In reply to the RTI I have included the funding and clawback summary for bariatric surgery for 2017/18 and 2018/19:

				Values
AW	URN	Amendment Title	2017/18 WAU 💌	Sum of 2017/18 Funding
AW2	MNT-AW2-Oct17-81	Statewide Bariatric Surgery Initiative	200.4525547	1,034,531
	MST-AW2-Oct17-51	Statewide Bariatric Surgery Initiative	tatewide Bariatric Surgery Initiative 200.45	
AW2 Total				2,118,719
AW3	MST-AW3-Feb18-12	Statewide Bariatric Surgery Initiative referral h	0	17,798
	WMT-AW3-Feb18-49	Bariatric Surgery	0	250,000
AW3 Total				267,798
EoY 17-18 Tech	MNT-EoY1718-09	Bariatric Surgery Initiative clawback	-122.2811262	- 586,338
	MST-EoY1718-08	Bariatric Surgery Initiative clawback	-200.45	- 961,170
EoY 17-18 Tech Tota	I			- 1,547,508
Grand Total				839,009

ння	5 No.	URN	Version	Submitting Ref	Submitted By	Received By	Amendment Title	Rationale for amendment	Amendment Type	Amendment Status	Action/Progress	Processing Comments	Funded project (title)	Election Commitment	2018/19 Funding
MST	85	SA 18-19.742	R2	HPSP-S336-BB- 1819	Healthcare Purchasing and System Performance Div	Metro South	Statewide Bariatric Surgery Initiative	2018-19 bariatric initiative project staff	Budget, Text						152,018
MNT	89	SA 18-19.743	R2	HPSP-S337-BB- 1819	Healthcare Purchasing and System Performance Div	Metro North	Statewide Bariatric Surgery Initiative	2018-19 bariatric initiative project staff.	Budget, Text						90,642

Director-General Brief for Approval

Requested by:

Department RecFind No:	BR065821
Division/HHS:	HPSP
File Ref No:	

Department Minister's office

SUBJECT: Proposal for bariatric surgery services in Queensland

Recommendations

It is recommended the Director-General

1. Approve the establishment of a Queensland Bariatric Surgery Working Group comprising clinical experts and Departmental representatives to develop a Framework for Bariatric Surgery in Queensland public hospitals.

APPROVED NOT APPROVED

2. Approve a pilot of the use of this Framework, for a defined cohort, with the Working Group overseeing the delivery and evaluation of the pilot.

APPROVED / NOT APPROVED

3. **Approve,** in support of this, that the Department make available up to \$5 million over two years from 2017-2018, with recurrent funding to be subject to pilot evaluation. This could potentially increase current publicly funded numbers by around an additional 400 people over that period (numbers subject to more detailed costing study).

APPROVED) NOT APPROVED

MICHAEL WALSH Director-General Date: 221 3117.

Director-General's comment

Ministerial Brief for Approval required [Ministerial Brief for Noting required]

Issues

- 1. Urgency The Queensland Clinical Senate will be discussing 'Investment in bariatric surgery' at their next meeting on 23 and 24 March 2017. The Deputy Director-General, Healthcare Purchasing and System Performance, and the Chief Health Officer are invited panellists at this event. Bariatric surgery has been the subject of significant local interest, and it would be desirable for the Department of Health to have an agreed position for this high profile discussion.
- 2. Over recent years a significant evidence base has developed demonstrating the clinical and cost-effectiveness of bariatric surgery as a 'last step' for targeted groups of patients.
- 3. This has led to widespread international and Australian policy endorsement of bariatric surgery provision as a valid publicly funded intervention for the management of a small subset of patients with severe and complex obesity, once other less invasive and less costly interventions have proven unsuccessful; this includes guidance from the National Health and Medical Research Council. Evidence and policy developments are detailed in Attachment 1 'Proposal for bariatric surgery services in Queensland'.

Department RecFind No:	BR065821
Division/HHS:	HPSP
File Ref No:	

- 4. Bariatric surgery as an evidenced high value intervention aligns with the Department's commitment to value based healthcare.
- 5. Queensland remains the only Australian State conducting public bariatric activity without State guidance or a published position on access to this service. This leaves Queensland potentially exposed in terms of inconsistency of access and potential safety and quality issues associated with service proliferation in low volume, non-specialised bariatric centres.
- 6. There is growing advocacy from clinicians in Queensland, including members of the Queensland Clinical Senate and the Australian Medical Association Queensland, for Queensland to align its policy and funding position with the current evidence base.
- 7. It is proposed to establish a Queensland Bariatric Surgery Working Group comprising clinical experts and Departmental representatives to develop a Framework for Bariatric Surgery in Queensland public hospitals and pilot its use, for a defined cohort, with the Working Group overseeing the delivery and evaluation of the pilot. In support of this, it is proposed that the Department make available up to \$5 million over two years from 2017-2018 to fund additional bariatric surgery. While the full costs per patient will not be known until work has been undertaken to define the patient pathway, it is estimated that this sum could potentially increase current publicly funded numbers by up to an additional 400 people over that period.

Vision

8. This brief aligns with all four directions set out in the 10 year vision *My health*, *Queensland's future: Advancing health 2026*: of Promoting health, Delivering healthcare, Connecting healthcare and Pursuing innovation as it proposes to tackle funding and policy barriers to deliver healthcare services which are evidenced to improve health.

Results of Consultation

9. Consultation has taken place with System Policy and Planning Division, Clinical Excellence Division, and the Prevention Division, all of whom agree with the proposal.

