

# **DERBYSHIRE COMMUNITY HEALTH SERVICES**

## **INFORMATION MANAGEMENT AND TECHNOLOGY STRATEGY / INFORMATICS PLAN 2009 - 2011**

Version 1.1

## Document History

Document name **DERBYSHIRE COMMUNITY HEALTH SERVICES INFORMATICS PLAN 2009**

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### Revision History

Version	Revision date	Summary of Changes
V0.1	March 2009	First draft
V0.2	April 2009	Minor content changes following review by A.S
V0.3	June 2009	Inclusion of strategic overview following IMT Strategy Group review
V0.4	July 2009	Further comments from ali shields including costings and timeline
V0.5	August 2009	Minor iteration following further IMT Strategy Group review
V0.6	August 2009	Rework of benefits
V1.1	August 2009	District Nursing removed

### Distribution and Approval

Name	Version	Date	Comments
DCHS IMT Strategy Group	0.6	July 2009	
DCHS Executive Committee			
DCHS Board			

## ***1. Strategic Overview***

High quality information is essential to the delivery of transformational change in the NHS. In delivering such change Derbyshire Community Health Services (DCHS) requires information to improve patient care, support clinicians and to understand and evidence the performance of its services. The move towards quality driven care closer to local communities most recently encapsulated within the Darzi review; the progression towards patient pathways; the increasing importance of activity based contracts and payment by results for community based services and Transforming Community Services are but a few of the national and local drivers for high quality information.

It is critical that information and information systems meet some specific challenges. We must:

- Ensure that our services collect and provide information on an individual patient basis to fully understand our business.
- Ensure that we are able to measure the quality and outcomes of the care we deliver.
- Have the capacity to critically analyse the information that we collect and through that analysis, add value and knowledge to the information.
- Ensure the speed at which we are able to conduct that analysis results in timely and relevant information.
- Have a holistic approach to the information by harnessing the information held in finance, human resource and estates systems and combining this with information on clinical activity.
- Ensure that information is available to support new analyses such as patient pathways and service line reporting.
- Ensure that our staff have the appropriate skills and technology to collect and understand information relevant to their services.

In essence, to meet all requirements our aim must be to deliver high quality, patient level information which is reflective of the patient journey and experience and is relevant to and readily accessible by those that have a justified requirement to access it.

There has been significant progress on developing information within DCHS. Clinically focussed information systems, which support the capture of individual patient information, have now been deployed to large volumes of staff supporting them in their day to day work. This work has also given us the opportunity to better understand what we do and begin to examine patient pathways. The harmonisation of information processes has been achieved across many services. The development of information means that we are now able to contract for over 60% of our service on activity basis. The increased provision of computing equipment and improvements in infrastructure have enabled more staff to have better and more reliable access to information. The improvements in our information governance help to assure both staff and patients that their information is held securely and treated in confidence.

The current situation still leaves room for significant development and in particular we will need to:

- Deliver patient level information across the remaining services
- Increase the sophistication of what we record to include outcome measures
- Link health records to deliver information that supports and portrays the patient journey
- Provide clinical staff with more clinically focussed information systems
- Harness the disparate information collected across and outside of the organisation
- Increase our analytical capacity to improve the timeliness and ease of access to information to inform our business decisions

The specific developments to meet these requirements are set out in the Priorities section within the Informatics Plan.

The programme of work set out within this plan is extensive but in order to meet our aspirations in a timely manner it needs to be delivered within relatively short timescales. Notwithstanding the subsequent iterations and developments that will be deployed over time, DCHS will aim to:

- Ensure all major services are utilising patient based information systems within 2 years
- Ensure we begin to routinely capture outcomes electronically within 1 year
- Demonstrate marked improvements in the timeliness of information from collection to value added analysis within 1 year
- Draw together a plan to introduce a co-ordinated approach to the use of information from across the organisation within 6 months

The DCHS Informatics Plan set out below outlines a path for progressing this strategy over the next year and beyond. Whilst the plan sets out some specific developments it is inherently wedded to the strategic approach which seeks to support our services and underpin our business development and organisational change plans. These developments are framed within a set of principles that can be categorised against the DCHS change plan:

***Working Smarter- understanding what we do:***

- We will continue the move towards patient level data and individual patient datasets across all of our services
- Ensure that IM&T developments are driven by information requirements rather than systems
- Ensure we have ownership and control of our information assets

***Working Smarter- eliminating waste:***

- We will reduce the duplication of recording.
- We will ensure that new systems are fit for purpose, enable efficient working and are not a retrograde in terms of functionality.
- We will provide staff with the necessary training to take advantage of information technology developments.

