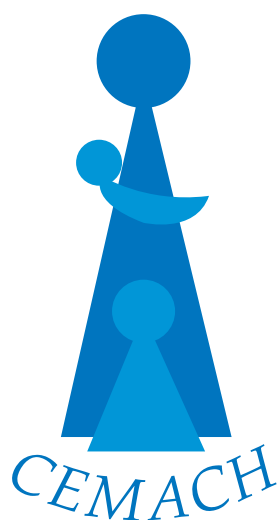


Maternity services in 2002 for women with type 1 and type 2 diabetes

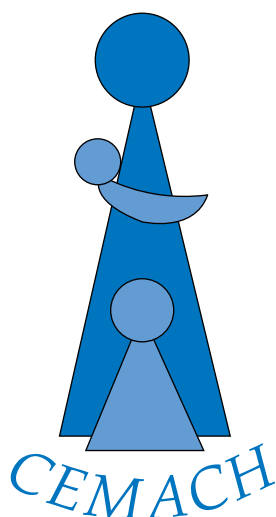
England, Wales and Northern Ireland



CONFIDENTIAL ENQUIRY INTO MATERNAL AND CHILD HEALTH
Improving the health of mothers, babies and children

Maternity services in 2002 for women with type 1 and type 2 diabetes

England, Wales and Northern Ireland



CEMACH Mission Statement

Our aim is to improve the health of mothers, babies and children by carrying out confidential enquiries on a nationwide basis and by widely disseminating our findings and recommendations.

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CEMACH, Chiltern Court, 188 Baker Street, London NW1 5SD.
Tel: 020 7486 1191; fax: 020 7486 6543; email: info@cemach.org.uk
Website: www.cemach.org.uk

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1 CONTEXT OF SURVEY

Diabetes is the most common pre-existing medical disorder complicating pregnancy in the UK. Approximately one pregnant woman in 250 has pre-existing (type 1 or type 2) diabetes, and an increasing number of young people are being diagnosed with type 2 diabetes.

Pregnancy in women with pre-existing diabetes is associated with a four- to seven-fold increase in the perinatal mortality rate and a four- to ten-fold increase in the congenital malformation rate compared with the general population.¹⁻³ These risks continue despite the St. Vincent Declaration in 1989, which set a five-year target for achieving pregnancy outcome in women with diabetes approximating that of a non-diabetic pregnancy.⁴

1.1 The Diabetes National Service Framework

The Diabetes National Service Framework (Diabetes NSF) was initiated by the Government in 1999 to reduce the impact of diabetes on individuals and families and to address variations in health services. The Diabetes NSF Standards Document was published by the Department of Health in December 2001; supplementary information, published on the internet, includes recommendations for the management of diabetes in pregnancy. It specifies key interventions and provides illustrative service models which might be modelled as the NSF is implemented by the NHS over the next ten years.⁵ The Delivery Strategy for the NSF was published in early 2003.

1.2 The CEMACH Diabetes Project

In 2002, the Confidential Enquiry into Stillbirths and Deaths in Infancy (CESDI) commenced a national Diabetes Project, focusing on pregnant women with pre-existing diabetes in England, Wales and Northern Ireland. The two national Confidential Enquiries, CESDI and the Confidential Enquiry into Maternal Deaths (CEMD), merged to become the Confidential Enquiry into Maternal and Child Health (CEMACH) in April 2003 and the Diabetes Project continues under its auspices.

The CEMACH Diabetes Project comprises a number of related modules that aim to build up a picture of organisational facilities, care and outcomes of diabetic pregnancy in England, Wales and Northern Ireland and, ultimately, to make recommendations which will help the NHS to reduce the rate of perinatal deaths and congenital malformations in this group of women. The modules are:

- a survey of the organisation of maternity services for women with type 1 and type 2 diabetes, with which this report is concerned. It will be followed by:
- a report on a cohort of 3800 pregnancies in women with pre-existing diabetes who delivered or booked between 1 March 2002 and 28 February 2003, with follow up to pregnancy outcome at 28 days after delivery
- an enquiry phase, consisting of a case-control study into the impact of clinical care on pregnancy outcome and an audit of care during and after pregnancy, for women with pre-existing diabetes
- a qualitative research project to study in greater depth the issues affecting the take-up and effectiveness of preconception care services.

