

**Western Isles NHS**  
**DIABETES STRATEGY 2005 - 2010**

Western Isles NHS Board  
Board Headquarters  
37, South Beach Street  
Stornoway  
Isle of Lewis  
HS1 2BB

Phone  
(01851) 702997

Fax  
(01851) 704405

[www.wihb.org.uk](http://www.wihb.org.uk)

Published by Western Isles NHS April 2005

Produced by the Public Health Division

Contact

Phil Tilley  
Planning & Development Manager

[phil.tilley@wihb.scot.nhs.uk](mailto:phil.tilley@wihb.scot.nhs.uk)

Report and cover design by Blue Water Imaging

**CONTENTS**

1. Foreword	3
2. Introduction	4
3. Aims	4
4. Position Statement	5
5. Policy Context	10
6. Evidence and Best Practice	11
7. Screening for Complications	12
8. Special Groups	13
9. Patient Education	15
10. Strategic Plan	15
11. Finance	22
Action Plan	23
References	28

## 1. Foreword

"A diabetes epidemic is underway... even worse, diabetes is projected to become one of the world's main disablers and killers within the next twenty-five years."

World Health Organisation

A diabetes epidemic is sweeping the globe affecting the populations of developed countries as well as those of developing nations. In Scotland diabetes is affecting an estimated six percent of the population, 320,000 people. Only half of those affected have a diagnosis of diabetes with a further fifty percent undiagnosed. As well as the impact on lives and families, diabetes and associated complications accounts for ten percent of the national NHS budget. These figures are predicted to double in the next five to ten years.

In 1992 the Western Isles had 230 people registered with diabetes. In 2004, just eleven years later there are 980 people registered, a four-fold increase. During 2005 this number will exceed 1000 and in the next five to ten years rise to 2000 with the same number of people undetected in the community. The Western Isles also has the highest incidence of childhood diabetes in the UK.

There have been significant developments in the management of diabetes in recent years. New quality assurance programmes, national standards published by Quality Improvement Scotland, guidelines and the emergence of managed clinical networks are assisting in the quality and co-ordination of diabetes care. The Scottish Executive and the Scottish Diabetes Group are pioneering new systems of care and in 2004 incorporated diabetes management in the new GP contract. There are also national programmes developing electronic patient records and diabetic eye screening. In 2002 the National Diabetes Framework was published issuing guidance to Boards on the measures to be put in place for diabetes management. A revised framework is due for publication this year.

Annually Boards must submit audit data to the Scottish Diabetes Survey which indicates performance. The data is drawn from primary and secondary care and allows some comparisons with other Boards.

All of these factors are impacting on the local service in the Western Isles. Although Western Isles NHS has a proven record of providing high standards of care for diabetes and the best record for diabetes eye screening in Scotland there are increasing pressures being placed on the service and it is clear that a review of the service is necessary to meet the growing need from the diabetes population and to meet service recommendations arising from national initiatives.

The Western Isles NHS, Diabetes Strategy 2005 seeks to put in place measures that will address the needs of people with diabetes, the action required to ensure that an integrated service develops as a partnership between professionals and the community and identifies the investment and timescales within which these measures should be in place if the service is to remain effective and of a high quality.

Phil Tilley  
Planning & Development Manager

## 2. Introduction

During 2004 the Western Isles NHS, Diabetes Managed Clinical Network (DMCN) was inaugurated. Due to the unique local circumstances the Local Diabetes Advisory Group and Diabetes Managed Clinical Network merged and assumed the roles and responsibilities of both groups. This first year was involved predominantly with establishing the structures and frameworks necessary for the corporate accountability of the groups and establishing structures through which diabetes care can be managed.

A key element of modern NHS services is to ensure the involvement of the public who use the service and the local community. A local conference, "Have Your Say In the Future of Diabetes Services", was held in June 2004 providing the opportunity for lay and professional people to jointly plan the future of diabetes care in the Western Isles. In subsequent months a Lay Representatives Group was recruited and established, the members of which contribute to the work of the LDSAG / DMCN. The recommendations from that conference with the guidance issued in reports by the Scottish Executive have informed this strategy.

"Services need to be responsive not just to the needs of individual patients but also to the preferences of the public at large. To redesign services from the perspective of patients - and to reflect this in all aspects of health services planning - requires finding out what patients want and consulting them over proposals for change."

Designed to Care; Page 9  
Scottish Office, 1997

Members of the public and service users have been involved in the development of this strategy from the pre-panning stage. Their contributions, views and recommendations are reflected in the strategy. It also takes account of guidance and reports issued from the Scottish Executive and Scottish Diabetes Group. The strategy indicates the measures to be taken by Western Isles NHS Board to meet key targets.

## 3. Aims

To strategically plan the provision of diabetes services in the Western Isles so that the service meets the demands of the people who use the service now and in the future.

To ensure that the service meets recommendations in reports and guidance issued from the Scottish Executive, Quality Improvement Scotland (QIS), the Scottish Intercollegiate Guidelines Network (SIGN), the Scottish Diabetes Group and national planning groups for diabetes on retinal screening and SCI-DC.

#### 4. Position Statement

##### 4.1 Geography & Demographics

The Western Isles is an archipelago of islands off the west coast of Scotland that stretch 160 miles from the Butt of Lewis in the north to Barra in the South. The islands, according to the 2001 census, have a declining population of 26,502.

The rate of decline in the population is predicted to accelerate with a fall of 17.4% for the Western Isles against a predicted fall of 2% for Scotland.

Of this ages >45 are predicted to fall by 36-41%. The main accelerators are migration and fewer births than deaths.



The main island populations are: Lewis 18,489, Harris 1,984, the Uists 4,857 and Barra 1,172.

Travel between the islands is overland by car and ferry which involves two sea crossings between Lewis and Barra, or by plane involving two flights between Stornoway, Benbecula and Barra.

The geography and a dispersed population over such a large distance presents its own unique challenges in delivering clinical services that are equitable and afford easy access.

##### 4.2 Diabetes Population

###### Diabetes Incidence and Trend

The diabetes population in the Western Isles has multiplied four-fold since 1992 when there were 230 people registered with diabetes. In line with the national incidence of diabetes this number has risen steadily over the past eleven years and is currently 980.

