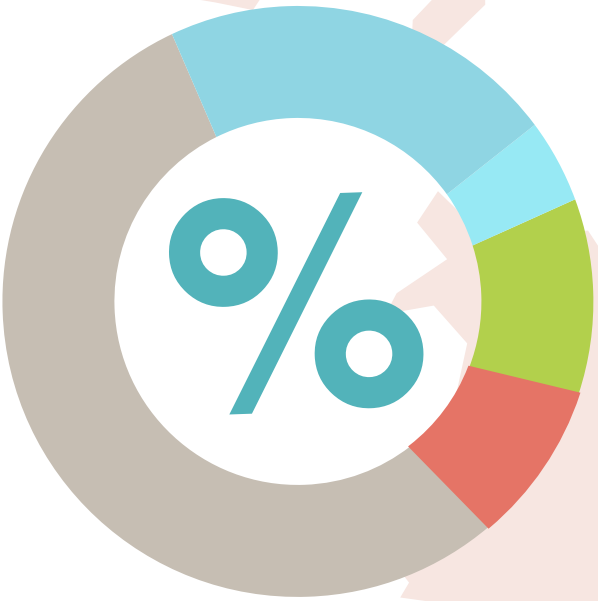
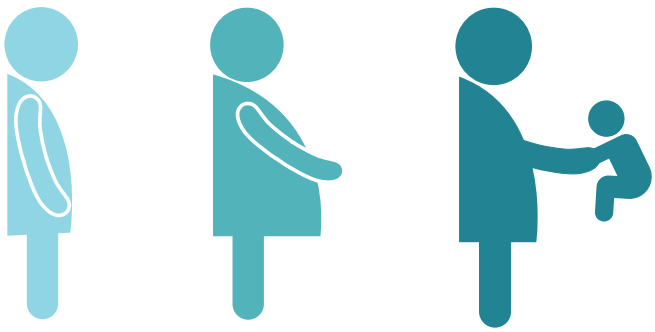
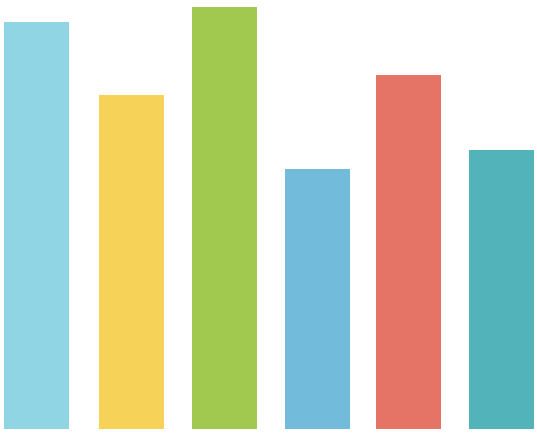
PREGNANCY CARE FOR WOMEN WITH DIABETES 2015

A summary report about the quality of treatment and care before and during pregnancy for women with diabetes

Based on findings from the National Pregnancy in Diabetes (NPID) audit 2015 in England, Wales and the Isle of Man







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Introduction

The 2015 National Pregnancy in Diabetes (NPID) audit report was published in October 2016. The report's findings come from information collected about women with diabetes in 155 hospitals in England, Wales and the Isle of Man who had pregnancies ending before 31 December 2015.

The NPID audit provides a picture of the care provided to women with diabetes before and during pregnancy and the resulting outcomes for the women and their babies.

The NPID audit is commissioned by the Healthcare Quality and Improvement Partnership (HQIP).

NHS Digital (formerly known as the Health and Social Care Information Centre) manages the NPID audit, working closely with Diabetes UK. Clinical teams across England and Wales also provide support to the audit

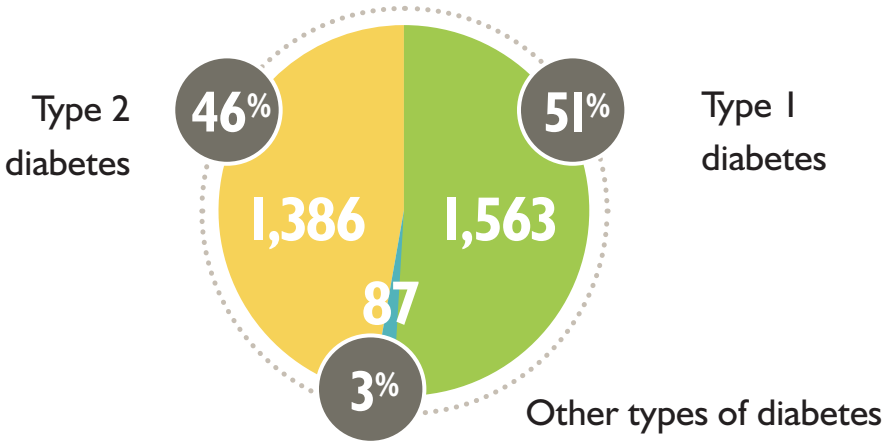
This report summarises some of the key findings from the 2015 NPID audit.

Further information about the NPID audit and how the data is collection can be found at the back of the report on p21.

The NPID audit findings

Information was collected about 3,036 women who had pregnancies finishing between 1 January 2015 and 31 December 2015. Eight women had two pregnancies during the year so there were 3,044 pregnancies in total. There were also 42 twin pregnancies.

Percentage of women by diabetes type[1]



The average age of women with Type 1 diabetes was 30 years and for women with Type 2 diabetes it was 34 years.