***Thinking Derbyshire, acting locally***

- We will unify information and systems across the geography of DCHS.

### ***Getting the basics right***

- We will seek to exploit modern information systems to benefit both patients and clinicians involved in the delivery of care.
- We will seek to make access to IT a simpler, more efficient process for our staff.

### ***Putting patients at the centre of what we do***

- We will ensure that all information is treated with the appropriate confidentiality and that security will be paramount.

### ***Communication – staff know what we do and how to influence it***

- We will seek to broaden access to information systems and provide appropriate training to all staff in order to aid communication and knowledge sharing.

In broader terms the DCHS strategy also needs to be aligned to the NHS, East Midlands and Local Health Community IM&T strategies.

- We will take account of and participate in the strategy of other partners in the local health and social care community.
- To facilitate working with partners, we will seek to exploit systems in line with the National Programme for Information Technology (NPfIT) wherever appropriate.

These principles will be used to guide future developments contained within the Informatics Plan. Each development listed below will be referenced against the DCHS Change Plan.

## ***2. Introduction to the Informatics Plan***

The DCHS Informatics Plan is designed to progress the DCHS IM&T strategy in underpinning the development of high quality information. The principle purpose of this document is to set out the specific developments within Information Management and Technology (IM&T) which will support the continued improvement of our services and underpin our business development and change plans.

In addition to the above, the DCHS Informatics Plan must support service development and broader business development, meet the national expectations set out in the NHS Operating Framework and contribute to the Local Health Community plan. A great number of the developments included within this plan will span these requirements.

The Informatics Plan sets out current progress to date and charts the way ahead for the coming year and beyond. It identifies specific development requirements and the resources required to achieve them.

## ***3. Background***

The formation of Derbyshire County PCT brought together six PCTs. Inevitably, this amalgamation brought with it a plethora of information systems which reflected the historical needs of the original PCTs. The IM&T Plan of 2007/8 was developed at the outset of DCHS to begin the process of harmonising and modernising information systems across the new organisation.

### 3.1. Developments to Date

The development of information systems within DCHS has been designed to meet the local and national requirements for information. The requirement for information to support activity based contracting, to enable more effective service management and to provide a solid platform to determine the costs of our services have been major drivers.

To that end a number of significant changes have been put in place:

- The enhancement of the Information Development Team to increase capacity in understanding and meeting information requirements
- The replacement of paper systems in Minor Injuries Units to improve data capture and support more efficient reporting
- Harmonisation of information collection across community nursing to allow more informed service management
- The migration of therapy and disability services onto national systems to support joint care records
- The enablement of choose and book to provide patients with ease of access to our services

In addition to the developments aimed at delivering improved information, a number of governance initiatives have also been pursued to facilitate and progress the information development agenda. These include:

- The establishment of an IM&T governance structure, including an IM&T Strategy Group and Information Delivery Group to guide and progress IM&T work programme and strategy
- The inception of a wide ranging information governance programme to ensure the quality of data as well as its secure, confidential storage and processing.
- The increase in provision of IT equipment to support all staff in gaining access to IT including the initiation of a programme to improve networks across Derbyshire.

### 3.2. Existing Information Systems

While significant progress has been made over the last two years in developing and harmonising systems, DCHS still utilises a wide range of national and local applications. Its information systems encompass modern, NPfIT specified systems, older electronic information systems as well as paper systems. A full list of systems which support our services are included in Appendix 1.

#### ***National Applications***

- *iPM Patient Administration System* – Following the recent successful extension of iPM into the north of the county, iPM Patient Administration System is now used in all 12 community hospitals. It supports inpatient, outpatient and minor injuries services.
- *The Phoenix Partnership(TPP), SystemOne* – Community module has been deployed across an increasing number of clinical services across DCHS. Most recently it has been deployed to approximately 300

therapy and podiatry staff across the organisation. The Child Health module is also deployed.

- *NHS mail* – NHS mail is in use across large parts of the community nursing service although its usage is not comprehensive or uniform.
- *Choose and Book* – The integrated choose and book function within the PAS systems enables direct booking to outpatient services. Indirect booking also allows booking to those services using TPP SystemOne.
- *Care Record Service* – Batch and on line tracing are used across the PCTs community hospitals and within other services.

