Submission to the Australian Government Department of Health's consultation on the Pregnancy Care Guidelines – Nutrition, Physical Activity and Weight

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Background

The Pregnancy Care Guidelines are designed to support Australian maternity services to provide high-quality, evidence-based antenatal care to healthy pregnant women. They are intended for all health professionals who contribute to antenatal care including midwives, obstetricians, general practitioners, nurses, Aboriginal and Torres Strait Islander health workers and allied health professionals. The foundation made a written form-based submission to the Department of Health's consultation.

The Continence Foundation of Australia

The Continence Foundation of Australia (the Foundation) is the national peak organisation whose mission is to represent Australians with, or at risk of, incontinence, their carers and health professionals who treat and assist people with incontinence.

The Foundation develops and delivers a range of initiatives in partnership with the Australian Government helping the Australian Government to achieve the objectives of the National Continence Program. As a key initiative of the National Continence Program, the Bladder Bowel Collaborative focuses on increasing education and awareness of bladder and bowel health in Australia to:

- Promote bladder and bowel health and prevention messages across the lifespan;
- Increase education and awareness of the treatment and management options available to people affected by incontinence; and
- Facilitate access to a range of information and support services.

This, in combination with the National Continence Helpline and the Continence Foundation of Australia website (continence.org.au) ensures that the general public are able to access information and support related to bladder and bowel health via a range of channels.

The Foundation's membership broadly represents the specialist and non-specialist continence sector and workforce who provide care and services for, and raise awareness and advocate, on behalf of Australians with bladder and bowel control problems. The Foundation takes an integrated approach to the provision of education and professional development and plays an active role in supporting the upskilling of the specialist and non-specialist continence health professionals including its contribution to evidenced-based documentation including national guidelines and policy reforms.

The Foundation's Submission

The Continence Foundation of Australia welcomes the opportunity to respond to the current consultation focusing on Nutrition, Physical Activity and Weight.

The Foundation is concerned that despite evidence in the Department's own *Evidence evaluation report —Diet, exercise and weight management in pregnancy Draft — 1 June 2020* that incontinence is a common condition in pregnancy (p177) and that 'Pelvic floor muscle exercises appear to reduce the risk of urinary incontinence…' (p179) there was no recommendation to include advice to women that:

- urinary incontinence is common, but not normal, during pregnancy,
- that urinary incontinence can be prevented or improved during pregnancy, and
- they may benefit, both during and after pregnancy, by doing pelvic floor muscle training during pregnancy.

The Foundation is also concerned that the *Pregnancy Care Guidelines* do not include guidance for health professionals about how and when to discuss incontinence, pelvic floor strength and function and structured pelvic floor muscle training. This, despite the fact that the Australian Government Department of Health has an Initiative — the National Continence Program[1] — which aims to improve and promote continence and bladder and bowel health and which explicitly:

- focuses on a preventative health approach,
- identifies pregnant women as a risk group for incontinence,
- states people should have access to appropriate information and support.

The high-level aim of the National Continence Program is to develop a national, collaborative approach to the promotion of bladder and bowel health and incontinence management. This is clearly not evident when the *Pregnancy Care Guidelines*, developed by the Australian Government Department of Health, appear to have been developed without reference to a policy context which includes the National Continence Program and the National Continence Program Action Plan.[2]

Pregnant women have the right to know they are at increased risk of becoming incontinent and have the right to be given evidence-based information to enable them to make informed choices about the self-care they choose and the care and support they may want or need to access. The *Pregnancy Care Guidelines* promote woman-centred care, but the *Core Practices in Pregnancy Care* document more succinctly describes this concept and states that health professionals should provide woman-centred care and *support women to make informed decisions and choices about their care*.[3]

Recommendations

The Foundation makes the following recommendations to improve the care that women receive during pregnancy:

1. Incontinence should be acknowledged as a common, but not normal, consequence of pregnancy and included in the list of *Common conditions during pregnancy* in the *Pregnancy care guidelines* and corresponding Health Professional Summary Sheet.
2. The benefit of structured Pelvic Floor Muscle Training should be included in the Pregnancy care guidelines and corresponding Health Professional Summary Sheets (see page end).
3. Women should be provided with evidence-based information and advice about the risk of incontinence and the benefit of structured Pelvic Floor Muscle Training during the same antenatal visits in which they are counselled about nutrition and physical activity
4. Women should be proactively asked whether they are incontinent and, if required, should be referred to a health professional with continence expertise.