1 Information on type of diabetes was not available for 87 women

1. Preparing for pregnancy

The National Institute for Health and Care Excellence (NICE) guidelines recommend that planning and care for women with diabetes starts before pregnancy. This can reduce risks of harm to the mother and their baby. These include:

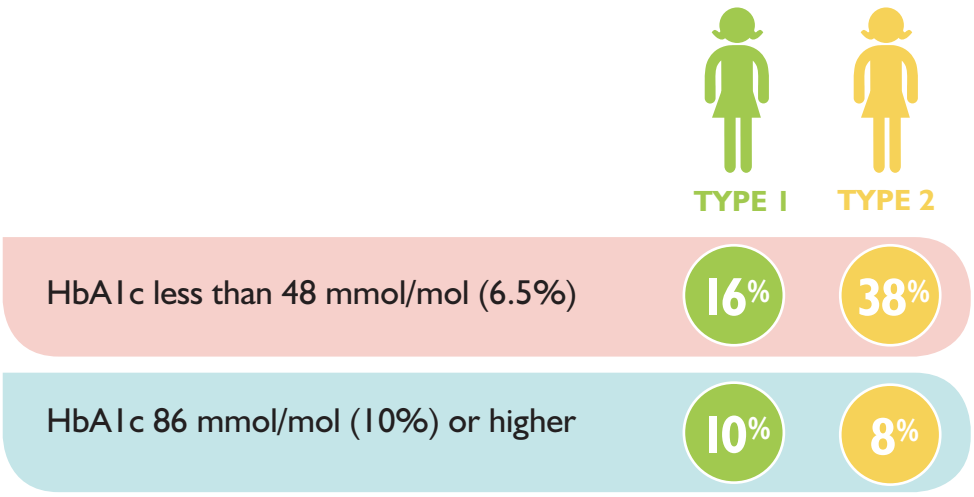
- achieving best possible blood glucose levels
- taking high strength folic acid supplement – one 5mg tablet a day
- having a medication review to check that prescribed treatments are safe to take during pregnancy

Blood glucose levels before pregnancy

NICE guidelines recommend that HbA1c levels should be below 48 mmol/mol (6.5%) during the first 12 weeks of pregnancy (also called the first trimester). HbA1c levels below 48 mmol/mol (6.5%) help reduce the risk of miscarriage, birth defects in babies, and stillbirth or death in new-borns.

If a woman's HbA1c level is 86 mmol/mol (10%) or higher, NICE strongly advises against pregnancy.

Women with Type 2 diabetes were much more likely than women with Type 1 diabetes to have an HbA1c under 48mmol/mol during the first trimester:



High strength folic acid supplement

NICE advises all women with diabetes to take a daily folic acid supplement starting well before conception and continuing for the first 12 weeks of pregnancy.

They recommend the higher 5mg dose, which is available on prescription, rather than the lower 400mcg dose. This is because folic acid helps reduce the risk of brain and spine defects in babies (called neural tube defects), and the risk of these is higher in babies born to mothers with diabetes.

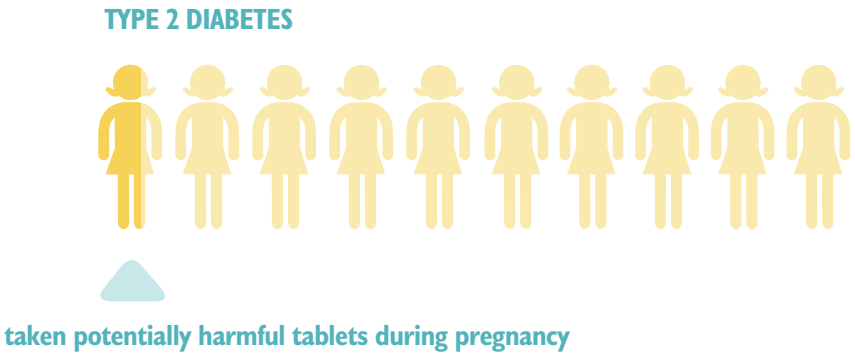
The audit found:

- 39% of women with Type 1 diabetes and over half (53%) of women with Type 2 diabetes had not taken any form of folic acid supplement before getting pregnant
- The percentage of women taking the recommended 5mg folic acid supplement was higher among those with Type 1 diabetes (46%) compared with women with Type 2 diabetes (23%)

Medication review

The only medications for treating diabetes known to be safe to take while pregnant are insulin and metformin. Anyone taking tablets for diabetes other than metformin should be advised to stop taking them during pregnancy.

At the time they became pregnant, 8% of women with Type 2 diabetes were taking tablets to lower blood glucose that are potentially harmful to take when pregnant.



Women with diabetes may be on treatment for high blood pressure or high cholesterol to lower their risk of complications of diabetes. These treatments include statins to help lower cholesterol, and angiotensin-converting enzyme inhibitors (ACE inhibitors) or angiotensin receptor blockers (ARBs) for high blood pressure. These may cause potential harm to babies developing in the womb.

NICE recommends that women should stop taking these medications before pregnancy, or as soon as they know they are pregnant.

The majority (94%) of women with Type 2 diabetes were not on statins. Similarly, the majority (95%) were taking neither ACE inhibitors nor ARBs. However, 9% of women with Type 2 diabetes were taking either statins or an ACE inhibitor/ARB or both when they became pregnant. Fewer women with Type 1 were taking either of these drugs.

Why preparing for pregnancy with diabetes is important

Most women with diabetes have healthy pregnancies and healthy babies. However, there are risks, and these sometimes cause serious health problems, either for the mother, the fetus or the newborn child.

So it is important that women with diabetes who are pregnant or are planning pregnancy get the right care, support and information to help them and their baby stay well. For a healthy, safe pregnancy with diabetes, planning and care starts before stopping contraception.

Some of the risks to the mother include:

- having a severe low blood sugar episode (hypo)
- problems with eyes and kidneys, which can become worse during pregnancy
- having a large baby, which increases the likelihood of birth problems

Babies may have an increased risk of:

- not developing normally in the uterus (congenital anomaly)
- being stillborn or dying shortly after birth
- health problems following birth that may require special or intensive hospital care

HbA1c

Good care starts before conception with careful blood glucose management and a healthy lifestyle. Women should aim for HbA1c to be below 48mmol/mol (6.5%) before stopping contraception. If their HbA1c is above 86mmol/mol (10%), they are strongly advised to avoid pregnancy.

Folic Acid

Women with diabetes should take a higher (5mg) than the standard dose folic acid supplement, available on prescription. This 5mg dose should be taken before stopping contraception and for the first 12 weeks of pregnancy. This is because babies of women with diabetes have an increased risk of brain and spinal defects – also called neural tube defects – which may lead to conditions like spina bifida. Folic acid is known to help reduce the risk of these problems.