#### ***Local Systems***

- *McKesson TotalCare Patient Administration System* – used in 7 of the 12 community hospitals and hosted by the Chesterfield Acute Trust. The A and E module within Mckesson PAS is used within the minor injuries units at Buxton and Whitworth Hospitals. This is soon to be replaced by the iPM PAS.
- *STAR* – In house database system for Speech and Language Therapists across the south of the county.
- *Paper based systems* – there remains a considerable amount of paper based systems operating within DCHS. The majority of community nursing services across DCHS report activity via paper based systems.
- *Email* – the majority of the PCT uses Microsoft Exchange email although NHS mail is reasonably prevalent with community based staff.

## ***4. Moving Forward***

Notwithstanding the developments across information and information systems there remains much to be done. Information gaps still exist for some services, there are improvements in data quality to be made and further harmonisation of systems is required.

The NHS Operating Framework for 2009/10 outlines the need for local informatics plans, with board level ownership and support, to focus on three areas.

- Making available routine and high quality patient focussed information
- Underpinning service transformation
- Improving the quality and safety of patient care through better data quality and information governance

Included within these broad categories are explicit requirements within the operating framework to:

- Pursue specific clinical developments outlined in the Informatics Review of 2008, the ‘Clinical Five’
- Align with the Strategic Health Authority for the implementation of National Programme for Information Technology (NPfIT) solutions
- Support patient pathways both within health and across health and social care.

Locally, there are a number of broad objectives which contribute to determining the IM&T agenda. Activity based contracting, Transforming Community Services, the need for improved service and business reporting processes, facilitating joint working across the local health community and meeting the Darzi challenge's to IM&T all require developments in IM&T.

The three areas used within the Operating Framework provide a useful structure against which both local and national requirements can be set.

#### 4.1. Making available routine and high quality patient focussed information

The availability of high quality patient information is essential to the effective treatment of patients. The appropriate and effective sharing of such information is central to developing the summary care record and supporting patient pathways both inside and outside of the immediate health organisation. DCHS will continue to support and enhance the availability of patient information on a number of fronts.

DCHS will continue to exploit NPfIT applications where appropriate, which support the development of information exchange. The extension of TPP SystemOne and the progression to unified patient administration systems through to clinically rich care systems such as Lorenzo will form a key part of that development. In addition, where such systems are not appropriate we will seek to deploy modern systems which support clinicians and capture individual patient level information. The deployment of PACS into our community services will be a significant development for clinical staff.

The 'Clinical Five' identified in the Health Informatics Review of 2008 along with the Darzi Challenges to IM&T developed within the East Midlands Strategic Health Authority (See Appendix 2), represent challenges for information technology to directly support the work of clinicians within the NHS. These include electronic discharge letters, access to results reporting, advanced patient administration systems and access to shared electronic records. DCHS will continue to pursue this agenda and build upon the work it has already undertaken in these areas.

DCHS recognises the importance of working with other agencies to deliver care and the importance of sharing and integrating information and information systems. We will work with partners to increase the appropriate sharing of information in such areas as results reporting, children's services, the common assessment framework and single assessment processes.

The harmonisation of systems brings significant benefits to patients and staff. The creation of shared records, the ability to share caseloads and work remotely, the reduction in duplication of recording and the ability to link with external agencies will all be products of unified systems. In achieving these benefits DCHS will remain mindful of the impact on others in the health community of potential system migrations. We will work with colleagues from outside DCHS to ameliorate any loss of direct data input by ensuring that appropriate measures are put in place to exchange relevant information and maintain the integrity of patient records.

## 4.2. Underpinning service transformation

### ***Governance***

It is recognised that effective governance structures are essential to assuring the progress of information management and technology and to ensuring organisational commitment to the development agenda. With the advent of autonomous provider status it is imperative that DCHS further strengthens its governance structures. DCHS will:

- Enhance membership of the DCHS Information Strategy Group to strengthen both executive and clinical representation to the group.
- Establish its own Information Governance Committee to address information governance issues exclusive to DCHS.
- Develop its own Information Governance Toolkit against which Information Governance compliance will be measured.

### ***Business requirements***

High quality information is essential for the day to day management and development of services and a prerequisite for business development and service transformation. Information is required to support individual services and the business as a whole in managing itself and proving its efficiency and efficacy to others. The move to activity based contracting; the increased usage of Payment by Results in community settings; the requirements of new patient based community care data sets all increase the pressure on producing high quality, individual patient focussed data. To facilitate this DCHS will:

- Continue the move towards information which supports activity based contracting.
- Increase the availability of individual patient based recording to support more accurate contracting
- Develop the use and recording of outcome measures for clinical services.
- Explore the potential for business intelligence systems to improve on the efficient processing and dissemination of information.
- Strengthen the analytical and broader information management function within DCHS following the reorganisation of Derbyshire Health Informatics Service (DHIS).