Evidence

We present evidence for:

- the inclusion of incontinence as a common condition in pregnancy in the Pregnancy Care Guidelines and Health Professional Summary Sheets, and
- pregnant women to be informed that they are at increased risk of developing incontinence, that it is preventable and treatable and structured pelvic floor muscle training may be of benefit both during pregnancy and after.

1. Incontinence is considered a maternal morbidity by the World Health Organization

Although the Foundation is advocating for the inclusion of incontinence in the list of common conditions in pregnancy (with corresponding information and support for pregnant women), incontinence is more than just a 'common condition'. According to the World Health Organization (WHO) incontinence is considered a maternal morbidity which has adverse outcomes. The WHO Maternal Morbidity Working Group defines maternal morbidity and associated disability as:

> *any health condition attributed to and/or complicating pregnancy and childbirth that has a negative impact on the woman's wellbeing and/or functioning.*[4]

Members of the WHO Maternal Morbidity Working Group conducted a systematic scoping review of the published literature on the short-term and long-term consequences of maternal morbidity on health-related functioning. They found that the three most frequent maternal morbidity diagnoses studied were mental disorders (33%, 45 studies), incontinence - urinary/faecal/anal incontinence (12%, 17 studies) and perineal laceration (9%, 13 studies). Incontinence was found to have a measurable and negative impact on pregnant women's daily lives and their quality of life.[5]

2. Urinary incontinence is prevalent during pregnancy and increases as pregnancy progresses

Two peer-reviewed systematic reviews of studies from high-income countries, like Australia, reported urinary incontinence rates of between 6.7% to 58.1%[6] or 26.0% to 75.0%.[7] Prevalence rates vary depending on the: timing of assessment; definition of urinary incontinence; method of ascertainment; and population characteristics. Higher estimates are reported by studies collecting data on all types of urinary incontinence — stress, urge and mixed (and not stress incontinence alone) and by inclusion of studies that determined urinary incontinence in the third trimester.

A well-designed Australian study[8] looked at the prevalence of urinary incontinence (stress, urge and mixed) in nulliparous women from before pregnancy to early pregnancy (≤ 24 weeks gestation) and then late pregnancy (31 weeks gestation). In the 12 months before their first pregnancy, 10.9% of women reported symptoms that met the researcher's definition of urinary incontinence, that is, they experienced leakage of urine at least once per month. This increased to 17.0% in early pregnancy (mean gestation=15 weeks) and 55.9% in the third trimester of pregnancy (mean gestation=31 weeks). Stress incontinence and mixed incontinence were more common during pregnancy than urge incontinence alone. All types of incontinence increased over the course of pregnancy (Table 1).

Table 1. Prevalence, severity and frequency of incontinence in Australian women before and during early and late pregnancy

	Prevalence in 12 months before pregnancy %	**Prevalence in early pregnancy ≤ 24 weeks gestation %**	**Prevalence in late pregnancy 31 weeks gestation %**
Type of urinary incontinence			
No incontinence	89.2	82.9	44.1
Stress incontinence only	4.1	8.3	36.9
Urge incontinence only	3.3	2.5	5.9
Mixed incontinence	3.5	6.2	13.1
Prevalence of incontinence	10.9	17	55.9
Severity of urinary incontinence			
No symptoms	58.9	59.7	44.1
Slight (1–2)	35.6	30.7	26.6
Moderate (3–6)	5.2	8.2	25.5
Severe (8–9	0.3	1.4	3.5
Frequency of urinary leakage			
None	58.9	59.7	44.1
Less than once per month	30.3	23.3	
Once or several times per month	7.6	9.5	32.0
Once or several times per week	2.7	5.9	18.6
Every day	0.5	1.7	5.3

Source: Brown SJ, Donath S, MacArthur C, McDonald EA, Krastev AH. Urinary incontinence in nulliparous women before and during pregnancy: prevalence, incidence, and associated risk factors. International Urogynecology Journal. 2010 Feb 1;21(2):193-202.

Nausea and vomiting in pregnancy are conditions currently listed in the *Pregnancy Care Guidelines* and *Common conditions during pregnancy* document and health professionals are advised to give women information about nausea and vomiting. During pregnancy, Australian women are currently to be advised that: *while it may be distressing, it usually resolves spontaneously by 16 to 20 weeks pregnancy and is not generally associated with a poor pregnancy outcome.* The prevalence of nausea and vomiting during pregnancy, in high-income countries, varies from 35%-91%. Evidence shows that among pregnant women, 32.7% had nausea without vomiting and 23.5% had nausea and vomiting which continued into the third trimester.[9] Contrast this with 55.9% of Australian women experiencing urinary incontinence,[8] leaking urine, in the third trimester.