Make contact with healthcare team before pregnancy

Women with diabetes who are thinking about having a baby should make contact with their healthcare team as soon as they can. They will be offered advice and guidance about pregnancy and diabetes, and information on the things they can do that can reduce risk to both mother and baby.

Make contact with antenatal team early in pregnancy

Women with diabetes who have already conceived should make contact with the antenatal team immediately. They will be offered advice and support about pregnancy and diabetes.

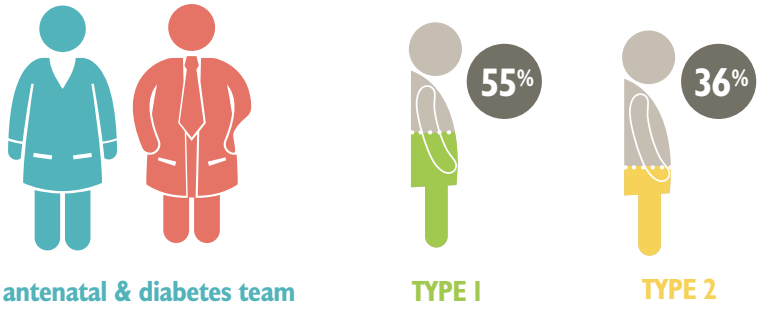
2. Treatment and care during pregnancy

First antenatal appointment

NICE guidelines recommend that all pregnant women with diabetes should have a clinical appointment at the earliest opportunity. This appointment should be with the joint diabetes and antenatal team.

More than half of women with Type 1 diabetes (55 %) had their first contact with a joint diabetes and antenatal team in the first eight weeks of pregnancy. Only 36 % of women with Type 2 diabetes had their first contact within eight weeks.

First appointment within 8 weeks

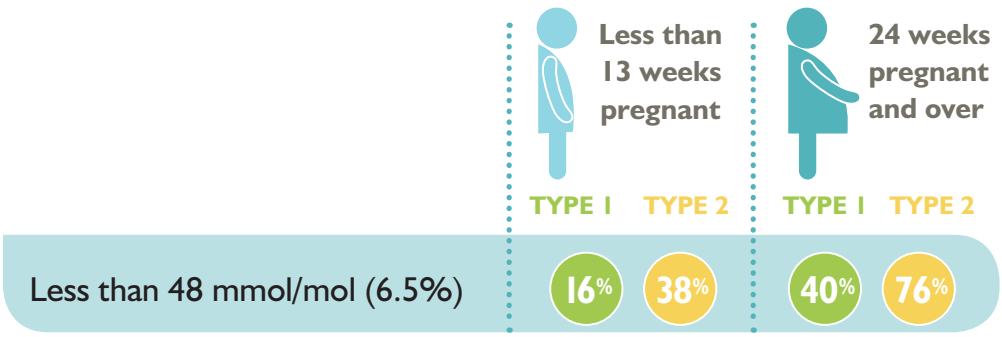


Keeping checks on blood glucose

Ensuring best possible glucose control throughout pregnancy is a priority. Women should have contact with their diabetes care team every one to two weeks throughout pregnancy. Together they can check general health, discuss HbA1c levels, and take action to reduce any risks during the early stages of the pregnancy.

The audit collected information on HbA1c at the first and the last appointment during pregnancy.

HbAIc in early and late pregnancy



The picture above shows that HbA1c levels fall as the pregnancy progresses for both women with Type 1 and Type 2 diabetes. For women with Type 1 diabetes, 40% had an HbA1c below 48mmol/mol at 24 weeks or later, compared to 16% in the first trimester. For women with Type 2 diabetes, 76% had an HbA1c below 48mmol/mol at 24 weeks or later, compared to 38% in the first trimester.

HbA1c naturally falls in pregnancy because of biological changes in the body. As previously noted, it is important for women to maintain tight control of their blood glucose levels and aim for an HbA1c of less than 48mmol/mol. These adjustments are essential to prevent a rise in HbA1c and to reduce risks to mother and baby. So it is not possible to say exactly how much of the fall in levels is entirely due to better blood glucose management.

Hospital admissions for severe hypoglycaemia during pregnancy

NICE recommends that women with diabetes should aim for an HbA1c of 48mmol/mol (or 6.5%). Achieving this requires close monitoring and tight control of blood glucose levels, keeping them within target at all time. The lower glucose levels needed to achieve this target may increase the number and severity of hypos.

The audit found that nearly 1 in 10 (9.6%) women with Type 1 diabetes went into hospital[2] with hypoglycaemia during their pregnancy.

At least one admission for hypoglycaemia

Hospital admissions for diabetic ketoacidosis (DKA) during pregnancy

DKA occurs when the body has no insulin to use and switches to burning fatty acids, which produces acidic ketones. Very high blood glucose and ketones can cause severe illness and even death. 32 women with Type 1 diabetes (2.5%) were admitted to hospital with diabetic ketoacidosis (DKA) during their pregnancy.

At least one admission for DKA

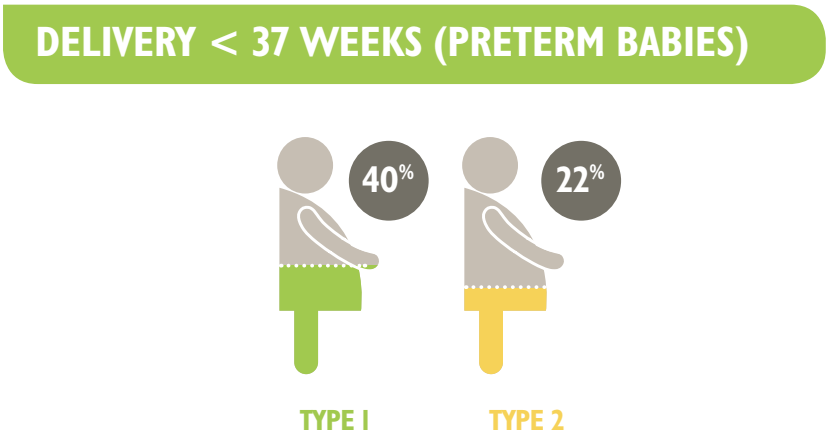
2 *This data includes admission to hospital where hypoglycaemia was recorded by the hospital. There may have been additional reasons for admission. The data only includes hypoglycaemia when the person was treated as an inpatient.*

3. Timing and mode of birth

Duration of pregnancies

The average duration of pregnancy for women with diabetes was 36 weeks for women with Type 1 diabetes and 37 weeks for women with Type 2. The majority of births were between 37 and 38 weeks.

