

# DIABETES ACTION PLAN 2010

## QUALITY CARE FOR DIABETES IN SCOTLAND

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## FOREWORD



During the first decade of the 21st Century, Scotland embarked on an ambitious programme to work towards a world-class diabetes service. People with diabetes, healthcare professionals, NHS managers, research groups, the voluntary sector, Government, industry and others have come together for this purpose, in a way that has encouraged the Action Plan to describe them, with accuracy, as 'the diabetes community'.

The consultation process, *Better Diabetes Care*, that the Minister for Public Health and Sport launched during 2009, highlighted recent improvements in care, but also drew attention to the challenges that continue to face us. The questions posed in the consultation stressed the need to address the continuing rise in the number of people in Scotland with diabetes, and the urgency of reducing the adverse impact the condition has on people's lives and wellbeing, both physical and psychological.

The responses to the consultation have re-affirmed the commitment across Scotland to continue to drive up standards of care through innovation, genuine involvement of people with diabetes, research, sharing of outcome information and the promulgation of best practice. The feedback also highlighted the importance of building on previous work, considering the applicability to Scotland of best care in other countries and continuing to design our services around the needs of people living with diabetes, and in partnership with them.

I am very grateful to all those who responded to the consultation, and would like to thank in particular people with diabetes who contributed either as individuals or through focus groups organised by the voluntary sector. Diabetes UK Scotland ensured a strong patient focus in the development of this Action Plan, which makes it a good example of the Government's commitment to working with the voluntary sector. The Action Plan has also benefited from input from healthcare professionals and a range of national and international organisations. The publication earlier this year of SIGN Guideline 116 on the management of diabetes provides an added stimulus to the diabetes community to deliver quality care based on current international evidence.

The Action Plan reflects the principles of our Quality Strategy. It provides the diabetes community with the tools to realise our aim of world-class, person-centred, effective, efficient, equitable, safe and timely services for people with diabetes in Scotland.

A handwritten signature in dark ink, which appears to read 'Nicola Sturgeon'. The signature is fluid and cursive.

**Nicola Sturgeon, MSP**

**Deputy First Minister and Cabinet Secretary for Health and Wellbeing**

## LIST OF ACTIONS

CHAPTER	ISSUE	ACTION	TIMESCALE	RESPONSIBILITY	QUALITY STRATEGY
2.1	Primary prevention of type 2 diabetes	NHS Boards should take account of the Obesity Strategy Route Map in their work with Community Health Partnerships (CHPs) and NHS Boards' planning partners.		SGHD NHS Boards	Effective Equitable
2.2	Screening for type 2 diabetes	The Scottish Public Health Network recommendations on screening will be considered through further discussions with: <ul style="list-style-type: none"> <li>• Scottish Government Health Directorates;</li> <li>• NHS Boards; and,</li> <li>• Key stake holders such as the clinical biochemistry community.</li> </ul>		SGHD Directors of Public Health	Effective Efficient
3.1	Self Management	The Scottish Diabetes Group (SDG), with the diabetes MCNs, and working with local patient representatives and relevant voluntary sector organisations, will seek to identify and promote appropriate self management tools for diabetes		SDG NHS Boards through their diabetes MCNs	Person-centred Effective Safe
3.1	Self Management	SDG, through its Diabetes Care Focus Group, will monitor and review provision of information for people living with diabetes, including local and national annual overviews.		SDG	Person-centred Effective Safe
3.1	Self Management	SDG, with NHS Health Scotland and other agencies, will improve the information available, for example on cardiovascular disease, on <a href="http://www.mydiabetesmyway.scot.nhs.uk">www.mydiabetesmyway.scot.nhs.uk</a> , and increase use of the website by people with diabetes.		SDG NHS Health Scotland	Person-centred Effective Safe
3.1	People with diabetes at the centre	SCI-DC will work to increase the availability of web-based access by people with diabetes to their own diabetes clinical data. Information should be available in formats to meet different educational and language needs, and in formats for those with sensory and other disabilities.		SCI DC Steering Group	Person-centred Effective Safe
3.2	Maintaining vascular health	The Scottish Diabetes Group will support initiatives to improve vascular health, including continuing to monitor cardiovascular risk factors and the prevalence of cardiovascular disease in the annual Scottish Diabetes Survey and sharing this with all stakeholders.			Safe Effective
3.2	Maintaining vascular health	The Scottish Diabetes Group will support implementation of SIGN 116 by supporting SCI-DC initiatives to integrate information on vascular risk.			Safe Effective

CHAPTER	ISSUE	ACTION	TIMESCALE	RESPONSIBILITY	QUALITY STRATEGY
3.3	Foot care	<p>A series of initiatives will be undertaken to promote prevention of foot problems including:</p> <ul style="list-style-type: none"> <li>• Within the previous 15 months, in line with the NHS QIS clinical standards, 80% of people with diabetes should have an allocated foot risk score which should be electronically communicated to all healthcare professionals involved in the care of the patient. This score should be communicated effectively and clearly to patients.</li> <li>• All patients with low risk feet should have access to education for self management of foot care. This should be supported by the national foot care leaflets which will be available online for healthcare staff in a variety of languages.</li> <li>• The national foot care leaflets should be evaluated through patient feedback.</li> <li>• IT links are required to allow transfer of foot related information (and other information) between the national diabetes database and the main four GP systems with particular reference to transfer of foot screening information.</li> </ul>		<p>NHS Boards through their diabetes MCNs</p> <p>SDG, NHS Boards through their diabetes MCNs</p> <p>Foot Action Group SCLDC, NHS Boards through their diabetes MCNs</p>	<p>Safe</p> <p>Person-centred</p> <p>Effective</p>
3.3	Foot care	<p>Through the SDG resources that have been allocated, each NHS Board will designate an existing individual whose responsibility will be to:</p> <ul style="list-style-type: none"> <li>• educate and support podiatrists and other relevant healthcare professionals delivering diabetes care in the community and to organise up-skilling and maintenance of competencies and practical skills;</li> <li>• ensure access to the national foot care leaflets, patient education programmes, including electronic learning opportunities, to support people with diabetes in managing their foot care.</li> </ul>		<p>NHS Boards, through their diabetes MCNs</p> <p>NHS Boards, through their diabetes MCNs</p>	<p>Safe</p> <p>Person-centred</p> <p>Effective</p>
3.4	Eye care	<p>SDG will continue to support the development of the DRS collaborative and encourage links between DRS and all other stakeholders in the diabetes community.</p>		SDG	<p>Safe</p> <p>Person-centred</p> <p>Effective</p> <p>Efficient</p> <p>Equitable</p> <p>Timely</p>
3.4	Eye care	NHS Boards will consider the benefits of adopting the approach taken by the community optometry DRS pilots in NHS Highland and NHS Borders.		NHS Boards	<p>Safe</p> <p>Person-centred</p> <p>Effective</p> <p>Efficient</p> <p>Equitable</p> <p>Timely</p>

CHAPTER	ISSUE	ACTION	TIMESCALE	RESPONSIBILITY	QUALITY STRATEGY
3.5	Preventing renal disease	<p>A series of initiatives will be undertaken to promote optimal kidney function:</p> <ul style="list-style-type: none"> <li>Identify and provide information on the prevention and progression of diabetes complications for people with diabetes and renal disease/chronic kidney disease.</li> <li>The annual Scottish Diabetes Survey will report on eGFR rates through better data linkage. Target 80% by 2011.</li> <li>There should be clear pathways for referral between diabetes services and the local nephrology service.</li> <li>As part of its patient access programme, SCI-DC will work with the Renal Patient View to promote self management and ensure people with diabetes understand the significance of results.</li> </ul>	September 2011	<p>SDG Scottish Renal Registry</p> <p>Survey Monitoring Group SCI-DC NHS Boards through their diabetes MCNs SCI-DC</p>	Timely Safe Efficient
3.6	Positive pregnancy experiences	<p>NHS Boards, through their Diabetes MCNs, will ensure:</p> <ul style="list-style-type: none"> <li>awareness raising sessions on diabetic pregnancy are promoted in both primary and secondary care for healthcare professionals to improve pre-pregnancy and ante-natal diabetes care and glycaemic control in women with diabetes</li> <li>collaboration between multidisciplinary pregnancy care teams and the local Diabetic Retinopathy Screening so that systems are in place for appropriate retinal screening during pregnancy</li> <li>programmes are in place to detect and treat gestational diabetes during pregnancy.</li> </ul> <p>Following delivery those with gestational diabetes mellitus should have:</p> <ul style="list-style-type: none"> <li>lifestyle advice with the aim of reducing type 2 diabetes mellitus</li> <li>regular screening with the aim of early detection of type 2 diabetes mellitus.</li> </ul>	<p>April 2012</p> <p>September 2011</p> <p>May 2012</p> <p>September 2012</p>	<p>NHS Boards through their diabetes MCNs</p>	Safe Person-centred
3.6	Positive pregnancy experiences	<p>SDG, along with NHS Quality Improvement Scotland and other national organisations, will investigate the feasibility of repeating in 2012 the national pregnancy audit in light of SIGN Guideline 116.</p>		SDG NHS QIS	Safe Person-centred
3.7	Care for people from black and minority ethnic communities	<p>Diabetes outcomes specific to minority ethnic communities will be reported:</p> <ul style="list-style-type: none"> <li>The Scottish Diabetes Survey will produce a report on clinical outcomes for people from minority ethnic groups.</li> <li>The Scottish Diabetes Retinopathy Screening Collaborative will report to SDG through the annual Scottish Diabetes Survey with information on DRS uptake across different ethnic groups in Board areas.</li> </ul>		<p>Scottish Diabetes Survey Group</p> <p>SDRSC/SDSG</p>	Equitable Effective Person-centred



CHAPTER	ISSUE	ACTION	TIMESCALE	RESPONSIBILITY	QUALITY STRATEGY
3.7	Care for people from black and minority ethnic communities	<p>Learning from current and planned activities in supporting minority ethnic communities will inform the Action Plan over its lifetime</p> <ul style="list-style-type: none"> <li>The Diabetes Minority Ethnic Sub Group of the SDG will consider and scope the benefits of collating and reporting on best practice across NHS Boards on working cross-culturally, ensuring quality patient education and self management support and monitoring the training and support provided to healthcare professionals.</li> <li>From this the Diabetes Minority Ethnic Sub Group will report to the SDG with recommendations on taking this work forward and its value in supporting NHS Boards.</li> <li>The outcomes of the Diabetes UK Scotland Asian Community Project, funded from the Self Management Fund, will be considered in support of providing, strengthening and maintaining links between communities and the NHS.</li> <li>Through their local contacts, the diabetes MCNs will revise and update their needs analysis and review of services for minority ethnic communities.</li> </ul>	January 2013	<p>Minority Ethnic Sub Group</p> <p>Minority Ethnic Sub Group</p> <p>NHS Boards through their diabetes MCNs</p>	<p>Equitable</p> <p>Effective</p> <p>Person-centred</p>
3.8	Children, young people and families	<p>Initiatives to improve self management skills within families and communities include:</p> <ul style="list-style-type: none"> <li>A new DVD for children with type 1 diabetes will be commissioned;</li> <li>A symposium on diabetes in schools as part of a wider review of existing arrangements for diabetes in schools will be held by September 2010 following which a set of action points will be published.</li> </ul>	September 2010	<p>SDG</p> <p>SDG</p>	<p>Person-centred</p> <p>Timely</p> <p>Safe</p>
3.8	Children, young people and families	<p>Organisation of paediatric care will be reviewed at national and local levels, and:</p> <ul style="list-style-type: none"> <li>A paediatrician will be appointed to the SDG.</li> <li>Each NHS Board, through its diabetes MCN, will develop, publish and show evidence of implementation of a transitional care plan with measurable outcomes identified and reported through SDG by June 2011.</li> <li>NHS QIS will commission an audit of glycaemic control in children and adolescents.</li> </ul>	April 2011	<p>SDG</p> <p>NHS Boards through their diabetes MCNs</p> <p>NHS QIS</p>	<p>Person-centred</p> <p>Timely</p> <p>Safe</p>
3.9	The spectrum of emotional and psychological support	<p>To ensure adequate training of staff in psychological skills:</p> <ul style="list-style-type: none"> <li>The diabetes MCNs should report to the Scottish Diabetes Group the number of diabetes specialist staff who have undergone training in behaviour change and/or psychological and emotional support.</li> <li>All existing staff programmes will take account of cultural differences, in the type and presentation of psychological consequences of diabetes.</li> <li>Patient feedback on the support and signposting received in relation to emotional support should be collected to inform the development of staff training and to measure the impact such training delivers.</li> </ul>	<p>September 2010 ongoing</p> <p>May 2011</p> <p>October 2011</p>	<p>NHS Boards through their diabetes MCNs/SDG</p> <p>NHS Boards through their diabetes MCNs</p> <p>NHS Boards through their diabetes MCNs</p>	<p>Person-centred</p> <p>Safe</p>

CHAPTER	ISSUE	ACTION	TIMESCALE	RESPONSIBILITY	QUALITY STRATEGY
3.9	The spectrum of emotional and psychological support	<p>To develop and share effective national initiatives:</p> <ul style="list-style-type: none"> <li>• Three meetings a year of the new psychology appointees will be supported to ensure coordinated developments and best practice is shared (responsibility: Diabetes Psychology Working Group; SGHD);</li> <li>• The Diabetes Psychology Working Group will share learning gained with the Living Better Project and the Long Term Conditions Unit.</li> <li>• Lessons from the PID PAD pilot, including patient feedback, should be acted upon by NHS Boards through diabetes MCNs.</li> <li>• MCNs, with local voluntary and other agencies, will carry out analysis of resources for emotional support for people with diabetes. Diabetes UK Scotland will work with the Network Managers to develop a mechanism for recording emotional support resources in their areas.</li> <li>• Further development of the buddy service nationally will be considered.</li> <li>• Ways of underpinning the financial sustainability of a national emotional support service will be explored, and links developed with NHS 24, to ensure that people who would benefit from Carline Scotland will be referred.</li> </ul>	<p>April 2013</p> <p>April 2012</p>	<p>Diabetes MCNs Psychology Working Group Psychology Working Group SGHD NHS Boards through their Diabetes MCNs</p> <p>Diabetes UK Scotland MCNs SDG</p> <p>Diabetes UK Scotland NHS 24</p>	<p>Person-centred Safe</p>
3.10	Structured education	<p>All patients should have access to structured education programmes that are quality assured, in line with NICE criteria, within three months of diagnosis. National initiatives on education will support local provision by:</p> <ul style="list-style-type: none"> <li>• A national education coordinator will be appointed to work with the diabetes MCNs in the implementation of the patient and professional diabetes education frameworks.</li> <li>• The Diabetes Education Network (DEN) Scotland will have a representative on SDG and will become a subgroup of the Diabetes Education Advisory Group (DEAG). DEN will have responsibility for developing the national framework for diabetes patient education.</li> <li>• After the first year of reviewing structured education provision the SDG, in consultation with DEN and the Diabetes Care Focus Group (DCFG), will set milestone targets for subsequent years.</li> </ul>		<p>NHS NES SDG Diabetes Education Advisory Group</p> <p>DEN DEAG</p> <p>SDG DEN DCFG</p>	<p>Person-centred Effective</p>
3.10	Structured education	<p>The national education co-ordinator will work with the diabetes MCNs in the implementation of a training and education strategy, including:</p> <ul style="list-style-type: none"> <li>• Reviewing structured education for people with type 2 diabetes and complete the national framework for the education of people with type 1 diabetes;</li> <li>• Supporting the diabetes MCNs to identify and promote effective educational tools, programmes and modules.</li> </ul>			