While it is acknowledged that vomiting can be confronting and worrying, so too can leaking urine. The difference though is that, as pregnancy progresses the risk of vomiting decreases, but the risk of leaking urine increases. Further, pregnancy-related nausea and vomiting usually have no post-birth sequelae; in contrast, urinary incontinence with onset during pregnancy is a predictor of postpartum urinary incontinence.[10]

3. Urinary incontinence during pregnancy: women's attitudes, help-seeking behaviours and quality of life

Incontinence is common during pregnancy but is not normal. Research has shown that women dismiss urine leakage and do not seek help for urinary incontinence that occurs during pregnancy because they felt it happened too infrequently or they did not consider it important enough.[11] More disturbingly, many believed it was normal and felt no need to talk about the issue with health professionals. Some women didn't speak to health professionals because they 'have thought about it but haven't felt able to talk about it' or 'don't want to discuss it', however, most women had other reasons for not speaking about it. These reasons could be divided into themes and included:

- **Uncertainty:** urine leakage only recent, felt silly talking about it, unaware of treatment options.
- **Minimisation:** urine leakage not severe enough, not worried by urine leakage, knowing the trigger for urine leakage, dismissing urine leakage, others dismissing leakage, management and prior knowledge.
- **Normalisation:** leakage of urine is normal, pregnancy was the cause and it would (hopefully) stop after birth, no action needed to be taken.

Urinary incontinence is associated with lower quality of life in some women during pregnancy compared to pregnant women without urinary incontinence.[12-13] A systematic review found that urinary incontinence had the greatest impact on physical activity, travel, social relationships and emotions of pregnant women.[7] Overactive bladder syndrome was found to be associated with depressive symptoms during pregnancy.[14]

Another important impact of pregnancy-related urinary incontinence is an increased risk of incontinence in the postpartum period or later in life.[15] Studies have reported that pregnant women who had urinary incontinence during pregnancy are at higher risk for postpartum urinary incontinence than those without urinary incontinence during pregnancy.[16-18]

Urinary incontinence during pregnancy has been normalised. It is common, but not normal and the onus is on health professionals to inform, educate, advise and treat pregnant women with incontinence.

4. Prevention (and improvement) of urinary incontinence during pregnancy: Structured Pelvic Floor Muscle Training

The current version of the *Consultation Draft of the Clinical Practice Guidelines: Pregnancy Care* is insufficient to deliver the necessary health care recommendations regarding physical activity for women during pregnancy. The *Evidence evaluation report – Diet, exercise and weight management in pregnancy Draft – 1 June 2020* does acknowledge that urinary incontinence is a common condition in pregnant women and even goes so far as to acknowledge that high-level evidence shows that pelvic floor muscle training appears to reduce the risk of urinary incontinence in pregnant and postpartum women. Despite this, there is no recommendation regarding pelvic floor muscle training.

Pelvic floor muscle training (PFMT) can be defined as "exercise to improve pelvic floor muscle strength, endurance, power, relaxation or a combination of these".[19] In combination with other PFMT-related interventions, it is a proven and effective tool to prevent urinary incontinence in pregnant and postpartum women. However, the evidence evaluation report has not comprehensively assessed the evidence in the literature and so misses a clear and valuable opportunity to recommend structured PFMT (see below) for the prevention of urinary incontinence.

5. The Evidence evaluation report does not distinguish between structured PFMT and PFMT alone

The analysis of pelvic floor muscle training within the evaluation report does not make full use of the evidence presented within the literature. While it utilises two systematic reviews, including one Cochrane review, on the effect of PFMT on urinary incontinence during and after pregnancy, it does not draw on the Cochrane review's finding that a structured PFMT program for pregnant women may prevent urinary incontinence in late pregnancy and postpartum. Structured PFMT describes PFMT that is supervised, physiologically- and behaviourally-informed, is based on strength-training principles, commences and is progressed according to the individual woman's capability.[20] The authors of the Cochrane review noted that continent pregnant women found greater benefit from structured PFMT programmes in terms of content and delivery as compared to those in control groups.[21] What constituted 'content and delivery' was not defined but upon closer analysis, the studies that were reviewed to draw this conclusion asked intervention group participants to perform PFMT and were given advice on and supervision of their PFMEs by a health professional in a predetermined and/or regular manner. The term structured PFMT is used inconsistently in the literature, however, the elements of a structured PFMT program frequently form the basis of high quality intervention trials on this topic, implicitly recognising the importance of delivering a physiologically and behaviourally effective intervention. This systematic review provides high quality evidence that structured PFMT programs are effective to prevent urinary incontinence in pregnant and postpartum women.

