

Personal health promotion interventions using telephone and web-based technologies

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Health and Ambulance Services Committee

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Abbreviations and Definitions

AIHW	Australian Institute of Health and Welfare
Committee	Health and Ambulance Services Committee
Department	Department of Health
GHS	Get Healthy Information and Coaching Service
HHS	Hospital and Health Service
HSM	Hello Sunday Morning
NSW Get Healthy Report	means the report published by the NSW Ministry of Health, The NSW Get Healthy Information and Coaching Service: The first five years 2009-2013
NHPA	National Health Priority Areas
NPAPH	National Partnership Agreement on Preventative Health
NHMRC	National Health and Medical Research Council
Oral Briefing	means the oral briefing (dated 28 April 2015) provided by Dr Bill Kingswell, Department of Health, at the public briefing on Wednesday, 6 May 2015.
Public Briefing	means the public briefing with the Department of Health held by the Committee on Wednesday, 6 May 2015.
Public Hearing	means the public hearing with stakeholders, held by the Committee on Wednesday, 20 May 2015.
QUT	Queensland University of Technology
QALY	Quality Adjusted Life Year
RCT	Randomised control trial
UPP	Upselling Prevention Pilot
WHO	World Health Organisation

Chair's foreword

This Report presents a summary of the Health and Ambulance Services Committee's inquiry into personal health promotion interventions using telephone and web-based technologies.

According to *'The Health of Queenslanders 2014'* report of the Chief Health Officer Queensland, Queenslanders enjoy one of the longest life expectancies in the world, and our health continues to improve. However, while Queenslanders are living longer we are not always living longer in good health, with chronic disease, most notably type 2 diabetes, cancer and cardiovascular disease causing approximately 80% of deaths, hospitalisations and allocated expenditure in Queensland in 2012.

Evidence shows that increasing physical activity, reducing weight, and improving nutrition reduces an individual's risk of developing chronic disease and improves quality of life and wellbeing.

Health promotion presents an opportunity to positively influence the health behaviour of individuals and communities and in so doing enhance quality of life and reduce premature deaths from chronic disease in Queensland. By strengthening the skills, knowledge and capabilities of individuals and communities, the costs of medical treatment and intervention, both human and financial, can be decreased.

Promoting healthy lifestyles improves the health and wellbeing of the population.

The Committee received a wealth of information during the inquiry process and I take this opportunity on behalf of the Committee, to thank those individuals and organisations who lodged written submissions and appeared before the Committee at the public hearing.

The Committee found that there is evidence that personal health promotion interventions using telephone and web based technologies can deliver clinically appropriate and cost effective outcomes. Also, that effective health promotion requires a multi-strategic approach, must be evidence based and can be strengthened by collaboration with stakeholders, clinicians, primary health networks and the private sector.

I would like to thank my fellow Committee Members for their contributions, the Committee's Secretariat, and the Department of Health for their assistance.

I commend this report to the House.



Leanne Linard MP

Chair

1. Introduction

1.1 Role of the Committee

The Health and Ambulance Services Committee (the Committee) is a portfolio committee of the Queensland Legislative Assembly which commenced on 27 March 2015 under the *Parliament of Queensland Act 2001* and the Standing Rules and Orders of the Legislative Assembly.¹

The Committee is responsible for examining legislation, considering public accounts and public works matters (within its portfolio areas) and considering and reporting on matters referred to it by the Legislative Assembly. The portfolio areas for which the committee is responsible are health and ambulance services. The committee also has responsibility for monitoring and reviewing the health service complaints management system.

Under section 92 of the *Parliament of Queensland Act 2001*,² portfolio committees are also responsible for dealing with issues referred by the Assembly.

1.2 Terms of reference

On 27 March 2015, the Legislative Assembly referred an inquiry into Personal Health Promotion Interventions Using Telephone and Web-based Technologies to the Committee for consideration.

The Terms of Reference for the inquiry were:

1. *That the Health and Ambulance Services Committee inquire into and report on personal health promotion interventions using telephone and web-based technologies.*
2. *That, in undertaking this inquiry, the committee should consider:*
 - *evidence for the effectiveness and cost effectiveness of health coaching interventions to:*
 - *increase physical activity;*
 - *improve nutrition; and*
 - *reduce weight*
 - *current personal health promotion interventions in Queensland, their scope, resourcing and evaluation;*
 - *experience in other jurisdictions in developing, implementing and evaluating relevant health promotion interventions, and*
 - *potential opportunities for collaboration and cooperation between government agencies, research institutions, community organisations and the business sector to promote health and well-being through innovative use of information and communication technologies.*
3. *Further, that the committee report to the Legislative Assembly by 12 June 2015*

1.3 Inquiry process

The Committee announced its inquiry on 2 April 2015 by advertising the inquiry Terms of Reference on its website and by writing to stakeholders and subscribers to inform them of the inquiry and invite written submissions.

¹ *Parliament of Queensland Act 2001*, section 88 and *Standing Rules and Orders of the Legislative Assembly* (Amended 27 March 2015), Standing Order 194.

² Available at: <http://www.legislation.qld.gov.au/LEGISLTN/CURRENT/P/ParliaQA01.pdf>

The Committee also wrote to the Department of Health (the Department) on 2 April 2015 to request a written overview of any current government initiatives or work being undertaken in the area of personal health promotion interventions using telephone and web-based technologies.

Twenty three submissions were received from stakeholders, which are published on the Committee's webpage. A list of submitters appears at Appendix A to this report.

The Committee also received initial written advice from the Department on 16 April 2015, and further written advices on 19 and 29 May 2015, in response to specific questions asked by Committee members. Correspondence from the Department is referred to throughout the report and is available in full on the Committee's webpage.

The Committee received a Public Briefing from the Department on 6 May 2015, the transcript of which is available in full on the Committee's webpage. A Public Hearing was also held on 20 May 2015, where the Committee took further evidence from invited witnesses. The transcript of the hearing is also available on the Committee's webpage.

1.4 Summary of findings

As set out in the Chair's Foreword, this report contains a summary of the Committee's inquiry into the matters contained in the Terms of Reference. In the time available, it was not possible to include a reference to all material considered throughout the inquiry, as there is a wealth of information and growing body of evidence about telephone and web-based personal health promotion interventions.

This report is intended to provide some guidance to the Parliament and hopefully cement a path that can be followed in the ongoing application and use of personal health promotion interventions using telephone and web-based technologies.

The recommendations appearing at part 1.5 are based on the following findings of the Committee:

1. There is evidence that personal health promotion interventions using telephone and web based technologies can deliver clinically appropriate and cost effective outcomes.
2. Effective health promotion requires a multi-strategic approach, which includes public policy and legislation, sector development, social marketing, personal skills development, risk assessment, early intervention and counselling and health surveillance and research.
3. Personal health promotion interventions should be subject to ongoing evaluation to determine and improve efficacy.
4. Investment in and development of personal health promotion interventions must:
 - a. be evidence based; and
 - b. occur in conjunction with all relevant stakeholders, including appropriately skilled clinicians, particularly where interventions are focused on those already diagnosed with a chronic disease or condition.
5. Primary Health Care Networks have established networks, which can be leveraged to ensure the engagement of an appropriately skilled clinical workforce in the delivery of personal health promotion interventions.
6. Universities have significant experience in this area, particularly in relation to:
 - a. the development and evaluation of mobile phone and web based personal health promotion intervention apps; and
 - b. the conduct of systematic reviews to determine what works and doesn't work, and to identify where gaps exist.

7. There is a need for the development of standards and implementation of a certification regime for personal health promotion interventions using telephone and web based technologies.

1.5 Recommendations

The Committee makes the following recommendations:

Recommendation 1

The Committee recommends the Minister for Health and Minister for Ambulance Services develops a strategy for use of personal health promotion interventions using telephone and web-based technologies that considers:

- health promotion and social marketing and how to effect behaviour change;
- the differences between the delivery of telemedicine and personal health promotion interventions;
- how to identify target populations, particularly those at risk;
- how to identify areas of duplication and unmet needs; and
- how personal health promotion interventions fit into the greater health promotion strategy and maps how current activities are integrated into those broader strategies.

Recommendation 2

The Committee recommends the Queensland Government ensure that investment in, or endorsement and use of, any personal health promotion interventions using telephone or web-based technologies does not occur unless:

- there is a sufficient evidence base for the effectiveness of the intervention;
- rigorous evaluation has taken place, or if not, there is sufficient time and resources allocated for evaluation; and
- there is clinician support for the intervention, particularly where the intervention has application to people already diagnosed with a chronic disease or condition.

Recommendation 3

The Committee recommends the Queensland Government consider funding independent research into areas where the evidence base for personal health promotion interventions using telephone and web-based technologies is non-existent or poor, including but not limited to:

- the long term cost effectiveness of personal health promotion interventions using telephone and web-based technologies;
- the effectiveness of personal health promotion interventions using telephone and web-based technologies in indigenous populations; and
- quantifying the effects of behaviour change.

Recommendation 4

The Committee recommends the Minister for Health and Minister for Ambulance Services investigate options to:

- Draft and promote standards or guidelines for personal health promotion interventions using telephone and web-based technologies, that consider:

- the role of health professionals in the development, implementation, monitoring and assessment;
 - quality control, including processes to ensure programs are targeted correctly (eg, programs aimed at ‘walking well’ should not be offered to people with underlying health conditions); and
 - consumer protection.
- Develop and market a certification or endorsement scheme for personal health promotion interventions using telephone and web-based technologies, similar to the Heart Foundation Tick.
- Determine arrangements to administer the certification or endorsement scheme for personal health promotion interventions using telephone and web-based technologies.

Recommendation 5

The Committee recommends the Minister for Health and Minister for Ambulance Services raise the issue of certification and setting of standards with the Australian Government and other States and Territories through the COAG Health Council (CHC) with the aim of establishing uniform national standards.

Recommendation 6

The Committee recommends the Minister for Health and Minister for Ambulance Services investigate options to encourage partnerships for the development and delivery of personal health promotion interventions between the Queensland Government and:

- the private sector – with both commercial and not-for-profit organisations;
- universities and other research institutions; and
- primary health care networks and general practitioners.

Recommendation 7

The Committee recommends the Minister for Health and Minister for Ambulance Services consider funding the Get Healthy Information and Coaching Service (GHS) in Queensland beyond 30 June 2015. In extending the funding period for the GHS, the Committee recommends consideration be given to:

- Providing targeted funding to market the GHS;
- Providing targeted funding to evaluate the GHS. This should include, but not be limited to, an evaluation of the long term cost effectiveness of the GHS and an evaluation of behaviour change over time to determine whether, and to what degree, people maintain healthy lifestyle behaviours beyond their participation in the GHS; and
- Identifying ways to integrate the GHS with other health promotion campaigns and initiatives, including partnerships across workplace health promotion programs and preventative screening programs.

2. Health promotion generally

2.1 Health, health promotion, and health promotion interventions

The key terms in understanding the Terms of Reference are health, health promotion and health promotion interventions.

The World Health Organisation (WHO) defines health as a state of complete physical, mental and social well-being, not merely the absence of disease or infirmity³ and describes health promotion as:

*...the process of enabling people to increase control over, and to improve, their health. It moves beyond a focus on individual behaviour towards a wide range of social and environmental interventions...*⁴

While the WHO definition of health is widely accepted, the definition of health promotion is often expanded to include the development and adoption of lifestyle habits or behaviours, at an individual and community level, in order to maintain and enhance health and well-being.⁵ Health promotion, and its evolving relationship with social marketing, is discussed in more detail later in this Chapter.

The term 'health promotion intervention' is less frequently defined. Dr Holly Blake of the Faculty of Medicine and Health Sciences at the University of Nottingham described it as:

*...an intentional activity that comes between persons or events for the specific purpose of modifying some health-related outcome, act or knowledge base.*⁶

Adding the term 'personal' to 'health promotion intervention' reinforces the aim that the intervention must be focused or tailored towards the needs or wants of an individual and not just be health promotion material or information made generally available to someone seeking to improve their health or well-being.

2.2 Who is responsible for health promotion?

Australian governments have chosen to focus on nine National Health Priority Areas (NHPAs) because they contribute significantly to the burden of illness and injury in the Australian community. The NHPAs are cancer control, cardiovascular health, injury prevention and control, mental health, diabetes mellitus, asthma, arthritis and musculoskeletal conditions, obesity and dementia. The Australian Institute of Health and Welfare (AIHW) regularly publishes information on the NHPAs and their associated indicators and risk factors.⁷

2.2.1 National Partnership Agreement on Preventative Health

In December 2008 and January 2009 the Australian and state and territory governments signed a National Partnership Agreement on Preventative Health (NPAPH) to address the rising prevalence of lifestyle related chronic disease by:

laying the foundations for healthy behaviours in the daily lives of Australians through social marketing efforts and the national roll out of programs supporting healthy lifestyles; and

³ Preamble to the Constitution of the World Health Organization as adopted by the International Health Conference, New York, 19-22 June, 1946, accessed at <http://who.int/about/definition/en/print.html>

⁴ http://www.who.int/topics/health_promotion/en/

⁵ Dr Holly Blake, Chapter 1, *Using Technology in Health Promotion Interventions*, 2008, Faculty of Medicine & Health Sciences, School of Nursing, University of Nottingham (Blake 2008)

⁶ Blake 2008, Chapter 1

⁷ <http://www.aihw.gov.au/national-health-priority-areas/>

*supporting these programs and the subsequent evolution of policy with the enabling infrastructure for evidence-based policy design and coordinated implementation.*⁸

The NPAPH provided funding to state and territory government initiatives that support healthy behaviours and address the rising prevalence of lifestyle related chronic diseases, and committed the Australian Government to establishing a national agency to guide and support preventative health activities.⁹ The NPAPH was varied in 2012, to extend it to 2018.¹⁰

In 2014, the Australian Government terminated the NPAPH, closed the Australian National Preventive Health Agency (the Agency) and transferred its essential functions to the Federal Department of Health. Programs run by the Agency were to be '*... integrated with the Departments own work on addressing tobacco, obesity and harmful use of alcohol, in line with current Australian Government priorities.*'¹¹

2.2.2 Queensland

In Queensland, responsibility for health prevention and promotion is shared between the Queensland Department of Health (the Department) and the Hospital and Health Services (HHSs). The Department is responsible for:

- managing Queensland's public health system, including leading policy development;
- managing state wide planning;
- purchasing health services; and
- monitoring service performance.

The Department purchases services from the 16 independent HHSs and other organisations.

The HHSs are responsible for providing health services. Service delivery is monitored through individual service agreements which identify the health services to be provided, funding arrangements and performance indicators and targets.

Current service agreements between the Department and HHSs for 1 July 2013 to 30 June 2016 require each HHS to:

- *maintain delivery of risk factor prevention and early intervention programs and services targeting nutrition, physical activity, alcohol consumption and tobacco use; overweight and obesity and falls prevention*
- *promote brief interventions, lifestyle modification programs and other prevention, promotion or early intervention services.*¹²

The approach taken by the Department for health promotion is outlined at part 2.3.

