ITEM NO

Report No/200
Tayside NHS Board
Date

COLLABORATIVE COMMISSIONING
DIABETES SERVICES

1. PURPOSE OF THE REPORT

The purpose of this report is to gain NHS Tayside's approval of the Collaborative Commissioning Plan for Diabetes Services set out in the attached paper. This has been developed as part of the Board Collaborative Commissioning Cycle.

The promises set out the services it is essential that NHS Tayside commission in order to meet the challenge of continuing to provide safe, effective, patient centred, timely, efficient and equitable services for people with diabetes which are sustainable in the face of increasing demands.

2. RECOMMENDATIONS

The Board is asked to:

1. Approve the Collaborative Commissioning Plan for Diabetes Services in order to deliver the following promises:

   - All people newly diagnosed with Type 2 diabetes will have access to quality assured, structured education through the Tayside Diabetes Education Programme (TDEP) within 1 month of diagnosis.
   - At least 75% of people with diabetes will have a foot risk score formally calculated annually.
   - All people with diabetes will have access to appropriate state registered podiatry services as indicated by their foot risk score.
   - All people with diabetes will have appropriate access to state registered dietetic services in line with agreed Tayside-wide standards.
   - All people with diabetes will be managed in line with agreed "Tayside Care Pathway for Patients with Diabetes".
   - All appropriate people with Type 1 diabetes will have access to intensive management instruction via the Tayside Insulin Management Programme (TIM).
   - All people with diabetes will be offered annual eye screening by digital retinal photography.

2. Ask the Single Delivery Unit to consider the financial implications in the first instance and where required that the Strategic Policy and Resources Committee consider specific business cases.

3. EXECUTIVE SUMMARY

The collaborative commissioning model endorsed by NHS Tayside Board in May 2007 provides a framework to continually improve patient care and experience through active and positive collaboration between patients, clinicians and managers where we work together to

solve problems and deliver innovative solutions. It was agreed that diabetes services would be part of a formal evaluation of the commissioning cycle.

Diabetes is a long term and progressive condition with potentially devastating consequences. The number of people with diabetes in Tayside has increased by 66% in the last seven years and currently stands at 16,110 (November 2007), which represents a prevalence of 4.1%. Over recent years services for people with diabetes have improved significantly across Tayside. For example, despite the increasing prevalence there has been an overall improvement in the proportion of people with diabetes receiving regular checks and achieving treatment goals.

Developments are going in the right direction, but there are issues with the pace and spread of these changes and also the capacity to continue deliver necessary improvements against the ever increasing prevalence.

Work on the diabetes strategy is currently at step 5 in the commissioning cycle i.e. "Create and agree key promises". The work undertaken to reach this stage fulfils the criteria set out in stages 1 – 4 of the cycle.

Stage 1 – Consider clinical evidence, health policy and best practice, economic appraisal, forecasting and capacity.

- NHS Tayside's Managed Clinical Network Board considers all new evidence, health policy and best practice on an ongoing basis and incorporates into its priorities and workplan.
- Local guidelines and protocols are based on SIGN Guideline 55 Management of Diabetes and reviewed in light of emerging evidence.
- The MCN Work Plan which is presented annually to the Improvement & Quality Sub-Committee incorporates actions from the Scottish Diabetes Framework Action Plan.
- In light of increasing demands a strategic review of the diabetes service was undertaken in 2002 to ensure that NHS Tayside was able to deliver appropriate care to all people with diabetes. This resulted in the NHS Tayside Diabetes Strategy "Completing the Jigsaw".

Stage 2 - Start a dialogue with the public, clinicians and other key stakeholders.

- The review was undertaken in consultation with a wide range of stakeholders and the Diabetes Strategy developed around patients' needs.
- The Strategy was reviewed in the latter half of 2006 with consultation across the Managed Clinical Network, its Patient Council and all three Community Health Partnerships.
- Presentations have been made to the Joint CHP Conference and GP Sub-Committee of the Area Medical Committee in September 2007 in relation to aspects of the Plan.

Stage 3 - Agree issues which are appropriate for the Commissioning Plan

- In consultation with the MCN Network Board, Patient Council, Community Health Partnerships and Acute Services Division key patient focused outcomes were agreed which covered patient education, foot screening, access to podiatry, access to dietetics and implementation of the integrated care pathway.

Stage 4 - Review current service provision: variation, waste, duplication in patient flows

- A review of current service provision was undertaken as part of the development of the Strategy and also more recently as part of NHS QIS review of diabetes services in Tayside.

Stage 5 – Create and agree promises

- The previously agreed key patient focused outcomes have been translated into the Collaborative Commissioning promises.

4. MEASURES FOR IMPROVEMENT

Specific measures for improvement are detailed in the Collaborative Commissioning Plan for

each promise and will be subject to regular monitoring and reporting into the Quality and Improvement Committee.

5. FINANCIAL IMPLICATIONS

The financial implications of the Commissioning Plan are set out in Appendices 1 to 7 of the attached paper. The costs must only be regarded as indicative at this juncture, and in some areas will provide a mechanism to test the models. It will be necessary to develop a robust and affordable financial framework for the roll out of all the promises. The Single Delivery Unit will consider these requirements in the first instance and where required specific business cases will be brought to the Strategic Policy and Resources Committee.

In summary the provisional identified costs are:

2008-09		2009-2010		2010-2011		2011 onwards
Non-recurring	Recurring	Non-recurring	Recurring	Non-recurring	Recurring	Recurring
£166,782	**£103,023**	**£158,382**	**£103,023**	**£96,469**	**£103,023**	**£103,023**

At this time a significant proportion of the costs are non-recurring. This is to enable further short to medium term work to be undertaken to identify current services and skills and scope out requirements to meet future challenges. As indicated there may be further recurring financial implications identified as a result of this work.

6. DELEGATION LEVEL

Resources are managed across the Diabetes Managed Clinical Network (MCN) by Community Health Partnerships and Medicine and Cardiovascular Clinical Group Services. The MCN encourages a collaborative approach to decision making about use and distribution of resources.

7. RISK ASSESSMENT

The Commissioning Plan for Diabetes Services will ensure that NHS Tayside delivers safe, effective, patient centred, timely, efficient and equitable services and supports the Single Delivery Unit in discharging its duty to deliver single system operational clinical services.

Timescale risks will be dependent upon resource availability.

8. IMPLICATIONS FOR HEALTH

The Commissioning Plan will ensure that NHS Tayside provides high quality care for people with diabetes. By focussing on the prevention of complications of diabetes through provision of education and regular reviews, the life expectancy and quality of health for people with diabetes will be increased.

9. TIMETABLE FOR IMPLEMENTATION AND LEAD OFFICER

If approved the timetable for implementation will be developed. The Lead Officer will be Mr Gerry Marr, Chief Operating Officer of the Single Delivery Unit. He will be supported by the following officers:
Collaborative Commissioning - Caroline Selkirk, Director of Change and Innovation (Managerial Lead for MCNs and Board Lead for Improvement) and Dr Andrew Russell, Director of Primary Care (Clinical lead)
Diabetes – Dr Alistair Emslie-Smith, GP and Diabetes MCN Lead Clinician and Elaine Wilson, Diabetes MCN Manager.

