in key economic & social infrastructure.

		bike parking.	
Transport > public transport, parking restrictions, traffic control	Transport planning should encourage active travel and other opportunities for physical activity (Marmot Review 2010).	**Department of Planning, Transport & Infrastructure** Continue incentives to attract new users to the public transport system and increase demand for public transport eg free off-peak travel for Senior Card holders, free tram travel between South and West Terrace and to Adelaide events (e.g. Clipsal 500, after midnight New Year's Eve), and free inter-peak and weekend bicycle travel on trains. **Dept of Further Education, Employment, Science & Technology – TAFE SA** Provide access to, and support for, active transport to/within city and regional campuses e.g. public transport connections, bike racks, internal stairs.	Can contribute to the department achieving the SA State Plan target of increasing weekday use of metro public transport. Meets aims of TAFE Urban Design Charter for safe & accessible facilities.
Sport & Recreation >built structures >open spaces	Improved access to recreation activities is effective in increasing physical activity (Swinburn et al 2005). Access to open space promotes physical activity in low income areas (Marmot Review 2010; Swinburn et al 2005). Community engagement an volunteering linked to better physical and mental health, particularly for older people (Lum & Lightfoot, 2005).	**Housing SA** Landscaping design: to aim to support Housing SA tenants to garden, increasing their opportunities for physical activity. Open Space: Fund: Housing SA could, in partnership with local councils, explore projects that may be able to capitalise on the Open Space Fund. **Department of Environment & Natural Resources (DENR)** Recreation in Parks: Implement the People & Parks Visitor Strategy including projects to encourage all people, particularly the young, to visit parks and participate in physical activity.	Can help meet Department's goal of reduced tenant conflict through providing increased opportunities for communal activity. Can help Department achieve goals of creating healthy environments and a sustainable economy.

Discussion

The *SA HiAP Healthy Weight Project* provides a model to translate research evidence on obesity into practically and politically viable policy actions beyond the health sector. This contrasts with much of the literature where research only identifies potential policy changes that governments should adopt. The Project demonstrated that by aligning the policy recommendations for improved healthy weight in a manner that also clearly and practically supported the policy goals of non-health departments, it was possible to obtain increased commitment for policy change from beyond those agencies traditionally involved in addressing healthy weight. The project detailed in this paper identified a key role for the SA Department for Health and Ageing to lead the development of much of the rationale for non-

health departments to be involved in addressing healthy weight by documenting how their existing policies and practices could be amended or extended, in ways which matched local context and which mainly involved changes to ways of working rather than requiring new funding commitments. The method therefore documents explicitly logically and practically the evidence-base and rationale for each non-health department's involvement in taking action to promote and support healthy weight, and uses this documentation to support the consultation phase.

Secondly, the project demonstrates that even if the health sector does identify potential priorities which 'should' or 'could' be taken in theory to address healthy weight action in non-health policy, there is a need to clearly articulate the benefits for the other sectors and to use negotiation and diplomacy skills to work with a department to translate this into policy recommendations which address healthy weight and the departments' own goals at the same time. The HiAP Unit had over five years' experience with earlier HiAP projects in negotiating with non-health agencies, often about implementing what could be considered 'health' interventions and explaining how they align with the non-health departments' core business using a social determinants framework. Indeed, one strength in achieving non-health acceptance of the HiAP approach in SA was that this approach aims to maximise health gains but only when ways can be found to also enable this to contribute to the other sector's goals (Government of South Australia, 2011). This specialist experience enabled the HiAP Unit to successfully lead this project.