At the start of the survey of maternity services for women with pre-existing diabetes, we undertook to provide participating NHS trusts with the findings. This report is therefore intended to provide early feedback to NHS trusts in England, Wales and Northern Ireland. It identifies a number of issues that trusts may wish to review when evaluating their own service provision.

2 CRITERIA FOR EVALUATION OF CARE

Preparation for this survey was commenced in Summer 2001. At that time, the only UK-based national guideline for the management of diabetes in pregnancy was the Scottish Intercollegiate Guidelines Network (SIGN) Guideline No. 9 *Management of Diabetes in Pregnancy*.⁶ The questions in the survey questionnaire (Section 4) were therefore based on standards of care set by this Guideline.

The Diabetes NSF Standards and the accompanying supplementary information, which were published in December 2001, made further recommendations for the management of diabetic pregnancy and set standards against which NHS organisations in England should evaluate their service provision. In addition, the SIGN Guideline for the management of diabetes in pregnancy was updated in November 2001 (SIGN Guideline No. 55).⁷ There is good agreement between all three guidelines.

The Diabetes NSF is now the contemporaneous guideline for England and the provision of services by units in this survey has been evaluated against the key interventions suggested by the NSF. This has, in some cases, required an interpretation of the data provided by units. This is described in the text (see Section 5). SIGN standards have been retained where these are not explicitly stated in the NSF, even though they may be implicit within the text.

The standards relating to laboratory assessment of long-term glycaemic control are based on the Consensus Statement of the British Diabetic Association (now Diabetes UK) and the Association of Clinical Biochemists.⁸

The SIGN Guideline No. 55 can be accessed online at www.sign.ac.uk and the Diabetes NSF can be accessed at www.publications.doh.gov.uk/nsf/diabetes.

3 AGGREGATE RESULTS

The Table below shows the aggregate results of the survey of maternity services for women with type 1 and type 2 diabetes in England, Wales and Northern Ireland, reported by the Confidential Enquiry into Maternal and Child Health (CEMACH).

The survey questionnaire (available at www.cemach.org.uk) was sent in 2002 to 222 maternity units providing care for women with diabetes. The results below reflect the services provided by 213 responding units. Services have been evaluated against criteria from the Diabetes National Service Framework (NSF) and Scottish Intercollegiate Guidelines Network (SIGN).

Criteria	Units meeting criteria (%) (n = 213)
A preconception clinic should be run jointly by the adult diabetes service and the maternity service for women wishing to become pregnant. <small>[Diabetes NSF – illustrative service models; www.publications.doh.gov.uk/nsf/diabetes/ch2/servicemodels/pregnancy.htm]</small>	17
Antenatal care for women with diabetes should be provided by a multidisciplinary team, which includes a diabetologist, an obstetrician with a special interest in diabetes, a specialist diabetes nurse, a specialist midwife and a dietician. <small>[Diabetes NSF – illustrative service models; www.publications.doh.gov.uk/nsf/diabetes/ch2/servicemodels/pregnancy.htm]</small>	63
A named obstetrician and named diabetologist should be responsible jointly for coordinating services and for providing antenatal care for women with diabetes. <small>[Diabetes NSF – illustrative service models; www.publications.doh.gov.uk/nsf/diabetes/ch2/servicemodels/pregnancy.htm]</small>	72
Women should have joint consultations with members of the multidisciplinary team or, if this is not possible, consultations with different members of the team provided on the same day and in the same location. <small>[Diabetes NSF – illustrative service models; www.publications.doh.gov.uk/nsf/diabetes/ch2/servicemodels/pregnancy.htm]</small>	69
Open access to dietetic counselling advice should be made available in all diabetic antenatal clinics. <small>[SIGN Guideline No. 9]</small>	88
Women with diabetes should only be delivered in hospitals with neonatal intensive care facilities. <small>[SIGN Guideline No. 9]</small>	84
All babies should remain with their mothers during the neonatal period unless there is a specific medical indication for admission to a neonatal intensive care unit. <small>[Diabetes NSF – Intervention details; www.publications.doh.gov.uk/nsf/diabetes/ch2/interventions/pregnancy.htm]</small>	70
Glycaemic control is best monitored by using HbA _{1c} . <small>[Consensus Statement, British Diabetic Association and Association of Clinical Biochemists]</small>	91
Laboratories should use a DCCT-aligned HbA _{1c} assay to allow national comparisons. <small>[Consensus Statement, British Diabetic Association]</small>	74
There should be locally agreed protocols in place for the provision of antenatal care for women with diabetes to avoid the possibility of fragmented care. <small>[Diabetes NSF – illustrative service models; www.publications.doh.gov.uk/nsf/diabetes/ch2/servicemodels/pregnancy.htm]</small>	69