10. CONSULTATION

INFORMING, INVOLVING & CONSULTING WITH PUBLIC & STAFF

The promises in the Diabetes Collaborative Commissioning Plan were developed following consultation with:

- Diabetes MCN Patient Council
- Dr David Dorward, Lead Clinician, Dundee Community Health Partnership
- David Lynch, General Manager, Dundee Community Health Partnership
- Dr Jan Sinclair, Lead Clinician, Perth & Kinross Community Health Partnership
- Bill Nicol, General Manager, Perth & Kinross Community Health Partnership
- Dr Michelle Watts, Lead Clinician, Angus Community Health Partnership
- Susan Wilson, General Manager, Angus Community Health Partnership
- Rhona Guild, Primary Care Development Manager, Angus Community Health Partnership
- Dr Graham Kramer, Lead Diabetes Clinician, Angus Community Health Partnership
- Diabetes MCN Network Board and Implementation Group including:
- Professor Andrew Morris, Professor of Diabetic Medicine
- Kay Fowlie, Clinical Group Manager, Medicine and Cardiovascular Group
- Dr Graham Leese, Diabetes Team Leader, Medicine and Cardiovascular Group

Further consultation on the plan and specific promises was also undertaken with:

- Dr Alan Shepherd, Chairman, Area Clinical Forum
- Dr Andrew Buist, Chairman, GP Sub-Committee
- Dr Andrew Cowie, Secretary, GP-Sub-Committee
- Dr Andrew Russell, Director of Primary Care

11. EQUALITY& DIVERSITY IMPACT ASSESSMENT

The Diabetes Collaborative Commissioning Plan complies with the principles of Equality and Diversity Impact Assessment.

16. BACKGROUND

See paper attached.

Dr A Emslie-Smith
Diabetes MCN Lead Clinician
NHS Tayside

Professor W J Wells
Chief Executive
NHS Tayside

Ms Caroline Selkirk
Director of Change and Innovation
NHS Tayside

Ms Elaine Wilson
Diabetes MCN Manager
NHS Tayside

COLLABORATIVE COMMISSIONING - DIABETES SERVICES

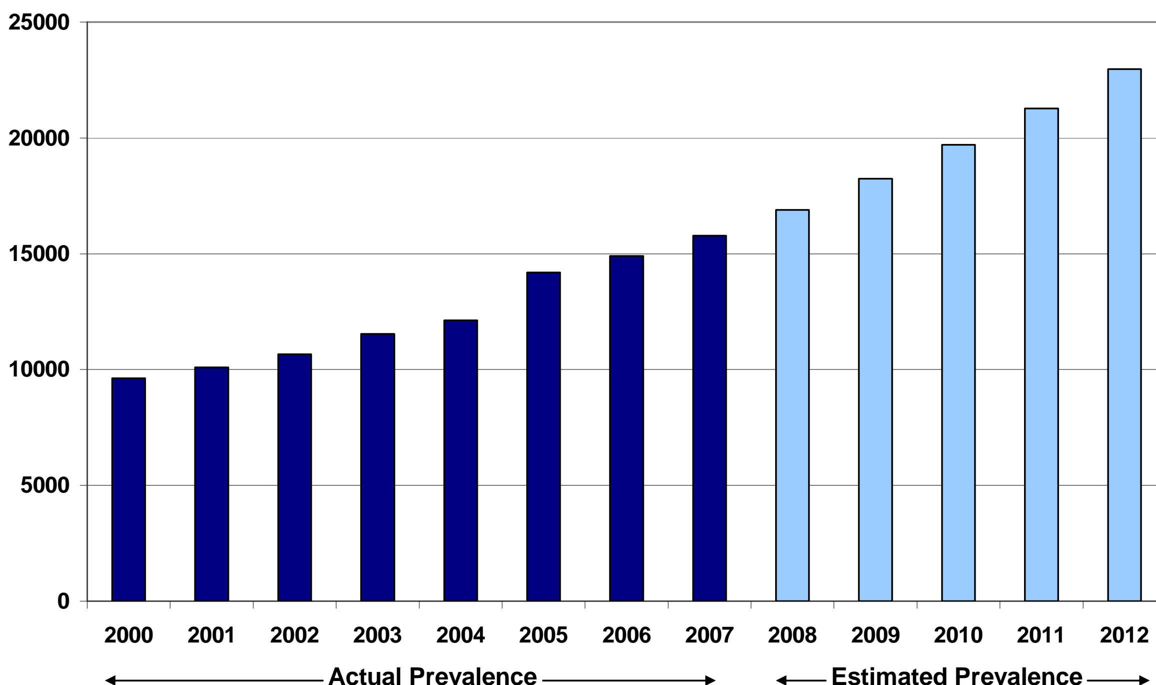
1. Background

Diabetes is a chronic and progressive disease that has an impact upon almost every aspect of life. It is characterised by elevated blood glucose levels as a result of a lack of insulin or resistance to its action and is associated with increased risks of heart attacks, strokes, blindness, amputations and kidney failure.

Diabetes is a major and increasing health problem in Scotland. Over 170,000 people in Scotland have been diagnosed with diabetes and the prevalence continues to rise, particularly for Type 2 diabetes which is often associated with unhealthy body weight. It is possible that within 25 years, one in ten people in Scotland will have diabetes (Scottish Diabetes Action Plan, 2006)

Diabetes is still the leading cause of blindness in the working population. Twenty percent of renal replacement therapy in Scotland is due to diabetes. Patients with diabetes have a 15-20 fold increased risk of lower limb amputation. Life expectancy is reduced by at least fifteen years for someone with Type 1 diabetes and 10 years for Type 2 diabetes.

The number of people with diabetes in Tayside currently stands at 16,110 (November 2007) which represents a prevalence of 4.1% and a 66% increase in the last seven years. Ninety-three percent of people with diabetes are aged 40 years or over, and the prevalence within this age group is 7.2%. Ninety per cent people with diabetes have Type 2 diabetes. Based on past prevalence and an average increase of 7% each year, we could expect a prevalence of around 23,000 by 2012. This does not take into account demographic changes with an ageing population and the expected increase in obesity that is closely linked to the risk of developing Type 2 diabetes.



2. Model for delivery of effective diabetes care

As with the management of most long term conditions, the majority of care for people with diabetes could be provided locally within primary care provided that adequate resources in terms of personnel and support services were available. Under this arrangement patients with more complex needs would access specialist services on a clinical needs basis in line with agreed protocols. The aim of modern diabetes management is to target multiple risk factors prospectively to prevent long term complications. This model supports current local and national policies in relation to shifting the balance of care including NHS Tayside Single Delivery Unit's *Shifting the Balance of Care "An Integrated Model of Service Delivery"* (March 2007), *Delivering for Health* (2005) and the current consultation document *Better Health, Better Care* (2007)

In 2002 the Tayside Diabetes Managed Clinical Network (MCN) published its Strategy; *Completing the Jigsaw: Strategy and Implementation Plan for managing increasing demand in adult diabetes services.* The Strategy was produced following a review of the whole diabetes service in response to the steadily increasing prevalence of diabetes and the rising burden that this was bringing. It set out the design of a modern diabetes service responsive to patient needs and that would enable greater provision of diabetes healthcare delivery within the community.

The main recommendations were:

1. Adoption of an Integrated Care Pathway to ensure that, at every stage patients with diabetes receive appropriate care of an assured standard.

2. Developing facilities that enable an enhanced level of Community Diabetes Care provision:
   a) A fully comprehensive Tayside Diabetes Eye Screening Service
   b) Structured Group Education for patients newly diagnosed with Type 2 diabetes.
   c) Increased resources for General Practices who commit themselves to providing Community Diabetes Care within a defined quality, continuing professional educational and clinical governance framework.
   d) Increased community dietetic and podiatry resource across Tayside.