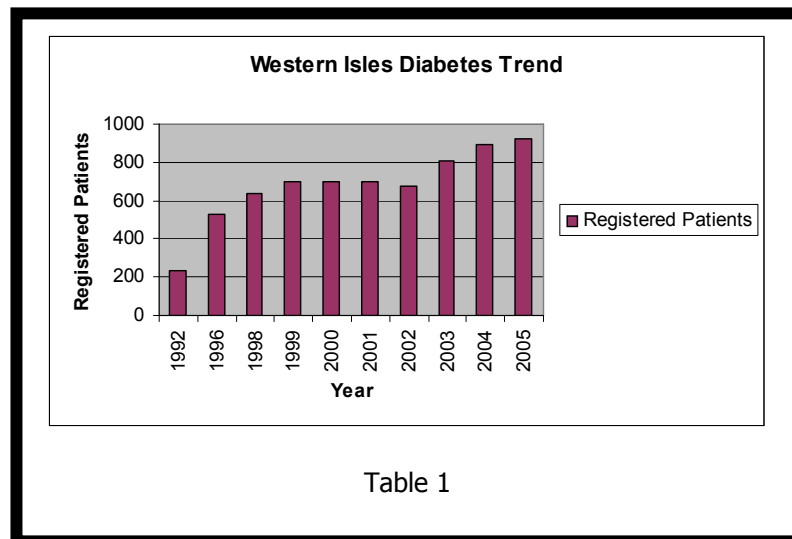


Table 1

The World Health Organisation and Public Health Institute for Scotland predict that the incidence of diabetes will double in the next five to ten years. For a small community with limited resources any increase can place significant pressures on services. There is a need to adopt a flexible policy on service provision so that there is a timely response to changing needs and patterns.

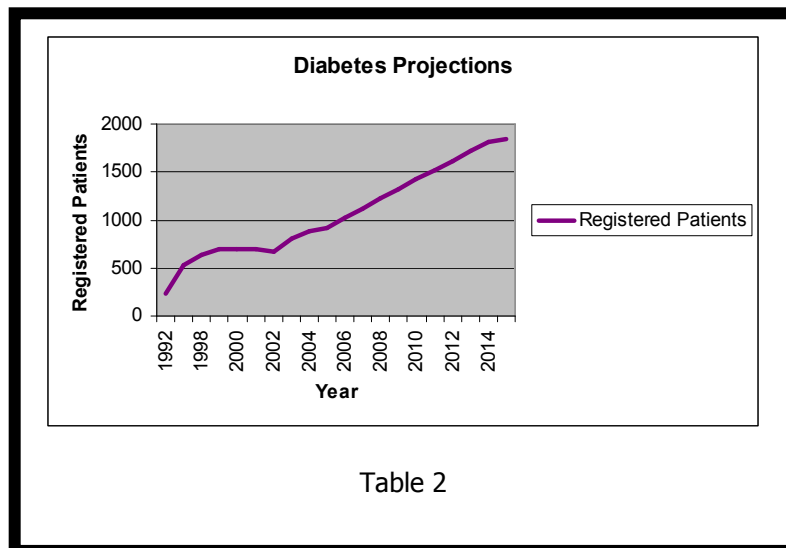


Table 2

National analysis indicates that there are a similar number of people with undiagnosed diabetes in the community. This identifies a significant unmet need and some 900 people, if taken in line with national incidence figures, who are untreated. It is critical therefore that screening strategies are developed to detect and treat these people and avoid the health risks of untreated diabetes.

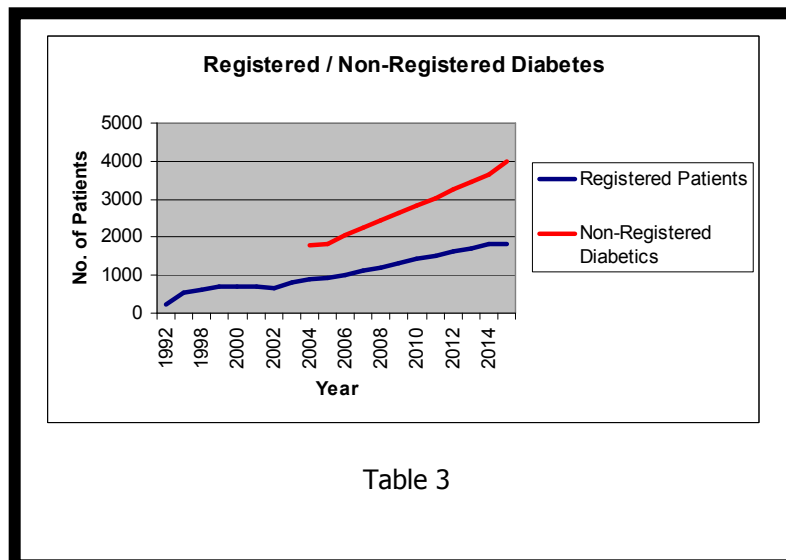


Table 3

The significance of this phenomenon will only increase over time placing ever increasing burdens on NHS costs and upon the personal lives of those affected.

### 4.3 Diabetes Services

Diabetes Care is co-ordinated through the Diabetes Resource Centre based at Western Isles Hospital. The centre provides a service to primary and secondary care and is the base for the Lewis and Harris Diabetes Nurse Specialist. Specialist clinics are held in the centre and it provides a local drop-in service. The centre also acts as the control for the retinal screening programme and manages the local diabetes register and SCI-DC programme.

The majority of diabetes care is delivered by local clinics in general practices across the islands. All practices have a dedicated staff member, in most cases the Practice Nurse, who manages diabetes clinics. These clinics are supported by diabetes specialist nurses, one nurse in Lewis and Harris and one nurse based in the Uists and who also covers Barra. A Consultant Physician, based at the Western Isles Hospital in Lewis provides part time diabetes specialist cover for all the islands. A visiting Consultant Paediatrician from Raigmore provides clinics for children and adolescents every three months.

Adults in the Western Isles do not currently have access to a Consultant Diabetologist. Historically this service was provided by a visiting consultant from the Royal Infirmary in Glasgow but the service was stopped when the previous visiting consultant retired.

Dietetics and Podiatry clinics are provided at all secondary care clinics and at primary care clinics every two months.

Diabetes retinal screening is contracted from Ninewells Hospital, Dundee who provides a mobile screening unit once per year.

### 4.4 Service Delivery

The diabetes centre has a key role in the delivery and co-ordination of care across the islands and is critical to the management of diabetes care. However no clear lines of management and accountability are in place. The centre co-ordinator reports to the General Manager of Hospital Services, medical accountability occurs through the hospital medical structure to the Medical Director and the Specialist Nurses report through the Community Nurse Manager to the General Manager for Community Services. This anomalous situation has given rise to no one manager identified as responsible for the delivery of services or the quality and governance of care. There is also no clear route through which general management issues relating to diabetes services can be processed.

General Practices across the islands vary in the way that diabetes services are delivered to patients and in the level of support their clinics require from diabetes nurse specialists. Not only does this create inconsistencies in practice but because some practices exercise an over-dependence on diabetes nurses specialist, this places an unnecessary burden on that service and is not the most efficient use of limited specialist time. It also implies that dedicated diabetes personnel have to adjust working practice to suit the variable working practice of different practitioners. This places an unrealistic burden upon staff to continually adjust their methods and level of support dependent upon the level of local commitment to the provision of diabetes clinics.