4 METHODOLOGY

The questionnaire for this survey was developed from a previously conducted Scottish National Audit of pregnancies in women with type 1 diabetes.⁹ It includes questions about the availability of preconception counselling, specialist staff, antenatal care models, consultation arrangements, provision of information, methods for assessment of long-term glycaemic control and neonatal facilities. The survey questionnaire can be accessed at www.cemach.org.uk.

The questionnaire was sent in February 2002 to heads of midwifery services of 222 units expected to provide maternity care for women with diabetes in England, Wales and Northern Ireland. Seventy-one maternity units (comprising birth centres, general practitioner units, one Air Force base hospital and one private hospital) that did not provide maternity care for women with diabetes were not surveyed. The heads of midwifery services had overall responsibility for completion and return of questionnaires but it was requested that all local clinicians involved in the maternity care of women with diabetes should contribute to the response.

Ninety-six percent (213/222) of units returned a questionnaire; 87% (185/213) of responding units returned the questionnaire before September 2002. The remainder were followed up to June 2003 (five units returned the questionnaire in the first half of 2003). Of the nine non-responding units, seven had merged with another unit. All results refer to these 213 units.

The majority (201/213, 94%) of responding units provided all aspects of maternity care for women with diabetes. Two units provided antenatal care but had arrangements for delivery at another hospital; these units had 997 and 2144 deliveries per year, respectively. Eight units had a policy of transferring women with diabetes to another unit for all their maternity care; these units had a median of 1055 deliveries per year (range 340–2126). Two units reported 'other' arrangements; in one unit, women had antenatal visits at two different maternity units; the other unit was a private hospital with each consultant responsible for coordinating antenatal care.

5 AUDIT OF CRITERIA

Service provision was evaluated against ten criteria derived from the Diabetes NSF and SIGN Guideline No. 9 and the Consensus Statement of the British Diabetic Association and Association of Clinical Biochemists (see Section 2).

5.1 Preconception care

A preconception clinic should be run jointly by the adult diabetes service and the maternity service for women wishing to become pregnant

[Diabetes NSF – *illustrative service models*; www.publications.doh.gov.uk/nsf/diabetes/ch2/servicemodels/pregnancy.htm]

Congenital malformations^{10–12} are a major cause of perinatal mortality in diabetic pregnancy and are strongly associated with poor periconceptional glycaemic control.¹³ Prepregnancy education and care of women with diabetes may reduce the fetal malformation rate to a level comparable to that of the non-diabetic population.^{14,15}

The Diabetes NSF and SIGN guidelines both emphasise the importance of multidisciplinary preconception care. In the survey questionnaire, units were given a number of options which best described their current arrangements for preconception counselling. The results are shown in Table 1.

TABLE 1: PROVISION OF PRECONCEPTION COUNSELLING

Arrangements for preconception counselling	Units	
	(n) ^a	(%)
Advice within the general diabetes clinic only	104	49
No formal arrangements for counselling	34	16
Separate preconception clinic	35	17
Other arrangements	16	8
Advice within the general diabetes clinic and by an obstetrician within the obstetric services	13	6
Advice by an obstetrician within the obstetric services only	9	4

^a n = 211; 2 of the 213 units who returned a questionnaire did not respond to the question on preconception counselling

Separate preconception clinics (provided in 17% of units) are most likely to provide the dedicated time and expertise that would fulfil the objectives of the Diabetes NSF illustrative service models. However, it is recognised that other local arrangements may also achieve the provision of such care, although this cannot be certain on the basis of the responses received.

