ADIPS 2024 Consensus Recommendations for Improving Contraception and Pre-pregnancy Care for Women with Diabetes in Australia

Prepared on behalf of the Australasian Diabetes in Pregnancy Society

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Inclusivity Statement

ADIPS recognises the great diversity within the pregnancy population, including but not limited to ethnicity, Aboriginal and Torres Strait Islander status, migrant and refugee status, sociocultural background, and gender identity. The terms “woman” and “women” are used as general and unifying terms. ADIPS affirms inclusive and respectful maternity care, with use of terms that are preferred by individuals.

Role of the Diabetes Contraception and Pre-pregnancy Management Group

The Australasian Diabetes in Pregnancy Society Limited (ADIPS) Board established a multidisciplinary expert advisory group in 2024 focused on Diabetes Contraception and Pre-pregnancy Management. The group was tasked with:

• Developing a report on the current status, case for change, options and recommendations for improvement, including ongoing monitoring of Diabetes Contraception and Pre-pregnancy Management for all women with diabetes who may become pregnant

• Advocating for implementation of the report recommendations.

Strategy Overview

The ADIPS Diabetes Contraception and Pre-pregnancy Management Group membership comprises experts in the field of endocrinology, obstetrics and gynaecology, contraception, preconception care, national diabetes program management and research. In July 2024, the members agreed that the primary goal of the group was to investigate and suggest ways to improve the monitoring and visibility of diabetes prior to pregnancy. It was recognised that the goals for improving contraception and preconception care for women with diabetes needed to be Specific, Measurable, Achievable, Relevant and Time-bound (SMART). Further it was suggested that any recommendations from this group would ideally align with the preconception care priority setting exercise [1] led by the National Preconception Health network. [2] The categories that were regarded as key to improving preconception health in Australia were community engagement (consumers and stakeholders) and co-design, a life course approach to health research that encompasses the social determinants of health, an integrated multi-sectorial approach, leveraging and strengthening large scale national collaboration, health equity and tailored solutions that incorporate diversity, Aboriginal and Torres Strait Islander Health, real world impact that encompasses clinical, policy and population (including improved measurable outcomes), research capacity building and recognition of the centrality of the social determinants of health. [1]

Main recommendations

The ADIPS Diabetes Contraception and Pre-pregnancy Management Group has developed 12 recommendations to improve the health of people living with diabetes who may become pregnant. Implementation of these recommendations should be conducted in partnership with consumers and representatives of underserved and priority population groups, including Aboriginal and Torres Strait Islander peoples, culturally and linguistically diverse communities, and people in rural and remote areas. Strategies should be developed and adapted to ensure they promote health equity and minimise stigma for people living with diabetes.

1. Develop local and national data collection processes and establish a national clinical quality register that collects information on all women with pre-existing DM (PEDM)

presenting for antenatal care including: high dose folic acid use, pregnancy intention at booking, gestation at first antenatal and diabetes clinic visit, booking HbA1c and pregnancy outcomes (macrosomia, congenital anomalies), to understand and monitor preconception care [in line with international examples such as the UK's National Pregnancy in Diabetes (NDIP) audit].

2. Establish education programs for health care practitioners working with women with diabetes including endocrinologists, obstetrician/gynaecologists, diabetes educators, midwives, sexual and reproductive health experts, pharmacists and primary care nurses and general practitioners on the importance of reliable use of contraception and preconception care (PCC) in women with diabetes.
3. Develop and deliver national health promotion strategies to ensure women with diabetes understand the heightened need for optimising glycaemia and other aspects of PCC periconceptually and during pregnancy.
4. Undertake health system reform to embed regular reproductive life planning in consultations with all women with diabetes who may have the potential to become pregnant, including through the use of electronic medical record-based strategies
5. Undertake health policy changes to incentivise GPs and allied health professionals to undertake reproductive life planning with women with diabetes including creating a Medicare item number which will encourage these consultations and enable monitoring.
6. Establish awareness and education programs to inform primary care health workers about the benefits to women with diabetes of registering with the National Diabetes Services Scheme (NDSS) and to encourage NDSS registration.
7. Explore opportunities for the NDSS to provide access to information about pregnancy, contraception and women's health in a sensitive and culturally appropriate manner for women registered with the scheme.
8. Explore how pharmacists could play a greater role in optimising reproductive health care of women with diabetes, particularly through existing programs such as MedsCheck and Diabetes MedsCheck.
9. Undertake Health system reform such that:
    a. Each hospital has a regular (preferably weekly) available slot for Long Acting Reversible Contraceptive (LARC) insertion for women with diabetes who are unable to access this service through primary care or family planning clinics and that LARC is available to all women with PEDM postpartum prior to discharge.
    b. All women have affordable access to obstetric and/or endocrinology specialist PCC: this can either be face to face or through telehealth as part of an integrated approach to diabetes care.
10. Develop digital approaches to support women with diabetes, primary care and/or secondary care to reduce the risk of unplanned and under-prepared pregnancies
11. Develop approaches to improve inter-conception care and identify women with undiagnosed diabetes prior to pregnancy particularly among those with prior gestational diabetes (GDM)