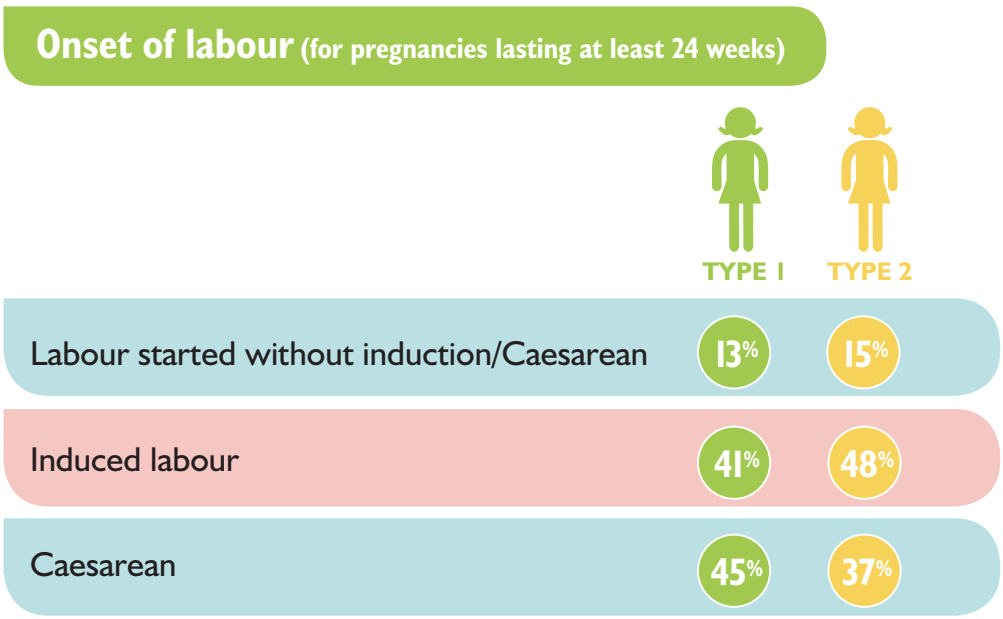
Babies born before 37 weeks are called 'preterm'. The audit showed that a higher proportion (40%) of babies born to women with Type 1 diabetes were preterm, compared to women with Type 2 (22%).



Onset of labour

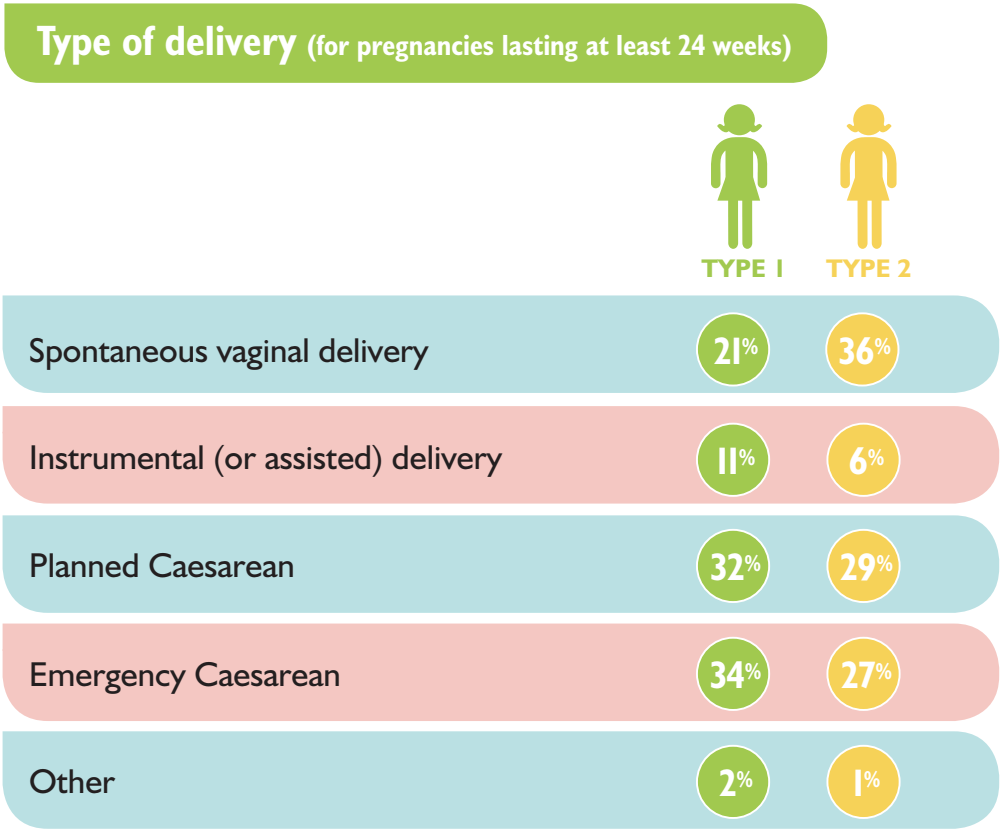
The timing of the birth for women with diabetes is important, because if the pregnancy continues too long there is an increased risk of problems for mother and baby. The NICE guidelines recommended that all women with diabetes should be advised to have their labour induced, or to have a Caesarean section, between 37 weeks and 38 weeks, 6 days of pregnancy. If there are complications, this may happen sooner than 37 weeks.

Only a minority of women with Type 1 diabetes (13%) and Type 2 diabetes (15%) went into spontaneous labour. The rest were either induced or had a Caesarean section. Women with Type 1 diabetes were more likely (45 %) to have a Caesarean section, before going into labour, than women with Type 2 diabetes (37%).



