1. Introduction
This annual report of the NHS Greater Glasgow and Clyde (NHS GGC) Managed Clinical Network (MCN) for Diabetes covers the developments in diabetes services from April 2009 to March 2010.

2. Epidemiology
NHS GGC is the largest health board in Scotland with a population of approximately 1.2 million people. This includes some of the most deprived communities in Scotland, as well as large South Asian and asylum seeker communities.

According to the latest Scottish Diabetes Survey data\(^1\), a total of 52,604 people with diabetes are resident in the NHS GGC area. This corresponds to an overall prevalence of 4.4% of the population. The Scottish average prevalence of diabetes is also 4.4%.

The breakdown by diabetes type is as follows:

<table>
<thead>
<tr>
<th>Type 1 diabetes</th>
<th>Type 2 diabetes</th>
<th>Other (e.g. gestational diabetes)</th>
</tr>
</thead>
<tbody>
<tr>
<td>5,923 patients</td>
<td>46,345 patients</td>
<td>203 patients</td>
</tr>
<tr>
<td>11.3%</td>
<td>88.1%</td>
<td>0.4%</td>
</tr>
</tbody>
</table>

More men than women have diagnosed diabetes:

<table>
<thead>
<tr>
<th>Type 1 diabetes</th>
<th>Type 2 diabetes</th>
</tr>
</thead>
<tbody>
<tr>
<td>55.6% male</td>
<td>53.7% male</td>
</tr>
<tr>
<td>44.4% female</td>
<td>46.2% female</td>
</tr>
</tbody>
</table>

The mortality rate of diabetes patients in the previous year was 3.25%.

3. Diabetes Services in Glasgow and Clyde
Within NHS GGC adult diabetes services are provided within nine acute sites (Gartnavel General Hospital, Western Infirmary, Stobhill Hospital, Glasgow Royal Infirmary, Victoria Hospital, Southern General Hospital, Royal Alexandra Hospital, Vale of Leven Hospital, and Inverclyde Royal Hospital) and 270 GP practices.

3.1. Type 1 Diabetes Services
The care of type 1 diabetes patients is generally delivered in secondary care. The majority of this care is provided in dedicated diabetes outpatient clinics staffed by multi-disciplinary diabetes teams with medical, nursing, dietetic and podiatry input.

\(^1\) Scottish Diabetes Survey 2009.
http://www.diabetesinscotland.org.uk/Publications/Scottish%20Diabetes%20Survey%202009.pdf
3.2. Type 2 Diabetes Services
The majority of type 2 diabetes patients receive their care in primary care and only access hospital services for diabetes in the event of complications. All GP practices in NHS GGC offer a Local Enhanced Service (LES) for diabetes, except for 14 practices that have not opted in. The LES is an IT based system, which ensures patients receive an annual review of their condition, are offered patient education and are signposted to relevant services regarding health related behaviours, e.g. physical activity or diet.

3.3. Diabetic Retinal Screening (DRS)
The primary aim of the retinal-screening service is the detection of referable (sight threatening) retinopathy. The secondary aim is the detection of lesser degrees of diabetic retinopathy.

According to Scottish Diabetes Survey data, 73.1% of type 1 and 79.5% of type 2 diabetes patients were screened by the NHS GGC DRS service in 2009/10.

3.4. Paediatric Diabetes Services
Towards the end of 2009 the Glasgow and Clyde elements of the paediatric service were merged, now caring for 622 children and young people in total. In addition approximately 15 patients from the Western Isles are cared for through the Obligate Network. A large discrepancy in the glucose control in the Clyde versus the Glasgow cohort was identified and a "Back to Basics" training programme put in place which is now being implemented subject to staffing. An agreement with Women and Children's Division management was established which will see the expansion of the insulin pump therapy service for children across GGC in the next year. The National Development Plan for Paediatrics Year 3 settlement has delivered some resources for GGC. This has allowed dietetic provision to be expanded and will shortly allow the appointment of two new nurses. The latter will be especially helpful in developing teaching support. The latest version of the Patient Held Record and new structured blood glucose recording charts are due to be published shortly. Funding was secured, partly via endowments, to allow these materials to be distributed throughout Clyde as well as Glasgow. The paediatric diabetes service website at www.diabetes-scotland.org/ggc continues to be developed.