12. The Australian Government should improve equitable access to diabetes technology for women planning a pregnancy, including, as the highest priority, subsidised access to insulin pumps and hybrid closed loop for women with type 1 diabetes and continuous glucose monitoring for women with other types of insulin-treated diabetes.

Background

Pre-existing diabetes (PEDM) in pregnancy (type 1 diabetes (T1DM), type 2 diabetes (T2DM), rarer forms of diabetes) places women and children at significant risk during and after the pregnancy. Increased rates of fetal and infant death and congenital anomalies have consistently been documented in women with PEDM [3, 4] and confirmed in Australian studies. A population based study in New South Wales (NSW) reported infant morbidity or mortality in women with PEDM to be four times higher than in women without DM (13.6% vs. 3.1%) (OR 5.0, 95% CI 4.2-5.8).[5] Major congenital anomalies occurred in 9.1% of women with T1DM and 8.9% of women with T2DM in a southwestern Sydney cohort, [6] [7] three times the rate of congenital anomalies occurring in babies born in the general Australian population (3% in 2017). [8] These rates are confirmed in data from the National Perinatal Data Collection and the National Congenital Anomalies Data Collection published by the Australian Institute of Health and Welfare that reported women with PEDM had a 10% chance of a birth affected by a congenital malformation.[8] However these risks can be mitigated by reducing the rate of unintended pregnancies through improved knowledge and access to reliable contraception and by improving knowledge and access to preconception care (PCC). [9]

The rise in the incidence of PEDM in Australia [10] suggests there will be more women of reproductive age who may be wanting to prevent or plan pregnancy. The Australian National Diabetes Strategy (2021-2030) [11] recognises the significant impact of diabetes in pregnancy. Goal 4 of the strategy aims to reduce the impact of pre-existing and gestational diabetes in pregnancy. The areas for action relating to pre-existing diabetes are:

Areas for action from the National Diabetes Strategy
• Provide accessible pre-pregnancy programs to women with pre-existing type 1 or type 2 diabetes, including Aboriginal and Torres Strait Islander women, to identify and address risk factors, including glycaemic status, that may result in adverse outcomes. • Ensure that all women with pre-existing type 1 or type 2 diabetes receive pre-pregnancy programs and advice, coordinated through a collaborative approach across primary and specialist care with allied health professionals. • Provide accessible pre-pregnancy programs to women with a previous history of GDM to assess current glycaemic status and to identify and address risk factors that may result in adverse outcomes.

• Ensure that pre-pregnancy and post-pregnancy programs are adapted to ensure equity (e.g. for Aboriginal and Torres Strait Islander people and people in remote Australia)

Unplanned pregnancy and contraception

Currently in Australia around 40% of all pregnancies are unplanned.[12] Among pregnant women with PEDM, one Australian study reported that 45.1% of pregnancies were unplanned. [13] In order for women to better plan pregnancies, prudent use of contraception is essential. One of the key strategies promoted by international public health bodies to reduce the number of unintended pregnancies is to increase the uptake of long-acting reversible methods of contraception (LARC) including intrauterine devices and implants. The contraceptive CHOICE study in the USA found that, when provided with balanced information about contraceptive options, most women will choose a LARC method in preference to user-dependent methods such as the oral contraceptive pill, the transdermal patch or vaginal ring. [14] Further those who chose a LARC method were 20 times less likely to experience an unintended pregnancy over a three year period. LARCs are known to be the most effective reversible methods of pregnancy prevention and are highly cost effective.[15]

Women with diabetes however may be unsure of what contraceptive methods are safe for them and international evidence shows they may use less reliable methods.[16, 17] This is supported by Australian data with a study in New South Wales finding that, of women with diabetes who had been sexually active, 24.7% were not using any contraception and only 7% were using a LARC method. Of those using contraception, condoms were the most prevalent method. [18] An earlier study conducted through the National Diabetes Services Scheme (NDSS), documented that women with T2DM had poorer knowledge of contraception compared to those with T1DM.[19] The LARC methods are recommended in women with diabetes, especially in those with vascular complications, in whom the combined oral contraceptive pill is not considered safe.