3. Specialist Care Services to be re-organised to be more responsive to the needs of patients, with the establishment of a Consultation Service and a Continuing Specialist Care Service.

Since the publication of the Strategy services for people with diabetes have improved significantly across Tayside:

- Despite the increasing number of people with diabetes there has been an overall improvement in the proportion of people with diabetes receiving regular checks and achieving treatment goals. This is demonstrated by the comparative data in Appendix 8.

- As a result of adoption of an Integrated Care Pathway for Newly Diagnosed Patients there has been a significant decrease in the number of new referrals to the specialist diabetes service despite increasing prevalence of diabetes (see Appendix 5). It has not been possible to achieve the same level of change for review patients who attend specialist clinics.

- A comprehensive eye screening service is now provided across Tayside.

- Tayside Diabetes Education Programme (TDEP) provides structured group education to patients newly diagnosed with Type 2 Diabetes. Through the redesign of existing services it is

currently available across all of Dundee, and parts of Angus and Perth & Kinross. Roll out to cover all of Tayside has been limited by available resources and sustainability of the current model is also of concern.

- Community Dietetic and Podiatry resources have been redesigned but there remains inequity of access across Tayside.

Developments are going in the right direction, but there are significant issues with the pace and spread of these changes and also the capacity to continue delivering necessary improvements against an ever increasing prevalence. The Diabetes Strategy was reviewed in the latter half of 2006 with consultation across the Managed Clinical Network, its Patient Council, Acute Services Division and Community Health Partnerships. It was agreed that the fundamental principles of the Strategy remained relevant and were fully supported. In order to continue to drive forward the implementation of the Strategy key patient focused outcomes were agreed following wide consultation. These patient focused outcomes have been translated into the key promises of the Collaborative Commissioning Plan for Diabetes Services. These key promises set out the services it is essential that NHS Tayside commission in order to meet the challenge of continuing to provide safe, effective, patient centred, timely, efficient and equitable services for people with diabetes which are sustainable in the face of increasing demands.

The seven promises are set out below along with measures for improvement and measures for judgement. The Lead Executives will be agreed in consultation with the Single Delivery Unit.

Further detailed information for each promise can be found in the appendices. These set out the rationale, strategic fit, current position, challenges, proposed service development, outcomes and financial implications for each promise.

COLLABORATIVE COMMISSIONING PLAN - DIABETES SERVICES

The Commissioning Plan	Measures for Improvement	Measures for Judgement	Lead Executive
1. All people newly diagnosed with Type 2 diabetes will have access to quality assured, structured education through the Tayside Diabetes Education Programme (TDEP) within 1 month of diagnosis.	Increase in number of general practices able to access TDEP. Increase in number of newly diagnosed patients attending TDEP. Reduction in waiting time for access to TDEP.	% of general practices who have access to refer patients to TDEP. Of those general practices who have access, % of newly diagnosed patients attending TDEP. Waiting time for access to TDEP in each locality.	
2. At least 75% of people with diabetes will have a foot risk score formally calculated annually.	Increase in number of patients with foot risk formally calculated and recorded annually using SCI-DC foot risk assessment tool.	% of patients with foot risk score recorded annually.	
3. All people with diabetes will have access to appropriate state registered podiatry services as indicated by their foot risk score	Increase in number of podiatrists who have received training in diabetes foot care. Profile of staffing resource with competencies to care for patient risk groups. Increase in number of patients with diabetes seen by an appropriate podiatrist according to their foot risk score.	% of patients with medium and high foot risk score seen by appropriately trained podiatrist.	
4. All people with diabetes will have appropriate access to state registered dietetic services in line with agreed Tayside-wide standards	Agreement of Tayside-wide criteria for access to dietetic services. Benchmarking of current provision against agreed criteria. Increase in number of patients who	% of patients receiving dietetic services in line with agreed criteria.	

	require dietetic intervention in line with agreed criteria seen by appropriate dietician.		
5. All people with diabetes to be managed in line with agreed "Tayside Care Pathway for Patients with Diabetes"	Reduction in number of patients attending specialist clinics for routine review appointments. Reduction in waiting times for specialist outpatient appointments Agreement and implementation of an local enhanced service for diabetes care Increase in number of patients managed in line with agreed pathway Development of specialist services.	Number of patients attending diabetes clinics Waiting time for outpatient appointments % of practices signed up to local enhanced service for diabetes care Increase in number of specialist clinics – Type 1, Renal clinics	
6. All appropriate people with Type 1 diabetes will have access to intensive management instruction via the Tayside Insulin Management Programme (TIM).	Increase in number of TIM courses provided Increase in number of patients with Type 1 diabetes attending a TIM programme	% of patients with Type 1 diabetes who have attended a TIM programme	
7. All people with diabetes will be offered annual eye screening by digital retinal photography.	Redesign eye screening service to maximise current capacity Map capacity of eye screening programme required to meet rising prevalence of diabetes. Increase in number of patients attending for eye screening.	% of patients with diabetes who have had their eyes screened annually	

Key Promise 1

All people newly diagnosed with Type 2 diabetes will have access to quality assured, structured education through the Tayside Diabetes Education Programme (TDEP) within one month of diagnosis.

Rationale

The aim of education for people with diabetes is to improve their knowledge and skills, enabling them to take control of their own condition and to integrate self-management into their daily lives. The ultimate goal of education is improvement in:

- control of reversible risk factors including blood glucose, blood lipids, blood pressure and smoking
- management of diabetes-associated complications, if and when they develop
- quality of life.

Studies have shown that education reduces or prevents worsening blood glucose levels. Two large landmark studies, the Diabetes Control and Complications Trial and the United Kingdom Prospective Diabetes Study, have demonstrated the beneficial effects of maintaining good blood glucose levels in preventing the development and progression of diabetic complications such as heart attacks, strokes, blindness, amputations and kidney failure.

Strategic Fit

- Supports the disease specific education element of NHS *Tayside's* ***Long Term Condition Programme Self Care Framework*** and the Long Term Conditions Collaborative Commissioning Promise of supporting people to live confidently with their condition.
- The ***Scottish Diabetes Framework Action Plan (2006)*** recommends that newly-diagnosed patients with Type 2 diabetes are offered structured education within three months of diagnosis.
- One of the key actions in ***Delivering for Health (2005)*** is to increase support for self care to enable people with long-term conditions to live healthy lives.
- The ***National Institute for Health and Clinical Excellence's (NICE) Technology Appraisal - Diabetes (types 1 and 2) - patient education models (2003)*** recommends that structured patient education is made available to all people with diabetes.
- ***NHS QIS Diabetes Standards (2002)*** that all people newly diagnosed with diabetes are offered at least one appropriately tailored formal education session about their condition.

Current Position

Tayside Diabetes Education Programme (TDEP) provides structured group education for patients newly diagnosed with Type 2 diabetes. This programme, which has been running since 2004, was developed by redesigning existing services utilising nursing and dietetic resources. There are two models of this programme, either delivered by Diabetes Specialist Nurses and Dieticians (Dundee and Central Perthshire), or by practice nurses and community dieticians mentored by the specialist team (Angus and Northwest Perthshire). An innovative web based booking system has been developed which allows sessions to be booked online whilst the patient is with the GP or nurse.