Some patients have exercised their choice and elected to be referred to mainland Diabetology services in Inverness or Glasgow rather than attend local clinics.

#### **4.5 Managed Clinical Network**

With the introduction of the Diabetes Managed Clinical Network in 2004 came the opportunity to redesign the structure and framework upon which diabetes services were modelled. Agreeing the future design of this service with professionals in partnership with lay people was considered critical in the development of a diabetes service fit for the future and the beginning of the process of developing a diabetes strategy.

The public have been very much involved in the development of the MCN and in this strategy from the outset. Two key elements were necessary before service redesign could take place under the auspices of the LDSAG / DMCN, to establish and make fit the governing structures for diabetes within the organisation and to have a "Governance and Accountability Framework" approved by the Board. (Appendix 1)

These measures has established the MCN within the Board's corporate structure and legitimised its role in planning and delivering services. This framework also makes it implicit that the MCN holds responsibility for the delivery of services and provides it with the authority to address many of the issues mentioned, as well as ensuring that there is recognised responsibility for reviewing and addressing the changing needs and pressured from within the service.

#### **4.6 Quality Improvement Scotland Report**

Quality Improvement Scotland (QIS) conducted a peer review of diabetes services across Scotland in 2003 and their report was published in March 2004. Western Isles services performed favourably when compared to comparable Boards and indeed with all other Boards. Service strengths were identified as the clinical component of services although there were areas to be addressed in the administration and structures supporting the service. Audit, monitoring and documentary evidence were subjects of particular note.

Since the publication of the report an action plan was developed, key issues have been addressed or are in the process of being addressed. Central to this work is the implementation and role-out of SCI-DC an electronic clinical management system which will significantly enhance the co-ordination of individuals and provide data for monitoring and planning. It will also contribute to the guidance on quality assuring the service and allow for effective clinical governance. (Appendix2)

#### **4.7 Staff and Resources**

There has been no formal review of the staff and resources dedicated to diabetes services since 1996 when there were 540 people registered with diabetes. Since then there has been an almost 100% increase in the incidence of diabetes. There is 1 wte Diabetes Nurse Specialist for Lewis & Harris covering 750 patients, 1 wte Diabetes Nurse Specialist for the Uists & Barra covering 240 patients. There is 25hours (A&C5) dedicated time from the Diabetes Centre CO-ordinator who covers all administrative, communications, IT and service management for the service. With the increase in demand on the service and taking into account external pressures that have developed since 1996, diabetes services are critically under-resourced. If for any reason any of the key staff were unavailable for duty then the service would be in crisis. The impact on patients and quality of care due to this situation is compromised as it currently stands and in the event of misfortune (staff leaving or falling ill) could be catastrophic. There is no provision for holiday relief or cover during absence.

## 4.8 External Impacts



Since the publication of the Scottish Diabetes Framework in 2002 which set out the strategic guidance for the future of diabetes services in Scotland, a number of national initiatives and programmes have been commissioned by the Scottish Executive. The three most significant of these are the development of managed clinical networks, diabetes retinal screening programmes and SCI-DC.

Each of these initiatives has been absorbed within existing resources further placing those resources under pressure. As an example, Western Isles NHS provides annual retinal screening for over 800 people annually. The impact of this involves more than 5000 individual items of administration, planning and negotiation with the providers (Tayside NHS), liaison, report management, IT, co-ordination with practices locally and with onward referral to Ophthalmology.

The implementation of SCI-DC, the project management, continuous monitoring of the system, data management, quality assuring data and reporting will add a substantial burden during 2005-06.

The Board is required to submit data annually to the Scottish Diabetes Survey which includes over 40 different fields of information. The collation of this data from all sources where diabetes care is delivered is a considerable task and involved substantial man-hours to complete. SCI-DC will assist with providing reports but the level of work is still considerable.

New guidance is expected during 2005-06 on patient and family education and is likely to require formal training sessions for individuals and groups. In addition the service will be expected to provide specific programmes in patient education for ethnic minorities who are one of the most vulnerable populations predisposed to diabetes.

The incidence of diabetes in children is on the increase. Western Isles has the highest incidence of childhood diabetes in the UK. There are particular needs for families and children newly diagnosed with diabetes. Some parents of the very young require significant levels of support from Diabetes Nurse Specialists in particular. The support they require is exacerbated when children fall ill with other conditions for example viral infections, gastrointestinal illnesses and when complex medical investigations are required. Current practice suggests that the provision of a 24hr call service is necessary.

## 4.9 Internal Pressures

As the diabetic population increases so does the likelihood of the number of people admitted to hospital for routine or other general medical conditions increase. People with diabetes are substantially more at risk from heart disease, kidney disease, hypertension, circulatory problems and stroke.

There are a number of pressures affecting diabetes services and the quality of care delivered to the patient. Medical staffing issues have placed additional burdens on local consultants and in particular the dedicated time for diabetes care. The impacts that are cogent to the wider organisation are also relevant and impacting on diabetes services, these being the European Working time Directive, Consultant Contracts, Primary Care Contract, Service Redesign, population and sustainability.

This may be an appropriate time to introduce a 'Nurse Led Service' in the Western Isles. To do so would require a detailed review and action plan and would have to include detailed plans for how that service would be supported medically and as part of a professional nursing network in the context of the wider services in primary, secondary and tertiary service.

**Target:** To review and develop plans examining the feasibility the option for a nurse led service by March 2007

## **5 Policy Context**

### **5.1 International**

Diabetes is recognised internationally as an important cause of preventable mortality and morbidity. In recognition of this, the St Vincent Declaration was issued following a meeting organised by the World Health Organization (WHO) and the International Diabetes Federation in 1989. It included a series of recommendations that urged health departments and European national governments to give formal recognition to the increasing prevalence of diabetes and to improve the quality of care for people with diabetes. More recently, WHO has published estimates of the prevalence of diabetes that describe an epidemic of diabetes and highlight the global burden of diabetes. Worldwide, the number of people with diabetes is expected to double in 10 years.

### **5.2 Scotland**

Our National Health: A plan for action, a plan for change. recognised diabetes as a national priority area. Following this the Scottish Diabetes Group is leading national developments in diabetes care. The Scottish Diabetes Framework (2001) identifies 22 building blocks of diabetes care, under the following headings:

- Prevention and early detection
- Care, monitoring and treatment
- Specific groups
- Planning and managing services
- Implementation
- Community issues

The Framework identifies the following first stage priorities:

- Patient information, education and empowerment
- Heart disease
- Eye care
- Strategy leadership and team-working
- Education and training for professionals
- IM&T and disease registers
- Implementation and monitoring

Within the Framework, Boards are required to develop Managed Clinical Networks for diabetes by September 2004. Other key national documents and initiatives include the following.