4. Managed Clinical Network for Diabetes
4.1. Purpose of the MCN
The primary purpose of the MCN is to ensure there exists a coherent and planned approach to ensure that services in the NHSGGC area operate to prevent wherever possible, and treat where necessary, diabetes mellitus and its consequences. The services must be high quality, equitable, evidence-based and tailored to the needs of patients and carers.

4.2. Objectives of the MCN
The objectives of the MCN, as detailed in its Strategy 2005 – 2010, are:
- Implementation of the MCN Strategy for diabetes care, in partnership with patients.
• Through this ensure the provision of comprehensive and connected services in primary and secondary care underpinned by a clear service and care pathway. This should clearly outline the roles of the different professionals working in diabetes and provide a basis for improved joint working to be tested and developed.

• Establish and maintain an evidenced based understanding of the incidence/prevalence of diabetes in Glasgow and its complications and the needs of patients and carers within NHS GGC.

• Review and update NHS GGC protocols and guidelines for diabetes care, in line with national guidelines and in collaboration with other MCNs/professional groups where care areas overlap.

• Ensure that patients have equity of access (based on need) to defined high standards of care and consistent delivery of these across NHS GGC.

• Ensure close collaboration with health promotion, other MCNs and professional groups to deliver health related behaviour programmes that promote both community and person level interventions for primary and secondary prevention.

• Ensure close collaboration with pharmacy services on the implementation of guidelines.

• Review, monitor and audit performance of services and identify areas for development.

• Ensure integration of these proposals into the local health planning processes.

• Ensure that Quality Improvement Scotland (QIS) standards are met.

• Ensure effective interagency and interprofessional working to optimise patient care.

• Ensure best use of diabetes resources in line with agreed priorities.

4.3. MCN structure

The MCN is led by a Lead Clinician. This post is held by Dr Andrew Gallagher, Consultant Diabetologist at the Victoria ACH.

Due to ill health the post of the MCN Coordinator was vacant for a number of months during 2009/10. A new MCN Coordinator was seconded in January 2010 to provide cover for one year.

The full structure of the MCN is detailed in Appendix 1.

4.3.1. The MCN Executive

The MCN Executive has membership from lead clinicians, managers and patients from across NHS GGC. Its remit is to develop and carry forward proposals on behalf of the MCN Steering Group. The Executive Group is accountable to the MCN Steering Group and meets every two months. It is chaired by the MCN Lead Clinician.

4.3.2. The MCN Steering Group

The steering group acts as an advisory body for the Executive Group and is responsible for informing and deciding on key planning and service development issues. It has broad membership representing all key diabetes constituencies and providing an effective two-way channel for communication. The MCN Steering Group meets on a quarterly basis. It is chaired by the MCN Lead Clinician.
4.3.3 MCN Subgroups
The MCN subgroups can either be long standing or short life working groups, set up to achieve specific pieces of work. These groups report back to the steering group. The current subgroups for the Diabetes MCN are detailed in the structure in Appendix 1.

5. Key MCN Work in 2009/10

NHS GGC Guideline for Management of Diabetes
Existing guidance on the management of diabetes from the previous NHS Greater Glasgow and NHS Argyll & Clyde MCNs for diabetes was reviewed and updated to create a joint guideline. The new guideline was published in August 2009. This is available to all staff via Staffnet and the Diabetes MCN website at: http://library.nhsqqc.org.uk/mediaAssets/My%20HSD/NHSGQC-Diabetes%20Guidelines%20August%202009.pdf

NHS GGC Guideline for Blood Glucose Monitoring
Guidance on blood glucose monitoring was updated. This is available to all staff via Staffnet at: http://www.staffnet.ggc.scot.nhs.uk/Clinical%20Info/Clinical%20Guidelines/Clinical%20Guidelines%20By%20Clinical%20Topic/Documents/082Bloodglucosemonitoringguidelines.pdf

NHS GGC Guidelines for Insulin Initiation
In January 2010, guidelines for insulin initiation for type 2 patients in primary care were published. This is aimed specifically at Diabetes Specialist Nurses who care for insulin-dependent type 2 patients in the community. The guideline is available on the MCN website: http://library.nhsqqc.org.uk/mediaAssets/My%20HSD/Guidelines%20for%20Insulin%20Initiation%202010-01.pdf

