Patient-level costing for community services

February 2015
Foreword

There is widespread agreement that the NHS needs to develop new care models that deliver high-quality, safe and sustainable care. Community services must be at the centre of these changes, whether delivered through multispecialty community providers or other models, as outlined in NHS England’s *Five year forward view*.

Developing new care models demands a detailed understanding of current outcomes and how these will change with new pathways. It also requires an understanding of the costs of current and revised ways of working. Only with a knowledge of both elements – quality and cost – can we understand the value the services will deliver. These new care models will also need to be properly incentivised and reimbursed through new payment systems.

In terms of costing community services, significant improvements are required. The HFMA has been actively involved in driving better standards in NHS costing for a number of years, developing clinical costing standards for acute and mental health services to support the introduction of patient-level costing in these sectors. It has set up a dedicated Community Services Costing Practitioner Group to extend this work to the community sector.

NHS regulator Monitor wants to see improvements in community services costing as part of its proposals to move the whole service to a patient-level costing model over the next seven years. These proposals would require community providers to collect patient costs using a prescribed, consistent approach. The timetable set by Monitor recognises that community providers may need more preparation time than the acute sector, where patient costing is more developed. But the timescales remain ambitious for community providers.

As Monitor plans to develop new costing standards for community services, providers need to start thinking now about how they will make their own journey to patient-level costing.

This guide sets out some of the actions required by community providers as they develop patient-level costing. The case studies – including work from some of the early pioneers of community services patient-level costing – provide an insight into the uses of the data and some of the challenges involved in compiling accurate cost data. They also show how patient-level costs, together with the associated activity data, can provide valuable information for clinicians and managers about the services being provided to patients. Such information allows providers to identify variation in the way services are delivered, and supports service improvement and the delivery of patient care.

The HFMA’s Community Services Costing Practitioner Group will guide the association’s continued work to support improvements in costing these important services and meet the shared ambition for high-quality costing across the whole NHS.

John Graham
Chair, HFMA Costing Practitioner Groups
Introduction

The HFMA firmly believes that good costing information is key to day-to-day management and will be vital during the coming years as the NHS seeks to drive both the quality and cost-effectiveness of services. In particular, the service needs to understand costs at the patient level as it looks to understand variation and enhance quality and outcomes.

The HFMA has taken a strong lead in supporting and developing costing in the acute and mental health sectors over the past four years. The association is aware that there is a great desire in the community sector to improve and raise the profile of costing and it remains committed to supporting the sector to achieve this.

Monitor and NHS England’s report Reforming the payment system for NHS services: supporting the Five year forward view and Monitor’s report Improving the costing of NHS services: proposals for 2015 to 2021 reinforce these messages and propose mandating patient-level information and costing systems (PLICS) in all health sectors, including community services. Improvement to the payment system and to the underpinning information building blocks are regarded as critical to developing and delivering the new care models that the Five year forward view describes.

This HFMA guide explores how PLICS can be applied to community services and describes the potential benefits it can bring. In developing the guide, we have spoken to 12 providers of community services and a range of national bodies. Case studies have been used throughout this guide to provide practical support and illustrations to those organisations that are at the start of their PLICS journey.

All data included in charts is fictitious to preserve patient, staff and commercial confidentiality.

The report that follows has five sections:

- **Section 1** explains why improvements in costing and information are important for community services.
- **Section 2** outlines the benefits PLICS can bring to community services.
- **Section 3** sets out the data challenges that community services face.
- **Section 4** provides an overview of some of the steps organisations will need to take to implement PLICS.
- **Section 5** describes how the HFMA is supporting the development of PLICS for community services.
Section 1

Why patient-level information and costing is important for community services

The NHS spends significant amounts on community services in a wide range of organisations

With a total yearly investment of more than £11bn, community services make up 10% of the NHS budget. This is likely to increase with the ambition of shifting more healthcare from hospitals to settings closer to people’s homes.

Community services are provided by four types of organisation:

- NHS community services trusts
- NHS combined acute and community services trusts
- NHS combined mental health and community services trusts
- Private sector organisations.

A total of 82% of NHS trusts and foundation trusts provide community services.

Costing community services is therefore relevant to a wide range and substantial number of organisations.

The costing of community services has not had a high profile nationally or locally

Community services costing is currently based on a top-down approach, which involves apportioning and allocating total costs down to lower levels. This top-down approach can only produce information about average costs rather than the specific costs of caring for a specific patient.

There are currently no clinical costing standards for community services. However, the HFMA discussion paper on costing NHS community services (April 2014) noted that PLICS lends itself well as a costing methodology to community services.

This guide is seen as the first step in the development of clinical costing standards for community services.

“...The real benefit of improved costing for community services is around the role that community services play in the wider health economy – around shifting care out of hospital, integrating health and social care, and improving care for patients with long-term conditions. For this we need to understand the costs of patient care at a granular level. The implementation of PLICS in community services will help local health systems to understand the net benefits of such policies, and allow the providers of community services to model the marginal costs of discharging patients earlier into the community with higher levels of acuity.”

Steve Wilson, director of financial control, NHS England

Notes

1 Health and Social Care Information Centre

2 Those organisations that have implemented PLICS for community services have used the HFMA Acute Health Clinical Costing Standards to inform the process
Monitor’s report *Improving the costing of NHS services: proposals for 2015 to 2021* proposes that providers of community services should implement PLICS by March 2020, with mandated cost collections using PLICS data from 2020/2021.

PLICS is a costing methodology that builds costs from the bottom up. It involves identifying, wherever possible, the specific resources consumed in the treatment and care of individual patients – for example, the costs of a community nurse treating a patient in their own home or the costs of a pathology test.