In addition to the information required to support the ongoing business activity of DCHS, development work is also needed to consolidate the establishment of Autonomous Provider Organisation status. To that end DCHS will:

- Further enhance the separation of all DCHS data from Derbyshire County PCT commissioning function.
- Maintain processes to identify all DCHS staff in relation to information services to aid information security and improve the accuracy and specificity of informatics service level agreements.
- Continue to pursue its own information strategy while taking account of the strategies of the national, regional and local health community.

### ***Infrastructure***

The demand for the increasing use of information and information systems places an increasing burden on the technical infrastructure which currently exists within DCHS. In conjunction with other partners within the local health community, DCHS is committed to ensuring that its information technology infrastructure, in terms of networks and access to computers, continue to be improved. Furthermore, we will look to exploit technologies to support new ways of working and increase the efficiency of our services. To that end we will:

- Continue to work with partners across the local health community to complete the Community of Interest Network (COIN) and develop the infrastructure to improve the storage, security and business continuity of our systems.
- Continue to increase the provision of computers to enable all staff to have easy access to IT and information.
- Through the individual staff appraisal process, we will seek to identify and meet the need for general IT training giving staff the skills to take advantage of the increased opportunities to use computers.
- We will continue to seek the establishment of network connectivity between DCHS and colleagues in local government to improve information flows relating to patient and client care.
- We will extend the coverage of mobile working for peripatetic clinical staff subject to the successful completion of early trials of relevant technology.
- Finalise the transfer of the health informatics IT support services to DCHS in order to ensure continuity of service and ongoing IT support to our services.

## 4.3. Improving the quality and safety of patient care through better data quality and information governance

### ***Information Governance***

DCHS is committed to the production of high quality data and its secure and confidential processing, storage and handling. DCHS has a strong information governance structure which drives the information governance agenda to ensure high data quality, the confidentiality of information, the security of information and the systems on which they sit and the relevant governance procedures. We have detailed and stringent policies on both information security and data quality.

In progressing the information governance agenda, DCHS will:

#### ***Governance***

- Develop its own dedicated DCHS Information Governance structures, including the appointment of its own Caldicott Guardian, to oversee the entire information governance programme.
- Produce and meet the requirements of a DCHS specific information governance toolkit.

#### ***Confidentiality and Security***

- Fully comply with all relevant legislation such the Data Protection Act.

- We will meet all NHS standards such as the Care Record Guarantee, keeping the public informed of what happens to their data, protecting the confidentiality of records at all times and responding to patient requests for access to records and to responding to requests to restrict sharing.
- Ensure that all information exchange is conducted in adherence with information sharing protocols and in line with the Care Record Guarantee.
- Ensure that we utilise appropriate technology such as the encryption of mobile devices and password protection on key systems to prevent breaches of security.
- Promote the extended use of NHS mail to communicate confidential information.
- Ensure that all staff are aware of their responsibilities in relation to security and confidentiality through the delivery of appropriate training.
- Fully exploit the information governance functionality within the national programme applications such as the Registration Authority, Roll Based Access Control and Legitimate Relationships.

#### *Data Quality*

- Ensure that all relevant staff are aware of their responsibilities in relation to data quality through the delivery of appropriate training.
- Continue a programme of data quality improvement through established data quality working groups.
- Continue to monitor and report on data quality in all key systems.
- Develop a programme to ensure the accurate use of the NHS number across all services including the continued tracing and monitoring of NHS numbers.

## **5. Benefits**

Any information development or implementation of information systems should deliver benefits to DCHS. These may include patient benefits, financial benefits, efficiency savings, and many others. DCHS will identify and measure benefits for all significant projects. A benefits statement for each project will be included at in every project initiation document with a plan to measure those benefits before and after project completion.

## **6. Priorities for 2009/10**

The developments for 2009/10 and beyond are designed to meet local requirements within the framework and guiding principles set out above. They include a number of significant projects already in progress and a significant amount of new work. The new projects represent the output of a dedicated consultation exercise conducted with heads of service and the senior team within DCHS to prioritise IM&T developments. They also reflect priorities identified through ongoing consultation within DCHS.