Continuous Subcutaneous Insulin Infusion (CSII)
A business for expanding the provision of paediatric and adult insulin pumps therapy, or Continuous Subcutaneous Insulin Infusion (CSII), was developed and presented to the Health Board in September 2009. This recommends an increase in uptake from current levels of 1% to 10% of GGC patients with type 1 diabetes. This would require additional paramedical staffing in both the paediatric and adult services and also an increase in number of adult pump centres from 2 to 4. Employment of such specialised diabetic nursing and specialist dietetic staff would facilitate improvements in education for type 1 patients outwith their direct role in helping patients start pump therapy. The Board has declared a commitment to using identified savings to expand paediatric pump provision by an additional 30 patients by 2013.\(^2\) Due to the challenging financial climate, any further investment to expand CSII in NHS GGC will have to be funded either through savings from service redesign or a reduction in existing service provision in other areas.

Blood Glucose Monitoring
National framework contracts have been put in place for blood glucose meters; one for use by healthcare staff in secondary care which will allow connectivity to hospital IT systems, and one for healthcare staff use in primary care. NHS GGC staff in secondary care have already been using the preferred meter for connectivity but there will now be a reduced cost through national procurement. The framework contract for primary care staff use includes three preferred meters and a decision for GGC has not been made yet. All three options would offer a cost saving compared to existing meters of between £2,000 and £11,000 per annum.

In addition, new SIGN guidance on patient self monitoring of blood glucose levels provides opportunities for reduced spend on meters and testing strips for patients. This will be looked at in more detail in 2010/11.

Patient Education
Currently, structured education is provided for both, type 1 and type 2 patients. For type 1 patients DAFNE courses are available at the diabetes centres at Victoria ACH, Southern General Hospital and Glasgow Royal Infirmary/Stobhill with plans to extend provision to other diabetes centres. DAFNE is an intensive 5-day education programme. At Gartnavel General Hospital type 1 education consists of the DICE course, a two-day education programme.

<table>
<thead>
<tr>
<th>Centre Name</th>
<th>Structured Education Model</th>
<th>Patients in 2009</th>
</tr>
</thead>
<tbody>
<tr>
<td>Gartnavel General</td>
<td>DICE</td>
<td>69</td>
</tr>
<tr>
<td>Glasgow Royal / Stobhill</td>
<td>DAFNE</td>
<td>17</td>
</tr>
<tr>
<td>Victoria ACH</td>
<td>DAFNE</td>
<td>25</td>
</tr>
<tr>
<td>Southern General Hospital</td>
<td>DAFNE</td>
<td>23</td>
</tr>
<tr>
<td><strong>TOTAL</strong></td>
<td></td>
<td><strong>134</strong></td>
</tr>
</tbody>
</table>

*Table 1 – Type 1 Education in 2009*

For type 2 diabetes, the DESMOND programme is available to patients in all CH(C)Ps across GGC. A DESMOND session lasts one full day.

<table>
<thead>
<tr>
<th>CH(C)P</th>
<th>Patients in 2009</th>
</tr>
</thead>
<tbody>
<tr>
<td>East Dunbartonshire</td>
<td>67</td>
</tr>
<tr>
<td>East Glasgow</td>
<td>33</td>
</tr>
<tr>
<td>East Renfrewshire</td>
<td>4</td>
</tr>
<tr>
<td>Inverclyde</td>
<td>104</td>
</tr>
<tr>
<td>North Glasgow</td>
<td>51</td>
</tr>
<tr>
<td>Renfrewshire</td>
<td>62</td>
</tr>
<tr>
<td>South East Glasgow</td>
<td>51</td>
</tr>
<tr>
<td>South West Glasgow</td>
<td>87</td>
</tr>
<tr>
<td>West Dunbartonshire</td>
<td>90</td>
</tr>
<tr>
<td>West Glasgow</td>
<td>64</td>
</tr>
<tr>
<td><strong>TOTAL</strong></td>
<td><strong>716</strong></td>
</tr>
</tbody>
</table>

*Table 2 – DESMOND courses in 2009*
Overall availability of type 1 and type 2 patient education is constrained by the availability of Diabetes Specialist Nurse and Diabetes Dietitian staffing to deliver the courses and there are now waiting lists in most areas.