2.2.3 State wide health promotion

The Queensland Government is supportive of the establishment of a state-wide Health Promotion Service, to build both whole-of-system and local capacity. The Committee understands this service will promote health and well-being, ensuring and expanding the range of early detection and early

⁸ Council of Australian Governments, National Partnership Agreement on Preventative Health, page 3

⁹ Amanda Biggs, Budget Review 2014-15 Index, accessed at http://www.aph.gov.au/About_Parliament/Parliamentary_Departments/Parliamentary_Library/pubs/rp/BudgetReview201415/HealthFunding

¹⁰ Council of Australian Governments, National Partnership Agreement on Preventative Health, page 3

¹¹ <http://www.anpha.gov.au/internet/anpha/publishing.nsf/Content/news-20120514>

¹² Queensland Government, *Metro North HHS Service Agreement 2013/14 – 2015/16 May 2014*, page 26

intervention services across all areas of developmental, physical and mental health and across all ages of the lifespan, through educational and clinical programs for effective, on-going management and continuity of care.

Committee comment

The Committee supports the proposed statewide health promotion service and notes it will partner with local shop-front services for providing primary health care where people live, work and shop, to promote better health and well-being.¹³

If established, the Committee sees a role for such a service with the implementation of recommendations made by Committee in relation to telephone or web-based health promotion interventions. The Committee considers any strategy developed for the health promotion service must aim to be long term and give appropriate consideration to personal health promotion interventions using telephone and web-based technologies.

2.3 Why are health promotion interventions being used?

There is a vast body of literature on the changing nature of health in our society. People are becoming less healthy generally. Physical activity levels are decreasing, high calorie diets are increasing and stress levels are rising as a result of modern lifestyle choices.

The health system is struggling to keep pace with this change. The economic burden of ill-health is growing as non-communicable diseases like obesity and diabetes, heart disease, stroke, respiratory conditions and some cancers approach epidemic status. Consequently, the focus of public health is shifting from the treatment of disease to the prevention of ill-health and the promotion of good health. Today's public health challenge is to prevent a range of chronic conditions by promoting behaviours which support good health.¹⁴

Health promotion therefore tackles the broader determinants of health, to encourage the health and well-being of populations in a sustainable way. It requires individuals to accept responsibility for their own health and make better, healthier choices.¹⁵ The Australian Health Promotion Association (Queensland) submitted:

*Health promotion is defined as the process of enabling people to increase control over their health and its determinants, and thereby improve their health. An individual's health is not only determined by their behaviours but also the circumstances and the environment in which they live.*¹⁶

Evolution of Health Promotion

Health promotion has evolved globally over the past quarter of a century, under the influence of various position papers, declarations and charters, most of which have been published by the WHO.

In 1978, the Declaration of Alma Ata was adopted at the International Conference on Primary Health Care. The declaration expresses the need for urgent action by all governments, health and development workers, and the world community to protect and promote the health of all the people of the world.¹⁷

¹³ Queensland Labor, Queensland Labor – 2014 State Policy Platform, page 49, accessed at http://www.queenslandlabor.org/wp-content/uploads/2014QldPolicyPlatform_web.pdf

¹⁴ Blake 2008, Chapter 1

¹⁵ Blake 2008, Chapter 1

¹⁶ Submission No. 11, page 1

¹⁷ http://www.who.int/publications/almaata_declaration_en.pdf

Almost a decade later the WHO published the Ottawa Charter for Health Promotion (1986), which emphasised the importance of health promotion as a process for enabling people to increase control over, and to improve their own health. The Charter outlined five key action areas for effective health promotion –

- building healthy public policy;
- creating supportive environments;
- developing personal skills;
- reorienting health services; and
- strengthening community action.¹⁸

The Ottawa Charter was followed by the Jakarta Declaration (1997), in which the WHO set out five priority actions for health promotion into the 21st century –

- promoting social responsibility for health;
- increasing investment for health development;
- consolidating and expanding partnerships for health;
- increasing community capacity and empowering the individual; and
- securing an infrastructure for health promotion.¹⁹

General Approach in Queensland

The Queensland Branch of the Australian Health Promotion Association (AHPA Queensland) referred to the multi-strategic approach espoused by the Ottawa Charter in its submission, concluding that health promotion interventions which incorporate these factors “... have a strong history of producing favourable, cost-effective behaviour change at a primary and secondary prevention level”.²⁰ At the Public Hearing, AHPA Queensland submitted:

*Effective health promotion is not social marketing nor is it the delivery of health education or health communication. Instead, it is the collaboration of all of these and the five action areas of the Ottawa Charter.*²¹

The Committee was pleased to hear during the inquiry that the approach taken by the Department of Health is consistent with the Ottawa Charter, i.e. a multi-strategy approach to health promotion, which includes public policy and legislation, sector development, social marketing, personal skills development, risk assessment, early intervention and counselling and health surveillance and research.²²

The Department also advised that helping people to improve and control their health (health promotion) can be facilitated “... through a combination of interventions that enhance awareness, increase motivation, build skills and, most importantly, create environments that make positive health practices the easiest choice”.²³

¹⁸ <http://www.who.int/healthpromotion/conferences/previous/ottawa/en/>

¹⁹ <http://www.who.int/healthpromotion/conferences/previous/jakarta/declaration/en/index1.html>

²⁰ Submission No. 11, page 1

²¹ Transcript, Public Hearing, page 16

²² Oral Briefing, page 3

²³ Oral Briefing, pages 2 to 3

For the purposes of the inquiry, the Department described two main types of health promotion interventions which it uses:

- Interventions which focus on those already diagnosed with a chronic disease or condition. These interventions help people self-manage disease. They aim to reduce the burden of disease, on both the individual and the health system, require a tailored approach and are usually clinician-led.
- Interventions which focus on those 'towards the wellness end of the continuum'. These interventions target people who are well, where the intent is to keep them healthy, and people who are at higher risk of developing a chronic disease, where the intent is to help them avoid progression to disease. They focus on modifying an individual's risk factors through positive behaviour change (see part 2.4.2 for further information).²⁴

At the Public Hearing, the Department outlined for the Committee that in addition to having a multi-strategy approach to health promotion, it also recognised that health promotion goes beyond just the Department of Health, but incorporates cross agency interaction as well. Ms Pulsford advised:

...there is a whole range of other activities that the department pursues with agencies—for example the education department, where we work with them around their guide to tuckshops around red, green and amber foods.

*...we have also done work with the Department of Justice and Attorney-General in terms of workplace initiatives. People, as they said this morning, spend an awful lot of time in the workplace. So outside of the personal health promotion topic that you are looking at, there is a very broad range of activity that the government, together with other government agencies, is pursuing. It just does not fall into the focus of your inquiry.*²⁵

The Heart Foundation also provided evidence that a coordinated multi-strategy approach has been proven to reap dividends:

*Success over the last thirty years in tobacco control shows that a comprehensive, sustained, funded and coordinated effort can change behaviour. Through social marketing, Quitline coaching services, legislation (restrictions on smoking in public, advertising & promotional bans, etc), taxation, education and litigation, smoking rates have been reduced to an all-time low. A similar comprehensive approach to obesity, physical activity and nutrition will pay dividends.*²⁶

2.4 How are health promotion interventions used?

The Committee considered how personal health promotion interventions work and the ways in which health promotion can be achieved generally.

2.4.1 Social Marketing

Health promotion campaigns began applying social marketing in the 1980s. Early Australian campaigns include the Victoria Cancer Council anti-tobacco campaign *Quit* and the SunSmart campaign against skin cancer, with the *Slip! Slop! Slap!* slogan.²⁷

In responding to the Terms of Reference, submitters brought to the attention of the Committee, the different ways in which health promotion interventions are used. Researchers from QUT submitted

²⁴ Oral Briefing, pages 3 to 4

²⁵ Transcript, Public Briefing, page 7

²⁶ Submission No. 16, page 3

²⁷ http://en.wikipedia.org/wiki/Social_marketing

there was general confusion about the terms 'social marketing' and 'health promotion' and that they are separate approaches which should not be used interchangeably:

Social marketing is the science and practice of behaviour change and involves goods and services that offer a value proposition, and which incentivises citizens to change their behaviour voluntarily. However, social marketing is often mistakenly used to describe advertising and communication or social media marketing.²⁸

The submission stated social marketing is proven to effect behavioural change and is more effective than health promotion on its own and that the Queensland Government '*...must be innovative in their approach to personal health as previous efforts using traditional approaches have not succeeded.*'²⁹

This was supported by the Australian Association of Social Marketing which stated research has shown that health promotion alone is often ineffective (providing information and educating people alone does not work) and that social marketing '*...offers a more effective approach to health interventions than health promotion.*'³⁰

The Association concluded that telephone and web based personal health interventions which aim to change behaviour should be done within a social marketing approach and that these interventions will not work in isolation as targeting individuals only works when there are supporting services, infrastructure, policies, social culture, social norms and systems. The Association believed a multi-faceted approach which uses social marketing principles is required.³¹

The Department drew similar conclusions. While it acknowledged that personal health promotion strategies can improve health literacy and empowerment, thereby assisting people to increase control over their health and make healthier lifestyle choices, it stated:

...they are not sufficient on their own to improve health and wellbeing in a sustainable way. In fact, any single intervention is likely to have only a small overall impact in improving health at the population level.³²

The Heart Foundation also referred to QUT's submission on social marketing and reiterated that social marketing, education (health promotion) and law/ policy 'typically work together' to bring about social change, particularly when the change issue is complex, like obesity. The Foundation also encouraged the Committee to consider the outcomes of a 2010 House of Lords changing health behaviour inquiry which recommended:

[the UK] government needs to be braver about mixing and matching policy measures, using both incentives [such as telephone and web-based interventions] and disincentives to bring about change. They must also get much better at evaluating the measures they put in place.³³

Further, social marketing seeks to develop and integrate marketing concepts with other approaches to influence behaviour in a way that benefits individuals and communities for the greater social good. The Australian Association of Social Marketing stated:

Marketing practice is guided by ethical principles. It seeks to integrate research, best practice, theory, audience and partnership insight, to inform the delivery of competition sensitive and

²⁸ Submission No. 10, page 5

²⁹ Submission No. 10, page 4

³⁰ Submission No.18, page 3

³¹ Submission No.18, page 3

³² Oral Briefing, page 4

³³ Submission No. 16, page 2

*segmented social change programmes that are effective, efficient, equitable and sustainable.*³⁴

The QUT Research Team considered the distinction between social marketing and health promotion *'was critical when considering the use of telephone and web-based technologies for improvements in personal health as they deliver different outcomes'*.³⁵ The differences were explained as follows:

*...health promotion aims to educate, inform and raise awareness of a health issue, social marketing aims to change behaviours using commercial marketing techniques such as segmentation, consumer insight and marketing strategies.*³⁶

Segmentation

The Department introduced the concept of segmentation at the public hearing, describing it as a means of ensuring personal health promotion interventions can be tailored to different needs. Segmentation involves:

*... considering alternative ways by which people can be grouped, in particular how different people are responding to an issue, what moves and motivates them, what they say will help them and what will not.*³⁷

The Department stated greater segmentation of 'at-risk' target groups should be included in future personal health promotion interventions. Market research, consumer insight and epidemiological data all have a role to play in this process, by identifying and understanding the needs of specific segments.³⁸

2.4.2 Behaviour change

As described above, behaviour change is a central objective of many health promotion campaigns and personal health promotion interventions as a significant number of chronic health conditions are caused by risk behaviours, such as excessive alcohol consumption, over eating, substance abuse and smoking.³⁹

The Department advised that behaviour change theories *'... are based on the premise that change is a process that an individual moves through'* and that a readiness to change model is generally used in personal health promotion interventions.⁴⁰

Behaviour change models commonly include the following six stages:

1. Pre-contemplative or unaware: People are not interested in change. They can't see the need for it and have no intention of doing anything differently. Current behaviour is defended and information and discussion is avoided.
2. Contemplative: People start to think about the issue. They recognize there is a problem and that they can do something about it. Information, options and strategies are sought.
3. Preparing: People realize how serious their situation is and decide on or commit to change. Information is gathered and plans are made.

³⁴ <http://www.aasm.org.au/about-us/>

³⁵ Submission No. 10, page 5

³⁶ Submission No. 10, page 5

³⁷ Oral Briefing, page 5

³⁸ Oral Briefing, page 5

³⁹ [http://en.wikipedia.org/wiki/Behavior_change_\(public_health\)](http://en.wikipedia.org/wiki/Behavior_change_(public_health))

⁴⁰ Oral Briefing, pages 4 to 5

4. Action/ trying: People make a real and overt change. They seek help and support to maintain the change as the chance of relapse or temptation is high. Short-term rewards to sustain motivation are common.
5. Maintaining: People work to consolidate the change. They view their former behaviour as undesirable and put coping strategies in place to prevent relapse and temptation.
6. Termination / advocacy/ transcendence: People consider that going back to old behaviours would be odd. They may advocate change with neighbours, family and the general public.⁴¹

Different interventions are appropriate at different stages as an individual's '*...level of awareness of the health issue, acceptance of personal relevance of their level of risk and the need for change, will differ at each stage, as will their level of self-efficacy and motivation to change*'.⁴²

The Department emphasised that personal health promotion interventions should be based around, and, respond to the needs and wants of the individual, rather than the individual having to fit around the needs of the service or intervention.⁴³

The Department also stated the more at-risk an individual is, the more intensive, tailored, and costly the intervention tends to be.⁴⁴

Committee comment

It is accepted there is no single approach to health promotion that will work over and above any other, and that a multi-faceted approach to health promotion is required. Government needs to take a leadership role in health promotion and must work in partnership with all stakeholders.

While the role of Government is explored further later in this report, the Committee considers that any approach that is adopted should continue to be based on the principles of the Ottawa Charter.

Further, social marketing, health promotion, policy, and law must work together so there is a coordinated approach to providing health promotion interventions with appropriate regard to the emerging technologies available.

⁴¹ Health Promotion Unit, Queensland Health, Stages of behaviour change; Queensland Stay on Your Feet Community Good Practice Toolkit, 2007, accessed at <http://www.health.qld.gov.au/stayonyourfeet/documents/33331.pdf>

⁴² Oral Briefing, page 6

⁴³ Oral Briefing, pages 4 to 5

⁴⁴ Oral Briefing, page 6

3. Technology and health promotion

The Committee examined the role of technology in health promotion and prevention, with a particular focus on telephone and web-based applications as set by the Terms of Reference. In this chapter, the Committee identified the advantages and limitations of these technologies, and the areas in which they are most commonly used.