Type of delivery

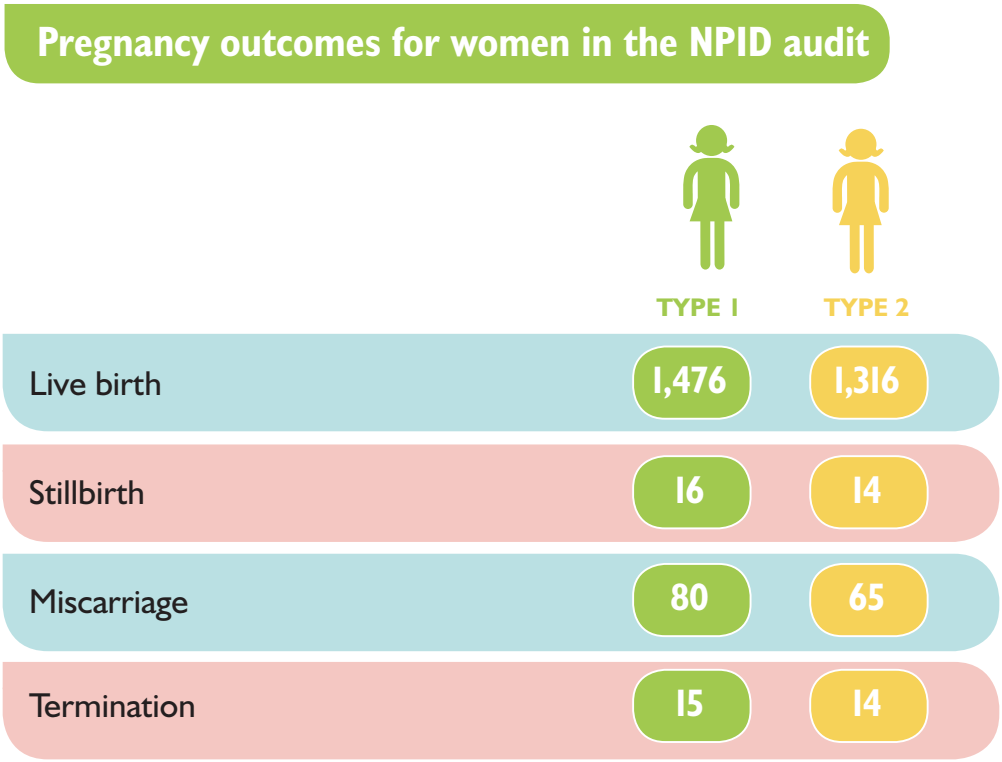
66% of women with Type 1 diabetes and 56% of women with Type 2 diabetes had a Caesarean (planned or emergency).



Note: due to rounding the percentages, the total does not add up to 100%

4. Pregnancy outcomes

Almost all (98.8%) of the registered births (live births and stillbirths) included in the NPID audit in 2015 were live births. This is slightly less than for all women within England and Wales, where 99.6% were live births.



Some miscarriages and terminations early in pregnancy may be not be included if they happened before women had their first appointment.

Stillbirths and neonatal deaths

Although almost all pregnancies in women with diabetes end successfully, women with diabetes have a higher chance of having a stillborn child or a child that dies within the first 28 days of life (a neonatal death), than women in the general population.

In the general population (in England and Wales), the stillbirth rate is 1 in every 213 births. For women with Type 1 diabetes, it is 1in every 93 births and for those with Type 2 diabetes it is 1 in every 95 births.

A neonatal death happens for 1 in every 400 births in the general population. For women with Type 1 diabetes, it is 1 in every 123 births and for those with Type 2 diabetes it is 1 in every 88 births.

It is important to be cautious about making comparisons between the NPID audit rates and other rates. For example, women in the NPID audit are generally a bit older than women in the national figures and age increases the risk of stillbirth and neonatal death.

Congenital anomalies

Most of the key steps in a baby's development happen very early in pregnancy (before 10 weeks). If this goes wrong, the result can be a baby with an abnormality. This is called a congenital anomaly (e.g. congenital heart disease or spina bifida).

The NPID audit findings show that women whose babies developed a congenital abnormality had, on average, higher HbA1c levels in the first three months of their pregnancy.

The importance of blood glucose levels in early pregnancy

The table below shows the average HbA1c levels in the first 12 weeks of pregnancy and the outcome of their pregnancy. It shows that women who had a baby without complications had an average HbA1c of 58.8 mmol/mol. Whereas, women who had a baby with a congenital anomaly had an average HbA1c of 67.2 mmol/mol.

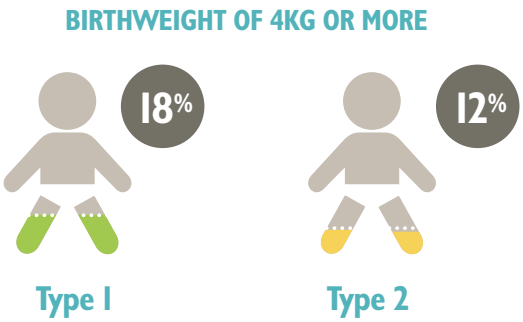
Average HbAIc in first 12 weeks

	ALL WOMEN WITH DIABETES	TYPE 1	TYPE 2
Baby without complications	58.8 mmol/mol	62.0 mmol/mol	55.2 mmol/mol
Stillbirth or neonatal death	63.0 mmol/mol	67.4 mmol/mol	59.4 mmol/mol
Miscarriage	65.4 mmol/mol	68.5 mmol/mol	61.4 mmol/mol
Anomaly	67.2 mmol/mol	68.3 mmol/mol	65.1 mmol/mol

These findings show how important it is for all women with diabetes to get the support they need to achieve the best possible blood glucose levels as a part of getting ready for pregnancy and early pregnancy.

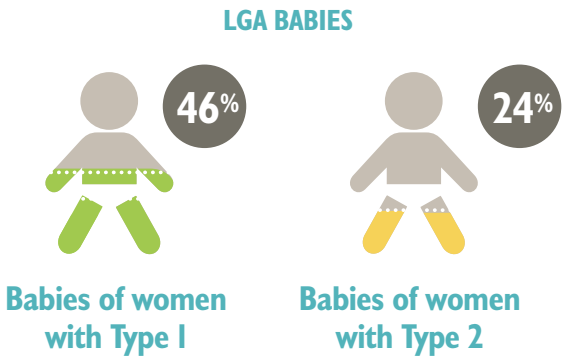
Birthweight

Macrosomia (birthweight of 4kg or more) is a recognised complication for babies of women with diabetes.