### **6.1. Projects in progress**

#### ***iPM Patient Administration System consolidation***

*(Working Smarter- understanding what we do, Working Smarter- eliminating waste, Thinking Derbyshire, acting locally, Putting patients at the centre of what we do)*

The iPM Patient Administration System (PAS), previously used in the south of Derbyshire, has been rolled out across all relevant sites in the north of the county. The unification of the PAS across the county will deliver short term benefits of harmonising business processes and consolidating reporting as well as laying the groundwork for long term benefits of clinical recording, system integration and the subsequent move to Lorenzo. The service review analysis resulting from this work is in progress and the potential for further benefits will be identified as part of this process.

### ***Picture Archiving and Communication System (PACS)***

*(Working Smarter- understanding what we do, Working Smarter- eliminating waste, Putting patients at the centre of what we do)*

DCHS has initiated a project to roll out the Derby Hospitals Foundation Trust PACS into relevant sites in the south of the county. The advent of PACS within these facilities will enable digital image capture at its community hospitals and health centres currently using traditional x-ray and ultrasound technology and facilitate the viewing of PACS images in all appropriate locations.

### ***Infrastructure consolidation***

*(Working Smarter- eliminating waste, Thinking Derbyshire, acting locally, Getting the basics right, Communication – staff know what we do and how to influence it)*

DCHS, with its partners in the local health community, is currently in the process of upgrading its network connections and improving its storage facilities. This process is designed to improve system performance and facilitate more co-ordinated working across the county as well as improve information security. The programme is already delivering significant benefits and will increasingly do so as it progresses towards completion.

### ***TPP SystemOne***

*(Working Smarter- understanding what we do, Working Smarter- eliminating waste, Thinking Derbyshire, acting locally, Putting patients at the centre of what we do,)*

TPP SystemOne is the primary community system supplied by the NPfIT to support community clinical services. Its usage provides shared care records across clinical services enhancing patient safety and service efficiency. There is already a considerable user base of TPP SystemOne users within the Allied Health Professionals and community nursing groups in DCHS and a number of other projects are in train to bring further services onto the system. Projects to move respiratory nursing staff and community matrons will continue to completion.

### ***Results reporting***

*(Working Smarter- eliminating waste, Putting patients at the centre of what we do)*

DCHS is currently working with colleagues at Derby Hospitals Foundation Trust to increase the availability of results reporting to appropriate staff within DCHS. This work will continue to extend access to a wide range of relevant staff, subject to appropriate access controls, for the benefit of patient care.

### ***Contraception and Sexual Health Services (CaSH)***

*(Working Smarter- understanding what we do, Working Smarter- eliminating waste, Thinking Derbyshire, acting locally, Putting patients at the centre of what we do,)*

The implementation of an information system to support Contraception and Sexual Health Services (CaSH) has suffered significant delays due to the lack of availability of an appropriate system. The original intention to place this service on TPP SystemOne has not yet come to fruition due to deficiencies in functionality of the system. Options for this service are currently being reviewed and national developments are being closely monitored to identify which solution will provide the best fit.

### ***Patient Transport Services***

*(Working Smarter- understanding what we do, Working Smarter- eliminating waste, Thinking Derbyshire, acting locally, Putting patients at the centre of what we do,)*  
The deployment of the Cleric system will support the DCHS patient transport service. This work is scheduled for imminent completion pending the procurement of further functionality to support the service.

## **6.2. New developments**

New developments will build on much of the foundation work that has already been completed. The focus moving forward will be on those developments that can make a tangible difference to the way we deliver our services; increasing efficiency and developing an IM&T culture across DCHS. Set out below is a list of new developments which will be embarked upon in the coming months. Each project, at its initiation will set out the benefits, costs and risks of implementation.

### ***Community Services Activity Collection(CSAC)***

*(Working Smarter- understanding what we do, Thinking Derbyshire, acting locally)*  
A system of activity collection for community services has been developed to collect basic activity data for a number of services. This has contributed significantly to DCHS's ability to move towards activity based contracts. Although this is seen as predominantly a temporary measure pending the implementation of clinically focussed systems a project will be initiated to move from the predominantly paper based reporting from frontline staff to one where they input directly into the system itself (eCSAC). This will make the collection process more efficient and result in more timely reporting.

### ***Electronic discharge letters***

*(Working Smarter- eliminating waste, Putting patients at the centre of what we do)*  
In line with the 'Darzi Challenges to IM&T' and Informatics Review 'Clinical Five', DCHS recognises the considerable benefit to be gained from the production and distribution of electronic discharge letters to general practice. Following an initial scoping exerciser, DCHS will undertake a project to deliver discharge letters to general practice for patients in our care.

