

The National Service Framework for Diabetes in England

**Response from the Association of British Clinical
Diabetologists (ABCD) to the Standards Documents**

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This submission is in response to the Department of Health document entitled 'National Service Framework for Diabetes: Standards', which invited comments on detailed interventions, service models, performance indicators, and practice-based registers.

Fundamentally all involved in the process want to improve the quantity and quality of diabetes services in a way that is 'patient centred', and integrates primary and secondary care to minimise duplication of effort, enable clear communication and most effective deployment of resources.

The NSF document and the associated files will be specifically commented on later in this response.

The ABCD survey of secondary care services was a representative survey (77% response rate) (attached – questionnaire and 4 papers) (1-4). It demonstrated the current lack of key personnel in the hospital based specialist diabetes team, and resource deficiencies in diabetes registers, and in retinopathy screening programmes. Although we recognise that the Delivery-Implementation document due in July 2002 might well address these concerns, we think it necessary to highlight this now, as without recognition and correction of the historical under-resourcing of diabetes patient care services, the 'Standards' documents become somewhat meaningless. The data for the UK as a whole wholly represents the picture within England and Wales.

Key findings of ABCD Survey of Secondary Care Services for Diabetes

- 1. Consultant physician sessions in diabetes are less than 30% of those recommended by Diabetes UK and the Royal College of Physicians, and 36% of services are provided by a single-handed consultant.**
- 2. Only 12% of units have the recommended levels of diabetes specialist nurses , and there are wide variations in training requirements and gradings of such posts.**
- 3. Podiatry sessional input is only 15% of that recommended, and the current nature of the service is largely reactive, rather than proactive.**
- 4. Orthotic support is highly variable, and absent in 15% of responses.**
- 5. Dedicated dietetic support is unavailable in 27% of responses, and only 3% of responses provided the recommended minimum weekly input of time for diabetes.**
- 6. District diabetes registers were unavailable in 28% of responses.**
- 7. Co-ordinated retinopathy screening programmes were unavailable in 26% of responses.**

8. Laboratory evaluation of microalbuminuria was not possible in 9% and unavailable for HDL cholesterol in 18% of responses.
9. There was marked regional variation within England and Wales, with most resources available where a major funded health authority initiative had been established, and also where there was more than 1 whole time consultant physician providing specialist diabetes services.
10. Of 245 recorded bids for service improvements, only 44% had been successful.

The Diabetes UK document on primary care provision of diabetes (5) demonstrated the very patchy nature of the service. It also demonstrated that well resourced secondary care trusts correlated closely with better primary care services. The dominant message of the NSF is to put great emphasis on primary care input to diabetes. The extended section of the Diabetes UK document on current primary care input only had a 40% response rate (5). Even allowing for the concern about the level of service stated from these respondents, it is likely that the 60% of non-responding practices offered services that were no better and probably poorer than the responding practices.

The ABCD and Diabetes UK reports clearly demonstrate the need for major investment in under-resourced diabetes services in both primary and secondary care. However, there are other central issues that should be addressed in this 10-year blueprint for improved diabetes care.

Screening and the Natural History of Type 2 diabetes (Standards 2 and 4)

There should be recognition that the approach to individuals will be dependent on the basis for diagnosis. Patients diagnosed through screening of a high risk category (e.g. previous gestational diabetes, family history, obesity) will be detected at an earlier stage than for example those who present with symptoms or with established microvascular complications and perhaps several years of undiagnosed diabetes.

Targeting of Intensive Treatment of 'High Risk' patients (Standard 4)

On the evidence of UKPDS, increasingly large numbers of patients with type 2 diabetes will require insulin therapy. The consequences of such a strategy are that for several years this task will fall predominantly on the secondary-care based specialist diabetes team. Pilot schemes have demonstrated that practice and district nurses may develop the skills to carry out insulin conversions but this appears to be the exception rather than the rule. Insulin conversion in type 2 diabetic patients with retinopathy will still need to be in secondary care,

enabling co-ordination of the improvement in glycaemic control with retinal assessment.

Increased 2-way patient flow between primary and secondary care (Standards 3 and 4)

The pattern of patient referral will change, particularly with the doubling in incidence of type 2 diabetes over the next 5 years. Even if there are more patients managed solely in primary care, there is evidence that this will not diminish but will increase the 'flow of traffic' back to secondary care, as primary care teams identify patients with earlier complications where the need for more intensive support is recognised (6). There must be an acceptance that to reduce the burden of complications over 10 years will involve the intensive process of care offered in the UKPDS, which is presently outwith the capabilities of most secondary and primary care centres.