Large for gestational age (LGA) babies

In the general population, only 10% of babies will be LGA. Women with diabetes are more likely to have an LGA baby. The picture below shows that the percentage of LGA babies in women with Type 1 and Type 2 diabetes is much higher.



What is a LGA baby?

The weight of a baby will depend on the length of the pregnancy in all women. Other things such as the mother's height and weight can also affect the size of a baby.

Instead of just using the weight of the baby, the audit takes into account the other things that can affect the weight. It uses large for gestational age (LGA). LGA is the term that is used to describe babies who are born weighing more than the usual amount for the number of weeks of pregnancy.

LGA babies have birthweights greater than the 90th percentile for their gestational age, meaning that they weigh more than 90% of all babies of the same gestational age.

What are the risks of having a LGA baby?

Most babies who are LGA are delivered normally without any problems; however there is an increase in the risk of problems during birth and needing help delivering the baby.

Having an LGA baby is a risk for women with diabetes, even those women that have good glucose control throughout pregnancy. However, any attempt to lower HbA1c to below 48mmol/mol during pregnancy will help reduce the risk of having an LGA baby. In women that had higher HbA1c before 13 weeks and after 24 weeks, the babies were more likely to be LGA compared to women that managed to lower their HbA1c by the latter stages of pregnancy.

HbAlc and LGA babies

	WOMEN WITH TYPE 1 WHO HAD LGA BABIES	WOMEN WITH TYPE 2 WHO HAD LGA BABIES
Below 48mmol/mol (6.5%) before 13 weeks and after 24 weeks	27%	15%
48mmol/mol (6.5%) or above before 13 weeks and below 48mmol/mol (6.5%) after 24 weeks	34%	19%
48mmol/mol (6.5%) or above before 13 weeks and 48mmol/mol (6.5%) or above after 24 weeks	55%	47%

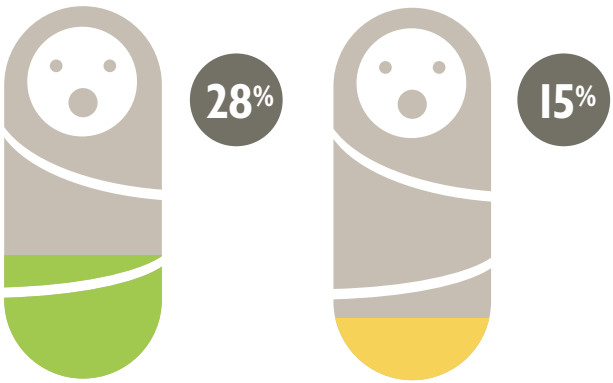
These findings show how important it is for all women with diabetes to get the support they need to achieve the best possible blood glucose levels at every stage of pregnancy, including the late stages.

Care of newborns

NICE guidelines recommend that babies born to women with diabetes should stay with their mothers unless the baby is unwell, or needs close observation or special medical care.

For babies born at 37 weeks or later, the NPID audit found that the majority of babies did not need special or intensive care. However, 28% of babies born to women with Type 1 diabetes and 15% of those born to women with Type 2 diabetes were admitted to a special care baby unit or intensive care. The audit found that babies were more likely to be admitted if the mother had an HbA1c of 48 mmol/mol or above after 24 weeks, or if the baby was LGA.

Babies born 37 weeks or later needing specialist care



BABIES BORN TO WOMEN WITH TYPE 1 DIABETES

BABIES BORN TO WOMEN WITH TYPE 2 DIABETES

Improving pregnancy preparation and pregnancy care for women with diabetes

Recommendations for healthcare professionals

The NPID audit findings highlight areas of healthcare that can give women with diabetes the best chance of both a healthy pregnancy and a healthy baby.

These are the recommended actions for all who provide health care to women with diabetes.

Review the NPID findings

Like the NPID full report, this summary includes only national results. All hospitals should look at their local findings which can be downloaded from NHS Digital's website.

This will help pinpoint where treatment and care for pregnant women is producing good results and where there is a need for improvement or new approaches.

Diabetes and maternity services are recommended to work collaboratively to:

Improve preparation for pregnancy by:

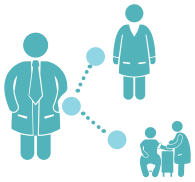
- promoting access to pregnancy preparation advice
- tailoring approach to offer women the right information at the right time
- informing women about the importance of, and options for, safe effective contraception

Improve early contact with specialist support by:

- creating clear pathways for rapid referral to specialist teams, and publicising these to primary care and family planning services
- improving achievement of safe blood glucose control in pregnancy
- focussing on proactive blood glucose management in pregnancy

Primary care, family planning and community teams are recommended to:

- develop a clear plan for all women with diabetes to ensure awareness of the value of pregnancy preparation and the importance of safe effective contraception



- maintain a clear understanding of how to use referral pathways for specialist support

Specialist diabetes services are recommended to:

- routinely discuss pregnancy with all appropriate women
- access, where needed, new technologies to support blood glucose management
- lead or to identify leadership for quality improvement in antenatal diabetes care

Recommendations for healthcare professionals

Recommendations for women with diabetes

It's important to remember that most women with diabetes have a safe, problem-free pregnancy. The right preparation is the first and most important way to keep your risks low and that will put you in a good position to enjoy a healthy pregnancy and birth.

If you are a woman with diabetes thinking about having a baby:

Talk to someone from your diabetes healthcare team before you stop contraception. Ask for information and advice – you need to know how pregnancy will affect your diabetes, and how diabetes might affect your pregnancy.

Ask your healthcare team to refer you to a diabetes structured education course, such as DAFNE or DESMOND

Make sure you get offered and go to all the recommended antenatal appointments and health checks.

Try to keep your blood glucose on target. If your HbA1c is more than 86mmol/mol (or 10%) you should be taking safe effective contraception to avoid an unplanned pregnancy – the ideal pre-pregnancy HbA1c level is below 48mmol/mol (or 6.5%). If you need help to achieve these levels, ask for help from your diabetes team.