Preconception care

Preconception care (PCC) is defined as any intervention provided to people of childbearing age (and their partners), regardless of pregnancy planning or desire, before pregnancy, to improve health outcomes for women, their partners, newborns and children. [20] PCC includes provision of advice regarding the use of safe and effective contraception, in addition to information regarding the importance of optimal glycaemic management, reviewing current medications and discussing alternative where necessary, ceasing smoking, alcohol and other recreational drug use, checking immunization status and rubella immunity and starting pregnancy supplements including high dose folic acid and iodine. Pregnancy planning also includes education regarding what may occur during pregnancy including advice about place and models of care for women with PEDM, and counselling regarding

additional maternal and fetal/neonatal risks, particularly in women with significant comorbidities/end organ complications. Other advice including around the risk of early pregnancy severe hypoglycaemia, [21] the need for regular consultations, support for nutrition and physical activity behaviour change including weight management and benefits of continuous glucose monitoring (CGM) is ideally communicated prepregnancy.

Pregnancy planning and PCC are particularly important for women with diabetes as optimising the periconception HbA1c is crucial to ensure the best fetal and maternal outcomes; presenting in early pregnancy may improve management of early gestation fluctuation in blood glucose.[22] Evidence from both animal and human studies shows that hyperglycaemia has a teratogenic effect and is associated with congenital anomalies. Indeed, a meta-analysis of a number of human observational studies showed that the absolute risk of congenital anomalies rises exponentially in relation to maternal first trimester HbA1c (%).[23] Current targets are <6.5% for T1DM and T2DM, but need to be tailored to individuals to reduce the risk of severe hypoglycaemia, excess weight gain and to take account of variation in individual circumstances. [24]

Although pregnancy planning and PCC ought to be standard for all women with DM, most international studies, and a national audit, report that only 30%- 40% of women with diabetes seek PCC and plan the timing of their pregnancies.[25, 26] In a nationwide study in the United Kingdom, two-thirds of pregnancies in women with diabetes were documented as unplanned. Only 14.3% (IQR: 7.7-22.2) of women with T1DM, and 37.0% (IQR: 27.3–46.2) with T2DM had a HbA1c < 6.5% in the 1st trimester.[27] A study amongst women attending the Nepean Diabetes Service in a low-socio-economic setting within the Nepean Blue Mountains Local Health District (NMBLHD) catchment found that only 28.2% of women had ever had a specific discussion around planning for a pregnancy with their Endocrinologist or General Practitioner.[18] Even amongst sexually active women, 65.5% had never had a specific discussion around pregnancy planning. Of the 47 women who had previously been pregnant or were currently pregnant, preconception advice was reported by less than half (46.8%). In the NDSS study, women with T2DM had greater gaps in their knowledge of key preconception behaviours and contraceptive methods compared to women with T1DM. [19]

In Australia and much of the world, PCC and pregnancy planning in women with diabetes is done poorly or does not occur at all. The NDSS survey indicated that 78% of women with diabetes would prefer to receive information on PCC via modern media (40% preferred internet/web-based information, 8% preferred a DVD, 30% a smartphone app). In the National Diabetes Support Scheme (NDSS) survey on contraception and pregnancy, 22% of women indicated the need for further information on contraception.[19]

Evidence for the benefits of PCC through specific diabetes pre-pregnancy services