### ***Electronic clinical noting***

*(Working Smarter- understanding what we do, Working Smarter- eliminating waste, Putting patients at the centre of what we do)*  
As information systems become more sophisticated, the possibility of exploiting information systems increases. One of the key opportunities is the use of electronic systems to record full clinical noting – a critical step in achieving true electronic

health records. In order to test the feasibility of this approach we will embark on a project to pilot the use of full clinical recording via electronic systems.

### ***TPP SystmOne***

*(Working Smarter- understanding what we do, Working Smarter- eliminating waste, Thinking Derbyshire, acting locally, Putting patients at the centre of what we do)*

The ability of TPP to enhance patient safety and promote efficient working through the delivery of shared care records is a benefit which is enhanced as more services are brought onto the system. Projects will be developed to add to the already considerable user base of local clinical services using TPP SystmOne. Among these projects will be a proposed roll out of TPP SystmOne to the Health Visiting service and Learning Disabilities. Work to extend the use of SystmOne mobile working capability will also be undertaken.

### ***Mobile data collection***

*(Working Smarter- understanding what we do, Working Smarter- eliminating waste)*

In addition to deployments of TPP SystmOne, DCHS will investigate the potential for mobile activity capture and workload management for community nurses.

### ***Lorenzo***

*(Working Smarter- understanding what we do, Working Smarter- eliminating waste, Thinking Derbyshire, acting locally, Putting patients at the centre of what we do)*

The Lorenzo Regional Care system is viewed as the backbone of shared care records by the NPfIT. Its implementation will provide the ability to access clinically focussed functionality such as clinical noting and electronic prescribing and will allow seamless exchange of patient information with local acute trusts as they migrate onto the system. In 2009/10, DCHS will begin planning work for the proposed deployment of Lorenzo in 2011.

### ***Business intelligence***

*(Working Smarter- understanding what we do, Working Smarter- eliminating waste)*

Information to support service and business management, meet commissioner demands and the requirements of the Department of Health is critical to DCHS. While a major information development programme has improved quantity and quality of available information, the processing and application of that information remains relatively cumbersome. As part of a process to improve the use of information we will explore the opportunities offered by business intelligence systems to increase the speed and ease with which information is processed.

### ***Outcome measures***

*(Working Smarter- understanding what we do, Putting patients at the centre of what we do)*

Transforming Community Services encapsulates the increasing importance of the outcome of health interventions. We will work with services to begin to capture outcome information through our information systems.

### ***Service specific systems***

*(Working Smarter- understanding what we do, Thinking Derbyshire, acting locally, Putting patients at the centre of what we do)*

In addition to the strategic direction set out above there will continue to be requirements for services that require discreet systems. The rationale for these systems may be service delivery support or business information driven or a combination of both. Following consultation a number of services have identified specific needs for development. The IM&T team will work with the relevant services to deliver:

- Functionality for Support Services to assist asset management, asset utilisation and staff rostering.
- Improvements in information capture and production for Dental Services to support activity based contracting.
- Functionality to support the Endoscopy Service in meeting national requirements for reporting
- Improvements in the Child Health systems to provide greater accessibility of reliable data.

### ***Delivering efficiency through IM&T***

*(Working Smarter- understanding what we do, Working Smarter- eliminating waste, Getting the basics right, Putting patients at the centre of what we do, Communication – staff know what we do and how to influence it)*

The deployment of IM&T solutions brings with it the potential to deliver efficiencies in the way we work. DCHS is already piloting mobile working for community nursing staff and using telephone conferencing to reduce the need for travel. In addition to expanding these areas we will also investigate the deployment of other technologies that can deliver further efficiencies. In particular we will look to exploit the potential efficiencies in Single Sign On technology, which will allow all staff to access appropriate systems through the use of a single password. We will also examine the potential to route our telephone calls over our computing network (VOIP).

## ***7. Funding and resource***

The funding and resource required to meet the priorities identified for 2009/10 are set out below:

### ***Community Services Activity Collection***

No associated additional cost. This development will be funded from within current budgets.

### ***Electronic discharge letters***

No associated additional cost. This development will be funded from within current budgets.

### ***Electronic clinical noting***

No associated cost

### ***TPP SystemOne***

The average roll out period for a new community unit is approximately 20 weeks. Set out below are indicative costs for the proposed projects. All of these costs would be confirmed as part of the project initiation.