The present approach to diabetes is very heterogeneous between different centres. There are areas where the ambitions for diabetes services may have been influenced primarily by the size of the caseload. Thus in areas where the prevalence of diabetes is greater, for example with a large representation of individuals of Indo-Asian origin, efforts may need to focus on diagnosis and fewer clinic visits than an area of greater affluence and lower diabetes prevalence where there may be greater opportunities for more frequent review and attainment of targets. Thus, a homogenous approach to achieving targets is likely to fail (7).

Appropriate introduction of new therapies and monitoring systems (Standard 4)

The cost and placing of glitazones in treatment has already been alluded to. The role of glitinides in post-prandial glucose regulation is another potentially costly important area where at present the evidence base for inferring any additional advantage over older established hypoglycaemic treatments is not available, although this may well change over the period of the next 10 years. It could be argued that the drug costs of new treatments need to be weighed against the cost of additional personnel, IT systems and retinopathy screening programmes, where there is greater support for their likely impact and evidence that at least 25% of services presently lack these facilities. New methods of insulin delivery and novel therapies to ameliorate complications such as protein kinase C inhibitors will also increase the need for secondary care involvement.

The role of the specialist GP in diabetes care is an area that ABCD would want to support, provided that there are validated training schemes to fulfil the requirements of clinical competence and governance, developed over several years.

Given that the ABCD survey demonstrates the lack of consultant diabetologist expansion and use of potential training slots for registrars training in diabetes, we would strongly encourage the Dept of Health to fully promote and fund the hospital medical staffing levels set out by Diabetes UK and the Royal College of Physicians (8,9).

Polypharmacy and the achievement of 'targets'

Given the multifaceted nature of diabetic vascular disease, many with diabetes may require the following therapy:

1. Hypoglycaemic agents (including insulin) – at least 2 drugs
2. Anti-platelet agents (at least 1 drug)
3. Anti-hypertensive therapies (at least 3 drugs in 30%)
4. ACE inhibitors
5. Hypolipidaemic agents (often 2 classes to meet targets)
6. Potential support with anti smoking therapies
7. Treatment for obesity

There will be many elderly diabetic patients receiving treatment for other chronic diseases, and compliance with polypharmacy is a major issue (7). In the longer term combination therapy may become available from the pharmaceutical industry, but a pragmatic approach may be required in the short term. This assumes especial importance when it comes to targets, as suggested by the NICE guidelines allied to the Diabetes NSF (scheduled for publication in February-March 2002). ABCD would support a recognition of a more clinically useful approach which recognises that no more than 50% of individuals are likely to reach these pre-set targets generated from research intervention studies. A more fruitful approach would be to have individualised targets, and assessment of the degree of improvement where the burden of diabetes and its complications was greatest, often in areas of deprivation (7).

Greater attention to process rather than outcomes is an important legacy of the 1990s which we are concerned will continue as many primary care diabetes services repeat this approach to care. Primary care diabetes services are often led by practice nurses where the emphasis may be on blood testing and blood pressure measurement, which will not in itself effect improvements in outcome. There would need to be clear protocols for action, usually involving additional therapy. In the longer term patient group directives may enable nurse prescribing. However, given the issues of polypharmacy and potential drug interactions, we would have reservations about any precipitate move in this direction, not least on grounds of clinical governance.

Other points

All secondary care diabetes services have an interest and expertise in diabetes. This is not always the case in primary care (see Diabetes UK report) (5). Even with unlimited funding there may be staffing issues that can not be

met in the short term through either lack of suitable applicants or a need to accept long training curve for interested novices. Therefore there should be no attempt to impose a 'one size fits all ' approach to the commissioning of diabetes services that does not take account of the local situation, prior service developments, special interests and local expertise.

However there should certainly be a core minimum level of staffing and service provision. The complex nature of funding may not helped by the present structure for provision of care, where commissioning groups have a primary care base.

There are also outstanding issues arising from the NSF that ABCD feels need to be answered.

