Best practice for commissioning diabetes services

An integrated care framework
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Executive summary

Diabetes mellitus is a complex condition that has a profound impact on the quality of life of people living with the condition and on the health economy as a whole. From the time of diagnosis to the development of severe complications such as foot amputations, the person with diabetes receives input from a wide spectrum of health and social care professionals. When this care is delivered in a fragmented manner it results in duplication, inefficiency and, worst of all, a poorer health experience.

As people with diabetes become older, we need to ensure their lives are not blighted by a toxic and expensive combination of conflicting priorities, poly-pharmacy and avoidable complications.

The benefits of a well integrated diabetes service include:

- Improved patient experience
- Ensuring that all healthcare organisations involved in providing diabetes care, through partnership, clearly own the responsibility for delivering excellent care to their local population
- Providing clearly defined terms of accountability and responsibility for each health care professional / provider
- Reducing duplication of time, tests and information

“A major role of organisations such as Monitor will be to enable integration that could improve the quality or efficiency of provision, or reduce inequalities in access, or reduce inequalities in outcome.”
- Dr David Bennett, Chair and Interim Chief Executive of Monitor, 2012

This document is to help Clinical Commissioning Groups (CCGs) understand the nature of integrated diabetes care, why it is so important and to provide a signpost to other documents that will be of help in the commissioning process.

What is integrated diabetes care?

Integrated diabetes care is both integration of a health care system and co-ordination of services around a patient.

“An approach that seeks to improve the quality of care for individual patients, service users and carers by ensuring that services are well co-ordinated around their needs”
- King’s Fund and Nuffield Trust 2011

In essence, diabetes integration is the whole health community joining in partnership to own the health outcomes of patients with diabetes in their local area.

The Health and Social Care Act 2012 fully accepted the findings of the NHS Future Forum regarding the integration of health and social care. These recommendations included a requirement for all local commissioners to fully and properly explore the potential benefits of joint commissioning and pooled budgets in health and social care for key populations requiring integrated approaches. Local health and wellbeing boards are at the centre of this approach.
What are the essential components to an integrated diabetes service?

This diagram summarises the key components of integration. In particular it highlights the need to have five essential pillars of integration in place in order to facilitate the provision of different elements of diabetes care.

**Pillars of integration -**

1. Integrated IMT systems
2. Aligned finances and responsibility
3. Care planning
4. Clinical engagement and partnership
5. Robust shared clinical governance

Integration of services around the patient and across the community becomes more robust and effective as more pillars are put in place. Joint ownership of the care and outcomes of people with diabetes must be the goal of any integrated service. The service can then develop to provide comprehensive care from screening and prevention of diabetes through to end of life care.

Measuring quality and outcomes

It is important to measure both care processes and clinical outcomes. These should be used to set the priorities for commissioners and providers, ensuring all are committed to the success of the integrated service.

**Outcome measurements should include:**

- Achievement against domains defined in NHS Outcomes Framework 2013
- Patient experience of their care, including moving between different parts of the healthcare community
- Nine key care processes for type 1 and type 2 diabetes
• Compliance against NICE Quality Standards for Diabetes in Adults
• Admissions and use of inpatient services for patients with a primary code of diabetes
• Complications from diabetes
• Compliance and outcomes associated with Paediatric Best Practice Tariff

Conclusion
Providing better integrated diabetes care has been shown to improve patient experience, quality of clinical care and reduce hospital admissions for vulnerable patients. The next steps for policy makers will include removing the cultural divide between different providers and setting realistic objectives for the delivery of integrated care. There will be a need to share best practice which provides a comprehensive approach to providing integrated diabetes care and avoid the piecemeal fragmentation which is potentially an inherent feature of the competition and choice policy. Best practice for commissioning diabetes services - An integrated care framework provides commissioning groups with valuable information on the need and the importance of commissioning integrated care for patients, service users and their carers.
The prevalence of type 2 diabetes mellitus (T2DM) and its rate of rise has been a source of concern in the UK. There is also much evidence of gaps and challenges in the care of people with diabetes. Areas that stand out in particular include the lack of access to and uptake of structured education, the high level of variability of care in both primary and secondary care and feedback from people with diabetes that the care they receive appears fragmented. For people with type 1 diabetes mellitus (T1DM), the present evidence suggests high levels of poor glycaemic control and a low rate of care process achievement increases the likelihood of future complications that can be avoided with good care.

The need for integrated care is present at every stage of the patient journey. It is particularly important for those individuals whose needs are becoming more complex. This group of people includes the elderly and infirm, those with longer duration of diabetes and those with multiple morbidities and a plethora of medications. Integrated care is pivotal for this group as their care is provided by multiple groups of professionals, who may have conflicting priorities. This can result in fragmentation of care, poorer outcomes and complications as well as hospital admissions that may have been avoidable with better integrated care.

Best practice for commissioning diabetes services - An integrated care framework was developed in response to the needs of new commissioners and of health professionals involved in diabetes care. The overarching goal of this framework is to provide practical guidance and key principles for these professional groups to better commission and provide integrated care for people with diabetes. It aims to ensure that people with diabetes have access to a joined up service from the time of diagnosis, through more complex management, complications, inpatient care to end-of-life care.

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NHS Diabetes Integrated Care Clinical Lead, NHS Diabetes

Acknowledgements

Putting the needs of the person with diabetes, and their families, first, is the cornerstone of integrated diabetes care. This is about the systems, processes, infrastructure and relationships being in place to provide seamless care, across primary, community, specialist and tertiary services. It relies on team working, strong communication and collaboration between providers, and between healthcare professionals and people living with diabetes. Good diabetes care is about working together, matching clinical skills to the needs of the individual, progression of the condition and the need for optimum management through care planning. Commissioning local care models needs to balance the provision of high quality structured care alongside flexibility to personalise care to support self-management. This resource provides useful guidance to enable localities to drive the change needed to raise care standards and improve the quality of life of millions of people living with diabetes.

Bridget Turner
Director of Policy & Care Improvement, Diabetes UK
Integrated care is far more than simply providing one stop clinics. It is a seamless working together of relevant services to ensure a smooth and appropriate transition of care for the person with diabetes throughout their lives. Whilst the essential tenets of an integrated care service are underpinned by an essential structural framework as delineated in this document, the strength of such a service lies in its dynamism and ability to respond to the changing needs of individual patients as well as adapting to the rapidly changing political scene. On behalf of the RCGP I therefore endorse and recommend this document as essential reading for both fledgling and established clinical commissioning groups.

Dr Stephen Lawrence
Chief Medical Advisor (Primary Care), Diabetes UK
Clinical Diabetes Lead, Royal College of General Practitioners (RCGP)

As a diabetologist there can be no greater fulfilment than delivering care which makes a difference to the lives of people with diabetes. Commissioning which achieves integration will ensure the skills and training of diabetes specialists are used effectively, working across local health economies with colleagues in primary care and public health to produce beneficial outcomes with the cost efficiency required in an era of austerity. The diabetes epidemic is upon us and without a determined and systematic effort to confront it, the consequences for healthcare are unthinkable. I commend this document as a starting point for a local dialogue to ensure the outcomes, which all localities desire but many struggle to deliver, are achieved.