CHAPTER	ISSUE	ACTION	TIMESCALE	RESPONSIBILITY	QUALITY STRATEGY
3.10	Structured education	<p>Education will be improved at a local level, through:</p> <ul style="list-style-type: none"> <li>Each diabetes MCN identifying an individual who will have responsibility and the skills for ensuring delivery of local patient education programmes.</li> <li>Each diabetes MCN ensuring the provision of a range of education solutions, including quality assured structured education programmes to all people with diabetes.</li> <li>Each diabetes MCN undertaking/commissioning user impact and/or experience measures in relation to patient education.</li> <li>Clinical records documenting participation levels in self management programmes. This information will also be recorded in the electronic record.</li> <li>Reporting for the Scottish Diabetes Survey the percentage of people in each level of self management programmes.</li> </ul>	<p>April 2011</p> <p>December 2011</p> <p>June 2012</p> <p>April 2011</p>	<p>NHS Boards through their diabetes MCNs</p> <p>NHS Boards through their diabetes MCNs SDG</p>	<p>Person-centred</p> <p>Effective</p>
3.11	Insulin therapy	The SDG will prioritise the recommendations from the type 1 diabetes SLWG report as part of developing services for those with type 1 diabetes.		SDG	Safe Timely
3.11	Insulin therapy	Local insulin strategies will be reviewed for people with type 1 and 2 diabetes.	June 2011	NHS Boards through their diabetes MCNs	Safe Timely
3.11.1	Intensive insulin therapy in people with type 1 diabetes	<p>People with diabetes who could benefit from intensive insulin therapy should have access to structured education programmes as documented in section 3.10. In particular:</p> <ul style="list-style-type: none"> <li>Patients will receive carbohydrate counting instruction prior to initiation of intensive insulin regimens.</li> <li><a href="http://Mydiabetesmyway.scot.nhs.uk">Mydiabetesmyway.scot.nhs.uk</a> will include a section on intensive insulin therapy.</li> </ul>			Safe Timely
3.11.1	Intensive insulin therapy in people with type 1 diabetes	<p>The availability of insulin pump therapy for those who would benefit from it will be promoted by:</p> <ul style="list-style-type: none"> <li>Including in the Scottish Diabetes Survey figures on pump usage;</li> <li>Arranging further national pump awareness days;</li> <li>The SDG commissioning waiting times criteria for insulin pump therapy in line with national criteria and make recommendations for a consistent approach across the country.</li> <li>Scottish Government Health Directorates scoping the implications of putting pumps and associated consumables onto the National Drug Tariff.</li> </ul>	<p>October 2010</p> <p>October 2010</p>	<p>SDSG</p> <p>SDG</p> <p>SDG</p> <p>SGHD</p>	<p>Safe</p> <p>Timely</p>
3.12.1	Out-of-hours care	The Scottish Diabetes Group will work with NHS 24 to improve NHS 24's services for people with diabetes, in particular by exploring the possibility of NHS 24 developing a dedicated diabetes pathway.		SDG NHS 24	Timely Safe Effective
3.12.1	Out-of-hours care	The Scottish Diabetes Group will explore with other organisations optimal use of the Emergency Care Summary.		SDG	Timely Safe Effective

CHAPTER	ISSUE	ACTION	TIMESCALE	RESPONSIBILITY	QUALITY STRATEGY
3.12.3	Diabetic ketoacidosis	<p>The incidence of hypoglycaemia that result in emergency admissions will be reduced by:</p> <ul style="list-style-type: none"> <li>supporting the development of interventions to improve post-hypoglycaemia patient support through enhanced communication.</li> <li>NHS Boards, through their diabetes Managed Clinical Networks, reviewing the care pathway of people who experience severe hypoglycaemia.</li> </ul>	December 2010	<p>SAS SDG</p> <p>NHS Boards, through their diabetes MCNs</p>	Safe Timely
3.12.3	Diabetic ketoacidosis	<p>Incidence and care of diabetic ketoacidosis will be improved by:</p> <ul style="list-style-type: none"> <li>The SDG and SGHD exploring the roll-out of a diabetic ketoacidosis awareness campaign for children with undiagnosed diabetes;</li> <li>NHS Boards, through their diabetes Managed Clinical Networks, reviewing care pathways for the presentation and management of DKA throughout the whole episode;</li> <li>NHS QIS commissioning a national audit of Diabetic Ketoacidosis; and</li> <li>The Diabetes Education Advisory Group overseeing the roll out of care bundles for Diabetic ketoacidosis.</li> </ul>	December 2010	<p>SDG SGHD</p> <p>NHS Boards, through their diabetes MCNs NHS QIS</p> <p>Diabetes Education Advisory Group</p>	Safe Timely
3.13.1	Safe and effective management of diabetes in hospital	<p>The Diabetes Education Advisory Group and the Inpatient Working Group will coordinate several initiatives to improve care for inpatients:</p> <ul style="list-style-type: none"> <li>They will consider, for implementation in Scotland, UK documents produced by Joint British Diabetes Societies e.g. on the hospital management of hypoglycaemia in adults with diabetes and the standards of care for people with diabetes undergoing surgery and elective procedures.</li> <li>They will consider the suitability of the Think Glucose programme for implementation in Scotland.</li> <li>The diabetes MCNs will develop foot protection programmes for patients with diabetes on general hospital wards.</li> </ul>			Safe Effective
3.13.1	Safe and effective management of diabetes in hospital	<p>The diabetes Managed Clinical Networks will develop mechanisms to record the number of inpatient wards in general hospitals with specific guidelines for the management of hypoglycaemia.</p>	June 2012	<p>NHS Boards through their diabetes MCNs</p> <p>NHS Boards through their diabetes MCNs</p>	Safe Effective
3.13.2	Care homes and non-NHS settings	<p>NHS Boards, through their diabetes Managed Clinical Networks, will take steps to improve the local provision of education to the wider community, voluntary and independent sector staff working in day care and institutional settings. This will include:</p> <ul style="list-style-type: none"> <li>Undertaking an assessment of educational needs of staff in non-NHS care settings;</li> <li>Giving day care, home care and care staff access to educational events.</li> </ul>	December 2010	DEAG	Equitable Person-centred

CHAPTER	ISSUE	ACTION	TIMESCALE	RESPONSIBILITY	QUALITY STRATEGY
4.1	Ensuring quality care	<p>Implementation of research-based high quality clinical practice will be supported by:</p> <ul style="list-style-type: none"> <li>NHS Boards, through their diabetes Managed Clinical Networks, updating their local clinical guidelines in the context of SIGN Guideline 116;</li> <li>The diabetes Managed Clinical Networks actively promoting and reporting the number of patients registered on the SDRN research register as part of the annual Scottish Diabetes Survey to support the SDRN target of increasing recruitment to trials by 12.5% each year;</li> <li>NHS Quality Improvement Scotland implementing a diabetes improvement programme based on SIGN Guideline 116, using the diabetes Managed Clinical Networks as the mechanism;</li> <li>Diabetes UK Scotland, in consultation with the Diabetes Care Focus Group, asking the 'Better Together' Team to ensure appropriate representation of people with diabetes in taking forward its long term conditions module;</li> <li>The Chief Scientist Office, through its Experimental and Translational Medicine Research Committee, continuing to support diabetes research..</li> </ul>	<p>December 2010</p> <p>September 2010</p>	<p>NHS Boards, through their diabetes MCNs</p> <p>NHS QIS</p> <p>Diabetes UK Scotland Diabetes Care Focus Group</p> <p>Chief Scientist Office</p>	<p>Equitable</p> <p>Effective</p> <p>Efficient</p> <p>Safe</p> <p>Timely</p> <p>Person-centred</p>
4.1	Ensuring quality care	<p>To ensure the SDG and linked organisations such as the SDRN, as well as diabetes Managed Clinical Networks, are able to communicate effectively, a communications strategy will be developed, including:</p> <ul style="list-style-type: none"> <li>The DIS (<a href="http://Diabetesinscotland.org.uk">Diabetesinscotland.org.uk</a>) website communicating progress of the implementation of the Diabetes Action Plan through an annual report from the Scottish Diabetes Group;</li> <li>Each diabetes Managed Clinical Network hosting an event for people living with diabetes to raise awareness of local services and research. This could be done in partnership with the local voluntary sector;</li> <li>SDG and the diabetes Managed Clinical Networks considering how existing diabetes care information/resources can be effectively disseminated amongst other agencies/third party organisations. These resources will be developed and evaluated through effective patient engagement.</li> </ul>	<p>August 2011</p> <p>April 2011</p>	<p>SDG</p> <p>SDG</p> <p>diabetes MCNs</p> <p>SDG</p> <p>diabetes MCNs</p>	<p>Equitable</p> <p>Effective</p> <p>Efficient</p> <p>Safe</p> <p>Timely</p> <p>Person-centred</p>
4.2	Professional development	<p>Each diabetes Managed Clinical Network will identify an individual with responsibility for coordinating diabetes education. That person will:</p> <ul style="list-style-type: none"> <li>review the specific diabetes learning needs of staff;</li> <li>promote educational initiatives to suit all staff across primary and secondary care;</li> <li>compile a database of staff training, linking to the long term conditions education database maintained by NES;</li> <li>ensure training programmes recognise the differences between different cultural and social groups.</li> </ul>	<p>January 2011</p>	<p>NHS Boards through their diabetes MCNs</p> <p>NHS NES</p>	<p>Safe</p> <p>Effective</p>

CHAPTER	ISSUE	ACTION	TIMESCALE	RESPONSIBILITY	QUALITY STRATEGY
4.2	Professional development	The SDG and the diabetes Managed Clinical Networks will consider how to share best practice, such as the CARE measure, in delivering person-centred consultations. This should link to the wider long-term conditions environment to promote the spread and sustainability of best practice.	January 2013	SDG, NHS Boards through their diabetes MCNs	Safe Effective
4.2	Professional development	The SDG, through its Diabetes Education Advisory Group, will ensure that healthcare professionals have access to the training and support required to deliver high quality patient-centred care.		SDG Diabetes Education Advisory Group	Safe Effective
5.1.2	Involving people living with diabetes	Diabetes MCNs should ensure that people living with diabetes are fully engaged in the MCN's activities by: <ul style="list-style-type: none"> <li>demonstrating, in their annual reports, the impact of patient involvement on how local services have been developed and/or improved;</li> <li>recording and reporting in their annual reports the number of people who have attended a Diabetes Voices course.</li> </ul>	April 2011 June 2011	NHS Boards through their diabetes MCNs NHS Boards through their diabetes MCNs	Person-centred Effective
5.1.2	Involving people living with diabetes	The Diabetes Voices programme will be reviewed, updated and rolled out further.		Diabetes UK Scotland	Person-centred Effective
5.1.3	Diabetes Managed Clinical Networks	NHS Boards will maintain the effectiveness of the diabetes MCNs, in particular by ensuring proper engagement of the MCNs in Boards' planning of future patient-centred service developments.		NHS Boards	Equitable Effective Efficient
5.1.3	Diabetes Managed Clinical Networks	NHS QIS will work with diabetes MCNs on developing a quality improvement programme and on the continuous review of diabetes care.		NHS QIS NHS Boards through their diabetes MCNs	Equitable Effective Efficient
5.1.3	Diabetes Managed Clinical Networks	The MCN Lead Clinicians' group and MCN Managers' groups will continue to meet regularly to: <ul style="list-style-type: none"> <li>share expertise and best practice</li> <li>advise SDG in strategy development</li> <li>collaborate with other members of SDG, including Diabetes UK Scotland and the Diabetes Care Focus Group.</li> </ul>		MCN Lead Clinicians' group MCN Managers' group	Equitable Effective Efficient
5.1.3	Diabetes Managed Clinical Networks	NHS Boards will accredit their diabetes MCN where this has not already been done.	September 2012	NHS Boards	Equitable Effective Efficient

CHAPTER	ISSUE	ACTION	TIMESCALE	RESPONSIBILITY	QUALITY STRATEGY
5.1.4	Remote and rural care	Diabetes MCNs will explore telehealth opportunities and consider how telehealthcare solutions can be embedded into the pathways of people with diabetes.	January 2013	NHS Boards through their diabetes MCNs	
5.1.4	Remote and rural care	Diabetes MCNs will develop effective links with community pharmacy services. NHS Boards, through their diabetes MCNs and CHPs, will ensure that people with diabetes and their carers get access to a range of support at local level, including voluntary groups, peer support and events.	December 2010 August 2012	NHS Boards through their diabetes MCNs	
5.1.5	Optimal use of information technology	Optimal sharing of clinical information will be promoted through the increased use of NHS Boards' diabetes databases during routine clinical care.		NHS Boards	Effective Efficient Person-centred
5.1.5	Optimal use of information technology	Ensure that the electronic diabetes systems meet the needs of users and record and store clinical data in 70% of clinical encounters relating to foot ulcer, paediatric diabetes, dietetic and DSN reviews.		NHS Boards	Effective Efficient Person-centred
5.1.5	Optimal use of information technology	To maximise the use of the diabetes care system by patients to enhance self management and improve patient/professional communication: <ul style="list-style-type: none"> <li>The Scottish Diabetes Group will support the development of a Patient Held Record Project in partnership with Diabetes UK to start in 2010.</li> <li>There will be an increase in the number of patients directly accessing their own data electronically.</li> </ul>		SDG Diabetes UK	Effective Efficient Person-centred
5.1.5	Optimal use of information technology	To ensure current existing diabetes system functionality is maintained within each NHS Board and integrated into existing and future systems: <ul style="list-style-type: none"> <li>further integration will be encouraged between NHS Boards' diabetes databases, non-diabetes registers and currently operating relevant systems such as primary care and emergency care summary.</li> </ul>		NHS Boards	Effective Efficient Person-centred

# 1. INTRODUCTION

This Action Plan is a continuation of the range of work set out in the *Scottish Diabetes Action Plan* published in 2006. The importance of continuity of effort was one of the main messages to emerge from the consultation process undertaken between June and August 2009. The *Better Diabetes Care* consultation document ([www.scotland.gov.uk/diabetes](http://www.scotland.gov.uk/diabetes)) was widely distributed and made available online. The Scottish Diabetes Group (SDG), also provided funding to Diabetes UK Scotland to drive the consultation process through a national survey of people living with diabetes and a series of local and national events.

Over 85 organisations and many individuals responded to the consultation with a range of thoughtful and valuable views. All responses were analysed and collated by the most relevant sub group of the SDG. All sub groups are multidisciplinary and include representation by people living with diabetes. In addition the SDG had access to and advice from reports produced by the Scottish Public Health Network ([www.scotphn.net](http://www.scotphn.net)), the diabetes Managed Clinical Networks ([www.diabetesinscotland.org.uk](http://www.diabetesinscotland.org.uk)), the SIGN Guideline development group ([www.sign.ac.uk/guidelines/fulltext/116/index.html](http://www.sign.ac.uk/guidelines/fulltext/116/index.html)) and the Type 1 Diabetes Short Life Working Group. Grateful thanks are due to the individuals and organisations who contributed over the last few months. They are listed in Appendix 1. The organisational and individual responses are available on the Scottish Government website ([www.scotland.gov.uk](http://www.scotland.gov.uk)) and provide the basis for this Action Plan.

In this Action Plan, we have suggested the use of the expression 'the diabetes community' as a convenient way of indicating the interests uniting people living with diabetes, healthcare professionals and voluntary sector organisations. When the word 'we' is used later in the Action Plan, it should be understood as meaning 'the diabetes community'. Implementation of this Action Plan depends on continued collaboration between all groups within the diabetes community and interactions with other national and international organisations.

## Background

Diabetes mellitus, recognised by a raised blood glucose level, is the most common disorder of metabolism. Over 228,000 people, or one in twenty-five of the Scottish population, have been diagnosed with the condition, and an estimated 20,000 remain undiagnosed ([www.scotpho.org.uk](http://www.scotpho.org.uk)).

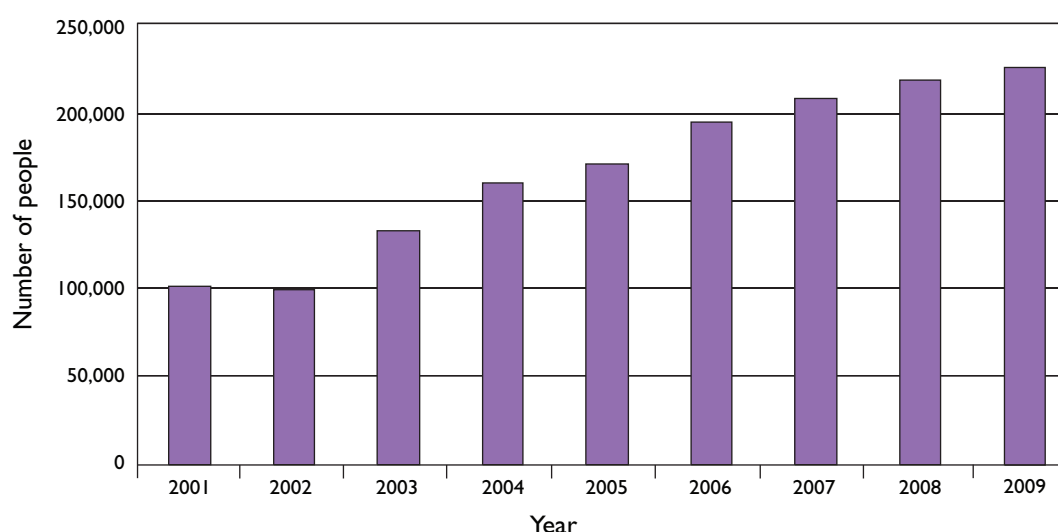
There are two main types of diabetes. About 13%, or over 27,000 people in Scotland, have type 1 diabetes. This develops when there is a severe lack of insulin in the body because most or all of the cells in the pancreas that produce insulin have been destroyed. People with type 1 diabetes therefore need to inject insulin from the time of diagnosis. Type 1 diabetes is one of the commonest long term conditions affecting children and adolescents in Scotland, which has one of the highest prevalence rates of type 1 diabetes in Europe.



Type 2 diabetes develops when the body can still produce some insulin, though not enough for its needs, or when the insulin that the body produces does not work properly. Type 2 diabetes usually appears in people over the age of 40 and its rise in prevalence is closely linked to rising obesity levels, the aging population and reduced activity. Most people with type 2 diabetes manage to control blood glucose levels with lifestyle changes and oral medication, but some may also require insulin therapy.