Coverage:

Dundee	100%	All practices have access to TDEP
Angus	47%	Arbroath and Forfar practices
Perth & Kinross	57%	Perth City, Auchterarder, Kinross and Northwest Perthshire practices

An evaluation demonstrated that the majority of patients found the education sessions beneficial.

Challenges

Having run the programme since 2004 the only area where it has been fully rolled out is Dundee. However, this model where TDEP is delivered by the specialist team is not sustainable due to the increasing demands caused by rising prevalence of diabetes, the move to intensive insulin management and the need to deliver other types of education for Type 1 diabetes, which requires specialist knowledge. The model where TDEP is delivered by practice staff is not sustainable either as it has relied on enthusiasm or willingness of staff to take on this role which now involves increased levels of training and commitment to comply with national quality measures. Lack of dietetic staffing to input to the programme has also been barrier to the roll out in Perth & Kinross and Angus.

Proposed Service Development

To recruit, train and deploy two half-time 'Diabetes Education Facilitators' to work as part of the diabetes healthcare professional team across Tayside.

Diabetes Education Facilitators are professionals who work as part of the multi-professional diabetes team, across Primary and Secondary Care to provide education and support for patients with diabetes and their carers. Diabetes Education Facilitators, who typically have a nursing, dietetic or educationalist background, work closely with the Diabetes Specialist Nurse Team, relieving the Diabetes Specialist Nurses of much of the routine educational component of their current job description, allowing them more time to concentrate on the more complex components of diabetes patient care, and, in particular, intensive insulin management.

Numbers of newly diagnosed patients in each year are shown below and represents around a 7- 8% increase on average each year. Based on this average increase, figures for 2007-2010 in italics have been estimated.

2001	2002	2003	2004	2005	2006	*2007*	*2008*	*2009*	*2010*
888	1148	1127	1274	1333	1346	*1454*	*1570*	*1696*	*1832*

- Assumptions have been made for a WholeTime Equivalent working 44 weeks per annum 37.5 hours per week (accounts for annual leave, statutory leave and study leave). This equates to 220 days each year.
- TDEP consists of two, 2 hour sessions. To allow for travel and set up time a half day has been allocated for each session.
- Each TDEP session accommodates 8 patients as part of the group as patients are encouraged to bring along a carer, family member or friend.

Using latest published incidence for 2006 of 1346, in groups of 8 would require 168 groups. Each group consists of 2 half day sessions which would equate to 168 days. This would allow time for audit and quality assurance processes for the programme to be developed and implemented in order to meet the NICE criteria for structured education during the first year of the programme. After this capacity would start to be utilised by increasing numbers.

Year	Incidence	No of groups	Days required
2008	1570	196	196
2009	1696	212	212
2010	1832	229	229

It is proposed to employ two X 0.5 whole time equivalent posts to allow maximum flexibility and peer support. It is proposed that these posts would be equivalent to a Band 5, however, the post and job description would require to be assessed through Agenda for Change. This Banding would be equivalent to Diabetes Nurses, Community Nurses, Community Dieticians and other posts such as

Smoking Cessation Nurses.

Outcomes

- All people newly diagnosed with Type 2 diabetes have access to quality assured, structured education through Tayside Diabetes Education Programme (TDEP) within 1 month of diagnosis
- TDEP meets the NICE criteria for structured education in that the programme has a structured curriculum, educators trained in curriculum and in the principles of Adult Based Learning and Group Educational Techniques, Quality Assurance and Audit.
- Specialist Diabetes Nurse and Dietician staff time freed up to develop and roll out initiatives which require specialist knowledge including Intensive Insulin Management – see promise 6

Financial Information

	Non-Recurring Revenue (£)	**Recurring Revenue (£)**
Personnel – 2 x 0.5 wte at Band 5		**30,763**
Personnel – 0.5 wte admin support at Band 2		**9,363**
Training and CPD	**1,200**	**1,000**
Travel		**3,000**
Resources – office support costs/stationary		**1,000**
IT and phones	**4,000**	**200**
Accommodation for group sessions		**1,500**
Recruitment costs	**1,000**	
TOTAL	**6,200**	**46,826**

Key Promise 2

At least 75% of people with diabetes will have foot risk scores formally calculated annually.

Rationale

Based on United Kingdom population surveys, diabetic foot problems are a common complication of diabetes with prevalences of 23-42% for neuropathy, 9-23% for vascular disease and 5-7% for foot ulceration. Patients with diabetes have a 15-20 fold increased risk of lower limb amputation. Many foot problems can be prevented through regular screening and access to specialist foot care services according to risk. In the absence of structured foot care, foot lesions are more likely to lead to amputations.

Strategic Fit

- An action from the ***Scottish Diabetes Framework Action Plan (2006)*** is that foot risk score will be known and recorded for at least 75% of all people with diabetes.
- ***SIGN Guideline 55 Management of Diabetes*** recommends that all patients with diabetes should be screened for foot disease.

Current Position

Within the Tayside Diabetes MCN Handbook there is a protocol for risk stratification (based on SIGN 55 guidelines). There is also a tool within SCI-DC (the electronic clinical management system for diabetes) which automatically calculates foot risk score based on a range of a factors which would be undertaken as part of a foot screening review.

Currently only 35% of people with diabetes have a foot risk score recorded on SCI-DC.

A range of approaches have been taken to educate staff on undertaking foot reviews:
- Practical foot care is incorporated within the University of Dundee Diabetes Care Module
- Local educational events have included the subject of foot care.
- The Podiatry Practitioner Project identified and trained 34 "link" community podiatrists – part of this training programme included undertaking foot reviews and using the SCI-DC foot risk tool
- Practice based training in foot care by specialist team.
- A DVD demonstrating the use of the SCI-DC foot-screening tool has been developed for use in both primary and secondary care setting for all staff.

Challenges

The use of SCI-DC as the primary clinical management system for diabetes in primary care has decreased due to the focus on ensuring data is within practice systems for the GMS Quality and Outcomes Framework.

The GMS contract emphasises aspects of foot examination but does not encourage the use of these findings to assess foot risk.

Proposed Service Development

It is proposed to include the requirement for general practice teams to undertake a formal foot risk assessment and record a foot risk score on SCI-DC for patients with Type 2 diabetes as part of a local enhanced service for 18 months – see promise 5. Thereafter arrangements would need to be made

for this to continue.

Ensure the same is undertaken and recorded by the specialist team for patients in their care.

Outcomes

- At least 75% of people with diabetes have foot ulceration risk formally calculated and recorded annually using SCI-DC foot risk tool.
- Reduction in ulceration
- Prevention of amputations.

Financial Information

There will be financial implications for a local enhanced service for diabetes – this is explored further in promise 5.

Key Promise 3

All people with diabetes will have access to appropriate state registered podiatry services as indicated by their foot risk score.

Rationale

Based on United Kingdom population surveys, diabetic foot problems are a common complication of diabetes with prevalences of 23-42% for neuropathy, 9-23% for vascular disease and 5-7% for foot ulceration. Patients with diabetes have a 15-20 fold increased risk of lower limb amputation. Many foot problems can be prevented through regular screening and access to specialist foot care services according to risk. In the absence of a multidisciplinary foot care team, foot lesions are more likely to lead to amputation.

Strategic Fit

The ***Scottish Diabetes Framework Action Plan (2006)*** recommends improving access to specialist foot care services for those with foot problems.
NHS QIS Diabetes Standards (2002) state that people with diabetes should have appropriate access to identified key health professionals including state registered podiatry.
SIGN Guideline 55 Management of Diabetes (2001) recommends that all patients with diabetes should have access to structured foot care at an appropriate level according to their risk.