3.1 Emerging health technologies

Technology plays an important role in the prevention, diagnosis and treatment of disease and is becoming increasingly prominent in health promotion, where it is used as an intervention medium to distribute health information and initiate behaviour change.

The internet, including email and web-based programs, and mobile phones are the most common technology platforms for health promotion interventions. They are used in various health settings to assess and target participants' willingness to change, to set and monitor goals, to provide education and to motivate, incentivise and support participants.

Interventions may provide general advice or incorporate individually tailored programmes and may be partially or fully automated. They also vary in their level of interactivity. Generally, the more interactive the intervention, the more likely participants are to engage and comply.⁴⁵

Advantages and limitations

Technological interventions have a number of advantages over other delivery modalities when it comes to health promotion. These include:

- Health promotion strategies can be wide ranging and include materials in a variety of styles that appeal to different participants.⁴⁶
- Participants can choose a time and place convenient to them to engage with materials and work through them at their own pace, in an anonymous setting, often at a lower cost.⁴⁷
- Technologies are widely accessible and rapidly becoming the normal mode of communication for many aspects of life, particularly among young people.⁴⁸
- Technologies provide opportunities to overcome physical access issues and personal barriers, including embarrassment, fear, judgment or low self-efficacy.⁴⁹

Conversely, there are also a number of limitations with using technology to deliver health promotion interventions, notably:

- A socioeconomic 'digital divide'.
- Inaccurate and/ or conflicting information.
- The risk of security breaches when relaying information by phone or over the internet.

⁴⁵ Blake 2008, page 3

⁴⁶ Blake 2008, page 48

⁴⁷ Blake 2008, page 48 and Oral Briefing, page 6

⁴⁸ Blake 2008, page 48

⁴⁹ Oral Briefing, page 6

Specifically to Queensland, it was submitted there are also practical barriers given the geographical size of the state and the spread of the population. An example was provided by the Department at the Public Hearing:

...there is a particular program that was targeted at the Indigenous community, the Hitnet program, which Queensland Health invested in in the early days, in about 2003, to put kiosks in prisons, health clinics and some schools that had specific content on, really, everything from personal injury through to sexual health, mental health and so on. It specifically targeted young Indigenous people. Of course, getting them into those communities and—they are computers, if you like, fixed to the floor in clinics and prisons and so needed the bandwidth for them to operate effectively. There are those sorts of barriers—getting to people.⁵⁰

Similarly, Diabetes Queensland referred to sections of the community, including people in regional areas and from culturally and linguistically diverse backgrounds, which cannot be adequately catered for using a purely web-based approach.

Given Queensland's population distribution and communications capabilities in regional areas, web-based technology should not be exclusively used as this could exclude people in need of the services. Additionally, age and comfort with technology should be considered.

Another group who may face challenges in web-based delivery are people from Culturally and Linguistically Diverse backgrounds. These communities are more likely to face challenges with regard to language and literacy and a web or telephone based approach may not meet cultural learning and behaviour change needs.⁵¹

The advantages and limitations of delivering health promotion interventions by particular technologies, specifically internet, email and mobile phone, are summarized in the table below.

	Advantages	Limitations
Internet/ web-based programs	<p>Access to and use of the internet is growing rapidly.</p> <p>The public is increasingly using the internet to access health information. For example, a 2014 Nielsen report shows that 69% of Australians have searched online for health or medical related content in the past 12 months.⁵²</p> <p>The internet allows for interactive health promotion strategies.</p>	<p>There are risks of security breaches.</p> <p>Information can be inaccurate and it is difficult for users to make a distinction between conflicting information.</p> <p>Providers can limit access to materials.</p> <p>There is a rapid and uneven spread of ICT, giving rise to a socioeconomic 'digital divide' between developed and developing countries.</p>
Email delivered interventions	<p>Email can reach large numbers of individuals at a relatively low cost.</p> <p>Contact can be made quickly.</p> <p>Surveys to evaluate health promotion programs can be distributed and</p>	<p>Survey response rates, which were high in the past, are dropping.</p> <p>Distribution of health messages on a large scale is not necessarily the best way to obtain a high or maintained response rate from individuals.</p>

⁵⁰ Transcript, Public Briefing, page 6

⁵¹ Submission No. 13, page 5

⁵² Oral Briefing, page 6

	<p>completed easily and survey data can be gathered quickly.</p> <p>There is potential for data collected via email to be automatically analysed with computer software, reducing the cost.</p>	<p>Email is an increasingly popular method of communication. 'Junk' mail is increasing and messages run the risk of being deleted, missed or not being delivered.</p>
Mobile phone technology	<p>Mobile use is widespread and growing faster than fixed telephones in developing and developed countries.</p> <p>Mobile technology is used in telemedicine, wireless monitoring of health outcomes in disease management and the delivery of health interventions.</p> <p>The digital divide is arguably less and a lower level of skill is required compared to email and the internet.</p> <p>Mobiles are commonly used in younger age groups - health promotion or intervention using mobiles may be more effective in these groups.</p>	<p>Mobiles are more expensive to access than fixed line phones and cost more to transmit data by voice.</p> <p>Text messages are limited to a set number of characters and there are risks of security breaches.</p>

3.2 Areas of health in which technology is used

Technology is most commonly used in personal health interventions targeting physical activity, diet or weight loss, smoking, substance use and alcohol, psychological aspects of health and sexual health.⁵³

During the inquiry the Committee considered whether Queensland Health's telehealth network might have a role to play in personal health promotion intervention.

The issue was raised by the Australian Medical Association (Queensland) who stated telehealth in Queensland has been an area '*of heavy investment for some time.*' The Association included examples of telehealth services which have improved patient outcomes and provided cost-savings to the system in its submission, stating:

*These success stories illustrate the gains that can be made from the appropriate use of telehealth services to enhance the care that patients can receive locally and give access to more highly specialised care.*⁵⁴

Their submission also referred to the inquiry undertaken by the Committee's predecessor committee (the Health and Community Services Committee of the 54th Parliament) which found that telehealth equipment was only being used on average twice a week, for a total per month average of 8.9 hours.⁵⁵ The Association considered this evidence showed the use of telehealth could be expanded.⁵⁶

⁵³ Blake 2008, page 7

⁵⁴ Submission No. 4, page 2

⁵⁵ Inquiry into telehealth Services In Queensland, Report No. 55, Health and Community Services Committee, September 2014, page 56

⁵⁶ Submission No. 4, pages 2 to 3

The Committee sought further information from the Department on the usage of the telehealth system and its potential for delivering health promotion interventions.

The Department advised:

Videoconferencing is not a widely accepted modality to support personal health promotion interventions in Queensland Health. The telehealth network in Queensland health is predominantly used to link providers and health consumers who are located at healthcare facilities. It is technically feasible to link consumers to the video network from external sites such as their homes, however demand for and efficacy of health promotion interventions delivered in this way would need to be explored further to understand any benefits that may be derived.⁵⁷

Committee Comment

As health promotion and social marketing have evolved over time, it appears reasonable to conclude that technology (as it has also evolved) should be used to its full potential, in health promotion activities and health promotion interventions.

Although barriers and limitations exist, the ever growing use of technology, and its potential to reach the population at low cost, must not be ignored. Governments and stakeholders in the health industry must all consider the best way in which to harness technological advances to maximise the benefits available in delivering health promotion interventions.

With 69 per cent of Australians searching the internet for health or medical related content in the past 12 months and 14 per cent searching weekly or more,⁵⁸ appropriate recognition of technology and its use in health promotion interventions must be included as part of a broader strategy at a whole-of-government level.

Recommendation

The Committee recommends the Minister for Health and Minister for Ambulance Services develops a strategy for use of personal health promotion interventions using telephone and web-based technologies that considers:

- health promotion and social marketing and how to effect behaviour change;
- the differences between the delivery of telemedicine and personal health promotion interventions;
- how to identify target populations, particularly those at risk;
- how to identify areas of duplication and unmet needs; and
- how personal health promotion interventions fit into the greater health promotion strategy and map how current activities are integrated into those broader strategies.

⁵⁷ Correspondence from the Department of Health, 29 May 2015, page 1

⁵⁸ Transcript, Public Briefing, page 9

4. Current health promotion interventions

In accordance with the terms of reference the Committee considered the current personal health promotion interventions operating in Queensland and also in other jurisdictions.

A selection of interventions currently operating in Queensland is set out in the table below.

4.1 Interventions operating in Queensland

Obesity: Healthier. Happier.
<p>'Healthier. Happier.' is the Queensland obesity campaign. The hub of the campaign is a website which includes information and advice about nutrition and physical activity and practical tools and support such as recipes and exercise videos.⁵⁹</p> <p>A key component of the campaign is the <i>Health & Fitness Age Calculator</i> which '<i>... aims to get people to stop and think about what they did in the last week and perform an honest evaluation of their weight, diet and physical activity levels.</i>'⁶⁰ Participants can access the calculator on the website, and answer questions about their lifestyle, nutrition and physical activity habits. The calculator provides participants with a Health and Fitness Age, as well as tips on how to improve their result.</p> <p>A <i>Health & Fitness Age Challenge app</i> which provides tips, tricks and a personal motivator to help users stay on track and monitor their progress throughout the initial four week challenge period and beyond is also available on iTunes and Android.⁶¹</p>
The COACH Program
<p>The COACH Program is '<i>... a structured telephone and mail-out delivered coaching program for people with chronic disease or at high risk of chronic disease in which trained health professionals ("coaches") coach people to achieve national guideline recommended target levels for their particular risk factors.</i>'⁶²</p> <p>The program was established in 1995, is free, operates in all public health systems in Australia and is delivered from a variety of settings, including hospitals, community centres, specialised call centres and state health department offices.⁶³</p> <p>Patients receive an average of five coaching sessions over six months. Coaches work with patients to develop a plan of action that modifies the patient's risk factors and improves their lifestyle. Targets are set and progress is regularly monitored by the coach.⁶⁴</p> <p>In Queensland, the program is used to help individuals with coronary heart disease, pre-diabetes, type 2 diabetes and chronic obstructive pulmonary disease (emphysema or chronic bronchitis).⁶⁵</p> <p>The COACH Program is the world's first cardiovascular disease management program that has been successful in significantly reducing coronary risk factor levels without involving dieticians or nurses in prescribing medication directly to patients.⁶⁶</p>

⁵⁹ <http://healthier.qld.gov.au>

⁶⁰ Correspondence from the Department of Health, 16 April 2015

⁶¹ Correspondence from the Department of Health, 16 April 2015

⁶² <http://www.thecoachprogram.com/telemedicine/>

⁶³ <http://www.thecoachprogram.com/government-bodies/>

⁶⁴ <http://www.thecoachprogram.com/how-does-it-work/>

⁶⁵ Correspondence from the Department of Health, 16 April 2015

⁶⁶ Submission No. 2, pages 1 to 2

Upselling Prevention Pilot

The Upselling Prevention Pilot (UPP) commenced on 2 February 2015. The program utilises the access points of 13 HEALTH and 13 QUIT to proactively ask customers about their well-being, with the intent of activating the community ‘...to ensure Queensland has the lowest incidence of preventable disease in Australia.’⁶⁷ It provides opportunistic health promotion by linking in-bound callers with other health promotion programs.⁶⁸

The program targets four risk factor groups which contribute significantly to preventable disease.

- Dietary factors and physical inactivity – UPP will offer 400 clients aged 20 to 40 years brief interventions through the Get Healthy Information and Coaching Service or the Healthier. Happier website.
- Tobacco smoking – UPP will offer 400 smokers options regarding smoking cessation.
- High blood pressure and cholesterol – UPP will discuss options for measuring and monitoring blood pressure and cholesterol levels with 400 eligible men and women aged 40 and over.
- Breast and cervical cancer screening - UPP will discuss the importance of cancer screening and services which can offer more information and provide screening test with 400 eligible women.⁶⁹

The UPP recruited 1,199 participants in the first two months of operation and is currently being evaluated by the QUT.⁷⁰

Positive Impact Program

Positive Impact is a free telephone coaching service for members of the Greater Metro South Brisbane Medicare Local (GMSBML) community who have a body mass index (BMI) of more than 27kg/m² and a desire to regain their health by making lifestyle changes. GPs may refer patients after reviewing blood tests and assessing physical measurements including weight, height, waist circumference and blood pressure.

Participants receive tailored advice over the telephone from a qualified dietitian who guides them through a 6 or 12 month program and a range of supporting tools, including a manual containing information about nutrition, exercise and emotional support, a pedometer, a tape measure, a resistance band and a snack bible. Patient progress is tracked by GPS at follow-up assessment and review visits.

The program can be extended through the ‘Positive Plus’ community program where patients contribute towards collective goals like reductions to waist measurements, weight and increased steps.

The program has culturally specific resources for Pacific Islander and Aboriginal and Torres Strait Islander populations and tertiary-qualified health coaches who are trained in providing culturally appropriate guidance.⁷¹

The program has received 2,995 referrals over a 2 year period.

Outcomes

⁶⁷ Correspondence from the Department of Health, 16 April 2015

⁶⁸ Correspondence from the Department of Health, 19 May 2015

⁶⁹ Correspondence from the Department of Health, 16 April 2015

⁷⁰ Correspondence from the Department of Health, 19 May 2015

⁷¹ <http://gmsbml.org.au/programs-and-services/healthy-lifestyles/positive-impact/>

Participants have shown an average weight loss of 4.7kg and an average decrease in waist size of 5.9cm. Physical activity levels have improved but are still below the national target. Fruit consumption has increased and is at the national target.⁷²

Ms Sherron Maddon from the GMSBML advised the Committee during the public hearing of a longer term evaluation of the program by QUT, which should be available in September 2015.⁷³

The Committee also received evidence both in written submissions and at the Public Hearing on the MobileMums program developed at the QUT.

4.2 Case Study: MobileMums

4.2.1 Background

The MobileMums program is an evidence-based, theory guided text message intervention that assists people to increase their physical activity. The program was developed by a team of seven researchers at the QUT, in consultation with Queensland Health practitioners and consumers, over a seven year period.⁷⁴

4.2.2 Description

MobileMums is a 12 week program which involves an initial face to face consultation with a behavioural counsellor, where a personal activity goal is set, data for personalising and tailoring subsequent text-messages is collected and a MobileMums support person identified. This is followed by four to five personally tailored text messages each week via a custom designed automated software program.⁷⁵

Associate Professor Jenny Marshall, of the QUT research team, provided the following description during the Public Hearing:

The program is initiated by a behavioural counselling session whereby a lot of the things that are barriers for the women or the person to being physically active are discussed. So we rank those and we look at those and we come up with solutions for those, and that is what is embedded within the text messages then to remind them of the things that they thought would work for them at the time.