1. Where is the evidence that a primary care focused approach is more cost and clinically effective for diabetes than secondary care, given the experience demonstrating that the higher profile and identification of previously unmet clinical need leads to increasing demands on both sectors ? (6). In addition there must be recognition of the current and projected shortages of general practitioners. Employing trained interested medical staff in either sector would be a sensible pragmatic approach, not least because of the important training role that the hospital specialists provide.
2. How often and easily are steps being taken to rectify the shortages in core levels of staffing resources? There is a need for a ring fenced budget to implement minimum core staffing levels. All provider units need to be brought up to this level. Local needs for physicians, specialist nurses, podiatrists and dieticians in hospital and in community need to be in place, AND funded plans for retinopathy screening and registers available. A 3 year period of optimal staffing must precede or parallel the introduction of service model indicators.
3. Historical precedents locally must be taken into account – for example lack of service development despite repeated efforts. Documentation of how to make progress would be of help.
4. Commissioning should take account of the need for early aggressive management and ensure that there are costed and funded services for the effective treatment of complications, e.g. : ophthalmology (laser therapy and vitreo-retinal surgery); vascular surgery (angioplasty and reconstructive surgery); orthopaedic surgery; cardiology and cardiothoracic surgery; dialysis units and renal services

Learning the lessons of previous National Service Frameworks

One lesson from the NSF for cancer was the complex nature of the funding of personnel and drugs in different sectors, and the need for additional funding of

any desired improvements. ABCD would want to ensure that resources are placed with a group that can deploy them and monitor them locally in both primary and secondary care.

Specific comments on Service Models, Performance Indicators , and Practice-Based Registers

Three key areas have been covered in the standards document for comment. In broad terms ABCD would see these as long-term achievable goals. The issues of current levels of personnel and services and consequent funding issues are central to any attempt to implement such improvements.

1. Service models for consultation (Standard 4)

Keeping in touch: The systematic identification and follow up of people with diabetes.

The principles set out in this paper are appropriate. There are resource issues that need to be addressed before any national system can be established. The ABCD report recorded that 28% of NHS trusts had no current functional diabetic data base/ register (1), a figure replicated in the Diabetes UK report on the structural provision of primary care services (5). In fact the figures showed the provision to be 73% in England but only 58% in Wales. As with the ABCD report there was significant heterogeneity between the English regions (range 62 –94%). It must be acknowledged that the best performance (in the North West Region of England) is to a large extent the result of a major funded Health Authority initiative. Thus there are grounds for optimism that additional investment of resources can produce improvements.

Within primary care trusts there may be different information systems and these need to be freely able to interchange data, rather than operating as stand alone systems. If the Dept of Health wishes to fund retinopathy screening programmes, this would be best undertaken within the administration of a up-to-date district wide diabetes database. The cost of this has for a population of 600,000 been stated as approximately £167,000 in set-up costs, plus £823,000 for the screening programme and resultant treatment in year 1, with ongoing annual expenditure of £150,000 (10)

One-Stop Diabetes services

It is not clear whether this is considered a realistic proposition for all primary care based and hospital based diabetes services providing routine diabetes care in the form of an annual diabetic clinic review.

To do so with full laboratory real time information would be prohibitive in terms of cost and personnel. If new 'point of care' chemistry techniques were employed there would be logistic considerations about numbers. There is clear evidence from local experience that clinics serving over 30 patients are not possible to run with real time biochemical analyses without patients spending many hours at a session and with the likelihood of gridlock in the clinic. The other proposition of hospital staff including consultant diabetologists supporting primary care clinics is an area where cost /time effectiveness would seriously be in doubt. For example if this were to focus on one practice with 300 patients, the likely clinic size would be 15 served by supporting dietetic, nursing, podiatric and medical staff. At a diabetic clinic with 4 doctors, nurse led clinic and the same personnel, over 50 patients could be seen. This issue perhaps is at the centre of the concept of a 'patient centred ' service. It is not feasible to provide full practice based care in a cost-effective way taking account of current (or even future levels) of personnel.

The difficulties are further compounded by the wish to extend the concept to a one-stop service for the complicated patient, a concept that ABCD would support in theory. This could realistically involve not just the key members of the diabetes team, but would also require co-ordinated input from ophthalmology, vascular surgery, cardiology, nephrology, orthotics, and perhaps psychiatry/psychology.