- SIGN Clinical Guidelines for the Management of Diabetes (SIGN 55).
- The annual Scottish Diabetes Survey
- Clinical Standards for Diabetes produced by the Clinical Standards Board for Scotland (now NHS QIS)
- Health Technology Board for Scotland report on the organisation of services for diabetic retinopathy screening and subsequent report of the Diabetes Retinopathy Implementation Group
- Development of the national diabetes information management system, Scottish Care Initiative-Diabetes Collaboration, (SCI-DC)

The Scottish Executive has released a number of Health Department Letters that require NHS Boards to develop services in line with these initiatives. These include:

- HDL(2000)12 Scottish Diabetes Survey
- November 2002 HDL(2002)81 Developing Services for People with Diabetes
- May 2003 Letter from Ian Gordon on Scottish Diabetes Framework: Development of Diabetes Managed Clinical Networks
- July 2003 HDL(2003)33 Diabetic Retinopathy Screening Services The Scottish Executive, in the HDL Developing Services for People with Diabetes, identifies the following key objectives:

**Service Organisation:** To put in place organisational arrangements which promote high quality, patient-centred care, effective collaboration and efficient service delivery.

**Clinical Services:** To improve and extend services for people with diabetes (including primary and secondary prevention, surveillance and treatment).

**Responsiveness of Services:** To plan, deliver and monitor services in ways which actively involve service users and reflect patient preferences.

**National Monitoring and Support Arrangements:** To establish effective mechanisms to monitor local diabetes services which generate objective and timely information about standards of service delivery as well as providing constructive advice and support to local teams.

## **6 Evidence and Best Practice**

There is a large evidence base to demonstrate that good clinical care prevents morbidity and mortality and is cost effective. SIGN has produced clinical guidelines based on this evidence (SIGN 55). These cover the following areas of practice:

- Children and young people
- Lifestyle management
- Management of diabetic cardiovascular disease
- Management of diabetic nephropathy
- Prevention of visual impairment
- Management of diabetic foot disease
- Management of diabetes in pregnancy

Institute for Clinical Excellence (NICE) Published guidance "Diagnosis and Management of Type 1 Diabetes in Children and Young People", in September 2004

## 6.1 Glycaemic Control

Controlling blood glucose is an important part of diabetes care. If glucose levels are too high this greatly increases the risk of eye, kidney, nerve and vascular complications. On the other hand overly aggressive management to lower glucose may result in severe hypoglycaemia which can result in accidents, unconsciousness, seizures and rarely sudden death.

Management of blood glucose includes diet, regular physical activity and often medication, in the form of oral hypoglycaemic agents and/or insulin injections. Patients who develop diabetes often have to initiate and maintain a radical change of lifestyle. They require regular advice and support. Those taking insulin may inject this four times daily and need to also measure their blood glucose frequently to adjust their treatment depending on any aspects of daily living that affect glucose metabolism (eg type of food, exercise, alcohol, stress of any sort).

Regular assessment of glycaemic control, by home glucose measurement, measuring glycosylated haemoglobin and discussing hypoglycaemia, gives feedback to patients and professionals on how well this self management is working.

## 6.2 Cardiovascular Risk

People with diabetes are approximately twice as likely as those of similar age to develop vascular disease including ischemic heart disease or stroke. Scotland is already recognised as a country with a very high background rate of vascular disease, exacerbating this increased vascular risk. Modern assessment, based on evidence, includes measurement of risk factors (blood pressure, smoking habit, lipids, urinary albumin excretion) in those with no signs or symptoms of vascular disease as well as those with proven disease (eg history of angina, MI, reduced or absent feet pulse, impotence).

Treatment depends on absolute vascular risk. Those at higher risk require treatment which includes lifestyle advice, lipid lowering therapy, anti-hypertensive medication, aspirin and improved glycaemic control.

## 7. Screening for Complications

An important element of the care of people with diabetes is regular screening for complications of the condition. This aims to identify those at risk of foot ulcers, retinopathy or nephropathy at an early stage as intervention at this stage prevents amputation, blindness and renal impairment later. National guidelines are that all patients should be screened at least on an annual basis. This may be at an "annual review" visit though a rolling review in which different elements of screening are performed at different times is a valid alternative. Some with established complications or at higher risk will require more frequent review.

### 7.1 Diabetic Retinopathy

In its early stages diabetic retinopathy is asymptomatic but if detected early by screening, progression can be prevented by laser treatment. The Health Technology Board for Scotland (now part of NHS QIS) produced advice on organisation of services for diabetic retinopathy screening in 2002. This reviewed the evidence and recommended that a national screening programme be established, using digital cameras as the screening modality and a national grading system. In July 2003 the report of the Diabetic Retinopathy Screening Implementation

Group was published with an HDL requiring NHS boards to implement this programme and offer screening to all people with diabetes by March 2006. Western Isles NHS Board has had an established screening programme since 1998. Even as the incidence of diabetes has increased, never less than 80% (2003) of people have attended for retinal screening. However the sustainability of the current method of delivering this service could be jeopardised by staff changes at Tayside or the mobile unit being unavailable for whatever reason.

## **7.2 Nephropathy**

Diabetic nephropathy is one of the leading causes of renal failure requiring dialysis in the developed world. Therapy for people developing diabetic kidney disease can reduce the rate of decline of kidney function, delaying the need for dialysis very significantly. Those with early kidney damage are also at far greater risk of cardiovascular death.

Early detection is essential to enable therapy. Screening to detect microalbuminuria identifies those with kidney damage. Current recommendations are that all patients with diabetes should be screening for microalbuminuria and if a screening test is positive the diagnosis should be confirmed and therapy commenced.

## **7.3 Foot Care**

Identification and management of patients with feet at risk of ulceration and gangrene is a core element of diabetes service provision. Annual screening to assess the circulation (foot pulses and skin health) and nerve supply (vibration or fine touch sensation) will identify those with feet at risk. Referral of those at risk or those with ulcers to a podiatrist with a particular expertise in diabetic foot disease and/or to a multidisciplinary foot service has been shown to decrease the amputation rate and the morbidity associated with these problems. Patients with severe foot ulcers often require prolonged admission to hospital. Some of this is also preventable.