The summary in the evaluation report of the second systematic review clearly acknowledges the evidence that prenatal PFMT with or without aerobic exercise decreases the risk of urinary incontinence onset during pregnancy and after birth.[22] However, the inclusion of aerobic exercise alongside PFMT does not constitute structured PFMT as only PFMT has been shown to prevent and treat urinary incontinence, no other type of exercise. Once again, the evidence evaluation report has not gathered evidence on structured PFMT which means this systematic review cannot be relied upon to make a decision on its inclusion. Despite not being highlighted as part of the evidence evaluation survey, there is clear evidence that the need for structured PFMT be translated into a key recommendation within the Pregnancy Care Guidelines.

6. High quality evidence supports the inclusion of structured PFMT into the Pregnancy Care Guidelines

Structured PFMT has a clear preventative effect against the onset of urinary incontinence in women during pregnancy and after birth. Recent research shows a high level of evidence that says women performing PFMT prenatally reduces the risk of onset of urinary incontinence during late pregnancy and after birth. The authors of the Cochrane review (see previous section) updated their findings recently however they did not change their stance on the need for structured PFMT.[23] The updated Cochrane review stated that, compared to the control groups, women randomised to intervention groups (who perform PFMT) prenatally are 62% less likely to report urinary incontinence in late pregnancy and 29% less likely to report it three to six months postpartum. The control groups received no PFMT, usual care, another control condition or an alternative PFMT intervention, e.g. written

instructions on PFMT, provided the intervention group received a more intensive PFMT intervention. The authors noted that continent pregnant women benefited more from structured PFMT in early pregnancy than women in usual care which may have included some (ad hoc) PFMT advice or teaching. This view is further advanced by a review taken by authors of the 6th International Consultation on Incontinence who state that the prevention of urinary incontinence in women during pregnancy and postpartum periods is supported by Grade A (Level 1) evidence.[24] Another review, which conducted a systematic search on urinary incontinence prevention, had the same finding and recommended that PFMT should be performed during pregnancy and postpartum to prevent urinary leakage.[25] The research articles in both reviews assessed structural supports alongside PFMT including supervised pelvic floor intervention, exercise classes and education. Structural PFMT clearly reduces the risk of urinary incontinence onset in pregnant and postpartum women.

7. The importance of structured PFMT over unstructured PFMT

Structured PFMT has a significant benefit over unstructured and ad hoc PFMT alone. A randomised controlled trial assessed the effect of supervised exercise sessions and thorough instructions on PFMT in pregnant women on urinary incontinence prevention. It was found that there were significantly fewer women in the intervention group reporting any weekly urinary incontinence (11%) compared to the control group (19%). Both groups received usual care and written instructions of PFMT.[26] A cohort study investigated prenatal PFMT on postpartum urinary incontinence. The authors reported no effect of unsupervised and self-initiated antenatal PFMT on stress urinary incontinence for women six weeks postpartum citing low doses of PFMT and no supervision as factors contributing to the result.[27] These results are important and show that the outcome of PFMT is closely related to the dose-response relationship of PFMT.[25] PFMT performance must be supported in the guidelines to enable prevention of urinary incontinence in pregnant and postpartum women.

8. Pelvic floor muscle training is not straightforward and requires additional guidance

Awareness of PFMT and its benefits, as well as appropriate guidance for correct implementation are important aspects of support needed to prevent the onset of urinary incontinence. A recent qualitative exploration study conducted interviews and focus groups with postpartum women about their perceptions of a PFMT intervention.[28] They found that some participants required additional teaching on how to correctly contract their pelvic floor muscles despite having access to PFMT advice and resources. A lack of necessary support acted as a barrier to engagement and maintenance of PFMT.

9. Structured pelvic floor muscle training provides benefits to quality of life

Structured pelvic floor muscle training is linked to a higher quality of life in pregnant women. A randomised controlled trial observed 84% of women who undertook physiotherapist-supervised PFMT during pregnancy reported better general health compared to 77% of the control group who only received verbal advice on PFMT.[29] Another randomised controlled trial found pregnant women who underwent PFMT in exercise classes were significantly less impacted in their daily lives by urinary incontinence than the control group who received usual care.[30] A structured PFMT program will provide the support required to elevate the quality of life in pregnant women.