The roll out of TPP SystemOne to Health Visiting and District Nursing services represent large projects.

### **Health Visitors**

Based on a staffing complement of 250 staff:

- Business change 0.5 WTE x 20 weeks = £6500
- Project Management 0.5 WTE x 20 weeks = £5400
- Training 1 WTE x 6 weeks = £2800
- Configuration and testing 0.4 WTE x 5 weeks = £900
- Hardware 100 x PCs @ £300 = £30000
- Hardware 50 printers @ £400 = £20000
- **Total** = **£65600**

The costs outlined above will be met from within the existing service level agreements with DHIS.

### **Learning Disabilities**

Based on a staffing complement of 100 staff:

- Business change 0.5 WTE x 20 weeks = £6500
- Project Management 0.5 WTE x 20 weeks = £5400
- Training 1 WTE x 6 weeks = £2800
- Configuration and testing 0.4 WTE x 5 weeks = £900
- Hardware 50 x PCs @ £300 = £15000
- Hardware 25 printers @ £400 = £10000
- **Total** = **£40600**

The costs outlined above will be met from within the existing service level agreements with DHIS. It is expected that the bulk of these costs will be in financial year 2010/2011.

### ***Ongoing support***

The increase in general usage of computer systems carries with it a requirement for additional support, for example the need to increase capacity on the customer service desk and the need for extra support technicians. The estimated annual costs for ongoing support of the above TPP roll outs are:

**Total** = **£35000**

### ***Lorenzo***

The Lorenzo Regional Care system will be fundamental to the future of health informatics and health care delivery in Derbyshire and across the entire north, midlands and east of England. As such its deployment locally will be significant not only in terms of its importance to the future healthcare landscape but also in terms of the project size.

The Project Brief, outlining the broad aim of the project will be produced in autumn 2009. A full breakdown of costs will be included in the project initiation document and brought to DCHS Board for consideration. The costs below only represent the necessary spend up to project initiation.

- |  |                 |
|--|-----------------|
| • Business change .5 WTE x 16 weeks    | = £6000         |
| • Project Management .5 WTE x 16 weeks | = £58000        |
| <b>Total</b>                           | <b>= £11000</b> |

The costs outlined above will be met from within the existing service level agreements with DHIS.

***Business intelligence***

Initial scoping work has already taken place. The early estimates from this work have produced an initial cost of £45000.

***Outcome measures***

No associated additional cost. This development will be funded from within current budgets.

***Service specific systems***

Service specific systems will be costed according to the specific requirements of each service. Each of these will be presented to the DCHS Information Strategy Group with costs and identified funding streams in advance of initiating the project.

***8. Conclusion***

The DCHS Informatics Plan 2009 sets out a strategic direction which builds upon the progress already made in developing the capacity to produce and utilise high quality information for the benefit of patient care and service and business management. The Plan recommends a considerable challenge but offers the opportunity to move further towards the information enabled service transformation that will ensure the delivery of high quality services to the patients and clients of DCHS.

## Appendix 1

### Existing Systems

Service Line	Sub Category	Current System Description	Current Developments
Health Visiting		CSAC monthly paper forms for basic contract, ref costs and service data. TPP SystemOne in Southern Derbyshire with limited use.	Review and develop use of TPP SystemOne
School Nursing		CSAC monthly paper forms for basic contract, ref costs and service data. TPP SystemOne with limited use.	Review and develop use of TPP SystemOne
Learning Disabilities	Inpatients	PAS system used for all Inpatient activity	
	Community	Manual data collections in place	
Community Nursing	Community Nursing	CSAC monthly paper forms across County	
	Community Matrons	Long Term Conditions template used across County on TPP SystemOne or GP Practice system	
Older People's Mental Health	Inpatients	PAS system used for all Inpatient activity	
	Day Services	Range of systems – PAS and manual data collections	Review underway of systems for day services
Specialist Services		eCSAC electronic monthly forms in use for all Specialist Nursing Services	
Daycases		PAS system used for all activity	
Direct Access Diagnostic Services		RadWeb at Ilkeston, RIS at Buxton & Whitworth, Database at Ripley Hospital. Endoscopy, hysteroscopy and cystoscopy activity is paper based.	Investigate requirements for Endoscopy system
Outpatients	Hospital based Outpatients	PAS system used for all activity	
	Physiotherapy and Occupational Therapy OPs	TPP SystemOne used for all activity	
Patient Transport Services		Cleric being implemented	
Podiatry	Community Podiatry	TPP SystemOne used for all activity	
	Surgical Podiatry	PAS system used for all activity – Daycase and Outpatient	
Community Intermediate Care		CSAC Monthly paper collection form in place from 1 <sup>st</sup> April 2009	
Community Therapy		CSAC Monthly paper collection form in place from 1 <sup>st</sup> April 2009	