A range of studies have documented that careful diabetes management with a specialist and attendance at PCC and are associated with a reduction in congenital anomalies and in perinatal mortality.[7, 28] In a systematic review by Wahabi et al that evaluated the

effectiveness and safety of pre-conception care (PCC) in improving maternal and perinatal outcomes, PCC was found to have the greatest impact on reducing congenital malformation with a 71% risk reduction (risk ratio (RR) 0.29; 95% CI: 0.21–0.40). HbA1c in the first trimester was found to be lower by an average of 1.27% (mean difference (MD) 1.27; 95% CI: 1.33–1.22). Other key findings from this review included a reduction in perinatal mortality by 54%, (RR 0.46; 95% CI: 0.30–0.73) and a slight reduction in the risk of preterm delivery of 15%, (RR 0.85; 95% CI: 0.73–0.99), and. The impact of PCC on other outcomes including early booking for antenatal care and maternal hypoglycaemia in the first trimester was less certain. In terms of neonatal outcomes PCC may reduce the risk of small for gestational age (SGA) by 48% (RR 0.52; 95% CI: 0.37–0.75), and neonatal intensive care admission by 25% (RR 0.75; 95% CI: 0.67–0.84). However, PCC may have little or no effect in reducing the cesarean section rate (RR 1.02; 95% CI: 0.96–1.07); miscarriage rate (RR 0.86; 95% CI: 0.70–1.06; 11 studies; 2698 women); macrosomia rate (RR 1.06; 95% CI: 0.97–1.15); neonatal hypoglycemia (RR 0.93; 95% CI: 0.74–1.18); respiratory distress syndrome (RR 0.78; 95% CI: 0.47–1.29); or shoulder dystocia (RR 0.28; 95% CI: 0.07–1.12).

Managing this risk systematically is possible. For example a complex health service-wide intervention in Ireland involving patient and health professional education, enhanced pre-pregnancy care including enhanced access to specialist diabetes care, optimised glycaemia before and during pregnancy was able to significantly reduce the rate of congenital anomalies in the offspring of women with PEDM.[9] Furthermore the cost of this intervention was found to be lower than the cost of managing adverse pregnancy outcomes.[29] Another study, the East Anglican Study for Improving Pregnancy Outcomes in Women with Diabetes (EASIPOD)[30] promoted PCC among patients and health professionals across 10 regional maternity units. This prospective cohort study of 680 pregnancies in women with T1DM and T2DM of whom 181 (27%) attended PCC and 499 (73%) did not, reported that women with PCC presented earlier for antenatal care (6.7 vs. 7.7 weeks; $P < 0.001$), were more likely to take 5 mg preconception folic acid (88.2 vs. 26.7%; $P < 0.0001$) and had lower A1C levels (A1C 6.9 vs. 7.6%; $P < 0.0001$).

National Benchmarking programs

In order to improve the quality of care for pregnant women with diabetes, mapping current patterns of care and variations in care is an important tool. In England, a national audit and benchmarking program using standardised criteria was found to be useful for identifying aspects of pre-pregnancy and antenatal care needing improvement among women with diabetes [27]. A national population based cohort study across England, Ireland and the Isle of Man highlighted the persistent adverse outcomes in women with T1DM or T2DM and that health system changes are required to address these. [31] The National Diabetes in pregnancy (NDIP)audit [32] is now embedded as an ongoing measurement system to support improvement in the quality of care provided for women with diabetes who are pregnant or planning a pregnancy. The NDIP audit seeks to address three key questions:

1. Were women adequately prepared for pregnancy?
2. Were appropriate steps taken to minimise the adverse outcome to the mother?

3. Were adverse neonatal outcomes minimised?

The ADIPS Pilot National Diabetes in Pregnancy Benchmarking Programme. [33] identified the current lack of a national audit and benchmarking processes in Australia. In their pilot study, a retrospective audit of volunteer diabetes services across Australia and New Zealand, 10,144 pregnancies (gestational diabetes mellitus (GDM) = 8696; T1DM= 435; T2DM = 1013) from across 11 diabetes services were audited. Women with PEDM had limited pregnancy planning as indicated by a lack of optimization of first trimester glycaemia with HbA1c > 6.5% in 78.4% of those with T1DM and HbA1c > 6.5% in 54.6% of those with T2DM. The research team recommended the maintenance and extension of this benchmarking service to provide opportunities to identify policy and clinical approaches to improve pregnancy outcomes among women with hyperglycaemia in pregnancy.[33]

Current status in Australia of contraception and preconception care amongst women with preexisting diabetes

Contraception

National data from surveys indicate that use of the most reliable methods of contraception, the LARC methods, remains low at around 12% in Australia compared to other countries. [34] Recent data from Sweden indicate that 30.9% of all reproductive age women use a LARC. [35] Reassuringly data from the Australian Longitudinal Study on Women's Health indicate that younger people are moving towards increased uptake of LARC, particularly hormonal IUDs. [36] However, we do not have nationally representative data on contraceptive use in women with diabetes.