PLICS allows organisations to produce costs at a more detailed and accurate level than is possible with more traditional methods of costing.

Not only does PLICS calculate more accurate unit costs per patient, it also provides a raft of associated activity information to support improvements in patient care.

**Providers of community services face a number of challenges that require improvements to costing and information at a granular level**

Providers of community services face a number of challenges (figure 1) that require a good understanding of the relationship between activity, costs and outcomes. For most providers, this is challenging due to the paucity of robust information.

Many organisations struggle to accurately capture activity data, and only now are a few starting to implement PLICS. Improving costing and information in community services is vital to support them with these challenges.

**Figure 1: Challenges facing community providers**

Improving costing and information in community services is vital to support providers with these challenges.

<table>
<thead>
<tr>
<th>Efficiency savings</th>
<th>Severe spending constraints and an ageing population require trusts to find efficiency savings and improve productivity.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Improving patient care</td>
<td>Trusts need to ensure their patients receive safe, high-quality care. The King’s Fund report <em>Community services – how they can transform care</em> argues community services need to change to fundamentally transform care.</td>
</tr>
<tr>
<td>New models of care</td>
<td>Community services play a significant role in some of the new models of care – for example, the shift of care out of hospital, integrated care and the long-term conditions year of care. Robust costing information about community services is a missing piece of the jigsaw when looking at whole health systems.</td>
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<tr>
<td>Tenders</td>
<td>Many commissioners plan to retender their contracts for community services, including local authorities as they become responsible for the commissioning of services such as health visiting and school nurses.</td>
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<tr>
<td>Reform to payment systems</td>
<td>The majority of community services are commissioned as block contracts. Currently there are no national currencies with standard data definitions to support commissioning and benchmarking.</td>
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Section 2

Benefits of PLICS

The HFMA believes that PLICS can deliver significant benefits for community services. In order to deliver better care for patients in a time of financial constraint, organisations need detailed information about the current delivery and models of care for individual patients. PLICS has numerous benefits for organisations in terms of financial and clinical transparency, and can drive and inform decisions about service improvement.

This section discusses some of the benefits PLICS can bring to a provider of community services.

Aggregation of data

Costing at the patient-level provides organisations with the flexibility to group costs and activity data in different ways for different purposes – for example, by:

- Clinician
- Patient
- Department
- Service line
- Across pathways of care.

This flexibility of reporting means the outputs can easily adapt to different requirements – for example, identifying variation between community teams or measuring the cost of new models of care.

Lincolnshire Community Health Services NHS Trust is one of the few providers of community services to have implemented PLICS. Case study 1 shows how its costing and activity data can be grouped in numerous ways to provide business intelligence for the organisation.

Improving clinical ownership of resource decisions

Members of both the HFMA Acute and Mental Health Costing Practitioners Groups report that PLICS significantly improves the ability of finance staff to engage effectively with clinical staff. Costing leads can discuss the costs and resources consumed by individual patients rather than the average costs of a service – the component costs of an individual patient’s care become more transparent.

When clinicians are involved in making decisions on how to allocate costs and can review the outputs at a granular level, ownership and understanding of costing can greatly improve.

Internal benchmarking

PLICS provides organisations with the information to undertake internal benchmarking. Given the lack of consistency of data definitions and currencies at a national level, external benchmarking of community services is problematic. However, internal benchmarking allows organisations to better understand their services, and identify opportunity for improvement.

Case study 1

Creating business intelligence, Lincolnshire Community Health Services NHS Trust

Lincolnshire can use its business intelligence platform to aggregate and group their cost and activity data in many different ways, depending on the information needs of the organisation. For example:

- Cost per contact, per patient, per type of intervention and per capita
- Profitability by business unit or team
- Number of interventions and cost of interventions per patient
- Size of team, skill mix and level of administration and clerical support
- Hourly profile of working day
- Travel time, distances and number of returns to base
- Number of contacts per day/duration of visits/patient facing-time by member of staff or team
- Data entry time per contact
- Location of activity, ratio of clinics to home visits, attendees per clinic, frequency of clinics
- Ratio of telephone/telehealth activity to physical visits
Providing that data is captured in a consistent way across an organisation, information can be compared over time or as part of a deep dive exercise. The case studies in this section provide practical examples of how Lincolnshire Community Health Services NHS Trust are using their PLICS data to improve their organisation’s performance and delivery of services.

### Cost reduction and control

The NHS is facing one of the biggest financial challenges ever, which requires significant cost reductions and even tighter cost control. PLICS provides an evidence base to help organisations:

- Understand the relationship between cost and activity
- Identify the main cost drivers
- Undertake internal benchmarking to identify variation
- Measure productivity

This intelligence allows organisations to develop focused cost improvement plans with achievable savings targets rather than implementing blanket cuts across services.

Business unit managers at Lincolnshire Community Health Services NHS Trust are already seeing how PLICS can support them to identify and drive efficiency improvements.

Case studies 2 to 5 provide examples of how the information is being used.

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**“Our board is very keen on implementing PLICS. Our current systems do not link costs, activity and outcomes, which means that we can’t generate the information we need to manage our resources effectively and efficiently. The move to PLICS should provide us with the full picture of how we are performing and allow us to make evidence-based decisions about cost improvement plans.”**

Adrian Snarr, director of finance, infrastructure and informatics, Humber NHS Foundation Trust

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**Case study 2**

**Targeting QIPP opportunities, Lincolnshire Community Health Services NHS Trust**

‘PLICS allows us to target efficiency savings without impacting the quality of care by identifying internal variation. I see PLICS as a powerful tool to help us become more cost-effective and help us target QIPP opportunities. The portfolio matrix allows general managers to identify priority areas for further work and analysis. The bubble size corresponds to the number of patients seen in that service line. Services in the top left-hand quadrant are those where we need to consider improving their cost position. For these services we have drilled down to business unit and team level to identify which services are outliers and what the main cost drivers are.’