Dr Chris Walton,
Consultant Physician, Hull Royal Infirmary.
Chair, Association of British Clinical Diabetologists
1. Diabetes today:

The case for change

- There are over 2.6 million people with diabetes in England, a number that is rapidly increasing.
- Diabetes is a major cause of premature mortality with at least 24,000 avoidable deaths each year.
- Diabetes increases the risk of cardiovascular disease (heart attacks, strokes, mini-strokes) by two to four times.
- Diabetes is the most common reason for renal dialysis and the most common cause of blindness in people of working age.
- There are over 125 amputations each week due to diabetes, many of which are avoidable.
- Diabetes is estimated to have cost the UK £9.8 billion in direct costs in 2010/2011, this equates to approximately ten per cent of the total health resource expenditure.
- It is estimated that 80 per cent of these costs are incurred in treating potentially avoidable complications.
- In 2011/12 40.6 million items were prescribed to treat diabetes, £760 million was spent on drugs to treat diabetes in primary care and £158 million on glucose monitoring equipment.
- In May 2012 the National Audit Office published a report examining whether the NHS in England is providing recommended standards of care to people with diabetes:
  - The report found poor performance against expected levels of care and concluded that diabetes services in England were not providing value for money.
  - Fewer than one in five people with diabetes were achieving the recommended standards for blood pressure, cholesterol and glucose control.
  - There was significant variation in the quality of care provided for people with diabetes around the country with the proportion of people receiving all nine care processes varying from six to 69 per cent.
  - The report estimated that better management of people with diabetes could save the NHS £170 million per year.

Diabetes today - The levers for change

- The aim of the Health and Social Care Act 2012 is to ensure a health service where accountability is focused on the outcomes achieved for patients.
- The outcomes expected from the NHS are set out in the NHS Mandate.
- The NHS Outcomes Framework comprises outcomes and indicators chosen to capture the majority of the treatment activities that are to be delivered by the NHS across five domains of care.
- Outcomes for people with diabetes will be captured through indicators on care for people with long-term conditions (Domain 2) and indicators for mortality from conditions for which diabetes is a major risk factor (Domain 1).
- Clinical Commissioning Groups will have their performance benchmarked against the CCG Outcomes Indicator Set.
• CQUINs (Commissioning for quality and innovation) allow local commissioners to improve quality by agreeing priorities with their providers that could include diabetes Best Practice Tariffs (BPTs) incentivise providers to follow best practice guidance
• A BPT is already in place for paediatric diabetes and from April 2013 will be introduced for hospital admissions with diabetic ketoacidosis or hypoglycaemia
• A quality premium is proposed that will be paid to CCGs achieving high standards of quality from the measures contained within the NHS Outcomes Framework
• The proposed quality premium can also include three locally identified measures that could relate to diabetes
• These measures would need to be agreed with the local health and wellbeing board
2. Introduction to integrated diabetes care for CCGs

What do we mean by integrated diabetes care?

Putting the needs of the person with diabetes, and their families, first, is the cornerstone of integrated diabetes care. Integrated diabetes care is both the integration of a health care system and co-ordination of services around a patient.

“An approach that seeks to improve the quality of care for individual patients, service users and carers by ensuring that services are well co-ordinated around their needs.”

- King’s Fund and Nuffield Trust 2011

In essence, diabetes integration is the whole health community joining in partnership to own the health outcomes of patients with diabetes in their local area.

The Health and Social Care Act 2012 fully accepted the findings of the NHS Future Forum regarding the integration of health and social care. These recommendations included a requirement for all local commissioners to fully and properly explore the potential benefits of joint commissioning and pooled budgets in health and social care for key populations requiring integrated approaches. Local health and wellbeing boards are at the centre of this approach.

Everyone regardless of their circumstances, needs and deserves joined up and integrated health and social care, planned around their needs.

Integration is not primarily about structures, organisations or pathways; it is about better outcomes for patients. It is the comprehensive diabetes care you would want and expect for yourself or a member of your family. Integrated care covers all the aspects of diabetes care, delivered in a coordinated manner, across the many different health and social care professionals involved in caring for the person with diabetes.

Integrated care imposes the patient’s perspective as the organising principle of service delivery and makes redundant old supply-driven models of care provision. In diabetes, ‘vertical integration’ of care across traditional primary, intermediate and secondary care providers is essential to reduce duplication of and gaps in services. This can be achieved by commissioning outcomes of whole pathways of care rather than fragments of a service.

Several documents over the past few years have highlighted the importance of integrated care. These include:

- Integrated Care in the Reforming NHS Joint Position Statement - Diabetes UK
- Patients’ experience of integrated care - A report from the Cancer Campaigning Group
- Integrated care for patients and populations: Improving outcomes by working together - A King’s Fund report to the Department of Health and the NHS Future Forum
Why commission integrated care now?

The commissioning of health and social care is undergoing a fundamental change. Now is the time to seize the opportunity to utilise the new arrangements to commission diabetes care that has people with diabetes firmly at the centre and which is truly integrated and comprehensive.

In the NHS Mandate the government has laid down a challenge to the NHS to reduce premature mortality, improve safety and quality of care, and support people to better manage long term conditions.

There is a strong consensus among policy-makers, parliamentarians and patient groups on the importance of improving integrated care in the NHS. Integrated care is seen as ‘essential to meet the needs of the ageing population’ and an opportunity to ‘transform the way that care is provided’.

It is a timely opportunity therefore to fundamentally change the way we have historically delivered care for patients with diabetes. As such, CCGs will need to prioritise the provision of integrated care in the same way that they prioritise areas such as uptake of influenza immunisation, provision of extended hours in primary care and cardiovascular risk screening. The richness of data on outcomes and processes which have been gathered specifically in diabetes over recent years provide a unique opportunity to test the principles of integration in a long term condition, before applying the same principles to other disease areas.

National Voices highlighted that achieving integrated care would be the biggest contribution health and social services could make to improving quality and safety. Important issues for people with diabetes include:

- Emphasising the perspective of people living with diabetes and their carers to those involved with strategy and delivery of services
- Recognising that there is no single ‘best practice’ model and that the ‘joining up’ of services is pivotal, irrespective of how this is achieved
- Recognising that whilst single outcome frameworks are needed for different agencies providing integrated care to patients requiring complex care, organisational integration may not be necessary to deliver the ingredients of integrated care
- The NHS Mandate requirement that all those working in diabetes care must ensure that patients have a positive experience of care

Furthermore, the National Audit Office report has concluded that more lives can be saved amongst people with diabetes if resources are used more wisely. We have never had better data to allow us to identify unwarranted variation and to set local priorities - see National Diabetes Information Centre (NDIS). CCGs are at the centre of local decision making and have the power to truly improve life outcomes for people with diabetes.

What benefits can people with diabetes expect from better integrated care?

The main benefit of integrated care should be that services are designed to meet the patients’ needs rather than those of service providers. Integrated care models can respond to the complexities of long term conditions such as diabetes, and in particular, the increasing prevalence of multiple morbidity and poly-pharmacy. Integration allows the provision of systematic and comprehensive care and emphasises the continuity and co-ordination of care needed. In addition to improving the efficiency of the care for both health professionals and patients, it reduces the cost of health care which is essential in the present financial climate. Finally, it contributes to more holistic care.
What are the challenges to commissioning integrated care?

The major challenge remains the alteration of a current mindset that is geared up to providing health services in silos. There will need to be a wholesale adoption of the five key elements of integration: shared governance, integrated IMT, alignment of finances, care planning, clinical engagement and partnership with the aligning of agendas and incentives to focus on patient-centred care. Changes in policy making, regulation, financing and organisation of health care systems will need to take place if meaningful outcomes are to be achieved.
3. What should be commissioned?