Current Position

Within the Tayside Diabetes MCN Handbook there is a protocol for management of patients according to risk (based on SIGN 55 Guidelines).

As indicated in Appendix 2 not all patients with diabetes have a foot risk score recorded (only 35%). This is a pre-requisite in order to ensure that the patient is seen by an appropriate state registered podiatrist. Previous audits have indicated that approximately 65% of patients are low risk, 24% are moderate risk and 12% are at high risk. Based on current prevalence of diabetes in Tayside (16,110) this would equate to approximately:

10,465 low risk patients – education advised
3,800 medium risk patients – general podiatry recommended
1,845 high risk patients – diabetes specialist podiatry recommended

Currently there is a total of 3.1wte specialist podiatrists dedicated to diabetes (1.7 wte in Dundee, 0.8wte in Perth, 0.6wte in Angus) plus an unknown number of general podiatrists contributing sessions.

At the recent NHS Quality Improvement Scotland review of the Diabetes Standards in January 2007, NHS Tayside failed to meet the standard that that people with diabetes should have appropriate access to identified key health professionals including state registered podiatry services due to variable provision across NHS Tayside.

A range of approaches have been taken to address podiatry needs:

- The Tayside Diabetes Education Programme (TDEP) alerts all patients newly diagnosed with Type 2 diabetes to the importance of foot care.
- A Podiatry Practitioner Post was funded in 2005 by the Scottish Diabetes Group for 18 months to enhance podiatry care to patients with diabetes in the community. A network of 34 community “link” podiatrists was identified and a training programme for this group developed and delivered

during 2006. Feedback from the initiative has been very positive with reported increasing confidence and skills within the link podiatry group to look after people with diabetes in the community. The funding for this post came to an end in March 2007 and a full report of the evaluation of the project is available
- A National Podiatry Coordinator has been appointed to take forward accreditation for training and recognition of Diabetes Specialist Podiatrists.

.
Waiting Times for access to community podiatry by CHP are as below for September 2007:

	0-18 wks	18-26 wks	26-52+	Total
Angus	242	99	16	357
Dundee	534	38	3	575
Perth	265	8	2	275

A snapshot audit of referrals to community podiatry indicates that around 25% to 32% of referrals across Tayside are for people with diabetes.

Challenges

The SIGN Guidelines recommend that high risk patients should be seen by a podiatrist with an interest and expertise in diabetes. There are currently 3.1 wte specialist podiatrists with expertise in diabetes. If we were to plan the workforce based on the SIGN Guideline, to provide care for 1,845 high risk patients an additional 6 WTE specialist podiatrists would be required. It is accepted that this is not a realistic or sustainable service development.

Proposed Service Development

It is therefore recommended that the service is developed through further redesign, skill development, profiling of competencies and some limited additional staffing investment as set out below:
- A further two years funding to implement the key recommendations from the Podiatry Practitioner project. These being to continue to roll out the education of community podiatrists to increase skills to be able to care for patients with diabetes in the community with medium and high risk foot scores. This involves backfill of specialist podiatry time to provide training and support and backfill of community podiatry time to attend training and rotation at specialist clinics.
- As indicated previously a National Podiatry Coordinator is taking forward work to develop accreditation for training and recognition of Diabetes Specialist Podiatrists, however, this work will take some time. It is proposed in the interim to identify the key competencies required for a podiatrist to care for patients with different levels of foot risk.
- Once the foot risk score is available for patients (see Appendix 2 and 5), map competencies of existing staff to number of patients within risk categories to match skills and resources with demand and identify any gaps.
- Appoint an additional 1.2 wte specialist podiatrist to ensure a continuous and safe level of service in areas where this is currently not possible. This would allow an additional 2 days a week to be provided in each locality.

Outcomes

- Foot assessment training for all healthcare professionals
- Increase in the number of community podiatrists with the skills to care for people with diabetes.

- Clear profile of competencies against risk categories
- An online diabetic foot module for all health professionals
- Increase in the number of patients seen by appropriate state registered podiatrist

Financial Information

What are costs to continue similar to podiatry practitioner post?

Podiatry practitioner project	Annual Non-Recurring Revenue (£)	Total cost over two years (£)
Personnel – 1.3 wte at Band 7	**58,714**	**117,428**
Training and CPD	**500**	**1,000**
Travel	**2,000**	**4,000**
Resources		
IT	**1,200**	**1,200**
Accommodation		
Recruitment costs	**1,000**	**1,000**
TOTAL	**61,913**	**123,628**

Specialist Podiatrist	Non-Recurring Revenue (£)	Annual Recurring Revenue (£)
Personnel – 1.2 wte at Band 7*		**54,197**
Training and CDP		**500**
Travel		**1,500**
Resources		
IT	**1,200**	
Accommodation		
Recruitment costs	**1,000**	
TOTAL	**2,200**	**56,197**

Key Promise 4

All people with diabetes will have appropriate access to state registered dietetic services in line with agreed Tayside wide criteria.

Rationale

Healthy eating is of fundamental importance as part of diabetes health care behaviour and has beneficial effects on weight, metabolic control and general well-being. In particular, weight control in overweight subjects with diabetes is associated with improved glycaemic control.

Strategic Fit

The ***Scottish Diabetes Framework Action Plan (2006)*** recommends supporting people with diabetes to adopt a healthy lifestyle.
NHS QIS Diabetes Standards (2002) state that people with diabetes should have appropriate access to identified key health professionals including dietetic services.
SIGN Guideline 55 Management of Diabetes (2001) recommends that patients with diabetes should be offered lifestyle interventions.
Co-ordinated, Integrated and Fit For Purpose' A Delivery Framework For Adult Rehabilitation (April 2007) identifies Long-term Condition services as one of the target groups stating a key aim of rehabilitation services is to equip people with skills; knowledge and support to self manage.

Current Position

The Tayside Diabetes MCN Handbook contains guidelines on Dietary Advice.

Currently there is 1wte Dietician in Dundee and 1wte Dietician in Angus, both dedicated to diabetes. There is no diabetes specialist dietetic provision in Perth & Kinross.

During the NHS QIS Review of diabetes services in January 2007, NHS Tayside failed to meet the standard that all people with diabetes have appropriate access to state registered dietetic services due to the lack of dedicated diabetes dietetic resource in Perth and Kinross.

In order to address significant pressure on waiting times and ever increasing complex caseloads Perth & Kinross Nutrition & Dietetic Service developed Access and Discharge Criteria in August 2006 which aimed to shift the dietetic skills and care delivery to focus on the more specialist and highly complex cases at all points in the diabetes care pathway. This incorporates new models of care such as group education sessions, in-house services provided at general practices and dietetic interventions based on behaviour change techniques. However it is recognized that this course of action has increased the pressure on other primary healthcare staff i.e. diabetes specialist nurses, practice nurses, community nursing staff and GPs, to deliver dietary care, with support and training from dieticians, but without clinical supervision. Besides the increasing workload for primary healthcare staff this action has significant clinical risk attached and can lead to mismatched dietary messages for people with diabetes leading to confusion and disengagement.