This leads on to consideration of the issue of space, another resource issue. The majority of multi-use out patient resources in NHS trusts are totally unsuited for the large numbers of staff supporting this service where often there will be a lot of patient traffic. The dedicated diabetes centre, if constructed as a hub (waiting area) and spoke (different clinics) could fulfil the role well, but this is not a common feature in the NHS. Indeed less than 50% of NHS trusts currently have 'diabetes centres' in whatever form (1-4).

The opportunity to reduce the number of clinic visits to unsupervised junior medical and nursing staff is a principle that we would support, although the improved outcomes of the DCCT and UKPDS studies required even more regular specialist input than presently offered.

Support for people starting on insulin

The premise that individuals are admitted to hospital to commence insulin therapy is theoretically archaic and we would be interested to know how common this practice is. There are no data on this from either the ABCD or the Diabetes UK reports. However the current lack of specialist nurse provision inevitably leads to unnecessary admission of newly diagnosed type 1 diabetic patients and use of hospital beds over weekends and holidays.

The inevitable increase in insulin treatment of type 2 diabetic patients (see earlier) will also increase demands on diabetes specialist nurses. Although there are pilots of other community nursing staff being trained to carry out this task, we need more information on auditing the impact of dose titration on weight, progress of retinopathy, and the process for monitoring for such

outcomes, before any expansion of such services. At present diabetes specialist nurses spend up to 2 hours per month on a routine insulin conversion.

Local experience in a typical district general hospital suggests that 8 type 2 diabetic patients per month are currently requiring insulin conversion, of whom 2 need a carefully supervised hospital assessment by diabetologists with retinal assessment by some mechanism. For a population of 500,000 up to 120 hours/month of diabetes specialist nurses time would be required for this task alone, itself justifying an additional full time diabetes specialist nurse post. Specialist support of women with insulin treated gestational diabetes and the in-patient diabetic population will further increase demands and reinforce the need to expand the numbers of Diabetes Nurse Specialists to the recommended 8 per 500, 000 population, currently met by only 13% of provider units (2).

In the Diabetes UK primary care survey, only 12-13% of practices had community diabetes specialist nurses regularly attending family practices (5). Although 88% of respondents stated that there were 'any nurses in the practice with a special interest in diabetes', ABCD have grave reservations if this is somehow considered to be a reflection of the ability of all such personnel to carry out any more than rudimentary care. It is not at all clear what level of training and support can presently be provided by family doctors to the 43% of practices running nurse-led diabetes clinics (5). The ABCD survey actually demonstrates wide variation in the grading and roles of dedicated diabetes specialist nurses (2). The situation for practice based nurses is likely to be even more diverse. At present there are no clear training structures or provisions whereby practice nurses are considered to have been trained for such a role. From the perspective of clinical governance this concerns ABCD, as at present there is a strong feeling that it is practice nurses who often provide the bulk of community based diabetes care in practices, rather than family practitioners.

Multi-skilling is a concept where we recognise there is great enthusiasm, but there would need to be a robust structured approach evolving over years before routine diabetes care was consigned to such a practice.

Care plans and Patient-Held/ Accessed / Records (Standard 3)

ABCD supports the use of hand-held records, although there may be a reluctance to use them if information has to be duplicated in case notes and the patients own records. The short term need to complete data entry will slow down consultations, and in so many other of the suggested altered aspects of care, logistically this will reduce the number of case consultations that can be completed. The wish for greater consultation times in primary care has been strongly supported by the BMA, and with the increasing complexity of multiple risk factor intervention in diabetes would extend to the secondary care consultation process as well.

Therefore until such a time as we can download information from an electronic clinic record to a hand held record, there are major time implications if the principle is to be adopted in a widespread fashion.

Hospital Diabetes Specialist Nursing Service (Standard 8)

The ABCD report has demonstrated the serious shortage of diabetes specialist nurses, of whom almost 90% have a role both in hospital and in the community (2). The role of a dedicated specialist nurse input to in patient care across an NHS trust hospital is agreed to be a high priority. It must be acknowledged that this will often be a new post requiring additional resources. The ABCD report showed that previous bids for such a purpose have been unsuccessful in many NHS trusts (1,2). It is essential that adequate ring-fenced funding is provided direct to the front line in order that the NSF can actually deliver tangible benefits that are obvious to both hospital in-patients and those currently providing diabetes care.