The consultation with the women following the program said, 'It was really great to get the message. Sometimes I could not read it at the time I received it, but I went back and looked at it again later and it reminded me that there is the park just down the road that I can go and push the pram around or the local swimming pool and stuff like that.'⁷⁶

4.2.3 Evaluation

In 2013, the National Health and Medical Research Council (NHMRC) funded a randomised control trial on the efficacy and cost effectiveness of the MobileMums program. The trial reported the program was:

- feasible to deliver and acceptable to users;

⁷² Correspondence from the Department of Health, 19 May 2015

⁷³ Transcript, Public Hearing, page 9

⁷⁴ Submission No. 3, page 1 and Transcript, Public Hearing, page 21

⁷⁵ Submission No. 3, page 2

⁷⁶ Transcript, Public Hearing, page 22

- effective in increasing physical activity, with an average improvement of 48.5 minutes per week; and
- cost effective, with an implementation cost of \$31 per person.

The trial concluded MobileMums provides “...better ‘bang for buck’ than many other interventions currently provided.”⁷⁷

During the public hearing Associate Professor Marshall described the MobileMums program as being capable of increasing physical activity by 20 per cent in a cost-effective way.⁷⁸ In describing how the program operates, Professor Marshall stated:

*We have created the next generation of telephone-delivered health promotion intervention. It provides a personally tailored physical activity behaviour change program in such a way that it looks and feels like a personalised interaction, but you do not actually need a person there to deliver it. The intervention is primarily delivered by automated mobile telephone text messaging.*⁷⁹

Professor Marshall asserted the MobileMums program ‘ticked all the boxes’ for an effective program:

It communicates with people the way they want. It applies the best evidence we have. It is based on extensive user testing and has been shown time and again to produce the changes in physical activity that we need. Plus it delivers all of this in an automated program that can be supplied en masse with very little ongoing maintenance costs.

*What you have before you today is a program that is ready for mass dissemination, a program ready to achieve the improvements in behaviours that we know are necessary to improve the health of our communities.*⁸⁰

Associate Professor Marshall stated almost everyone has a mobile phone and that we should exploit the reach of the mobile and harness the benefits of text messaging.⁸¹ She noted that text messages are effective interventions for health behaviour change – with a recent meta-analysis, including data from 35 studies targeting a variety of health behaviours including nutrition and weight management, demonstrating that text message interventions work to change behaviour.⁸²

The QUT research team stated ‘... the potential for further developing and integrating MobileMums within Queensland Health systems and other virtual operations is vast’ and is keen to see the program adopted and evaluated state wide.⁸³

Committee Comment

The Committee notes there is a range of existing personal health promotion interventions currently in use throughout Queensland which have been proven to make a difference in the health and wellbeing of Queenslanders.

In particular the MobileMums program developed by the QUT research team has shown with the right approach, there is potential for significant outcomes to be achieved.

⁷⁷ Submission No. 3, page 2

⁷⁸ Transcript, Public Hearing, page 21

⁷⁹ Transcript, Public Hearing, page 21

⁸⁰ Transcript, Public Hearing, page 21

⁸¹ Transcript, Public Hearing, page 21

⁸² Transcript, Public Hearing, page 21

⁸³ Submission No.3

The Committee notes that with appropriate time allocated in design of the program, extensive consultation with health practitioners and consumers, and ongoing examination of the efficacy and cost effectiveness of the program – verified outcomes have been achieved in the recent NHMRC funded randomised control trial.

There may be more programs like MobileMums that are ready for broader dissemination. The Committee considers it would be appropriate for the Government to examine options to provide assistance with the broader dissemination of programs such as these, particularly given:

- the inclusion of a behavioural change element in the initial phase of the program;
- the automated, low maintenance nature of the text messaging component of the program;
- the increasing prevalence and mass reach of mobile phones; and
- the average (cost effective) implementation cost being at \$31 per person.

4.3 Interstate health promotion interventions

The Committee also considered a range of interventions operating interstate. Selected health promotion interventions appear below.

Be the Influence – Tackling Binge Drinking
<p>The 'Be the Influence – Tackling Binge Drinking' initiative is part of the Australian Government's National Binge Drinking Strategy. The initiative focuses on connecting with young people to encourage a more responsible attitude towards alcohol consumption and to provide them with tools to challenge the acceptability of binge drinking in their peer groups.</p> <p>Be the Influence engages with young people through activities they are passionate about and in environments where the intention to drink may be high.⁸⁴ The initiative:</p> <ul style="list-style-type: none"> • has a significant presence at music festivals where a large yellow inflatable tent (the Re-charge and Refresh Zone) is erected to provide a place for young people to refresh in a safe, alcohol-free environment.⁸⁵ • sponsors 16 national sporting organisations to reduce young people's exposure to alcohol imagery and branding and links between alcohol and sporting activities where young people are involved. Promotional activities at sporting events allow young Australians to meet sports ambassadors, who encourage them to make their own decisions and stand up for what they believe in.⁸⁶ • uses social media (Facebook, Twitter, Instagram and YouTube) to extend the reach of activities and provide information about the harms and cost of binge drinking, as well as information to help young people challenge the acceptability of binge drinking. • engages with parents, stakeholders and the wider community through traditional public relations activities, to begin conversations about the acceptability of the Australian drinking culture and the costs to society.⁸⁷ <p>The initiative's webpage provides contact details for drug and alcohol information services and parenting helplines in each state and territory and tips to help people raise their concerns with a</p>

⁸⁴ <http://anpha.gov.au/internet/anpha/publishing.nsf/Content/bti-tbd-home>

⁸⁵ <http://anpha.gov.au/internet/anpha/publishing.nsf/Content/bti-tbd-home>

⁸⁶ <http://www.tacklingbingedrink.gov.au/internet/tackling/publishing.nsf/content/what-is-the-CSF>

⁸⁷ <http://anpha.gov.au/internet/anpha/publishing.nsf/Content/bti-tbd-home>

friend or family member whose drinking concerns. It also includes links to various programs and apps, including:

- the Right Mix app, which helps users keep track of the number and types of drinks consumed, how much it has cost and the impact it has had on their wellbeing and fitness levels
- the SayWhen webpage, which provides information and resources to help users make decisions about their drinking
- Hello Sunday Morning, a free online program that helps people take a break from drinking and improve their relationship with alcohol.⁸⁸

Hello Sunday Morning (HSM)

HSM is a blogging website that encourages people to undertake a period of sobriety and reflect on the role alcohol plays in their life. It has a Facebook, twitter and Instagram footprint, as well as an iPhone app, and uses high profile ambassadors to promote a “Don’t let the Day Get away” message.

‘HSMers’ write blog posts, make videos and take pictures of their experiences as part of their participation. They commit to a period of time (generally 3 months) without alcohol, set goals to achieve during the period and use the blog to write, read and reflect on their journey.

HSM states over 30,500 people have signed up to go three months or more without alcohol, and blog about their journey on HSM, since it commenced in 2010. It claims the average HSMer saves \$1200 over the 12 week period, which each HSMer’s story has a positive impact on the drinking culture of 10 people around them and that 63% of HSMers fully achieve their HSM goals, with another 33% achieving some of their goals.

HSM is a partnership between Government, Philanthropy and Business and has an international focus, with community Facebook groups in Australia, New Zealand, Ireland, the United Kingdom, Canada and the United States.⁸⁹

Evaluation

An evaluation of HSM, for the period January 2009 to August 2011, was released in June 2012. The evaluation focused on an analysis of HSM blog posts for 1,768 people, to examine what HSMers blogged about, their motivations, goals and challenges, and how their alcohol consumption and expectancies changed throughout their HSM experience. The evaluation found that HSMers changed from being very self-focused, considering their own drinking and the views of peers, to reflecting on the role of alcohol in their lives, to finally taking a broader view of the role of alcohol in society and ways to help and support others in their personal HSM experiences.⁹⁰

Professor Marcus Foth from the QUT referred to this ‘community based initiative’ during the public hearing, where he advised the Committee that this initiative has been very successful in helping people to reduce binge drinking and enjoy a Sunday morning again.⁹¹

⁸⁸ <http://www.tacklingbingedrinkng.gov.au/internet/tackling/publishing.nsf/content/help>

⁸⁹ <https://www.hellosundaymorning.org/pages/what-is-HSM>

⁹⁰ Dr Nicholas Carah, University of Queensland, and Mr Ben Hamley, Hello Sunday Morning, *One Sunday at a time: Evaluating Hello Sunday Morning*, June 2012, accessed at <https://www.dropbox.com/s/arabdx56x5sr1o/One%20Sunday%20at%20a%20time.pdf>

⁹¹ Transcript, Public Hearing, page 5

Healthdirect

Healthdirect Australia delivers a range of telephone and web based health services, through contracted service providers. All services are wholly or jointly funded by federal, state and territory governments.

Helpline

The Healthdirect Helpline is staffed by registered nurses and available 24 hours a day, 7 days a week. Staff provide advice on how to manage your condition at home or connect you to an emergency service or after-hours GP helpline for further medical advice. The helpline is available nationwide. Victorian and Queensland callers are automatically transferred to their respective nurse triage services, which they can also call direct (Queenslanders can call 13 HEALTH (13 43 25 84); Victorians can call NURSE-ON-CALL on 1300 606 024).

Website

The Healthdirect website⁹² contains useful tools and information, including a Symptom Checker to help users understand their symptoms and provide guidance on the appropriate healthcare action, and a National Services Directory (NHSD), which provides information about health services. The website also includes information on and links to the following healthcare apps:

- *The National Drugs Campaign app*, which provides information on illicit drugs and services for youth and parents.
- *The NHSD app*, which provides information such as location and opening hours for GPs, Pharmacies, Emergency Departments and Hospitals straight to the users mobile.
- *The National Public Toilet Map*, which provides information such as location, opening hours, availability of baby change rooms and accessibility for people with disabilities for more than 14,000 public and private public toilet facilities across Australia.
- *On Track with The Right Mix*, which helps users keep track of their drinking to understand the impact it has on their health, in both the short and long term. The app calculates a wellbeing score based on a theoretical blood alcohol concentration.
- *The OzHealth app*, a condensed version of the 13th biennial health report of the AIHW, which allows users to compile a list of their favourite facts for future reference. It also contains a glossary and a quiz to test knowledge.
- *The Pelvic Floor First app*, which allows people of all fitness levels and pelvic floor function to undertake pelvic floor safe workouts. It also teaches users how to exercise their pelvic floor muscles to maintain or improve bladder control.
- *My QuitBuddy*, which helps users get and stay smoke free. It tracks their quitting progress, such as days smoke-free, cigarettes avoided and dollars saved, and provides motivation and support from thousands of other people quitting through with the community board.
- *Quit for You - Quit for Two*, which helps pregnant women to give up smoking. The app takes users minds off the cravings and distracts them when they feel the urge to light up. It can be personalised to provide daily reminders and words of encouragement.
- *Save the Date* is part of NSW Health's immunisation awareness campaign. It makes it easier for parents to ensure their children are fully immunised on time by calculating calculates the next

⁹² <http://www.healthdirect.gov.au/>

immunisation due date and sending a series of reminders to prompt the parent to call their GP to schedule an appointment for each immunisation.

- *The Talking Sane app* helps users manage the day-to-day challenges of living with an anxiety disorder and provides techniques to complement medical therapy. It uses video and quizzes to test progress, and sends daily tips direct to the user's iPhone or iPad.

With the exception of the Talking Sane app, all apps on the Healthdirect website are free and can be downloaded from the Apple Store. Some apps are also available on the Google Store. The Talking Sane app costs \$2.99 and can be downloaded from the Talking Anxiety - Apple Store.⁹³

E-Hub self-help programs for mental health and well being

The e-hub is an initiative of the National Institute for Mental Health Research at the Australian National University. Program developers and researchers, who are recognised experts in mental health and web service delivery research, have developed and evaluated five online self-help services, which can be accessed anonymously and free of charge, 24 hours a day, anywhere in the world.

All services are funded by the Australian Government and include national help line numbers⁹⁴ for people needing immediate help, as well as a link to the befriends website, which lists help lines for other parts of the world.⁹⁵

- *The Bluepages* provides information on treatments for depression based on the latest scientific evidence, as well as symptom quizzes, screening tests for depression, relaxation downloads and links to other resources.⁹⁶
- *Moodgym* is an interactive program for preventing and coping with depression that teaches self-help skills drawn from cognitive behaviour therapy. Users can complete the program in a number of languages.⁹⁷
- *E-couch* provides self-help programs for depression, general anxiety and social anxiety using strategies drawn from cognitive behavioural and interpersonal therapies, relaxation, and physical activity. Programs for separation and divorce, and loss and bereavement are also available.⁹⁸
- *Blueboard* is an online support group for people over the age of 18 years affected by depression, bipolar disorder, anxiety disorders and borderline personality disorder. Blueboard provides discussion space for consumers and carers and is moderated by consumers.⁹⁹
- *Beacon* provides consumer and research reviews and rankings of online e-health programs for mental and physical health disorders.¹⁰⁰

⁹³ <http://www.healthdirect.gov.au>

⁹⁴ Lifeline; Kids Helpline; Salvo Careline

⁹⁵ <http://www.ehub.anu.edu.au/assist/about/>

⁹⁶ <http://www.bluepages.anu.edu.au>

⁹⁷ <http://www.moodgym.anu.edu.au>

⁹⁸ <http://www.ecouch.anu.edu.au>

⁹⁹ <http://www.blueboard.anu.edu.au>

¹⁰⁰ <http://www.beacon.anu.edu.au>

Your Move

Your Move is an active lifestyle program that helps people find simple ways to get active and connected. It provides information and tailored support to encourage participants to get active. Participants sign up via the Your Move website. They receive an introductory call during which consultants customise and arrange the delivery of a welcome pack, which includes pocket maps showing footpaths, bike ways and bus routes through their suburb, a sport and recreation directory and a fridge planner to set goals and track progress. Ongoing support is provided through follow up phone calls and email reminders. Participants also receive membership to the My Hub dashboard where they can track their progress, connect with people in their area, download apps and win prizes in weekly challenges.¹⁰¹

Your Move is jointly funded by the West Australian Departments of Transport and Sport and Recreation. The program targets selected local government areas across the metropolitan area. The program aims to reduce car trips, alleviate local traffic congestion, increase public transport patronage, increase physical activity and improve the health and wellbeing of targeted communities. Your Move is currently being delivered in the city of Wanneroo from April to December 2015, having been rolled out in the City of Cockburn in 2013-14. The program is delivered with the assistance of the Public Transport Authority, HBF, the Heart Foundation, North Metropolitan Health Service, Nature Play WA and Diabetes WA.¹⁰²

Of the personal health promotion interventions operating in other jurisdictions, the overwhelming amount of evidence presented to the Committee related to the Get Healthy Coaching and Information Service operating in New South Wales.