10. Inclusion of recommendations to inform pregnant women about PFMT in other pregnancy care guidelines and expert guidance for health professionals

International and Australian guidelines endorse a population-based approach, recommending all pregnant women are informed of PFMT, regardless of continence status, to prevent antenatal and postpartum urinary incontinence.

International

- #### Canada

The recently developed 2019 Canadian Guideline for Physical Activity throughout Pregnancy[31] acknowledges that prenatal physical activity should be specifically prescribed to reduce pregnancy complications and optimise health across the lifespan of two generations. Recommendation 5 addresses PFMT and states:

> *Pelvic floor muscle training (PFMT) (eg, Kegel exercises) may be performed on a daily basis to reduce the risk of urinary incontinence. Instruction in proper technique is recommended to obtain optimal benefits.*

- #### UK National Institute of Health and Care Excellence (NICE)

In the UK, the NICE Clinical guideline 62: Antenatal care for uncomplicated pregnancies32 recommends that pregnant women should be provided with information about PFMT at their booking appointment (ideally at 10 weeks).

- #### UK Royal College of Midwives (RCM) and the Chartered Society of Physiotherapy (CSP)

In the UK, the Royal College of Midwives (RCM) and the Chartered Society of Physiotherapy (CSP) advocate for access to high quality maternity services which includes preventative measures that promote good reproductive health outcomes for women during pregnancy and postpartum. In their *RCM/CSP Joint statement on Pelvic Floor Muscle Exercise: Improving health outcomes for women following pregnancy and birth 2013*,[33] they state that they:

> *support early intervention for pelvic floor muscle exercise training for childbearing women, to prevent pelvic floor damage and avoid problems associated with continence or pelvic organ prolapse in later life.*

The authors also recommended that:

> *All women, in the antenatal period, should be given evidence based information and advice about PFME and an opportunity to discuss pelvic care with a qualified healthcare professional.*

Australia

- #### The Royal Australian and New Zealand College of Obstetricians and Gynaecologists (RANZCOG)

In their guidance for practitioners, the RANZCOG Exercise during pregnancy guidelines state in section *4.3 Other special considerations for exercise during pregnancy*[34] that*:*

> *Activities that involve jumping or bouncing may add extra load to the pelvic floor muscles and are probably best avoided. Targeted exercises to strengthen the pelvic floor muscles are recommended.*

- #### Sports Medicine Australia

In their evidence-based, best practice guidance for members, the Sports Medicine Australia position statement[35] regarding exercise in pregnancy and postpartum states the following:

In addition to their regular aerobic activity and muscle strengthening exercises, all pregnant women are advised to do pelvic floor exercises.

There is strong evidence to suggest that women who do intensive, supervised pelvic floor exercises during pregnancy may reduce the risk of urinary incontinence (leakage) postpartum…Specific advice should be sought from a physiotherapist, nurse continence adviser, or midwife with qualifications and expertise in pelvic floor muscle training.

Conclusion

The Pregnancy Care Guidelines must include appropriate responses to address urinary incontinence during pregnancy

Pregnant women have the right to a woman-centric approach when it comes to their health and wellbeing. They also have the right to be informed regarding their risk of becoming incontinent and to have access to evidence-based information to be supported and make informed choices for themselves.

The Pregnancy Care Guidelines must reflect the needs of women, especially when it comes to incontinence. Being both a prevalent and impactful condition, it must be addressed within the guidelines and in clinical care settings to reduce the stigma surrounding it and enhance quality of life for pregnant women.

In conclusion, the evidence laid out in this paper has led the Foundation to make the following recommendations to improve the care that women receive during pregnancy:

- Incontinence should be acknowledged as a common, but not normal, consequence of pregnancy and included in the list of *Common conditions during pregnancy* in the *Pregnancy care guidelines* and corresponding Health Professional Summary Sheet.

- The benefit of structured Pelvic Floor Muscle Training should be included in the *Pregnancy care guidelines* and corresponding Health Professional Summary Sheets.

- Women should be provided with evidence-based information and advice about the risk of incontinence and the benefit of structured Pelvic Floor Muscle Training during the same antenatal visits in which they are counselled about nutrition and physical activity.

- Women should be proactively asked whether they are incontinent and, if required, should be referred to a health professional with continence expertise.

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