Monitor
Making the health sector work for patients

NHS England

Local payment examples

Capitation: a potential new payment model to enable integrated care

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Contents

Purpose of this document

Across the health services sector, there is a move towards offering more integrated care, especially for patients who have multiple long term conditions and need care from many providers across different care settings. The launch of the 'Five Year Forward View'[1] and the Integrated Personal Commissioning (IPC) programme have added impetus to this trend. However, sector feedback indicates that the current forms of payment does not always support the delivery of more person centred co-ordinated care.

Monitor and NHS England are committed to using the full potential of the payment system to provide better support across the country for innovations in patient centred, co-ordinated care. To enable such innovation, the Health and Social Care Act 2012 provides for payment arrangements to be determined locally rather than nationally,[2] where this will benefit patients.

Capitated payments are one such payment arrangement that several local care economies are developing. Broadly speaking, capitated payment or capitation means paying a provider or group of providers to cover the majority (or all) of the care provided to a target population, such as patients with multiple long term conditions (LTCs), across different care settings. The regular payments are calculated as a lump sum per patient. If a provider meets the specified needs of the target population for less than the capitated payment, they will generate a financial gain to the local health system. Allowing providers to share in any such gain gives them an added incentive to keep patients in their target population healthy. They are more likely to identify risks, intervene early and arrange the right treatment for patients, at the right place and the right time to aid patients' recovery, continued wellness and better management of long term conditions.

Using the new payment rules, a number of local care economies are designing and implementing capitated payments to support new care models that aim to deliver more integrated care. These include participants in the Integrated Care Pioneer Programme as well as the Long Term Conditions Year of Care Early Implementer sites. For example, Waltham Forest, Newham and Tower Hamlets and North West London Clinical Commissioning Groups (CCGs) have or are in the process of developing and implementing integrated care models. These CCGs are designing new capitated payment approaches for the frail and elderly and/or people with long term conditions which aims to improve care outcomes and experience. The Integrated Personal Commissioning demonstrator sites (to be selected) will be using the capitated payment design described in this document to support their work. The

[1] www.england.nhs.uk/wp-content/uploads/2014/10/5yfv-web.pdf
[2] See Section 7 of '2015/16 National Tariff: consultation notice'. The rules were changed in 2014/15, and maintained in 2015/16.

‘Five Year Forward View’ highlights the importance of capitation and the bigger role capitated payments will play in the NHS in future.

Drawing on the experience of these innovators and on evidence from health services in other countries, this document sets out an example of a capitated payment approach that commissioners and providers developing local initiatives for integrated care within the rules of local payment arrangements might consider using.

Individual CCGs will need to decide, on a case-by-case basis, how best to secure services which meet the needs of patients in their area and which pricing and payment approach is most appropriate to meet those needs.

The document describes:

- what is driving the need for more integrated care
- the benefits of capitation for patients and local care economies
- its potential risks and how to mitigate them
- the steps involved in designing capitated payment for a local integrated care initiative that fits within current payment rules
- key factors for enabling it to achieve anticipated benefits
- methods for evaluating its impact.

It gives quite detailed technical information on how to design the capitated payment approach it describes. This is in response to requests for such detail received from the sector and to make sure the document is helpful to commissioners and providers in local care economies. This is the first edition of the document and a starting point on how to develop capitated payment to support new care delivery models. As more information becomes available the technical detail in this document will be refined and re-published as a new edition.

Patients’ need for integrated care

Improvements in healthcare mean that people today are living longer than ever before. But this progress means that many people today have complex care needs. For example:

- increasing numbers of older people are living with several complex long term conditions (eg diabetes and cardiovascular disease)
- more children who are born with complex conditions are living into adulthood.

Such changes are placing increasing pressure on the health and care system. Many people with mental and physical ill health, complex needs and long term conditions

need to access different healthcare, social care and other services, often simultaneously. Improvements in healthcare have also been accompanied by a fragmentation of care of people with both mental and physical long term needs. All too often, patients and service users experience health and social care services that are fragmented, difficult to access and not organised to suit their own and their carers' needs.

Integrating existing service provision offers opportunities to improve the effectiveness, safety, and experience of patients and service users. More integrated, better co-ordinated care is a means of improving service user, carer and family outcomes and also offers the potential to make system efficiencies.

The 'Five Year Forward View'[3] outlines a new care model for primary care using multispecialty community providers (MCP). This has the potential to offer a wider scope of services, such as for example community and outpatient services, and enable new ways of delivering care through extending group practices to form federations, networks or single organisations. It also outlines a new variant of integrated care by permitting single organisations to provide NHS list-based GP and hospital services, together with mental health and community services. These 'vertically' integrated primary and acute care systems (PACs) are complex and will take time and technical expertise to implement. This new model will need to be tested in the NHS but could have the potential in its advanced form to take accountability for the whole health needs of a registered list of patients, under a delegated capitated budget.

However, we recognise that there are barriers (both perceived and real) at both national and local levels that can get in the way of delivering integrated care and improving patient experience. These include:

- payment approaches for each element of service that tend to fragment care and are inconsistent with the delivery of integrated care
- difficulties of effectively measuring and monitoring whether care is delivered in an integrated way and improves outcomes and experience
- organisational barriers, such as different cultures and care protocols, as well as different types of commissioners, both within and between physical health, mental health and social care
- poor data sharing across organisational boundaries.

The way we pay for healthcare can support different health and care organisations to deliver services in a more integrated way. Capitation, described in the next section, is one payment approach with this potential. However, a payment approach is only

[3] www.england.nhs.uk/wp-content/uploads/2014/10/5yfv-web.pdf

one factor in supporting innovation in integrated care, albeit an important one: success also depends on leadership, cultures and behaviour at the local level.

How capitation can support integrated care

Summary

A range of evidence demonstrates the potential benefits to patients and the health system productivity to be achieved through integrated care. A capitated payment approach could be a key enabler of these benefits. This section outlines:

- benefits of using a capitated approach for a defined population (eg frail and elderly) to improve care outcomes and experience, in particular:
    - promotion of primary, secondary and/ or tertiary prevention
    - incentivising care taking place in the 'right' setting
    - effective use of resources across health and social care
- risks which need to be mitigated at the design stage with adequate safeguards. These include:
    - providers' restricting access to care, 'cherry picking' the least complex patients, or reducing the equality of care provided
    - providers becoming financially unstable
    - commissioners paying twice for the same service.

What is capitation for a target population?

Rather than paying providers for particular treatments or inputs, capitation allows commissioners to reimburse providers for making available specified services and possibly delivering specified outcomes for a defined target population, drawing on services that cross different organisational boundaries to meet individual patient needs. Commissioners pay the provider or network of providers a regular lump sum per person in the target group. Ideally, this capitated payment will be 'weighted', or risk-adjusted, to take into account of the fact that some patients in the groups require more, or more costly, services than others.[4]

Capitated payment may be made to a single provider (a capitated budget-holder) who makes arrangements with a number of providers in order to deliver the full scope of services specified by commissioners. In such cases, provider to provider

[4] Nuffield Trust: www.nuffieldtrust.org.uk/sites/files/nuffield/publication/140220_nhs_payment_research_report.pdf

payment mechanisms need to be put in place between the capitated budget holder and the other providers.[5]

To ensure high quality care is delivered, in addition to setting minimum quality standards, commissioners can require a proportion of the payment itself to be dependant on the provider or network of providers achieving specified quality targets and outcomes for patients in the target group.

The form of capitated payment described in this document could pay a provider or group of providers to cover the majority (or all) of the care provided to an identified population across different care settings. If providers meet this responsibility for whole person care for each member of the target population at a lower cost than the total capitated payment, they will generate a financial gain to the local health system. Allowing providers to share in any such gain gives them an added incentive to identify risks, intervene early and arrange the right treatments, at the right place and the right time in order to aid patients' recovery, continued wellness and better management of their long term conditions.

Capitation could be implemented for the whole population in a given area or only cover a specific sub-segment of the population. The focus of this document is on capitation for a target population (such as patients with multiple long term conditions) as this is a good starting point for local care economies introducing a capitated payment approach. Capitation for a target population provides an opportunity for organisations to build the capabilities of the integrated care model, develop patient-level linked datasets, fix financial incentives and adjust sharing factors each year so that providers can take on more financial risk before this approach is rolled out to a larger population. The approach outlined in this document can also be used to support implementation of capitated payment for the whole population but further consideration will need to be given in determining the minimum population size and the management of financial risk.[6]

The distinctive characteristics of comprehensive capitated payment are summarised in Table 1 below.

[5] For this purpose, commissioning and contracting arrangements will need to be considered locally by commissioners and providers.