Start taking 5mg folic acid to help prevent your baby having neural tube defects – you can get this on prescription from your doctor.

When you get pregnant:

Try to keep your blood glucose levels on target

You have a greater chance of having a healthy baby if your blood glucose levels stay in an acceptable range throughout pregnancy. The **first four to six weeks** are especially important for the good physical development of your baby. This means being aware of when you might have conceived and being prepared to act immediately.

Continue to take higher dose (5mg) folic acid

Continue to take 5mg folic acid until the end of week 12 of your pregnancy.

Make sure you get all the checks you need

It's your right to have them. These include:

- eye screening – during your first antenatal clinic visit and again at 28 week if first test is normal
- kidney tests
- baby screening during pregnancy
- general checks during pregnancy on your baby's development

Check your medications

Some medicines are not suitable for pregnant women.

Some tablets for Type 2 diabetes may harm your baby. You may need to switch to insulin injections to control your blood glucose, but you can usually return to tablets after pregnancy. Your doctor will tell you whether you need to change your medicine.

If you take blood pressure tablets like statins or ACE inhibitors, tell your doctor or diabetes nurse immediately – these tablets may damage your baby's development.

Your local team will offer you regular check-ups every one to two weeks

If you take blood pressure tablets like statins or ACE inhibitors, tell your doctor or diabetes nurse immediately – these tablets may damage your baby's development.

Women with diabetes can find out more about the guidelines for antenatal and pregnancy health checks on the NICE website.

The Diabetes UK website has good information about diabetes and pregnancy.
The Women With Diabetes website also has useful advice.
The Go Folic website has some helpful advice about folic acid and pregnancy.

Recommendations for women with diabetes

Further information

What is the NPID audit?

The NPID audit is a national clinical audit (or survey) about the care and health of women with diabetes who become pregnant.

The reason why we collect this information and produce a report is to:

- highlight where pregnancy care is good and meets national guidelines
- show where care needs to improve

The findings will help hospitals raise their overall standards of care for women with diabetes from pre-conception through to the end of their pregnancy.

Specifically, the NPID audit looks at:

- how well women with diabetes are prepared for pregnancy
- whether the treatment and care given to women reduced the risk of certain complications during pregnancy
- whether treatment and care minimised the risk of the baby developing abnormally, or dying before or shortly after birth

Hospitals collect information for the audit all year round. A report is produced each year, which looks at the data from the previous year.

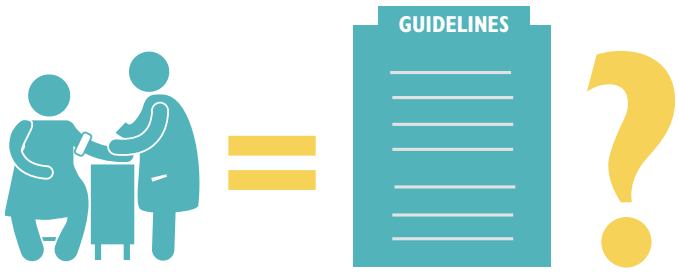
All women whose information was collected for the audit gave their permission for the use of their personal data from their maternity records and hospital care they received during pregnancy.

You can read more about the audit methods and data collection on page 23.

Why do we audit pregnancy care for women with diabetes?

Pregnancy in women with diabetes should result in a happy outcome for mother and baby. But good outcomes depend on the right preparation for pregnancy and the right care during pregnancy.

All hospitals should follow national guidelines on standards of care. The National Institute for Health and Care Excellence (NICE) produces the guidelines for diabetes in pregnancy. Doctors, nurses and other healthcare staff should follow these guidelines to make sure that the care they give to women with diabetes provides the best possible chance of a healthy pregnancy and a healthy baby.



The NPID audit measures whether the care given meets these guidelines. The main aim is to check that women with diabetes have treatment and care before and during pregnancy that minimises the risk of health complications for the woman, her fetus, and her new-born baby(s).

Each year, findings from the NPID audit are sent to every hospital that has taken part. Hospital managers and staff are asked to look at areas where their care is below standard, and to develop plans to improve these services.

The full audit findings are also publicly available – you can find them on the NHS Digital website.

About this summary report

This report summarises the main findings of the NPID audit report for 2015. It is a document for everyone – people with diabetes, healthcare professionals, and anyone interested in diabetes and pregnancy.

Before writing this summary report, Diabetes UK talked to people with diabetes to find out what NPID audit information they wanted to see, and how to present the findings.

In this report we explain:

The NPID audit only focuses on women who were already diagnosed with diabetes ***before they became pregnant.*** It does not include information about women who develop diabetes ***during pregnancy***.

At the back of the report we have listed contact details for organisations if you want to find out more. There is also a list explaining some of the words and terms used in this report.

How the NPID audit collects information

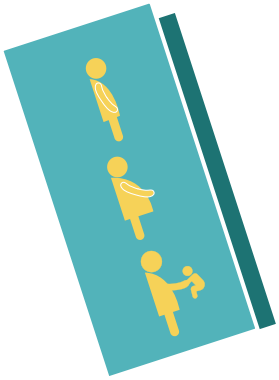
The National Pregnancy in Diabetes (NPID) audit collects data year-round from joint diabetes and antenatal teams in England, Wales and the Isle of Man.

1 Doctors or nurses running diabetes antenatal clinics collect information on pregnant women with diabetes. This only includes information that is normally collected and recorded as part of pregnancy healthcare notes. For example, information about diabetes treatment, other medications, and the results of HbA1c, blood pressure and eye screening tests.

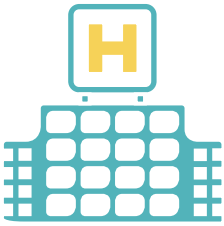
2 The NPID audit also collects information about how many pregnancies there are among women with diabetes, how many babies are born healthy and how many women have problems with their pregnancy or diabetes.

A full list of the information collected for the audit is available on the NPID audit website.

3 Women with diabetes attending a clinic get a leaflet explaining what the audit is about. They have the choice of agreeing or refusing to have their information included in the NPID audit. Only if they agree is their information used.