Children's Diabetes Service (Standards 5 and 6)

This is a secondary care issue. ABCD agree that this should be a fully resourced multi-disciplinary service.

The ABCD survey shows there is no service operating in 13% of trusts (1). Where services do run they are clearly in need of major investment in personnel. In particular are issues regarding training of paediatric staff providing diabetes care. One recent survey (11) shows that this can be fragmented and is provided within general paediatric services by over 20 % of trusts. Psychology support in particular is important but seriously under-provided for, and absent in 55% of Trusts, with documentation that bids for such support failed in 50% of cases (1). The ABCD survey also suggested that paediatric diabetes specialist nurses are not be available in up to 40% of units. Podiatry was only available at 3% of paediatric diabetic services, and there only 65% of paediatric diabetic clinics are supported regularly by a trained paediatric dietician (1). The paediatric survey (11) also shows that all aspects of the paediatric diabetes service were better provided for where there a paediatrician stated as having a 'special interest in diabetes'. There seem important implications in the present input to training in diabetes for paediatricians that require action from the Royal Colleges.

Young people's diabetes service (Standards 5 and 6)

ABCD supports a transitional service involving paediatric and adult diabetologists. This will increase sessional input, further supporting the need for consultant diabetologist expansion (presently providing less than 30% of the sessions recommended by Diabetes UK) (8), as well as an expansion in the number of paediatricians with a special interest in diabetes.

Before a wholesale move to establish a multidisciplinary out of hour's service for young patients we advise that such schemes are evaluated where they are piloted from scratch. In particular, a high default rate of such services may suggest there are other more imaginative methods for meeting the needs of such patients, in particular community based services or walk in clinics.

Preconception clinic for women with diabetes (Standard 9).

ABCD is fully supportive of this model. At present there are no guidelines formally offering conception advice in 45% of trusts (1). There will be obvious resource implications where such a facility does not exist. As with young people's service the need could be met without having to establish a dedicated separate service, particularly in smaller units. It is not clear whether the role of the maternity service in this is critical or optional. There are concerns that even in established pregnancy, fully committed obstetric input into high risk cases may not be feasible with the present numbers of consultant obstetricians, particularly if the numerically greater problem of gestational diabetes (v.i.) is taken into account.

Multidisciplinary antenatal care (Standard 9)

As mentioned above there are important logistical considerations when dealing with the personnel required, given the expanding number with Gestational Diabetes. The suggested model of care is fully endorsed by ABCD, but presently not provided in 15% of responses from the current ABCD survey (1). There are also organisational issues regarding a single named obstetrician having responsibility for diabetes particularly when it comes to gestational diabetes developing in women established under the care of another obstetrician.

Foot protection programme for people with 'at risk' feet (Standards 4, 10,11,12)

The multidisciplinary service for diabetic foot care is a proven successful model, which ABCD fully supports. It is currently the exception rather than the rule and major investment in resources and trained personnel are needed based on the ABCD survey, where a separate foot clinic offering a range of support was stated to operate in 49% of responses. Presently a median of 3 sessions per week are available in hospital trusts from podiatrist providing diabetes care, whereas 2 full time staff (i.e. 20 sessions/ week) would be required. The level of care could only be reactive to active foot problems report. Only 15% of responses were able to provide at least 2 monthly access to patients at high risk of foot ulceration as presently suggested by the Dept of

Health (3,12). The change in practice would require major investment in podiatry, and also in orthotic support, the latter being absent in 15% of Trusts.

Multidisciplinary foot care service for people with lower limb complications (Standards 10,11,12)

The ABCD again is supportive of this concept. It presently exists in 41-67% of responding trusts in England and Wales, with widespread geographical variation in provision (3). In addition to the need for podiatry, orthotic and other diabetes personnel, there is also the question of accessible orthopaedic and vascular surgical support. The suggestion of potentially 24-hour rapid access presumably includes weekend and would require a major change in the contracting of podiatrists and orthotists, who usually do not provide on call services.

2. Performance Indicators

ABCD feels that the performance indicators mentioned are appropriate and necessary as indicators of the process and outcome of diabetes care. They require information derived from both primary care and secondary care sources and we have already recorded the lack of any such data base in over 25% of Trusts. Centrally funded ring fenced support (estimated as £60,000 per annum running costs in addition to establishment costs) is necessary to make so many of the ambitions of the NSF realisable. There have been many IT initiatives which have produced variable uptake and the ABCD survey records that 44% of bids for IT and diabetes registers were unsuccessful in the past (1).