Waiting Times for Dietetic Services across Tayside

Clinical Situation	Angus	Dundee	Perth & Kinross
Patient newly diagnosed with Type 1 diabetes	2 weeks	2-3 days	4 weeks
Patient with Type 1 diabetes with poor control	4 weeks	1-2 weeks	8-12 weeks
Patient with Type 2 diabetes with poor control	In care of consultant – same day at clinic In care of GP – 4-8 weeks	In care of consultant – same day at clinic or 3-4 weeks	8-12 weeks
Newly diagnosed gestational diabetes patient	4 weeks	1-2 weeks	4 weeks

Challenges

Inequity of access to dietetics services for patients with diabetes across Tayside.

Proposed Service Development

To address the inequity of access to dietetic services it is recommended that Perth & Kinross Community Health Partnership review dietetic provision for diabetes to ensure that this promise is delivered on behalf of NHS Tayside.

The Diabetes Sub-Group of the Nutrition and Dietetics Network has developed Tayside-wide criteria for access to dietetic services which are supported by Dietetic Managers and endorsed by the . Diabetes Managed Clinical Network. Further consultation will be undertaken with Community Health Partnerships and the Local Area Clinical and Medical Committees. Once the Access Criteria are agreed services will be asked to benchmark themselves against these criteria. Further consideration will be given at that time as to what action is required to meet the criteria.

Outcomes

- Patients have access to appropriate dietetic services in line with Tayside-wide criteria.

Financial Information

There may be financial implications to address service provision in Perth & Kinross CHP and any gaps identified once the benchmarking against criteria is undertaken.

Key Promise 5

All patients with diabetes will be managed in line with agreed "Tayside Care Pathway for Patients with Diabetes".

Rationale

Services should be delivered at the right hierarchy of care – whether through supported self care, primary care or specialist services, ensuring the right level of professional input and availability of services.

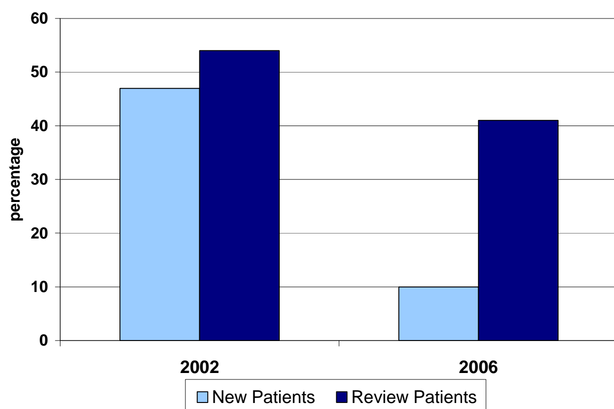
Strategic Fit

Supports the ***Long Term Conditions Collaborative Commissioning Promise*** to deliver services as close to home as possible as agreed by Tayside Board on 25 October 2007.
Better Health, Better Care: A Discussion Document (August 2007) proposes to develop incentives to shift the balance of care from hospital to community based services.
NHS Tayside "An Integrated Model of Service Delivery" (March 2007) sets out NHS Tayside Single Delivery Unit's plan of work to deliver a shift in the balance of care.
Scottish Diabetes Framework Action Plan (2006) recommends that pathways of care be improved to increase access to services and ensure effective care is delivered as locally as possible.
Delivering for Health (2005) recognised that long term conditions can be better managed through strengthening and extending primary care and offering integrated and responsive specialist care.
Completing the Jigsaw: Strategy and Implementation Plan for managing increasing demand in adult diabetes services (2002) sets out a proposed Tayside Care Pathway for patients with diabetes.

Current Position

Providing high quality diabetes care to a steadily rising number of patients is putting an ever increasing strain on both specialist services and general practice. The integrated care pathway for adults with diabetes was set out in the Tayside Diabetes Strategy in 2002 and as a result there has been a shift in attendance patterns at the specialist diabetes clinics despite increasing prevalence of diabetes. Figure 1 below shows the significant change in referral patterns for newly diagnosed patients. This has been achieved through the development of services reducing the need for patients to come to the hospital and supporting general practice to care for patients including an eye screening programme, Tayside Diabetes Education Programme (TDEP) for patients newly diagnosed with Type 2 diabetes, guidelines and professional education forums.

Figure 1: Attendance at Specialist Clinics



The figures represent the number of patients across Tayside who have attended clinics and not the number of appointments. The number of appointments is much higher given DNAs (Did Not Attend).

Although there has been progress the same level of change has not been achieved for review patients

who attend specialist clinics. This is also demonstrated by waiting times for outpatient appointments (see below). Waiting times for new outpatient appointments are well within national targets, however waiting times for review appointments are considerable, in some cases up to 33 weeks. A new booking system has been implemented to help address this length of wait. The other issue that needs to be addressed is the number of review patients attending the specialist clinic.

Table 1: Waiting Time for New Outpatient Appointments for Diabetes – September 2007

0-6 wks	6-12 wks	12-15 wks	15-18 wks	18+ wks	TOTAL
21	4				25

Waiting Time for a Review Appointment for Diabetes
A snapshot audit showed average waiting time for review appoint in Ninewells was 26 weeks (range 16 to 33).

It is clinically appropriate for most patients with Type 1 diabetes to attend the specialist clinic therefore it is more valuable to focus on attendance patterns of patients with Type 2 diabetes. The Figures below show the percentage of patients with Type 2 diabetes who attended specialist clinics during the period 22/05/2006 – 21/05/2007 and demonstrate the variations in practice across Tayside.

Attendances in a year	Angus		Dundee		P&K		Tayside	
	n	%	n	%	n	%	n	%
No attendance	2327	63.8	2915	49.7	3610	79.7	8852	63.1
1 attendance	929	25.5	2336	39.9	521	11.5	3786	27.0
2 attendance	356	9.8	536	9.1	369	8.1	1261	9.0
3 or more attendance	36	0.93	73	1.2	31	0.72	140	1.01
TOTAL	3468	100	5860	100	4531	100	14039	100

A large number of patients attending the specialist clinic only once a year are likely to be attending for an annual review only and not with complications that require more frequent review. Based on this assumption there is scope to review 3786 patients across Tayside and consider whether their care can be based predominantly within primary care. This would have the largest effect on specialist services in Dundee and Angus given these services have the larger proportion of single attendances.

Freeing up specialist clinic time by removing those patients who do not require specialist care would allow the specialist service to develop and deliver improved services such as:

- Developing further Type 1 Diabetes clinics, which would help consolidate the education provided by TIM, and better support patients on pump therapy.
- Increasing the frequency of review of patients with Type 1 diabetes to that required by clinical circumstances rather than what can be accommodated, for example from 6 monthly to 3-4 monthly to provide more active management of these patients.
- Developing the rapid access complications service, which has been piloted in one of the existing clinics.
- Expanding the diabetes renal service.

Challenges

It was recognised when the Diabetes Strategy was published in 2002 that implementation of the re-designed care pathway would have major implications for working patterns in general practice and would only be feasible with the assurance of appropriate patient access to dietetic and podiatry services and a comprehensive regional eye screening programme, together with appropriately allocated resource, education and IT support for all members of the clinical team. Progress has been achieved with the eye screening programme, education and IT but it has not been possible to address the other issues.

Proposed Service Development

A Local Enhanced Service for Diabetes would be a major lever to delivering integrated care for people with diabetes.

The Scottish Government recently announced the Scottish Enhanced Services Programme supported by funding for 18 months of which NHS Tayside's share is £1.5 million. Following consultation NHS Tayside agreed that diabetes would be one of three priorities for this programme.