The project demonstrated success in several ways. Firstly, departments commented that the individually tailored policy mapping documents clearly demonstrated to them the logic of how healthy weight evidence was relevant to their core business, and the benefits of them working with the health sector to develop policy in this area. This suggests that the model was more successful in achieving commitment to healthy weight policy development than merely urging the non-health sector to take action. Tailoring documents to each department also showed that the Department for Health and Ageing had made an effort to understand their business and identify links, rather than directing the action. This was critical in addressing potential questions, such as "What's housing got to do with healthy weight?", especially when staff in these areas are unlikely to be engaged with the health promotion or obesity prevention literature. The project also enabled identification of the social determinants of obesity and healthy weight more broadly. In particular, by starting with departmental documents and not restricting the project to departments with more 'obvious' healthy weight potential, we were able to identify and develop a broader range of actual policy commitments for state government than have been identified in theory by other researchers and policy makers (eg Sacks, Swinburn & Lawrence 2009; Shill *et al.* 2012). Table 1 shows examples of policy recommendations that were endorsed for example for prisons, vocational education, environment and botanic gardens, and public housing. The policy commitments for 10 departments were incorporated into the next iteration of the state's *Eat Well Be Active Healthy Weight Strategy (2011-2016)* (SA Department of Health, 2011). This strategy was endorsed by State Cabinet and launched by the most senior executive of one of the participating agencies alongside the Minister for Health, thereby recognising the importance of cross-government collaboration and commitment to take action on overweight and obesity.

Another success was the enhanced capacity of the HiAP Unit to work with other departments. The research-translation literature and our previous experience particularly highlight the need

to develop cross-cultural understanding and mutual respect (Golder *et al.*, 2010; Newman *et al*, 2011). One example is that the project was originally entitled the Healthy Weight Audit, but consultation showed that the term Analysis was a more acceptable term and seen less as the health sector judging the non-health sector. The attempts through the desktop analysis to identify how healthy weight policy action fitted with departments' current policy focus was especially welcomed. Even though we had not always "got it right", departments could see how action could be relevant to them and their own goals, and what actions might look like. Some even identified additional policy opportunities themselves. The project therefore addressed Langley and Dennis' (2011) concern that innovations need to be designed to account for how organisational structures can allow for delivery and how innovations can be adapted to make them more effective and politically feasible. It also demonstrates that providing departments with concrete examples of policy action to address healthy weight that can both address their own corporate goals and help them achieve these goals more easily with health department support, can reduce the limited thinking which arises when only hypothetical policy scenarios are presented (as in Schill *et al.* 2011). Nevertheless, it was not always easy to identify current policy to map evidence onto, and indeed was impossible for some departments. Some had sufficient potential in theory but this could not be linked to their policy directions, and some were simply not interested at the consultation phase or felt able to only take up a limited number of recommendations.

A final critical factor to the project's success was its development and implementation under the HiAP governance structure, which in SA is underpinned by a central government mandate and high level government oversight by the Department of the Premier and Cabinet. This mandate provides an inbuilt impetus for departments to become involved in consultations and added the necessary imprimatur that previous intersectoral efforts on healthy weight had lacked. Having this project led by the health department and supported by the Department of the Premier and Cabinet demonstrates a viable systems approach for governments to lead obesity prevention, as suggested by Gortmaker *et al.* (2011). The governance structure also facilitated ongoing dialogue with departments, whereas some departments' previous experiences with the health sector were seen as a barrier to further engagement due to being too 'focused on health' or being 'health imperialist'. In this project we found this reorientation in focus to be a key element in achieving buy-in and ensuring across-government action, which if not present in other jurisdictions may reduce the breadth and depth of possible engagement. The implementation of commitments is now being monitored by the HiAP Unit.

Finally, the project has some limitations which may reduce its transferability to other contexts. Firstly, health department employees were key players in the project's development and in the negotiations with the non-health departments since, as explained earlier in the paper, HiAP is a policy making process. The use of the HiAP process also meant that there was strong political support from the highest level of government (the Premier and Cabinet) for the HiAP Healthy Weight Project, support which may not always be available or viable in other jurisdictions but which was a crucial part of HiAP in South Australia and which allowed for negotiation with the Chief Executive Officers of non-health departments to sign off on policy commitments within the *Eat Well Be Active Strategy*. The South Australia State Plan (SASP) is also a central mechanism which provided guidance and policy imperative for action to address a key target on reducing overweight and obesity; this Plan has proven important for the success of other cross-government initiatives in South Australia (see eg Baum *et al.* 2010).