Primary care teams may be providing some aspects of preconception care but evaluation of this component was beyond the scope of the survey.

While the framework for preconception care to women with pre-existing diabetes may differ according to the local structure of services, provision of such care should be universally available. In the absence of specific clinics, NHS trusts should ensure that preconception advice given at other venues includes a maternity contribution. This will

ensure that issues such as pregnancy planning, the risks of smoking, the need to take folic acid prior to pregnancy and education about pregnancy care are considered. General practitioners should be aware of local referral pathways and the range of preconception care provided by local diabetes and maternity services.

5.2 Specialist antenatal care

5.2.1 The multidisciplinary team

Antenatal care for women with diabetes should be provided by a multidisciplinary team, which includes a diabetologist, an obstetrician with a special interest in diabetes, a specialist diabetes nurse, a specialist midwife and a dietician.

[Diabetes NSF – *illustrative service models*; www.publications.doh.gov.uk/nsf/diabetes/ch2/servicemodels/pregnancy.htm]

Sixty-three percent of maternity units had a multidisciplinary team that included all the health professionals recommended by national guidelines. Seventy percent (149/213) of units had both a diabetes specialist nurse and a midwife specialist on the multidisciplinary team, and 88% (188/213) of units had at least one dietician involved in care.

Twenty-three percent (49/213) of units did not have a midwife specialist and 11% (23/213) did not have a specialist nurse; in 4% (8/213) of units neither of these health professionals was available to provide care.

The diabetes specialist nurse has a key role in teaching techniques, providing advice and supporting women to be self-caring. The role of midwife specialists may overlap that of diabetes specialist nurses but they are especially valuable in providing support to women on pregnancy issues and in educating other midwives on issues specific to diabetic pregnancy.

5.2.2 Type of antenatal care

The Diabetes NSF states that ‘women with pre-existing diabetes should be encouraged to present promptly to their general practitioner when they suspect that they may be pregnant, so that their GP can refer them quickly for specialist antenatal care if pregnancy is confirmed’. [Intervention details: www.publications.doh.gov.uk/nsf/diabetes/ch2/interventions/pregnancy.htm]

Sixty-three percent (135/213) of units provided consultant-led care for women with pre-existing diabetes. However, nearly one-third (63/213; 30%) of units reported providing shared antenatal care between the consultant-led unit and primary care team. Eight units provided consultant-led care for women with type 1 diabetes but shared care for women with type 2 diabetes. Seven units reported ‘other’ arrangements; these were all units which transferred women to another unit for their antenatal care. Women with type 2 diabetes have a risk of poor pregnancy outcome which is at least equivalent to that of women with type 1 diabetes.¹⁶ Some respondents may have interpreted the term ‘shared’ to describe care which included additional visits to the primary care team over and above the planned antenatal care provided by the specialist hospital-based team. Even so, trusts should ensure that all women with pre-existing diabetes are receiving specialist care throughout their pregnancy.

5.2.3 Named obstetrician and diabetologist

A named obstetrician and named diabetologist should be responsible jointly for coordinating services and for providing antenatal care for women with diabetes

[Diabetes NSF – *illustrative service models*; www.publications.doh.gov.uk/nsf/diabetes/ch2/servicemodels/pregnancy.htm]

The survey questionnaire asked how many obstetricians in an individual unit were responsible for caring for women with diabetes. When analysing the results, we have taken the view that two obstetricians sharing responsibility within a unit may meet the Diabetes NSF criteria, provided that one of the obstetricians has taken the lead in coordinating services. The results are shown in Figure 1.