The goal of commissioning and delivering integrated care for diabetes in a structured model is to ensure effective delivery of services, clear roles and responsibilities and a system of care to support self management and effective outcomes. Therefore, to be effective, a comprehensive, fully integrated diabetes service from screening and prevention, through to the management of complications and complex cases to in-patient specialist care and end of life should be commissioned.

All commissioned diabetes services should be based on the following principles:

- Provide services as close to where people with diabetes live as possible
- Provide coordinated services without duplication or gaps and employ coordinators to do this
- Work in an integrated way (between primary care and specialists) and in partnership with social care and other providers
- Ensure the workforce is trained (competency based) and care is delivered via multidisciplinary teams
- Provide services that support self management for people with diabetes

Commissioning diabetes must be seen as a ‘whole system integrated approach’ covering the entire diabetes patient journey to ensure that opportunities for improving care and making the most efficient use of resources are realised. This integrated approach reflects the ‘Teams Without Walls’ concept developed by the Royal College of Physicians.

The nature of the condition means the diabetes care areas and the multi disciplinary teams involved in its delivery are extremely wide reaching – perhaps more so than for any other long term condition, as demonstrated by the diagram opposite.
Organisation of diabetes care

High quality diabetes services are well integrated across primary, specialist, community, social services and child health. The services are delivered by appropriately qualified staff from a variety of disciplines, working within their boundaries of knowledge and competency and skilled to understand the individual needs of someone living with a long term condition.

The diagram below summarises the key components of integration and describes the organisation and relationships required to deliver a fully commissioned integrated diabetes service.

- The top box describes the regulatory context in which integrated diabetes care is commissioned. The integrated diabetes service needs to align with the priorities of the NHS Commissioning Board Domains as well as link to health and wellbeing boards and social care providers.
- The horizontal ‘light bulb’ diagram illustrates all components of a patient’s care that should be commissioned – see NHS Diabetes commissioning resource
- The vertical ‘pillars’ are the key components of an integrated clinical model which are fundamental as part of the commissioning process to facilitate the provision of different elements of diabetes care.
Key components of an integrated clinical model for diabetes

Delivery of a diabetes service is more than commissioning the individual components of care as part of a care pathway. Key components of a well-commissioned diabetes model will address the following ‘pillars of integrated care’:

Integrated IT

A good information technology infrastructure is essential for the efficient running of a geographically disparate service. The system should:

- Allow timely communication between members of the team, both to seek advice and to communicate information
- Allow accurate tracking of the movement of patients throughout the organisation
- Allow accurate assessment of the costs incurred by patients as they move through the organisation
- Aid the clinical consultation rather than act just as a database. For example, if a patient has hypoglycaemic episodes (‘hypos’), then the system should ask how severe they are; if the hypos are severe, does the patient drive? If they drive, then an information sheet should be able to be printed out to act as a focus of discussion around the legal issues of driving and hypoglycaemia
- Allow appointments to be made to help move patients through the organisation

Although there are national solutions which are being explored, local delivery of such a service may involve the use of existing primary care IT systems by other members of the diabetes team.

Financial incentives

This is the most difficult part to commission and involves moving beyond ‘payment by results’ and QOF, by which providers are incentivised to deliver activity, to a system which incentivises providers to deliver care centred around the patient. Good practice would involve commissioning whole pathways of care. Components of diabetes care should not be commissioned individually. This leads to fragmentation of care and each provider fully using their budget with no incentive to save money to reinvest in other parts of the pathway. Finances should be aligned with the outcomes required (see above section) and providers encouraged to engage in partnership working in order to deliver these outcomes.
Care planning
Care planning is a process that allows people with diabetes to have active involvement in deciding, agreeing and owning how their diabetes is managed. Care planning recognises that although healthcare professionals might have knowledge and expertise about diabetes in general, it’s really only the person with the condition who knows how it impacts on their life.

For example, the annual review, which currently often just involves tick boxes to show that tests have been taken, becomes a genuinely collaborative consultation by providing a real opportunity for people to share information with their healthcare team about issues and concerns, their experience of living with diabetes, and help with accessing services and support that is needed. Both the person with diabetes and the healthcare team will then jointly agree the priorities or goals and the actions to take in response to this. Year of Care is an excellent example of implementation of a care planning process – see Year of Care.

Clinical engagement and leadership
All successfully commissioned integrated models of care have involved clinicians and service users at an early stage. Commissioners should consider how to facilitate engagement of clinicians and service users at all stages of the clinical pathway at an early stage of the development of a model.

Local operational diabetes networks are in a unique position to work across natural diabetes communities. Acting as the honest broker your local diabetes network will bring together and facilitate a range of stakeholders from different disciplines with a mix of expertise, knowledge and competencies to deliver high-quality, cost-effective care through the effective commissioning, organisation and delivery of services.

If local operational diabetes networks do not exist there can be a lack of transparency of the diabetes service, and poor communication and engagement between the pathway stakeholders (especially with people with diabetes). The service is unlikely to be integrated and would provide minimal opportunity to deliver improvements at a local level.

Such clinical engagement and leadership is key to promote the change in culture needed to commission a whole clinical pathway rather than aspects of the pathway which are traditionally delivered by different individual providers. By doing this, clinical leaders with the local operational diabetes networks will ensure that contracts for services commissioned no longer reflect the traditional organisation of the providers, but rather mirror the needs of the patients.

The NHS is currently in a state of flux and is faced with the task of driving up the quality of services, improving patient outcomes and delivering the twenty billion pound QIPP agenda. The increasing pressure on the NHS to deliver improved services with limited resources calls for stakeholders to work together in an integrated approach. It is fundamental that CCGs use this method to implement local operational diabetes networks if they currently do not exist.

Clinical governance
Clinical governance in the context of integrated diabetes care is the whole diabetes healthcare community being responsible for the outcomes locally. Good communication, reporting and benchmarking will enable provider organisations to review variation in outcomes and target resources as appropriate.

This might include screening for diabetes where the prevalence is below expected. It may also include investing in an inpatient diabetes service in areas where the length of stay is high and patients have a poor experience of inpatient care. The governance allows the whole diabetes community to both be responsible for the outcomes locally and have the financial ability to address the local priorities.
Does it need to cost more?

No: by putting the commissioning of the whole pathway in the hands of the clinicians and service users in a partnership between primary and secondary care and community providers, the redistribution of money currently spent on diabetes care will result in a streamlined and more effective service. Any money saved through improved efficiency in delivering integrated care can be re-invested into the local diabetes services to improve them further.

By commissioning outcomes for a whole pathway rather than activity of individual components of the pathway, commissioners will maximise the efficiency of local services by avoiding duplication and gaps in provision.

How does this fit with the local services that are currently provided?

Each CCG will have their own local providers with their own strengths. This document is not seeking to specify how these individual services should be organised e.g. footcare, patient and staff education, or pump services - those decisions should be agreed between local clinicians and commissioners. Instead, this document emphasises the importance of placing each of these services within a commissioned integrated framework so as to ensure the best possible overall outcomes.

Is an integrated diabetes service different to consultant-led clinics in the community?

Yes. It is possible to deliver community clinics without any of the pillars of integration outlined above. An integrated diabetes service may well include consultant-led community clinics. However, it is likely to be significantly more effective with an integrated IT system, annualised or pooled budgeting aligning the finances with the responsibility of providing comprehensive integrated care for the local population, clear accountability for outcomes and a governance structure to implement the changes identified by the local diabetes providers.