Since the previous Action Plan was published in 2006, Scotland has continued to see a steady increase in the prevalence of diabetes (Fig. 1). Although much of the rise can be attributed to better monitoring and data collection, it still represents a serious concern. This undesirable trend reflects what is happening in the rest of the UK and in other parts of the world. The number of people with type 2 diabetes in Scotland is currently increasing at a rate of 4% per year.

**Fig. 1. Prevalence of diabetes in Scotland**



Source: SDS 2009 ([www.diabetesinscotland.org.uk/publications](http://www.diabetesinscotland.org.uk/publications))

Diabetes has been recognised for at least the last 10 years as an exemplar long term condition, both in terms of the growing number of people with type 2 diabetes and in terms of the serious and expensive complications it can bring in its train. Maintaining and improving the quality of diabetes services against a backdrop of increased incidence and prevalence, and the consequent pressure on those services, forms the key challenge facing NHSScotland.

Diabetes care is thought to account for some 10% of all NHS expenditure; this high level of investment emphasises the importance of ensuring care is in line with cost-effective and evidence-based treatment.

Some of type 2 diabetes can be prevented or its onset delayed. Prevention of type 2 diabetes, and the avoidance of complications in those with the condition would be extremely cost-effective, but even more importantly would contribute greatly to quality of life.

The Scottish Diabetes Research Network (SDRN) epidemiology group has found that between 2001 and 2007, mortality was higher among people with diabetes than the general population by about 10% for men and about 25% for women. The excess risk of diabetes appears to have fallen in recent years and is at least partly explained by more effective treatment of diabetes, hypertension and dyslipidaemia.



The prevalence of both types of diabetes here, compared with rates in other countries, suggests the need for even stronger action in Scotland. The publication of the Quality Strategy, with its ambition for world-class healthcare, encourages us to aim for services for people with diabetes that at least match the best that can be found anywhere else in the world.

## The Quality Strategy for NHSScotland



This Diabetes Action Plan contributes to the Scottish Government's Quality Strategy, which sets out the measureable and achievable actions that relate to the key drivers of healthcare quality.

The Institute of Medicine's six 'dimensions of quality' are the key foundation of systems-based healthcare quality improvement:

- **Person-centred:** providing care that is responsive to individual personal preferences, needs and values and assuring that patient values guide all clinical decisions
- **Safe:** avoiding injuries to patients from care that is intended to help them
- **Effective:** providing services based on scientific knowledge
- **Efficient:** avoiding waste, including waste of equipment, supplies, ideas, and energy
- **Equitable:** providing care that does not vary in quality because of personal characteristics such as gender, ethnicity, geographic location or socio-economic status
- **Timely:** reducing waits and sometimes harmful delays for both those who receive care and those who give care.

Each of the actions set out within this Plan contains an indication of the 'dimensions of quality' to which it relates, in terms of the care of people with diabetes.

Other drivers of improvements in services specific to diabetes are:

- the diabetes clinical standards published by NHS Quality Improvement Scotland in October 2002;
- the criteria in the diabetes domain of the Quality and Outcomes Framework (QOF) in the new GMS contract; and
- the SIGN Guideline 116 on the management of diabetes.

A key aspect of achieving the aim of world-class diabetes services will be the creation of a properly mutual NHS, one in which people living with diabetes feel able to take a leading role in their healthcare. Healthcare professionals have a vital role in encouraging confidence and enabling self management in every interaction. This requires an ability to communicate well in consultations, using words that are easy to understand.

## 2. MAINTAINING HEALTH AND WELLBEING

### Improving the health of people with diabetes in Scotland and reducing health inequalities

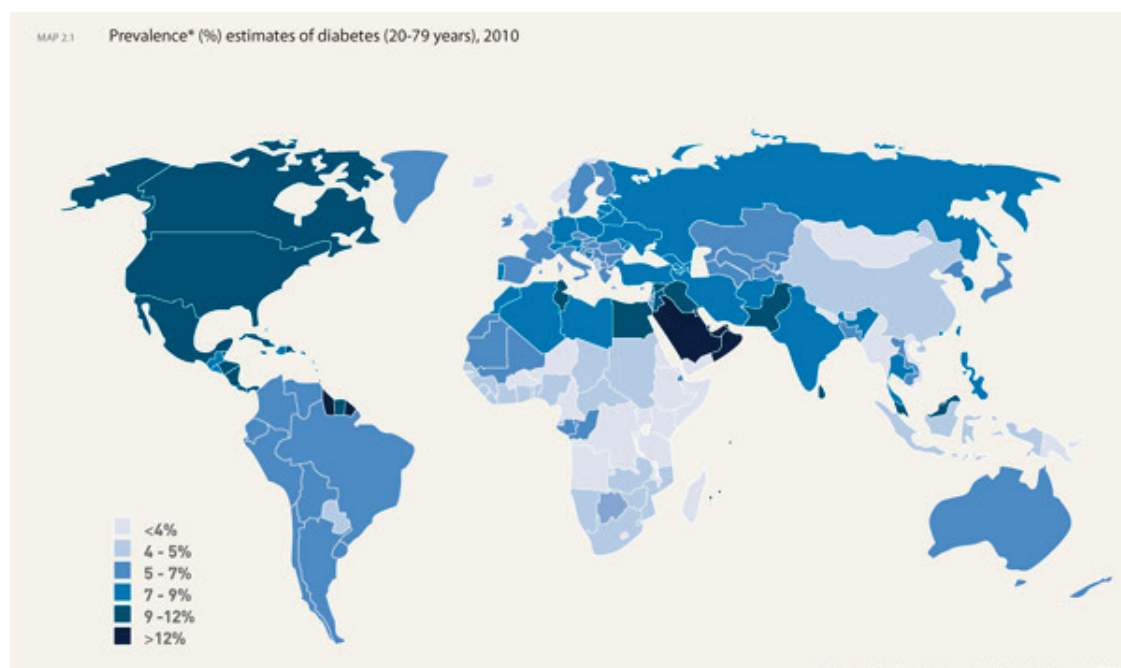
#### 2.1 Primary prevention of type 2 diabetes

##### **Where we want to be:**

We want to reduce the rate of increase of prevalence of type 2 diabetes in Scotland.

##### **Why we want to be there:**

We want to improve the health of people in Scotland and reduce the burden of ill health caused by diabetes.



#### **Obesity**

We know that being overweight seriously increases an individual's chance of developing type 2 diabetes. The Scottish Diabetes Survey found that over 80% of people with the condition are overweight or obese. Scotland, in line with much of the rest of the world, is experiencing an obesity epidemic, with one of the highest rates of any Organisation for Economic Cooperation and Development (OECD) country.

It is clear that population-level interventions to stabilise and then reverse obesity trends are probably the single biggest factor in reducing the incidence of type 2 diabetes. This challenge has been taken up by the Scottish Government and the Convention of Scottish Local Authorities (COSLA) through the development and delivery of an *Obesity Route Map* (<http://www.scotland.gov.uk/Publications/2010/02/17140721/0>), published in March 2010. The Route Map recognises that obesity cannot be viewed simply as a health issue, and cannot be solved by reliance on individual behaviour change. Tackling obesity successfully will require change across the whole of society; this will involve collaboration and investment across Government and across sectors to make deep, sustainable changes to our living environment in order to shift it from one that promotes weight gain to one that supports healthy choices and healthy weight for all.

There is very good evidence that diet and physical activity changes can reduce the risk of cardiovascular disease and diabetes.

A population strategy for the prevention of cardiovascular disease and for type 2 diabetes should focus on diet and increased physical activity so that the risk factors are reduced in the whole population in all age groups.

The Scottish Government Health Directorates are aware of the health impact of all policies which influence diet and activity. An approach combining the medical model (screening, detection and treatment of individual people with lifestyle intervention) and the public health model (changing the behaviour and risks of the population by public health measures such as promoting healthy eating and physical activity, and hence weight control) is required. This includes reducing the progression to diabetes of people with impaired glucose tolerance.<sup>1</sup> The Scottish Government has already identified a national indicator to 'reduce the rate of increase in the proportion of children with their body mass index outwith a healthy range by 2018'. A further indicator is being developed to cover the whole population, in addition to identifying a series of milestones that must be met if we are to reverse obesity trends.

### **Action we will take:**

**NHS Boards should take account of the Obesity Strategy Route Map in their work with Community Health Partnerships (CHPs) and NHS Boards' planning partners.**

Responsibility: Scottish Government Health Directorates, NHS Boards.

Quality Healthcare Dimensions: effective and equitable.

## **2.2 Screening for type 2 diabetes**

### **Where we want to be:**

We want to detect and diagnose diabetes earlier in order to prevent, so far as possible, complications.

### **Why we want to be there:**

Research shows that there is a long, asymptomatic phase in which the condition can, however, be detected. Up to 50% of people diagnosed with type 2 diabetes present with complications at diagnosis. Impaired glucose tolerance (IGT) and non-diabetic hyperglycaemia (NDH) are associated with increased risk of premature cardiovascular disease. Early treatment may reduce progression to diabetes.

<sup>1</sup> A number of studies of the cost-effectiveness of intervention to reduce progression to diabetes in people with impaired glucose tolerance have been published. People with impaired glucose tolerance, after an oral glucose tolerance test, or non-diabetic hyperglycaemia, identified by HbA<sub>1c</sub>, should reduce calorie intake to achieve weight loss, and should increase their levels of physical activity. Most conclude that it is cost-effective, and in some scenarios, cost saving. One of the key factors in cost-effectiveness analysis is adherence to lifestyle changes.

It is estimated that over 20,000 people<sup>2</sup> with diabetes remain undiagnosed in Scotland. Further action is needed to ensure that people with diabetes are identified earlier.

In Scotland, screening for diabetes and non-diabetic hyperglycaemia (NDH) should be integrated into NHS Board population-based vascular screening plans. An implementation plan for vascular risk assessment in Scotland is needed and the diabetes screening element should be included in that plan. The screening strategy should include risk factor assessment and blood tests.

### **SCOTTISH PUBLIC HEALTH NETWORK REPORT ON TYPE 2 DIABETES**

*The Scottish Public Health Network's draft report has advised that HbA<sub>1c</sub> be used as the preferred screening test for diabetes. This approach has been cleared by the National Screening Committee as being consistent with the vascular screening programme across the rest of the UK and with international work. The best alternative is fasting glucose. Random blood glucose is not recommended for screening for diabetes and SIGN Guideline 97 on risk estimation and prevention of cardiovascular disease should be updated accordingly. Random glucose measurement remains a satisfactory way of confirming a clinical diagnosis in a symptomatic patient.*

*The report has also recommended that in asymptomatic individuals an HbA<sub>1c</sub>  $\geq$  48mmol/mol (6.5%) should be repeated. A repeat level of  $\geq$  48mmol/mol confirms type 2 diabetes mellitus. Those with an elevated HbA<sub>1c</sub>  $\geq$  39mmol/mol (5.7%) but not meeting diagnostic criteria for diabetes should be classified as having non-diabetic hyperglycaemia (NDH) and should be offered intensive lifestyle intervention. In those with initial HbA<sub>1c</sub>  $<$  39mmol/mol screening with an HbA<sub>1c</sub> should be repeated every five years as part of cardiovascular screening.*

*These recommendations are under review (August 2010).*

Methods of raising public awareness of screening programmes and the benefits of screening need to be explored. As the basis of that work, the Health Directorates should look at lessons arising from existing programmes such as the 'Keep Well' and 'Well North' programmes, which relate to cardiovascular disease risk, including diabetes, using the ASSIGN risk calculator as recommended by SIGN Guideline 97. Screening for type 2 diabetes also needs to link to the 'Life Begins' health checks, which aim to allow everyone when reaching 40 to undertake a general assessment of their health.

2 Source: Public Health Observatories/Brent/SchARR (PBS) model and Scottish Diabetes Survey 2008.  
[http://www.scotpho.org.uk/home/Healthwell-beinganddisease/Diabetes/Data/diabetes\\_undiagnosed.asp](http://www.scotpho.org.uk/home/Healthwell-beinganddisease/Diabetes/Data/diabetes_undiagnosed.asp)

**Action we will take:**

**The Scottish Public Health Network recommendations on screening will be considered through further discussions with:**

- **Scottish Government Health Department Directorates;**
- **NHS Boards; and**
- **Key stakeholders such as the clinical biochemistry community.**

Responsibility: SGHD, Directors of Public Health.

Quality Health Care Dimensions: effective and efficient.



### 3. QUALITY HEALTHCARE FOR ALL

#### **Improving the quality of healthcare and healthcare experience and developing a mutual NHS – offering the people with diabetes in Scotland a world-class service and a stronger voice in service improvement**

We recognise that people's experience of the NHS is about more than speedy treatment: it is the quality of care they get that matters most to them. It will be important to measure the experience of patients and use the information to drive up standards. Patients will be encouraged to be partners in their own care and can expect to experience improvements in the things people have said they want from their health service:

- Caring and compassionate treatment
- Clear communication and explanation
- Effective collaboration with the clinician
- Clean and safe care environment
- Continuity of care
- Clinical excellence

These principles are integral to diabetes care across Scotland.

#### **3.1 Putting people with diabetes at the centre**

##### **Where we want to be:**

We want people living with diabetes to be regarded as leading partners in their care, and to be supported to manage their own condition effectively.

Quality of care will be measured by the degree of person-centredness achieved.

##### **Why we want to be there:**

People with diabetes manage their own condition for at least 95% of the time. The key to putting people with diabetes at the centre is ensuring a partnership approach between people with diabetes and their healthcare teams.

Creating diabetes services with good, effective communication between people with diabetes and healthcare professionals, and which promotes self management, is a core element of this action plan.

Effective self management is dependent on access to easily understood information, quality education and access to psychological and emotional support. We also need to recognise the contribution of unpaid carers in developing self management skills. In its survey, Diabetes UK Scotland found that over 22% of all carers said they did not have enough support in place.

Over the next three years, we expect to see improvements for people with diabetes arising from long term conditions work generally and, in particular, implementation of the principles of self management as set out in *Gaun Yersel'* ([www.ltcas.org.uk/self\\_man\\_gaun.html](http://www.ltcas.org.uk/self_man_gaun.html)), the self management strategy for Scotland, and the actions on self management in the Long Term Conditions Action Plan ([www.sehd.scot.nhs.uk/mels/CEL2009\\_23.pdf](http://www.sehd.scot.nhs.uk/mels/CEL2009_23.pdf)) (June 2009). We will encourage the diabetes community to share their experience by contributing to the generic self management programmes associated with long term conditions while at the same time supporting diabetes-specific work on self management.

Self management cannot be supported by the NHS alone. The third sector provides support to people with long term conditions and has a key part to play in supporting self management strategies.

People with diabetes need to be able to find local sources of support to help them manage. The Scottish Government's self management work includes an initiative, Access to Local Information to Support Self Management (ALISS). This innovative project is developing an electronic means for people to contribute and support each other in their communities. This can include, for instance, sharing details of support groups, self management programmes, patient education provision, emotional support, carer and family support and telehealth resources. The ALISS methodology will have clear benefits for people with diabetes, given the degree to which they have to manage their own condition.



### Information for people living with diabetes

Access to relevant and timely information is essential to support people with diabetes to manage their condition successfully. This Action Plan is committed to ensuring that this happens. Attention should be paid to the level of understanding of each person with diabetes, in particular whether they have adjusted to their diagnosis. Literacy and numeracy are especially important in self managing the technical aspects of monitoring and understanding the medicines used in diabetes. People with poor literacy levels generally have poorer health status and are 1.5 to 3 times more likely to experience poor health outcomes, as they have less knowledge of self management and health-promoting behaviours.

We need to see a consistent approach to the development of high quality patient information across NHS Boards. This approach can involve partner organisations like Diabetes UK Scotland and the Juvenile Diabetes Research Foundation. Key priorities are:

- making information available to patients and their families and carers in language they can understand;
- the need to develop links with NHS Inform;
- developing links with NHS Carer Information Strategies;
- the development of the *My Diabetes My Way* website to become a key resource for people with diabetes; and
- a particular focus on meeting the needs of those communities and individuals who have traditionally found it harder to engage with health services.

### Actions we will take:

#### **The Scottish Diabetes Group will support initiatives to improve self management:**

- SDG, will work with the diabetes MCNs, local patient representatives and relevant voluntary sector organisations to identify and promote appropriate self management tools for diabetes (responsibility: SDG/MCNs)
- SDG, through its Diabetes Care Focus Group, will monitor and review provision of information for people living with diabetes, including local and national annual overviews
- SDG, with NHS Health Scotland and other agencies, will improve the information available, for example on cardiovascular disease, on [www.mydiabetesmyway.scot.nhs.uk](http://www.mydiabetesmyway.scot.nhs.uk), and increase use of the website by people with diabetes
- SCI-DC will work to increase the availability of web-based access by people with diabetes to their own diabetes clinical data. Information should be available in formats to meet different educational and language needs, and in formats for those with sensory and other disabilities.