[6] Please contact Monitor and NHS England for advice on undertaking capitation for a whole population (eg how to manage issues around minimum population size and financial risk)

Table 1: Core characteristics of capitation and implications for the health system

Core characteristics	Implications
Predictability	As a defined component of the payment is paid up front, capitated payment makes an element of providers' income predictable and stable, making it more feasible for them to plan and implement service changes.
Provider accountability	Capitated payment makes the provider or groups of providers responsible for covering the majority (or all) the care provided for a target population creating a greater requirement for co-ordinated and integrated care
Financial risk transfer	As providers take on greater financial risk, they are incentivised to invest in preventative care and treat in the lowest cost setting (while maintaining quality of care)

While financial risk transfer to providers may bring long term benefits, it also could put the capitated budget holder at risk of financial loss if it has to spend more than the budget to meet the required outcomes. Therefore, the payment design may need to include mechanisms for sharing not just gains but also losses between the provider and commissioner, and to mitigate any financial risk which the capitated budget holder may not be able to manage. We will publish information on gain and loss sharing mechanisms shortly.

Differences between this form of capitated payment and others used in the NHS

The capitated payment approach set out in this document to enable delivery of integrated services across multiple providers of health and social care for a defined population cohort is more comprehensive than existing forms of capitation in the NHS which are:

- Primary care budgets: Part of GP budgets are set on a per head of a defined population basis. However, this payment goes to a single provider and only covers primary care activity, which limits GPs' accountability for care that happens in other settings.
- Commissioning budgets: CCG budgets are also calculated using a population-based aggregation formula that adjusts the budget for prospective predictors of need, using indicators such as deprivation, ethnicity, etc. However, this uses capitation to allocate funding to be spent on healthcare, not to pay for it.

The form of capitated payment presented here is also different from, and does not apply to, condition-specific 'year of care' payments for two main reasons:

- year of care payments cover the annual care related to a particular condition, such as paediatric diabetes or cystic fibrosis, whereas the form of capitated payment described here covers all (or most) of the care needs of the patients in the target group and

- the design of the capitated payment described here is based on analysis of population-level data showing what services the target population is likely to use, as opposed to the 'normative' approach of condition-specific year of care models, which identify the number and type of consultations and procedures that should be offered to each patient.

Benefits and risks of implementing a capitation approach

Capitated payment can offer significant benefits to patients but there are some risks. For the approach to deliver its full potential benefits to patients and to the health system as a whole, commissioners and providers need to agree on mechanisms for mitigating the risks.

Potential benefits

Benefits to patients: Patients should benefit directly from receiving better co-ordinated care. As noted above, making a single provider or group of providers accountable for the whole needs of a person creates a greater incentive for co-ordinated care and integrated working across different health and social care organisations, for example to deliver care across a pathway or invest in proactive case management.

Patients should benefit from better overall health because providers will focus more attention on three types of prevention:

- primary prevention: which aims to keep people healthy by reducing the incidence and overall burden of disease in the population; this can be achieved by focusing on lifestyle and behaviour change and/or environmental factors

- secondary prevention: which aims to reduce the overall cost of treating a condition through early diagnosis and treatment of patients who have a single long-term condition

- tertiary prevention:[7] which is particularly relevant for patients with complex needs and focuses on their recovery, rehabilitation and re-ablement after acute exacerbation of their chronic illness.

[7] Incentives related to primary, secondary and tertiary prevention are directly related to the choice of the target population. For example, primary prevention will mainly concern relatively healthy patients to reduce the likelihood of a disease, while tertiary prevention is particularly relevant for selected high risk population cohorts which might have complex care needs with multiple long term conditions

Benefits to local health economies: Patients, providers and commissioners should all expect to benefit from the efficiencies encouraged by capitated payment. Greater efficiency – while maintaining or increasing quality – results in savings to the care economy as a whole, for reinvestment in further innovations capitation encourages:

- efficient allocation of resources , by enabling providers to judge the best intervention holistically for an individual or the population and to support patients' self management of their care
- productive efficiency, by incentivising care to take place in the lowest cost care setting and promoting investment in care co-ordination and care planning, to get the best results for patients at lower cost
- technical efficiency, by ensuring each setting is more efficient so that providers can maximise surplus
- investment in productivity and innovative solutions.

Further information on the benefits of capitation is provided in Appendix 1.

Potential risks

Although capitated payments offer the potential benefits outlined above, they may present a number of risks if they are not well designed and implemented. Unless adequate safeguards are in place to mitigate these risks, the capitated budget holder,[8] may for instance:

- restrict access to care, 'cherry pick' the least complex patients, or reduce the quality of care provided if appropriate safeguards are not in place
- find its financial sustainability and stability is at risk, possibly leading to financial distress, depending on the design of the model implemented and the provider's ability to manage risk
- shift care to settings not covered by the capitated payment (if it does not cover all types of care), running the risk of the commissioner paying twice for the same service
- not invest enough in prevention and improving productivity in the long run to yield expected patient and health economy benefits. This risk increases if contracts are too short to make such investments worthwhile for budget-holders (eg less than 3–5 years – please see 'Commissioning and contracting' below for more information)

[8] ie the provider or group of providers, responsible for the capitation payment and the care delivered to the selected population cohort.

- restrict patient choice if the contract does not include a requirement for the patient to be able to choose to go 'out of network' at a cost to the capitated budget holder. Patients have legal rights to choose any clinically appropriate provider for elective and mental health care and the payment terms must support this right.

Each of these risks can be mitigated. Possible approaches are presented in the following sections and in Appendix 1.

International examples

We have published examples of how capitated payments are being used in other countries[9] and we would encourage you to download and read them. Although designed for and used in very different healthcare systems to the NHS in England, these examples may provide some helpful information for commissioners and providers. Some key design features of each example are presented below.

Beacon Health (Pioneer Accountable Care Organisation (ACO), United States) used a phased-in transition towards a full financial risk transfer, with options for more limited risk sharing, built around a series of quality and outcomes measures which impact the size of the shared savings for the capitated budget holder.

ChemMed (Medicare Advantage, United States) is built on a full transfer of (upside and downside) financial risk to the capitated budget holder, with an uptake driven by patient choice.

CareFirst (United States) combines a one-sided gain/loss sharing arrangement (ie the downside financial risk remains with the commissioner) to incentives to encourage specific elements of best practice.

Alzira (Valencia, Spain) is based on a fully vertically provider supplying most of the care (with specific exceptions, eg organ transplants) to the whole population, under a very long contract.

Knappschaft (Germany) uses a complex model to estimate expected total cost for each patient, and shares the gains between providers, commissioner and the patients.

[9] https://www.gov.uk/government/publications/supporting-innovation-in-the-nhs-with-local-payment-arrangements

The payment design

Summary

This section covers the steps involved in designing a capitated payment approach, for consideration by local commissioners and providers interested in using this kind of arrangement to promote better integrated care for their patients.

To design a capitation approach, local health and care commissioners and providers would need to do the following:

- Identify the patient cohort to be included in the capitated payment (which is not necessarily the same as, and could be wider than, the group selected for a new care model). The patient cohort could be a group which would particularly benefit from more co-ordinated care, is relatively homogenous in terms of care needs (and related costs), and is large enough to mitigate the financial risk due to random variations[10] (eg at least 5,000 patients).
- Scope of the services included could cover all health and at least free social care services, eg assessment and re-ablement only (possibly with specific exceptions such as highly specialised services, eg organ transplant or secure mental health).
- Determine the unit price per person per year. The price could be based on historical provider cost or commissioner spend figures for the selected cohort, and adjusted based on local assumptions.
- Agree the mitigation mechanisms that could be put in place to ensure that the capitated budget holder can manage the financial risk, such as excluding from the payment arrangement specific (infrequent, high costs) services or patients while maintaining the patient care delivery model.
- Agree the provider to provider payment mechanisms to be put in place between the capitated budget holder and the other providers; this could for example be based on activity or capacity.
- Identify any performance measures (ie of quality and patient outcomes) that could influence the final payment made to the provider(s), to ensure providers focus on outcomes for the entire patient cohort.

We believe many commissioners and providers will be interested in exploring capitated payment in pursuit of affordable integrated care and better outcomes for patients. However, current contracting arrangements, unfamiliarity with capitation, and a lack of some of the building blocks for a mature capitation arrangement, such as patient level data linked across different care settings, mean that local care

[10] ie variability of individual total annual costs which cannot be anticipated.

economies are not likely to be able to adopt a mature form of capitation straight away.

Where this is the case, local commissioners and providers could consider testing it in 'shadow' form, ie alongside existing contracts and payment arrangements or focusing on a particular cohort initially, with risk sharing. This will enable commissioners and providers to test and refine the new payment approach before it is implemented as the basis for actual payments, for example by testing the accuracy of the data and estimates, practicality of implementation of the necessary data flows and the resulting financial outcomes compared to the existing default arrangements.

This section outlines the rules governing capitated payments and the steps in the design process. For each step, it describes an approach appropriate where the building blocks of a mature capitation payment are in place and also a short term approach. The short term approach in each case is a possible way to start testing capitated payment locally, while developing the necessary building blocks and refining the design of the payment arrangements in order to move to the mature approach.