Andrea Blakeley is general manager for the East Business Unit and has a budget of £19m and 540 WTE staff. She is responsible for community nursing, specialist nursing, community hospitals and urgent care centres in East Lincolnshire.
Case study 3
Deep dive to identify cost variations, Lincolnshire Community Health Services NHS Trust

‘Staff costs make up the majority of our costs. PLICS provides us with a wide range of information about our staff, which we can use to support cost improvement plans.

‘Here are examples of charts we have found helpful. Staff skill mix affects unit costs. We can compare the percentage of contacts delivered by band and by team.

‘We can also compare the number of contacts delivered by members of staff by team and between teams.’

Andrea Blakeley, general manager, East Business Unit

Case study 4
Staff working patterns, Lincolnshire Community Health Services NHS Trust

‘We have used PLICS data to review how often clinical staff visit the office during the week and how many miles they drive. The number of trips back to base showed that there was scope to improve staff productivity.

‘As a result of our review we are transforming the way the service is delivered by implementing electronic diary management, which allows staff to commence their day from home and minimise the number of back to office visits.’

Andrea Blakeley, general manager, East Business Unit
PLICS provides us with the information to review how our services are currently delivered to our patients and consider whether there are improvements we can make to patient care. For example, two home visits by a specialist rather than 12 visits by a generalist may deliver better outcomes for the patient and be more cost-effective.

Andrea Blakeley, general manager, East Business Unit, Lincolnshire Community Health Services NHS Trust

‘PLICS allows us to review where staff are delivering care – for example, in a patient’s home or in a clinic. Where we see variation between teams, we can drill down to understand whether the variation is due to different patient needs or to different working practices between teams. The information allows us to think strategically about where we should be delivering patient care for particular cohorts of patients.’

Nikki Silver, general manager, Family & Healthy Lifestyles Business Unit

Improving data quality and data capture

Experience of implementing PLICS in acute trusts has shown that as cost information is shared across organisations, the quality of the data used to build these costs is improved. This is often because it raises the profile of information that may not be reported elsewhere in the organisation. This in turn can improve data capture.

For example, a service may see that by capturing information, such as the time spent with a patient, the quality of the cost information produced can be significantly improved, and at the same time the information collected is clinically meaningful and can be used to support the performance and development of a service.

Delivering better care for patients

Community services make up a large part of NHS activity, from chronic disease management and intensive rehabilitation to health visiting and school nursing. In the past, organisations have had very little information to manage these services and identify areas for service improvement. PLICS allows organisations to address clinical variation, and thereby improve patient care.

PLICS enables organisations to:
- Understand how staff spend their time
- Map the interventions individual patients receive
- Undertake internal benchmarking to identify variation in the way services delivered.

This all supports service improvement and patient care.

Humber NHS Foundation Trust has started the PLICS journey. Currently it produces internal benchmarking reports on services, using activity data from its clinical information system (case study 6).

Business unit managers at Lincolnshire Community Health Services NHS Trust are already starting to see how PLICS information will help deliver service improvement. Case studies 7 and 8 provide examples, comparing how long clinicians spend delivering specific interventions to patients, and their working patterns over a day.
Case study 6
Managing performance, Humber NHS Foundation Trust

‘The majority of our services input activity to our clinical information system, SystmOne. We produce automated monthly extracts for some of our larger services to generate performance reports – for example, for the neighbourhood teams and health visiting. Although we have yet to implement PLICS, the performance reports provide a wealth of information to support management of services. Benchmarking between teams allows managers to identify areas for service improvement.

‘A typical report includes trend information by team on:

- Establishment
- Phone contacts
- Wound care
- Mandatory training

- Referrals
- Case load by professional group
- Sickness absence

- Face-to-face contacts
- Out of hours
- Bank and agency costs.’

Martin Flint, performance and contracts manager, Humber NHS Foundation Trust

Case study 7
Reviewing the quality of care, Lincolnshire Community Health Services NHS Trust

‘PLICS allows us to compare how long clinicians spend delivering specific interventions to patients. We can use this information to review the quality of care delivered. The chart gives an example for health visiting.’

Nikki Silver, general manager, Family & Healthy Lifestyles Business Unit

Case study 8
Measuring working patterns over a day, Lincolnshire Community Health Services NHS Trust

‘It has been illuminating for managers to see what the working patterns of staff are over a day, and it has thrown up some surprises. It isn’t us saying “people clearly aren’t working in the afternoon”, but rather it has caused us to question the reasons why working patterns are like this, and to understand the opportunities for improvement.’

Nikki Silver, general manager, Family & Healthy Lifestyles Business Unit and Andrea Blakeley, general manager, East Business Unit
New models of care

The focus on new ways of delivering care – for example, shifting care out of hospital, providing more integrated services and considering the Year of Care for long-term conditions – all have a significant impact on community services.

Providers of community services, commissioners and policy makers need to understand the financial impact of shifting more care from the hospital into the community. PLICS can support the information requirements around costing new models of care and measure the impact on community services after implementation. For example, by looking at fixed and variable costs for community and acute services at a granular level, local health economies can have a greater understanding of the implications of commissioning decisions with regards to shifting care out of hospital.