Resource Implications (including Financial)

10. Funding of \$5 million (spread over two years) will be identified from the existing purchasing pool in 2017-2018 and 2018-2019 and is for additional services above current procedure volumes in Hospital and Health Services due to clarity in access protocol.

Background

- 11. Policy and funding for bariatric surgery in the Queensland public health system has been under active discussion for almost a decade.
- 12. In 2011, the Queensland Policy and Advisory Committee on New Technology recommended the inclusion of bariatric surgery as a treatment option targeted to specific patient cohorts.
- 13. Additionally, in 2015 the Australian Medical Association Queensland called for publicly funded bariatric surgery 'as a last resort and a targeted investment, which would allow patients who have tried and failed to lose weight to achieve a healthy weight'.
- 14. Further background information is provided in Attachment 1 'Proposal for bariatric surgery services in Queensland'.

Attachments

15. Attachment 1: 'Proposal for bariatric surgery services in Queensland'

Department RecFind No:	BR065821
Division/HHS:	HPSP
File Ref No:	

Author	Cleared by: (SD/Dir)	Content verified by: (CEO/DDG/Div Head)	
Jane Partridge	Toni Cunningham	Nick Steele	
Director	Senior Director	Deputy Director-General	
Healthcare Purchasing Strategy Unit	Healthcare Purchasing and Funding Branch	Healthcare Purchasing and System Performance Division	
3836 0185	3405 6116	3234 0883	
20 February 2017 7 March 2017	21 February 2017 7 March 2017	21 February 2017	

Healthcare Purchasing and System Performance

Proposal for bariatric surgery services in Queensland

Summary

- Over recent years a significant evidence base has developed demonstrating the clinical and costeffectiveness of bariatric surgery for targeted groups of patients.
- This has led to widespread international and Australian policy endorsement of bariatric surgery provision as a valid publicly funded intervention for the management of a small subset of patients with severe and complex obesity, once other less invasive and less costly interventions have proven unsuccessful; this includes guidance from the National Health and Medical Research Council.
- Queensland remains the only Australian state conducting public bariatric activity without state guidance or a published position on access to this service.
- There is growing advocacy from clinicians in Queensland, including members of the Queensland Clinical Senate and the Australian Medical Association Queensland for Queensland to align its policy and funding position with the current evidence base.

Background in Queensland

Policy and funding for bariatric surgery in the Queensland public health system has been under active discussion for almost a decade.

In 2008 limited funding was provided through the then Centre for Healthcare Improvement to establish a state-wide service between the Royal Brisbane and Women's Hospital (RBWH) and the Princess Alexandra Hospital (PAH).

In 2011 the Queensland Policy and Advisory Committee on New Technology (QPACT) recommended the inclusion of bariatric surgery as a treatment option targeted to specific patient cohorts, based on a Health Technology Assessment by Deloitte commissioned by the Department of Health.

Over that time there has been a rapid increase in bariatric surgeries taking place in Australia and in Queensland, primarily in the private sector. There are now pockets of private and public provision across the state. In Queensland, a total of 6,988 procedures were carried out in public and private hospitals in 2015-16. The vast majority (92%, n= 6,406) were carried out in private hospitals and privately funded. Of the remaining 582 procedures which were carried out in public hospitals 323 procedures (55%) were identified as private patients and 259 (45%) as public.

Evidence and policy developments

Over recent years a significant evidence base has developed that has assessed bariatric surgery as cost-effective in tackling the co-morbidities associated with morbid obesity, such as diabetes. Additionally there is now evidence that in some individuals obesity is not the result of poor willpower or compliance but



rather the result of a number of genetic and physiological challenges, which are resistant to psychological or social interventions and for whom no other currently available therapies are as effective as surgical management in achieving weight loss and improving obesity-related diseases.

Additionally there is now evidence as to the wider social benefit and immediate and long-term quality of life improvement for patients that comes from bariatric surgery, including reversal of morbidities and decreased premature mortality, together with potential wider familial impact on health.

These findings have influenced policy development internationally and across Australia and led to an increasing number of jurisdictions now offering bariatric surgery as a last step intervention. International organisations such as International Diabetes Federation and World Health Organisation now formally recognise the potential benefits of targeted provision of surgery and in England previous guidelines have now been broadened, increasing the size of the cohort eligible for surgery.

Within Australia, the National Health and Medical Research Council (NHMRC) in 2013 produced *Clinical practice guidelines for the management of overweight and obesity for adults, adolescents and children in Australia.* These recommend that for adults with BMI > 40 kg/m2, or adults with BMI > 35 kg/m2 and comorbidities that may improve with weight loss, bariatric surgery should be considered - taking into account the individual situation. Centres of excellence in Sydney and Melbourne have demonstrated that high volume public access bariatric surgery is successful and cost effective within the public health system. In Tasmania the rapid provision of surgery has been funded as a response to its obesity epidemic and in Victoria \$8 million funding was made available over four years from 2014-15 to deliver 200 additional surgeries each year as part of a suite of measures to help tackle obesity.

In 2015 the Australian Medical Association Queensland called for publicly funded bariatric surgery "as a last resort and a targeted investment, which would allow patients who have tried and failed to lose weight to achieve a healthy weight".

However Queensland remains the only Australian state conducting public bariatric activity without state guidance or a published position. The current position is that, in line with the autonomous status of Hospital and Health Services, it is for them to decide locally the mix of services to be provided. However this leaves Queensland potentially exposed in terms of inconsistency of access and potential safety and quality issues associated with service proliferation in low volume, non-specialised bariatric centres, as well as potentially an opportunity cost to improve value in line with Queensland's commitment to value based healthcare.