<b>Service Line</b>	<b>Sub Category</b>	<b>Current System Description</b>	<b>Current Developments</b>
<b>Day Services</b>		Range of systems – PAS and manual data collections	
<b>Specialist Rehabilitation Units</b>			Monthly collection form being developed
<b>Contraception &amp; Sexual Health</b>		Database in use	
<b>Dental Services</b>		R4 Kodak System used in North Derbyshire, Software of Excellence used in South Derbyshire	
<b>Psychology Services</b>		Manual data collection forms in place	
<b>Disability Equipment Services</b>	<b>Wheelchair Services</b>	ELMS (Northern Derbyshire) and BEST (Southern Derbyshire) systems in use	
	<b>Disability Resource Team and Traumatic Brain Injury</b>	TPP SystemOne used for all activity	
<b>Speech &amp; Language Therapy</b>		STAR system used for all activity	
<b>Inpatients</b>		PAS used for all Inpatient activity	
<b>Minor Injuries Unit</b>		PAS used in all four MIUs	

## Appendix 2

<b>Darzi Challenges to IM&amp;T</b>	<b>Informatics Review ‘Clinical 5’</b>
1. The provision of modern & compatible electronic administrative systems that supply accurate data for flexible reporting and auditing purposes including clinical process and outcome measurement (ADVANCED PAS)	A Patient Administration System with integration with other systems and sophisticated reporting
2. The ability to electronically request & to electronically receive the results of pathology & radiology tests (relates to both secondary & primary care and includes “rules based” ordering) with results available irrespective of ordering location or clinical system (ORDER COMMS)	Order Communications and Diagnostics Reporting (including all pathology and radiology tests and tests ordered in primary care)
3. The ability to prescribe, dispense and control stock of medications electronically (with “rules based” decision support) in both secondary and primary care, with the update of medication details in the GP record (ePrescribing)	e-Prescribing (including ‘To Take Out’ medicines).
4. The inclusion of “to take out” medications on electronic initial discharge summary documents (TTO's)	
5. The electronic production and transmission of clinical letters (e.g. referrals, discharges, out patient letters & out of hours care) sent & stored directly in the GP electronic patient record (LETTERS)	Letters with coding (discharge summaries, clinic and Accident and Emergency letters)
6. The systematic use of clinical codes in every NHS IM&T application (CODING)	
7. The ability to make time-related dependencies' between the ordering of multiple activities (e.g. the system “knows” that in order to perform procedure A the results of tests B & C must be available, and offers appointments for the patient accordingly) (SCHEDULING)	Scheduling (for beds, tests, theatres, etc)
8. Access to shared electronic patient records across a local health community in order to share patient information and deliver pathways of care (DETAILED CRS)	
9. Diagnostic images relating to a patient should be visible to every clinician involved in their care regardless of location, including within primary care systems (PACS EVERYWHERE)	
10. The implementation of a secure electronic method of communication between consultants and GPs (Email)	
11. The ability to securely access clinical systems regardless of physical location and to view and enter patient clinical details when connected ( MOBILE ACCESS)	
12. Single smartcard sign on to all systems (SINGLE SIGN-ON)	
13. To bring forward the National Summary Care Record, Electronic Prescriptions Service and GP to GP transfer in order to provide immediate patient benefits (SCR/EPS/GP2GP)	

**Appendix 3**  
**Development Timeline**

	Q1 2009/10	Q2 2009/10	Q3 2009/10	Q4 2009/10	Q1 2010/11	Q2 2010/11	Q3 2010/11	Q4 2010/11
iPM PAS Consolidation								
PACS								
Infrastructure								
TPP AHPs								
TPP Respiratory Nurses								
TPP Community Matrons								
Results Reporting								
CaSH	TBC							
Cleric PTS								
eCSAC								
Electronic discharge letters								
Electronic clinical noting								
TPP health visiting								
TPP district nursing								
Lorenzo								
Business Intelligence								
Outcome measure								
VOIP	TBC							
Single Sign On	TBC							
Asset management systems	TBC							
Dental systems	TBC							
Endoscopy system	TBC							
Child Health	TBC							