Rules governing capitated payments

When designing a capitated payment arrangement, local commissioners and providers should follow the rules on locally determined prices.[11] Following national policy, local payment arrangements can be implemented where there is a change to the service model or currency that is in the best interest of patients and which promotes transparency:

- If at least one of the services to be included in the capitated payment has a national price, a **local variation** will need to be agreed (sent to Monitor and published).
- If no service has a national price, then a **local price** can be agreed.

In both cases, this local arrangement does not need to be approved by Monitor but it must be consistent with local payment rules and principles.

Commissioners should also ensure that they follow the framework set out in the Procurement, Patient Choice and Competition Regulations.[12]

[11] See Sections 7 and 8 of '2015/16 National Tariff: A consultation notice'. These rules were changed in 2014/15, and maintained in 2015/16.
[12] Specifically, the National Health Service (Procurement, Patient Choice and Competition) (No 2) Regulations 2013.

Steps in the design process

The steps in the process involve defining:

a) identifying the patient cohort

b) defining services to be covered by capitation

c) selecting a method for determining the price

d) planning financial risk mitigation mechanisms

e) designing provider-to-provider payments

f) defining financial gain/loss sharing arrangements

g) defining quality and outcomes incentives.

In addition, the identity of the capitated budget holder needs to be locally agreed. This decision is not covered in this document but material published by the King's Fund[13] provides helpful information.

a) Identifying the patient cohort

In theory, capitation could be implemented for the whole population[14] in a given area or only cover a specific sub-segments of the population. Although there are international examples of both approaches, it is likely to be more appropriate and practical (at least in the short to medium term) to focus on a specific patient cohorts with similar needs.

A mature approach to determine the patient cohort would be to focus on groups who:

- would benefit the most from a closer focus on prevention (including recovery, rehabilitation and re-ablement) and more co-ordinated care and also have a high incidence of unplanned (A&E and non-elective) use of services (eg frail and elderly people; patients with multiple long-term conditions)

- have relatively similar types of needs (eg community multi-disciplinary team; lead clinician/professional; care plans; long-term conditions) and similar costs across the group (ie low variability in their care needs)

- Have more people in them than the minimum group population size needed to ensure effective implementation of a capitated payment approach and management and mitigation of the associated risks (see box 'Minimum population size')

[13] www.kingsfund.org.uk/sites/files/kf/field/field_publication_file/future-organisational-models-for-the-nhs-kingsfund-jul14.pdf

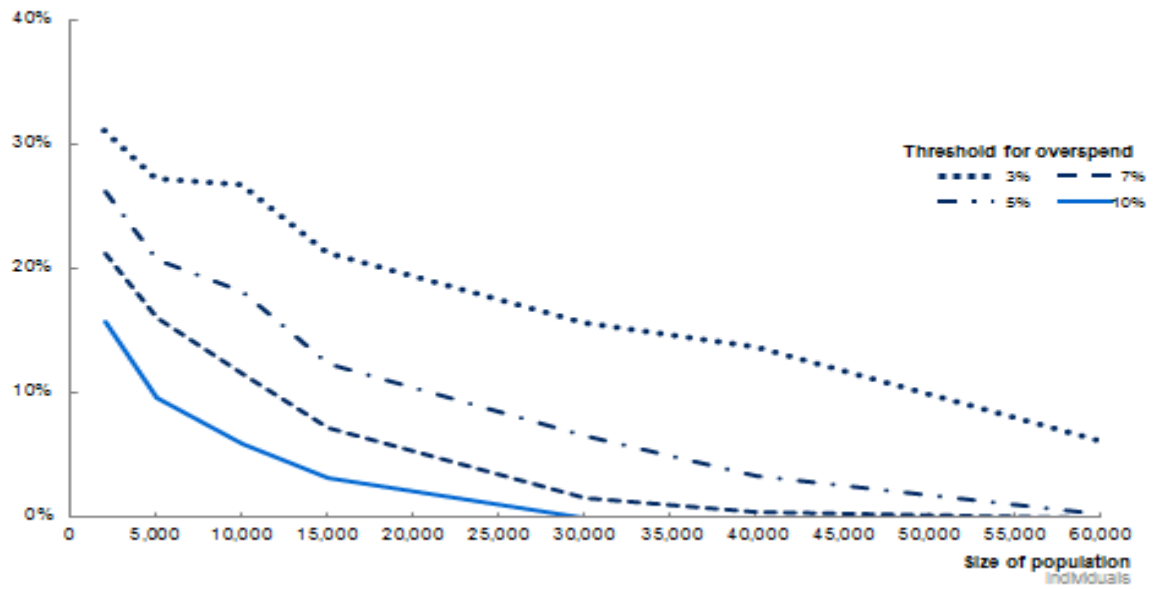
[14] Please contact Monitor and NHS England for advice on undertaking capitation for a whole population (eg how to manage issues around minimum population size and financial risk)

Minimum population size

Providers will be better equipped to manage financial risk if the size of the population covered by capitated payment is large enough. The population must be of a sufficient size for any actual individual variations in the care costs of patients to average out. Commissioners and providers need to determine the minimum population size. This will depend on both the homogeneity of the cohort and on the risk appetite and risk management capacity of the capitated budget holder.

Initial analysis undertaken on behalf of Monitor indicates that the risk profile would be excessive if a homogenous population cohort was smaller than 5,000. A more heterogeneous cohort, eg a whole local population would need to be at least 30,000 strong[15]. The minimum population size will depend both on the homogeneity of the cohort and on the risk appetite and risk management capacity of the capitated budget holder. For instance, in the example below (whole population) a population size of 30,000 would still entail a 15.5% chance of a 3% overspend or a 1.5% chance of a 7% overspend.

Figure 1: Estimate of the impact of the population size on the random risk of overspend (whole population)[16]



The London Health Commission has published similar analysis[17] which local care economies may find helpful when determining the size of the population cohort to be covered by a capitated payment.

[15] Also see D. DeLia, D. Hoover & J. Cantor, 'Statistical Uncertainty in the Medicare Shared Savings Program', Medicare & Medicaid Research Review 2012, Volume 2, Number 4.
[16] Monte Carlo simulation using 1,000 samples of 2012 patient level health and social care data for one CCG for each population size.

However, this approach to identify the patient cohort requires the analysis of patient-level linked dataset (see the 'Key enabling factors' below). If this level of detail is not available, a short term approach could be for any capitated arrangements to cover local system-wide priority groups making sure that the population size is at least 5,000 and using local clinical data and judgement to assess whether the selected cohort:

- constitutes a group which would particularly benefit from greater care co-ordination and prevention; and
- is relatively homogenous in terms of members' care needs and related costs (ie low variability in the annual average cost of care per person).

The population cohort selected for a capitated payment does not need to match a particular group identified to be covered by a new integrated care model. The payment cohort could be sub-segmented into (using a risk stratification tool) and encompass several (smaller) care model cohorts.

North West London has chosen an approach to selecting the population cohort based on a combination of age and health and social care needs,[18] whereas the Integrated Personalised Commissioning programme[19] lists four potential groups:

- children and young people with complex needs, including those eligible for education, health and care plans;
- people with multiple long-term conditions, particularly older people with frailty;
- people with learning disabilities with high support needs, including those who are in institutional settings or at risk of being placed in these settings; and
- people with significant mental health needs, such as those eligible for the Care Programme approach or those who use high levels of unplanned care.

Once the criteria for selecting patients for the cohort have been agreed, the most effective way to identify people to be included in the cohort would be to use local GP registers. Using this method would make it easy to identify clearly when people enter and exit the cohort. However, it would require all GPs located within a defined capitation catchment area to be involved in identifying suitable patients.

If this is not immediately possible, a short term approach could be for individual care providers (eg GPs, multi-disciplinary teams) to 'refer' patients to the commissioner and capitated budget holder who meet the criteria for inclusion in the capitated payment (and any associated care model). The commissioner would then validate this list. This approach could for example be used when 'shadow' testing the capitated payment to determine a baseline cohort. Information collected during the 'shadow' year would also help commissioners and providers determine the likely number of patients entering and exiting the pre-determined patient cohort within the year.

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[17] www.londonhealthcommission.org.uk/wp-content/uploads/Allocation-and-payment-innovation.pdf
[18] http://integration.healthiernorthwestlondon.nhs.uk/chapter/what-population-groups-do-we-want-to-include-
[19] www.england.nhs.uk/wp-content/uploads/2014/09/ipc-prospectus-updated.pdf

If a patient meets the selection criteria then they are automatically included in the capitated payment. For the provider, participation of patients in the capitated payment approach is not voluntary. The commissioner needs to own and manage the selection criteria to avoid providers cherry picking patients.

Up-to-date patient information would be required to maintain accurate validated lists for capitated payment. For example, patients will exit the cohort list if they have moved out of the area or died (regardless of the selection method). Similarly, patients will be added to the cohort list for clinical reasons. Consideration would need to be given to which organisation (eg capitated budget holder) would hold the register to meet information governance requirements.