Likely demand

Factors that influence public sector demand are primarily: the prevalence of morbid obesity - a dynamic and increasing number; levels of private health insurance/ capacity to self-fund procedures and; patient preferences – the proportion of eligible patients who are likely to elect for surgery.

In terms of managing this demand the clinical threshold for eligibility is a significant variable. Modelling undertaken in Queensland indicates that application of the NHMRC guidelines in Queensland would result in a total potential demand of up to 5,200 people, however this figure does not account for the significant number of self-funded surgeries which take place within Queensland each year (more than 6,000), a number of whom may be part of the same group and may continue to self-fund.

Applying QPACT guidelines (aged less than 45 years of age with a body mass index > 45 (Grade 3 Obese = >40) and comorbidities) suggests a much smaller cohort of around 743 Queenslanders. These figures disregard self-funded surgeries. Using Deloitte's 2011 Health Technology Assessment estimate of costs for surgery and multi-disciplinary care (adjusted for inflation), the cost of providing surgery and ongoing care for this number of cases would be \$14.7 million, including surgery costs of \$10.34 million. However an up-to-date costing is required based on current surgical techniques, which are less costly than those used in 2011, noting that the National funding model is indicating an average price per case in the

2016/17 year are \$8,922 (K11B Major Laparoscopic Bariatric Procedures, Minor Complexity) and \$12,150 (K11A Major Laparoscopic Bariatric Procedures, Major Complexity).

Risks

Three broad areas of risk are identified:

- Confidence in cost modelling
- Confidence in demand forecasts
- Professional and public controversy

Confidence in cost modelling and potential return on investment

Costs vary depending on the procedure and the patient pathway. Indicative costs in this proposal are based on previously identified costs which have been indexed. Further work is required to update these costs and to also ensure they reflect the entirety of the patient pathway, including the provision of alternate low cost interventions which should be offered in line with the approach of bariatric surgery as a last step intervention and the multi-disciplinary team contribution as per the NHMRC guidelines. Similarly economic modelling of system savings has not fully explored the costs of provision of pre and post surgical care, nor unpredictable costs such as complications and revisions. Additionally there may be associated follow up costs including skin reduction.

Confidence in demand forecasts

Assumptions have been made around the range of variables which could influence demand, and some factors are unknown such as the degree to which activity might shift from private to public sector. In 2007-08, 90% of separations for weight loss surgery were in private hospitals, with private health insurance contributing funding for 82% of separations. This figure has remained fairly consistent since then, however it is unknown as to how the recent additional investments by jurisdictions may alter this funding source mix. So far however the experience of other jurisdictions is that demand is manageable with fairly limited levels of investment so long as there are clear eligibility criteria for public access.

Professional and public controversy

While there is strong interest in bariatric surgery, it does remain controversial among some clinicians and in some sections of the public and the media, reflecting the limited understanding of morbid obesity, its causes and its consequences. However the advocacy of respected clinical leadership bodies, together with national guidelines supports positive messaging.

Recommendations

The groundswell of evidence, national guidelines and clinical advocacy represent a strong opportunity to develop a robust evidence based policy and investment plan to support the provision of publicly funded surgery as a last step and in addition to the suite of measures to address obesity in Queensland.

In a situation where there is a strong risk that potential demand could exceed supply there is a need for a managed approach to ensure that those patients most likely to benefit are consistently targeted in accordance with evidence based criteria and that a patient care pathway is developed and followed which ensures comprehensive pre-surgical options and input from a multidisciplinary team. Previous proposals for a state-wide obesity service have included a multi-disciplinary team comprising a Physician / Endocrinologist with a special interest in obesity management, a bariatric surgeon, dietician, exercise physiologist, psychologist and Specialist nurse with the ability to access other medical specialities (e.g.

cardiac) as required. Potential service models therefore need to be explored considering both a state-wide specialist service and/or a hub and spoke model, with hubs providing both the multi-disciplinary component of follow-up in addition to being able to do procedures such as lap band adjustments. The key focus will be to ensure optimal patient outcomes. There will also be a need to monitor and respond to the rapid clinical practice developments in this domain, including pharmacological treatment and bio-therapies which may become alternative less-invasive strategies, as well as the impact of ongoing prevention strategies in terms of surgery volumes.

This will all need to be delivered within a finite investment budget, therefore a staged approach is proposed, with the establishment of a pilot service for a defined cohort of patients initially targeting those in most need already within the health system- for example those already under the care of specialist diabetes services.

While there will be opportunity within the pilot to re-purpose a proportion of existing budgets used for bariatric surgery (targeted in line with evidence based patient selection criteria) there is likely to be a need for additional funding to ensure an operationally and statistically valid cohort size. It is therefore proposed to make available up to \$5 million over two years from 2017-18. This could potentially increase current publicly funded numbers by around an additional 400 people over that period (numbers subject to more detailed costing study).

The anticipated benefits of the pilot are that:

- Equitable access will be provided, regardless of where the patient lives
- Services will be consistently targeted in line with the evidence, improving patient outcomes and cost-effectiveness
- Services will be monitored and evaluated, optimising safety, quality and health outcomes.
- Services will be affordable through a controlled pilot which will assess actual cost and uptake prior to any wider rollout.