4 Hospitals collect information for the NPID audit on a continuous basis. Each year there is a deadline for hospitals to send the information they have collected for the NPID audit. All the information from England, Wales and the Isle of Man goes to the NHS Digital using a secure website. NHS Digital analyse all the data and include it in national and regional reports. They also publish them on the. NPID audit website.



Where to go for more information

The National Pregnancy in Diabetes (NPID) audit

Information about the NPID audit and copies of the full reports are available on NHS Digital's website http://content.digital.nhs.uk/npid

Diabetes UK

For more information about diabetes, including living with diabetes, go to www.diabetes.org.uk/Guide-to-diabetes or call Diabetes UK's Careline on **0845 120 2960** for advice and support.

For information about getting involved in making a difference to diabetes treatment and care, go to www.diabetes.org.uk/Get_involved/Campaigning/Diabetes-Voices

To find out more about Diabetes UK's activities in your area, go to www.diabetes.org.uk/In_Your_Area

National Institute for Health and Care Excellence (NICE) guidelines

For information about how NICE develops guidelines: www.nice.org.uk

For guidelines about diabetes care in pregnancy: NICE Guidelines NG3

Healthcare Quality Improvement Partnership (HQIP)

To find out more about clinical audits - and patient involvement in national clinical audits – you can visit the HQIP website at www.hqip.org.uk/involving-patients

Patient Advice and Liaison Service (PALS)

If you have a question about local health services or an enquiry about health matters, you can contact PALS. Find more information or your local PALS at www.nhs.uk

Community Health Councils (CHC) in Wales

If you need help and advice about NHS Services in Wales, you can contact CHC. Find out more at www.wales.nhs.uk/sitesplus/899/home

NHS Choices (England)

NHS Choices provides information about your health, including finding and using NHS Services in England. Find out more at www.nhs.uk

NHS Wales

NHS Wales provides information about your health, including finding and using NHS Services in Wales. Find out more at www.wales.nhs.uk

Explanation of words used in this report

Audit

A way of gathering information and measuring local NHS organisations' performance and quality of care against national guidelines, from which come recommendations for improvements.

Blood glucose

The main sugar the body makes from the food we eat. Glucose travels in the bloodstream, providing energy to all the body's living cells. However, the cells cannot use glucose without the help of insulin.

Body mass index (BMI)

A measure of a person's weight relative to their height, which shows if they are overweight or underweight.

Caesarean section

A surgical operation that involves making an opening in the mother's abdomen and womb, and removing the baby through it.

Cholesterol

A fatty substance, mainly made in the body from fat in the food we eat. Too much cholesterol in the blood can build up and cause narrowing of the arteries.

Complications of diabetes

Harmful effects that may happen when a person has diabetes.

Some effects, such as hypos, can happen any time. Others develop when a person has had diabetes for a long time. These include damage to the retina of the eye (retinopathy), the blood vessels (angiopathy), the nervous system (neuropathy), and the kidneys (nephropathy).

Studies show that keeping blood glucose levels as close as possible to those of a person without diabetes may help prevent, slow, or delay harmful effects to the eyes, blood vessels, kidneys, and nerves.

Congenital anomaly

Abnormal development of the baby's limbs, spine or internal organs. Most congenital anomalies develop during the early stages of pregnancy.

Diabetes

Diabetes is the shortened name for the health condition called diabetes mellitus. Diabetes happens when the body cannot use blood glucose as energy because of having too little insulin or being unable to use insulin. See also Type 1 diabetes and Type 2 diabetes.

Diabetic retinopathy

A condition related to diabetes where there is damage to small blood vessels that supply the eye, affecting sight.

Fetus

The developing baby in the womb, from eight weeks after conception through to birth.

Folic acid

Folic acid, also called vitamin B9, is important for developing a healthy baby. It reduces the risk of **neural tube defects**, such as spina bifida.

Gestation

The period of growth in the womb of a baby, from conception to birth.

HbA1c test

The HbA1c (pronounced H B A one C) test uses a blood sample to measure a person's average blood glucose level over the previous two to three months. The result is given in mmol/mol or as a percentage.

Hypoglycaemia

Hypoglycaemia (or hypo) means 'low blood glucose levels', which are less than 4 mmol/l. This is too low to provide enough energy for the body's activities.

Induced labour or induction of labour

An induced labour is one started purposely and artificially using medication or rupturing membranes.

Insulin

A hormone produced by the pancreas that helps glucose in the blood enter the body's cells and convert to energy. Without insulin, the body can't use glucose properly and blood glucose levels rise.

Metformin

A medication to help lower blood glucose levels.

Miscarriage

The loss of a pregnancy before 24 weeks. Most miscarriages occur during the first 12 weeks of pregnancy.

National Institute for Health and Care Excellence (NICE)

NICE is the independent regulatory body providing national guidance to the NHS on new and existing medicines, treatment and care.

Neonatal

Anything about a newborn baby – for example neonatal care is care of a newly-born infant.

Neural tube defect

Abnormal development of the brain or spinal cord, such as spina bifida, which can develop in the baby during early pregnancy.

Spontaneous Vaginal Delivery

This is when a pregnant woman goes into labour without the use of drugs or help to induce labour, and delivers her baby in the normal manner, without forceps, vacuum extraction, or a caesarean section.

Statins

Medication to reduce the cholesterol made by the body and so lower the cholesterol levels in the blood. They help to prevent heart disease, but are not safe to take during pregnancy.

Stillbirth

The birth of a dead baby at 24 weeks' gestation or later. All stillbirths are registered, with a cause of death.

Trimester

Pregnancy lasts about 40 weeks, counting from the first day of a woman's last normal period. The first trimester is weeks one to 12, the second trimester weeks 13 to 28, and the third trimester is weeks 29 to 40.

Type 1 diabetes

Type 1 diabetes develops when the body permanently destroys its own insulin-producing cells. When this happens a person needs regular insulin, given either by injection or an insulin pump.

Type 2 diabetes

A condition in which the body either makes too little insulin, or cannot use the insulin it produces to turn blood glucose into energy. Diet and exercise is often enough to control a Type 2 diabetes condition, but some people also need diabetes medication or insulin.

CONTACT

We welcome your views on how we can improve this report.

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