Local care economies could in theory design several capitated payment approaches, covering different (non-overlapping) population cohorts (eg patients with a single long term condition and patients with multiple long term conditions not including that single condition). In this case, a local care economy could follow the approach to defining each cohort described above.

b) Defining services to be covered by capitation

In order to maximise the potential for capitation to support local integrated care initiatives, it is important for capitated payment to cover, as far as possible, all types and settings of care that the target cohort receive, including primary, community, mental health, acute and social care, as well, as possibly, some public health care. This may, however, not be feasible in the short term, due to, for example difficulties in co-ordinating several types of commissioners across different care settings and types of care. At present, using a single contract that involves primary care and other NHS care presents contractual challenges. However, it is possible to align contracts via an 'umbrella agreement'.[20] For this reason, in the short term, capitation in the form described here may not be able to include the following from the start:

- NHS England commissioned primary care services
- NHS England commissioned specialist services and or
- local authority-funded social care services.

However, work is under way within NHS England to develop new contract forms which could address this issue, and the introduction of the Better Care Fund lays the groundwork for more widespread pooling of health and social care commissioning budgets.

The approach described here regards a single capitated payment covering all (or most) of the care needs of the selected population cohort, rather than a set of coexisting capitated payments covering each an aspect of the care needs of each

[20] Please see 'Commissioning and contracting' below for more information

individual (eg one capitated payment for primary care, another for acute care, etc). This is because the latter would not incentivise greater co-ordination and more prevention from the various providers, as each provider would instead be incentivised to shift the patient's care and associated costs to another care setting.

Although it may not be feasible to include all service areas immediately, it could be helpful to collect and link patient level data for all care settings if possible, as this may help commissioners and providers to understand resource and cost flows in the local health and social care system. Please refer to the data section under 'Key enabling factors' for more information on linking patient data.

It may also make sense to exclude some very low frequency and very high cost services from the capitated payment to facilitate risk management (see subsection on 'Risk mitigation mechanisms' below).

We encourage you to download and read the accompanying examples from other countries of the use of capitated payment,[21] which show the approach taken by a number of programmes (eg Accountable Care Organisations; Medicare Advantage) to segmenting the population and identifying the patient cohort and types of services to be covered by the capitated payment.

Finally, it is worth stressing that capitated payments are compatible with Personal Health Budgets,[22] as shown in Figure 2 which presents three possible approaches:

1) The green arrows show how an individual could be given a Personal Budget and/or a Personal Health Budget, but the rest of the payment system stays the same (ie no capitation).

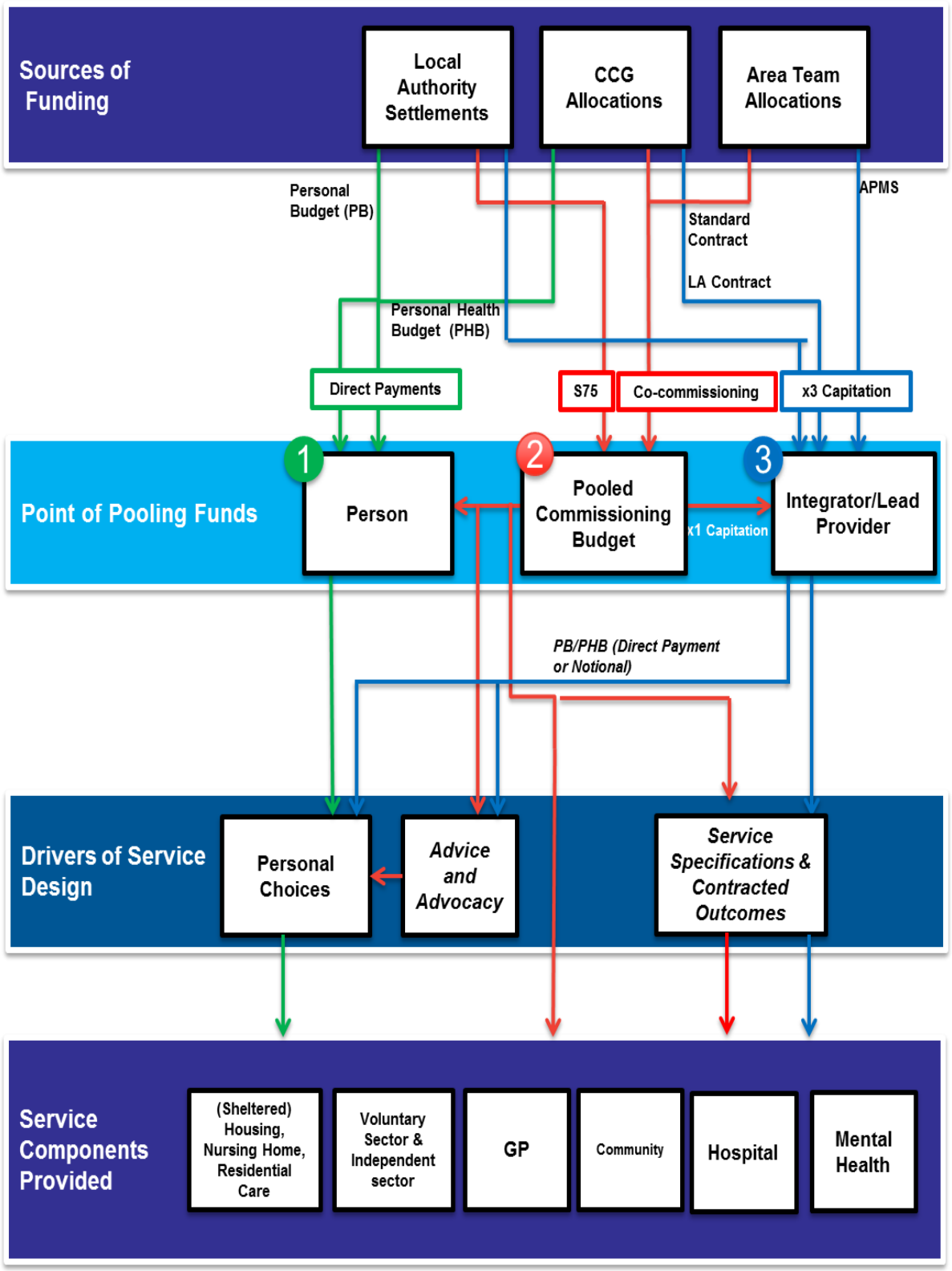
2) The red arrows present how the entire commissioning budget for each individual of the selected population cohort could be pooled, and then split between a Personal Budget and a capitated payment (which will fund the care not covered by the Personal Budget).

3) The blue arrows illustrate how all the commissioning budget for each individual of the selected population cohort could be pooled into a capitated payment (aimed at covering the entirety of each individual's care needs). Some of this capitated payment could then be given to the individual as a Personal Budget (direct payment or notional budget).

[21] https://www.gov.uk/government/consultations/national-tariff-payment-system-201516-a-consultation-notice

[22] See Section 3 of '2015/16 National Tariff Payment System: A consultation notice', available at: https://www.gov.uk/government/consultations/national-tariff-payment-system-201516-a-consultation-notice.

Figure 2: Possible funding flows for capitation and Personal (Health) Budgets



c) Selecting a method for determining the price

A capitated payment is calculated as the per person per year price, estimated as the forward-looking average annual cost, of the selected cohort. The method for determining prices to be used in a capitated payment can be adjusted over time depending on how long the capitation arrangement has been in place and how far it has developed.

An approach appropriate for determining price for a well-established mature capitation arrangement could be as follows:

- The price would be based on the average historical (actual) provider cost of caring for patients in the cohort. More specifically, the price per capita could be based on benchmarked patient-level cost data, across the different settings and types of care. Please see 'Key enabling factors' below for further detail.
- In addition to using historical (actual) provider cost, the price per patient could be adjusted for factors such as relevant (local) trends, assumptions and forecasts regarding the needs of the selected patient cohort, and the related cost of delivering their care. Aspects to consider for this cohort-level complexity adjustment include demographic trends (eg age), health factors (eg disease profile), patient activation and socio-economic factors (eg deprivation) that could impact on the size and complexity of the patient cohort.
- Annual growth rates of the price per capita should be locked in for the duration of the contract, so the provider can be certain of what income to expect. Growth rates could be based on commissioner allocations or locally agreed efficiency and cost uplift factors. Having longer term certainty about future income helps to encourage providers to invest in proactive, community-based services, including prevention measures to keep patients healthy and reduce the need for more expensive hospital based services.
- These pre-specified growth rates can take into account benchmarked expected improvements in productivity and changes to input costs.
- The list of eligible patients could be updated quarterly, to account for patients who should be taken off and those to be added, as noted above.

This approach to determining the price in a well-developed capitation arrangement has demanding information and capability requirements, such as the ability to link patient-level data across all types of care and collect robust patient-level costs of care provision. These capabilities are unlikely to be advanced in most local care economies today and may take a number of years to develop. In addition, meaningful benchmarking will require uptake and capability building across a sufficient number of local areas.