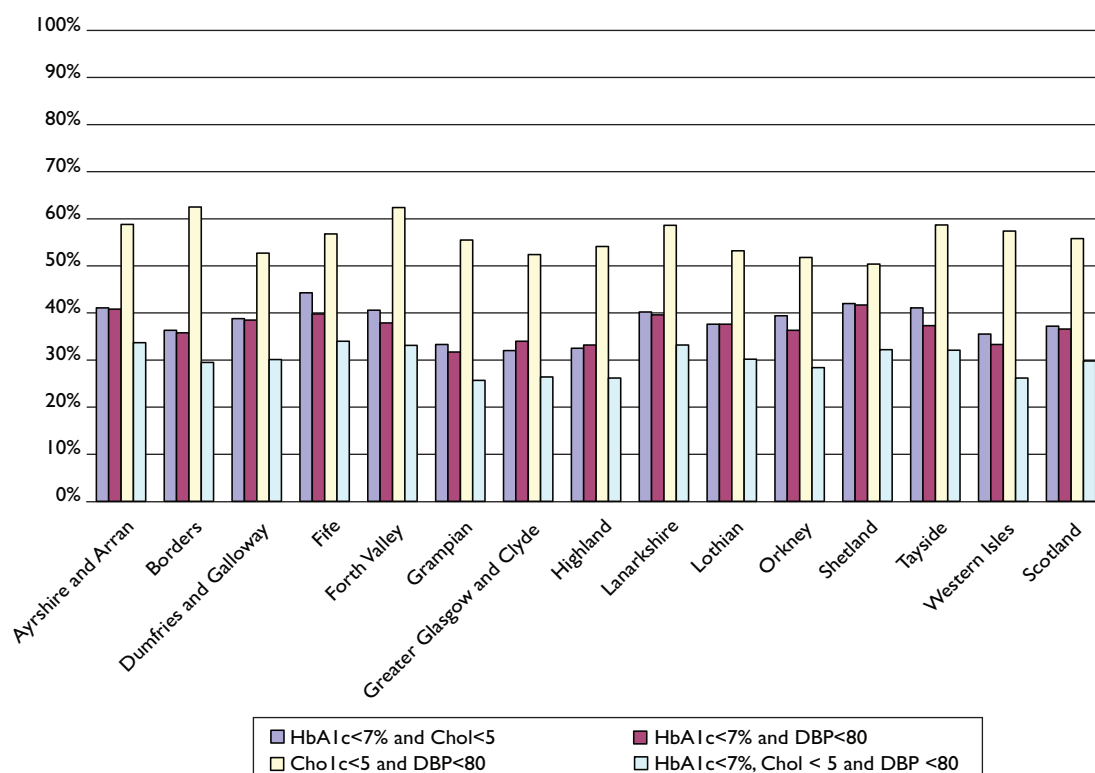
Quality Healthcare Indicators: person-centred; effective; safe.

## 3.2 Maintaining vascular health

### Where we want to be:

We want to promote an increase in the numbers of people with diabetes who achieve recommended targets for glycaemic control, blood pressure and cholesterol (Fig. 3) and a reduction in the incidence of cardiovascular events.

Figure 3. Percentage of patients reaching targets for HbA<sub>1c</sub>, BP and total cholesterol – type 2 – by NHS Board



### Why we want to be there:

Morbidity and mortality from cardiovascular disease (CVD) are thought to be between 1.52 to 4.33 times higher in people with diabetes compared to the general population. The relative risk of cardiovascular disease is particularly high in women with type 1 diabetes diagnosed under the age of 40.

Scotland is able to capture important research information through effective use of information technology. The Scottish Diabetes Research Network Epidemiology Group found that, between 2001 and 2007, mortality was higher among people with type 2 diabetes than the general population by about 10% for men and 25% for women.

The excess risk of diabetes appears to have fallen in recent years, and is probably explained, at least in part, by more effective treatment of diabetes, hypertension and dyslipidaemia. This trend should, and needs to, continue.

Cardiovascular risk factors in diabetes include dyslipidaemia, hypertension, hyperglycaemia and smoking. Patients with diabetes who have one or more risk factors should have the relevant information to help them recognise and manage their risk factors. SIGN Guideline 116 emphasises the importance of aggressive treatment of hypertension with lifestyle modification and drug therapy and recommends a target of less than 130/80. Care systems need to ensure assessment of lipid status and introduction of statins for appropriate groups.

People with diabetes who have established vascular disease need careful assessment and regular review to ensure that they benefit from the measures described in SIGN Guideline 116 (diabetes), SIGN Guideline 108 (acute stroke) and SIGN Guideline 89 (Peripheral Vascular Disease). It is incumbent on the Scottish Diabetes Group to support implementation of these Guidelines.

***Actions we will take:***

**The Scottish Diabetes Group will support initiatives to improve vascular health including:**

- Continue to monitor cardiovascular risk factors and the prevalence of cardiovascular disease in the annual Scottish Diabetes Survey and share this with all stakeholders.

**The Scottish Diabetes Group will support implementation of SIGN Guideline 116 by:**

- Supporting SCI-DC initiatives to integrate information on vascular risk.

Quality Healthcare Indicators: safe; effective.



### 3.3 Foot care

#### **Where we want to be:**

We wish to see a progressive reduction in the incidence of ulcers and amputations in people with diabetes as recorded in the Scottish Diabetes Survey.

#### **Why we want to be there:**

Foot disease risk has recently been the subject of a campaign by the Scottish Diabetes Group's Foot Action Group. This is against a backdrop, established in the Diabetes UK Scotland survey, that just over a quarter knew their foot risk score. However, many other people said that they did not know what their risk score was but would like to know.

High quality and accessible foot care is seen by people with diabetes as a real priority. Work over the past few years, including the launch of the National Foot Screening Programme, has started to deliver this priority.

Over the lifetime of this Action Plan we need to see this priority embedded in the delivery of diabetes care across NHS Board areas and to see this evidenced in new programmes, clinical outcomes and patient feedback. The Foot Action Group and others are considering the training and skill mix required to deliver a quality foot service. Quality foot care should include timely access to an orthotist with diabetes competencies.

People with diabetes should have access to specialist multi-disciplinary services, delivered by healthcare professionals with the appropriate competencies, when they have active foot disease and access to a podiatry treatment/management plan, including reinforcement of education, formulated in consultation with the patient and tailored to suit the patient's needs.

**Actions we will take:**

**1. A series of initiatives will be undertaken to promote prevention of foot problems including:**

- Within the previous 15 months, in line with the NHS QIS clinical standards, 80% of people with diabetes should have an allocated foot risk score which should be electronically communicated to all healthcare professionals involved in the care of the patient. This score should be communicated effectively and clearly to patients (responsibility: NHS Boards through their diabetes MCNs).
- All patients with low risk feet should have access to education for self management of foot care. This should be supported by the national foot care leaflets which will be available online for healthcare staff in a variety of languages (responsibility: SDG, NHS Boards through their diabetes MCNs).
- The national foot care leaflets should be evaluated through patient feedback (responsibility: Foot Action Group).
- IT links are required to allow transfer of diabetes information between the national diabetes database and the main four GP systems with particular reference to transfer of foot screening information (responsibility: SCI-DC, NHS Boards through their diabetes MCNs).

**2. Through the SDG resources that have been allocated, each NHS Board will designate an existing individual whose responsibility will be to:**

- Educate and support podiatrists and other relevant healthcare professionals delivering diabetes care in the community and to organise up-skilling and maintenance of competencies and practical skills (responsibility: NHS Boards, through their diabetes MCNs).
- Ensure access to the national foot care leaflets and patient education programmes, including electronic learning opportunities, to support people with diabetes in managing their foot care (responsibility: NHS Boards, through their diabetes MCNs).

Quality Healthcare Dimensions: safe; person-centred; effective.



### 3.4 Eye care

#### **Where we want to be:**

Scotland should have a world-class retinopathy screening programme which identifies eye problems at early stages with a view to reducing significant visual loss in people with diabetes.

#### **Why we want to be there:**

The diabetic retinopathy screening service in Scotland has been implemented in all NHS Boards since 2006 and has made major strides in recent years. Scotland has a quality-assured service based on digital imaging. Most eligible people with diabetes have now been assessed at least twice and new versions of the software have been introduced. National study days have allowed multidisciplinary teams from across Scotland to share expertise and encourage innovation. The experience of the Scottish Diabetic Retinal Screening (DRS) service has been shared with other UK and European countries in the planning and development of their programmes. It is important that the level of quality achieved by this service is maintained.

The vision of the DRS collaborative is to offer a safe, effective, efficient, equitable and quality assured service to all people with diabetes, to detect diabetic retinopathy in a timely manner and to ensure that treatment is offered to reduce visual impairment and blindness. Feedback from the consultation process by people with diabetes recognised the improved service for retinal screening.



DRS Screening 'at home' in the Western Isles



From April 2009, optometrists are obliged to offer retinal photography to everyone aged 60 and over, whether they have diabetes or not. Optometrists and the DRS programme therefore need to work together so that people with diabetes can benefit from a cohesive and first-class service delivered locally. Pilot studies of optometrist image capture are being undertaken in NHS Borders and Highland to determine the benefits that increased partnership between optometrists and the DRS programme would bring to people with diabetes. The early results appear promising.

Integration of the retinal screening programme with other eye services will be improved by the chairman of Optometry Scotland forming part of the DRS collaborative executive.

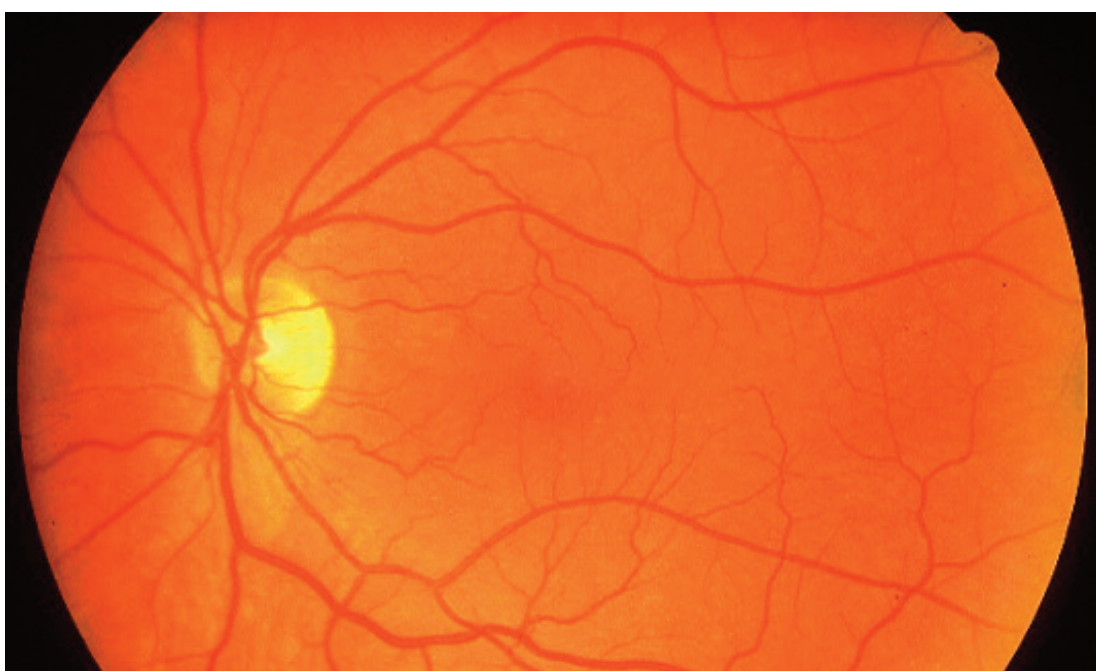
A robust and effective DRS service has facilitated the redesign of diabetes services, allowing more aspects of care to be delivered by community teams. The SCI-DC network linkage to the DRS software encourages optimal integrated clinical care. Clinicians can demonstrate retinal images to people with diabetes and consider interventions to reduce progression of retinopathy. Joint initiatives by the SDRN epidemiology subgroup and the DRS collaborative provide a platform for world-class clinical research.

***Actions we will take:***

**1. SDG will continue to support the development of the DRS collaborative and encourage links between DRS and all other stakeholders in the diabetes community.**

**2. NHS Boards will consider the benefits of adopting the approach taken by the community optometry DRS pilots in NHS Highland and NHS Borders.**

Healthcare Quality Indicators: all six.



DRS screening image

### 3.5 Preventing renal disease

#### **Where we want to be:**

We want to be able to prevent the progression from chronic kidney disease (CKD) to end-stage renal failure in people with diabetes to an extent that is comparable with the best outcomes worldwide.

#### **Why we want to get there:**

Approximately 30% of people with type 1 diabetes and 20% of people with type 2 diabetes develop diabetic nephropathy. Renal vascular disease is also a common cause of renal failure particularly in people with type 2 diabetes. Accelerated cardiovascular disease in people with diabetes and renal disease is well recognised.

Diabetes is now the commonest reason for people starting renal replacement therapy in Scotland.

Identification of chronic kidney disease in someone with diabetes should result in treatment that slows the progression of renal disease, and improves cardiovascular risk factor management.

The earlier we can identify chronic kidney disease, the sooner we can implement the recommendations from SIGN Guideline 116 to delay its progression and support people with diabetes to manage their condition. There are limited Scottish national data on the prevalence of kidney disease in people with diabetes. The SDRN is working with the Scottish Renal Registry, maintained by the Scottish Renal Association, to identify trends and outcomes by linking to the data held by the Registry.

#### **Actions we will take:**

##### **A series of initiatives will be undertaken to promote optimal kidney function:**

- Identify and provide information on the prevention and progression of diabetes complications for people with diabetes and renal disease/chronic kidney disease (responsibility: SDG/Scottish Renal Registry).
- The annual Scottish Diabetes Survey will report on eGFR rates through better data linkage. Target 80% by 2011 (responsibility: Survey Monitoring Group/SCI-DC).
- There should be clear pathways for referral between diabetes services and the local nephrology service (responsibility: NHS Boards through their diabetes MCNs).
- As part of its patient access programme, SCI-DC will work with Renal PatientView to promote self management and ensure people with diabetes understand the significance of results (responsibility: SCI-DC).

Healthcare Quality Dimensions: timely; safe; efficient.

### 3.6 Positive pregnancy experiences



**Where we want to be:**

We want to ensure that women with pre-existing diabetes, and those who develop gestational diabetes, have pregnancy outcomes comparable with the best population outcomes worldwide.

**Why we want to get there:**

National audits in Scotland, England and Wales have highlighted the risks of pregnancy in women with diabetes. Critical findings of the audits are an increase in birth weight, rates of caesarean section, congenital anomalies and perinatal mortality in children born to women with diabetes. The feedback from the *Better Diabetes Care* consultation emphasised the continuing challenges.

SIGN Guideline 116 reviews the evidence base for the management of pre-existing (type 1 and type 2) diabetes as well as for the screening, diagnosis and management of gestational diabetes. The Guideline provides clear recommendations for optimal management of diabetes and stresses the importance of excellent blood glucose control before and during pregnancy.

In women with established diabetes, pregnancy should be planned and women during their fertile years should have access to contraceptive advice and pre-pregnancy counselling. An experienced multiprofessional team, led by a named obstetrician and physician, should provide comprehensive maternity care prior to and during pregnancy.

### Type 1 diabetes

Type 1 diabetes is a high risk state for both the woman and her foetus because of increased risks of spontaneous abortion, ketoacidosis, severe hypoglycaemia, pre-eclampsia, premature labour, polyhydramnios, late intrauterine death, foetal distress, obstructed labour and congenital malformation. Infants of mothers with diabetes need careful monitoring after birth. Complications of diabetes such as retinopathy can worsen during pregnancy.

### Type 2 diabetes

In the national audits the number of pregnancies in women with type 2 diabetes was fewer than in women with type 1 diabetes, but during the consultation several groups commented on an increasing proportion of pregnancies in type 2 diabetes. Contributing factors could include the increasing prevalence of obesity, the increasing age and a change in ethnic composition of the pregnant population. Management prior to and during pregnancy should follow the same intensive programme of metabolic, obstetric and neonatal supervision as for women with type 1 diabetes, since similar adverse outcomes are recognised in type 2 diabetes.

### Gestational diabetes

SIGN Guideline 116 emphasises the need to recognise women with gestational diabetes, the prevalence of which is increasing, in order to optimise pregnancy outcomes by evidence-based management interventions. Screening for gestational diabetes identifies a higher risk group for future type 2 diabetes. Lifestyle interventions could prevent metabolic progression to established diabetes.

### **Actions we will take:**

#### **1. NHS Boards, through their diabetes MCNs, will ensure**

- awareness raising sessions on diabetic pregnancy are promoted in both primary and secondary care for healthcare professionals to improve pre-pregnancy and ante-natal diabetes care and glycaemic control in women with diabetes
- collaboration between multidisciplinary pregnancy care teams and the local Diabetic Retinopathy Screening programme so that systems are in place for appropriate retinal screening during pregnancy
- programmes are in place to detect and treat gestational diabetes during pregnancy
- Following delivery those with gestational diabetes mellitus should have:
  - lifestyle advice with the aim of reducing type 2 diabetes mellitus
  - regular screening with the aim of early detection of type 2 diabetes mellitus.