It is therefore recommended that:

- A Queensland Bariatric Surgery Working Group is established. Membership and terms of reference will be derived but is anticipated that the group will be clinically led and include clinical experts and departmental representatives. The Working Group will develop a Framework for Bariatric Surgery in Queensland public hospitals. This framework will include:
- Patient care pathways, including how surgery fits with other strategies to address morbid obesity
- · Patient selection, including evidence-based eligibility criteria and patient prioritisation criteria
- · The infrastructure and capability requirements for providers of bariatric surgery in Queensland
- Mechanisms for quality and outcome monitoring.
- 2. Pilot the use of this Framework for a defined cohort, with the Working Group overseeing the delivery and evaluation of the pilot.
- 3. In support of this, that the department make available up to \$5 million over 2 years from 2017-18, with recurrent funding to be subject to pilot evaluation. There may be a need for a small proportion of this to resource the Working Group and enable clinical participation.

Acknowledgements

This summary is drawn from significant research undertaken by Strategic Policy and Legislation Branch in System Policy and Planning Division, together with the advice and expertise of the Clinical Access and Redesign Unit and the Chief Health Officer.

RM folder reference No:	C-ECTF-18/5866
Division:	HPSP
File Ref No:	

SUBJECT: Statewide Bariatric Surgery Initiative implementation progress

Recommendation				
It is recommended the Minister:				
1. Note the progress made on the implementation of the statewide Bariatric Surgery Initiative.				
NOTED	PLEASE DISCUSS			
Steven Miles MP Minister for Health and Minister for A	Date: / / mbulance Services			
Ministerial Office comments				

Issues

- In the second half of the 2017 calendar year, the two-year statewide Bariatric Surgery Initiative (BSI) was launched, backed by an investment of up to \$5 million over the two-year period, with further recurrent funding to be subject to evaluation of this initiative.
- Through this initiative, people aged 18-65 with obesity and uncontrolled type 2 diabetes, who are currently receiving public hospital specialist treatment for a condition that may be reversed or improved by bariatric surgery, may be eligible for assessment for bariatric surgery.
- 3. This initiative ensures a more consistent and equitable approach across Queensland public hospitals in how people can access bariatric surgery, with the criteria for patient eligibility developed by an expert group of clinicians based on the best available evidence.
- 4. This \$5 million investment from the Queensland Government was anticipated to deliver up to 300 bariatric (weight loss) surgeries over 2017-18 and 2018-19.
- 5. Despite previous concerns that demand for bariatric surgery would exceed available capacity, the volume of referrals received since September 2017, when the new services were established, have been lower than the available treatment capacity.
- 6. As at 27 June 2018, 201 referrals have been received. A table summarising the service activity is provided (Attachment 1).
- 7. In May 2018, the BSI Clinical and Operational Reference Group (CORG) reviewed the referral trends and noted that although the number of referrals received was lower than initially estimated, the BSI had only been functioning for eight months since September 2017, and the overall referral trend is upward. Therefore, it has recommended to maintain the current referral eligibility and process, but that further work should be undertaken to ensure awareness of the service among potential referrers.

Michael Walsh Director-General

RM folder reference No:	C-ECTF-18/5866
Division:	HPSP
File Ref No:	

- 8. The BSI CORG also noted that a significant proportion of patients did not progress to surgery (currently around 19 per cent), for reasons including psychological/mental health and self-initiated cancellation, reflecting the complex nature of this patient group.
- 9. The CORG will review the situation again in six months.

Vision

10. This brief is aligned to delivering healthcare under *My health, Queensland's future: Advancing health 2026* as it will contribute to the core business of the health system and improve equitable access to quality and safe healthcare in its different forms and settings.

Background

- 11. On 26 July 2017, the Honourable Cameron Dick MP, the then Minister for Health and Minister for Ambulance Services, announced the BSI aimed at reducing the burden of obesity and diabetes for Queenslanders.
- 12. This initiative is in response to a recommendation made by Queensland's peak clinical body, the Queensland Clinical Senate, from its Challenges in Healthcare meeting in March 2017, that the Department of Health develop a published policy position on access to, and eligibility for, bariatric surgery.
- 13. The CORG has endorsed the proposed centralised referral model for statewide bariatric surgery referrals.

Sensitivities

14. Patients seeking access to the BSI may be dissatisfied they cannot undergo a bariatric surgery procedure due to them not meeting the clinical eligibility criteria.

Results of Consultation

15. As above, discussion with key stakeholders occurs through the CORG.

Resource Implications (including Financial)

16. Discussed in the "Issues" section of this brief.

Attachments

17. Attachment 1: Bariatric Surgery Initiative activity (as at 27 June 2018)

Department Contact Officer

Ms Jane Partridge. Director, Healthcare Purchasing and Strategy Unit, Healthcare Purchasing and System Performance Division, on 3708 5902 or email <u>jane.partridge@health.gld.gov.au</u>

A				
Author	Cleared by: (SD/Dir)	Content verified by: (CEO/DDG/Div Head)		
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Healthcare Purchasing and Healthcare Purchasing & Funding		Healthcare Purchasing and System		
Strategy Unit Branch		Performance Division		
3708 5903	3708 5887	3708 5810		
12 July 2018	18 July 2018	19 July 2018		

Bariatric Surgery Initiative activity (as at 27 June 2018)

HHS	Number of referrals allocated	Number of patients seen in outpatient department for their first appointment	Number of patients discharged (including patient initiated removal) prior to surgery	Number of surgeries performed	Number of additional patients booked for surgery
Metro South	113	86	18	24	18
Metro North	88	65	20	27	8
Total	201	151	38	51	26

RM folder reference No:	C-ECTF-17/6951
Division/HHS:	Prevention
File Ref No:	QCHO/009713