PLICS allows organisations to:
- Review current models of care across the organisation
- Model potential service models and understand the cost and activity implications
- Measure the impact of service models once they have been implemented.

Case study 9 shows how Lincolnshire Community Health Services NHS Trust can review individual care pathways with patient-level costing. Case study 10 describes how the Year of Care pilot in Kent is collecting costs at patient level to develop tariffs for patients with long-term conditions.

Case study 9
Understanding care pathways, Lincolnshire Community Health Services NHS Trust

‘PLICS allows us to review the care individual patients are receiving. The example here lists all the interventions one patient has received, together with who carried out the intervention and where, the duration, the time of day and the cost. This is powerful information for reviewing and refining care pathways.’

Sean McKeever, director of finance

Case study 10
Year of Care Pilot, Public Health, Kent County Council

‘The long-term conditions Year of Care commissioning programme aims to transform the quality of care for people with complex care needs. People with multiple long-term conditions need all their health and care services joined up. The programme helps commissioners and providers develop funding models so an annual budget for individuals with complex care needs can be used to commission tailored, joined-up packages of care.

‘Kent is one of the five national early implementation sites testing the development of a Year of Care tariff, which requires identifying groups of patients with complex care needs and calculating their costs of care. By using the risk stratification methodology, high and very intensive users of healthcare with more than one long-term condition can be identified to help develop a currency based on the number of long-term conditions a person has. Band B is people with two such conditions, Band C is three to five long-term conditions and so on. All organisations involved in the care of these people have submitted patient-level costing data. This is easier for some organisations than others – acute trusts can submit provider spell and FCE data, while community trusts submit reference costs as they have yet to implement PLICS. Kent now has six months of cost and activity data for the Year of Care cohort and we are looking to see if we can come up with a tariff for each band.’

Fionuala Bonnar, Year of Care programme manager
Tenders

Community services are at risk of having their services retendered. They are also experiencing business opportunities to bid for new work. PLICS will provide them with detailed activity and costing information to help them:

- Develop business cases
- Identify how competitive their service is with regards to cost
- Decide whether to bid for a tender
- Cost-specific services which are being moved out of NHS block contract to local authorities.

Case study 11 describes how Coventry and Warwickshire Partnership NHS Trust uses service line reporting to support the tender process.

Case study 11
Using service line reporting for tenders, Coventry and Warwickshire Partnership NHS Trust

'We've been producing service line reports for community services for two years. Our monthly dashboards show the direct costs, indirect costs and overheads by service – for example, by ward or community nursing team. We have used the reports to review our contract with our main commissioner, as well as for business cases and tenders. The trust plans to implement PLICS over the next 18 months for both community services and mental health services. The requirements for PLICS are being reviewed and incorporated into the specification for a new clinical system, which the trust is currently in the process of undertaking.'

Chris Jones, costing accountant

Flexibility to develop new pricing systems

Monitor regards accurate and comparable patient level cost data as fundamentally important in supporting the development of pricing mechanisms. The majority of community services are commissioned as block contracts and future tariff plans for community services have yet to be determined. PLICS can provide the building blocks to support the development of pricing.

Case study 12 describes how Birmingham Community Healthcare NHS Trust is developing local currencies and tariffs for some of its community services.

Case study 12
Developing a local currency and tariff, Birmingham Community Healthcare NHS Trust

'Birmingham is a large community trust with an income of about £250m. We are very keen to develop local currencies and tariffs for our services that are more relevant to patient outcomes, pathways and resource usage. We are actively engaging with both commissioners and clinicians in the process of developing currencies, and have prioritised a number of areas for tariff development, including inpatients, community paediatrics, children's speech and language therapy and special school nursing.

'Currently we are switching from PAS to Rio for our clinical information system. It will inevitably take time before all clinicians record items in Rio consistently. We recognise that once we have implemented PLICS, we will have more robust detailed costing and activity information to support currency and tariff development.'

Sarah Green, head of income and pricing
Section 3

Data challenges

A number of issues have prevented community services from improving the quality of costing more rapidly:

- Historically, there has been poor and incomplete recording of activity due to limited electronic clinical information systems and the peripatetic nature of community services.
- There is a lack of standard service definitions and no standard care pathways.
- The lack of national currencies and standard service definitions means that currencies have been developed by providers locally with their commissioners with variation between providers regarding data definitions and currencies.
- There is no mandated minimum data set.
- The use of block contracts for the majority of community services has meant there has been less focus by commissioners and providers on the relationship between investment and activity.
- Reference costs do not provide adequate information on the costs of community services. Data is collected on high-level service groupings. The number of contacts do not take account of the duration of the contact or the complexity of the contact.

Case study 13 highlights the challenges providers of community services face over the lack of standard data definitions, while case studies 14 and 15 illustrate the problems providers face over capturing accurate activity data. Case study 16 describes how reference cost categories may not match modern community services provision.

Case study 13
Lack of consistent data definitions, Birmingham Community Healthcare NHS Trust

‘When our trust was created with the community services from three PCTs, we were surprised how differently staff recorded contacts in different PCT areas. In one area, a health visitor contact with mother and baby would count as two contacts, while in another area it would count as only one contact. We have had to do a lot of work with each service to standardise our definitions. The lack of standard data definitions nationally means that we cannot reliably benchmark ourselves against other organisations.’

Sarah Green, head of income and pricing

Case study 14
Capturing activity data, Pennine Care NHS Foundation Trust

‘We currently provide financial information for community services in the form of budget statements. The trust has started to roll out a clinical information system across the organisation, which means staff will no longer use paper notes, However, for community services there are a number of challenges the staff are facing in rolling out the system, in particular the challenges that are faced when developing and introducing new technology.