#### **2. SDG, along with NHS Quality Improvement Scotland and other national organisations, will investigate the feasibility of repeating in 2012 the national pregnancy audit in light of SIGN Guideline 116.**

Quality Healthcare Indicators: safe; person-centred.

### **3.7 Care for people from black and minority ethnic communities**

#### **Where we want to be:**

In keeping with the Scottish Government's strong commitment to addressing health inequalities, we want to ensure that diabetes outcomes for people from black and minority ethnic (BME) communities are comparable to general Scottish outcomes.

#### **Why we want to be there:**

Progress has been made over the past few years in relation to improving our understanding of the needs of people from BME communities who have diabetes or are at risk of developing it. Their risk is reflected in the cardiovascular risk assessment tool recommended by SIGN Guideline 97, ASSIGN, which has been developed for maximum accuracy in Scotland by including factors such as family history. Work has been undertaken to develop culturally appropriate patient education, and a conference on diabetes care for minority ethnic groups was held in Glasgow in November 2009. Collaborative work between the NHS, voluntary and community sectors and industry has also started to make inroads. We remain at the initial stages of real improvement and need to find better ways to deliver substantial improvement over the next three years.

BME communities should have clear lines of communication with diabetes MCNs. Through their local contacts, the MCNs will revise and update their needs analysis and review of services for minority ethnic communities. This may include the use of trained clinical or community link workers working alongside diabetes professionals and/or long-term conditions teams. This could play a valuable role in helping patients and their families understand and manage their diabetes in their cultural context and help avoid hospital admission. At all times patient and family information should be in appropriate languages and formats and communication problems bridged. The Scottish Diabetes Group will work with its Diabetes Minority Ethnic Sub Group and voluntary sector organisations to deliver substantial improvements over the next three years.

#### **Actions we will take:**

##### **I. Diabetes outcomes specific to minority ethnic communities will be reported**

- The Scottish Diabetes Survey will produce a report on clinical outcomes for people from minority ethnic groups (responsibility: Scottish Diabetes Survey Group).
- The Scottish Diabetes Retinopathy Screening Collaborative will report to SDG through the annual Scottish Diabetes Survey with information on DRS uptake across different ethnic groups in Board areas (responsibility: SDRSC/SDSG).



## **2. Learning from current and planned activities in supporting minority ethnic communities will inform the Action Plan over its lifetime**

- The Diabetes Minority Ethnic Sub Group of the SDG will collate and report on best practice across NHS Boards on working cross-culturally, including quality patient education and self management support and the training and support provided to healthcare professionals.
- From this the Diabetes Minority Ethnic Sub Group will report to the SDG with recommendations on taking this work forward and its value in supporting NHS Boards.
- The outcomes of the Diabetes UK Scotland Asian Community Project, funded from the Self Management Fund, will be considered in support of providing, strengthening and maintaining links between communities and the NHS.
- Through their local contacts, diabetes MCNs will revise and update their needs analysis and review of services for minority ethnic communities.

Healthcare Quality Dimensions: equitable; effective; person-centred.

## **3.8 Children, young people and families**

### **Where we want to be:**

In keeping with the Scottish Government's aim of giving all children the best possible start in life, we want to ensure that children with diabetes and their families can lead full and active lives.



### **Why we want to be there:**

The needs of children with diabetes and their families are a priority for improved diabetes care. Support and work over the lifetime of the previous Action Plan has provided a good platform for delivering the necessary improvements.

Children need to be supported not just in the NHS but in their communities and in their schools. The involvement of children and their families is integral to developing this support.

Children and families living with diabetes also tell us that greater public awareness of type 1 diabetes is necessary to remove any likely stigma and misunderstanding.

### **Diabetes health**

Work carried out by the Scottish Study Group for the Care of Diabetes in the Young and the Scottish Diabetes Survey indicates that, overall, glycaemic control in children under the age of 15 is poor and only a small percentage achieve optimal blood glucose control. Good control of diabetes in childhood and adolescence can reduce complications in later life, but management is challenging. Families need considerable support to optimise blood glucose control and quality of life, at diagnosis and on a regular basis after diagnosis.

### **Transition from child to adult services**

Evidence also suggests that good transition programmes improve health outcomes and quality of life. Poor clinic attendance is linked to inappropriate transition. Those lost to follow-up have poorer diabetes control. Medical crises can be averted through regular follow-up and education. Every child with diabetes should have access to transitional clinics which fully support them in their adolescent years, in line with the Scottish Government Guidance *Hospital Services for Young People in Scotland* published in May 2009, which emphasises the need for good transition arrangements for young people moving into the adult care sector across all specialties.

Service redesign initiatives and developments should show evidence of consultation with young people with diabetes and their families.

### **School**

Information from Diabetes UK Scotland, local family support groups and individual families around Scotland suggests that children with diabetes can face unnecessary problems at school, such as exclusion from trips, access to essential snacks and issues around injections. While there is good practice in some schools across Scotland, action is needed to ensure that no child with diabetes is, in any way, disadvantaged as a result of the condition. In order for a child fully to participate in education, health services, schools and the family should work together effectively. Guidance on the Administration of Medicines in Schools was published by the Scottish Government in 2001. It requires NHS Boards and education authorities to draw up policies on managing healthcare in schools and to develop effective management systems to support individual pupils with such need, to enable them to play a full part at school. As well as emphasising that it is for NHS Boards to ensure arrangements are in place with education authorities, the guidance makes clear that it is essential that NHS Boards and education authorities work together on appropriate arrangements.

**Actions we will take:**

**1. Initiatives to improve self management skills within families and communities include:**

- A new DVD for children with type 1 diabetes will be commissioned (responsibility: SDG).
- A symposium on diabetes in schools as part of a wider review of existing arrangements for diabetes in schools will be held by September 2010, following which a set of action points will be published (responsibility: SDG).

**2. Organisation of paediatric care will be reviewed at national and local levels**

- A paediatrician will be appointed to the SDG (responsibility: SDG).
- Each NHS Board, through its diabetes MCN, will develop, publish and show evidence of implementation of a transitional care plan with measurable outcomes identified and reported through SDG by June 2011 (responsibility: NHS Boards through their diabetes MCNs).
- NHS QIS will commission an audit of glycaemic control in children and adolescents (responsibility: NHS QIS).

Healthcare Quality Indicators: person-centred; timely; safe.

### **3.9 The spectrum of emotional and psychological support**

**Where we want to be:**

We want to improve the spectrum of emotional and psychological support for people living with diabetes in Scotland through enhancing the skills of clinical staff and valuing the contribution of voluntary sector support, including peer support. We must build on progress and at the same time speed up improvements where we are in the strongest position to do so.

**Why we want to be there:**

Part of the benefit of providing emotional and psychological support is to help people with diabetes to make choices, actively self manage their condition on a day-to-day basis and minimise the risks of the long term damage that diabetes can cause. In addition, by recognising and addressing emotional issues, interventions can reduce more serious psychological issues.

The importance of psychological support is underlined by evidence that suggests between 20% and 30% of people with diabetes will suffer from depression at some point. We need to ensure that emotional support – local voluntary groups, peer support projects, etc – is fully recognised in local strategies and programmes. Networks of local support will become increasingly important over the lifetime of this Action Plan as the number of people with diabetes continues to grow. NHS Boards will need to identify and plan how



they will support these services and work in partnership with them. For example, Careline Scotland provides emotional support through telephone and email counselling and provision of tailored information to people living with diabetes. The Scottish Government already provides support to the Diabetes UK Scotland Careline service and consideration needs to be given to a range of support initiatives including peer-to-peer support such as the buddy service.

### **PID PAD**

The Scottish Diabetes Group has committed £450k to funding the Psychology in Diabetes, Psychology and Diabetes (PID PAD) project, which will run within six Boards over the next three years. The project will aim to implant psychological care within diabetes services through training NHS staff to improve their skills in behaviour change and psychological support. This initiative provides the opportunity for:

- increased psychological support to people with diabetes;
- integrated care across medical and psychological issues; and
- building a skill base in diabetes within the psychology professions.

SIGN Guideline 1.16 sets out the evidence base on psychological interventions to help people achieve better control of their diabetes.

In December 2008, NES published a guide to developing evidence-based psychological therapies in Scotland: 'The Matrix'. It contains a section on heart disease, but not one on diabetes. The Scottish Diabetes Group will consider whether a diabetes section should be developed.

The 'Living Better' initiative organised by the Royal College of General Practitioners, with Scottish Government funding, aims to improve the mental health and well-being of people with diabetes and coronary heart disease. It runs until November 2010 and aims to improve the detection, assessment and management of depression, anxiety and stress through the development and implementation of local care pathways. NHS Boards, through their diabetes MCNs, should roll out the lessons from the pilots.



**Actions we will take:**

**I. Ensure adequate training of staff in psychological skills**

- Diabetes MCNs should report to the Scottish Diabetes Group the number of diabetes specialist staff who have undergone training in behaviour change and/or psychological and emotional support (responsibility: MCNs/SDG. September 2010 ongoing).
- All existing staff programmes will take account of cultural differences in the type and presentation of psychological consequences of diabetes.
- Patient feedback on the support and signposting received in relation to emotional support should be collected to inform the development of staff training and to measure the impact such training delivers, (responsibility: NHS Boards through their diabetes MCNs).

## **2. Develop and share effective national initiatives**

- Three meetings a year of the new psychology appointees will be supported to ensure coordinated developments and that best practice is shared (responsibility: diabetes MCNs/Psychology Working Group).
- The Diabetes Psychology Working Group will share learning gained with the Living Better Project and the Long Term Conditions Unit (responsibility: Psychology Working Group/SGHD).
- Lessons from the PID PAD pilot, including patient feedback, should be acted upon by NHS Boards through diabetes MCNs (responsibility: NHS Boards through their diabetes MCNs).
- Diabetes MCNs, with local voluntary and other agencies, will carry out analysis of resources for emotional support for people with diabetes. Diabetes UK Scotland will work with the Network Managers to develop a mechanism for recording emotional support resources in their areas.
- Further development of the buddy service nationally will be considered (responsibility: Scottish Diabetes Group).
- Explore ways of underpinning the financial sustainability of a national emotional support service and develop links with NHS 24 to ensure that people who would benefit from Careline Scotland will be referred (responsibility: Diabetes UK Scotland, NHS 24).

Healthcare Quality Dimensions: person-centred; safe.

### 3.10 Structured education

#### **Where we want to be:**

We want to increase the number of people with type 1 and type 2 diabetes who have been invited to participate in and have attended a quality assured structured education programme.

#### **Why we want to be there:**

Since the 2006 *Action Plan* was published, structured education has become recognised as central to diabetes care and to the self management of long term conditions generally. In Diabetes UK Scotland's survey of people living with diabetes, structured education was the most valued type of education. This should underpin our actions over the next three years.

Effective self management of diabetes is the cornerstone of quality care and individual patient education is essential to optimise self management. A range of education programmes for patients and staff is available. A healthcare professional, funded by SDG, will be seconded to NES for two years to ensure patient and staff education programmes are complementary and effective. The need for this role was identified after discussions between the voluntary sector, patients, staff, QIS, NES and SDG.

Progress has been made, including the initial roll out of DAFNE and DESMOND and the emergence of localised courses like TIM (Tayside Insulin Management programme). However, the next three years needs to see a significant increase in access and quality. The recommendations on structured education in SIGN Guidance 116 will help promote this work.



**Actions we will take:**

**1. All patients should have access to structured education programmes that are quality assured, in line with NICE criteria, within three months of diagnosis.**

**National initiatives on education will support local provision by:**

- A national education co-ordinator will be appointed to work with the diabetes MCNs in the implementation of the patient and professional diabetes education frameworks (responsibility: NES, Scottish Diabetes Group, Diabetes Education Advisory Group (DEAG)).
- The Diabetes Education Network (DEN) Scotland will have a representative on SDG and will become a subgroup of the DEAG. DEN will have responsibility for developing the national framework for diabetes patient education.
- After the first year of reviewing structured education provision, the SDG, in consultation with DEN and Diabetes Care Focus Group (DCFG), will set milestone targets for subsequent years.

**2. The national education co-ordinator will work with the diabetes MCNs in the implementation of a training and education strategy. This will include:**

- Reviewing structured education for people with type 2 diabetes and complete the national framework for the education of people with type 1 diabetes.
- supporting diabetes MCNs to identify and promote effective educational tools, programmes and modules.

(responsibility: NHS QIS/NES, DEAG).

**3. Education will be improved at a local level:**

- Each diabetes MCN will identify an individual who will have responsibility and the skills for ensuring delivery of local patient education programmes.
- Each diabetes MCN will ensure the provision of a range of education solutions, including quality assured structured education programmes to all people with diabetes.
- Each diabetes MCN will undertake/commission user impact and/or experience measures in relation to patient education.
- Clinical records will document participation in the level of self management programmes as defined by DENS. This information will also be recorded in the electronic record.
- The percentage of people in each level of self management programmes will be reported for the Scottish Diabetes Survey.

Responsibility: NHS Boards through their diabetes MCNs.  
Healthcare Quality Dimensions: person-centred; effective.

### 3.1.1 Insulin therapy

#### **Where we want to be:**

We need to ensure that people living with diabetes can safely manage their insulin therapy to maximise their quality of life.

#### **Why we want to get there:**

Type 1 diabetes affects 0.4 to 0.5% of the population. A 70% increase in prevalent cases of type 1 diabetes in those aged under 15 is predicted in Europe between 2005 and 2020<sup>3</sup>. Despite advances in the care of people with type 1 diabetes, the condition continues to be associated with substantial mortality and morbidity with an estimated shortening of lifespan on average of 15 years. Rates of cardiovascular disease are increased 3.6 fold in men and 7.7 fold in women.

Supporting those with type 1 diabetes to manage insulin from diagnosis and those with type 2 diabetes who move to insulin therapy requires a team effort with nurses, dietitians, doctors, pharmacists and others working in partnership with the individuals with diabetes and their carers.

#### **Actions we will take:**

**1. The SDG will prioritise the recommendations from the type 1 diabetes SLWG report as part of developing services for those with type 1 diabetes.**

**2. Local insulin strategies will be reviewed for people with type 1 and 2 diabetes (responsibility: diabetes MCNs).**

Healthcare Quality Dimensions: safe; timely.

#### 3.1.1.1 Intensive insulin therapy for people with type 1 diabetes

##### **Where we want to be:**

Over the next three years we want to see significant progress in patient access to intensive insulin therapy. For example, the provision of insulin pumps needs to reflect guidance on eligibility.

##### **Why we want to be there:**

Intensive insulin therapy<sup>4</sup> aims to resemble as much as possible the natural pattern of insulin release from the pancreas in order to keep blood glucose levels at near normal rates. It is not necessarily about more insulin but about changing how insulin is taken. There is unequivocal evidence that intensive insulin treatment reduces microvascular complications in type 1 diabetes. For most people this involves multiple dose injection.

<sup>3</sup> *The Lancet*, Volume 373, Issue 9680, Pages 2027 - 2033, 13 June 2009 doi:10.1016/S0140-6736(09)60568-7

<sup>4</sup> Insulin intensification might be used to describe any regimen more intensive than twice-daily mixtures, but usually refers to either a basal/bolus multiple delivery of insulin (MDI) regimen, or to continuous subcutaneous insulin infusion (CSII or insulin pumps), guided by self-monitoring of blood glucose (SMBG), and self-adjustment of insulin doses.



Up to 4,000 people with type 1 diabetes in Scotland could benefit from access to insulin pump therapy. The current uptake, however, is between 500-600 people. Patient and professional knowledge of the value of insulin pumps has increased greatly over the last three years and has brought with it increased expectation on the NHS to deliver pump services. Pump therapy should now be considered as a mainstream therapy, though the importance of multiple dose insulin treatment as an alternative to pumps should also be borne in mind. Provision should be evidence-based and take account of patient choice. Access to pump therapy should be boosted significantly across NHS Board areas over the lifetime of this Action Plan.

NHS Boards are aware of the need to invest in insulin pumps and the structured education associated with them, as the table in Appendix 2 indicates.

NHS Boards will find it helpful to assess their investment plans against the thinking on pumps and structured education set out in the clinical and resource impact report produced by SIGN to accompany Guideline 116.



Work will also be commissioned on identifying guidance on the point of initial referral and best practice models in order to deliver waiting times criteria based on the 18-week referral to treatment guarantee.

This work will take account of any future legislation or guidance such as the Patients' Rights Bill currently going through the Scottish Parliament. This will ensure that criteria can be agreed for the point of initial referral and the start of any treatment necessary, to ensure consistency in care across Scotland.

**Actions we will take:**

**1. People with diabetes who could benefit from intensive insulin therapy should have access to structured education programmes as documented in section 3.10.**

- Patients should receive carbohydrate counting instruction prior to initiation of intensive insulin regimens.
- [Mydiabetesmyway.scot.nhs.uk](http://Mydiabetesmyway.scot.nhs.uk) will include a section on intensive insulin therapy (responsibility: SDG).