In essence, integration is the whole health community joining in partnership to own the health outcomes of patients with diabetes in their local area.
4. What CCGs must do: Commissioning for outcomes

Outcomes Framework hierarchy
There are a number of national outcome frameworks that are essential for CCGs to consider when commissioning integrated care services as highlighted below:

- **The NHS Mandate**
  The first mandate between the Government and the NHS Commissioning Board which sets out the ambitions for the health service. Structured around five key areas where the Government expects the NHS Commissioning Board to make improvements; and will be judged against.

- **The NHS Outcomes Framework**
  A set of national outcome goals and supporting indicators. It exists to provide a national level overview of how well the NHS is performing, to provide an accountability mechanism between the Secretary of State for Health and the NHS Commissioning Board, and to act as a catalyst for driving quality throughout the system.

- **The CCG Outcomes Indicator Set**
  A translation of the NHS Outcomes Framework into indicators that are meaningful at a commissioning group level. The CCG Outcomes Indicator Set will act as a mechanism for the NHS Commissioning Board to drive improvement as well as hold Clinical Commissioning Groups to account.

- **The Public Health Outcomes Framework**
  CCGs will work alongside local partners on health and wellbeing boards, including Directors of Public Health, to agree the Joint Health and Wellbeing Strategies and to reflect those strategies in their local commissioning plans.

- **The Adult Social Care Outcomes Framework**
  The framework has been strengthened with new measures and has been further aligned with the NHS Outcomes Framework and the Public Health Outcomes Framework, supporting all parts of the health and care system to work together to support people to live better for longer.

- **Quality Standards: Diabetes in Adults Quality Standard**
  Clinical Commissioning Groups must also have regard to the Quality Standards produced by NICE as part of the Health and Social Care Act.

The Quality and Outcomes Framework: An existing framework (before the reforms, from 2003) incentivises quality care at GP level and is part of the GMS Contract, which the NHS CB will assume responsibility for.
Making the link

The major deliverables in the NHS Outcomes Framework are:

Domain 1 - Preventing people from dying prematurely
Domain 2 - Enhancing quality of life for people with long term conditions
Domain 3 - Helping people to recover from episodes of ill health or following injury
Domain 4 - Ensuring people have a positive experience of care
Domain 5 - Treating and caring for people in a safe environment and preventing them from avoidable harm

The CCG authorisation process will assess CCG development against the five domains and seek to ensure CCGs are clinically led and driven to provide improving clinical outcomes.

All the five domains are relevant to the provision of better integrated care. In particular, Domains 1 and 2. The domains have a strong clinical and multi-professional emphasis so as to bring about real added value, on meaningful engagement with patients, carers and their communities, and on clear and credible plans to deliver on the QIPP (quality, innovation, productivity and prevention) challenge and are also highly dependent on the provision of integrated care.

Diabetes specific outcomes

Key outcomes for diabetes are usefully summarised in the NHS Atlas of Variation in Healthcare for People with Diabetes. They include both process as well as clinical outcomes and should be used to set the priorities for both commissioners and providers, ensuring all are committed to the success of the integrated service. Focusing on process outcomes alone will not achieve quality care or contain spiralling budgetary costs. Ensuring action ensues from process outcomes is essential in avoiding the expensive complications of diabetes.

Outcomes should include:

- Those outcomes as defined in the five domains of the NHS Outcomes Framework 2012-13 and the CCG Outcomes Indicator Set
- An improved patient experience of their care, including moving between different parts of the healthcare community
- Screening and prevention of diabetes
- Achieving the nine key care processes for type 1 and type 2 diabetes
- Achieving treatment targets for patients with diabetes by acting upon the findings of care processes
- Achieving a reduction in complications of diabetes by acting on the findings of care processes
- Reducing admissions and use of inpatient services for patients with a primary code of diabetes
- Compliance against NICE Diabetes in Adults Quality Standard

Measuring quality

There is more national audit data on diabetes than any other chronic disease (see NDIS). It is thus the perfect exemplar of how care integration can drive improvements in quality and provide better accountability for diabetes spend. Specifically, there is an opportunity to focus on the disproportionate spend on the care of emergencies and complications compared to the prevention and effective early management of diabetes. The means to do this are provided by the outcome frameworks described.
5. Getting Started: What do CCGs need to do?

Pictured left are eight practical steps that will enable you to carry out the key commissioning tasks and deliver high-quality, efficient and cost-effective integrated diabetes services.

Click on each step to guide you through the process including access to benchmarking and programme budgeting tools.

**Benchmarking: use of data**

There is a wealth of well validated information available for local commissioners to use to:

- identify the number of people with and at risk of diabetes in their area and future projections - see YHPHO and NHS Health Check
- benchmark their services in relation to others – see National Diabetes Audit and QOF
- identify unwarranted variation in care in their area – see Atlas of Variation
- establish the prevalence of multi-morbidity – see John Hopkins tool
- examine the care provided for children and young people with diabetes locally – see National Paediatric Diabetes Audit
- determine the local prevalence of complications and preventable deaths – see NDA Mortality Analysis
- determine the local prevalence of diabetes in care homes
- examine the provision of services for people with highly specialised needs including foot care, pregnancy care, end stage renal failure – see NHS Diabetes areas of care
- determine what local people with diabetes think about and need from local services (see Diabetes Patient Experience Project)
- outcomes against expenditure - See Yorks and Humber Diabetes Outcomes Versus Expenditure Tool (DOVE)

These data can then be used to set local priorities and to form the building blocks for commissioning a truly comprehensive and integrated local diabetes service.
Ten top tips for CCGs

1. Recognition of the need for integrated care for people with long term conditions
Recognise that people with diabetes typify the main issues regarding the care of people with long term conditions, as a large proportion of people with diabetes are elderly, have multiple morbidities and issues with poly-pharmacy. People with diabetes also need input from the outset from various health and social care agencies and as the condition progresses the need for complex care increases exponentially.

Recognise that diabetes contributes significantly to the burden of care in hospital admissions occupying about 15 per cent of in-patient hospital beds, and up to 40 per cent of beds on cardiovascular units; the majority of diabetes-related admissions are unplanned.

Recognise that appropriate management of diabetes in the early stages will reduce the need for admissions and contribute to the delivery of the QIPP agenda for CCGs – see Inpatient care for people with diabetes – the economic case for change.

2. Recognise the scale of the problem for diabetes, complexities and those at risk
The Diabetes Atlas of Variation highlights the inequality in care and outcomes across CCGs. The magnitude of this variation is unacceptable and reflects partly the fragmentation of care between primary, secondary and community care. CCGs have a duty to reduce inequalities in people’s ability to access services. To do this for people with diabetes, there is a need to be clear about which services they need to routinely access and how often. They also need to know that services are available to them at points of crisis and how to access them.

Use well-validated tools to help providers identify those patients who may benefit most from integrated care; these include many readily available and validated risk stratification tools.

3. Foster and support good leadership
It is crucial CCGs provide clinical leadership in improving the experience of patients, user groups and carers as well as improving clinical outcomes. In the case of commissioning integrated diabetes services, this will include the use of clinical champions and existing local operational diabetes networks (Implementing Local Diabetes Networks) to evaluate existing services, gaps in care relevant to integrating services and designing clinical pathways for patients and carers who would best benefit from integrated care. It is imperative this leadership is utilised to provide a strong case and narrative for integrated care.