SUBJECT: *My health for life* – Greater Brisbane program launch

Recommendation		
It is recommended the Minister:		
1. Note the Greater Brisbane launch of the <i>My health for life</i> program will be occurring in Ipswich on 4 October 2017, and the information provided in the brief and attachments.		
NOTED	PLEASE DISCUSS	
Cameron Dick MP Date: / / Minister for Health and Minister for Ambulance Services		
Ministerial Office comments		

Issues

- 1. There will be a Greater Brisbane launch of the *My health for life* program on 4 October in Ipswich to promote the program's available across South East Queensland.
- 2. The *My* health for life program is for adults over 45 years of age; Aboriginal and Torres Strait Islander people over 18 years of age; and adults over 18 years of age living with pre-existing conditions that place them at high risk of developing chronic disease e.g. previous history of gestational diabetes, high blood cholesterol or high blood pressure.
- 3. The program is available free-of-charge to eligible participants and assists them to adopt and maintain healthy behaviours such as consuming healthy foods including fruit and vegetables; achieving and maintaining a healthy weight; quitting or reducing smoking; and consuming safe levels of alcohol.
- 4. Background information for the launch about diabetes and obesity for the populations of Ipswich HHS, South East Queensland and state-wide is at Attachments 1 to 3.
- 5. Following initial program launch in Wide Bay on 24 March 2017, state-wide implementation of *My health for life* has continued.
- 6. To date, the program has received more than 500 enrolments and 120 participants have completed the program.
- 7. The program is delivered by the Healthier Queensland Alliance, led by Diabetes Queensland and includes Heart Foundation, Stroke Foundation, Ethnic Communities council of Queensland, Queensland Aboriginal and Islander Health Council and the Queensland Primary Health Networks.

Department RecFind No:	C-ECTF-17/6951
Division/HHS:	Prevention
File Ref No:	QCHO/009713

Vision

8. The *My* health for life program aligns with Direction 1 Promoting Wellbeing - improving the health of Queenslanders through concerted action to promote healthy behaviours, prevent illness and injury and address the social determinants of health (*My* health, Queensland's future: Advancing health 2026: Promoting wellbeing, Delivering healthcare, Connecting healthcare, and Pursuing innovation.)

Background

- 9. Queenslanders live about 15 per cent of their lives in a state of poor health and disability, largely due to chronic diseases including those that are preventable such as diabetes and heart disease.
- 10. Increased awareness of disease risk, early detection, and support to maintain a healthy lifestyle can make a difference.
- 11. This is why the Government has committed to delivering the *My health for life program*, as a major initiative to reduce the burden of chronic disease.
- 12. At least 10,000 Queenslanders identified at highest risk of developing type 2 diabetes, cardiovascular disease and other preventable conditions will be supported by the *My Health for Life program,* involving personalised <u>telephone</u> coaching or <u>group based</u> sessions delivered by qualified health coaches or facilitators over 6 months.
- 13. Telephone health coaching has been available state-wide since June 2017.
- 14. Group based programs currently available to residents in Wide Bay, Cairns, Moreton North, Gold Coast, Brisbane South and Ipswich.
- 15. Group based program availability in all HHS is anticipated by April 2018.
- 16. Local health providers play a critical role in program sustainability by either participating as program facilitators or actively identifying and referring eligible clients to the program. Accordingly, the program implementers have now commenced community and health provider engagement in Townsville, Rockhampton, Sunshine Coast, Toowoomba and Mackay regions to raise program awareness, recruit local service providers and facilitators and identify sustainable program referral pathways.

Sensitivities

17. Nil

Results of Consultation

18. Diabetes Queensland has provided latest program enrolment information.

Resource Implications (including Financial)

19. \$27.24 million has been committed over four years under Election Commitment 150.

Attachments

- 20. Attachment 1: Fast facts on diabetes and obesity
 - Attachment 2: Diabetes key facts sheet (Chief Health Officer Report 2016)
 - Attachment 3: Adult overweight and obesity in Queensland key fact sheet (Chief Health Officer Report 2016)

Department RecFind No:	C-ECTF-17/6951
Division/HHS:	Prevention
File Ref No:	QCHO/009713

Department Contact Officer

Ms Kaye Pulsford, Executive Director, Preventive Health Branch on telephone 3328 9083 or mobile

Dr Jeannette Young, Chief Health Officer and Deputy Director-General on telephone 3708 5190 or mobile

Author	Cleared by: (Dir/SD)	Content verified by: (ED/DDG/)
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Manager	Director	Chief Health Officer and Deputy Director-
		General
Preventive Health Branch	Preventive Health Branch	Prevention Division
3328 9318	3328 9234	3708 5190
29 September 2017	29 September 2017	29 September 2017

Fast Facts

WEST MORETON HHS

- It is estimated that about 20,000 adults in West Moreton HHS either have diabetes or are at risk of developing it based on the state prevalence (5% with diabetes, 5.6% at risk).
- About 130,000 adults in WMHHS were overweight or obese based on self reported prevalence in 2015–16. About half of these (65,000) were obese.
- Rates of adult obesity in WMHHS were 42% higher that the state average.
- Hospitalisation rates for coronary heart disease, stroke and diabetes in WMHHS were about 20% higher than the state average.
- The WMHHS population is projected to increase by more than 50% up to 2026, the largest relative growth in Queensland among the HHSs and more than double the state average.

SOUTHEAST QUEENSLAND

- Over a quarter of a million adults in southeast Queensland (SEQ) are likely to have diabetes or be at high risk of developing it.
- 1.2 million adults in SEQ were overweight or obese based on self reported prevalence in 2015–16. About 0.5 million were obese.
- 60% of the state population live in SEQ and will account for two-thirds of the projected increase over the next 20 years.