However, interested local care economies do not need to delay starting the move towards capitation until all the building blocks of a well-developed capitation model are in place. A local care economy could start designing and shadow testing the capitated payment model while developing the various enabling capabilities, and then refine the payment model over time as more robust information becomes available.

Local commissioners and providers interested in starting to move towards capitation now could use the following approach for determining the capitation price, which takes into account the features of the mature approach described above:

- The price per capita could be based on estimated average commissioner spend per patient. In the absence of a local patient-level linked dataset, Monitor's Care Spend Estimating Tool[23] can provide initial estimates of commissioner spend on specific population segments (eg adults with multiple long term conditions). Figure 3 below presents a snapshot of the outputs of this tool. In addition, the Long Term Conditions Year of Care Commissioning Simulation Model[24] can help in determining the appropriate level of local capitated payment for people with long term conditions, depending on need, disease progression, service interventions and expected spend. It is important that these estimates are tailored and sense-checked using local data,[25] and that the likely margin of error of these estimates is reflected in the agreed price for the capitated payment. Please see 'Key enabling factors' below for further information.

[23] https://www.gov.uk/government/publications/estimating-nhs-and-social-care-spend-a-tool-for-commissioners
[24] www.nhsiq.nhs.uk/improvement-programmes/long-term-conditions-and-integrated-care/ltc-year-of-care-commissioning-model/long-term-conditions-year-of-care-commissioning-simulation-model.aspx
[25] For instance, the Alzira model (Spain) added a 20% efficiency target to historical spend figures, and index prices over time to the equivalent of the commissioner allocation.

Figure 3: Example output of the Care Spend Estimating Tool – estimated total and average cost per patient cohort

Projected Total and Average Costs

Total Costs

Chart Area

	Year 0	Year 1	Year 2	Year 3	Year 4
Total Costs	105,470,183,824	109,360,771,816	113,400,738,748	117,616,800,646	121,974,329,797
Child_Mostly healthy	5,271,856,933	5,481,497,596	5,699,474,829	5,928,317,719	6,164,063,202
Child_1LTC	867,897,769	902,410,592	938,295,851	976,088,227	1,014,903,352
Child_2+LTC	125,971,503	130,980,886	136,189,471	141,637,658	147,270,021
Child_SEMI	288,348,027	299,814,475	311,736,897	324,192,292	337,084,123
Child_Dementia	0	0	0	0	0
Child_Cancer	161,445,259	167,865,292	174,540,623	181,487,994	188,705,045
Child_LearnDis	0	0	0	0	0
Child_PhysDis	0	0	0	0	0
16-69_Mostly healthy	18,923,378,244	19,482,034,217	20,057,182,831	20,655,154,634	21,264,936,109
16-69_1LTC	12,460,912,874	12,828,783,944	13,207,515,304	13,600,655,711	14,002,174,268
16-69_2+LTC	10,741,898,498	11,059,020,825	11,385,505,238	11,723,717,276	12,069,824,858
16-69_SEMI	4,677,803,068	4,815,901,171	4,958,076,205	5,105,264,440	5,255,982,057
16-69_Dementia	740,459,563	762,319,410	784,824,604	808,008,553	831,862,582
16-69_Cancer	5,127,728,422	5,279,109,220	5,434,959,083	5,596,062,253	5,761,269,203
16-69_LearnDis	0	0	0	0	0
16-69_PhysDis	0	0	0	0	0
70+_Mostly healthy	4,852,876,117	5,070,712,021	5,298,326,142	5,536,633,729	5,785,162,144
70+_1LTC	6,219,683,197	6,498,872,336	6,790,593,718	7,096,138,605	7,414,670,075
70+_2+LTC	15,322,019,852	16,009,794,680	16,728,442,343	17,481,416,442	18,266,122,264
70+_SEMI	1,004,348,611	1,049,431,812	1,096,538,707	1,145,902,807	1,197,340,092
70+_Dementia	8,480,582,019	8,861,258,385	9,259,022,551	9,675,203,045	10,109,503,560
70+_Cancer	10,202,973,866	10,660,964,957	11,139,514,352	11,640,919,260	12,163,456,843
70+_LearnDis	0	0	0	0	0
70+_PhysDis	0	0	0	0	0

Average Cost

	Year 0	Year 1	Year 2	Year 3	Year 4
Child_Mostly he	549	563	576	591	605
Child_1LTC	1,014	1,039	1,064	1,090	1,117
Child_2+LTC	3,259	3,339	3,420	3,504	3,590
Child_SEMI	3,756	3,847	3,941	4,038	4,136
Child_Dementia	0	0	0	0	0
Child_Cancer	18,182	18,626	19,080	19,547	20,024
Child_LearnDis	0	0	0	0	0
Child_PhysDis	0	0	0	0	0
16-69_Mostly he	737	755	773	792	812
16-69_1LTC	1,394	1,428	1,463	1,499	1,536
16-69_2+LTC	2,940	3,011	3,085	3,161	3,238
16-69_SEMI	9,682	9,918	10,160	10,410	10,664
16-69_Dementia	23,240	23,807	24,388	24,984	25,593
16-69_Cancer	3,601	3,689	3,779	3,872	3,966
16-69_LearnDis	0	0	0	0	0
16-69_PhysDis	0	0	0	0	0
70+_Mostly hea	2,507	2,568	2,631	2,695	2,761
70+_1LTC	2,869	2,734	2,801	2,870	2,940
70+_2+LTC	5,522	5,657	5,795	5,937	6,082
70+_SEMI	15,261	15,633	16,015	16,408	16,808
70+_Dementia	19,422	19,896	20,381	20,880	21,389
70+_Cancer	6,126	6,275	6,428	6,586	6,746
70+_LearnDis	0	0	0	0	0
70+_PhysDis	0	0	0	0	0

- The annual growth rates of the price per capita should be locked in for the duration of the contract, informed by either Monitor and NHS England's planning assumptions or the analysis of historical efficiency and cost uplifts in the National Tariff / Payment by Results.

- The list of eligible patients could be updated yearly.

For further information on determining prices for capitated payments, we have published international examples of capitated budgets[26] including a case study outlining an approach used by Medicare Advantage to determine a capitated payment approach. From England, the analysis of data from Kent's[27] Long Term Condition Year of Care programme and of Somerset's project symphony[28] could also provide a relevant example of some of the early steps to designing capitated payment.

Individual patient complexity adjustment

A number of capitation models used by care systems in other countries determine a separate price for each individual person in the cohort in question. In such cases, the price for the care of each individual is often adjusted to reflect their expected costs, based on a number of risk factors ('risk adjustment'). Paying providers a higher price

[26] https://www.gov.uk/government/consultations/national-tariff-payment-system-201516-a-consultation-notice

[27] www.nhsiq.nhs.uk/resource-search/publications/population-level-commissioning-for-the-future.aspx

[28] www.york.ac.uk/che/news/research-paper-96/

for patients with more complex needs in this way aims to make sure that providers have no financial incentive to 'cherry pick' less costly patients.

However, this method of guarding against cherry-picking by providers does not appear to be as relevant for capitation in the current NHS context, as the capitated budget holder would not have the choice of treating or excluding individual patients if the cohort is linked to GP registration and objective selection criteria. Therefore, rather than using individual patient complexity adjustments, the risk of 'cherry picking' could be tackled using commissioning requirements (eg requirement to provide care to all patients identified in the capitation population cohort).

As well as not being immediately relevant in the NHS context, individual patient complexity adjustment would also make implementing capitated payments more complicated because commissioners and providers would have more to negotiate concerning the frequency with which payment flows and cohort data were updated.[29]

The need for some form of adjustment for individual patient complexity to protect providers from undue financial risk rises where capitated cohorts of patients have care needs (and related costs) that are highly variable. It seems less necessary where a local price is calculated for a local group of patients selected for their relatively homogeneous care. Where the patient cohort is significantly heterogeneous, a few risk bands could be used to benchmark the locally calculated prices, based on clear and objective criteria (eg clinical or social needs), with each band associated with significantly higher expected costs than the lower one. Monitor's Care Spend Estimating Tool[30] can provide estimates (of average annual cost per patient for different cohorts) which may be helpful for this purpose.

In three to five years if/when capitation is more widely used and there are sufficient patient level linked datasets available, Monitor and NHS England may look to develop a complexity adjustment formula as a means of sharing any identified risk arising from variability in patient complexity between providers and commissioners. Monitor and NHS England will be analysing the factors of this possible formula with the IPC and other demonstrator sites.

d) Planning financial risk mitigation mechanisms

The success of a capitation model relies on the capacity of the capitated budget holder to manage financial risk for the selected patient cohort. However, some rare events that are not easily preventable, such as organ transplants, may have very high costs. Such events constitute a financial risk that may be better managed at the commissioner level. Both prospective and retrospective financial risk mitigation

[29] In the future, if there is competition between capitated budget holders for patients, the need for individual risk adjustment would need to be revisited.