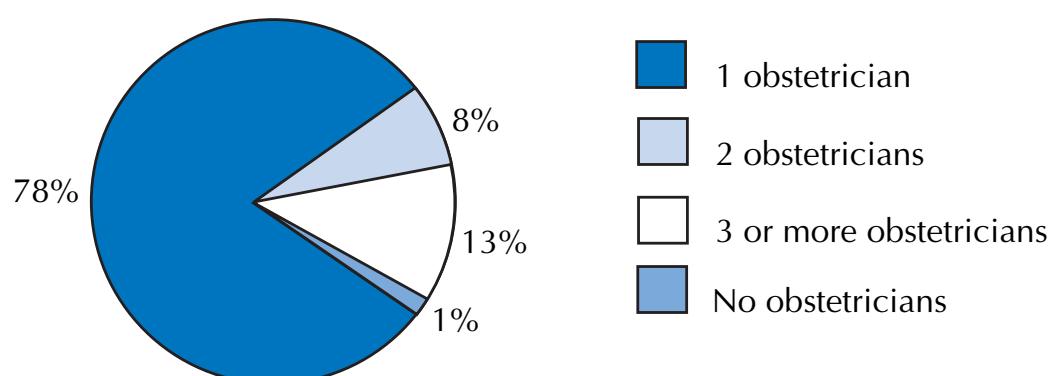


FIGURE 1: Percentage of units having one, two, three or more, or no obstetricians with responsibility for antenatal care of women with diabetes

Seventy-eight percent (166/213) of units had one obstetrician responsible for the antenatal care of women with diabetes and 8% (17/213) of units had two obstetricians sharing responsibility. However, in 13% (27/213) of units, there was no designated responsibility, with three or more obstetricians providing care (three units reported that they had no obstetricians providing care; these were among the eight units that transferred women to another hospital for antenatal care).

The majority of units (185/213, 87%) had one named diabetologist responsible for caring for pregnant women with diabetes and in a further 11% (24/213) two diabetologists shared responsibility. Only two units had three or more diabetologists providing care.

Since the prevalence of pre-existing (type 1 and type 2) diabetes is approximately four in 1000 pregnancies, the number of pregnant women with diabetes within an individual unit is relatively small and several obstetricians contributing to care may result in difficulty in maintaining specialist expertise. Larger units and those with a significant diabetic antenatal population may require more than one obstetrician but there is still a need for a designated lead with a clear line of responsibility. This appeared to be less of an issue for diabetologists, with a named or lead diabetologist identified for diabetes maternity services in the vast majority of units.

5.2.4 Dietetic counselling

Open access to dietetic counselling advice should be made available in all diabetic antenatal clinics.

[SIGN Guideline No. 9]

The majority of units (188/213, 88%) in the survey had a dietician involved in providing care to pregnant women with diabetes. Individualised dietary advice is essential for optimal diabetes control during pregnancy, as lifestyle, cultural and personal circumstances will vary. It is recommended that this should become universal practice.

5.3 Consultation arrangements

Women should have joint consultations with members of the multidisciplinary team or, if this is not possible, consultations with different members of the team provided on the same day and in the same location.

[Diabetes NSF – illustrative service models; www.publications.doh.gov.uk/nsf/diabetes/ch2/servicemodels/pregnancy.htm]

Sixty-nine percent (147/213) of units provided a single multidisciplinary clinic.

In 27% (58/213) of units, women had to attend separate clinics to see the obstetrician and physician. In 44 out of these 58 units, the clinics were held in the same hospital on the same day but in 12 units the appointments were on different days and in two units the appointments were in different hospitals.

Four percent (8/213) of units reported 'other' arrangements; five of these eight units transferred women to other hospitals for antenatal care; two units had a midwife specialist and a diabetes specialist nurse, respectively, instead of a physician in the clinic and one unit did not give any details.

Joint consultation by a multidisciplinary team places the woman at the centre of the service and avoids fragmentation of care. This is a key area for development by trusts.

5.4 Emergency advice service

Consistent definition of what constitutes an emergency advice service for women with diabetes is problematic. The SIGN Guideline No. 9 recommends that women should have clear oral and written instructions about how to obtain advice at any time of day or night, and states that advice can be given by doctors or by the diabetes specialist nurse. However, the grade and specialty of the doctor is not specified.