4.4 Case Study: Get Healthy Information and Coaching Service

4.4.1 Background

The Get Healthy Information and Coaching Service (GHS) was launched by the New South Wales (NSW) Ministry of Health in February 2009, as a key initiative under the Australian Better Health Initiative and the NPAPH. A number of other jurisdictions subsequently rolled out GHS, including the Australian Capital Territory and Tasmania in July 2010, Queensland in February 2013 and South Australia in January 2014.¹⁰³

4.4.2 Description

The GHS is a free, confidential telephone and web based coaching service which supports adults at risk of developing chronic disease to make healthy lifestyle changes regarding physical activity, healthy eating and reaching and maintaining a healthy weight.¹⁰⁴

The program is delivered by qualified coaches over a three to six month period and works within the parameters of the Australian Guidelines for Physical Activity and Healthy Eating.

Participants receive:

- up to 10 individually tailored telephone coaching sessions with a personal health coach;
- information and practical tips on healthy eating and being physically active;

¹⁰¹ <http://www.transport.wa.gov.au/activetransport/34365.asp>

¹⁰² <http://www.yourmove.org.au/>

¹⁰³ NSW Get Healthy Report, pages 2 and 5

¹⁰⁴ Correspondence from Department of Health, 16 April 2015

- tools to keep track of their goals and monitor their progress , including a coaching journal to write down goals and actions; and
- access to web-based information and support.¹⁰⁵

The telephone service operates 8am to 8pm Monday to Friday.¹⁰⁶

Professor Elizabeth Eakin of the University of Queensland (UQ) described the GHS as NSW's '*flagship chronic disease prevention program, and it has been resourced appropriately.*'¹⁰⁷

4.4.3 Evaluation of NSW Model

In 2014 the NSW Ministry of Health released a detailed evaluation of the first five years of the GHS. Key evaluation findings are outlined below.

General use

The GHS received more than 46,000 calls between February 2009 and December 2013, with an average of 9,500 calls received each year. In addition, an average of 75,000 unique visits was made to the website each year, with figures rising from 14,885 in 2009 to 109,763 in 2013.

Approximately 25,000 participants registered their interest in the GHS between February 2009 and December 2013 - 93% of these participants consented to their information being included in the evaluation.

Coaching services were received by 76.8% of participants who consented to their information being included in the evaluation while the remaining 23.2% requested information only.¹⁰⁸

Source of referral

Mass media campaigns (television, press, online and radio advertising and information in letterboxes and subscription magazines) were responsible for 63.2% of all GHS referrals.¹⁰⁹ Twice as many calls were received when mass media advertising was present than when no advertising was present.¹¹⁰

Characteristics of participants included in evaluation

The GHS is attracting participants in areas of social and economic disadvantage (66.5% of participants were in the 3rd, 4th and 5th SEIFA¹¹¹ quintile) as well as a high number of women (72.3% of participants were female) and those in paid employment (62.2% of participants were in paid employment).¹¹²

The socio-demographic profile of GHS participants changed over time, with increases in the number of coaching participants (from 67.9% in 2009 to 97.5% in 2013), male participants (from 19.5% in 2009 to 27.7% in 2013) and Aboriginal participants (from 2.3% in 2009 to 4.7% in 2013).¹¹³

¹⁰⁵ Correspondence from Department of Health, 16 April 2015 and <http://www.qld.gov.au/health/staying-healthy/community/programs/>

¹⁰⁶ <http://www.healthwaysaustralia.com.au/getthehealthy>

¹⁰⁷ Submission No. 5, page 2

¹⁰⁸ NSW Get Healthy Report, pages 6 to 7

¹⁰⁹ NSW Get Healthy Report, pages 8 to 9

¹¹⁰ NSW Get Healthy Report, page 10

¹¹¹ The Socio Economic Index for Areas provides measures of socio-economic conditions by geographic area.

¹¹² NSW Get Healthy Report, pages 13 to 14

¹¹³ NSW Get Healthy Report, page 16

Medical screening of coaching participants

Amended medical screening processes commenced in May 2012 and resulted in an 11.3% decrease in the proportion of coaching participants requiring medical clearance prior to commencing coaching. This change also resulted in a higher proportion of men, those aged over 50, those with a high school education, Aboriginal participants, participants who speak a language other than English at home and those located in major cities participant in the coaching program.¹¹⁴

Risk factor profile of coaching participants

The risk factor profile of participants who commenced the coaching program between February 2009 and December 2013 was:

- 32.5% were overweight and 52.7% were obese according to their Body Mass Index (BMI) classification.
- 15.2% had an increased risk and 75.9% had a greatly increased risk of chronic disease due to their waist circumference.
- 52.5% consumed less than the recommended two serves of fruit per day.
- 88.1% consumed less than the recommended five serves of vegetables per day.
- 65.7% did not undertake the recommended levels of weekly physical activity.

This profile did change much over the five year study period.¹¹⁵

Outcomes of the coaching program

On average, participants who completed the 6 month coaching program lost 3.8 kg and 5.1 cm off their waist circumference. More than half of participants (56%) lost 2.5-10% of their baseline body weight, and a further 8% lost more than 11% of their initial body weight.¹¹⁶

Additionally, there was an increase in the percentage of participants consuming the recommended amount of fruit (from 48% to 80%) and vegetables (from 12% to 39%), as well as undertaking the recommended amount of physical activity (from 34% to 62%).

These improvements remained fairly constant over the five year study period and were evident, regardless of the source of referral.¹¹⁷

Maintaining behaviour change

A follow up study, conducted 6 months after completing coaching, found decreases in weight and waist circumference were maintained, as was increased fruit consumption. In contrast, increased vegetable consumption and level of physical activity were not maintained.¹¹⁸

4.4.4 Costing Study of NSW Model

A costing study of the NSW Model undertaken in 2012 found:

- key outcomes were more frequently achieved after 6 months of coaching, rather than 3 months;

¹¹⁴ NSW Get Healthy Report, page 16

¹¹⁵ NSW Get Healthy Report, page 18

¹¹⁶ NSW Get Healthy Report, pages 20 to 23

¹¹⁷ NSW Get Healthy Report, pages 23 to 26

¹¹⁸ NSW Get Healthy Report, page 27

- the marginal cost of keeping people in coaching for 6 months was smaller than the associated increase in achieving key outcomes;
- the mean cost ranged from \$640 to \$1,030 per person, depending on assumptions used to develop the models; and
- models which excluded marketing costs had substantially lower costs, as marketing was estimated to be \$350 per person.¹¹⁹

4.4.5 Queensland model

The University of Sydney has undertaken 'a process, research and impact evaluation' of the GHS in Queensland during the 2013 calendar year. The Department advised preliminary results of the evaluation were not dissimilar to those of NSW.¹²⁰

Participant characteristics

- Eight hundred and thirteen Queenslanders enrolled in the 6 month coaching program in the 2013 calendar year.
- 28.8% of participants were from the lowest two quintiles of disadvantage.
- 3.9% of all callers identified as Aboriginal or Torres Strait Islander.
- 23 clients graduated from the program, with 252 continuing participants.

Outcomes after 3 months of coaching

Participants in the 3 month coaching program lost 2.6kg in weight and 2.1cm off their waist circumference. They also increased their daily fruit and vegetable intake to 1.5 and 4 serves respectively, and increased their physical activity by 1.3 walking sessions per week.

Outcomes after 6 months of coaching

Participants in the 6 month coach program lost 4.5 kg in weight and 2.8cm of their waist circumference. They also increased their daily fruit and vegetable intake to 1.9 and 4.3 serves respectively, and increased their physical activity by 1.4 walking sessions per week.

The number of participants engaged in physical activity increased from 24.6% to 74.6% while the number of participants actively eating a healthy diet increased from 15.7% to 90.6%.¹²¹

4.4.6 Submitter support

Professor Eakin considered that the positive results seen in NSW strongly indicated that the GHS in Queensland should be funded beyond 30 June 2015. Professor Eakin recommended funding include an allocation for marketing, ongoing evaluation and research and that GHS implementation be integrated with other health promotion campaigns and initiatives.¹²²

Professor Eakin re-iterated this message during the public hearing, where she stated:

I have been very closely involved with the implementation of the program by the ministry of health in New South Wales and so that is the model that I would recommend as a starting point for at least consideration and adaptation here in Queensland. One of the key issues for promoting the program has been media advertisements and the like. In New South Wales the

¹¹⁹ NSW Get Healthy Report, page 28

¹²⁰ Correspondence from Department of Health, 19 May 2015

¹²¹ Correspondence from Department of Health, 19 May 2015

¹²² Submission No.2, pages 1 to 3

call to action for the Get Healthy service is embedded in their broader health promotion media based campaigns.

Here in Queensland you would be familiar with our Healthier. Happier. campaign, but the call to action for this particular Get Healthy service has not been embedded. That is one, I guess, key opportunity and certainly, and I think Sharon has really nicely outlined for you, partnerships with general practice and with the new primary healthcare networks will be an important part for their promoting the program. Again that is something that has been done consistently in New South Wales. But I think there is also much broader scope for partnerships across workplace health promotion programs and across preventative screening programs.

I have already had some preliminary conversations with BreastScreen Queensland about the potential to integrate referrals as part of that. I think the partnerships approach to working across government and across multiple services to promote the program is really the way it needs to head.¹²³

Dr Ingrid Hickman and Associate Professor Marina Reeves made similar comments, recommending:

Telephone based counselling/coaching services such as the “Get Healthy” Service should receive long term funding and be complemented with wide spread repetitive promotion and marketing to referral sources.¹²⁴

Ms Rachelle Foreman of the Heart Foundation also expressed similar views. Ms Foreman also considered funding for the program in Queensland should be extended:

...based on the evidence from New South Wales where they have had it. It is the same model, but as shown in our submission once they did mass media to promote it to people they got a significant increase in uptake. Also when they established those referral pathways through primary care, again they got good uptake. In Queensland there have been 3,000 inquiries in total and only 550 enrolments in the whole of 2014 compared to 46,000 in New South Wales. We are starting to see a scale thing, but we certainly would support it based on Quitline as a similar model and based on New South Wales. We know it can work.¹²⁵

The Australian Health Promotion Association (AHPA) also provided support for the GHS, with some reservations, noting:

The Get Healthy service has returned some impressive results; however, within a limited cohort. With the absence of longitudinal data we are unable to demonstrate that this approach enables people to maintain healthy lifestyle behaviours beyond their participation in the coaching service. Get Healthy appears to be a cost-effective alternative to the expensive clinician led counselling.

The AHPA identified other differences between the NSW and Queensland models as:

The New South Wales unit of preventative health within the Chief Health Officer branch manages the state-wide implementation and management of the evaluation of the Get Healthy Service through a cost-benefit analysis and with local health districts within their population health units assisting with local level support, community awareness and stakeholder engagement to support secondary referrals into the service.

Additionally, consumers can self-refer themselves into the service by using the Get Healthy website and the freecall 1300 number.The implementation of Get Healthy in Queensland

¹²³ Transcript, Public Hearing, page 12

¹²⁴ Submission No. 23, page 3

¹²⁵ Submission No. 16 and Transcript, Public Hearing, page 26

*though is managed through the Department of Health through a consumer self-referral pathway.*¹²⁶

Committee comment

The different approaches taken in Queensland and New South Wales in the implementation of their respective Get Healthy Schemes has highlighted the need to ensure that programs are delivered in an integrated manner with other health promotion campaigns.

While Queensland has adopted essentially the same GHS model as NSW, the Committee notes it has not invested as heavily in the GHS, or taken the same marketing approach, as NSW. Consequently, the reach, uptake and impact of the GHS in Queensland have not been as great.

The Committee notes the NSW program has undergone a thorough evaluation process with findings indicating positive results. We also note the preliminary evaluation findings for the GHS in Queensland. With overwhelming support from submitters to the inquiry, it appears there would be great benefit in extending the program in Queensland with modifications to ensure increased reach, uptake and effectiveness are achieved. Working with clinicians and health partners will be vital for the success of the intervention if extended.

The Committee also notes from the evidence provided at the Public Hearing, there is potential for programs like the GHS to be integrated with other health policy objectives such as having patients ready for surgery on time. Professor Eakin considered this was possible and the application of the GHS was '*...quite broad in its applicability to a variety of patient groups and I think one of the things that I have been most impressed with the program is its ability to adapt to particular target groups.*'¹²⁷

The example used was to apply personal health promotion intervention programs to patients for pre-surgical weight loss to ensure they were ready for surgery. Following the hearing, Ms Sherron Madden of the GMSBML advised the Committee the Positive Impact program (referred to earlier) was currently working with the Logan hospital for that very purpose.¹²⁸ Ms Madden advised in relation to the Positive Impact coaching service:

We are accepting targeted referrals from the Anaesthetic and Medical teams where the surgical patient presents possible risk for complication, longer recovery and increased hospital costs due to their obesity and inactivity.

*These patients are either referred back to their GP for weight loss management if the surgery is non-urgent, however if the surgery is more urgent they begin a fast-track weight loss program (Very Low Calorie Diet) with the Dietetics department using meal replacements for a 16 week period.*¹²⁹

Given the proven results from the GHS and its broad application, the Committee considers the Government should give strong consideration to extending the program beyond 30 June 2015.

Recommendation

The Committee recommends the Minister for Health and Minister for Ambulance Services consider funding the Get Healthy Information and Coaching Service (GHS) in Queensland beyond 30 June 2015. In extending the funding period for the GHS, the Committee recommends consideration be given to:

- Providing targeted funding to market the GHS;

¹²⁶ Transcript, Public Hearing, pages 14 to 15

¹²⁷ Transcript, Public Hearing, page 13

¹²⁸ Email correspondence from Greater Metro South Brisbane Medicare Local, 22 May 2015

¹²⁹ Email correspondence from Greater Metro South Brisbane Medicare Local, 22 May 2015

- Providing targeted funding to evaluate the GHS. This should include, but not be limited to, an evaluation of the long term cost effectiveness of the GHS and an evaluation of behaviour change over time to determine whether, and to what degree, people maintain healthy lifestyle behaviours beyond their participation in the GHS; and
- Identifying ways to integrate the GHS with other health promotion campaigns and initiatives, including partnerships across workplace health promotion programs and preventative screening programs.

5. Effectiveness of personal health promotion interventions - what does the evidence say?

While there have been successful individual programs outlined in the previous chapter, the Terms of Reference also required the Committee to consider the effectiveness of personal health promotion interventions generally.