**2. Insulin pump therapy is available for those patients who would benefit from it.**

- The Scottish Diabetes Survey will include figures on pump usage and it is expected that by the end of the three years, NHS Boards will have made significant and sustained progress in increasing access to insulin pump therapy in line with the latest clinical guidance (responsibility: SDG).
- A national pump awareness day will be arranged (responsibility: SDG by October 2012).
- The SDG will commission waiting times criteria for insulin pump therapy in line with national criteria and make recommendations for a consistent approach across the country (responsibility: SDG by December 2010).
- Scottish Government Health Directorates will scope the implications of putting pumps and associated consumables onto the National Drug Tariff.

**ISLET CELL TRANSPLANTATION**

On 18 November 2009 the Minister of Health and Wellbeing launched Scotland's first Islet Transplant Programme at the Scottish National Blood Transfusion Service in Edinburgh. The Scottish Islet Isolation Laboratory is the only one in the UK which will operate 24 hours a day, and offers a lifeline to, initially, a small number of patients who, until now, have had to live with constant blood sugar monitoring and the fear of coma due to low blood glucose. The new treatment involves extracting islets (the cells which produce insulin) from a donated pancreas by a complex and labour intensive laboratory process. They are then injected into the liver of recipients under local anaesthetic. People who will benefit from this new treatment are those with type 1, or insulin dependent diabetes, and also kidney transplant recipients. This treatment is made possible by the close collaboration between the pancreas transplant programme at the Royal Infirmary of Edinburgh, the Scottish National Blood Transfusion Service and the Scottish Centre for Regenerative Medicine.



### 3.12 Reducing emergency admissions

#### 3.12.1 Out-of-hours care

**Where we want to be:**

We want people with diabetes to have access to robust out-of-hours diabetes care.

**Why we want to be there:**

People with diabetes need access to consistent, co-ordinated and high quality care at all times. Effective out-of-hours care is fundamental to reducing the number of unplanned admissions for metabolic emergencies.

The Type 1 Diabetes Short Life Working Group report explores out-of-hours care services for people with diabetes and looks at the rationale for introducing a dedicated NHS 24 diabetes service. It is expected that this work could provide a viable alternative to further rolling out the DiabNet scheme.

**Actions we will take:**

**1. The Scottish Diabetes Group will work with NHS 24 to improve NHS 24's services for people with diabetes and develop a dedicated diabetes pathway (responsibility: Scottish Diabetes Group and NHS 24).**

**2. The Scottish Diabetes Group will explore, with other organisations, optimal use of the Emergency Care Summary.**

Healthcare Quality Indicators: timely; safe; effective.

#### 3.12.2 Diabetes emergencies

**Where we want to be:**

We want to reduce or prevent the number of diabetes emergencies.

**Why we want to be there:**

Diabetic ketoacidosis (DKA) and hypoglycaemia are major causes of emergency situations in the community and in hospital.

Reducing hospital admissions of people with diabetes will help NHS Boards achieve the trajectories they have developed in line with HEAT target T6:

'to achieve agreed reductions in the rates of hospital admissions and bed days of patients with primary diagnosis of COPD, Asthma, Diabetes or CHD, from 2006-07 to 2010-11.'

Current initiatives that will help address this target include the growing availability of structured education programmes for people with established diabetes to help them manage the condition more effectively and ongoing discussions with NHS 24 on developing its services for people with diabetes. The Scottish Ambulance Service is considering a revision of its guidelines to reduce episodes of repeat severe hypoglycaemia.



### Hypoglycaemia

Hypoglycaemia (hypo) occurs when blood glucose levels drop below normal levels and is a common complication of injecting insulin. It can also occur in people with type 2 diabetes who are taking insulin or certain oral medication. It can be classified as mild, moderate or severe; severe hypoglycaemia needs third party help with recovery. The Scottish Ambulance Service (SAS) has adopted 'See and Treat' Guidelines which recommend that in most cases it is preferable for people with hypoglycaemia to remain at home. Evidence from a research project under way in Stirling University suggests that around 7,000 diabetes calls to the SAS relate to hypos including a significant number of repeat callers. It is thought that as the number of people with type 2 diabetes taking insulin increases, there may well be a corresponding increase in severe hypoglycaemia.

### 3.12.3 Diabetic ketoacidosis (DKA)

Data on the incidence of DKA over the past five years shows an upward trend, though this may be due to more accurate reporting and coding. The Type 1 Diabetes Short Life Working Group recommended that an audit take place in 2010-11, and this is expected to eliminate uncertainties around current data.

The Type 1 Diabetes Short Life Working Group report recommended the introduction of a DKA awareness campaign, modeled on the Vanelli campaign<sup>5</sup> that is understood, at one point, to have virtually eliminated DKA in newly diagnosed patients in Parma.

Care bundles for DKA have also been developed for use by Accident and Emergency and medical ward-based staff. These are currently being piloted before being considered for further roll out.

Primary Care is expected to have a central role in reducing diabetic hospital admissions through early recognition and management of diabetic presentations, complications, and potential emergencies such as diabetic ketoacidosis (DKA) and hypoglycaemia.

#### **Actions we will take:**

##### **1. We will reduce the incidence of hypoglycaemia that result in emergency admissions by:**

- supporting the development of interventions to improve post-hypoglycaemia patient support through enhanced communication (responsibility SAS and Scottish Diabetes Group).
- NHS Boards, through their diabetes Managed Clinical Networks, will review the care pathway of people who experience severe hypoglycaemia.

##### **2. Incidence and care of diabetic ketoacidosis (DKA) will be improved by:**

- The SDG and SGHD will explore the roll out of a DKA awareness campaign for children with undiagnosed diabetes.
- NHS Boards, through their diabetes MCN, will review care pathways for the presentation and management of DKA throughout the whole episode.
- NHS QIS will commission a national audit of DKA.
- The Diabetes Education Advisory Group will oversee the roll out of care bundles for DKA.

Healthcare Quality Indicators: safe; timely.

<sup>5</sup> As set out in the Type 1 Diabetes Short Life Working Group Report (2010)

## 3.13 Quality in-patient care

### 3.13.1 Safe and effective management of diabetes in hospital

#### **Where we want to be:**

We want people with diabetes to be supported wherever possible to live independently in the community. Diabetes services should be provided locally wherever possible, in keeping with the 'Shifting the Balance of Care' agenda. Where admission to hospital is unavoidable, we want to harness for people with diabetes the benefits of the work of the highly successful Scottish Patient Safety Programme, through improvements in knowledge of diabetes among hospital staff, with an increased commitment to supporting people with diabetes to self manage where possible.

#### **Why we want to be there:**

Diabetes was included in HEAT target T6, in recognition of the fact that people with diabetes stay an extra two to three days in hospital compared to other conditions, whatever the diagnosis, and around 10% of people in hospital, at any one time, have diabetes. Interventions such as foot care in the community, with additional inpatient support for patients with diabetes, can reduce admissions and bed occupancy for people with this condition.

#### **THINK GLUCOSE**

The Think Glucose Programme was designed by the NHS Institute for Innovation to improve the management of people with diabetes when they are admitted to hospital. It achieves this through the introduction of an awareness campaign as to the importance of glucose control combined with a system of audits. Think Glucose has reported considerable success in reducing bed days and diabetic complications at those hospitals in England where it has been rolled out.

**Actions we will take:**

**1. The Diabetes Education Advisory Group and the Inpatient Working Group will coordinate several initiatives to improve care for inpatients.**

- They will consider, for implementation in Scotland, UK documents produced by Joint British Diabetes Societies, e.g. on the hospital management of hypoglycaemia in adults with diabetes and the standards of care for people with diabetes undergoing surgery and elective procedures.
- They will consider the suitability of the Think Glucose programme for implementation in Scotland.
- The diabetes MCNs will develop foot protection programmes for patients with diabetes on general hospital wards (MCNs).

**2. The diabetes MCNs will develop mechanisms to record the number of inpatient wards in general hospitals with specific guidelines for the management of hypoglycaemia.**

Healthcare Quality Dimensions: safe; effective.

**3.13.2 Care homes and non-NHS settings**

**Where we want to be:**

People with diabetes living in non-NHS care settings must have timely access to appropriate diabetes services.

**Why we want to be there:**

We are much more aware now of the need to provide information, advice, care and support to people with diabetes outside of hospital and general practice. Settings such as care homes for older people, children's residential units and prisons require specific approaches in terms of both information and delivery of care. Over the lifetime of this Action Plan, diabetes care services should become more flexible and effective in their capacity to reach people in all care settings and to provide training and mentoring for non-specialist community care partners. This relates to action 4.8 in the Long Term Conditions Action Plan, which seeks to link NHS staff training to the Continuous Learning Framework for social care staff.

**Actions we will take:**

**1. NHS Boards through their diabetes Managed Clinical Networks will take steps to improve the local provision of education to the wider community, voluntary and independent sector staff working in day care and institutional settings.**

- Undertake an assessment of educational needs of staff in non-NHS care settings.
- Day care, home care and care staff should have access to educational events.

Healthcare Quality Dimensions: equitable; person-centred.



## 4. VALUE

### Maximising the value of our investment in health services in Scotland

#### 4.1 Ensuring quality care

##### **Where we want to be:**

We want to ensure that people with diabetes have access to evidence-based clinical services from an NHS which also acknowledges the importance of people's experience as a measure of the quality of care, as well as the vital contribution service users can make to the design of services.

##### **Why we want to be there:**

For the diabetes community, working towards a 'mutual NHS' means ensuring that people living with diabetes are at the centre of the care process with the support of healthcare professionals who are themselves properly supported and valued.

Implementation of SIGN Guideline 116 will help to drive forward best clinical practice, but equal weight needs to be given to learning from people's experience of services through programmes such as 'Better Together' to underpin improved outcomes for people with diabetes across Scotland. The results of the survey of people with diabetes undertaken by Diabetes UK Scotland as part of the consultation on revising the 2006 Diabetes Action Plan will be a helpful contribution to that approach.

The work of the Diabetes Care Focus Group (DCFG), a sub group of the Scottish Diabetes Group, is integral to this work. The DCFG, along with Diabetes UK Scotland, will ensure that patient experience and engagement are continuous drivers of improvement.

##### **Actions we will take:**

##### **1. Implementation of research-based high quality clinical practice will be supported by:**

- NHS Boards, through their diabetes Managed Clinical Networks, will update their local clinical guidelines in the context of the SIGN Guideline 116.
- The diabetes Managed Clinical Networks will actively promote and report the number of patients registered on the SDRN research register as part of the annual Scottish Diabetes Survey to support the SDRN target of increasing recruitment to trials by 12.5% each year.
- NHS Quality Improvement Scotland will implement a diabetes improvement programme based on SIGN Guideline 116, using the diabetes Managed Clinical Networks as the mechanism.
- Diabetes UK Scotland, in consultation with the Diabetes Care Focus Group, will ask the 'Better Together' Team to ensure appropriate representation of people with diabetes in taking forward its long term conditions module.
- The Chief Scientist Office, through its Experimental and Translational Medicine Research Committee, will continue to support diabetes research. An example of a recently funded project is the creation of a Scottish diabetes research network type 1 diabetes bioresource.



**2. Ensure that the SDG and linked organisations such as the SDRN, as well as diabetes Managed Clinical Networks are able to communicate effectively through the development of a communications strategy (responsibility: SDG)**

- The DiS (Diabetesinscotland.org.uk) website will communicate progress of the implementation of the Diabetes Action Plan through an annual report from the Scottish Diabetes Group.
- Each diabetes Managed Clinical Network should host an event for people living with diabetes to raise awareness of local services and research. This could be done in partnership with the local voluntary sector.
- SDG and the diabetes Managed Clinical Networks will consider how existing diabetes care information/resources can be effectively disseminated amongst other agencies/third party organisations. These resources will be developed and evaluated through effective patient engagement.

Healthcare Quality Dimensions: all six.

## **4.2 Professional development**

**Where we want to be:**

We want to ensure that the delivery of all aspects of patient care is underpinned by high quality and appropriate professional education and training which is patient focused.

**Why we want to be there:**

A world-class diabetes service requires highly motivated, experienced teams of professionals communicating effectively, sharing experience and developing other members of the team to the highest standards of clinical practice.

The diabetes community shares expertise and experience. Healthcare professionals deliver care to, and learn about diabetes from, people living with the condition. This interdependence characterises the 'mutual NHS' which is at the heart of the Scottish Government's ambitions for the health service. We would expect to see patient and professional education aligning more closely over the lifetime of the Action Plan, leading to improved self management and better outcomes.

The Diabetes Education Advisory Group (DEAG) has been working on the development of a Scotland-wide strategy for professional education. Co-ordination of this with the patient education strategy is critical and means that close liaison with Diabetes Education Network Scotland (DENS) needs to be built in from the outset. The DEAG has also contributed to training of junior doctors and will be an important contributor to the planned Inpatient Management Group. Formal links will be established between DEAG and DENS to ensure that the national strategy for professional education is linked with patient education.



### DIABETES EDUCATION ADVISORY GROUP (DEAG)

DEAG is a sub group of the Scottish Diabetes Group comprising multidisciplinary representation of healthcare professionals from around Scotland involved in delivering diabetes care and with an interest in diabetes education.

### DIABETES EDUCATION NETWORK SCOTLAND (DENS)

DENS is a Regional Network of the Diabetes Education Network, previously known as the Type 1 Education Network. It aims to support the diabetes teams to integrate structured education for children and adults with diabetes into their service by:

- Providing a structure for sharing educational strategies, ideas and approaches.
- Supporting the work of the Scottish Diabetes Group (SDG) and its sub groups to further develop its framework for patient education to meet NICE criteria including curriculum development, educator training, quality assurance and audit.
- Organising meetings and events in Scotland with a focus on local issues and structures while utilising the experience and support of the established UK network.



The diabetes Managed Clinical Networks are responsible for co-ordinating educational and training initiatives for staff to ensure professionals are equipped to deliver the range of clinical services across the Network both in the community and in specialist practice. This can range from the delivery of highly specialist services such as treatment with continuous subcutaneous insulin infusion (CSII) to the management of diabetes by non-specialist staff in care homes. The diabetes Managed Clinical Networks need to strengthen local infrastructure and co-ordination to ensure that opportunities for professionals are optimised and match patient need. This should include training in working cross-culturally.

As partners in the care of people with diabetes, clinicians will have the active listening skills and abilities needed to ensure that care and the implementation of guidance such as SIGN Guideline 116 are designed to support the person living with diabetes. The Consultation and Relational Empathy (CARE) measure which is being developed as an integral part of the Quality Strategy assesses how empathetic and person-centred a clinician's consultation has been, by asking people to answer ten simple questions. It uses people's own words to highlight areas where improvement is needed to drive up the quality of communication in healthcare. When people understand each other, care becomes safer and more effective.

**Actions we will take:**

**1. Each diabetes Managed Clinical Network will identify an individual with responsibility for coordinating diabetes education. They will:**

- Review the specific diabetes learning needs of staff.
- Promote educational initiatives to suit all staff across primary and secondary care.
- Compile a database of staff training, linking to the long term conditions education database maintained by NES.
- Ensure training programmes recognise the differences between different cultural and social groups.

**2. The SDG and the diabetes MCNs will consider how to share best practice, such as the CARE measure, in delivering person-centred consultations. This should link to the wider long term conditions environment to consider the spread and sustainability of best practice.**

**3. The SDG through the Diabetes Education Advisory Group will ensure that healthcare professionals have access to the training and support required to deliver high quality patient-centred care.**

Healthcare Quality Dimension: safe; effective

## 5. INTEGRATION

### Integrating health, care and other services

#### 5.1 Organisation of care

##### 5.1.1 Scottish Diabetes Group

The Scottish Diabetes Group (SDG) advises on all aspects of diabetes care across Scotland. It has representation from people with diabetes, voluntary sector organisations, researchers, a broad range of healthcare professionals and suppliers, and those involved in planning healthcare services at local, regional and national level.

The SDG will continue its role of overseeing, on behalf of the Scottish Government Health Directorates, the implementation of this Action Plan, with an emphasis on the development of person-centred quality care. Monitoring will be on the basis of regular reports from each Board's diabetes Managed Clinical Network.

##### 5.1.2 Involving people living with diabetes

###### **Where we want to be:**

We want diabetes services to be developed through the full involvement and engagement of people living with diabetes, so that they are truly person-centred.

###### **Why we want to be there:**

In its survey, Diabetes UK Scotland found that six out of ten people would like to have a say in their local diabetes services. People said that they would fill in surveys, take part in local consultations and would complete satisfaction surveys at clinics. The role of patient representatives on NHS committees was also widely supported.

The move towards person-centred care is about the transformation of the relationship between healthcare professionals and people living with long term conditions such as diabetes. It recognises that the majority of care is self care and that patients need to be empowered to manage their care, including what they need from healthcare professionals. That change of relationship needs to be built in to how services are planned and how we drive quality forward. The Criteria for a Participation Standard produced by the Scottish Health Council refer to 'supported and effective involvement of people in service planning and improvement'. For diabetes services, this means: having methods to identify and encourage people to be involved; assessing their support needs so that they can participate fully; creating mechanisms and opportunities to participate in decision making; and ensuring feedback on decisions.