4. Re-think funding systems so that true collaboration and integration can take place
It is well recognised that the present financial payment structure may not be the best way to fund integrated care. Solutions may include having a single contract with providers who then ensure that governance, integration and improved health outcomes and user experience are delivered against specific contractual standards. This innovation will include re-defining the accepted meaning of patient choice from its present, narrow definition to choosing providers who best provide integrated care as needed. It will also need CCGs to re-interpret and define rules on competition and procurement. The emphasis for integrating diabetes care will be on collaboration and integration rather than competition. By commissioning outcomes along with the key features (or pillars) of integration from a single or a lead provider – rather than ‘micro-commissioning’ specific numbers of staff and activity from different providers – CCGs will optimise integration across the whole patient pathway.
5. **Work with health and wellbeing boards**
CCGs will need to work closely with health and wellbeing boards and the joint strategic needs assessment they produce to determine how to best meet the needs of their local population with diabetes.

6. **Design systems with end-users in mind**
CCGs have the opportunity to realise the benefits of involving people with diabetes in improving the quality of care in their areas, particularly with regard to the outcomes achieved by services and the experience of people using these services – see *Diabetes UK - Making Involvement Happen*.27

The *Health and Social Care Act* reinforces this opportunity by placing duties on CCGs to involve people both individually in decisions about their care and treatment; and collectively in decisions about service planning.

People with diabetes need consistent information about their condition to maximise their self-management. One way in which CCGs can ensure people are being individually involved in their care is by meeting the *NICE Quality Standard Statement on Care Planning in Diabetes*. By ensuring the commissioned services provide training for healthcare professionals and encourage people with diabetes to participate in their own care.

In terms of collective involvement of people with diabetes in the planning of CCGs’ commissioning arrangements, the service user’s perspective must be the organising principle as they go through services in a way that individual organisations do not. They therefore have an essential perspective on the care they receive and how it can be better coordinated.

7. **Identify key outcomes that capture the essence of integrated care**
This is dealt with in more detail in the ‘Outcomes’ section but clarity will be needed in developing measures that reflect care integration; this will include measures of patient satisfaction with provided services as well as any changes in hospital admissions, clinical morbidity including hypoglycaemic attacks and better uptake of preventive services and patient education.

8. **Enhancing capacity and competency in primary and community care**
For integrated care to provide maximum clinical efficiency and avoid duplication in care of complex cases, there will be a need to strengthen community and primary care services so the focus of care can be on co-ordination, prevention, structured chronic disease management and care planning with the aim of reducing wastage, unnecessary medication errors and, most of all, inappropriate hospital admissions. Strengthening of community services may include use of a community specialist nurse or consultant services as well as integration with other key providers including podiatrists, community nurses and pharmacists. It will be the responsibility of the CCGs to ensure they have a workforce that is clinically competent and fit for purpose – see *competency documentation and training*.23
9. Highlight new research findings and support translation to clinical care
Stimulate and resource innovation of systems for a suitable length of time to realise benefit without constant evaluation e.g. telehealth, care planning, new methods of delivery including longer appointments with integration for complex cases and integrated IT systems.

10. Role of specialist teams
The special needs of certain groups of people with diabetes for example, children and young people, those with type 1 diabetes, pregnancy, people with foot problems, insulin pump users, complex type 2 patients must be recognised by commissioning arrangements which enable timely access to specialist care.

Every locality should have a fully commissioned and resourced specialist service, enabling integrated diabetes care in all care settings and ensuring that people with diabetes have access to high quality primary and specialist care when clinically appropriate.

Within the hospital setting ‘clinical studies suggest that specialist diabetes inpatient teams can reduce prescribing errors, improve patient outcomes, reduce length of stay, increase day case rates and reduce the number of admissions.....the savings from introduction of such teams can substantially outweigh the cost of the team’ as such all acute trusts should have a fully commissioned consultant-led in-patient specialist team with moves to offer 24 hour on-call specialist support throughout the hospital – see PCDS - Keeping people with diabetes out of hospital.28

The benefits of diabetes inpatient teams extend to patients admitted whose primary diagnosis for admission was not diabetes but where the presence of diabetes frequently extends and adds to the complexity of the admission and length of stay. This team should be integrated into the wider diabetes community so that re-admissions of patients recently discharged can be avoided and treatment plans set up within hospital are continued seamlessly in the community.
6. Making the link

Commissioning in reality: Patient journeys and professional perspectives

There have been several recent published examples from various parts of the country (see Derby model, North London, Portsmouth Super Six, Sheffield) illustrating different aspects of care integration. While they all have commendable features, these models do not represent all the different models across the UK, and nor are they the only models possible. CCGs and key stakeholders are at different stages of development, with local implementation dependent upon local infrastructures and competing health need priorities. As such a ‘one size fits all’ model is not applicable.

Local health needs and service gaps need to be identified and models developed accordingly; it is important however that the essential five pillars for developing integrated care and the pointers in the 10 Top Tips section provide the building blocks for such models.

The cases below illustrate the need to ensure that every element of diabetes care is considered when commissioning an integrated diabetes service.

The service should cover all aspects from the identification of individuals at high risk of diabetes and strategies to prevent or delay the onset of diabetes to the care of individuals with complex long-standing diabetes and multiple complications and co-morbidities.

Special consideration should be given to the particular needs of children and young people with diabetes, the elderly and those from hard to reach groups. Sustainability should also be considered such that the service can survive or evolve even if personnel change.

Getting it right from the beginning: Early detection and initial management

Hello, I’m Joe. I’m 57 and was diagnosed with type 2 diabetes after I attended for my NHS Health Check. I wasn’t going to bother going but my wife had seen all the adverts in the local paper and on the buses and found out that I could be checked on a Saturday morning at the local surgery. It was handy because I don’t like taking time off work but I don’t work on a Saturday morning. The lady who did my check was a healthcare assistant and she explained that she had been specially trained to perform health checks. This gave me confidence that I was seeing someone who knew what they were doing. The check didn’t take long and I was quickly called back to see my general practitioner for the results. He explained that I had diabetes. I was shocked; my Uncle lost a leg to diabetes and I didn’t want that to happen to me. I was offered the opportunity to go on course to learn more about diabetes and what changes I need to make now that I’ve got it. I did go on the course because it was just for blokes and it was held on Saturdays at the rugby stadium. I’ve decided to try and lose some weight and quit smoking.
Hi, I’m Carol, I’m a health care assistant at Joe’s surgery and I perform the NHS Health Checks. When Joe’s results came back showing he had diabetes I directed him to the GP who explained to Joe that by making some changes to his lifestyle he could reduce his risk of complications.

We referred him to our local structured education and supported self management programme for men with newly diagnosed diabetes and also referred him to our smoking cessation advisor at the surgery. We also provided him with some written material to help him explain his diagnosis to his wife and family and outlined other locally available services including weight management and exercise groups. I enjoy performing the health checks and feel confident in my ability to do them well because of the training that I have undertaken and because of the ongoing regular training and update sessions that take place. There is a local health check group that meets to share ideas and to look at the data from the health checks to make sure we are providing a good service. We also look at our local data to make sure everyone eligible is invited to a health check and look at ways we can try and improve the number of people who attend for their check.