‘Within community services there are challenging times to deliver on future transformation and we’re hoping that PLICS can support this moving forward by allowing the team to benchmark across similar areas but to also understand the correlation between patients and costs.’

Dawn Murphy, senior costing accountant
Monitor’s report *Improving the costing of NHS services: proposals for 2015 to 2021* recognises these data challenges. The report sets out proposals to adopt improved costing methods, based on agreed standard definitions and rules, with the aim of providing consistent and accurate cost information at the level of individual patients.

Its proposed standard definitions and rules include the following:

- Nationally standardised dictionaries for resources, activities and patient services
- Clear and comprehensive costing standards, defining the rules for mapping general ledger cost centres to the standardised resource classification, and for assigning resources to activities and activities to the patient receiving care
- The minimum datasets required by the costing method, defining the activity, cost and patient information.

Monitor and NHS England’s report *Reforming the payment system for NHS services: supporting the Five year forward view* states that the two organisations want to develop a comprehensive set of currencies to support national prices and prices set locally. Their priorities include developing standard classifications, to be nationally mandated, for out-of-hospital care (both at home and in clinics).

There are already plans to mandate a community information data set for adult services (CIDS) and a children and young people’s health services secondary uses data set (CYPHS). The current timetable proposes that central submissions to the Health and Social Care Information Centre are mandated for CYPHS in autumn 2015 and for CIDS in 2016.

The view of the HFMA Community Costing Practitioner Group is that while it recognises the challenges around community data, this should not prevent providers of community services from starting to work with the data they have.

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**Case study 15**

**Capturing activity data, Southern Health NHS Foundation Trust**

Southern Health has a trust-wide electronic PAS for community services, with Rio being used as the single system. While the system provides a robust mechanism for capturing activity data, the ability to ensure this data is accurate and complete is a challenge, as is the case for many other providers of community services.

‘We have been using Rio as our clinical information system for both mental health and community services for a number of years. Unlike acute hospitals, where clinical coders are employed, we have to rely on 6,000 individual clinicians entering information. This means that the potential for discrepancies is much greater than for an acute trust. Clinical staff are required to select an intervention from a dropdown list, but we know that the accuracy and completeness of interventions can differ from clinician to clinician based on their interpretation and understanding of the system. Similar challenges exist with the completion of accurate contact duration data.

‘Staff have laptops and enter the details at the point of care or back at base. Some staff have to return to base to input the data because of connectivity challenges within rural settings.’

Simon Beaumont, head of information

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**Case study 16**

**Reference cost categories do not match modernised services, Southern Health Foundation Trust**

‘Reference costs use traditional categories which do not correspond to our modernised community services, for example we have integrated care teams led by community matrons with community nursing, therapies and older people’s mental health community staff.

‘Rio collects data which matches our trust services, but we have to make a lot of manual adjustments to adjust the data for reference costs.’

Simon Beaumont, head of information
Implementing PLICS in community services

Only a handful of trusts have implemented or started to implement PLICS for community services. This section provides an overview of some of the steps organisations will need to take to implement PLICS, illustrated with case studies from organisations that have started the journey. Trusts should also refer to the HFMA’s acute and mental health clinical costing support guides, which provide more detailed information about implementation – for example, around the procurement of a PLIC system.

The implementation of PLICS should be seen as an organisation-wide project, led by a project board. However, as the system matures over the course of one to three years, the aim should be to integrate PLICS fully within the trust. PLICS should be an important information source feeding into a range of operational and strategic activities.

Stakeholder engagement and management

PLICS should be seen as naturally belonging to the whole organisation and not just to the finance and information departments. Senior management, especially board members, should ensure all key stakeholders are involved in the initial implementation and ongoing development of PLICS.

It is recommended that a PLICS project board is set up to oversee implementation. The project board should include senior clinical personnel, the director of finance and the trust information lead. This board will be primarily responsible for meeting milestones and final delivery, as well as identifying key stakeholders – usually clinical leads, general managers and financial managers. The project board will identify how the stakeholders will be involved and their requirements for training. They will also identify their performance information needs. This should be documented. It is recommended that the project board appoint an individual who is responsible for ensuring the ongoing involvement of stakeholders.

Many of the challenges that will be faced in implementing PLICS in community services will be organisation-wide issues. These will include poor data capture and poor data quality. These issues will need to be addressed in order to improve the quality of the cost information. However, they cannot be resolved by the costing lead alone. The whole project team and board must support the costing lead in raising these issues and ensuring they receive organisation-wide support to address them.

Clinical leads and champions at different levels of the organisation should be identified and involved in costing. Clinicians will be more willing to become involved if the focus remains on the benefits that costing will bring to them and their patients. The training and coaching of lead managers and staff requires considerable time, explaining how costs link to clinical practice, and to ensure continuing strong levels of engagement.

Clinicians need to be involved in three key stages of engagement:

- System design in the early stages of the PLICS implementation process
  It is a good idea to identify a few senior clinicians with management responsibilities, who will be supportive and act as clinical champions, as well as a few operational managers. In this way, important decisions about the level of detail and integration with other clinical systems can be made.
Validation Once costing reports are available, it is important to engage with clinicians to validate the underlying data and how it has been used to produce the end result. This will also help clinicians to become involved and to consider how their own practice links to the costs.

Using information Costing information and reports can be used at different levels of the organisation in a number of different ways, involving different groups of managers and clinicians. Time will need to be invested to discuss the reports and to encourage feedback.

Case study 17 provides examples of how Lincolnshire Community Health Services NHS Trust is engaging with trust staff during the implementation of PLICS.