[30] https://www.gov.uk/government/publications/estimating-nhs-and-social-care-spend-a-tool-for-commissioners

mechanisms are available to address this kind of risk. These two approaches are not mutually exclusive, but rather are complementary and can be used together.

Prospective risk mitigation. A prospective approach relates to the selection of the services and types of care that are covered by the capitated payment.

As outlined in subsection a) above, when introducing capitated payment to promote local integrated care initiatives, it is beneficial to include as many services and care providers involved in the initiatives as possible. Including spend on all care settings as part of a capitated payment approach allows providers to manage financial risk and quality more equally across all services accessed by patients. It also allows any financial benefits to the local care economy gained from better prevention to be realised by the capitated budget holder. Nonetheless, certain types of high cost expenditure services might need to be excluded due to the difficulties providers may experience in managing financial risk and the impact this could have on managing quality across a range of providers. For example, the following may be excluded:

- high cost drugs and devices currently paid on pass-through[31] or covered by the Cancer Drugs Fund and
- highly specialised services such as gamma knife, organ transplants and secure mental health.

As co-commissioning between NHS England specialist commissioning and CCGs is developed, this list of prospectively excluded services could be adapted.

Retrospective risk mitigation. A retrospective approach consists in excluding from the capitated payment *ex post* (eg at the end of a financial period) patients with much higher single costs of care than were included in the average cost projection (eg costs of £50,000 and above). A similar approach could be applied to unanticipated costs arising from 'catastrophic' events (eg major natural disasters). Excluding these outliers and events would entail the commissioner reimbursing the capitated budget holder for the costs incurred because of the episode above an agreed threshold.

These two approaches (prospective and retrospective) are not mutually exclusive, but rather are complementary and can be used together.

e) Designing provider to provider payments

Beyond the capitated payment itself, the payment flows between the capitated budget holder and the other providers (ie sub-contractors) need to be carefully designed.

These provider-to-provider payments could be based on the volume of activity undertaken by the sub-contractors, which entails thorough activity reporting and monitoring, underpinned by robust data. This is particularly important when one or

[31] ie costs incurred are directly reimbursed

several of these other providers (eg a community health provider) is expected to see its level of activity increase significantly as the capitated payment encourages the delivery of care in the most cost-effective setting. In these cases, it is crucial that such providers both report on their activity accurately at a patient level and receive payment for undertaking all activity, including any increase.

Activity reporting may also be helpful for commissioners to ensure that they do not pay twice for the same service(s).

However, it is likely that in the short term, a number of providers will not collect robust and nationally standardised activity data (see 'Key enabling factors' below). In these cases, it is possible that the quality of activity data will not be strong enough to serve as a basis for payments and that a block payment with an accompanying payment for performance might work instead. But in all cases it remains important that at least local measures of activity are reported and monitored. Such block payments possibly with an accompanying payment for performance may also be needed for small third-sector providers to manage cash flow.

In addition, mechanisms (eg financial gain/ loss sharing) could be put in place to ensure that the commissioner does not pay twice (ie to the capitated budget holder and another provider) for the same services.

f) Defining financial gain/loss sharing arrangements

Providers and commissioners need to consider what financial gain/loss sharing mechanisms to include in the capitated payment design.

For instance, Accountable Care Organisations ('ACOs' in the United States) uses a capping mechanism (known as a 'stop-loss'). This sets maximum losses for the capitated budget holder, beyond which the commissioner takes on the rest of any financial loss relating to the capitated budget. This cap is progressively extended over time, as the capitated budget holder builds up financial risk management capacity.

Further information is available in the international capitation case studies.[32]

g) Defining quality and outcomes incentives

Monitoring quality and outcomes is crucial for the success of a capitated payment approach, to ensure that the financial incentive created by this approach does not encourage the capitated budget holder to restrict access or reduce the quality of the care delivered. From the outset, it is important that commissioners put in place mechanisms to ensure that performance and financial risks are managed appropriately. This would entail, for instance, monitoring quality and outcomes (including access to care); see 'Key enabling factors' below for further detail.

[32] https://www.gov.uk/government/consultations/national-tariff-payment-system-201516-a-consultation-notice

Performance on quality and outcome measures could also be incorporated in the payment approach. For instance, a percentage (eg 3-5%) of the total amount paid to the capitated budget holder could be made conditional on specific, pre-determined targets being achieved. Targets could for instance relate to the clinical quality of care, patient experience (including waiting times) and patient involvement in decision-making (including choice). Table 2 in 'Key enabling factors' below presents examples of metrics which could be used to set such targets. Local care economies could consider how other incentive schemes such as CQUIN could be adapted locally to achieve this. For example, the South Devon and Torbay IC Pioneer site have developed an adaptation to CQUINs across providers for this purpose.

In addition to indicators incorporated into the payment approach, quality and outcome standards need to be maintained, to ensure that providers do not have a perverse incentive to reduce access to care, quality and/or patient experience.

Key enabling factors

Summary

Two key factors for enabling a capitated payment to achieve its potential benefits are the governance of any integrated care initiative supported by capitated payment arrangement and the quality of data underpinning it.

A wide representation of health and social care organisations within the governance structure is likely to lead to more service reform. The governance structure should also actively monitor performance, manage financial risk and consistent adherence to care delivery.

The quality of data captured in patient level linked datasets will allow commissioners to:

1. identify level of resource required
2. calculate average cost per patient
3. set the capitated payment at an effective level.

This section outlines practical tools and user guides that can be used by commissioners and providers at different levels of development.

Monitoring of activity, costs, quality and outcomes is crucial to enable the success of capitated payment. These indicators could also be used for benchmarking purposes.

A number of key enablers have been identified that will support the implementation of a capitated payment approach for an integrated care model. Local care economies will need to establish two core sets of enablers around governance and data, which are discussed in turn below.

a) Governance

Engagement and coverage

For a capitated payment approach to be successful there is a need to ensure engagement and sign up from providers and commissioners. In some areas, the early engagement in the context of the Better Care Fund[33] programme may constitute a starting point. For example, the Southend Long Term Conditions Year of Care site has used this approach to progress their implementation of the local initiative. The wider the representation of the health and social care organisations that are involved in the local integrated care initiatives, the stronger the governance arrangements need to be to support the full breadth of the locally determined service reforms. Wide representation could include for example, voluntary organisations and wider public services such as housing, as well as the various commissioners, providers and patient groups involved in and impacted by the local initiative. It may also include development of broader commissioning arrangements involving CCGs and NHS England.[34] Developing such wide representation and any broader commissioning arrangements may, however, take significant time. Some ways in which local areas could start to generate engagement in the short term include:

- the pooling of budgets[35], overseen by the Health and Wellbeing Boards, which would support integrated working across health and social care organisations
- establishing a decision-making board for providers and clear service level agreements between them.[36]

Performance management

The governance structure should monitor performance and support innovative practice by:

- commissioners undertaking regular (for example monthly or quarterly) monitoring, including leading indicators that provide early warning of unexpected demand patterns
- providers undertaking regular data (activity, cost and quality) validation exercises focusing on completeness and accuracy as well as looking for risks and issues (such as risks and issues around safety and/or quality)

[33] Better Care Fund Planning Support Pack 2014: http://www.england.nhs.uk/wp-content/uploads/2014/09/making-it-better-v4.pdf
[34] NHS England- Proposed next steps towards Primary Care Co-commissioning: http://www.england.nhs.uk/wp-content/uploads/2014/09/nxt-stps-to-co-comms-fin.pdf. Further guidance to be published in November 2014
[35] The Audit Commission- Clarifying Joint Financing Agreements and Means to an End- http://archive.audit-commission.gov.uk/auditcommission/sitecollectiondocuments/AuditCommissionReports/NationalStudies/ClarifyingJointFinancing4Dec08REP.pdf
[36] http://integration.healthiernorthwestlondon.nhs.uk/chapters

- identifying and spreading best practice across local integrated care initiatives
- supporting and developing innovation and improvement. This can be achieved using:
    - Plan, Do, Study and Act cycles to test an idea by temporarily trailling a change and accessing its impact[37]
    - testing and learning from sites
    - evaluation (please see 'Evaluation' below for further information).

Locally a number of sites (eg Integrated Care Pioneers; Long Term Condition Year of Care Early Implementers) have developed effective governance arrangements:

- North West London have included lay members on all their workstreams
- South Devon and Torbay Joined Up Care Board have widened the membership to include hospice services.

b) Data

Insights from patient-level linked datasets

Linking good quality patient-level data across the different providers and types of care is a key enabler to designing a successful capitated payment model. In particular, such datasets enables local commissioners to:

- identify the most significant predictors of resource needs (and related costs), which could be used to segment the population into specific cohorts
- calculate the average cost per patient and analyse the homogeneity of each cohort in that regard
- based on the above, select the patient cohort to be covered by the capitated payment, and inform the price per capita and
- assess the minimum (capitated) population size to minimise the risk due to individual patient variances.