- NHS Health Checks provide an opportunity to detect diabetes at the earliest opportunity
- Processes must be in place to inform individuals of their results and to signpost them to appropriate service that can help them to reduce their risk of complications in the future
- Processes must also be in place to inform other agencies when individuals are diagnosed with diabetes for example the diabetic eye screening service

Health Checks will be transferred to local authorities from April 2013. The Public Health Outcomes Framework for England 2013-2016 sets out the key performance indicators for local authorities. These include the proportion of the eligible population invited each year and the proportion attending each year – see Improving outcomes and supporting transparency

Children and young people services

Hi, I’m Amy, I’m 14. I’ve had type 1 diabetes since I was six years old. I hate having diabetes and sometimes I don’t bother to take my insulin if I’m out with my friends. My Mum gets really worried because a few times I’ve ended up in hospital with ketoacidosis and the doctors said I was lucky not to have died. I just wish I was normal like all my friends.
Hello, I’m John, Amy’s paediatrician. I’ve looked after Amy for many years. Now that Amy is a teenager I see her in the transition clinic. I work with colleagues from the adult diabetes team so that we can make sure that Amy is ready to move over to the adult service. It’s difficult for teenagers living with a chronic illness and they need a lot of support to come to terms with all the changes that happen to them during adolescence. Through the paediatric diabetes best practice tariff I was able to arrange for Amy to see a diabetes specialist psychologist to try and overcome her barriers to taking insulin whilst out with her friends. She also attended a structured education programme which she enjoyed because everyone in the group had diabetes so she didn’t feel so alone. Since Amy has undertaken these things she has managed to avoid any more admissions with diabetic ketoacidosis.

- Approximately 24,000 children and young people in England have diabetes
- The National Paediatric Diabetes Audit has shown that they have poor blood glucose control and are at high risk of potentially fatal complications
- Adolescence is a critical period of life regarding health-related behaviour
- The ideal transition from paediatric to adult services should be a purposeful, planned process that addresses the medical, psychosocial and educational and vocational needs of adolescents and young adults with diabetes – see Department of Health. Transition; getting it right for young people. Improving the transition of young people with long-term conditions from children’s to adult health services
- A poor transition experience can result in worse diabetes control
- The paediatric diabetes best practice tariff provides a financial incentive to provide comprehensive high quality diabetes care for children and young people
- Rates of DKA (a life-threatening complication) in children and young people with diabetes continue to increase
- Young women with diabetes are nine times more likely to die than young women without diabetes

Care of elderly people with diabetes in care homes and in hospital

Hello, I’m Elsie; I’ll be 78 years old at my next birthday. I’ve had type 2 diabetes for over twenty years and now I’m registered blind and have had a heart attack. I found it difficult to manage at home so last year I moved into Sunshine View. I like it here but I hadn’t been in here long when I ended up in hospital with sky-high blood glucose levels and pneumonia. I was very frightened and I hope it doesn’t happen again.
Hello, I’m Ludmilla; I’m one of Elsie’s carers at Sunshine View. We were all very upset when Elsie got so poorly that she needed to go to hospital. Fortunately for us, the local CCG has prioritised health care provision in care homes. The local diabetes specialist nurses, primary care team and HCA have been evaluating the care we provide to our residents and have also been educating the care home staff regarding how to look after the different aspects of diabetes care. This has included treating hypoglycaemic attacks, medication management, monitoring blood glucose and, most importantly, ensuring people with diabetes undertake some physical activity and follow a healthy diet to reduce their chances of developing cardiovascular problems. This work has been very valuable as we have local general practitioners, specialist nurses and educators working together with us and it is great to get the one common message in looking after residents who have diabetes. I have also completed a certificate in diabetes care and now I am the link worker for diabetes at Sunshine View.

Hello, I’m Betty, I’ve been a nurse on the Elderly Care Ward at the infirmary for over thirty years. More and more of the older people I look after seem to have diabetes nowadays. I used to feel that I didn’t know much about diabetes and its complications but I feel much more confident since I took some eLearning modules as part of my statutory and mandatory training. We also have Think Glucose™ in our hospital which has made people more aware of diabetes.

In addition, we have a protocol in place now so that anyone coming in with a diabetes problem gets referred to the diabetes specialist team straight away and seen by them within twenty four hours. This means that we can ensure the person is receiving the best care possible and also really helps us with discharge planning. We work with the specialist team and the older person to draw up a care plan for their diabetes. I made sure that Elsie’s GP and the team at Sunshine View got a copy of this before she went home.

- Up to 25 per cent of care home residents have diabetes
- Care home residents with diabetes are at high risk of unplanned emergency hospital admissions
- 15 per cent of hospital in-patients have diabetes and it is associated with an increased length of stay
- Diabetes specialist teams shorten patient stay and improve patient safety
Integrated management of complex diabetes complications

Hi, I’m Bob, I’m 55 years old and I have had type 1 diabetes for over 30 years. I didn’t used to take much notice of my diabetes but now I wish that I had. My kidneys have packed up because of the diabetes, I’ve got an ulcer on my right foot and now I’m having tests because I’ve been getting short of breath. I’m up at the hospital three times a week for dialysis and see the podiatrist twice a week. I’m waiting to see a cardiologist to get the results of my heart scan to see if that’s why I’m getting out of breath. My daughter is being tested to see if she can donate a kidney to me. I’m worried that if she does it could damage her own health but she hates seeing me like this.

Hello, I’m Juliet, I’m a consultant diabetologist and I run a diabetes renal clinic. Bob is typical of the patients I see. He has had diabetes for a long time and has developed a number of distressing complications that make his management very complex.

Communication is crucial for Bob because there are so many people involved in his care. Things have really changed for the better since we got this new IT system. I can communicate with Bob’s GP immediately and I can see what the cardiologist and nephrologists have been recommending. It saves so much time as we don’t have to wait for letters to go backwards and forwards like we used to. It’s also good for Bob because the podiatrists can see when Bob is coming up for dialysis and can arrange to see him on the same days to prevent him having to make even more trips up to the hospital.

Our new integrated diabetes service is also great for patients like Bob. Our local CCG has commissioned an integrated system which allows Bob’s GP to refer him to me without worrying about financial penalties as we have a single budget for diabetes care. It took a lot of hard work and effort to commission the service but we were all determined to see it through because we could see the benefits it could bring in allowing us to provide the highest possible quality of care to the people in our area with diabetes.

- Diabetes is the most common cause of kidney failure
- Between 2006-2010 rates of avoidable complications in people with diabetes increased
- Consultant diabetologists have specialist training and accreditation in diabetes and experience of the full range of the medical and multi-organ aspects of diabetes mellitus. They are able to deliver specialist clinical advice for people with diabetes and complex needs
Hello I’m Jackie, I’m 62 years old and I’ve had diabetes for ten years. I didn’t notice when I stubbed my toe on my dressing table. Fortunately I mentioned it when I popped in to see my GP about something else and he said I needed to be seen by a foot specialist straight away otherwise I might lose my leg!

Hi, I’m Colin; I’m a diabetes specialist podiatrist. I work as part of the multi-disciplinary foot care team with colleagues from the diabetes, vascular surgery, radiology and orthopaedic departments. Jackie’s GP knew that she had high risk feet because he is part of a wider team and had been trained in diabetes care by completing a series of modules delivered by his local secondary care team. When Jackie was examined at her annual check she was found to have reduced sensation in her feet and no pulses. This resulted in her GP referring her for regular podiatry in the community as part of the NICE integrated footcare pathway.