Procuring a PLIC system

A specialised PLIC system will normally consist of a data warehouse that can import data extracts and integrate them, a costing engine and a front-end reporting and analysis tool. The process of selecting the right solution and supplier for an organisation should ideally be led by the project board to ensure that the requirements of the whole organisation are met and that the solution fits with the overall strategy of the organisation.

It is important that consideration is given to the information resources available to support costing. Post implementation the organisation should be able to take responsibility for making changes to the costing system, and this may therefore be an important factor in deciding which system to work with. It is also important that the data inputs are easily changeable to meet changes to future costing guidelines.

PLIC system providers can play an important role in assisting an organisation in project implementation. Most organisations will benefit from the experience that PLICS suppliers can provide and the purchase should be seen as more than just a supply of software. A list of suggested questions is provided in Appendix 1 to support this process.

Case study 17

Stakeholder engagement, Lincolnshire Community Health Services NHS Trust

‘The costing team have presented Q1 data to the Board, the Executive Team, the Finance sub-committee and senior staff in the Business Units. Our next steps involve developing project groups within business units to look at each service and benchmark internally, with the aim of using this for service redesign and cost improvement plans.’

Sean McKeever, director of finance

‘PLICs should not be regarded as a tool to be used only by general managers. It should be seen as a collective tool for operations, finance, contracting, and cause and effect management. The information needs to be used, understood and owned collectively.’

Andrea Blakeley, general manager, East Business Unit

‘It is important to train the management accountants in the use of PLICS, as they work with the business units. They need to understand how the data reconciles back to the general ledger, so that they have confidence in the information.’

Matt Miles, senior management accountant

“The biggest issue is not calculating the costs, it’s selling PLICS to the organisation at all levels. There has to be a culture within the organisation where people want the information and are keen to explore it. If senior staff are not engaged, PLICS will not work.”

Sean McKeever, director of finance, Lincolnshire Community Health Services NHS Trust
**Case study 18**

**Front end reporting and analysis tool, Lincolnshire Community Health Services NHS Trust**

‘Our front end reporting and analysis tool allows us to analyse cost and activity intelligence at all levels within the organisation from trust-wide to individual patients and members of staff.

‘Each of the headings on the title screen has its own page, where staff can drill down further to explore the information in more detail.’

Matt Miles, senior management accountant
Staff from Lincolnshire Community Health Services NHS Trust describe some of their experiences of implementing PLICS in case studies 19 and 20. Case study 21 describes how they calculate the cost of a patient contact.

**Case study 19**

**Gathering financial and activity data, Lincolnshire Community Health Services NHS Trust**

‘Financial data is taken from the general ledger. It is important to make sure that the ledger is in good order so you can identify the costs of individual staff members. This requires good discipline when journal adjustments are made. We have run training sessions for our management accountants so that they understand the importance of this.’

**Matt Miles, senior management accountant**

‘It is fundamental to have your underlying activity systems sorted. If you have not got the right infrastructure, you won’t be able to implement PLICS. The biggest step forward for us was when we were able to link activity to a member of staff. All clinicians have NHS smartcards which they use when they register a clinical record.

‘The trust’s main clinical information system is SystmOne. There are separate activity systems for a few services, such as dental services and sexual health. Activity is classified and measured according to reference cost definitions.’

**Zoe Plant, acting deputy director of finance**

Appendix 2 lists the data fields fed into the costing system via the data warehouse

**Case study 20**

**Making the linkages between data sets, Lincolnshire Community Health Services NHS Trust**

‘One of the initial steps in the project was to interrogate and search the organisation for all possible sources of data. We then considered and identified which data is likely to have an impact on trust performance.

‘Our business intelligence solution links and makes associations with a wide range of trust data sets, including the finance ledger, clinical information systems, electronic staff record, expense system, patient demographics and the referrals database.

‘It turns raw data into useful information. By creating linkages between different data sets, staff can see the “cause and effect” relationships that help to explain differences in financial performance – for example, activity by job role/pay band or treatments offered for patients with the same referral reason. Rather than having to rely on predefined reports or request a report from the information team, managers and clinicians can drill down and manipulate the data themselves. Staff now have access to evidence-based information rather than having to rely on more anecdotal information.’

**David Murray, independent consultant, PLICS project manager**

**Case study 21**

**Calculating the cost of a patient contact, Lincolnshire Community Health Services NHS Trust**

‘We have created a cost pool for each clinician who has clinical contact with patients.

‘The cost pool is made up of the clinician’s direct costs – pay, travel, lease car – plus indirect costs and overheads. We use the HFMA Acute health clinical costing standards where we are able to, and the HFMA Acute materiality and quality score (MAQS)\(^3\) to allocate costs, trying to use the best-quality allocation method where we can.

‘The individual clinician cost pool is divided by the number of minutes the clinician records as patient contact time. This provides a cost per minute. The cost of a patient contact is calculated by multiplying the duration of the contact by the cost per minute of the individual clinician who delivered the care.’

**Matt Miles, senior management accountant**

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Notes

\(^3\) The HFMA materiality and quality score (MAQS) provides four options on how costs may be allocated for each type of cost. Each is rated: baseline (0.25), bronze (0.5), silver (0.75) and gold (1). This score allows organisations to rate their allocation methodology for each cost type. This rating is multiplied by the financial value reported for that cost type to produce a weighted score. The MAQS is a significant step forward in providing transparency of approach in costing and showing organisations alternative allocation methods that would result in more accurate cost data being produced. Because the MAQS calculates a weighted score, it focuses on the materiality of each cost, so is an important tool that can assist organisations in targeting resources to achieve the greatest impact on quality.
Sharing initial outputs

PLICS is a journey. There will always be tension between those in an organisation who wish to share and start using outputs and those who feel more work is needed to improve accuracy. This is a healthy tension.