In addition, linked datasets facilitate the information reporting necessary for the implementation of this payment approach, as mentioned below.

One short term approach for areas which do not have linked datasets yet could be to use Monitor's Care Spend Estimating Tool[38] and/or the Long Term Conditions Year

[37] www.institute.nhs.uk/quality_and_service_improvement_tools/quality_and_service_improvement_tools/plan_do_study_act.html
[38] www.gov.uk/government/publications/estimating-nhs-and-social-care-spend-a-tool-for-commissioners

of Care Commissioning Simulation Model[39] to inform the design of a capitated payment which is then shadow tested while a local linked dataset is built.

At a minimum, patient-level linked datasets should include activity information and related cost estimates. Ideally, in addition to compiling more robust information, these datasets would also include quality and outcomes measures. Such data reporting is even more important under a capitation model than other approaches. The key components (activity; cost; quality and outcomes) are described in turn below.

Activity

Activity reporting and monitoring is crucial to the success of a capitation approach, as it serves two key purposes:

- It enables the commissioner(s) and the capitated budget holder to assess whether some of the activity is shifting (eg from hospital to community setting) as intended following the implementation of the new payment and care delivery model.
- It allows the rapid identification of areas where activity may be decreasing, which makes it easier to ensure that the providers are not restricting access to care ('cherry picking' patients or reducing the volume of care provided).

In some areas, detailed activity data will be easily available (eg acute health). However, in other care settings or types of care (eg community health[40]; social care), activity data may be less readily available. In these cases, at a minimum the number of points of contact with the care system must be collected for each patient. Local solutions are being developed to this, for example, the Southend Long Term Conditions Year of Care site has used this approach..

Cost

It is also important that cost and commissioner spend figures are attached to the activity data described above. A mature capitation approach could capture two types of information:

- provider cost data to capture the actual cost of delivering care: such data provides insight for the budget holder into the most effective and efficient provision of care, and where potential gains may be realised

[39] www.nhsiq.nhs.uk/improvement-programmes/long-term-conditions-and-integrated-care/ltc-year-of-care-commissioning-model/long-term-conditions-year-of-care-commissioning-simulation-model.aspx

[40] The Community Information Data Set (CIDS) is a patient level, output based, secondary uses data set for community services, which is due to be rolled out in the near future: www.hscic.gov.uk/comminfodataset

- commissioner spend figures provide helpful information to estimate the baseline trajectory in the absence of capitation.

To ensure that the capitation price estimates are reliable and for performance management purposes, provider cost and commissioner spend figures could be attached to each unit of activity. A mature approach could be to collect patient-level cost data by provider. For instance actual patient-level information and costings for acute providers, and approximate figures for out of hospital care (for example, this could be estimated using reference costs). These could then be aggregated (for each setting and type of care) for benchmarking purposes.

For instance, Kaiser Permanente (Medicare Advantage, United States) collects patient-level costing information, which is then used to estimate total annual costs for each patient which are benchmarked using a number of registries (eg age, long term condition profile, place of residence).

However, nationally standard units of activity do not exist yet outside the hospital setting and mental health clusters. Until these are available, commissioners and providers should agree local definitions. Work is also underway to set national costing standards to allocate costs to units of activity consistently across providers and care settings.

Although a mature approach could rely on actual patient-level cost data, until these are collected a short term approach could be to use commissioner spend data, as well as reference costs. In particular, the units of activity used to collect reference costs could constitute a starting point to locally agree a method to report and monitor activity and costs.[41]

At a minimum, the commissioner could calculate the average spend per contact (eg 'total spend on community health' divided by 'total number of contacts', regardless of the type of service). The analysis of Kent data as part of the Long Term Condition Year of Care programme could provide a relevant example[42]. However, this method would provide very approximate estimates of both actual commissioners spend, and actual provider cost. Consequently, the commissioner could work with the relevant providers to refine these estimates (for instance, using work hours required as a basis for cost allocation between types of services). However, the approximate nature of such estimates should be taken into account in the design of the payment approach.

Monitor will publish a user guide to building patient-level linked datasets in the near future, which will present further information regarding this short term approach.

[41] Monitor will shortly be publishing a costing roadmap document
[42] www.nhsiq.nhs.uk/resource-search/publications/population-level-commissioning-for-the-future.aspx

Quality and outcomes

There is a need for local care economies to measure quality which can be linked to outcome measures. Quality measures and clinical outcomes to review performance of the care model can be used to promote efficiency by enabling providers to judge the best intervention holistically for an individual or for the population cohort. Reporting and monitoring quality and outcomes is an important way for commissioners to ensure that the capitation approach does not incentivise the capitated budget holder to restrict access to care or reduce quality. Finally, it could promote productive efficiency by incentivising care to take place in the most appropriate setting and investment in care co-ordination. In the longer term, it would be useful to develop standardised national outcomes which could include patient experience/involvement and/or clinical outcomes, adjusted for patient complexity. In the meantime, it would be useful for local sites to identify a core set of indicators to measure quality.

A possible approach could be to have local quality scorecards or dashboards to measure quality and outcomes that can also be used to support a formative evaluation (see ‘Evaluation’ below for more information).

As mentioned in the previous section (defining quality and outcomes incentives), quality and outcome measures can also be used to ‘pay for performance’ which entails a ‘bonus’ payment (or a penalty) based on the performance of a provider (or group of providers) against pre-determined metrics and targets. This could result in the commissioner basing an agreed percentage of payment as a quality bonus. Table 2 below presents an example of such quality measures, used in the Alternative Quality Contract (United States) that could be used as a ‘pay for performance’ approach.

Table 2: Quality and outcomes indicators used in the Alternative Quality Contract[43]

Alternative Quality Contract Ambulatory Quality Measures, Blue Cross Blue Shield Of Massachusetts, 2009

Measure	Gate 1	Gate 5	Weight
PROCESS			
Depression			
Acute-phase Rx	65.3	80.0	1.0
Continuation-phase Rx	49.6	70.0	1.0
Diabetes			
HbA1c testing (2 times)	69.9	83.2	1.0
Eye exams	58.0	72.0	1.0
Nephropathy screening	79.7	91.4	1.0
Cholesterol management			
Diabetes LDL-C screening	85.3	93.8	1.0
Cardiovascular LDL-C screening	85.3	93.8	1.0
Preventive screening/treatment			
Breast cancer screening	77.1	90.0	1.0
Cervical cancer screening	83.5	92.4	1.0
Colorectal cancer screening	65.2	83.3	1.0
Chlamydia screening			
Ages 16–20	45.9	63.7	0.5
Ages 21–24	50.1	67.3	0.5
Adult respiratory testing/treatment			
Acute bronchitis[a]	—	—	1.0
Medication adherence			
Digoxin monitoring	83.9	91.6	1.0
Pediatric testing/treatment			
Upper respiratory infection	90.6	97.7	1.0
Pharyngitis	83.1	99.6	1.0
Pediatric well-care visits			
<15 months	91.8	99.3	1.0
3–6 years	85.5	99.2	1.0
Adolescent well-care visits	60.0	87.7	1.0
OUTCOMES			
Diabetes			
HbA1c poor control	45.0	4.7	3.0
LDL-C control (<100 mg)	33.4	75.6	3.0
Blood pressure control (130/80)	30.9	47.3	3.0
Hypertension			
Controlling high blood pressure	71.6	82.5	3.0
Cardiovascular disease			
LDL-C control (<100 mg)	33.4	75.6	3.0
PATIENT EXPERIENCE			
Patient experience (c/G CAHPS/ACES)—adult			
Communication quality	91.0	98.0	1.0
Knowledge of patients	80.0	95.0	1.0
Integration of care	80.0	96.0	1.0
Access to care	79.0	96.0	1.0
Patient experience (c/G CAHPS/ACES)—pediatric	95.0	97.0	1.0
Communication quality	95.0	97.0	1.0
Knowledge of patients	89.0	93.0	1.0
Integration of care	85.0	91.0	1.0
Access to care	70.0	90.0	1.0

Alternative Quality Contract Hospital Quality Measures, Blue Cross Blue Shield Of Massachusetts, 2009

