25th June 2018

Committee Secretary
Department of the Senate
PO BOX 6100
Parliament House
Canberra ACT 2600

By electronic submission: obesitycommittee.sen@aph.gov.au

To Committee Secretary,

Thank you for the opportunity to provide information to the Senate Committee into the obesity epidemic in Australia, established on 16 May 2018. After tobacco, overweight and obesity contributes most heavily to the disease burden affecting Aboriginal and Torres Strait Islander Australians. It is recognised that obesity is a condition that is controlled or driven by elements that are external to the individual. We need to have a focus on system-wide interventions to address the obesity epidemic, focussing less on the individual. Below we outline a number of key learnings from over 15 years' experience implementing continuous quality improvement methods into Indigenous primary health care centres.

Key learning: System issues require system-level responses – continuous quality improvement is a response that has demonstrated outcomes and acceptable in Aboriginal and Torres Strait Islander communities.

As a Centre for Research Excellence in Integrated Quality Improvement (Grant ID #1078927) we wish to draw your attention to the substantial body of evidence that demonstrate that sustained and long term commitments to implementing continuous quality improvement activities into primary health care leads to improved delivery of care, across the scope of best practice, and ultimately improved health outcomes. (Matthews *et al.* 2014; Gibson-Helm *et al.* 2015; Bailie *et al.* 2017a; Bailie *et al.* 2017b)

In addition to applying CQI principles in the clinical setting we have applied in other settings (McCalman *et al.* 2018) such as community food security in remote Indigenous Australia, and demonstrated that:

- CQI approaches can be applied beyond clinical settings to these system challenges such as food supply;
- That implementation of CQI enabled community led solutions to food supply issues and positive shifts in community diet where community led actions were implemented. (Brimblecombe *et al.* 2015; Brimblecombe *et al.* 2017)

Key learning: CQI has shown to improve adherence to best practice delivery of care

We attach a letter we recently published in the Medical Journal of Australia on obesity documentation and management for pregnant Aboriginal and Torres Strait Islander women in primary health care services ('*Attachment 1'*):

> Bailie J, Boyle JA, Bailie RS: **Population attributable fractions of perinatal outcomes for nulliparous women associated with overweight and obesity, 1990-2014**. *Med J Aust* 2018, **208**(11):505-506.

Please don't hesitate to contact us for further information.

Regards,

Professor Ross Bailie
University Centre for Rural Health
Centre for Research Excellence in Integrated Quality Improvement
[redacted]

References:

Below is a list of references to support assertions in text. They are all freely available and accessible by "Open Access":

Bailie, J, Matthews, V, Laycock, A, Schultz, R, Burgess, CP, Peiris, D, Larkins, S, Bailie, R (2017a) Improving preventive health care in Aboriginal and Torres Strait Islander primary care settings. *Globalization and Health* 13, 48.

Bailie, R, Matthews, V, Larkins, S, Thompson, S, Burgess, P, Weeramanthri, T, Bailie, J, Cunningham, F, Kwedza, R, Clark, L (2017b) Impact of policy support on uptake of evidence-based continuous quality improvement activities and the quality of care for Indigenous Australians: a comparative case study. *BMJ open* 7,

Brimblecombe, J, Bailie, R, van den Boogaard, C, Wood, B, Liberato, S, Ferguson, M, Coveney, J, Jaenke, R, Ritchie, J, 2017. Feasibility of a novel participatory multi-sector continuous improvement approach to enhance food security in remote Indigenous Australian communities. 3:

Brimblecombe, J, van den Boogaard, C, Wood, B, Liberato, SC, Brown, J, Barnes, A, Rogers, A, Coveney, J, Ritchie, J, Bailie, R (2015) Development of the good food planning tool: A food system approach to food security in indigenous Australian remote communities. *Health Place* 34, 54-62.

Gibson-Helm, ME, Teede, HJ, Rumbold, AR, Ranasinha, S, Bailie, RS, Boyle, JA (2015) Continuous quality improvement and metabolic screening during pregnancy at primary health centres attended by Aboriginal and Torres Strait Islander women. *The Medical Journal of Australia* 203, 369-370.

Matthews, V, Schierhout, G, McBroom, J, Connors, C, Kennedy, C, Kwedza, R, Larkins, S, Moore, E, Thompson, S, Scrimgeour, D, Bailie, R (2014) Duration of participation in continuous quality improvement: a key factor explaining improved delivery of Type 2 diabetes services. *BMC Health Services Research* 14, 578.

McCalman, J, Bailie, R, Bainbridge, R, McPhail-Bell, K, Percival, N, Askew, D, Fagan, R, Tsey, K (2018) Continuous Quality Improvement and Comprehensive Primary Health Care: A Systems Framework to Improve Service Quality and Health Outcomes. *Frontiers in public health* 6,