There should be no expectation that initial draft reports will be ‘perfect’ but will rather be a learning exercise to expose gaps in raw data, business terminologies, object coding and allocation methodologies. It is important to be realistic about time frames and early results and to ensure that where there are gaps in data, or known issues with some of the input data, these are clearly communicated.

Lincolnshire Community Health Services NHS Trust describes some of its experiences in sharing the initial outputs in case study 22.

“Learning from acute trusts would suggest that sharing early results with the project team/board enables them to see what information will be made available to them and discuss how it may be used, once acceptance is reached over its quality.”

Scott Hodgson, costing standards lead, HFMA

Case study 22
Sharing the initial outputs, Lincolnshire Community Health Services NHS Trust

‘The costing team have shared Q1 PLICS data with the trust board, executive team and senior staff in business unit teams. All have been very interested in the information that PLICS provides.

‘Uns-surprisingly, there have been challenges with the information, for example:

• There are gaps in the activity data. Not all clinicians are recording the type of intervention and/or the duration of the contact. Where no duration is recorded, the finance team have to ask the business units for an estimate. Some teams are better at data recording than others, and the trust understands that by feeding back initial reports, this will improve data quality over time.

• Initially we used PLICS for our reference cost submission, which meant that our service lines were based on reference cost categories. Following the roll-out of service line reporting in the organisation, we found that managers couldn’t relate to the reference cost categories; they only understood their community teams. We have restructured our PLICS and can now report by both reference cost category and community team.

• The costing team has sometimes struggled with selling the accuracy of the outputs to users. If managers were surprised with some of the data, they assumed it was wrong. While this was sometimes the case, it was not always correct: sometimes the data showed that staff were carrying out particular activities that managers were not aware of.

• Service line reports include overheads, which is something that business unit managers have little control over but get concerned about. The trust recognises that managers need to be assured that corporate teams will also be reviewed and benchmarked against national data.’

Matt Miles, senior management accountant
Section 5

Conclusion and next steps

In conclusion, the HFMA believe that PLICS, as a costing methodology, is fully applicable and relevant to community services. Section 2 outlines the many benefits that PLICS can bring to the delivery of efficient and effective services by community providers. The case studies provided throughout this guide offer practical examples of the potential benefits and we hope these will support organisations that are considering or just starting on their PLICS journey.

We are aware of the many challenges associated with implementing PLICS in community services, in particular the lack of standardised national definitions for data collection and national currencies. However, while this will impede the ability to benchmark data externally, our work has highlighted that progress can be made by using PLICS to benchmark internally.

Providing activity data is collected and reported consistently within an organisation, this internal benchmarking approach can provide valuable information to organisations about how services are currently being delivered and support improvements in patient care.

The HFMA will use the findings in this report to develop clinical costing standards for community services, and to continue to support and drive improvements in costing for community services.

If you would like to be involved in HFMA’s community costing work, please contact costing@hfma.org.uk

“The HFMA fully supports the need for a greater focus on costing community services. This is our second report on the topic. We have established a Community Services Costing Practitioner Group to start discussion on how PLICS can be applied to community services and to fully understand the potential benefits PLICS can bring, as well as the challenges that will be faced. We will work with providers of community services to support them on their PLICS journey and look forward to bringing community services into the clinical costing standards umbrella.

“We would welcome providers of community services and their commissioners to join the recently launched HFMA Healthcare Costing for Value Institute, as further support will be provided through this HFMA channel.

“The HFMA looks forward to continuing our close working with Monitor, NHS England and the Department of Health to develop community costing in the future.”

Paul Briddock, director of policy and technical, HFMA
Appendix 1

Questions for PLICS suppliers

A: TECHNICAL

- What is the core database used within the system?
- At what level is data stored in your system – for example, at the patient, department, or service level?
- Is full access provided to the resulting databases for the organisation or only the reporting information? If full access is not provided, what level of access is?
- Can you demonstrate the ease with which system interfaces are created?
- What are the server and other IT requirements to operate your system?
- What data quality checks and controls does your system include to monitor and analyse the quality of data being put into the system – for example, will new account codes or drug names be notified?
- Are users required to learn a new programming language to make changes in how the data warehouse operates, such as the data linkage scripts or make changes to the rules set up in the costing model? If so, what programming language is this?
- Will users be required to ‘bolt on’ an additional query tool in order to fully integrate and manipulate the data?
- Once the system is fully integrated, who will own the system? Will it reside on the organisation’s servers or will it reside with the supplier?

B: ABILITY TO ENGAGE CLINICIANS AND OBTAIN CLINICAL OWNERSHIP

1. Method

- What will you bring/do to assist us in obtaining clinical ownership?
- Can your system automatically run regular updates of patient-level data in order to support more timely clinical level information?

2. Tracking resources to patients

- Explain the ability of your system to accept and report input information at the level of reference cost categories, as well as at greater levels of granularity such as nurse time/cost within a home visit.
- Explain how you would help us cope with inadequate/non-existent data feeds.
- Is your system capable of reporting both cost and resource consumption on a regular basis?

3. Comparability

- Can your systems produce reports on costs at the following levels:
  - by patient
  - by team or locality
Appendix 1 (continued)

- by procedure or diagnosis
- by types of procedure or diagnosis
- by age or other demographic

What patient-level reports have you actually provided to clinicians working in community settings?