The survey questionnaire asked if access to specialist advice was provided to women outside normal working hours. The term 'specialist advice' was not defined for units. Normal working hours were defined as the period between 0900 and 1700 hours.

Just over half (125/213, 59%) of all units reported arrangements to provide specialist advice to women outside normal working hours. This arrangement was often provided by more than one discipline within an individual unit.

Women with diabetes need to be able to obtain advice about diabetes-related issues at any time, as complications such as hypoglycaemia can place the woman in a situation of serious risk. Maternity units should have agreed plans as to which local health professional is best placed to offer appropriate and expert advice out of hours. Women should be clear on how to access this advice.

5.5 Neonatal care

5.5.1 Neonatal intensive care facilities

Women with diabetes should only be delivered in hospitals with neonatal intensive care facilities.

[SIGN Guideline No.9]

Maternity units were asked if they provided neonatal intensive care facilities on-site. Neonatal care facilities were defined for the survey according to the British Association of Perinatal Medicine (BAPM) definition (2001).¹⁷

Eighty-four percent (179/213) of maternity units looking after women with diabetes reported providing neonatal intensive care facilities on-site. Thirteen percent (28/213) of units did not have intensive care facilities. Three percent (6/213) of units reported having neonatal facilities but did not describe them. Seven of the 28 units with no neonatal intensive care facilities stated that they had arrangements to transfer women out for delivery.

The Diabetes NSF states that 'where facilities for neonatal intensive care are not available on-site, policies should be in place for safe and effective *in-utero* transfer, where appropriate, and for postnatal transfer to a neonatal intensive care unit, if this proves necessary'. [Intervention details: www.publications.doh.gov.uk/nsf/diabetes/ch2/interventions/pregnancy.htm] Units without neonatal intensive care facilities should have policies in place in line with this recommendation.

5.5.2 Avoiding separation of mother and baby

All babies should remain with their mothers during the neonatal period unless there is a specific medical indication for admission to a neonatal intensive care unit

[Diabetes NSF – *Intervention details*; www.publications.doh.gov.uk/nsf/diabetes/ch2/interventions/pregnancy.htm]

Thirty percent (64/213) of units had a policy of routinely admitting babies of mothers with diabetes to the neonatal or special care unit or nursery. Such a policy is likely to have an adverse impact on establishing breastfeeding and also on the emotional wellbeing of the parents. All maternity units should seek to minimise separation of mother and baby unless clinically necessary.

5.6 Laboratory services

5.6.1 Assessment of long-term glycaemic control

Glycaemic control is best monitored by using HbA_{1c}.

[Consensus Statement of British Diabetic Association and Association of Clinical Biochemists]

The Consensus Statement in 2000 of the British Diabetic Association (now Diabetes UK) and the Association of Clinical Biochemists stated that HbA_{1c} should be used to monitor long-term glycaemic control, as it is the only measure for which good data are available on the risk of subsequent diabetes complications.

The majority of units (194/213, 91%) reported using HbA_{1c} to assess long-term glycaemic control, either alone (174 units) or in combination with one or more other tests (20 units). Six percent (13/213) of units used HbA₁ only and 1% (3/213) used fructosamine as the only test. Two units reported 'other' arrangements; the first of these units was a private hospital where the test used varied between consultants; the second was a unit that transferred women with diabetes to another hospital for antenatal care.

HbA_{1c} should be the primary test used to evaluate long-term glycaemic control. In situations where HbA_{1c} testing is not ideal (anaemia and haemoglobinopathies), fructosamine may be clinically helpful but cannot be used to assess the risk of long-term diabetes complications.

5.6.2 Use of DCCT-aligned HbA_{1c}

Laboratories should use a DCCT-aligned HbA_{1c} assay to allow national comparisons.