5.1 Overview

Submissions received from tertiary institutions were particularly helpful in this regard with academics at the QUT submitting the effectiveness of telephone and web-based technologies for personal health promotions depend on:

- balancing the entertainment and behaviour management aspects of the technology;
- providing benefits to the user;
- objectives that are behaviour-focused;
- providing accurate and legitimate information;
- appropriate behaviour change features;
- being of minimal cost to users.¹³⁰

The submission also stated that the following elements were required if government is to effectively use these technologies:

- a behaviour focus, rather than just an attitude or awareness-raising focus;
- longevity;
- a comprehensive systems approach, embedded across government;
- use of a design approach and framework for design;
- effective evaluation methods; and
- a customer focus.¹³¹

5.2 Systematic reviews

The QUT's Professor Philip Baker provided a submission to the Committee, on behalf of the Cochrane Review Overview research team. The team comprises international collaborators from the Centres for Disease Control and Prevention in Atlanta, McMaster University in Canada, Cardiff University in Wales and the University of Portsmouth in England. The submission describes the results of the team's ongoing overview of eight systematic reviews of interventions to increase physical activity.¹³²

During the public hearing Professor Baker described Cochrane as '*...the world's largest and most trusted non-profit collaboration seeking to identify which health treatments, interventions, drug therapies et cetera are effective and safe.*'¹³³ Cochrane produces systematic reviews which gather and summarise '*... the best evidence from research to help decision-makers make informed choices about*

¹³⁰ Submission No. 10, page 4

¹³¹ Submission No. 10, page 3

¹³² Submission No. 8, pages 1 to 2

¹³³ Transcript, Public Hearing, page 20

*treatments and programs.*¹³⁴ Systematic reviews are at the top of the National Health and Medical Research Council (NHMRC) hierarchy of evidence pyramid (see diagram below).¹³⁵

1

Professor Baker emphasised during the hearing that most health professional bodies use systematic reviews as the starting point to inform a decision, and that government's world-wide commission a systematic review when they require objective evidence to choose programs or therapies. He also confirmed the WHO requires systematic reviews as the basis for all of the guidance they produce.¹³⁶

Professor Baker noted individual studies on their own are not necessarily trustworthy and cannot be used in isolation to support a particular outcome. An overview, or a systematic review however, looks across the research and identifies trends which can assist decision-makers to make informed decisions.¹³⁷

5.3 Results of Cochrane Review Overview

The Cochrane Review Overview research team submission provides an evidence summary for interventions targeting both physical activity and nutrition.¹³⁸ Professor Baker spoke to this summary during the public hearing, when he advised that:

... for physical activity, telephone based behavioural change interventions as a group have showed significant improvements—again, it is about focusing on behaviour. Remote live contact during exercise—the internet, video or telephone—has been shown effective for older people in 24 studies. There is a Cochrane review by Richards which looks at 11 studies of over 5,000 individuals looking at remote and web interventions using tailored approaches towards the activities, using telephone as a feedback. I have found it to be beneficial. It is important to note that complementing these reviews are other trustworthy reviews which include dozens of studies and thousands of participants that show the importance of goal setting, also known as intentional interventions, as well as the importance of social support—things like walking in groups. Some systematic reviews point to the value of tailored print and

¹³⁴ Transcript, Public Hearing, page 20

¹³⁵ Submission No. 8, page 2

¹³⁶ Transcript, Public Hearing, page 20

¹³⁷ Transcript, Public Hearing, page 20

¹³⁸ Submission No. 8, page 3

*computerised approaches, but the evidence base around some of these is problematic. For physical activity we have identified reviews which have not worked. For children specifically these are SMS messaging. Social media intervention such as discussion boards typically fail to provide benefit. In our brief we have also looked at nutritional behaviour and the approaches which have been shown to be effective for physical activity appear to be similar for nutritional strategies.*¹³⁹

Professor Baker highlighted the importance of ‘continual looking’ and new systematic reviews as research continues to emerge.¹⁴⁰

Professor Baker also stated that “... over the years many well intended interventions have fallen flat and they have actually broadened health inequalities and made it worse and brought greater disparity.”¹⁴¹

5.4 QUT School of Public Health Research

The QUT’s Professor Elizabeth Eakin provided similar evidence to the Cochrane Review Overview team. Professor Eakin’s submission states that the Cancer Prevention Research Centre at the QUT’s School of Public Health has researched telephone-based health promotion interventions in public health settings for the past ten years, and that this research has found:

*...very strong evidence supporting the ability of telephone-delivered interventions to produce improvements in weight and related behaviours (physical activity and diet) among adults. This strong evidence base holds true for telephone-based interventions targeting both chronic disease prevention among adults with chronic disease risk factors (such as overweight/obesity) as well as among adults in the chronic disease management context (such as those with type 2 diabetes).*¹⁴²

5.5 Use of particular technologies

5.5.1 Telephone coaching

Ms Sherron Madden spoke in detail during the public hearing about the success of the Positive Impact Program telephone based healthy lifestyle program (see intervention summary at 4.1). Ms Madden stated that over the last two and a half years of the program:

*...we have actually lost almost two tonne of weight in our Medicare Local area and 16.4 metres of waist circumference as well, which is quite significant when you are looking at reducing the risk of chronic disease in those people who are obese, overweight and unfortunately eating poor nutrition as well.*¹⁴³

In addition, program participants have increased their fruit and vegetable intake by 1 and 1.5 serves daily and increased their physical activity levels by more than 60 minutes per week.¹⁴⁴

Ms Madden also referred to an evaluation of the program by the QUT, to be completed in September 2015 which will provide longer term data.

We know the cost. We know the results that we get throughout the program in terms of weight loss, improved nutrition, improved eating behaviours, and there is a long list. What

¹³⁹ Transcript, Public Hearing, page 20

¹⁴⁰ Transcript, Public Hearing, page 21

¹⁴¹ Transcript, Public Hearing, page.21

¹⁴² Submission No. 5, page 1

¹⁴³ Transcript, Public Hearing, page 9

¹⁴⁴ Positive Impact Submission to Health and Ambulance Services Committee Inquiry Fact Sheet

*we are really interested in is whether that is maintained after discharge back to the GP. Certainly evaluation at the 18-month mark is actually showing that we have sustainable results with weight loss and activity as well as nutrition. There is, of course, a spike back up or back down to normal behaviour, but we are actually seeing positive behaviours being maintained for 18 months plus. The longer we perform the evaluation the longer term results we get.*¹⁴⁵

Ms Madden attributed much of the success of the program to significant engagement with General Practitioners (GPs).

*...the fact that we work firstly at the request of a GP alongside the GP throughout the six- to 12-month program with continual interaction with the GP and the participant and then we actually discharge them back to their primary care giver, the GP, with a plan is why we actually get such successful outcomes.*¹⁴⁶

5.5.2 Text message interventions

Associate Professor Marshall, the developer of the MobileMums program (see case study at 4.2) submitted mobile text messaging is ‘*the future of health promotion interventions*’ and provided information to support her claim, including data on the reach of mobile phones and the efficacy and cost effectiveness of particular text message interventions.¹⁴⁷

The submission makes the following points about mobile phone reach:

- *There are over 21 million mobile phone subscriptions in Australia;*
- *Over 25% of mobile telephone users have no fixed line service;*
- *Low income homes rely on mobile phone connectivity, as do people who frequently change address;*
- *Three quarters (73%) of mobile phone owners send and receive text-messages;*
- *The reach (scalability) of text message interventions is immense and cost effective.*¹⁴⁸

The submission states qualitative reviews and meta-analyses consistently conclude that text-message interventions work. The findings of a Randomised Control Trial (RCT) of the MobileMums program are also provided to evidence of the efficacy and cost effectiveness of text message interventions.

The RCT found:

- a 20% increase in participant compliance with physical activity guidelines; and
- an implementation cost of \$31 per person over the 12 weeks and a cost effectiveness ratio of \$8,608 per quality adjusted life year (QALY) 5, which is far below the estimated willingness to pay for an additional QALY in Australia of 64,000 AUD.

In comparison, a 2008 trial of telephone counselling via land line telephones was estimated to cost \$570 per person over 12 months, with a cost-effectiveness ratio of \$29,375 per QALY.¹⁴⁹

¹⁴⁵ Transcript, Public Hearing, page 10

¹⁴⁶ Transcript, Public Hearing, page 10

¹⁴⁷ Submission No. 3, page 1

¹⁴⁸ Submission No. 3, page 1

¹⁴⁹ Submission No. 3, page 1

5.5.3 Smartphone apps

The Committee also received a combined submission from academics in the QUT's School of Advertising, Marketing and Public Relations, the Games Research and Interaction Design Lab, the Urban Informatics Research Lab and the School of Exercise and Nutrition Sciences.

The submission noted that there is '*growing evidence of the effectiveness of technology in changing physical activity, nutrition and weight loss*' and referred to a RCT of a mobile health intervention for weight management among young adults, which found that a smartphone app helped users:

- decrease their body weight by an average of 1.6kgs;
- increase their physical activity by 35 minutes a day;
- increase their vegetable intake; and
- decrease their sugar beverage intake by 355mls a week.¹⁵⁰

The submission also references three other studies which demonstrate that smartphone technologies can achieve changes in physical activity, nutrition and weight loss. The studies identified:

- a weight loss of 7.5kg, or 7.5% of baseline weight, in 12 months;
- increased adherence to dietary prescription and diet recording;
- greater motivation for weight loss, diet adherence and physical activity;
- a reduction in sugar-sweetened beverage consumption; and
- an increase in muscular fitness strength and resistance training skills.¹⁵¹

A study which compared the effectiveness of smartphone apps, websites and paper and pen diaries on influencing weight loss is also discussed. That study found:

*... weight loss was significantly higher in smartphone app users than those using websites and paper diaries. Further, the reduction in body mass index (BMI) and body % fat change was considerably greater in 6 months compared to the website and paper and pen diary group. Therefore, it appears that smartphone apps maybe the most effective method for changing behavioural issues such as physical activity, nutrition and weight loss.*¹⁵²

Professor Judy Drennan spoke to this submission during the public hearing. Professor Drennan commented on the positive role mobile phone apps can play in changing behaviour:

*Overall research has shown that mobile phone apps have been very important for developing changes in behaviour. ... The thing that I want to point out here is that it has been found that weight loss, for example, is much more effective through the smartphone than by websites or by using paper. The reason is that with paper diaries you cannot share it. With mobile phones and with using apps that are shareable, we know that there is a modelling of behaviour because we know what other people are doing. There is also a normalising of behaviour so that if we do fall off the wagon, we know that we can get assistance with that and it is peer to peer.*¹⁵³

PhD candidate Mr Rory Mulcahy also spoke to the submission during the hearing. Mr Mulcahy discussed how efficacy is improved when mobile apps are used with additional elements.

¹⁵⁰ Submission No. 10, page 12

¹⁵¹ Submission No. 10, page 12

¹⁵² Submission No. 10, page 12

¹⁵³ Transcript, Public Hearing, page 2

Research shows, as we are alluding to, that the approaches that work the best are ones with mobile apps but with additional elements. It seems that when a mobile app is by itself, yes, it is effective but it is not as effective as others that have a website or other additional elements within that. So it seems that, whilst apps are a very effective method, you need additional elements to help that as well.¹⁵⁴

5.6 Using participatory design

Professors Drennan and Forth also spoke on the importance of participatory design when developing personal health promotion interventions. Professor Drennan stated:

One of the things that I have found is that it is important to have participatory design so that when you are developing these things, it always has to be done with the people that you have in mind. For example, we did one with alcohol, but we had to make sure that it was something that young people wanted. We ended up with this thing called girls' night out, which has been very effective.¹⁵⁵

Professor Forth expanded on Professor Drennan's comments, illustrating how participatory design can increase the efficacy of a smartphone app:

...we started with an app but it was problematic. That particular app was an alcohol counter. The app was used by young people, or was supposed to be used by young people, at the nightclub: if you order a drink, you take out your phone, you open the app and you go 'plus one beer', 'plus one spirit', 'plus one glass of wine'. That is not cool. It was completely missed at the beginning of that research that young people would not do that. It is not cool to take out an alcohol counter when you are surrounded by your mates and you want to have a good time...

From a participatory design point of view, we engaged with young people in qualitative research to understand what they are actually doing when they are out and about, having a good time. That led to a change in the direction where we arrived at what Judy mentioned, which is the 'Having a good night out' app. It takes a different approach. It actually works within the culture of young people as they are having a good night out. We introduced this notion of the stupid line. The stupid line is when you cross over and you are so intoxicated that you are an embarrassment to your mates. You do not want to cross the stupid line. The app uses the terms and the actual support mechanisms that young people already employ on their own terms and amplifies and supports those in order to reduce the alcohol intake, but also to make sure they are safe The participatory design approach that was implemented right from the start of that research led to a much more successful outcome that has actually been taken up by young people.¹⁵⁶

5.7 Evaluating interventions

A number of submitters commented on the importance of evaluating personal health promotion interventions, to determine whether the intervention worked and if so, why. Similarly, an understanding of why the intervention did not work is equally valuable, to ensure funding is targeted at interventions which will effect change.

¹⁵⁴ Transcript, Public Hearing, page 6

¹⁵⁵ Transcript, Public Hearing, page 2

¹⁵⁶ Transcript, Public Hearing, pages 2 to 3

Ms Rachelle Foreman of the Heart Foundation succinctly advised the Committee, in relation to any program or intervention: 'There must be a long-term view, and you must evaluate it. One of the failings of many government initiatives has been the evaluation.'¹⁵⁷

Professor Russell-Bennett also articulated the need for, and benefits of, effective evaluations:

*...you need to have sufficient funding to provide an evidence base. Many of these technologies are very new, there is not a lot known about them and I think there is a temptation to rush in and do something that is a fad and a bit of a buzz because you can and not have sufficient budget to evaluate them. Really if the Queensland government is going to be innovative, you also need to make sure that what you try comes with knowledge at the end about why it worked or why it did not. There is really no point in putting all your money into developing technology and then if it works, you do not know why; but worse, if it fails you do not know why. Having a strong evaluation strategy and the funding that is appropriate is a really, really critical success factor.'*¹⁵⁸

Ms Sherron Madden noted with the Positive Impact service that evaluation was as important to the process as the implementation itself:

*We are also evaluating with a university partner to ensure that we are getting robust outcomes from the service and it is not just funding going into a service where we are actually not getting results.'*¹⁵⁹

One of the issues with evaluation was how they are conducted. Professor King submitted:

*Evaluations are often based on user reviews, which focus on ease of use and personal efficacy experience, rather than objective or scientific review by independent organisations. This approach can lead to scientifically inaccurate methodological design and apps which are contrary to national guidelines, particularly in the areas of smoking cessation and alcohol reduction.'*¹⁶⁰

By way of contrast, Professor Marshall advised the Committee with respect to the MobileMums program, of which she had been part of the development team:

*My entire academic career has focused on developing and systematically evaluating physical activity interventions. I have collected empirical data from over 10 randomised control trials evaluating physical activity interventions delivered via the telephone, the web and, most recently, mobile telephones. I understand the evidence and I have used it to develop interventions that work.'*¹⁶¹

The GHS in NSW referred to in detail earlier in this report, is also an example of an effective, well evaluated personal health promotion intervention that has gone through rigorous processes.