### Diabetes Voices

Diabetes services are already committed to involving and engaging people living with diabetes through MCNs, the SDG and its various sub groups. In support, Diabetes UK Scotland, with Scottish Government funding, provides Diabetes Voices training for patient representatives and this is currently being rolled out across the diabetes MCNs. However, the move towards a 'mutual NHS' means that the focus on patient involvement and engagement needs to be strengthened. This includes reviewing the content and delivery of Diabetes Voices and considering, at MCN and SDG levels, improving standards of participation. The Scottish Government Health Directorates are also funding an extension of the programme to carers, and those caring for people with diabetes should be included.

The Scottish Government Health Directorates are further extending the Voices programmes so that those who undergo the training are encouraged to promote the importance of self management. That approach will also be reflected in the Diabetes Voices programme.

**Actions we will take:**

**1. Diabetes MCNs should ensure that people living with diabetes are fully engaged in the MCN's activities.**

- The diabetes MCNs should, in their annual reports, demonstrate the impact of patient involvement on how local services have been developed and/or improved (MCNs).
- NHS Boards through their MCNs will record and report in their annual reports the number of people who have attended a Diabetes Voices course.

**2. Diabetes Voices to be reviewed, updated and rolled out further (Diabetes UK Scotland).**

Healthcare Quality Dimensions: patient-centred; effective.

**5.1.3 Diabetes Managed Clinical Networks (MCNs)**

**Where we want to be:**

We want to ensure that the diabetes MCNs are strong and effective in developing and integrating diabetes care within NHS Boards and their local planning partners.

**Why we want to be there:**

The diabetes MCNs have played a crucial role in the continued development of structures and services to help support and influence the quality improvement of diabetes care. This was made clear in the national overview follow-up report of NHS Boards' performance against the diabetes clinical standards published by NHS QIS and Diabetes UK Scotland in March 2008. The diabetes MCNs remain the prime vehicle for delivery of the aspirations in the Action Plan, and for the improvement programme being developed by NHS QIS to support implementation of SIGN 116, including any revision of the diabetes clinical standards needed to bring them into line with the revised Guideline. Each NHS Board must therefore ensure that, in line with HDL (2007) 21 on *Strengthening the Role of MCNs*, its diabetes MCN is fit for purpose, with a lead clinician, working with a Network manager, to provide strong clinical leadership.

Within each NHS Board, the diabetes MCN will be the main mechanism for integrating diabetes care. Strong links to the Board's senior management teams are essential. This can be provided through the Long Term Conditions Executive Sponsor who has been identified through the work of the Long Term Conditions Collaborative. The diabetes MCN should ensure that the regular reports which it produces for the Scottish Diabetes Group on progress against the NHS Board actions in this Action Plan are cleared with senior management within the Board before submission to the SDG. Where they have not already done so, NHS Boards should also take steps to accredit their diabetes MCN, in line with guidance from NHS Quality Improvement Scotland.



The best way of enhancing the effectiveness of the diabetes MCNs is by making sure there is strong participation on the part of people living with diabetes and the voluntary sector organisations which support them. This issue is dealt with in section 5.1.2.

It is also essential that Primary Care should play a full role in the work of the MCNs, given that that is the setting in which the majority of diabetes professional care is delivered. There is a role for the Primary Care Diabetes Society in promoting primary care teams' participation in the work of the diabetes MCNs.

The diabetes MCNs should continue to evolve and adapt in the light of implementation of the Action Plan and other developments, with the overall aim of providing fully integrated services that address the totality of the needs of people living with diabetes. One possible development that the Scottish Diabetes Group will wish to keep in mind is the transformation of diabetes MCNs into diabetes Managed Care Networks, the difference being that Managed Care Networks would be more clearly understood as embracing people's social and other care needs in addition to their healthcare needs.



**Actions we will take:**

**1. NHS Boards to maintain the effectiveness of the diabetes MCNs, in particular by ensuring proper engagement of the MCNs in Boards' planning of future person-centred service developments.**

**2. NHS QIS will work with diabetes MCNs to develop a quality improvement programme.**

**3. The MCN Lead Clinicians' group and MCN Managers' groups will continue to meet regularly to:**

- share expertise and best practice;
- advise SDG on strategy development;
- collaborate with other members of SDG including Diabetes UK Scotland and the Diabetes Care Focus Group.

**4. NHS Boards will accredit their diabetes MCN where this has not already been done.**

Healthcare Quality Dimensions: equitable; effective; efficient.

#### **5.1.4 Rural and remote care**

**Where we want to be:**

We want to develop initiatives and programmes which ensure that people have access to robust services wherever they live in Scotland.

**Why we want to be there:**

One of the defining characteristics of care provision in Scotland is the challenge of geography. Island, rural and remote communities need to have access to diabetes care which provides optimal support for their condition. This Action Plan needs to deliver practical support to those initiatives and programmes which tackle the geographical spread of Scotland and the need for around the clock care.

Remote and rural areas pose specific challenges to the delivery of care. Telehealth can help diabetes services overcome these obstacles, by allowing clinicians to consult with patients remotely. At the moment live video conference clinics are available for people with diabetes in Orkney. This includes links to a computer for patient monitor readings. These are supported locally by nursing staff and a consultant based in Aberdeen. Telehealth can also allow GPs to consult with specialists thereby reducing the need for referrals.

Telehealth will also have a role to play in supporting self management.



## Chronic Medication Services

Through the Chronic Medication Service and the public health aspects of the new pharmacy contract, community pharmacists are well placed to assist diabetes services in providing support for people with diabetes, especially those who, for whatever reason, are finding it difficult to maintain control or access services.

The Chronic Medication Service which formalises the contribution of community pharmacists to the management of people with long term conditions will be rolled out from April 2010. This service will assist in improving people's understanding of their medication and optimising the clinical benefits from their therapy. This highlights the importance of having effective community pharmacist representation on diabetes MCNs.

### ***Actions we will take:***

**1. Diabetes MCNs will explore telehealth opportunities and consider how telehealthcare solutions can be embedded into the pathways of people with diabetes (responsibility: Diabetes MCNs).**

**2. Diabetes MCNs will develop effective links with community pharmacy services:**

NHS Boards, through their diabetes MCNs and CHPs, will ensure that people with diabetes and their carers get access to a range of support at local level, including voluntary groups, peer support and events (responsibility: diabetes MCNs).

### An Orkney to Grampian diabetes clinic via video conference



#### 5.1.5 Optimal use of information technology

##### **Where we want to be:**

We want to ensure that there is a comprehensive register and clinical database supporting the integrated care of everyone with diabetes in Scotland.

##### **Why we want to be there:**

High quality care requires high quality patient data, whether for clinical activities relating to an individual's care or epidemiological activities that enable the diabetes community to understand diabetes and its effects in order to design better care. Good clinical data enable both healthcare professionals and people with diabetes to understand an individual's diabetes care requirements.

The Scottish Government recognises the importance of information sharing, particularly in view of the multi-disciplinary nature of diabetes care. The Scottish Diabetes Group will continue to monitor the progress made, to ensure that the current momentum with the project is maintained.

SCI-DC acts as a comprehensive disease register and clinical database supporting the integrated care of over 220,000 people with diabetes in Scotland.

By February 2009, the SCI-DC Network had been rolled-out across all NHS Board areas in Scotland. It is linked to and extracts relevant diabetes-related data from almost all GP practices and the specialist diabetes clinics across Scotland.

In addition, SCI-DC provides comprehensive support for:

- The NHSScotland Diabetes Retinopathy Screening Programme
- Structured foot ulcer risk assessment
- The annual Scottish Diabetes Survey

Patient access to their health data is a key part in supporting better self management. SCI-DC will continue to develop that access and the SDG will support initiatives which help deliver access. The SCI-DC developments mentioned in this action plan are subject to approval of a business case. Lessons emerging from the Patient Held Record Project will be actively incorporated in diabetes care more generally through diabetes MCNs and individual healthcare professionals.

Consideration should also be given to making sure people living with diabetes who also have chronic kidney disease are able to benefit from the Renal PatientView Initiative, supported by the Scottish Government, which allows people to see the results of their blood tests on their home computer.

**Actions we will take:**

**1. Optimise sharing of clinical information through the increased use of the NHS Boards' diabetes databases during routine clinical care.**

**2. Ensure that the electronic diabetes systems meet the needs of users and record and store clinical data in 70% of clinical encounters relating to foot ulcer, paediatric diabetes, dietetic and DSN reviews.**

**3. Maximise the use of the diabetes care system by patients to enhance their own self management and improve patient/professional communication.**

- The Scottish Diabetes Group will support the development of a Patient Held Record Project in partnership with Diabetes UK.
- Increase the number of patients directly accessing their own data electronically.

**4. To ensure current existing diabetes system functionality is maintained within each NHS Board and integrated into existing and future systems.**

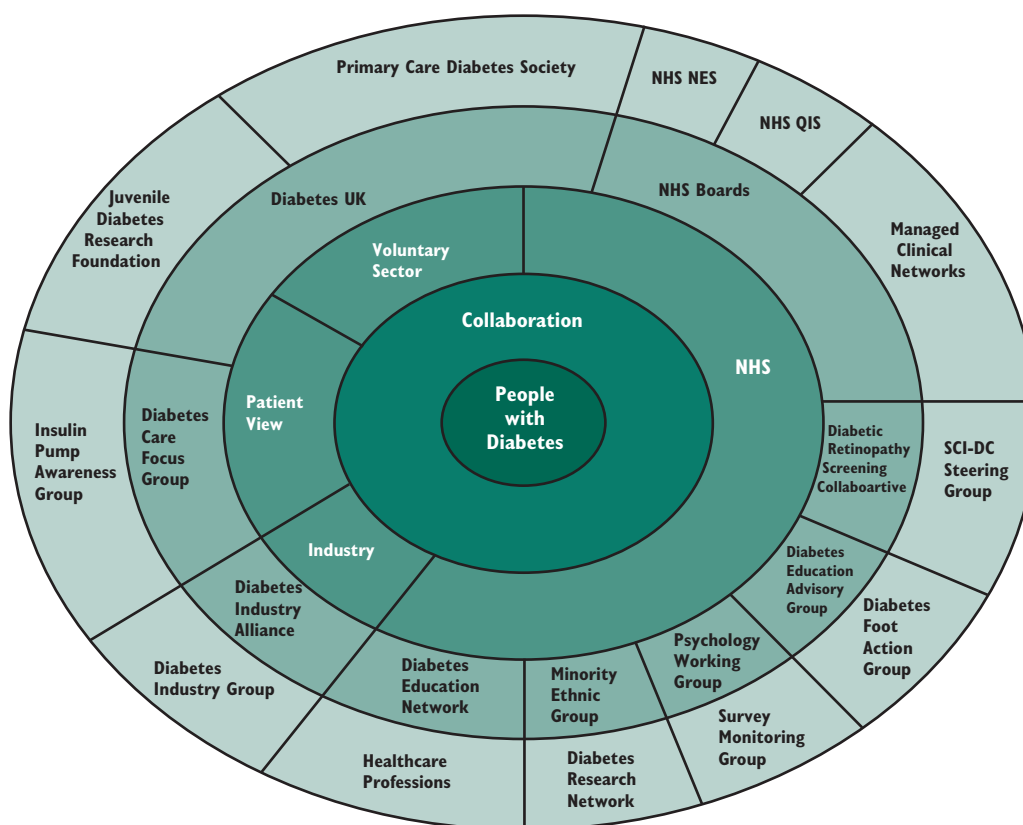
- Encourage further integration between the NHS Board diabetes database, non-diabetes registers and currently operating relevant systems such as primary care and emergency care summary.

Healthcare Quality Indicators: effective; efficient; person-centred.

## 6. CONCLUSION

There are already aspects of diabetes care, such as the NHS Quality Improvement Scotland clinical standards for diabetes services and diabetic retinopathy screening services, which are at the leading edge internationally. The Scottish Diabetes Survey has a richness of data on which to base service developments that is unmatched in almost any other country. We can therefore embark on implementation of the Action Plan with confidence that its aspiration towards achieving world-class diabetes services can be met.

### People with Diabetes at the Centre:



## Appendix 1

### Individuals and organisations that responded to the *Better Diabetes Care* consultation

#### Organisation consultation responses

Animas UK and Ireland	NHS Greater Glasgow and Clyde Children's Diabetes Service
Bristol-Myers Squibb and AstraZeneca	NHS Greater Glasgow and Clyde Community Specialist Podiatrists
British Association for Counselling and Psychotherapy	NHS Health Scotland
British Dietetic Association	NHS Lanarkshire Diabetes MCN
British Heart Foundation Scotland	NHS Lothian
British Medical Association	NHS Orkney
British Psychological Society	NHS Shetland
Care Commission	NHS Tayside
Chair of Significant Review Case	NHS Tayside Nutrition Network Diabetes Group
Chartered Society of Physiotherapy	Novo Nordisk Limited
Diabetes Care Focus Group	Nursing, Midwifery and Allied Health Professions Research Unit
Diabetes Education Network Scotland	Royal College of General Practitioners
Diabetes UK Scotland	Royal College of Midwives
Diabetic Retinopathy Screening Collaborative	Royal College of Nursing Scotland
Fife Diabetes MCN	Royal College of Physicians of Edinburgh
Fitness Industry Association	Scottish Council on Deafness
Grampian Diabetes MCN	Scottish Medical and Scientific Advisory Committee
Insulin Pump Awareness Group	Scottish Medical Technologies Industry Group
Lifescan UK and Ireland	Scottish Pharmacy Board
Lothian Diabetes Representative Group	Sense Scotland
Medtronic Limited	South Edinburgh Health Forum
National Pharmacy Association	
NHS Ayrshire and Arran	
NHS Borders Diabetes MCN	
NHS Greater Glasgow and Clyde	

### **Individual consultation responses**

Alexandra Duncan

Chris Myles

Diane Cochrane

Dr Helen Griffiths

Dr Katharine Morrison

George Farmer

Gerry Shapiro

Moirá Seary

Peter Leslie

Philomena McKenzie

Ross Kerr

Tim Brown

The consultation responses are available in full on the Scottish Government website at:  
[www.scotland.gov.uk](http://www.scotland.gov.uk).

In addition to the consultation over 733 people living with diabetes in Scotland took part in a survey conducted by Diabetes UK Scotland on behalf of the Scottish Government. The Better Diabetes Care Survey Report can be found on the Diabetes UK website:  
<http://www.diabetes.org.uk/Professionals/Publications-reports-and-resources/Reports-statistics-and-case-studies/Reports/Better-Diabetes-Care-Survey-report-2009/>.