When she stubbed her toe Jackie had developed a foot ulcer her GP referred her to us immediately following the commissioned integrated footcare pathway and we saw her the same day and were able to start treatment that meant we were able to save her toe and avoid an amputation. If she had lost her foot then this would have meant a protracted hospital stay, the need for rehabilitation and orthotic input, likely psychological distress and depression and adaptations and input at home to enable her to manage her day-to-day activities. All of this would have cost a fortune but we were able to avoid it by providing the right care at the right time.

- Over 125 amputations take place due to diabetes each week in England. It is estimated that 80 per cent of these are avoidable43.
- Each year the NHS spends around £650 million on ulceration and amputation in diabetes44.
- Multi-disciplinary diabetic foot care teams have been shown to reduce amputations and save money, Southampton University Hospitals NHS Trust has been able to save £700,00 per year by implementing a diabetic foot care MDT45.
Preventing Diabetes

My name is Irfan, I’m 42 years old. My Mum and Dad have both got diabetes and so have lots of aunties and uncles so I always thought I would get it one day. When I went for my NHS Health Check I found out that although I don’t have diabetes yet I am very likely to get it in the future. What I didn’t know until I had the health check was that there are things you can do to stop yourself from getting diabetes. I have joined my local gym and my wife came with me to an education session at the surgery to learn about how to change my diet to help me lose weight and reduce my risk. I feel much more optimistic about the future now.

Hi, I’m Anna. I’m a dietitian. I work in the local community running education sessions for people with and at high risk of developing diabetes. My patch covers the city centre so it is a very diverse community. This means that the education sessions I deliver need to be tailored to the local community to ensure that they are culturally appropriate and provide the information that people need to help them to stay healthy. My colleague Khadija runs sessions in Hindi and Urdu for those people who don’t have English as their first language.

- People of South Asian, Chinese, Black and Arab ethnicity have an increased risk of developing type 2 diabetes and develop diabetes at an earlier age than White Caucasians
- Type 2 diabetes can be prevented or delayed by adopting lifestyle changes
- Education should be delivered to ensure that it meets the needs of the local population in terms of language, ethnicity, location, access and timing.
- This service is commissioned by the CCG and Public Health, in conjunction with their local health and wellbeing boards, who recognise the importance of preventing type 2 diabetes.
Preconceptual care

Hello, my name is Louise, I’m 27 years old I’ve had type 1 diabetes since I was 11 years old. I got married last year and my husband and I were really keen to start a family. When I mentioned this at my diabetes clinic appointment the doctor explained that it is important that my diabetes is well controlled before we start trying and during the pregnancy to keep me and the baby as healthy as possible. To help me improve my diabetes one of the diabetes specialist nurses helped me to draw up a care plan. I found this really helpful and liked the fact that it was personalised to me and my situation. I’m now 24 weeks pregnant and things are going well. I’ve had a lot of support from the diabetic antenatal clinic and I’m looking forward to having my baby.

Hi, I’m Kelly. I’m a diabetes specialist nurse. I provide pre-conception counselling for women with diabetes who want to get pregnant. I helped Louise to make a care plan that focussed on her goals of improving her diabetes control and having a successful pregnancy. I enjoy the care planning process as it allows the person with diabetes to decide, agree and own how their diabetes is managed. I also work in the diabetic antenatal clinic alongside colleagues from obstetrics, midwifery, dietetics and diabetes. Women with diabetes needs a lot of support and checks throughout pregnancy for example extra eye checks and ultrasound scans of the baby. Our clinic also looks after ladies who develop diabetes in pregnancy (gestational diabetes) and provides them with advice on how to prevent developing diabetes after the baby is born.

- Women with pre-existing diabetes have an increased risk of major congenital malformations, stillbirth, neonatal death, pre-eclampsia and premature labour.
- Good control of blood glucose levels before and during the pregnancy help to reduce these risks.
- Diabetes in pregnancy is a risk factor for the development of future type 2 diabetes but can be prevented or delayed by lifestyle modification.
Partnership working: Hypoglycaemia unawareness

Hello, I’m Brian, I’m 52 years old. I’ve had diabetes for thirteen years and have been on insulin for the last four. I’m not the best at looking after myself. I haven’t worked for quite a while and spend most of my time in the betting shop, in the pub or out walking my dog. I used to go up to the hospital about my diabetes but then I forgot a few appointments and they haven’t called me again. I was walking home with my dog along the canal when I must have had a hypo. It happens all the time but usually I’m out with people so they call the ambulance. The next thing I know I’m waking up in A&E and they’re telling me I’ve been outside so long I’ve got hypothermia and I’ve got to stay in hospital for a few days. I’ve also been referred to a social worker to try and get myself sorted out a bit.

Hello, I’m Ian. I’ve been a consultant diabetologist for 15 years. I’d met Brian over the years but he’d missed a few clinic appointments and I hadn’t seen him for a while when he was admitted to the hospital having been brought to the emergency department by the ambulance service. This was when I discovered that Brian was requiring the ambulance service to treat his severe episodes of hypoglycaemia at least once a month. Brian’s case highlighted the need for closer links between the diabetes specialist team, primary care, social care and the ambulance service. I led a group made up of representatives from all the relevant stakeholder organisations and together we developed a care pathway to be implemented when the ambulance service is called out to someone experiencing hypoglycaemia. The ambulance service now informs primary care and the diabetes specialist team each time they see an individual with hypoglycaemia. The diabetes specialist nurses then contact the person within twenty four hours to discuss how best to prevent similar episodes occurring again. We subsequently discuss complex cases at our multidisciplinary team meeting and work with the individual to develop a personalised care plan for them. The care pathway has reduced admissions, improved care and allowed us to provide input with an often hard-to-reach group.

- Age, duration of diabetes, and socioeconomic status are risk factors for severe hypoglycaemia
- Severe hypoglycaemia predisposes the person to further events unless the cause is identified
- The 12 ambulance services in England attend approximately 3,800 call outs per month for hypoglycaemia
- 25-40 per cent of these calls result in transfer to hospital
- The annual UK cost of hospital admissions and ambulance call outs is estimated at £16.9 million
Commissioning in reality: incorporating the five key components of an integrated clinical diabetes model into the commissioning process

Information technology
The need for good communication between healthcare professionals underpinned by robust arrangements for the sharing of information and information technology has been recognised for some time\(^6\). Health professionals need to know what has happened during interactions between the person with diabetes and other members of the healthcare team and shared records and information technology systems are a prerequisite for achieving these goals. The cases of Bob and Brian give some indication of the number of professionals that may be involved in the care of one person with diabetes. Irfan and Joe were identified via their NHS Health Check. Information technology can be used to stratify invitations for health checks according to risk of diabetes or other chronic diseases. Shared electronic records allowed Jackie’s GP to make an immediate referral to the multidisciplinary footcare team without having to spend valuable time trying to get hold of the right person by phone or the delays incurred of sending a letter. John may consider how his team could use social media to communicate better with their young people with diabetes.

Financial incentive alignment
There are barriers to be overcome in the creation of an integrated diabetes care model. One such barrier is the perverse financial incentives created by the National Tariff payment system. In Derby, this was overcome by forming a new organisation licensed to provide NHS services. The new organisation formed was a partnership between groups of local general practices and Derby Hospitals NHS Foundation Trust. The new organisation had a single integrated budget and therefore, had the opportunity to make the correct clinical decisions and mitigate any consequent financial risk across the health economy. The Derby model has demonstrated improvements in clinical parameters, patient experience and a reduction in hospital admissions. Such a system would allow a general practitioner to refer a patient like Bob or Brian to specialist care without financial penalty.