[Consensus Statement of British Diabetic Association and Association of Clinical Biochemists]

HbA_{1c} is currently measured by a variety of different techniques and by different instruments, which causes lack of standardisation of results and inability to compare treatments or outcomes in different units. The Diabetes Control and Complications Trial (DCCT)¹⁸ and the UK Prospective Diabetes Study (UKPDS)¹⁹ both used comparison procedures to harmonise their HbA_{1c} assays and it is recommended that all laboratories should employ a DCCT-aligned HbA_{1c} assay (where the relationship of the assay to that employed by the DCCT/UKPDS studies is known).

Seventy-four percent (158/213) of units currently use a DCCT-aligned HbA_{1c} assay. Comparative clinical audit, benchmarking and multicentre clinical research⁸ will not be possible on a national basis until this method has been universally adopted.

5.7 Guidelines

There should be locally agreed protocols in place for the provision of antenatal care for women with diabetes to avoid the possibility of fragmented care.

[Diabetes NSF – *illustrative service models*; www.publications.doh.gov.uk/nsf/diabetes/ch2/servicemodels/pregnancy.htm]

Units were asked if they had local guidelines for the antenatal, intrapartum and postnatal management of women with diabetes. The results are shown in Table 2.

TABLE 2: AVAILABILITY OF LOCAL GUIDELINES

Type of guidelines	Units	
	(n) ^a	(%)
Antenatal, intrapartum and postnatal	136	64
Intrapartum only	32	15
Intrapartum and antenatal only	17	8
Intrapartum and postnatal only	15	7
No guidelines	11	5
Antenatal only	1	0.5
Postnatal only	1	0.5

^an = 213

Sixty-four percent (136/213) of units had guidelines available for all three areas of care. Twenty-eight percent (59/213) of units did not have antenatal guidelines and 29% (61/213) of units did not have guidelines for postnatal management. Five percent (11/213) of units stated that they had no local guidelines for any of these areas.

Antenatal guidelines should be easily accessible to members of a multidisciplinary antenatal team and to departments that provide additional services, such as ultrasound. Midwives and doctors working on the labour ward may not be familiar with local policies for diabetes management during labour and delivery and health professionals providing postnatal care may not be aware of the unit's guidelines for management of the baby after delivery. Lead clinicians with a designated responsibility for women with diabetes should ensure that there are locally agreed management guidelines available at all venues where a woman with diabetes may present.

6 CONCLUSION

The last national survey of maternity services for women with diabetes was carried out in 1994 by the Pregnancy and Neonatal Care Group,²⁰ a group commissioned by the St Vincent Taskforce. This targeted 245 hospitals in England, Wales, Northern Ireland and Scotland. Although Scotland (22 maternity units) is not included in the current survey of 213 units, it is possible to derive broad comparisons of trends in relation to the main findings.

The organisation of services appears to have improved in many aspects since 1994, particularly with regard to specialist staff. Eighty-six percent of units now have an obstetrician with designated responsibility compared with 51% of units in 1994. A specialist diabetes nurse is available in the diabetes antenatal clinic in 89% of units, compared with 73% of units eight years ago. Even more encouragingly, availability of a dietician in the diabetes antenatal clinic has doubled from 40% to 88% of units and the availability of a midwife specialist has tripled from 25% to 77% of units. These changes reflect the commitment of local units to improving services for women.

There are three areas that give cause for concern. There has been only a moderate increase in the provision of multidisciplinary clinics, from 57% of units in 1994 to 69% in the current survey. A significant proportion of units (30% in the current survey compared with 44% in 1994) still routinely admit the baby of a mother with diabetes to the neonatal unit without a specific medical indication. Lastly, the provision of structured multidisciplinary pre-pregnancy care seems to be virtually unchanged.

There is good evidence that improvement in diabetic pregnancy outcomes (decreased congenital malformation and perinatal mortality rates) depends to a significant extent upon glycaemic control prior to conception and in early pregnancy. A review of service developments in different areas of the UK up to the late 1990s acknowledged that accessible and timely delivery of preconception care had not been achieved by maternity services.²¹ The current survey appears to confirm this view. Developing accessible multidisciplinary preconception care is the next step for NHS maternity services if the St Vincent Declaration is to be achieved.

Following this survey, it is recommended that all maternity units should review their service provision for women with diabetes against the criteria identified in this report.

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