QUEENSLAND: COST OF DIABETES IN

- Of the 155,000 potentially preventable hospitalisations (PPHs) in 2013-14, about 39,000 or 25% were for diabetes complications.
- It is estimated that healthcare costs associated with diabetes in Queensland were \$0.37 billion in 2011-12.
- In the eight years between 2000-01 and 2008-09, healthcare expenditure allocated to diabetes increased by 86% from \$811 million to \$1507 million nationally.
- In 2013, the annual <u>productivity impact</u> of diabetes to Queensland was estimated at \$1.1billion per year (not including health costs). (*haven't checked* this statistic)

The number of prevalent diabetes cases is projected to triple, resulting in a five-fold increase in expenditure in the 30 years between 2002-03 and 2032-33 – the largest single cause of anticipated proportional increase in expenditure.

OBESITY

Health Impacts

- High body mass accounted for 5.5% of Disability Adjusted Life Years (DALYs) in Australia in 2011 and was the third largest cause of disease burden of the risk factors, after smoking and the combined effect of all dietary factors. In 2013-14 there were about 83,500 hospitalisations due to high body mass in Queensland.
- The disability burden due to high body mass doubled in the 20 years from 1990 to 2010 due to the increased prevalence of obesity in Australia.
- In 2011-12, Queensland adults who measured as obese were about 4 times as likely to also have diabetes as those who were not obese – the prevalence of diabetes was 11% among obese adults compared with 2.6% in non-obese adults.
- High body mass accounted for 11,564 deaths (7.9% of all Australian deaths) in 2011. 2,300 of these deaths were Queenslanders.

Costs

- The financial cost of obesity is high and was estimated in 2015 at about \$1.72 billion in Queensland. Of this, 44% was due to health system costs (\$0.76 billion in Queensland), 40% to tax foregone, 12% to productivity losses including absenteeism and 4% to government subsidies.
- The impact of loss of wellbeing and early death was assessed at \$9.5 billion in Queensland), taking the total cost of obesity in Queensland in 2015 to \$11.2 billion.

Projections

 It has been estimated that by 2020, 2.4 million Queenslanders will be overweight or obese (2.2 million adults and 0.2 million children). two thirds of adults will be overweight or obese. In 2013, 64% of the total population of Queensland was overweight or obese.

Diabetes

Diabetes is a chronic metabolic disease affecting many Queenslanders. Undiagnosed or poorly managed diabetes increases the risk of cardiovascular and renal disease, limb amputation, and eye disease and can lead to lifelong health complications.

Diabetes was recognized as the 12th largest cause of disease burden in Australia in 2011, accounting for 2.3% of total burden.³

Complications of diabetes are a leading cause of potentially preventable hospitalisation and impact significantly on a person's long-term health and wellbeing.

Prevention of lifestyle related chronic conditions including type 2 diabetes is a major commitment of the Queensland Government. ⁵ The four-year *Health For Life* investment to commence in 2016 will offer integrated risk assessment and lifestyle modification interventions to targeted high risk populations across the state.

This factsheet is based on data from a range of sources, all of which are cited. Each data source is subject to limitations as described. Unless otherwise specified, diabetes refers to all types combined.

Monitoring of diabetes is limited by gaps and complexities in data collection.

Measurement of blood glucose: Diabetes is a clinically defined disease, with prevalence based on biomedical assessment. Over the past 16 years there have been two blood measurement surveys:

- The Australian Health Survey (AHS) 2011–12 is the most recent national survey to clinically assess diabetes prevalence using the fasting plasma glucose test (FPG).² It also assessed status using HbA1c test.
- The AusDiab Study commenced in 1999⁶ and was designed as a longitudinal cohort study to monitor diabetes, obesity and risk factors for chronic disease, based on physical and biomedical measurements. Diabetes was diagnosed by blood test using both the glucose tolerance test (GTT) and fasting plasma glucose (FPG). The initial cohort was adults aged 25 years and older. As with all cohort studies, the longer the duration of the study, the less representative of the general population the sample becomes.

Self-report data may provide a more timely assessment of diabetes prevalence but it remains uncertain how accurately it reflects the true prevalence.

National Diabetes Register identifies insulin-dependent cases—all type 1 cases and those cases of type 2 that require insulin. The register is based on information from the National Diabetes Services Scheme (NDSS) and Australasian Pediatric Endocrine Group databases. It may not fully capture all cases of disease.

The NDSS establishes the minimum known number of diagnoses, but there are many people who are not on the NDSS as well as undiagnosed cases.

Prevalence (18+ years)

Biomedical¹

In 2011–12, 5% of Queensland adults had diabetes based on blood measurement (FPG). Of these, 4% were known cases and 1% were diagnosed at survey (that is, for every four diagnosed cases there was one undiagnosed). An additional 5.6% were at risk of developing diabetes.

In 2016, based on 2011–12 prevalence, about 390,000 Queensland adults were likely to have diabetes or be at risk of developing it:

- 148,000 known cases,
- 37,000 undiagnosed cases
- 207, 000 at risk.

Prevalence (18+ years) Self-report ⁴

In 2014–15, 4.6% of Queensland adults selfreported diabetes, an estimated 170,500 adults in 2016.⁸

Prevalence:

- was 55% higher in adult males (5.6%) than females (3.6%)
- increased with age from 2.2% in 25–44 year olds to 14% in those aged 65 years and older.

Incidence (≥25 years) AusDiab Study ⁶

There are no current population studies to provide incidence estimates of diabetes.