Pregnancy planning and PCC

Data on pregnancy planning and intention are captured in many antenatal booking systems but this is not reported nationally. Studies in Victoria and NSW have documented that when using a validated scale around 70% of women have an intended pregnancy, although less than half of women in these studies took any health actions before pregnancy.[37, 38] Survey data using women enrolled in the NDSS, reported that more women with T1DM compared to T2DM are routinely advised by their health care practitioner to avoid unintended pregnancy.[19] Integrating validated measures such as the London Measure of Unplanned Pregnancy into the antenatal booking visit can provide accurate assessment of pregnancy intention. [37] In parts of Victoria the EPIC dataset records preconception visits amongst GPs and hospital doctors but is unable to capture whether an individual visited a private specialist for PCC.

Pregnancy outcomes amongst women with diabetes

In countries such as the United Kingdom (UK) and Sweden comprehensive national databases of pregnancy outcomes in women with PEDM have been established. In Australia there is no such annual reporting, although the Australian Institute of Health and Welfare intermittently publishes data on the pregnancy outcomes in women with PEDM and Gestational Diabetes as well as on congenital anomalies.[8, 39] Indeed, a recent online

report revealed a 10% rate of anomalies among women with PEDM, compared to 3.8% in women without diabetes. These outcomes were not stratified by the type of preexisting diabetes. [8] As above, a retrospective audit across 11 services in Australia and New Zealand indicated that there is significant variation in PEDM care and that perinatal outcomes for women with PEDM are sub-optimal. Establishing a system for ongoing monitoring has the potential to improve standardisation and quality of care. This would require strengthening of existing data collection systems to be able to stratify by PEDM but with detail added that will capture diabetes care before during and after pregnancy.

Potential sources of data

Pregnancy cohorts across the country that can capture the rate of pregnancy planning and impact of PCC on outcomes including the economic impact of suboptimally managed PEDM prior to pregnancy could provide data. There is the potential to utilise the data from those women with diabetes within the Australian Longitudinal Study of Women's Health [40] to examine reproductive choices and outcomes. Improving the registration of women with the NDSS, particularly those with T2DM (ascertainment in T1DM is much better) is potentially a useful way to collate contraception and pregnancy information on women with PEDM. Further useful information on contraception and pregnancy planning may potentially be obtained for those registered for Continuous Glucose Monitoring. An understanding of the representativeness of the NDSS [41] data could be achieved by comparing those registered with Primary Health Network (PHN) data. Other sources of data include the MedicineInsight program, which includes data on more than two million women of reproductive age attending Australian General Practice. HbA1c levels can be captured through linking to pathology results and an estimate of the visit in relation to a pregnancy can be made. Patterns of contraception prescribing in relation to women with diabetes can also be obtained but requires data linkage across several databases.

It may be possible to extend the use of diabetes questions in the National Perinatal Data Collection rather than establishing a new database.

Potential ways of reaching women and healthcare practitioners

A number of existing programs are in place to improve medication management by pharmacists. These include Home Medicines Review, MedsCheck and Diabetes Medscheck. These programs are funded through Australian Government Department of Health and Aged Care and involve the provision of an in-person one on one discussion and medication review provided by a pharmacist. This nationally funded scheme opens up the opportunity to enhance people's understanding of glycaemic management [42] and potentially to provide education to reproductive age women about contraception and preconception care.

The Diabetes Contraception and Pre-pregnancy Program (DCAPP) is the first Australian diabetes pre-pregnancy intervention program that aims to reduce adverse pregnancy outcomes based upon various research tools (comprehensive literature review, audits, interview surveys and in-depth focus-groups and interviews in addition to multidisciplinary meetings with HCPs). [6] As a part of DCAPP, pharmacists are being asked to approach those

picking up diabetes prescriptions and explain the DCAPP program to women and ask them to consider enrolment in the DCAPP study. Both pharmacists and women with diabetes support the idea of greater pharmacy involvement in contraception and pre-pregnancy management of women with diabetes. [43]