C: COSTING STANDARDS

- Can your system meet the reporting standards as categorised in the acute or mental health clinical costing standards published by the HFMA?
- What is your ability to reconcile back to general ledger?
- Is your system able to modify the general ledger so that it better supports patient costing activities and enables the clinical costing standards to be met – for example, by offsetting revenue, moving values from one cost centre to another, creating dummy cost centres and account codes?
- How complex or fixed – for example, hardwired – are any definitions or algorithms underpinning your costing methodology?
- Are you able to construct and resolve simultaneous equations in the allocation of costs where departments both distribute charges to and receive charges from another department? If not, what do you do?
- Do you or can you attribute overheads and indirect costs to intermediate levels – therapy sessions – before allocation to patients? Do you have the flexibility to then, if required, disintegrate and report these overheads separately by cost pool group in a patient's final cost bill?
- Does your system allow users to easily review the indirect and overhead costs allocated to individual patients?
- Is there a limit to the number of cost components, cost weights and so on that can be defined as part of the costing process? Are you restricted in what you call them?
- Can you allocate direct costs to several different cost pool groups – can this be done directly from individual account codes in the ledger or does information have to be reassembled?
- How flexible is your system in using differing allocation methodologies for the same expense types? Some administration costs may be indirect in some circumstances but overhead in others.
- If updating the patient-level data more frequently than monthly, can your system use previously calculated costs to estimate the costs of recent patients or do you need to wait until the general ledger is closed and then the costing process is carried out again?

D: WILL YOUR SYSTEM BE ABLE TO ADEQUATELY INFORM FUTURE PRICING SYSTEMS?

- Are you able to group patients by an internally generated currency?
- Are you able to produce a report of the cost of individual patients by cost pool group?
- Is your system able to cost and attribute care packages to individual patients?
- Does your system support the production of the annual reference cost return?
- Does your system support the production of the annual programme budgeting return?
Appendix 1 (continued)

E: EASE OF USE
- How easy it is to write reports in your system? What skills are required? Is there a need for an external system report writer or specialist IT programmer knowledge?
- Can you demonstrate the ease at which knowledge of the system can be transferred and users can become self-sufficient in operating the system?
- Are the reporting and analysis standards within the system suitable for all levels and job specifications within the organisation – for example, business analysts, high-level managers, clinicians?

F: EXPERIENCE
- How long has your product been on the market?
- What PLICS experience do your staff have? What specific expertise do you have in community services?
- How many healthcare organisations have implemented your system and in what countries? If applicable, what extra value can you bring to this organisation as a result of your overseas experience?
- What demonstrable experience do you have in talking to clinicians and managers working in community services and securing engagement in this PLICS implementation?
- How will you help us access the necessary granular information within our organisation to deliver a successful business solution?
- How many community services have implemented your full PLIC system in England – that is, costing to the patient at a granular level and subsequent reporting? Give references of all sites to allow independent verification by random sample.
- How many staff do you have with NHS knowledge?
- How long will it take to properly implement your system? What will be the key steps, and which will you do and which will the organisation need to do?

G: COMMITMENT TO MARKET/RESOURCES/CAPACITY
- What resources do you intend to commit to the NHS market, and specifically to community services costing?
- What are the ongoing system support capabilities of your company?
- What are your ongoing training/knowledge transfer capabilities?

H: GENERAL
- How can we assess your financial stability?
- How much is your solution likely to cost and what are the main variables?
- How much do you anticipate the annual support/maintenance cost to be?
- Why should we choose you?
Appendix 2

Activity data items, Lincolnshire Community Health Services NHS Trust

The trust uses the following fields in their base activity extract:
- Patient NHS number
- Patient’s gender, date of birth, ethnicity
- Registered GP – name and code
- CCG code
- Referrals – referral ID, source, date and time of referral, reason for referral, urgency
- Location of contact
- Contact date, time and duration
- Member of staff who delivered intervention
- Type of service provided – for example, community nursing, physiotherapy
- Intervention type – for example, wound care, antenatal visit
- Primary diagnosis
- Care plan category
- First point of contact – for example, patient, carer
- First or follow-up appointment
- Consultation and activity methods – for example, face to face, non-face to face
- Clinically relevant contact or not
- Unit, team and caseload
- Outcome of referral
- Discharge date and reason for discharge
- Location after discharge

The following items are added from the electronic staff record:
- Staff pay band
- Staff role
Appendix 3

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Appendix 4

HFMA Community Services Costing Practitioner Group

This guide has involved debate and discussion with members of the HFMA Community Services Costing Practitioner Group. The HFMA would like to thank all of those individuals and their teams who have been involved in this group.

The HFMA Community Services Costing Practitioner Group includes representatives from the following organisations:

- Birmingham Community Healthcare NHS Trust
- Bridgwater Community Healthcare NHS Foundation Trust
- Central London Community Healthcare NHS Trust
- Coventry and Warwickshire Partnership NHS Trust
- Dorset HealthCare University NHS Foundation Trust
- First Community Health and Care CIC
- Great Western Hospitals NHS Foundation Trust
- Homerton University Hospital NHS Foundation Trust
- Hounslow and Richmond Community Healthcare NHS Trust
- Humber NHS Foundation Trust
- Leeds Community Healthcare NHS Trust
- Lincolnshire Community Health Services NHS Trust
- Liverpool Community Health NHS Trust
- North Essex Partnership NHS Foundation Trust
- North East London NHS Foundation Trust
- North Tees and Hartlepool NHS Foundation Trust
- Northamptonshire Healthcare NHS Foundation Trust
- Nottinghamshire Healthcare NHS Trust
- Pennine Care NHS Foundation Trust
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