During 2004 the Diabetes MCN funded a pilot project examining the effectiveness of providing a podiatry foot assessment concurrently with the retinal screening programme. The pilot sampled 150 people in Lewis. The findings of this project were alarming with more than 45% of the sample group requiring onward referral for foot care. The implications of the pilot are set out in the report. (Appendix 3)

## **8 Special Groups**

### **8.1 Children and Young People**

Diabetes is the most common metabolic disease in the young. The number of new cases has trebled over the last 30 years, with increasing incidence particularly in the very young. There is clear evidence that achieving good control through childhood and adolescence, while avoiding disabling hypoglycaemia, significantly reduces the risk of long term complications. The achievement of good diabetes control is facilitated by a multidisciplinary team. The team should include clinicians specialising in paediatric/adolescent diabetes, diabetes nurse specialists, a dietician, a psychologist with knowledge of childhood diabetes and a paediatric social worker. The aim of the team is to address:

- initial and ongoing education and support,
- evolving needs of the individual and family through childhood,
- knowledge to deal with acute problems,
- transition to adolescent and adult services,

- education of teachers and carers,
- emergency telephone support.

Each individual should be seen regularly after initial education and optimal care should be provided in a tailored fashion for each individual.

The National Institute for Clinical Excellence (NICE) Published guidance "Diagnosis and Management of Type 1 Diabetes in Children and Young People", in September 2004. This is national guidance and the Western Isles diabetes MCN will review this guidance and audit practice against recommendations.

## **8.2 Diabetes in Pregnancy**

Women with diabetes have a higher risk of foetal malformation than those without. Glycaemic control early in pregnancy (before they may realise they are pregnant) has a major effect on this risk. If diabetes control is poor (HbA1c 12 %) the major congenital malformation risk is estimated to be 40%, while good glycaemic control results in a risk a little above the background risk of the population. Even with good glycaemic control during pregnancy these are considered high risk pregnancies and require active monitoring of both mother and baby. Recognised key elements of a good diabetes service include:

- advice to those who could potentially become pregnant
  - support for those planning pregnancy
  - early monitoring of those who have become pregnant
- close supervision during pregnancy, labour and following delivery as insulin requirements change rapidly at these times.

Pregnancy can also cause diabetes. A service to screen for this and monitor those who develop diabetes is also required. It is recommended that these services be provided by a multidisciplinary team with diabetes nurse specialists, midwives, obstetricians, diabetes specialists and dieticians.

## **8.3 Ethnic Minorities**

The prevalence of diabetes is 3-4 times higher among South Asian ethnic minorities, with the highest prevalence among Pakistanis and Bangladeshis. The risk of diabetes among Chinese is similar to that in the general population. There are no reliable data on the prevalence of diabetes among ethnic minorities in Scotland. Mortality directly associated with diabetes is also significantly higher in South Asians. This is partly attributable to poor glycaemic and blood pressure control. Although genetic differences may be partly responsible, cultural and structural factors also have a substantial impact. Members of minority ethnic groups may experience particular problems managing diabetes including: culturally specific attitudes towards (ill-)health, the body, and a healthy diet conflict between religious practices, such as fasting, and medically recommended approaches to disease management; communication difficulties between patients and practitioners, (perceived) racism within the healthcare system; and unrealistic expectations of the patient-practitioner relationship. Health professionals need support to overcome these cultural barriers and improve access to services. This includes the provision of interpretation services, advocacy and facilitation services.

There is currently active discussion nationally about the appropriateness of organised screening of ethnic minorities (particularly South Asians) for diabetes. Pilot screening programmes in

England and Wales aim to address questions including the best method of screening, the acceptability and uptake of screening and its effectiveness. Screening for diabetes and impaired glucose tolerance would probably identify a large proportion of the South Asian population as "abnormal". It may be more appropriate to screen for cardiovascular risk, including glucose. The question of a nationally organised screening programme is separate from the decision of individual health professionals to carry out tests where they are felt to be clinically indicated.

## **9 Patient Education**

Information for patients is one of the key themes identified by the Scottish Diabetes Strategy. Self management is fundamental to diabetes care, so patient education is essential. Patients wish not only for appropriate information to be given at diagnosis but also for ongoing education and information. This needs to be provided in an understandable way, to cover all the areas of management discussed above, and be adapted for groups with specific needs. Education based purely on information giving has limited effects on behaviour or metabolic control. Clinical interventions aimed at dietary change and increasing physical activity are more successful if based on psychological approaches such as motivational interviewing or those incorporating the teaching of cognitive behavioural skills. Use of the 'stages of change' model can maximise the efficiency of the delivery of lifestyle interventions. Education that is supplemented by additional support, follow up and behaviour modification can improve both metabolic outcomes and psychosocial outcomes.

A report by the National Resource Centre for Ethnic Minority Health in collaboration with the Scottish Diabetes Group, "A Review of Diabetes Materials and Resources for Ethnic Minorities Living in Scotland" was published in November 2004, which gives guidance on educational material. In the Western Isles the service uses publications from Diabetes UK (Scotland) and there is further material available through 'In-touch With Health', the board's patient information service. Dietary information leaflets used are from the Scottish Nutrition & dietetic resource initiative.

## **10 Strategic Planning 2005 - 2010**

### **10.1 Location of Services**

The location of care is as critical in remote and rural areas as is the importance of the quality of that care. A report examining the delivery of diabetes care in remote and rural communities, "Going the Extra Mile: The impact of Distance on Access to Diabetes Care in Rural Areas", David Hogg, was published in March 2005. The author of this paper based his study on the Western Isles. It is essential that recommendations from this report are included in the design of services that take account of rurality, deprivation factors and the ability of people with diabetes to access services.

From the success of the retinal screening programme it is clear that taking the service to the patient is one strategy that works well in delivering a high quality, accessible service. There are further opportunities in ensuring that 'near patient' services are developed and exploiting fully IT technologies.

There is good evidence that a high quality of care can be provided in general practice where structured diabetes clinics are provided. The elements needed to provide care in this way are:

- Structured mini-clinics with appropriate administrative support
- Practices nurse with training and expertise in diabetes
- GP with special interest and training in diabetes
- Access to dietetic services

- Access to podiatry services
- Support and advice from specialist diabetic liaison nurse and Consultant Diabetologist
- Diabetes register with call/recall facility
- Access to specialist services
- Ongoing support, training and audit

Target:

- Over the next five years a programme of developing practice clinics will be implemented so that each practice in the Western Isles sign up as members of the MCN agreeing to subscribe to common aims in the delivery of diabetes care including quality assuring that service. That there is a transfer of 80% of diabetes care to the primary care setting by 2010 and that SCI-DC is used to monitor and develop that care.