The National Diabetes Service Scheme (NDSS) assists people to manage their life with diabetes and also provides access to support services and products. The NDSS provides consumables such as syringes and needles, blood glucose test strips and continuous glucose monitoring products. More people with T1DM register with the scheme thank with T2DM, but with greater reach the service has the potential to provide both education and data monitoring of reproductive outcomes. In addition, the idea of sending reminders about reproductive life planning was asked of women enrolled in the NDSS. When asked whether they would see a benefit in receiving regular reminders about planning and preparing for pregnancy, 36% agreed, 14% disagreed, 12% were unsure and 38% said it would not apply to them. Of those who wanted to receive reminders, the preferred frequency was annual reminders (73%), but given the low levels of agreement, this may not be the best approach. Women with T1DM were more likely to prefer a reminder from a diabetes health professional than women with T2DM (53% versus 30%). Women with T2DM were more likely to prefer a reminder from a GP (35% versus 21%) or an electronic reminder from the NDSS (54% versus 38%). The majority of women (79%) were happy to receive general health or women's health information from the NDSS. [44] The NDSS has also developed videos on contraception and pregnancy planning that are available on the website. [45]

There are a number of studies that have tested different interventions for women with diabetes to improve knowledge and behaviour change around contraception and PCC. In the EASIPOD study women of reproductive age were annually mailed a preconception leaflet and this had a beneficial impact on pregnancy outcomes even though only 27% of women attended PCC. [30] A revised EASIPOD programme (EASIPOD 2), in which primary diabetes practitioners were far more engaged along with PCC through the addition of an electronic record prompt, showed an increased rate of pre-conception 5 mg folic-acid uptake (from 46 to 64%) in women with T1D as well as significant improvement of HbA1c at conception in women with T2D, with almost 60% of women reaching target (6.5% or ≤ 48 mmol/mol). [46] The READY-Girls study provided DVD and written information for teens with diabetes about contraception and PCC and improved their intentions to seek this support over the following 12 months compared to controls. [47] In another study a DVD education resource improved uptake of PCC and improved indicators of PCC including increased use of folic acid and lower HbA1c levels at antenatal booking.[48] The PROCEED (Preconception Care in Diabetes for Derby and Derbyshire) adopted a multifaceted approach targeting health professionals working with women diabetes across primary care, specialist care and community pharmacists as well as consumers. The team raised awareness about the need for PCC in primary care and set up dedicated multidisciplinary appointments in the antenatal clinic. PCC rates rose to 70%. [49]

With regard contraceptive uptake in the general population, studies both internationally and in Australia have demonstrated that providing counselling on the most effective methods of contraception along with facilitated pathways to access can increased the uptake of the implants and intrauterine devices which are the most effective reversible methods of contraception and result in a reduction in unintended pregnancies.[50] [51] The Contraceptive Choice Study in the United states reported that compared to hormonal contraceptive methods, those using an intrauterine device or implant were twenty times less likely to have an unintended pregnancy over a three year period.[50] Access to postpartum contraception plays a vital role ensuring the next pregnancy is well planned and that a healthy interpregnancy interval of 18 months ensues. [52, 53] [54] [55] In particular access to LARC methods, compared to hormonal methods, has been demonstrated to improve the likelihood of achieving an optimal interpregnancy interval.[56] The unmet need for contraception has been found to be particularly high in the 12 months after a birth leaving women with diabetes vulnerable to unplanned pregnancy. The tradition of deferring postpartum contraception counselling and provision to the six week postpartum visit fails to meet the needs of many women who wish to postpone or limit childbearing because of barriers accessing postnatal care [57] or because services are focused more on newborn care.[58] Providing LARC methods before maternity discharge leads to greater use of contraceptive implants[59] and IUDs [60] at 6 months postpartum and significantly lowers the risk of pregnancy within 18 months of a birth. [56] Thus women with diabetes would benefit from programs providing reliable contraception in both the community and in maternity settings.

Conclusion

The ADIPS Diabetes Contraception and Pre-pregnancy Management Group was established to identify how best to improve pre-pregnancy planning to reduce the key adverse outcomes women with diabetes disproportionally experience as a result of hyperglycaemia. Learnings, mostly from international programs, show that multifaceted programs that combine patient education with health care professional upskilling in PCC for women with diabetes can reduce the risk of congenital anomalies and avoid the major costs associated with under-prepared pregnancies. The recommendations for contraception and PCC address the need for data monitoring systems, education of community and health practitioners, health system reform, and digital technologies to support information and management. ADIPS recommends that implementation of these recommendations should be conducted in partnership with consumers and representatives of underserved and priority populations groups and be promoted in ways that ensure health equity and minimise stigma for people living with diabetes.

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