Discussions have been ongoing with the Director of Primary Care, Community Health Partnerships and Area Medical Committee. Given the level of funding available to support these three priorities and the non-recurring nature of the funding it was agreed that, at this time, it was not possible to support an enhanced service for all patients with Type 2 diabetes. It is therefore proposed that an initial enhanced service would consist of:

1. Adherence to all aspects of the Tayside Diabetes Network Integrated Care Pathway for all patients **newly** diagnosed with Type 2 diabetes that are free of significant complications or co-existing conditions. This includes:
   - Referral, discharge and communication protocols between Primary Care and the Specialist Diabetes Team.
   - Routine assessment, monitoring and care, following the protocols and guidelines in the Tayside Diabetes Handbook.
   - Patients registered on SCI-DC
   - Active management of glycaemia, hypertension, dyslipidaemia and weight to clinical targets outlines in the GMs Quality Outcomes Framework.

   Scope: there were 1437 patients newly diagnosed with Type 2 diabetes in 2006.

2. Formal Foot Risk Assessment as per SIGN 55 Standards, using the SCI-DC Foot Risk Assessment Tool, and referral to the appropriate level of podiatry care for **all** patients with Type 2 diabetes.

   Scope: there were 14,272 patients with Type 2 diabetes as at November 2007.

3. Coordination and support of education for patients – the Diabetes MCN and Community Health Partnerships will collaborate to roll out the Tayside Diabetes Education Programme – Appendix 1

4. Commitment by one GP and one Nurse in the Practice to undertake, each year, a minimum of 6 hours of Continuing Diabetes Education in courses 'accredited' by the Education Sub-Group of Tayside Diabetes MCN, and to record this educational activity in the 'Practice Diabetes Clinical Governance Report'.

It is recognised that this level of enhanced service will not immediately address the issue of the numbers of review patients attending the specialist service and subsequent waiting times. However, it sets a direction of travel and allows a graduated shift in the balance of care. It will allow the benefits of an enhanced service to be demonstrated with minimal risk to the service depending on future funding arrangements at the end of the 18 months.

A solution needs to be found which will provide appropriate resources to allow practice teams to deliver an integrated service for all patients with Type 2 diabetes. The risk of not delivering this is that significant numbers of patients will continue to be cared for in a setting that is not appropriate for them, scarce specialist resources will continue to be stretched and general practice will not have the support required to address the increasing numbers of patients with diabetes. All of this will have a significant impact on

the sustainability of the service. Other NHS Board areas that have made significant advances have done so through such arrangements, for example in Highland, Glasgow and Dumfries and Galloway.

Outcomes

Outcomes from the initial 18 month Local Enhanced Service:

- Number of people with newly diagnosed Type 2 diabetes cared for under LES
- Newly diagnosed patients managed in line with Tayside Care Pathway for People with Diabetes
- Number of patients with type 2 diabetes with foot risk score recorded

Outcomes which would be achieved from a similar service for all patients with Type 2 diabetes:

- Number of patients with Type 2 diabetes cared for under LES
- Patients managed in line with Tayside Care Pathway for People with Diabetes
- Number of patients with type 2 diabetes with foot risk score recorded
- Reduction in number of patients attending specialist clinics who do not require specialist input
- Reduction in waiting times for review outpatient appointments
- Increase in number of specialist clinics e.g. Type 1 clinics, renal clinics
- Increase in number of Tayside Insulin Management courses

Financial Information

£500,000 of NHS Tayside's share of the Scottish Enhanced Services Programme funding has provisionally been earmarked for the Diabetes Local Enhanced Service. This funding will be over an 18 month period from 1 January 2008. The Local Negotiating Committee is scheduled to meet in December and proposed costs for an enhanced service will not be known until this time. The £500,000 funding will test this model of care, however, roll out of a Local Enhanced Service to all patients with diabetes is likely to have significant recurring financial implications.

Key Promise 6

All appropriate people with Type 1 diabetes will have access to intensive management instruction via Tayside Insulin Management Programme (TIM).

Rationale

The aim of education for people with diabetes is to improve their knowledge and skills, enabling them to take control of their own condition and to integrate self-management into their daily lives. The ultimate goal of education is improvement in:

- control of risk factors including blood glucose, blood lipids and blood pressure
- management of diabetes-associated complications, if and when they develop
- quality of life.

Studies have shown that education reduces or prevents worsening blood glucose levels. The Diabetes Control and Complications Trial and the United Kingdom Prospective Diabetes Study, have demonstrated the beneficial effects of maintaining good blood glucose levels in preventing the development and progression of diabetic complications such as heart attacks, strokes, blindness, amputations and kidney failure in patients with Type 1 diabetes.

Strategic Fit

- Supports the disease specific education element of NHS *Tayside's* ***Long Term Condition Programme Self Care Framework***. It also supports the Long Terms Conditions Collaborative Commissioning Promise to support people to live confidently with their condition.
- The ***Scottish Diabetes Framework Action Plan (2006)*** recommends improving access to structured patient education for patients with Type 1 diabetes to support self care.
- One of the key actions in ***Delivering for Health (2005)*** is to increase support for self care to enable people with long-term conditions to live healthy lives.
- The ***National Institute for Health and Clinical Excellence's (NICE) Technology Appraisal - Diabetes (types 1 and 2) - patient education models (2003)*** recommended that structured patient education is made available to all people with diabetes at the time of initial diagnosis and then as required on an ongoing basis, based on a formal, regular assessment of need.
- ***NHS QIS Diabetes Standards (2002)***: All people newly diagnosed with diabetes are offered at least one appropriately tailored formal education session about their condition and are provided with written material to reinforce that education.

Current Position

In line with national policies for structured education and intensification of insulin, the Specialist Diabetes Team has developed an intensive education programme for people with Type 1 diabetes - Tayside Insulin Management Programme (TIM). The programme has been developed to:

- Improve the quality of the care and education for people with Type 1 diabetes.
- Provide the opportunity for people with diabetes to improve their knowledge and skills, enabling them to take control of their own condition and achieve their own goals for managing their diabetes.
- Assist people with diabetes to achieve maximum quality of life, while controlling blood glucose levels, which can reduce risk of long-term complications.

Through a combination of the redesign of specialist nursing and dietetic resources and some additional funding to support the development of an insulin pump service, the programme began in July 2006 with 9 courses being held to date across Tayside. Within current resources it is planned to deliver 8 - 10 courses per year across Tayside.

Tayside Insulin Management Programme is only suitable for patients on certain insulin regimes which is currently around 63% (988) of the total Type 1 population.

97 patients have attended the course which represents 10% of the eligible Type 1 population (988).

It is an essential criterion for patients to have attended the programme before they can be considered for insulin pump therapy.

Challenges

The number of patients suitable for the course and the capacity to deliver these. There is currently an increasing waiting list of patients for the programme.

Proposed Service Development

Short term resources would be required to increase the number of courses provided and clear the backlog over the next three years. After this, current capacity should be sufficient to provide training for new patients and refresher training. The programme runs for 4 days over a period of 4 weeks. Staffing resources required to run one programme is set out below:

- Diabetes Specialist Nurse 37.5hrs
- A&C photocopying, packs, letters approximately 10 hours
- Dietitian 43 hours

Current Eligible Type 1 population is around 988 (63%), the incidence in 2006 for Type 1 diabetes was 66 if we base an annual increase on this, we could expect another 40 (63%) suitable patients each year. To provide training over the next three years we would require to run 46 courses each year. Nine courses per year are already being run in a year, in order to provide an additional 37 courses each year we would require an additional Diabetes Specialist Nurse and Dietician. This additional staffing would be used to complement the current Diabetes Specialist Nurse and Dietetic Resource as it is important that all the team remain involved in providing this programme to maintain their knowledge and expertise when dealing with patients in the clinical setting.