However, based on the AusDiab cohort study, incidence rates were assessed between the baseline (1999) and the follow-up years 2005 and 2012. Over this period the number of new cases increased by 0.7% per year on average among adults who were aged 25 years and older at baseline.

National Diabetes Service Scheme (NDSS)

In 2015, there were 221,885 registered cases of diabetes in Queensland:

- 10% had type 1
- 86% had type 2
- 3% had gestational
- <1% had other forms.

About one-third of all registered cases in 2015 required insulin.

Over 5 years (2011–2015) based on registrants, the number of new cases for:

- type 1: remained stable
- type 2: \downarrow each year
- gestational: ↑ each year.

Prevalence by type

All diabetes

- 5% of Queensland adults had diabetes based on blood measurement (FPG) in 2011–12.²
- 5% of Queensland adults were registered with NDSS as having type 2 diabetes in 2015.⁷
- 7% of Queensland adults aged 25 years and older had diabetes based on blood measurement (GTT) in 1999.

Type 1 (insulin-dependent diabetes)

There were 21,870 registered cases of type 1 diabetes in Queensland in 2015 (NDR):

- adults (16+ years): 0.5%, 20,562 cases
- children (0–15 years.): 0.2%, 1608 cases .

Type 2 (non-insulin dependent diabetes)

There were 140,276 registered cases of non-insulin dependent type 2 diabetes in Queensland in 2015 (NDSS).⁷ This is an underestimate as not all cases of diagnosed diabetes are registered and undiagnosed cases are not included.

Insulin-dependent type 2 diabetes

There were 51,793 registered cases of insulin dependent type 2 diabetes in Queensland in 2015 (NDR).

Gestational diabetes

- There were 6798 registered cases of gestational diabetes in Queensland in 2015—11% of women who gave birth and of these, about 1400 (20%) required insulin.
- In 2014, of 62,807 Queensland women who gave birth,
 - 5488 or 8.7% had gestational diabetes
 - 440 or 0.7% had pre-existing diabetes.

Incidence by type and age

New registrants on NDSS

- Type 1 (insulin-dependent) diabetes: 678 new cases of type 1 diabetes were registered on the NDR in Queensland in 2015 and 39% were children (0–15 years).
- Type 2 diabetes: 12,169 new cases were registered in Queensland in 2015 where 11% were insulin dependent, 75% were adults aged 50 years and older and 0.5% were children and young adults (0—20 years) (NDSS).

AusDiab Study

- Between 1999 and 2012, 0.7% of adults aged 25 years and older at baseline developed diabetes each year on average—an estimated 22,000 new cases in 2016. The accuracy of this assessment is unknown given the duration of the cohort study.
- Incidence rates (1999 to 2012) increased with the level of risk at baseline⁹:
 - normal glucose levels: 0.3% per year
 - impaired fasting plasma glucose: 2.2% per year
 - impaired glucose tolerance test: 3.0% per year.
- Incidence increased with age from 0.3% in 25–34 year olds to 1.3% in 65–74 year olds.⁹

Hospitalisations

- In 2013–14, there were 8798 hospitalisations for diabetes based on principal diagnosis (excluding gestational diabetes):
 - 58% were males (5124) and 42% females, (3674)
 - 9.8% were Indigenous Queenslanders
 - 7.8% were children aged 0–14 years
 - 13% were aged 15–29 years
 - 25% were adults aged 30–54 years
 - 36% were adults aged 55–74 years
 - 19% were older adults aged 75+ years
 - 57 years was the median age of hospitalisation.
- There were an additional 176,737 hospitalisations where diabetes was associated with admission but not the primary cause (other diagnosis).
- Of the 155,000 potentially preventable hospitalisations (PPHs) in 2013–14, about 39,000 or 25% were for diabetes complications (Queensland Health definition of PPHs which includes all hospitalisations for diabetes).
- Trends in hospitalisations for diabetes cannot be assessed due to changes in coding over the past decade.

Deaths

- In 2014 there were 827 deaths due to diabetes (412 males, 415 females) which included¹⁰:
 - 58 insulin dependent cases
 - 433 non-insulin dependent cases
 - 336 unspecified cases.
- 34% of diabetes deaths occurred in people aged 0–74 years in 2012 (183 males and 101 females).¹¹
- The lifetime risk of dying before age 75 years (2007–2011) was less than 1% (0.8% for males, 0.5% for females).
- The diabetes death rate did not change between 2002 and 2012.¹¹

Sociodemographic characteristics

- Prevalence and incidence were higher in males than females nationally—prevalence of 6.3% and 3.9% respectively and annual incidence rates of 0.8% per year and 0.6% per year respectively. ^{2,9}
- Hospitalisation rates (2013–14) were:
 - 42% higher for males than females
 - 2.1 times greater in disadvantaged areas than advantaged areas
 - higher outside major cities: 12% higher in inner regional areas, 37% higher in outer regional areas and 2.3 times higher in remote and very remote areas.

- Death rates (2010–2012) were:
 - 2.3 times higher in disadvantaged areas than advantaged areas (2.2 females, 2.5 males).
 - higher outside major cities: 22—28 % higher in regional areas and 2.2 times greater in remote and very remote areas (females 1.7 and males 2.5 times).