5.8 Cultural sensitivities

Another aspect raised in submissions relating to design of programs and their potential to be successful was that of ensuring health promotion interventions were designed in a culturally appropriate manner. Diabetes Queensland submitted:

¹⁵⁷ Transcript, Public Hearing, page 26

¹⁵⁸ Transcript, Public Hearing, page 2

¹⁵⁹ Transcript, Public Hearing, page 9

¹⁶⁰ Submission No. 23, page 1

¹⁶¹ Transcript, Public Hearing, page 21

*Culture should be embedded into all health promotion programs to ensure accessibility and reach to vulnerable communities. Given the increased rates of type 2 diabetes in Aboriginal and Torres Strait Islander and culturally and linguistically diverse communities, embedding cultural considerations into all telephone and web based health promotion programs is particularly pertinent.*¹⁶²

Diabetes Queensland provided examples of how this could be achieved, including:

- *Ensuring consultation and consumer testing with these communities throughout the program development stage.*
- *Ensuring that all imagery and examples on web based programs represent the cultural diversity of Queenslanders.*
- *Ensuring web based programs are offered in a variety of languages.*
- *Ensuring Aboriginal and Torres Strait Islander and bilingual phone operators are employed as a matter of course who can provide services to both mainstream and specific cultural groups.*
- *Specific programs targeting these communities are also developed in addition to cultural considerations being embedded into mainstream services.*¹⁶³

The submission from GMSBML also touched on this issue submitting that to support its region's higher than average population of Aboriginal and Torres Strait Islander and Pacific Islander peoples, the program resources were modified to be more culturally suitable. The Medicare Local advised its Positive Impact program content was informed by extensive consumer consultation.¹⁶⁴

5.9 Clinician engagement and support

In describing the success of the Positive Impact Program, Ms Sherron Madden noted the importance of engaging GPs in the delivery and use of the program:

*We believe a lot of the success of the program that we deliver is the integration and the collaboration that we have with general practitioners. We are locally based. We actually receive only referrals from GPs. So we have 100 per cent referrals from GPs. As a result of that, we are actually encouraging general practitioners to do the screening of people at risk of chronic disease. Already we are starting that change towards a more preventative rather than reactive model of care out there in general practice. We see the GP as being at the coalface and the person whom an individual interacts with the most.*¹⁶⁵

Ms Madden described the types of support provided to GPs and emphasised the importance of engaging the broader health workforce, using a collaborative, team approach.

You have to understand that GPs are very busy. You have to understand that individuals come in to a GP with a long to-do list of what needs to be addressed. Then to try to fit in that opportunistic education or discussion about lifestyle amongst a myriad of sore things, sickness and everything like that, you need to have that wider approach. We use practice nurses and the reception staff as well because often they are having the more casual, social

¹⁶² Submission No. 13, page 5.

¹⁶³ Submission No. 13, pages 5 & 6.

¹⁶⁴ Submission No. 14, page 3.

¹⁶⁵ Transcript, Public Hearing, page 9

conversations. We make sure everybody is informed about the service and the results of the service.

What we have done recently is actually engaged pharmacies, which is a bit of a hot topic, in the care team. We think it is a very valuable opportunity because there are a lot of people who self-medicate. They will go to pharmacies to actually find solutions—Optifast, meal replacement or whatever it may be. We had a classic example the other day where a pharmacist said, ‘No, you do not want meal replacements. You actually want to go and have a chat to your GP about Positive Impact.’ It is really exciting that they then followed up with their GP who knows about it and referred them to Positive Impact and we are now working with them around balanced nutrition, activity et cetera.¹⁶⁶

Ms Madden also emphasised the role existing health networks can play in engaging and supporting GPs, and the broader health workforce.

In terms of actually promoting the program, the established networks that we use are through the Medicare Local. If we have a future moving forward we will be using the PHN as well. These people have engagement teams that are already out there supporting general practitioners and providing them with resources as well as services that will actually benefit their consumers.¹⁶⁷

Committee comment

The Committee is satisfied there is direct evidence to show personal health promotion interventions using telephone and web based technologies can deliver clinically appropriate and cost effective outcomes. Further, technology can and should be used in delivering personal health promotion interventions provided they are subject to ongoing evaluation to determine and improve efficacy.

The Committee notes the views of stakeholders and supports the view that investment in, and development of, personal health promotion interventions must be evidence based; and appropriate time and resources must be allocated to the evaluation phase to determine effectiveness.

The Committee notes the success of programs where implementation and evaluation has been carried out in conjunction with all relevant stakeholders, including appropriately skilled clinicians, particularly where interventions are focused on those already diagnosed with a chronic disease or condition.

Appropriately qualified medical professionals need to be engaged and supported at all stages, from development through to evaluation of the health promotion interventions.

¹⁶⁶ Transcript, Public Hearing, page 11

¹⁶⁷ Transcript, Public Hearing, page 11

Recommendation

The Committee recommends the Queensland Government ensure that investment in, or endorsement and use of, any personal health promotion interventions using telephone or web-based technologies does not occur unless:

- there is a sufficient evidence base for the effectiveness of the intervention;
- rigorous evaluation has taken place, or if not, there is sufficient time and resources allocated for evaluation; and
- there is clinician support for the intervention, particularly where the intervention has application to people already diagnosed with a chronic disease or condition.

Recommendation

The Committee recommends the Queensland Government consider funding independent research into areas where the evidence base for personal health promotion interventions using telephone and web-based technologies is non-existent or poor, including but not limited to:

- the long term cost effectiveness of personal health promotion interventions using telephone and web-based technologies;
- the effectiveness of personal health promotion interventions using telephone and web-based technologies in indigenous populations; and
- quantifying the effects of behaviour change.

6. Opportunities for partnership – roles and responsibilities

6.1 The role of Government

In examining the opportunities for collaboration between government agencies, industry and tertiary stakeholders, the Committee considered what the role for government should entail. It is important to understand where Queensland Health can or should get involved in health promotion interventions and what limitations there are on the provision of government services. Dr Kingswell advised the Committee at the Public Hearing:

*Queensland Health has a responsibility to ensure it is not duplicating a program provided by the Commonwealth, the non-government sector or the private sector. However, Queensland Health cannot control the behaviour of private organisations, the non-government sector or the Commonwealth, for that matter. Yes, we would strive to get a system that does not duplicate and replicate services.*¹⁶⁸

Ms Pulford expanded on Queensland Health's role stating '*...the role of government is to provide activities which are at a cost that can be accessed by people who cannot perhaps afford other options.*'¹⁶⁹

While the State should take a leadership role in promoting health promotion services, the Committee considers that partnerships should be explored in the development and production of health promotion interventions using new technologies. One of the dangers of Government getting involved in the delivery of programs was discussed at the Public Hearing where Professor Marcus Foth spoke to the aspect of legitimacy in the roll out of programs:

*I would briefly add that another aspect of the legitimacy is also the way that our study participants would perceive where the information or the advice comes from. Just having a government branded app is already a deterrent in the sense that there is baggage attached to being preached to, being told, being penalised or that there are rules or regulations.*¹⁷⁰

Professor Foth explained simply, the effect of Government branding on apps aimed at young people was they would say '*that is not cool*'.¹⁷¹ Perception is key to the potential success of programs as Professor Foth went on to explain:

*When it comes from a friend, the same message might be perceived very differently. If I say to my slightly intoxicated mate, 'Maybe you've had one too many; you should slow down and have a bottle of water', it will be taken on with much more trust and validity because there is an established relationship. The way that we approach this through participatory design and the social marketing behavioural approaches is to enforce and to support those existing mechanisms, rather than to come in as an outsider.*¹⁷²

Professor Russell-Bennett added to the discussion stating '*that is also where you can work with non-profits that also have credibility and legitimacy in a field. They can be really powerful allies. Because they are outside the political cycle generally, that can also be a plus in terms of a longer term strategy.*'¹⁷³

¹⁶⁸ Transcript, Public Briefing, page 6

¹⁶⁹ Transcript, Public Briefing, page 6

¹⁷⁰ Transcript, Public Hearing, page 4

¹⁷¹ Transcript, Public Hearing, page 4

¹⁷² Transcript, Public Hearing, page 4

¹⁷³ Transcript, Public Hearing, page 4

6.2 Regulation of health promotion applications

One area where the Committee considered it was appropriate for Government involvement was in relation to the regulation of personal health promotion interventions using telephone and web-based technologies, in particular in the development of a certification or endorsement scheme.

This issue was raised with the Committee in both the written submissions and explored in detail at the public hearing. Professor Neil King of QUT highlighted that this area is an emerging '*large and diverse unregulated market*' and that not all apps being developed were equal. Professor King provided the salient warning that '*While some may deliver positive outcomes, others may be ineffective or even counterproductive due to misleading claims.*'¹⁷⁴

Professor King advised the Committee:

There is currently no official regulation or evaluation for health apps or technologies outside a clinical setting and where failure is unlikely to lead to life-threatening consequences. User reviews, typical to all apps, are restricted to ease of use and personal efficacy experience, usually undertaken by consumers, rather than objective or scientific review by independent organisations.

*The same applies to those reviewed by consumer bodies and health/technology media. The difficulty with this 'superficial' approach is that underlying content methodological design may be scientifically inaccurate. Recent research showed that a significant proportion of apps available to assist clients with smoking cessation and alcohol reduction were contrary to national guidelines.*¹⁷⁵

Similarly, Ms Aloysa Hourigan of NAQ Nutrition shared with the Committee her concerns that a number of programs that were available were simply not delivering the results that they claimed to be:

A University of Queensland project reviewed about 24 apps and probably less than 50 per cent of them had enough strength to deliver behaviour change. So whilst their main messages were around behaviour change, at the moment those apps that are out there that people are using probably are not quite enough to get them over the line.

....

*When you look at behaviour change theory, it is looking at certain strengths in the approach to things that enables people to put goals to place and continue on and not relapse. It is some of those aspects that were not being met.*¹⁷⁶

Professor King recognised that a number of apps on the market were comparatively inexpensive and ineffectiveness and impact are unlikely to be life threatening. However, it was also recognised that without any guidance or standards, professionals in the health sphere could not be confident there would be no potential legal implications that could flow from recommending inappropriate or ineffective apps. This could lead to a dampening of user motivation and reduce commitment to self-improvement.¹⁷⁷

Professor Russell-Bennet addressed the issue at the Public Hearing stating:

I do not think you can regulate. I think you can use policy, though. Because there is so much out there in the marketplace, people are looking for some guidance. If you go onto the app store and type in, say, 'health', heaps comes up. We are now of the point of view that it is not

¹⁷⁴ Submission No. 23, page 1

¹⁷⁵ Submission No. 23, page 1

¹⁷⁶ Transcript, Public Hearing, page 17

¹⁷⁷ Submission No. 23, page 1

so much, 'What do I choose?'; it is, 'Can someone give me some pointer as to which ones are the better ones?'.¹⁷⁸

Professor Russell-Bennet considered this was an area where government could 'take a really strong role by a checklist or promoting and endorsing particular apps.' She went on to state:

In fact, the government does not even need to develop these things themselves. Often, it is more cost-effective to find what is already out there and working, and then endorse that through various channels. It is about finding the key influences in the various communities or subgroups that you need to communicate with. It could be GPs, for instance, for quitting smoking. They could be your key influence. They are looking for advice as to, out of the 500 apps out there, which are the key ones. Again, they do not have to be ones that the government develops.

In fact, I think you could say that there is always bigger and better technology out there. Commercial organisations have far more money. It is smarter to work with them and make sure that they are on track and then say, 'We'll endorse you'. In the same way that the Heart Foundation has done the ticks rather than coming up with their own range of food, which is just not viable, they worked with setting the guidelines. They have had a really strong branding campaign around that. I think Queensland Health could definitely do something in that space and be an endorser, not just a manufacturer of the technologies.¹⁷⁹

Professor Marcus Foth also addressed the issue:

The way to rank those is very different to how you would rank white goods. You cannot just have a system where you say, 'This is the No. 1', just because of what Rebekah explained earlier, that one size does not fit all. The one that works really well for me might not work very well for other people. That is a key insight that really has to be communicated, because otherwise there might be certain areas that are not really well covered.¹⁸⁰

The Committee also noted the further observations by Professor King at the Public Hearing:

It is interesting that we research things like private health insurance, our car insurance and our house insurance and there are reviews and regulatory bodies but, at the moment, if I want to purchase a health app or a diet app I probably have to go through nine or 10 before I really get the right one. That might cost only \$20, but for some people that is quite a lot of money. So there is a real opportunity here for an evidence based service and I think that is what the consumer needs.¹⁸¹

In determining what type of framework should be put in place and who would be responsible for the development of any standards, Professor King agreed that he was leaning towards the Australian Commission on Safety and Quality in Health Care:

I think if we could have an advisory body or a national organisation that would be a regulatory body, then that is what we would prefer. As academics and researchers, I do not think that we are in a position to do that. So we need to rely on the professionals. Choice is on board, but they are not in that position either. They are a consumer organisation. So I think the simple answer to your question, yes, we would need that.

Exploring the matter further, Professor King confirmed that health professionals must be involved in the development, management, monitoring and the evaluation of process:

¹⁷⁸ Transcript, Public Hearing, page 4

¹⁷⁹ Transcript, Public Hearing, page 4

¹⁸⁰ Transcript, Public Hearing, page 5

¹⁸¹ Transcript, Public Hearing, page 29

I think that if we do not consult them, then there is a risk of people either misadvising or just saying no completely. As I said, we have already engaged with the exercise and the dietetic associations, but this spans all health professionals. We have held small focus groups with some health professionals, particularly with the dietitians, but even GPs say that at the moment they are not in a position to recommend apps. So the answer is yes across all health professionals, but I appreciate the clinical implications and the risks involved if, for example, a nurse advises a diet app.¹⁸²

Dr Jenny Wilson added to the discussion:

The health professionals, the diet and the exercise professionals do a certain amount of sharing between each other about what works and what does not, but what they do not have is common standards. So you are basing it upon one person's opinion about what worked and what aspects worked, which is not necessarily useful to being able to rank them. It is the same as any kind of evaluation; it has a personal angle. So what they are seeing is something that will help them to be able to put those views in some form of standardised process.¹⁸³

Committee comment

As the number of health promotion apps continues to increase, it will become more and more difficult for professionals to confidently refer, or consumers to decide in their own right, which apps they should or should not be using. The Committee considers this is an area where Government can take an active lead to provide some guidance for both professionals and consumers.

At a minimum, standards or guidelines must be developed against which health promotion apps can be evaluated, and a certification regime of some type should to be established for personal health promotion interventions using telephone and web based technologies to provide confidence to the health sector.

Clinician engagement must also occur at all stages to ensure that appropriate levels of professional knowledge are included - not just in the development of apps as discussed earlier in this report, but more importantly, to provide input into any certification scheme or setting of standards. This is particularly important when interventions are aimed at people with chronic illness and the intent is to help them avoid progression to disease or similar.