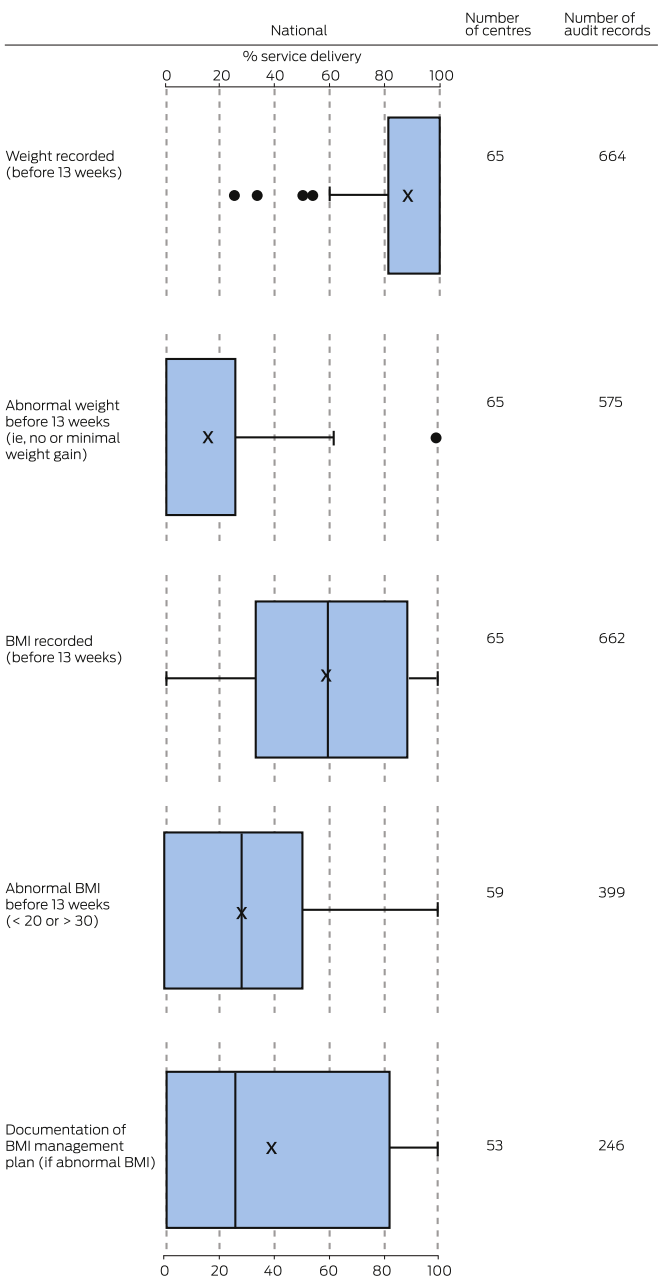
Population attributable fractions of perinatal outcomes for nulliparous women associated with overweight and obesity, 1990–2014

To the Editor: We congratulate Cheney and colleagues[1] for throwing light on the contributions of overweight and obesity on adverse birth outcomes by analysing data from a teaching hospital in central Sydney.[1] Around 16% of the women presenting between 2010 and 2014 were overweight, while 7% were obese. Furthermore, despite obesity being an important risk factor for adverse pregnancy outcomes, their study showed a lack of recording of body mass index (BMI) in patients' records.

Adverse pregnancy outcomes are more common among Indigenous Australian women than non-Indigenous women;[2] obesity levels are high in pre-conception and in pregnancy, and the subsequent adverse impact on increased metabolic health in offspring is likely contributing to early onset of diabetes and chronic disease in Indigenous Australians. Hence, we want to extend the debate to report on what is happening in primary health care (PHC) settings for Indigenous women. We have analysed continuous quality improvement data from audits of adherence to evidence-based guidelines for maternal care in 65 Indigenous PHC centres (1091 patient records) across Australia during 2012–2014.[3] The majority of women at most PHC centres had the first trimester weight recorded (mean, 90%; range, 60–100%), but there was wide variation in recording of BMI (mean, ~ 60%; range, 0–100%) (Box). This indicates that most barriers to BMI recording are more to do with clinicians' understanding of the value of and ability to calculate BMI than around women's willingness to be weighed. For women with an abnormal BMI (mean, ~ 30%; range, 0–100%), there was wide variation in documented BMI management plans (mean, ~ 40%; range, 0–100%). Dealing with these generally low levels of recording and wide variation in recording between PHC centres is a vital early step in limiting the contribution of obesity to adverse pregnancy outcomes and improving long term health outcomes for the mother and baby.

Women attending PHCs that had participated in continuous quality improvement activities were more likely to receive recommended pregnancy care related to screening and brief interventions for modifiable lifestyle-related risk factors, such as obesity.[4,5] These findings support the incorporation of continuous quality improvement activities into the delivery of maternal care.

Record of scheduled maternal care services received by Indigenous women at Indigenous primary health care centres, 2012–2014*



BMI = body mass index. * More information on how to interpret box plots is available in Gibson-Helm et al,[3] page 21. ◆

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Competing interests: No relevant disclosures. ■

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References are available online at www.mja.com.au.

1 Cheney K, Farber R, Barratt AL, et al. Population attributable fractions of perinatal outcomes for nulliparous women associated with overweight and obesity, 1990–2014. *Med J Aust* 2018; 208: 119-125. https://www.mja.com.au/journal/2018/208/3/population-attributable-fractions-perinatal-outcomes-nulliparous-women

2 Thrift AP, Callaway LK. The effect of obesity on pregnancy outcomes among Australian Indigenous and non-Indigenous women. *Med J Aust* 2014; 201: 592-595. https://www.mja.com.au/journal/2014/201/10/effect-obesity-pregnancy-outcomes-among-australian-indigenous-and-non

3 Gibson-Helm M, Bailie J, Matthews V, et al. Priority evidence-practice gaps in maternal health care for Aboriginal and Torres Strait Islander people: final report. Brisbane: Menzies School of Health Research; 2016.

4 Gibson-Helm ME, Rumbold AR, Teede HJ, et al. Improving the provision of pregnancy care for Aboriginal and Torres Strait Islander women: a continuous quality improvement initiative. *BMC Pregnancy Childbirth* 2016; 16: 118.

5 Gibson-Helm ME, Bailie J, Matthews V, et al. Identifying evidence-practice gaps and strategies for improvement in Aboriginal and Torres Strait Islander maternal health care. *PLoS One* 2018; 13: e0192262. ■