## Appendix 2

### Table of NHS Board planned investment in Insulin Pump Therapy

NHS Board	2010-11	2011-12	2012-13
<b>NHS Ayrshire and Arran</b>	<ul style="list-style-type: none"> <li>• Suitable patients identified by Consultant Physicians in consultation with colleagues</li> <li>• 5 children with type 1 diabetes currently on insulin pump therapy (2%)</li> <li>• Currently 2 adults on insulin pump therapy and a further 2 adults identified who meet commencement criteria</li> <li>• Funding available for additional 8 children</li> <li>• Funding available for additional 4 adults</li> <li>• Adult a paediatric diabetes services committed to step-wise increase in pump provision</li> <li>• Structured education programme available</li> </ul>	<ul style="list-style-type: none"> <li>• Funding available for additional 12 children</li> <li>• Funding available for additional 8 adults</li> <li>• Paediatric pump/structured education available</li> <li>• Structured Education Programme available</li> </ul>	<ul style="list-style-type: none"> <li>• Funding available for additional 16 children</li> <li>• Funding available for additional 12 adults</li> <li>• Paediatric pump/structured education available</li> <li>• Structured Education programme available</li> </ul>
<b>NHS Borders</b>	<ul style="list-style-type: none"> <li>• The Borders Diabetes Service has run its own pump therapy service since 2005. Pumps have been offered to more patients than have taken up pumps. The people who have declined the use of pumps have done so for individual and personal reasons.</li> <li>• The pump service will become an integrated service incorporating adult and paediatric pump services.</li> <li>• Currently 23 patients (19 adults and 4 children) in total on insulin pump therapy (3.8%)</li> <li>• Proposals for future investment will be considered within the standard Local Delivery Planning process</li> <li>• The proposed additional investment would support an additional 10 adults and 4 children, bringing the total number of people on pump therapy to 37 (6.1%) in the first year, with year-on-year increase of 1 adult per year.</li> <li>• The provision of structured education programmes across the area has been absorbed within the workload of the Diabetes Specialist Nursing (DSN) team. However, as demand on the DSN service grows, this is becoming increasingly difficult to sustain and any future investment approved through the LDP process will help to address this capacity issue.</li> </ul>	<ul style="list-style-type: none"> <li>• Previously agreement for additional 6 patients.</li> <li>• Outcome of LDP process will inform further expansion of service</li> </ul>	<ul style="list-style-type: none"> <li>• Previous agreement for 6 additional patients</li> <li>• Outcome of LDP process will inform further expansion of service</li> </ul>



NHS Board	2010-11	2011-12	2012-13
<p><b>NHS Dumfries and Galloway</b></p> <ul style="list-style-type: none"> <li>• No restriction on funding of pumps, which are provided if Consultant Physician considers patient may benefit.</li> <li>• 10 adult patients with insulin pumps (1.25%) of the 800 adults with type 1 diabetes.</li> <li>• 4 children with pumps out of the 57 children with type 1 diabetes (7.0%).</li> <li>• 35 additional pumps being funded through Health Technology Assessment RCT comparing structured education with pumps in promoting glycaemic control. Would take total to 5.72%.</li> <li>• Approximately 150 patients per year received DAFNE.</li> </ul>	<ul style="list-style-type: none"> <li>• Further 30 patients on pump as part of HTA research trial</li> <li>• Insulin pumps made available according to clinical need</li> <li>• Approximately 150 patients per year received DAFNE.</li> </ul>	<ul style="list-style-type: none"> <li>• If, in the opinion of the Consultant Physician, the patient may benefit, they are provided with an insulin pump.</li> <li>• Approximately 150 patients per year received DAFNE.</li> </ul>	
<p><b>NHS Fife</b></p>	<ul style="list-style-type: none"> <li>• 57 adult and 13 paediatric patients (4.4%) on pump therapy.</li> <li>• Possible further expansion being considered in setting 2010-11 budget.</li> <li>• Patient pathway ensures patient seen by appropriate members of the multi-disciplinary team on 1:1 basis, then followed up at dedicated clinic for pump users. Education programme in place.</li> </ul>	<ul style="list-style-type: none"> <li>• Possible further expansion will be considered as 2011-12 budgets are set.</li> </ul>	<ul style="list-style-type: none"> <li>• Possible further expansion will be considered as 2012-13 budgets are set.</li> </ul>
<p><b>NHS Forth Valley</b></p>	<ul style="list-style-type: none"> <li>• 25 adult and 6 paediatric patients on insulin pump therapy as at 2009/2010</li> <li>• 4 additional children and young people to receive insulin pump service.</li> <li>• Further expansion in service provision will be linked to the anticipated efficiencies released from the National Procurement of blood glucose monitors and strips.</li> <li>• Final numbers will depend on demand and compliance with local guideline.</li> <li>• Current plans dependent upon NHS financial settlements.</li> </ul>	<ul style="list-style-type: none"> <li>• 4 additional children and young people to receive insulin pump service.</li> <li>• Further expansion in service provision will be linked to the anticipated efficiencies released from the National Procurement of blood glucose monitors and strips.</li> <li>• Final numbers will depend on demand and compliance with local guideline.</li> <li>• Current plans dependent upon NHS financial settlements.</li> </ul>	<ul style="list-style-type: none"> <li>• 4 additional children and young people to receive insulin pump service.</li> <li>• Further expansion in service provision will be linked to the anticipated efficiencies released from the National Procurement of blood glucose monitors and strips.</li> <li>• Final numbers will depend on demand and compliance with local guideline.</li> <li>• Current plans dependent upon NHS financial settlements.</li> </ul>

NHS Board	2010-11	2011-12	2012-13
NHS Grampian	<ul style="list-style-type: none"> <li>Structured education programme in place.</li> <li>Approximately 1.5% of adult patients and 6% of paediatric patients on insulin pumps</li> <li>MCN have reviewed the position of insulin pumps within the existing diabetes priorities for NHS Grampian.</li> <li>Funding secured to maintain the present service</li> </ul>	<ul style="list-style-type: none"> <li>Structured education programme in place</li> <li>Funding secured to maintain the present service.</li> <li>Consideration will be given to increasing the number of patients on insulin pumps. Dependent on discussion with CHPs, review of the prioritisation process and budget setting discussions.</li> </ul>	<ul style="list-style-type: none"> <li>Structured education programme in place</li> <li>Funding secured to maintain the present service</li> <li>Depending on outcome of 2011/12 discussions – consideration will be given to increasing the number of patients on insulin pumps</li> </ul>
NHS Greater Glasgow and Clyde	<ul style="list-style-type: none"> <li>Our immediate priority is paediatric patients and we are committed to use savings of c. £300k from national procurement over the next 2 years to fund an additional 30 paediatric patients.</li> <li>Currently 21 children on an insulin pump</li> </ul>	<ul style="list-style-type: none"> <li>We have a detailed plan for expansion but this is constrained by resources and by our interest in seeing the revised SIGN guidance, particularly in relation to the grading of the quality of life evidence, and the emerging evidence from the Health Technology trial on the impact of pumps on wider health costs.</li> <li>An additional 15 children on an insulin pump</li> </ul>	<ul style="list-style-type: none"> <li>An additional 15 children on an insulin pump</li> </ul>
NHS Highland	<ul style="list-style-type: none"> <li>At 10 March 2010, 20 patients on insulin pump therapy (1.18%).</li> <li>£20,000 made available on a recurring basis for this service.</li> <li>Business case developed. Not possible at this stage to agree funding as laid out in the business case. Recurring funding has been identified to support additional 10 patients, 30 in total (1.78%) through purchase of additional equipment and the appointment of a 0.5 wte dietitian</li> <li>No Paediatric service available.</li> </ul>	<ul style="list-style-type: none"> <li>Increase the number of adults on pumps to 30 in total</li> <li>Supportive of reinvesting savings from HBGM into CSII.</li> <li>No plans to develop a paediatric pump service.</li> </ul>	<ul style="list-style-type: none"> <li>Business case developed to expand service, but no funding identified. This will continue to be reviewed.</li> <li>Supportive of reinvesting savings from HBGM into CSII.</li> <li>No plans to develop a paediatric service.</li> </ul>

NHS Board	2010-11	2011-12	2012-13
<p><b>NHS Lanarkshire</b></p>	<ul style="list-style-type: none"> <li>DAFNE structured education provision being increased to 12 courses per annum.</li> <li>Currently funding 47 pumps (1.4% of type 1 population).</li> <li>Diabetes MCN has produced business case to allow further work on investment in pump service.</li> <li>Cost to increase to 95 pumps (2.8% of type 1 population) would be around £344k*. NB Board therefore not committed to investment levels mentioned.</li> </ul>	<ul style="list-style-type: none"> <li>DAFNE structured education provision continues with 12 courses (~96 number of patients) per annum.</li> <li>Cost to increase to 143 pumps (4.2% of type 1 population) would be £438k*. NB Board therefore not committed to investment levels mentioned.</li> </ul>	<ul style="list-style-type: none"> <li>DAFNE structured education provision continues with 12 courses (~96 number of patients) per annum.</li> <li>Cost to increase to 191 pumps (5.6% of type 1 population) would be £543k*. NB Board therefore not committed to investment levels mentioned.</li> </ul>
<p><b>NHS Lothian</b></p>	<ul style="list-style-type: none"> <li>At March 2010, 153 people were on pumps (3.8% of type 1)</li> <li>30 additional pumps will be funded in 2010-11, providing pumps to a total of 4.5% of people with type 1 diabetes.</li> <li>Consideration will also be given to reinvestment of savings from national procurement exercise.</li> <li>Structured education, such as DAFNE will be expanded to support people with type 1 diabetes.</li> </ul>	<ul style="list-style-type: none"> <li>Similar to the position in 2010/11 if we are successful in identifying funding we will work towards an additional 30 pumps being made available (this would be an increase to around 5.3% of type 1, all ages)</li> <li>Consideration will be given to reinvestment of ongoing savings from national procurement exercise to fund further pumps</li> <li>Continuing delivery of structured education to people with type 1 diabetes.</li> </ul>	<ul style="list-style-type: none"> <li>Similar to the position in 2010/11, if we are successful in identifying funding we will work towards an additional 30 pumps being made available (this would be an increase to around 6% of type 1, all ages)</li> <li>Consideration will be given to reinvestment of ongoing savings from national procurement exercise to fund further pumps</li> <li>Continuing delivery of structured education to people with type 1 diabetes.</li> </ul>
<p><b>NHS Orkney</b></p>	<ul style="list-style-type: none"> <li>3 current patients out of 158 people with type 1 diabetes (1.9%).</li> <li>3 additional patients.</li> <li>Board has access to NHS Grampian DAFNE programme and provides type 1 carbohydrate counting and insulin adjustment course on group or 1:1 basis.</li> </ul>	<ul style="list-style-type: none"> <li>3 additional patients. 9 people on an insulin pump.</li> </ul>	<ul style="list-style-type: none"> <li>3 additional patients. 12 people on an insulin pump.</li> </ul>

NHS Board	2010-11	2011-12	2012-13
NHS Shetland	<ul style="list-style-type: none"> <li>Currently 2 patients on insulin pump (2%).</li> <li>If patient meets criteria, they will receive a pump.</li> <li>NHS Shetland provides insulin pump service and structured education in conjunction with NHS Grampian.</li> </ul>	<ul style="list-style-type: none"> <li>Expected increase to 3%</li> <li>If patient meets criteria, they will receive a pump.</li> <li>NHS Shetland provides insulin pump service and structured education in conjunction with NHS Grampian.</li> </ul>	<ul style="list-style-type: none"> <li>No increase in provision.</li> <li>If patient meets criteria, they will receive a pump.</li> <li>NHS Shetland provides insulin pump service and structured education in conjunction with NHS Grampian.</li> </ul>
NHS Tayside	<ul style="list-style-type: none"> <li>At 9 November 2009, 83 patients currently on insulin pump therapy (4.7%).</li> <li>Funding available for 20 additional adult and children on CSII, total 103 (5.6%)</li> <li>MCN CSII business case in development.</li> </ul>	<ul style="list-style-type: none"> <li>Business case in preparation for 20 additional adult and children, 133 in total (6.8%)</li> <li>Recurring £102,000 for paediatrics.</li> </ul>	<ul style="list-style-type: none"> <li>Business case in preparation for 20 additional adult and children, 153 in total (7.5%)</li> <li>Recurring £102,000 for paediatrics.</li> </ul>
NHS Western Isles	<ul style="list-style-type: none"> <li>179 people with type 1 diabetes. Delivery of CSII programme unsustainable given low numbers of people (7-20) likely to be eligible.</li> <li>Developing CSII strategy, linked to ongoing development of diabetes obligate network with NHS Greater Glasgow and Clyde.</li> </ul>	<ul style="list-style-type: none"> <li>CSII strategy linked to ongoing development of diabetes obligate network with NHS Greater Glasgow and Clyde.</li> </ul>	<ul style="list-style-type: none"> <li>CSII strategy linked to ongoing development of diabetes obligate network with NHS Greater Glasgow and Clyde.</li> </ul>

## GLOSSARY

AHP	Allied Health Professional. A generic term used for dietitians, podiatrists, physiotherapists, etc.
ALISS	Access to Local Information to Support Self Management.
Anticipatory Care	Health programmes which check for the presence of disease. In Scotland this is delivered through the Keep Well programme.
ASSIGN	Calculation tool used to estimate a person's risk of developing cardiovascular disease.
BME	Black and Minority Ethnic.
BP	Blood Pressure.
CARE	Consultation and Relational Empathy. A consultation process measure based on a broad definition of empathy in context of a therapeutic relationship within consultation. Reflects a desire to produce a holistic, patient centred measure that is meaningful to patients irrespective of their social class.
CHD	Coronary Heart Disease. A disease of the heart and coronary arteries caused by the build up of fatty materials in the blood vessels that supply the heart with oxygen.
CHP	Community Healthcare Partnership. Designed to enhance and develop the delivery of integrated health and social care services to their population.
CKD	Chronic Kidney Disease. Also known as Chronic Renal Disease, a progressive loss of renal (kidney) function over a period of months or years.
COPD	Chronic Obstructive Pulmonary Disease. Refers to chronic bronchitis and emphysema, a pair of commonly co existing diseases of the lungs in which the airways become narrowed.
COSLA	Convention of Scottish Local Authorities. The representative association of Scottish local government and the employers' association on behalf of all Scottish councils.
CSII	Continuous Subcutaneous Insulin Infusion or insulin pump therapy.
CVD	Cardiovascular Disease. The class of diseases that involve the heart or blood vessels (arteries and veins).
CVR	Cardiovascular Risk. A terms that refers to the factors that contribute to the development of conditions relating to the circulatory system, such as angina, heart attacks and strokes.

DAFNE	Dose Adjustment for Normal Eating. A form of structured education for people with type 1 diabetes.
DCFG	Diabetes Care Focus Group.
DEAG	Diabetes Education Advisory Group.
DENS	Diabetes Education Network Scotland.
DESMOND	Diabetes Education and Self Management for Ongoing and Newly Diagnosed. A form of structured education for people with type 2 diabetes.
Diabetic Ketoacidosis (DKA)	A life threatening acute complication of diabetes caused by the build up of by products of fat breakdown called ketones. This occurs when glucose is not available as a fuel source for the body so fat is used instead.
DRS	Diabetic Retinal/Retinopathy Screening.
DSN	Diabetes Specialist Nurse. A nurse who is a specialist in the care of people with diabetes.
DVD	Digital Video Disk.
eGFR	Estimated Glomerular Filtration Rate. Flow rate of filtered fluid through the kidney estimated by formulas using a blood test result.
Epidemiology	The branch of medicine that deals with the study of the causes, distribution and control of disease in population.
GMS	General Medical Services. The contract under which NHS GPs work.
GP	General Practitioner. A medical practitioner who treats acute and chronic illnesses and provides preventative care and health education for all ages and both sexes. They have particular skills in treating people with multiple health issues.
HbA <sub>1c</sub>	Glycosylated Haemoglobin. A test that sums up how well controlled diabetes had been in the previous three to four months.
HBGM	Home Blood Glucose Monitoring. Test carried out by people with diabetes required to self monitor their blood glucose levels in order to adjust their insulin dosage.
HDL	Health Department Letter. Letter issued by the government's Health Department containing guidance designed for Health Boards.
HEAT	Health Improvement, Efficiency, Access, Treatment target. Performance management system which sets out the targets and measures against which NHS Boards are publicly monitored and evaluated.

HTA	Health Technology Assessment. A multi disciplinary field of policy analysis that examines the medical, economic, social and ethical implications of the incremental value, diffusion and use of medical technology in health care.
IGT	Impaired Glucose Tolerance. A state of raised or abnormal blood glucose levels.
LDP	Local Delivery Planning.
LTCAS	Long Term Conditions Alliance Scotland.
MCN	Managed Clinical Network. Linked groups of health professionals and organisations from primary, secondary and tertiary care, working in a coordinated manner unconstrained by existing professional and Health Board boundaries to ensure equitable provision of high quality, clinically effective services.
NDH	Non diabetic Hyperglycaemia. A level of blood glucose that is raised above the normal range, but is not high enough to reach diagnostic levels for diabetes.
NHS NES	NHS Education for Scotland. Responsible for setting professional education standards.
NHS 24	A confidential health advice and information service provided by NHSScotland allowing people to obtain advice if it is not convenient or possible to visit their GP.
NICE	National Institute for Health and Clinical Excellence. Responsible for determining standards of care in England. Often used as a benchmark for standards in Scotland.
OECD	Organisation for Economic Co-operation and Development.
PID PAD	Psychology in Diabetes, Psychology and Diabetes. Three year project, started in 2009, designed to improve psychological support to people with diabetes in Scotland. The project aims to provide increased psychological support to people with diabetes; integrated care across medical and psychological issues; and, build a skill base in diabetes within the psychology profession.
Primary Care	The activity of the healthcare provider who acts as a first point of consultation for all patients.
NHS QIS	NHS Quality Improvement Scotland. Leads the use of knowledge to promote improvement in the quality of healthcare for the people of Scotland.
QOF	Quality and Outcomes Framework. A system for the performance management and payment of GPs.



RCT	Randomised controlled trial. A type of scientific experiment most commonly used in testing the efficacy or effectiveness of healthcare services or health technologies.
SAS	Scottish Ambulance Service.
SCI DC	Scottish Care Information – Diabetes Collaboration. The diabetes register computer system used throughout Scotland.
SDG	Scottish Diabetes Group. Group who advise the Scottish Government on diabetes related matters.
SDRN	Scottish Diabetes Research Network.
SDRSC	Scottish Diabetes Retinopathy Screening Collaborative.
SDSMG	Scottish Diabetes Survey Monitoring Group.
Secondary Care	A service provided by medical specialists who generally do not have first contact with patients.
SGHD	Scottish Government Health Directorates.
SIGN	Scottish Intercollegiate Guidelines Network. To improve the quality of all forms of healthcare for patients in Scotland by reducing variation in practice and outcome through development and dissemination of national clinical guidelines containing recommendations for effective practice based on current evidence.
SLWG	Type 1 Diabetes Short Life Working Group.
TIM	Tayside Insulin Management Programme. Provides intensive group education for people with type 1 diabetes to enable them to develop the knowledge and skills to self manage their condition.

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