Care planning
Care planning is a process that allows people with diabetes to have active involvement in deciding, agreeing and owning how their diabetes is managed. A care plan is an individualised document that is prepared in agreement with the person with diabetes, their family, carers and healthcare professionals. Other professionals may add to it including occupational therapists, physiotherapists, dieticians, social care professionals or psychologists. It should be reviewed and updated regularly. A care plan documents who is responsible for a person’s diabetes care and may also contain information concerning treatment, dietary requirements, activity levels, contact numbers and individual risk factor target levels\(^7\). Diabetes UK has produced an example care plan template for people with diabetes in care homes. In the examples outlined above Kelly was able to help Louise to design a care plan for her pre-conception and pregnancy. For Elsie, the hospital staff and specialist diabetes team liaised with Elsie and her GP and care home staff to ensure that she would receive safe and high quality care on discharge back to her care home. Brian presented an example of how complex care planning can be and how many agencies may need to be involved. Ensuring the existence of a care plan and its communication to all members of the health and social care teams involved in an individual’s care facilitates high quality diabetes care.
Clinical engagement
Clinicians and managers may sometimes take a different approach to improvement, but they are both an integral part of achieving successful and lasting change. Clinicians have the major influence over patient care and need the support of the organisation to provide them with the resources and processes necessary to implement their decisions. Clinical decisions also have a direct bearing on resource utilisation. Local clinicians may have been in post for many years and have a wealth of local knowledge and experience of the strengths and weaknesses of local systems. Healthcare Quality Improvement Partnership has acknowledged that clinicians are at the heart of quality improvement. It was through clinical engagement that Ian was able to develop a cross organisation pathway for hypoglycaemia that Kelly was able to work in a multidisciplinary antenatal clinic and that Jackie received such prompt treatment of her foot ulcer. Organisational change if contrary to that expected can cause conflict. This can be mitigated by including clinicians and service users in every part of the change process.

Clinical governance
Clinical governance is the system through which NHS organisations are accountable for continuously improving the quality of their services and safeguarding high standards of care, by creating an environment in which clinical excellence will flourish. Clinical governance means that Carol has the necessary skills and training to undertake NHS Health Checks and to provide appropriate advice for patients and that Ludmilla can undertake a certificate in diabetes care. Clinical governance also ensures that all the healthcare professionals we met undertake continuous professional development, appraisal and revalidation and audit, evaluation and benchmarking of the services they provide. The unified governance structure ensures that everyone is aware of their own responsibilities towards the person with diabetes. Integrated diabetes services already in existence for example in Derby, have identified the need for a unified clinical governance structure for patients flowing between primary and secondary care. Both hard tools (locally enhanced services) and soft tools (meetings, easy communication, nurturing relationships) are used to achieve this. Under this model the hospital diabetes service provides clinical governance across the whole pathway.
7. Conclusion

Recent evidence on diabetes care highlights the gaps in service provision and the variability of care across the UK. *Putting the needs of the person with diabetes, and their families, first, is the cornerstone of integrated diabetes care.* Traditional barriers between different provider groups and out-dated models of interaction with people with diabetes lead to fragmentation, inefficiency and duplication of care. Providing better integrated diabetes care has been shown to improve patient experience, quality of clinical care and reduce hospital admissions for vulnerable patients.

The next steps for policy makers will include removing the cultural divide between different providers and setting realistic objectives for integrated care. There will be a need to share best practice which provides a comprehensive approach to providing integrated diabetes care and avoid the piecemeal fragmentation which is potentially an inherent feature of the competition and choice policy.

*Best practice for commissioning diabetes services - an integrated care framework* provides commissioning groups and policy-makers with valuable information on the need and importance of integrated care for patients, service users and their carers. It is now up to diabetes commissioners and providers to implement this guidance and work together to deliver this in practice.
8. Resources and references

- Care planning in the Year of Care programme: making it easier to do the right things
- Children and young people commissioning care guide
- Coding, classification and diagnosis of diabetes
- Commissioning ‘diabetes without walls’
- Commissioning a diabetes footcare service
- Commissioning a diabetes service for older people
- Commissioning diabetes and cardiovascular care
- Commissioning diabetes and kidney care services
- Commissioning diabetes and neuropathy care
- Commissioning diabetes diagnosis and continuing care services
- Commissioning diabetes end of life care services
- Commissioning diabetes prevention and risk
- Commissioning effective diabetes services: tackling the greatest diabetes health challenge of the 21st century
- Commissioning emergency and inpatient care for people with diabetes
- Commissioning excellent diabetes care: an at a glance guide to the NHS Diabetes commissioning resource
- Commissioning for diabetes and eye services
- Commissioning mental health and diabetes services
- Commissioning people with learning disabilities who have diabetes
- Commissioning pregnancy and diabetes
- Diabetes UK and NHS Diabetes 2010 dietitian work force survey report
- Emotional and psychological support and care in diabetes
- Foot care for people with diabetes: the economic case for change
- Inpatient care for people with diabetes – the economic case for change
- Leading change: working in partnership to achieve high quality diabetes care
- Misclassification and miscoding of diabetes
- National paediatric diabetes services improvement strategy 2012-2017
- National service framework for children, young people diabetes and maternity services – diabetes type 1 in childhood
- NICE and diabetes
- Optimal prescribing of glucose lowering therapy for patients with type 2 diabetes
- Partners in care manual
- Putting feet first - and fast
- Safe and effective use of insulin in hospitalised patients
- Striving for quality
- The Diabetes UK and NHS Diabetes workforce database of United Kingdom diabetes specialist nurses and nurse consultants
- The hospital management of hypoglycaemia in adults with diabetes mellitus
- The management of diabetic ketoacidosis in adults
- The NHS Diabetes offer: working to improve diabetes
- The NHS Diabetes quality improvement cycle
- Year of Care toolkit
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18 NHS Outcomes Framework 2012-13, Department of Health, 2011
20 National Diabetes Audit 2010-2011- Report 1: Care Processes and Treatment Targets
21 QS6 Diabetes in adults quality standard – March 2011
22 Inpatient Care for People with Diabetes: The Economic Case for Change – Marion Kerr, Insight Health Economics / NHS Diabetes, November 2011
23 Making Involvement Happen – A new practical resource to help your organisation involve people with diabetes to improve diabetes care - Diabetes UK
24 Royal College of Paediatrics and Child Health, National Paediatric Diabetes Audit Annual Report 2010-2011 - September 2012
25 Department of Health. Transition; getting it right for young people. Improving the transition of young people with long-term conditions from children’s to adult health services
27 Department of Health, Update to Best Practice Tariffs / NHS Diabetes - Paediatric Diabetes Best Practice Tariff Criteria
28 Royal College of Paediatrics and Child Health, National Paediatric Diabetes Audit Annual Report 2010-2011 - September 2012
30 Good Clinical Practice Guidelines for Care Home Residents with Diabetes - Diabetes UK, 2010
32 Inpatient Care for People with Diabetes: The Economic Case for Change – Marion Kerr, Insight Health Economics / NHS Diabetes, November 2011
33 Diabetes in the UK 2011-12 Key statistics on diabetes – Diabetes UK, 2011
35 Commissioning Specialist Diabetes Services for Adults with Diabetes - A Diabetes UK Task and Finish Group Report, October 2010