Hospital coding systems often underestimate the impact of diabetes on adverse outcomes, in particular cardiovascular morbidity/mortality and amputations. Local audit data (enclosed) (13) confirms that in at least some centres the variable approaches to recording amputation means that incidence figures may be inaccurate. Recording of amputations taking place in different surgical sectors (e.g. general surgery, orthopaedic surgery, vascular surgery, and in both secondary and tertiary sectors for certain health authorities) will often not be co-ordinated particularly in the 13% of centres with no local specialised vascular surgery service (1).

There are other issues which require major investment such as documentation of prevalence of retinopathy at diagnosis and thereafter. This would necessitate a functional retinopathy-screening programme linked to effective ophthalmology delivery of photocoagulation and surgical therapy. Retinopathy screening programmes are unavailable in 26% of responding centres in the UK in the ABCD report , a specialised diabetic ophthalmology service absent in 23% of responses, and combined medical diabetes ophthalmology clinics

apparently currently operative in only 16% of responses (1). The success rate recorded for previous bids for establishment of an eye screening service was recorded at 64%.

The prevalence of elevated HbA1c levels needs consistency in measurement techniques aligned to a national DCCT standardised norm. This has been reviewed and within England and Wales, 16% of laboratories are currently not operating such a system. There are therefore additional resources required in laboratories to expedite this necessary prerequisite.

The prevalence of reduced HDL cholesterol levels also requires some acknowledgement of the 10% variability in measures between laboratories. In addition however, the ABCD report noted that 18% of secondary care services (and therefore presumably also primary care services) do not currently have access to HDL cholesterol measurements, a figure confirmed from the present national QC schemes for lipid measurements (1).

Similarly documentation of the prevalence of microalbuminuria requires identification of current methods of screening, with information on analytical methodology and performance, as well as on collection conditions. The ABCD survey recorded lack of access to microalbuminuria measurement in 9% of centres (1).

It is not known how frequent enquiry into erectile dysfunction takes place within diabetic practice in both the primary and secondary care sectors. In the short term ABCD feel such information is likely to be markedly under-reported, a conclusion also reached by the working group on Diabetes Health outcome indicators who reported to the Dept of Health (14).

ABCD has major concerns regarding the basis of data recording of 'hospital admission rates for hypoglycaemia'; in particular the recording of Accident and Emergency Dept attendance and discharge, often on the basis of non-laboratory verified blood glucose levels.

3. Practice based registers

ABCD broadly supports the objectives and the content of the datasets suggested as the basis of practice based registers. Incorporation of these in consistent way and variability of information across primary and secondary care are crucial areas that need to be addressed early in the process, particularly in the 28% of services which state they are not currently operating an effective database / register.

The success of registers is dependent on identifying not just funding for set up and running costs, but focussing on some practical difficulties that have been identified in practice (15).

Conclusions

ABCD is fully supportive of the broad strategy of the NSF for diabetes (Standards). We agree that implementation needs to be rolled out over a 10 year time frame. The experience of the NSF for cardiology and cancer makes it clear that local ownership of 'ring fenced' funding for diabetes will be critical to the success of the venture, and that the present state of diabetes care in England and Wales in both primary and secondary care will need substantial correction phased in over this period. The local health authorities should establish the costs of meeting the minimum establishment of personnel and provision of registers and retinopathy screening services, as well as the likely follow on cost of providing extra support in e.g. ophthalmology, vascular surgery, nephrology and cardiothoracic surgery. It was disappointing that the NSF for cardiology made such little reference to the impact of diabetes on CHD. It is hoped the NSF on Renal Services will fully record the infrastructure required meeting the needs of those with diabetic renal disease.

The ABCD membership represents hospital consultant physicians specialising in diabetes, and should therefore have a critical role in delivering a large proportion of the NSF for diabetes health improvement agenda, not just in the secondary care sector but in taking a lead in effective collaboration with primary care teams providing diabetes care, and with other secondary care health professional involved in diabetes care. We hope the ABCD will be able to support the Diabetes NSF Implementation Group in these areas, and be actively involved in the discussions prior to implementation in April 2003, and of course thereafter enabling delivery of improvements in care that we are fully committed to.

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