Assumptions have been made for a Whole Time Equivalent working 44 weeks of year to account for holidays, this equates to 220 days (this takes into account annual leave, statutory leave and training).

Diabetes Specialist Nurse: 37 courses at 37.5hrs equates to 1387.5hrs which is 37 weeks
Diabetes Specialist Dietician: 37 courses @ 43 hours equates to 1591hrs which is 42.4 weeks

The additional time would be used for training, liaising with other clinical staff, follow up of patients where required and continuous professional development. It would also be used to establish a programme of ongoing/update training for this group of patients. This would be much less resource intensive and would be undertaken within existing resources at the end of the three year period.

Outcomes

- All appropriate people with Type 1 diabetes have access to intensive management instruction via Tayside Insulin Management Programme (TIM).
- Education programmes support individual patients to make informed choices and adjustments to control risk factors associated with preventable long-term complications.
- TIM meets the NICE criteria for structured education in that the programme has a structured curriculum, educators trained in curriculum and in the principles of Adult Based Learning and Group Educational Techniques, Quality Assurance and Audit.

Financial Information

	Annual Revenue Cost (£)	Total cost for 3 years (£)
Personnel – 1 wte Diabetes Specialist Nurse at Band 6	38,453	115,359
Personnel – 1 wte Diabetes Specialist Dietician at Band 6	38, 453	115,359
Personnel – 0.5 wte admin support at Band 2	9,363	28,089
Training	1,200	1,200
Travel	3,000	9,000
CPD	1,000	3,000
Resources	1,000	1,000
IT	3,000	3,000
Accommodation		
Recruitment costs	1,000	1,000
TOTAL	**96,469**	**277,007**

Key Promise 7

All people with diabetes will be offered annual eye screening by digital retinal photography

Rationale

Diabetic eye disease is the commonest cause of blindness in adults of working age in the UK.
By identifying signs of diabetes related sight threatening retinopathy early referral and/or treatment can be effective in saving vision in adults with diabetes

Strategic Fit

- The ***Scottish Diabetes Framework Action Plan (2006)*** recommends that all people with diabetes are offered annual eye screening to reduce the risk of developing diabetic retinopathy.
- ***NHS QIS Diabetic Retinopathy Screening Standards (2004)*** set out the clinical standards for diabetic retinopathy screening services including standards that all eligible people are called to attend for screening at least once every year and a minimum of 80% of eligible people with diabetes are screened within the last year.

Current Position

NHS Tayside has put in place a comprehensive screening service provided from the static site at Ninewells for those living in Dundee and Broughty Ferry and from 2 mobile vans covering all other areas in Perth & Kinross and Angus. Accommodation is being prepared to site a second fixed camera in Perth.

- 78% of all eligible patients had their eyes checked with digital photography during 2006.
- 28% of patients with retinopathy in 2006
- The prevalence of blindness due to diabetes is 0.1%

Challenges

Matching capacity with increasing demand due to increasing prevalence of diabetes.

Proposed Service Development

The service has recently been redesigned by reducing the number of drop in clinics and utilising more fixed appointments to improve the efficiency of the service. With this action and the establishment of fixed accommodation at Perth in the near future it is envisaged that there is capacity to meet the demand in the foreseeable future. The position will be kept under review and any future implications for service needs flagged up to NHS Tayside in advance.

Outcomes

- All people with diabetes over the age of 12 have their eyes screened annually
- Prevention of retinopathy
- Prevention of blindness

Financial Information

There are no financial implications at this time.

COMPARATIVE DATA	**2001**	**2002**	**2003**	**2004**	**2005✶✶✶✶** (date of snapshot = 01/06/2006)	**2006✶✶✶✶** (date of snapshot =31/12/2006)
Diabetes prevalence✶	9694 patients (2.5%)	11216 patients (2.9%)	11932 patients (3.1%)	13582 patients (3.5%)	14811patients (3.9%)	15207 patients (3.9%)
Diabetes incidence✶✶	888 patients (0.24%)	1148 patients (0.31%)	1127 patients (0.3%)	1274 patients (0.34%)	1333 patients (0.36%)	1346 patients (0.36%)
HbA1c (average blood sugar) testing	8212 patients (91%)	9456 patients (93.1%)	11408 patients (91.2%)	12703 patients (93.5%)	13866 patients (93.5%)	14554 patients (95.7%)
Mean HbA1c [<7.5%]	8.07% (range = 4.0 - 17.4)	7.7% (range = 3.9 – 16.9)	7.6% (range = 3.7 – 16.5%)	7.6% (range = 4.1 – 17.3%)	7.6% (range = 4.2 – 17.3%)	7.5% (range = 4.1 – 18.1%)
Cholesterol testing	6387 patients (71%)	7074 patients (78.5%)	9970 patients (79.7%)	12034 patients (88.6%)	13224 patients (89.3%)	14195 patients (93.3%)
Mean Cholesterol [5mmol/L]	5.03 mmol/L (range = 1.7 – 23.1)	4.9 mmol/L (range = 1.7 – 15.3)	4.8 mmol/L (range = 1.1 – 15.9)	4.6 mmol/L (range = 1.6 – 11.9)	4.4 mmol/L (range = 1.2 – 14.4)	4.4 mmol/L (range = 1.4 – 14.8)
Blood pressure testing	6712 patients (74%)	8675 patients (85.4%)	10272 patients (82.1%)	11582 patients (85.3%)	12992 patients (89.3%)	13642 patients (89.7%)
Mean blood pressure [145/85 mmHg]	140/79 mmHg	140/77 mmHg	140/77 mmHg	140/76 mmHg	138/75 mmHg	137/75 mmHg
Eye screening	5655 patients (63%)	6937 patients (68.3%)	7915 patients (63.3%)	10013 patients (73.7%)	11872 patients (80.2%)	11747 patients (77.6%)✶✶✶
Body Mass Index screening	6306 patients (70%)	8375 patients (82.4%)	10030 patients (80.2%)	10944 patients (80.6%)	10960 patients (74.0%)	13258 patients (87.2%)
Mean Body Mass Index	29.4 kg/m^2 (range = 14.8 - 66.9)	30 kg/m^2 (range = 14.7 – 65.0)	29.8 kg/m^2 (range = 13.0 – 69.0)	30.1 kg/m^2 (range = 14.2 – 68.2)	30.3 kg/m^2 (range = 13.2 – 70.0)	30.5 kg/m^2 (range = 15.2 – 68.4)

Please see foot notes overleaf

[ ] **Figures in square brackets represent recommended levels**

✶ Prevalence populations **are limited to patients with frank diabetes who were alive and registered with a Tayside general practitioner on a single, specified day. Denominators are via the GRO population estimates for Tayside for each year.**

✶✶ Incidence populations **are limited to patients diagnosed with type 1 or type 2 diabetes during a single, specified calendar year.**

✶✶✶ Eye-screening 2006 is based on Digital Image photography or attendance at an Ophthalmology clinic – unlike previous years which included fundoscopy and other non-specialised visual assessments

✶✶✶✶ Due to technical issues the 2005 report was not generated till June. While both the 2005 and 2006 reports cover a 1-year period, they are not snapshots taken 1 year apart.