Indigenous Queenslanders

Prevalence: 2012–13¹³

- 1 in 12 (8.2%) or 6600 Indigenous Queenslander adults had diabetes based on biomedical assessment (FPG).
- The Queensland rate (8.2%) did not differ from the national rate (11%).
- Queensland had the lowest prevalence of diabetes among five jurisdictions with available data.
- Compared with non-Indigenous and after adjustment for age differences, Indigenous Australians were 3.3 times as likely to have diabetes (16% compared to 5%).
- Greater awareness of diabetes is resulting in more complete diagnosis, resulting in fewer undiagnosed cases in Indigenous Australians than non-Indigenous (1:7 compared to 1:4).
- Diabetes prevalence in Indigenous Australians living in remote and very remote areas was 2.5 times that of Indigenous Australians living in major cities (21% compared to 8%).
- Indigenous Australians with diabetes were 5 times more likely to have chronic kidney disease compared to Indigenous Australians without diabetes (53% compared to 11%).
- Indigenous Australian adults experience diabetes 20 years earlier than non-Indigenous.

Hospitalisations

There were 198,000 hospitalisations for diabetes for Indigenous Queenslanders in 2013–14 and the crude rate was 2.4 times the non-Indigenous rate (4.2 times after adjusting for age).

Deaths

- There were 57 deaths of Indigenous Queenslanders due to diabetes in 2014 and the rate was 5.2 times the non-Indigenous rate.¹⁴
- Indigenous Queenslanders were more likely to die at an earlier age (before 50 years) due to diabetes in 2010–2011 (19% compared with 2.6% for non-Indigenous).

Trends

The pattern of change for Indigenous Queenslanders shows some improvements, with death rates for diabetes decreasing by 6.0% per year between 2002 and 2011. These gains have largely been achieved for those aged 50 years and older.¹¹

Trends

- Biomedical prevalence: there is insufficient data to assess trends because there is currently no national measured data for monitoring diabetes prevalence.
- Self-report prevalence: there has been a 25% increase in 12 years.¹⁵
- There is insufficient information to assess the population incidence of diabetes, including the stage of diagnosis and duration to requiring insulin.
- Incidence rates for type 1 diabetes have been steady for children and adults nationally over a decade.¹⁶
- It is not possible to reliably report trends of insulin dependent type 2 diabetes, due to changes in data collection methods over the past decade.
- Hospitalisations: due to coding changes over the past decade, trends cannot be reported. ¹⁷
- Deaths: there has been no change in death rates over the past decade.¹¹ About half the deaths due to diabetes are not specified to type and as a consequence monitoring trends in types of diabetes is limited.

National comparisons:

Queensland did not differ from national for:

- adult prevalence of diabetes based on blood measurement—Queensland 5.0% and Australia 5.1% in 2011–12.²
- prevalence of type 1 diabetes in children in 2013.¹⁶
- death rates for diabetes in 2014.¹⁸

Costs

The number of prevalent diabetes cases is projected to triple in the 30 years between 2002–03 and 2032–33, resulting in a five-fold increase in expenditure—the largest single cause of anticipated proportional increase in expenditure. ¹¹

Per capita state government spending for type 2 diabetes for Indigenous Australians was 3.9 times non-Indigenous spending. $^{19}\,$

Burden of disease

The latest burden of disease and injury study for Australia was released in 2016 (2011 data).³ Gestational diabetes was not included in the data below.

Total disease burden (DALYs):

- Diabetes was ranked the 12th largest cause of disease burden, accounting for 2.3% of total DALYs in Australia in 2011, where fatal outcomes were slightly higher (53% YLL) than the disability burden (47% YLD).³
- Diabetes caused a greater burden among Australian males (ranked 8th) than females (ranked 14th).³

Disability burden (YLD):

- Diabetes was ranked the 14th largest cause of disability burden accounting for 2.1% of YLDs in Australia in 2011.
- The disability burden due to diabetes was ranked higher in males (13th) than females (16th) in 2011.³

Trends

The total burden from diabetes decreased for Australian males by 1.0 % between 2003 and 2011, and increased for Australian females by 5.8%, after adjusting for age. These relatively small changes in total burden conceal quite different changes in fatal burden (YLL) and disablity burden (YLD):³

- the fatal burden (YLL) decreased by 16% for males and 8% for females between 2003 and 2011
- the disability burden (YLD) increased by 24% for males and 27% for females in the same period.³

Risk factors

The leading risk factors for type 2 diabetes in Australia in 2011 were high body mass, physical inactivity and dietary factors. Tobacco smoking and harmful use of alcohol made a small contribution.

Diabetes and obesity

Obesity is a major risk factor for developing type 2 diabetes. The prevalence of diabetes among obese Queensland adults was 4 times that of non-obese in 2011–12 (11% compared with 2.6%).¹¹

About 90% of adults who had been measured as obese in 2011–12 did not have diabetes. Of those with diabetes

based on blood measurement (most had type 2 diabetes), two-thirds were obese. $^{11}\,$

Diabetes management

In 2011–12, of Australians with diabetes: ²⁰

- 41% checked their blood glucose daily and 21% weekly
- 75% had an HBA1c test in the previous 12 months
- 23% were taking insulin daily
- 54% had a family history of diabetes
- 66% were following dietary advice to manage diabetes
- 17% had lost weight in the previous two weeks to manage diabetes
- 30% had exercised on most days in the previous two weeks to manage the condition
- 29% had consulted a diabetes educator in the previous 12 months
- 12% had consulted a podiatrist/chiropodist in the previous 12 months
- 11% had consulted a dietician/nutritionist in the previous 12 months
- 10% had consulted an optician in the previous 12 months
- 27% checked their feet at least monthly.

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Adult overweight and obesity in Queensland



DOH-DL 18/19-017 The health of Queenslanders 2016. Report of the Chief Health Officer Queensland

Adult overweight and obesity in Queensland



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Childhood overweight and obesity in Queensland