## 10.2 The Multi-Disciplinary Team

Care of people with diabetes involves health professionals of many disciplines. Podiatrists are needed to provide care for people with foot complications. Dieticians are involved in the nutritional assessment, planning and provision of appropriate nutrition education in both individual and group settings; and also monitoring and ongoing education of patients. Diabetes Specialist Nurses have an important role, both in the management of individual patients and in training and support for primary care professionals. Their role includes, for example:

- Patient education
- Insulin management
- Control of vascular risk factors
- Developing specialist services for specific groups, for example residents of nursing and residential homes
- Liaison between primary and secondary care settings.

Targets:

- To review the resources and staff available to meet the current demands placed upon diabetes services by an ever-increasing patient demand and that takes account of external pressures.
- To further develop the roles of professionals within the multidisciplinary team through training, personal development and setting of clinical targets for diabetes care.
- To set realistic caseloads and ensure that there is dedicated time in podiatry and dietetics for diabetes management.
- To co-ordinate the delivery of care and minimise the phenomenon of duplication.
- To implement strategies that reduces the number of failed appointments and increase efficiency.

## 10.3 Psychology

Psychologists also play a role. People with diabetes are more likely to experience clinically significant psychological problems, particularly anxiety and depression. There is evidence that the remission of depression is often associated with an improvement in glycaemic control. Psychological interventions can also support education and self management as highlighted above.

Target:

- Psychology services are not available locally and this was one of the QIS standards for diabetes that was 'not met' in the 2003 QIS peer review. A needs assessment for psychology

service in diabetes is to be completed and psychology service available to people with diabetes by 2010.

#### **10.4 Diabetes Centre**

The development of diabetes as a specialist interest has resulted in production of physicians and multidisciplinary teams. These in turn have led to major changes in the provision of diabetes care during the last forty years. This has resulted in diabetes centres being created, a model replicated across Scotland, that provide a focus for diabetes care in communities. The centres make it possible to structure basic care for patients and also to provide more specialist services. Good diabetes centres provide local expertise and focused support for patients and for professionals.

The Diabetes Centre has since it was commissioned in 1999 provided this focus locally and has a key role in the co-ordination of diabetes care. It provides a service to primary and secondary care and acts as the control centre for retinal screening, the local diabetes register, SCI-DC and communications. It is vital to the structure of diabetes care across the Islands.

The centre has barely managed to keep abreast of the demands that has been placed upon it and is dependent upon the good will and the flexibility of staff to work out-with contract arrangements in order to meet the demands placed upon it.

Targets:

By September 2005

- To review the resources required to meet current and future demands and appoint staff.
- To appoint a Diabetes Centre Manager
- To establish clear line-management structures.

#### **10.5 Planning and Coordination of Services**

There is a need to coordinate the development and delivery of all services. This requires strong networks underpinned by IM&T to facilitate sharing of information. The Scottish Diabetes Framework required all Boards to develop a managed clinical network for diabetes by September 2004. The Western Isles inaugurated the local Diabetes Managed Clinical Network in February 2004 and the governance framework which sets out the corporate structure for the DMCN has been drafted. This document will be put before the Board in early 2005 / 06. The framework combines the roles of the Local Diabetes Advisory Group and the Managed Clinical Network and places a duty upon that group for the planning, co-ordination and delivery of diabetes services in the Western Isles.

Target:

- To formalise the Diabetes MCN Accountability and Governance Framework and have Board approval by June 2005

## 10.6 Diabetes Information Systems

One of the key steps in achieving improved care is to improve the availability of data and to establish regional clinical information systems across primary and secondary care that support clinical care. Functions of the diabetes information system include:

- planning programmes of care for individual patients
- tracking care provided to individual patients
- communication between settings
- clinical audit
- service planning
- monitoring goals of St Vincent declaration
- call and recall

A national diabetes information management system called Scottish Care Initiative-Diabetes Collaboration, (SCI-DC) is being developed. This will include a clinical management database, SCI DC clinical, which will feed into a Western Isles wide database, SCI DC network. SCI-DC network will be used as the local diabetes register.

Information will transfer to this system automatically from the SCI DC clinical system (used in diabetes centre) and also automatically from primary care systems such as GPASS. Currently these systems are rolling out to all Health Board areas. The data collected will comply with the National Diabetes Dataset and cover that necessary for the annual Scottish Diabetes Survey.

Target:

- To have SCI-DC Clinical available by May2005 and a roll-out programme to GP practices completed by October 2005.

Web Site: Ease of communication with professionals and with people who use the service is central to the effectiveness and efficiency with which services deliver. The Diabetes MCN will provide a web site which provides information about local services and the means of accessing services as well as patient information and links to other sites related to diabetes.

It is also proposed that the site will provide a locus for the diabetes community to interact and contact one another, share advice and experience. A personal reminder system for appointments via text messaging will also operate via the site.

Target: To launch the Western Isles Diabetes MCN web site by June 2005

## 10.7 Quality and Clinical Governance

'Clinical governance is a system through which NHS organisations are accountable for continuously improving the quality of their services and safeguarding high standards of care by creating an environment in which excellence in clinical care will flourish'

The Board has a Clinical Governance Committee that is responsible for oversight of the clinical governance of the Trust/Board. A range of mechanisms is needed to ensure continual improvements in the quality of the care provided to people with diabetes. These include:

- Clinical standards: NHS Quality Improvement Scotland (formerly Clinical Standards Board for Scotland) has established standards for diabetes services.
- Clinical audit: comparing practice against guidelines such as SIGN and NICE.
- Monitoring of progress towards the St Vincent targets.

- Staff training and CPD: NHS Education Scotland has published a competency framework for those involved in providing diabetes care.
- Public and patient involvement in service development.

Governance arrangements are set out in the Western Isles Diabetes Managed Clinical Network's "Governance and Accountability Framework".

## 10.8 Screening

### Retinal Screening

Western Isles NHS has one of the most successful retinal screening programmes in Scotland. There are however uncertainties about the sustainability of continuing to contract for this service from Ninewells Hospital. As our incidence of diabetes increases the need for the mobile unit and operating staff to spend longer time in the Western Isles also increases. This means of providing retinal screening may not be feasible in the longer term.

There are also gaps in the service due mainly to the facility only being available during one month of the year. There is no flexibility for people who work away from the islands, those in the oil industry for example, people who are on holiday or are unavailable due to hospital care when the unit is on the islands.

In order to ensure that a sustainable service is available in the longer term and to address the gaps that the current service cannot provide for, alternatives have to be sought. An increase in screening would require an increase in Dietetic services and training to provide 'specialist' input as well as an increase to meet the demands of a generally improved service.