Another key influence in the Healthy Weight Project which is not widely discussed in the literature, and which may be a limitation to success in other jurisdictions, is the way in which the integrity and experience of a health policy actor or group of actors may influence the willingness of other departments to enter into negotiations (Newman et al 2011). It is important to note that at the commencement of the Healthy Weight Project, the staff in the SA HiAP Unit already had five years of accumulated expertise in working with non-health departments to achieve policy action on social determinants of health. The academic involved (LN) also had previous experience in researching with policy makers, including on previous HiAP projects (eg Golder *et al.* 2010; Newman & Biedrzycki 2009; Newman et al 2011) and, as Ross *et al.* (2003) suggest, it is likely that having health policy actors working together with a researcher produced a different approach and different outcomes than if either group had been working alone. As identified in our previous work (Newman *et al.* 2011), the policy actors benefited from the different lens through which the researcher viewed the project and the application of research methods, including being able to work through and manage copious amounts of documents in a short timeframe, and the researcher benefited from the contextual insight and personal experience in the policy settings which the policy actors brought. The healthy weight specialists were also essential team members.

One final limitation which may affect transferability of the project, as identified in a previous project (Newman *et al.* 2007), is the concentration of South Australia's population in one major metropolitan area, the state's overall small population size (1.6 million people in 2011) and associated smaller size of government, all of which may have facilitated cross-government and cross-sectoral negotiation. On the other hand, being a state within a Federal system of government means that policy action on obesity prevention was limited to those actions which a state government can address and excluded, for example, reforms to the tax system or the regulation of television advertising to children. Nevertheless, we believe that the project has demonstrated a practical and politically viable mechanism through which governments can take a systems approach to obesity prevention and that the process could be scaled up or transferred to other jurisdictions if it can be appropriately adapted to the social, cultural, economic and political context.

Conclusion

A wealth of evidence points to the need to take action to reduce population levels of obesity, or at least stem its rate of increase. There is also increasing evidence that if this is to be achieved then we need to address the broader determinants of health which lie outside the health sector. There is an identified need to take a systems approach to action in higher-level policy which can achieve change across the population and address the environments within which obesity is created, rather than focusing only on initiatives and programs addressing individual behaviour. The SA HiAP approach has provided an opportunity to develop a method where the academic research evidence on obesity can be used to identify policy levers across government, and can be linked to practical and politically viable opportunities within the current and near-term planned policy directions of non-health government departments, and at the same time assist the non-health department to meet its own goals and for the most part require little or no new funding. Furthermore, the engagement process demonstrated that non-health departments can be willing and able to take up the healthy weight agenda if their role is clearly articulated to them, if the benefits for them are clearly identified, and if the policy recommendations are practically and politically viable. We conclude, therefore, that governments can develop a systems approach to obesity prevention,

that this can be led by a health department with support from central government, and that adopting and promoting a sensitive partnership approach such as HiAP can play a key role in achieving policy commitments to preventing obesity and promoting healthy weight beyond the health sector.

Endnote:

1. For SASP reporting purposes, healthy weight is defined as the proportion of the population with a BMI in the 'normal' range: 18.5-24.9, and overweight as BMI 25-29.9, and obesity as BMI 30+. Since this project was completed, a new edition of the SA Strategic Plan has been released, with the target revised as: "to increase the proportion of South Australian adults and children at a healthy body weight by 5 percentage points by 2017" (Target 82).

2. We negotiated with and received endorsement from 10 departments/divisions. However due to a departmental restructure during the HiAP process, this ended up as 9 departments and divisions in the EWBAS strategy.

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