A Patient Education Subgroup was established to develop a patient education strategy and evaluate patient education packages in order to advise the MCN how best to provide diabetes education to patients. This is expected to report to the MCN in autumn 2010.

**Staff Education**
A Staff Education Subgroup has been convened in January 2010 to advise the MCN on staff training requirements regarding diabetes and how to meet these requirements. This group is also looking at developing in-house training in diabetes that could provide a cost-effective alternative to existing training packages available from various universities.

**MyDiabetes Handbook**
A Diabetes Handbook for patients was developed and launched in September 2009. The aim of the Diabetes Handbook Pack is to:
- Give patients the information they need to be in control of their diabetes on a day to day basis
- Enable them to know how and when to seek help from the health care team if they need to, and
- Inform them of the different services and support that are available to them

The Handbook is available in print form to all newly diagnosed patients and those with complications from their GP practice. It can also be accessed via the MCN website at: [http://www.nhsggc.org.uk/content/mediaassets/pdf/HSD/(Diab)%20Diabetes%20Handbook.pdf](http://www.nhsggc.org.uk/content/mediaassets/pdf/HSD/(Diab)%20Diabetes%20Handbook.pdf)

**Ethnicity and Inequalities**
Following on from the NHS GGC Strategic Framework for Managing Long Term Conditions, an approach to creating an inequalities sensitive diabetes service was developed. This has identified 10 goals that offer a systematic way of working through inequality issues to decide on the role of the NHS and its partners in tackling the inequality gap. This approach will be taken forward in 2010/11 through an Ethnicity and Inequalities Subgroup for the Diabetes MCN.

**Minority Ethnic Long Term Medicines Service (MELTS)**
The MCN has supported the continued development of the MELTS service, a Pharmacist outreach service with medication review and onward referral for diabetes patients from ethnic minority communities.

**Foot Care**
The Foot Subgroup has developed a 5-year vision for diabetic foot care. The proposal is based on risk stratification to deliver the most appropriate care effectively and efficiently:
Through Scottish Government funding a 0.3wte Diabetes Foot Coordinator has been appointed to lead a two year project, starting in May 2010, aimed at improving diabetic foot care in GGC. The objectives of the project are:

- To ensure a progressive increase towards at least 80% of the diabetic population having undergone foot risk stratification and having this recorded on SCI-DC Network
- To develop the role of ‘link’ podiatrists who will be able to care for patients with high risk feet in the community
- To improve access of patients to a multidisciplinary foot clinic as defined by the Scottish Foot Action Group.
• To improve communication networks and increase the awareness of local diabetes podiatry services to out of hours organisations including NHS 24

**Obligate Network with NHS Western Isles**
An obligate network with NHS Western Isles was established in 2009/10 to deliver diabetes care to residents of the Western Isles. Under this agreement, NHS GGC diabetes specialists provide specialist diabetes care to patients in the Western Isles, both through local clinics and telemedicine.

**Information Technology**
Diabetes care is recorded using the national SCI-DC diabetes information systems. There are currently two separate systems in use:

1. SCI-DC Clinical – this is used by secondary care clinicians and runs as a local diabetes system at each hospital
2. SCI-DC Network - this is a networked system accessible via the web and is used primarily by primary care staff but is also available to secondary care clinicians

Data from GP systems and SCI-DC Clinical is extracted daily to populate SCI-DC Network.

SCI-DC Clinical was recently upgraded from Access 97 to Access 2003. Interfaces were developed to SCI-Store for patient demographics and laboratory results.
Appendix 1 – Organisational Structure 2009/10

NHS Greater Glasgow and Clyde Diabetes Managed Clinical Network

MCN Steering Group

Executive Group

Primary / Secondary Care Interface Group
Foot Group
Patient Education Group
Staff Education Group
IT Group
Patient Focus and Public Involvement
Adolescent Group
Guidelines Group
Consultant Group
Heart Stroke and Diabetes Forum
DSN Group