Target:

- To review the retinal screening service and develop a business case for a sustainable service by March 2006.
- To formalise a contract with Tayside NHS for the provision of a grading and reporting service from their regional centre.
- To have local provision for a limited service in place via local optometrists by March 2006.
- To have contingency plans in place should the service from Tayside NHS become unavailable.
- To plan for future needs taking into account the projected increase in the incidence of diabetes.
- To review and have in place adequate administrative support for retinal screening by August 2005.
- Develop a strategy to increase the uptake of retinal screening

### Podiatry Foot Screening

The project undertaken in 2004 to examine the effectiveness of providing a combined foot and retinal screen for people with diabetes, demonstrated the efficacy of providing podiatry screening in this way. It would reduce the 27% DNA rate on the appointment system that currently operates, it will ensure that the Board is compliant with national standards and guidelines and it is a system that proved very popular with the patients (higher than 99% satisfaction). The lay members of the MCN have advocated that this would be the preferred system for providing foot care.

The pilot study revealed a significantly larger than expected unmet need with more than 45% of patients requiring onward referral for more intensive treatment. The cost to the NHS of a partial limb amputation is estimated to be £40,000. To implement this screening programme is estimated to cost £10,000.

Target:

- To produce a business case for an annual podiatry foot screen for diabetes to operate concurrently with the retinal screening programme by May 2005.
- To implement the foot screening programme in September 2005.
- To produce a report by January 2006.

### **Nephropathy Screening**

Diabetic nephropathy is one of the leading causes of renal failure requiring dialysis in the developed world. Therapy for people developing diabetic kidney disease can reduce the rate of decline of kidney function, delaying the need for dialysis very significantly. Those with early kidney damage are also at far greater risk of cardiovascular death.

Early detection is essential to enable therapy. Screening to detect microalbuminuria identifies those with kidney damage. Current recommendations are that all patients with diabetes should be screening for microalbuminuria and if a screening test is positive the diagnosis should be confirmed and therapy commenced.

Target:

- To ensure a policy is in place that provides screening for kidney disease for every patient annually.
- To ensure that a system of monitoring that screening programme is in place and reported annually.

### **10.9 Diabetology**

Lay representatives at the 2004 conference and members of the MCN have stated that they would prefer the option of a Diabetology Service available locally.

A number of people already attend a Diabetologist on the mainland, either at Inverness or Glasgow. A visiting Diabetologist would compliment the existing service and was available in recent years. The service stopped on the retirement of the previous visiting consultant from Glasgow.

Target:

- To reinstate visiting Diabetology service
- To offer local choice to recognise patient preference.
- To make peer review available as part of the clinical governance arrangements for diabetes services

### 10.10 Children and Adolescents

A visiting Consultant Paediatrician with an interest in diabetes, provides local clinics. A recent special meeting of the Diabetes MCN was held to discuss issues related to this group.

There are complex issues relating to the level of support that families need, especially with the very young and also around the needs of teenagers. Families can require high levels of support with children who have complex needs or for children during times when they experience childhood illnesses. Because of the limited resource of Specialist Nurses it means that only one person is available in either the Uists or Barra and one in Lewis to cover all eventualities.

General Practitioners or parents dealing with emergencies often rely on specialist advice out of hours. This places an unacceptable burden on single-handed practitioners.

Adolescents too have particular needs. The need for confidentiality is paramount with some teenagers as well as support with complying with management regimes. At this stage they will be dealing with the transition from child to adult services and special arrangements are required within the service to manage that transition effectively.

Target:

- To work with the Child and Adolescent Diabetes Service (Inverness) to implement NICE guidance on the management of Type1 Diabetes in young people.
- To develop local protocols for the management of emergencies
- To develop an out of hours service for diabetes management
- To implement arrangements for the support of teenagers including a 'Buddy System', text reminder service for appointments and news.
- To develop a local protocol for the hand-over of care from Child to Adult services
- To involve teenagers in the planning of services.

### 10.11 Patient and Public Awareness

There is good evidence that highlighting diabetes and related issues with the public can have beneficial effects. It promotes positive 'life style' advice to the public generally on diet and on the necessity to avoid causative factors of diabetes like obesity, poor diet and lack of exercise.

It also educates the public about diabetes and the particular needs of those with diabetes. During 2004 the Diabetes MCN in liaison with the Health Promotion Department ran events during the week leading up to the national diabetes day. This involved schools, colleges, 500 work places, Comhairle nan Eilean Siar, General Practices and Hospitals.

Stands and information was made available through local outlets.

The Diabetes Framework for Scotland and related guidance requires Boards to provide regular public events.

Target:

- To hold an annual public education event.
- To involve Health Promotion in developing joint strategies for educating the public.

- To involve Health Promotion Department in the education and training of people with diabetes and their families.
- To hold a local diabetes conference every two years.
- To hold mini symposium on alternate years.
- To target education on diabetes at specific groups within the community, for example employers, education professionals, police and emergency services as well as regular updates for health professionals.

### 10.12 Undiagnosed Diabetics

There is estimated to be 900 people with undiagnosed diabetes in the Western Isles. More than those who have been identified, this group are more vulnerable to blindness, kidney disease, hypertension, circulatory problems, diabetes foot disorders and amputation and long-term chronic complications.

The Diabetes MCN and diabetes services must introduce a strategy to increase the detection and diagnosis of untreated diabetes.

Target:

- To develop a strategy for the detection and diagnosis of untreated diabetes by March 2006.
- With the involvement of general practitioners, identify vulnerable groups and implement screening programme.
- Develop a local protocol for the routine testing of people predisposed to diabetes.
- Offer a voluntary test to all people in the Western Isles.

## 11 Finance

All of recommendations in the strategy are actions that the Board are required to implement to fit with the national agenda and guidance on delivering a quality service to diabetic patients in the community.

Funding is already in place for example SCI-DC implementation and Retinal Screening. There will be an uplift required over time because of the diabetes epidemic and also because more patients will be registered.

It is difficult at this time to be specific about individual recommendation and projects since at this time there are numerous variables that cannot be quantified. For these individual business cases will be developed and brought forward.

The implementation of the strategy will take place over five years and the diabetes MCN will prioritise which targets to implement first.

It is critical that a funding stream and cost centre is identified for Diabetes so that there is effective financial control and also as a basis for diabetes services to be included in the Board's financial structures.