¹⁸² Transcript, Public Hearing, page 30

¹⁸³ Transcript, Public Hearing, page 30

Recommendation

The Committee recommends the Minister for Health and Minister for Ambulance Services investigate options to:

- Draft and promote standards or guidelines for personal health promotion interventions using telephone and web-based technologies, that consider:
 - the role of health professionals in the development, implementation, monitoring and assessment;
 - quality control, including processes to ensure programs are targeted correctly (eg, programs aimed at ‘walking well’ should not be offered to people with underlying health conditions); and
 - consumer protection.
- Develop and market a certification or endorsement scheme for personal health promotion interventions using telephone and web-based technologies, similar to the Heart Foundation Tick.
- Determine arrangements to administer the certification or endorsement scheme for personal health promotion interventions using telephone and web-based technologies.

Recommendation

The Committee recommends the Minister for Health and Minister for Ambulance Services raise the issue of certification and setting of standards with the Australian Government and other States and Territories through the COAG Health Council (CHC) with the aim of establishing uniform national standards.

6.3 Potential opportunities for collaboration

One of the Terms of Reference which drew the most response was whether there were potential opportunities for collaboration between government agencies, research institutions, community organisations and the business sector to promote health through communication technologies.

6.3.1 Industry and not-for-profit organisations

Johnson & Johnson, one of the world's largest and most recognised health care companies submitted that public/private partnerships were essential to addressing health problems in communities.¹⁸⁴ Johnson & Johnson confirmed its willingness to partner with the Queensland Government on a pilot project targeted at the morbidly obese:

*Johnson & Johnson are willing to financially contribute and partner with the Queensland Government to tackle obesity in Queensland through implementation and evaluation of an innovative evidence based program that has been developed. This J&J program utilises behavioural-change theory and web based technology to improve the impact of overweight and obese prevention and treatment interventions.*¹⁸⁵

Diabetes Queensland, one of Queensland's largest non-for-profit health organisations also submitted there is huge potential for telephone and web-based health promotions and outlined a number of programs which it (and its affiliates) currently deliver.¹⁸⁶

Diabetes Queensland submitted a simple proposal for cooperation between Government and not-for-profits by way of a centralised triage telephone service:

*To ensure the right person accesses the right program a centralised triage point is required for both web based and telephone services. The existing 13Health service may serve as a potential entry point for these services and allow for Queenslanders to be directed to the appropriate program based on existing health conditions, service needs, health behaviours and preferences for service modes. There is potential for this triage service to direct Queenslanders not only to existing government programs but to services offered by external organisations such as the Diabetes Queensland Helpline.*¹⁸⁷

Ms Rachelle Foreman of the Heart Foundation also spoke to the issues of collaboration and multiple organisations working together at the public hearing. Ms Foreman provided an example of a current program in Victoria where she considered the full potential to deal with multiple issues was missed:

*In Victoria they started with diabetes prevention and then the minister said that they should add on top of that. Because they did not start thinking that way, it has perhaps not worked as well as we think it could here.*¹⁸⁸

Ms Foreman considered that by taking a broader approach and identifying common elements at the commencement of a program, rather than 'retro-fitting' a program that has already commenced you would get better value for money. For example, in relation to a program which was aimed at heart, stroke and diabetes prevention, Ms Foreman submitted:

*We feel it would be a big missed opportunity not to take that broader approach to prevent heart, stroke, diabetes and renal disease because, as I have mentioned, the overlap between risk factors is significant.*¹⁸⁹

¹⁸⁴ Submission No. 7, page 2

¹⁸⁵ Submission No. 7, page 4

¹⁸⁶ Submission No. 13, page 2

¹⁸⁷ Submission No. 13, page 5

¹⁸⁸ Transcript, Public Hearing, page 27

¹⁸⁹ Transcript, Public Hearing, page 27

Professor Russell-Bennett of the QUT School of Advertising, Marketing and Public Relations also considered there were advantages of working with external organisations who have common goals:

...I think it is about working with other organisations that already either have an in with the group you are trying to reach or are already part of the solution, so working with non-profits who may have access already to a particular group or working with commercial organisations that have the same goal as you—so working with a company that sells health food that is about getting people active.

Those kinds of partnerships are really useful. They have more money. If you have a common goal, I think it is about working with those kinds of agencies. Where your goals diverge is where the government needs to step up and take responsibility, but government does not have a bottomless purse. I think it depends on the group that you are trying to reach. There is no one way unfortunately.¹⁹⁰

6.3.2 Research Institutions / Universities

As referred to throughout this report, the Committee received a large number of submissions from academics who provided a wealth of information for the Committee to consider. Unsurprisingly, there was great support for increased collaboration with Government on innovative use of information and communication technologies.

Professor Eakin brought to the attention of the Committee the work her UQ research group had been doing with the NSW Health Ministry:

Our research group has been closely involved with ongoing GHS evaluations and has worked with the NSW Ministry of Health and collaborators from the University of Sydney on research related to service improvements. We would welcome the opportunity to engage in similar collaborations with QLD Health, particularly around optimal GHS implementation, pending the refunding of the service in QLD.

Further, there is considerable potential for integration and collaboration between the GHS and numerous multi-sectoral partners, including industry, primary care, hospital and health services and various government agencies, whose employees and constituents would benefit from the service, and who might be engaged into the future as co-funders.¹⁹¹

Professor Russell-Bennett of the QUT also provided input into the potential for working with universities and other agencies:

...there has been a drought in relevant state funding for this high quality research or collaborations between Universities, not-for-profit organisations and relevant government agencies in the past few years, largely due to the absence of any research funding for health promotion since the closure of Health Promotion Queensland.

Given the high quality, world-class and world-leading research that has been produced in Queensland there is considerable scope for re igniting collaboration and cooperation between Universities, government agencies, research institutions, community organisations and the business sector to improve the health of Queenslanders through such telephone and web-delivered interventions.¹⁹²

¹⁹⁰ Transcript, Public Hearing, page 8

¹⁹¹ Submission No. 5, page 2

¹⁹² Submission No. 9, page 2

In a self-confessed plug for universities, at the Public Hearing, Professor Russell-Bennett stated:

*...you can work with universities in research collaborations and they are massively more cost-effective than outsourcing to a commercial agency and you get the benefit of scholarly informed research and an evidence based approach. The knowledge goes out to the public good to inform other agencies and usually if you do full research collaboration you will get it at a fraction of the price.*¹⁹³

The Australian Health Promotion Association also considered there opportunities for collaboration with universities, submitting:

*Given the need for a further and more thorough evaluation to prove the longitudinal value and efficacy of [this strategy], a collaboration with a Queensland based university with skills and experience in obesity related health promotion research and evaluation is essential. To ensure equity of access and reach, various non-government organisations across the vast regional areas of Queensland whom engage with various at risk clientele would need to be engaged to ensure referral pathways are well promoted and utilised.*¹⁹⁴

Professor Drennan explained the advantages of working with universities also included their ability to work within multidisciplinary teams:

*We work with people who develop apps at the QUT and we work with psychologists. So we work with teams where we already have a long work history, and most universities are in the same boat. I think if you work with universities who have been working in this area for a long time it is cost saving because we are not charging huge amounts of money or anything.*¹⁹⁵

The Committee was also explored the ability to negotiate ownership of products created in partnerships with universities. For example with the QUT, Professor Foth advised there was an ability to negotiate matters on a case by case basis and while the university has a commercial entity it uses, it did not always follow that the university would take ownership of intellectual property developed in every project:

It really depends on the different contributions that the stakeholders are making. In terms of the launch that we are going to now—which is with the federal minister for science, Ian Macfarlane, and the Lord Mayor—the IP is actually held by Brisbane City Council, by CitySmart. So that is an example of it is not always the case that the university retains the IP in all cases.

*But also right now, for instance, the university is offering \$100,000 to any new research projects that are directly with industry or directly with government. So that is another way to look at the benefits, in order to corroborate what Judy and Rebekah were saying, that it is quite cost-effective. Not only that; it also can leverage further funding sources from other areas such as from the university.*¹⁹⁶

¹⁹³ Transcript, Public Hearing, page 8

¹⁹⁴ Submission No. 11, page 4

¹⁹⁵ Transcript, Public Hearing, page 8

¹⁹⁶ Transcript, Public Hearing, page 8

6.3.3 Health Professionals

The Australian Health Promotion Association also considered that collaboration with health professionals was essential:

It is essential however that collaboration with trained and skilled health promotion professionals are built to ensure that the other factors that support the engagement, success and maintenance of health coaching.

A health promotion professional is able to plan, implement and evaluate health promotion programs, engage key stakeholders, and tailor strategies to best engage and address the needs of the target audience. Health promotion professionals are university trained and highly skilled in this public health field. Health promotion professional led collaborations between Hospital and Health Services, local governments and the relevant sector partners (landscape architects, urban planners, food and grocery industry etc) must be fostered to both create environments and policy that support the prevention and maintenance of healthy lifestyles and weight.¹⁹⁷

The GMSBML Positive Impact Program highlighted the ability for successful collaboration at all levels, partnering with government services, universities and having a high level engagement with general practitioners:

...Positive Impact has demonstrated experience of collaboration between agencies to promote health and wellbeing. The program has successfully integrated with other non-government organisations that provide services to the target population, including direct interface with the Heart Foundation, Diabetes Queensland and the Council on the Ageing.

...Positive Impact has successfully partnered with government services.

...With respect to university partnerships, Positive Impact has engaged Queensland University of Technology (QUT) to conduct a comprehensive evaluation of the effectiveness of the service. In addition, QUT will also develop further evidence for the cost effectiveness of the service, the cost shift, reducing impact on hospital services and the scalability of the model.¹⁹⁸

Committee comment

From this brief examination by the Committee into health promotion interventions, it appears there is significant opportunity for government to partner with all sectors to promote health and well-being through innovative use of information and communication technologies.

The existing common goals in health promotion that have been identified by industry and the not-for-profit sector, health professionals and research institutions are ready and able to be used by the Government to the advantage of all Queenslanders. The Committee notes in particular, the ability to capitalise on the primary health care networks' already established systems, which can be leveraged to ensure the engagement of an appropriately skilled clinical workforce in the delivery of personal health promotion interventions.

It is clearly apparent that universities have significant experience and expertise in this area, particularly in relation to the development and evaluation of mobile phone and web based personal health promotion intervention apps; and the conduct of systematic reviews to determine what works and doesn't work, and to identify where gaps exist.

¹⁹⁷ Submission No. 11, page 4

¹⁹⁸ Submission No. 14, page 5

The Committee notes the Department's advice in the public briefing that it is already engaging with other entities in the delivery of personal health promotion interventions, but there appears to be scope for much broader collaboration than that which currently exists.

Recommendation

The Committee recommends that the Minister investigates options to encourage partnerships for the development and delivery of personal health promotion interventions between Government and:

- the private sector – with both commercial and not-for-profit organisations;
- universities and other research institutions; and
- primary health care networks and general practitioners.

Sub #	SUBMITTER
001	Professor Chris Del Mar, Faculty of Health Sciences and Medicine, Bond University
002	Stroke Foundation, Queensland
003	School of Public Health and Social Work, Queensland University of Technology: <ul style="list-style-type: none"> Alison L. Marshall, PhD; Brianna Fjeldsoe, PhD; Yvette Miller, PhD; Ed Burn, MSc; Ashleigh Armanasco, MIPH; Nicholas Graves, PhD and Adrian Barnett, PhD
004	Australian Medical Association Queensland
005	Professor Elizabeth Eakin, School of Public Health, University of Queensland
006	Ms Valerie Hanrahan
007	Johnson & Johnson: <ul style="list-style-type: none"> Alexis Stockwell, Health Service Development Manager (Queensland); Warwick Shaw, ANZ Metabolic Innovation Lead and Mark Jarrett, National Engagement Manager
008	Cochrane Review Overview research team: <ul style="list-style-type: none"> Professor Dr Philip Baker, Queensland University of Technology; Professor Dr Maureen Dobbins, McMaster University Canada; Dr Jesus Soares, Centers for Disease Control and Prevention, USA; Daniel Francis, Queensland University of Technology; Dr Alison Weightman, Cardiff University, Wales and Dr Joseph Costello, University of Portsmouth, England.
009	School of Public Health and Social Work, Queensland University of Technology: <ul style="list-style-type: none"> Prof Marylou Fleming and Associate Professor Monika Janda
010	Various faculties, Queensland University of Technology: <ul style="list-style-type: none"> Professor Rebekah Russell-Bennett, School of Advertising, Marketing and Public Relations; Professor Judy Drennan, Faculty of Business; Rory Mulcahy, School of Advertising, Marketing and Public Relations; Associate Professor Daniel Johnson, Games Research and Interaction Design Lab; Professor Marcus Foth, Urban Informatics Research Lab and Professor Neil King, researcher in obesity, physical activity and appetite control
011	Australian Health Promotion Association Ltd (AHPA) Queensland Branch
012	Active and Healthy Alliance Gold Coast
013	Diabetes Queensland
014	Greater Metro South Brisbane Medicare Local (Positive Impact)

015	Interactive and Visual Design, Creative Industries Faculty, Queensland University of Technology: <ul style="list-style-type: none"> • Dr. Jaz Hee-jeong Choi; Dr. Jen Seevinck; Dr. Oksana Zelenko; Dr. Jared Donovan and Prof. Marcus Foth
016	Heart Foundation Queensland
017	The Australian Nutrition Foundation, Queensland (NAQ Nutrition)
018	Dr Ross Gordon, President of the Australian Association of Social Marketing and Senior Lecturer in Marketing, Macquarie University, Sydney
019	Tunstall Healthcare
020	Australian e-Health Research Centre, CSIRO: <ul style="list-style-type: none"> • Smarter, Safer Homes Platform - Mohan Karunanithi; John O'Dwyer and Qing Zhan
021	Australian e-Health Research Centre, CSIRO: <ul style="list-style-type: none"> • Mobile Health - David Hansen; Marlien Varnfield; Dana Bradford; Jill Freyne; Mohan Karunanithi and Manny Noakes
022	Dr Ingrid Hickman, Department of Nutrition, And Dietetics, Princess Alexandra Hospital and Associate Professor Marina Reeves, School of Public Health, University of Queensland.
023	Certification and evaluation of health technologies and Smartphone Apps Project Team, Queensland University of Technology: <ul style="list-style-type: none"> • Professor Neil King, Faculty of Health; Professor David Kavanagh, Faculty of Health; Professor Judy Drennan, QUT Business School; Associate Professor Leanne Hides, Faculty of Health; Associate Professor Daniel Johnson, Science and Engineering Faculty; Associate Professor Dian Tjondronegoro, Science and Engineering Faculty; Dr Jared Donovan, Creative Industries Faculty; Dr Jennifer Seevinck, Creative Industries Faculty; Dr Stoyan Stoyanov, Institute of Health and Biomedical Innovation and Dr Jenny Wilson, Faculty of Health.