## Action Plan

Topic	Target	Start Date	Completion Date
<b>Nurse Led Service</b>	To review and develop plans examining the feasibility and options for a nurse led service by March 2007	March 2006	March 2007
<b>Primary Care Services</b>	Over the next five years a programme of developing practice clinics will be implemented so that each practice in the Western Isles sign up as members of the MCN agreeing to subscribe to common aims in the delivery of diabetes care including quality assuring that service. That there is a transfer of 80% of diabetes care to the primary care setting by 2010 and that SCI-DC is used to monitor and develop that care.	2005	2010
<b>Multi Disciplinary Team</b>	<p>To review the resources and staff available to meet the current demands placed upon diabetes services by an ever-increasing patient demand and that takes account of external pressures.</p> <p>To further develop the roles of professionals within the multidisciplinary team through training, personal development and setting of clinical targets for diabetes care.</p> <p>To set realistic caseloads and ensure that there is dedicated time in podiatry and dietetics for diabetes management.</p> <p>To co-ordinate the delivery of care and minimise the phenomenon of duplication.</p> <p>To implement strategies that reduces the number of failed</p>	<p>March 2005</p> <p>March 2005</p> <p>March 2005</p> <p>March 2005</p>	<p>September 2005</p> <p>Ongoing</p> <p>September 2005</p> <p>March 2006</p>

	appointments and increase efficiency.	March 2005	March 2006
<b>Psychology Service</b>	Psychology services are not available locally and this was one of the QIS standards for diabetes that was 'not met' in the 2003 QIS peer review. A needs assessment for psychology service in diabetes is to be completed and psychology service available to all people with diabetes by 2010.	2005	2010
<b>Diabetes Resource Centre</b>	To review the resources required to meet current and future demands and appoint staff. To appoint a Diabetes Centre Manager To establish clear line-management structures.	April 2005	September 2005 September 2005 May 2005
<b>Governance Framework</b>	To formalise the Diabetes MCN Accountability and Governance Framework and have Board approval for that framework		June 2005
<b>Diabetes Information System</b>	To have SCI-DC Clinical available by May2005 and a roll-out programme to GP practices completed by October 2005.  To launch the Western Isles Diabetes MCN web site by June 2005	May 2005	March 2006  June 2005
<b>Retinal Screening</b>	To review the retinal screening service and develop a business case for a sustainable service by March 2006. To formalise a contract with Tayside NHS for the provision of a grading and		March 2006

	<p>reporting service from their regional centre.</p> <p>To have local provision for a limited service in place via local optometrists by March 2006.</p> <p>To have contingency plans in place should the service from Tayside NHS become unavailable.</p> <p>To plan for future needs taking into account the projected increase in the incidence of diabetes.</p> <p>To review and have in place adequate administrative support for retinal screening by August 2005.</p> <p>Develop a strategy to increase the uptake of retinal screening</p>		<p>March 2006</p> <p>March 2006</p> <p>March 2006</p> <p>August 2005</p> <p>March 2006</p>
<b>Podiatry Foot Screening</b>	<p>To produce a business case for an annual podiatry foot screen for diabetes to operate concurrently with the retinal screening programme by May 2005.</p> <p>To implement the foot screening programme in September 2005.</p> <p>To produce a report by January 2006.</p>	<p>May 2005</p>	<p>September 2005</p> <p>September 2005</p> <p>January 2006</p>
<b>Nephropathy Screening</b>	<p>To ensure a policy is in place that provides screening for kidney disease for every patient annually.</p> <p>To ensure that a system of monitoring that screening programme is in place and reported annually.</p>	<p>2006</p> <p>2006</p>	<p>March 2007</p> <p>2006</p>
<b>Diabetology Service</b>	<p>To reinstate visiting Diabetology service</p> <p>To offer local choice to recognise patient preference.</p> <p>To make peer review available as part of the clinical governance</p>	<p>2006</p>	<p>2007</p> <p>2007</p>

	arrangements for diabetes services		2005
<b>Children's Services</b>	To work with the Child and Adolescent Diabetes Service (Inverness) to implement NICE guidance on the management of Type1 Diabetes in young people.	2005	Ongoing
	To develop local protocols for the management of emergencies	2005	2006
	To develop an out of hours service for diabetes management	2005	2007
	To implement arrangements for the support of teenagers including a 'Buddy System', text reminder service for appointments and news.	2005	Ongoing
	To develop a local protocol for the hand-over of care from Child to Adult services	2006	2007
	To involve teenagers in the planning of services.	2005	Ongoing
<b>Public Health and Health Promotion</b>	To hold an annual public education event.	2005	Ongoing
	To involve Health Promotion in developing joint strategies for educating the public.	2005	Ongoing
	To involve Health Promotion Department in the education and training of people with diabetes and their families.	2005	Ongoing
	To hold a local diabetes conference every two years. To hold mini symposium on alternate years.		
	To target education on diabetes at specific groups within the community, for example employers, education professionals, police and emergency services as well as regular updates for health professionals.	2005	Ongoing

<b>Identification and Diagnosis of Undiagnosed Diabetics</b>	To develop a strategy for the detection and diagnosis of untreated diabetes by March 2006.	2006	2010
	With the involvement of general practitioners, identify vulnerable groups and implement screening programme.	2007	2010
	Develop a local protocol for the routine testing of people predisposed to diabetes.	2007	2010
	Offer a voluntary test to all people in the Western Isles.	2006	Ongoing

## References

1. Scottish Diabetes Framework (2002)
2. SIGN Guideline 55, Management of Diabetes
3. NICE Guideline: Diagnosis and Management of Diabetes in Children and Young People
4. QIS Diabetes Standards (2001)
5. QIS Retinal Screening Standards (2004)
6. Diabetes Retinopathy Screening Service in Scotland: Recommendations for Implementation
7. Diabetes in Scotland: Current Challenges and Future Opportunities
8. Western Isles NHS Diabetes Conference, "Have Your Say", Report (2004)
9. Lothian NHS Diabetes Strategy
10. "Going the Extra Mile: The impact of Distance on Access to Diabetes Care in Rural Areas", David Hogg, (March 2005).
11. Scottish Diabetes Survey (2003) Report
12. World Health Organisation Website (accessed March 2005)
13. Designed to Care (1997)
14. QIS Diabetes Report (2004)
15. St Vincent Declaration World Health Organization (WHO) and the International Diabetes Federation (1989).
16. Our National Health: A plan for action, a plan for change.
17. HDL(2000)12 Scottish Diabetes Survey
18. HDL(2002)81 Developing Services for People with Diabetes
19. Letter from Ian Gordon on Scottish Diabetes Framework: Development of Diabetes Managed Clinical Networks (2003)
20. HDL(2003)33 Diabetic Retinopathy Screening Services
21. Review of Diabetes Materials and Resources for Ethnic Minority Communities Living in Scotland
22. Recommendations for the Provision of Services in Primary Care for People with Diabetes, Diabetes UK, 2005

NOTES



Western Isles NHS Board  
Local Diabetes Services Advisory Group and  
Managed Clinical Network

Diabetes Strategy 2005 - 2010

Published April 2005  
Further copies of this report are available from

Western Isles NHS  
Headquarters  
37, South Beach Street  
Stornoway  
Isle of Lewis HS1 2BB

Tel: (01851) 702997

[www.wihb.org.uk](http://www.wihb.org.uk)