Measure	Gate 1	Gate 5	Weight
PROCESS			
Acute myocardial infarction			
ACE inhibitor/ARB for LVSD	89.1	98.9	1.0
Aspirin at arrival	98.3		1.0
Aspirin at discharge	98.2		1.0
Beta-blocker at arrival[a]	96.9		1.0
Beta-blocker at discharge	98.5		1.0
Smoking cessation	93.1	99.9	1.0
Heart failure			
ACE inhibitor for LVSD	87.3	98.9	1.0
LVS function evaluation	95.1	100.0	1.0
Discharge instructions	71.4	98.5	1.0
Smoking cessation	88.3	99.6	1.0
Pneumonia			
Flu vaccine	77.8	98.6	1.0
Antibiotics within 6 hours	95.6	99.8	1.0
Oxygen assessment	100.0		1.0
Smoking cessation	86.7	99.8	1.0
Antibiotic selection	87.4	95.4	1
Blood culture	91.0	98.0	1.0
Surgical infection			
Antibiotic received	86.5	98.9	1.0
Received appropriate preventative antibiotic(s)	94.1	99.4	1.0
Antibiotic discontinued	77.9	96.2	1.0
OUTCOMES			
In-hospital mortality, overall	2.15	0.88	1.0
Wound infection	0.30	0.09	1.0
Select infections due to medical care	0.18	0.02	1.0
AMI after major surgery	1.57	0.10	1.0
Pneumonia after major surgery	1.57	0.60	1.0
Postoperative PE/DVT	0.93	0.22	1.0
Birth trauma, injury to neonate	0.20	0.01	1.0
Obstetrics trauma, vaginal without instrument	3.54	1.54	1.0
PATIENT EXPERIENCE			
Communication with nurses	72.6	81.2	1.0
Communication with doctors	78.1	85.5	1.0
Responsiveness of staff	58.4	76.4	1.0
Discharge information	77.7	90.4	1.0

Locally a number of Integrated Care Pioneer and other areas developing an integrated service model have designed quality and outcome measures. This includes tracking patient activation measures, outcome measures for specific population segments (eg diabetic and older people), quality scorecards and staff satisfaction levels (eg Cheshire). Cornwall, South Devon and Torbay and Somerset have developed their own quality dashboards to review performance of their health, care and support model. All three sites have used the National Voices 'I' statements to inform the metrics,[44] A copy of Cornwall quality and outcome measures can be viewed in Appendix 2. The 'Better Care Fund − Technical Guidance'[45] outlines:

- non-elective (general and acute) payment for the performance element of the Better Care Fund (BCF)
- a number of national metrics that support delivery of the BCF
- local metrics, and a patient/ service user experience metric.

Internationally a number of effective quality and outcome measures have been implemented. For instance, Beacon Health Pioneer Accountable Care Organisation uses patient experience as a key success measure. The organisation has identified patient engagement as an important enabler to improve patient outcomes. The focus has been on continuous patient engagement through encouraged self-management and Beacon Patient Advisory Group. Patient experience is considered one of several other key success factors that have improved pressure control for chronic heart failure patients by 9% and HbAiC levels in diabetic patients by 45% in the first year.

Benchmarking

Benchmarking serves two key purposes in the context of a capitated payment model, as it supports both setting appropriate prices and managing (financial and clinical) risk. To achieve this, the various types of information described above (activity, cost, and quality and outcomes) could be benchmarked. A mature approach would entail using consistent measures across several local care economies for:

- activity: this would involve similar definitions of the types of activity locally agreed (whether diagnosis, presentation or treatment based). For instance, where available the units of activity used to collect reference costs may constitute an easier way to ensure consistency across localities
- cost: this entails similar cost objects (which could be the units of activity mentioned above), and consistent methodology to allocate cost to these cost objects

[44] www.nationalvoices.org.uk/person-centred-coordinated-care
[45] www.england.nhs.uk/wp-content/uploads/2014/08/bcf-technical-guidance-v2.pdf

- quality and outcomes: this would require not only consistent metrics, but also similar measurement methodologies and also standardised formula.

In the short term, this could be achieved through the reporting of the same quality indicators from year to year on across different health economies. Some of these quality and outcomes indicators could for instance be some of the ones that are already collected at a national level. A short term approach to benchmark activity and cost for comparable population segmentations (eg patients with multiple long term conditions) would be to start with the benchmark of total annual cost (or commissioner spend) per patient, for the selected cohort, which could then possibly be broken down by care setting and type of care (ie non elective bed-days per person). Regarding quality and outcomes, a short term approach could for instance be to benchmark some of the ones that are already collected at a national level.

It is also worth noting the National Mental Health, Dementia, and Neurology Intelligence Network (MHDNIN) tool launched in June 2014 and integrated care information from NHS Benchmarking[46] could enable users to:

- benchmark their local position with other providers
- better understand data quality and completeness
- support an intelligence-driven approach to commissioning improvements to services.

The Intelligence Hub and Profiling Tools bring together publicly reported indicators about risk factors, prevalence, access to services, outcomes and finance covering a range of mental health and neurological conditions. Further profiling tools relating to Children and Young Peoples Mental Health, co-existing mental health, addictions issues and dementia are under development, and all indicators are being rolled out formally during 2014/15.

Wider considerations

Commissioning and contracting models

For the benefits to be realised, a mature approach could be to:

- have longer contract lengths than is currently the norm, eg, five to seven years[47]

[46] www.nhsbenchmarking.nhs.uk/projects/network-projects.php
[47] A decision on contract duration will need to be taken in line with the framework set down by the s75 regulations

- have a form of contract under which all or most of the services to be covered by the capitated model can be commissioned from a single prime provider (eg, via an APMS-compliant NHS Standard Contract) (on which see below).

NHS England's 'NHS Standard Contract Technical Guidance'[48] already allows for longer term contracts to be put in place, and this may be one of the important levers in moving to capitation-based models. A separate challenge is the need to integrate contractual arrangements across providers, particularly across primary and secondary care, where different contract forms are currently prescribed. Although the NHS Standard Contract is deliberately designed to operate as a prime contract, or ACO contract, under which a single accountable provider is appointed who sub-contracts elements of the pathway or care package to other providers, it cannot on its own accommodate multiple providers or packages of secondary and primary care. The NHS Standard Contract Team at NHS England is currently working on two projects to overcome these challenges:

1. An optional supplement to the NHS Standard Contract, which will render it compliant with the Alternative Provider Medical Services (APMS) Directions[49], and so suitable for use as a prime/ACO contract for a package of primary and secondary care paid for (if desired) on a capitation basis.

2. An 'umbrella' agreement, to be entered into by all providers and commissioners involved in a pathway or care for a defined population. This can tie together their parallel primary and secondary care commissioning contracts, so as to form either an 'alliance' or a quasi-prime contractor/ACO arrangement, either of which may (if desired) be the basis for a capitation-based model.

The intention is to publish both with or shortly after the publication of the 2015/16 NHS Standard Contract.[50]

Invoicing requirements

In summary, the preferred option could be:

- capitated budget holders to invoice commissioners on a quarterly basis and to include actual costs of care (as captured through patient level linked datasets)

- capitated budget holder and subcontracted providers generate bench-marking data that can be compared across local health economies

[48] www.england.nhs.uk/wp-content/uploads/2014/04/tech-guid-march14.pdf
[49] www.gov.uk/government/uploads/system/uploads/attachment_data/file/183370/apms_directions_2013_acc.pdf see Section 3
[50] To be published in December 2014

- cross-charging between capitated budget holder and sub contractors based on actual costs, as scope of services (and therefore income) covered by capitation increases (and so it becomes more important that local is context reflected). Out of area care would still be cross-charged and this could be based on national prices/ national reference costs.

A short term approach could be for:

- capitated budget holders to invoice quarterly, including:
    - submitting activity data for validation
    - updates to registered patient lists
    - actual costs of care (estimated based on activity, national prices or Reference Costs)
- Cross charging between capitated budget holders and sub contractors based on national prices / reference costs

Evaluation

Summary
This section outlines the benefits of undertaking a formative evaluation and the approach that can be used. Quantitative and qualitative research can be used to evaluate the new payment approach through the following measures:

- activity
- cost
- quality and outcome measures (including access, safety and patient experience).

In addition, evaluation enables the identification of enablers and barriers to a capitated payment approach so sharing of evaluation findings is encouraged across the health and care sector as well as with other statutory bodies and patients.

Evaluation is the systematic assessment of the implementation and impact of a service, project, programme or initiative. For providers and commissioners wanting to improve the implementation of any initiative within their local care economy and to identify the degree to which implementation is successful, it is beneficial track

progress, learn from and evaluate the impact. In relation to new payment approaches, providers and commissioners may want to evaluate in order to:

- refine existing payment implementation to deliver optimal results – this will help to ensure flexibility and responsiveness to 'on the ground realities' (eg changing environment)
- identify best practice implementation approaches in order to catalyse innovation and support the roll-out and scale-up of successful approaches
- generate evidence to make robust decisions on payment implementation (eg the benefits being realised are worth the cost/investment).

There are many forms of evaluation that providers and commissioners can use. The approach and methods to the evaluation will depend on the purpose of the evaluation (eg the objectives outlined above), the priorities of the local health economy, as well as the available resources and timeframe. Evaluations should balance theoretical robustness with 'real world rigour'. The investment in evaluation (eg time, resource, money) needs to be proportionate to the potential benefits the evaluation could generate.

Formative evaluation

Formative evaluation is a method of evaluation that is conducted while the payment approach is still in development, and aims to generate rapid learning on how and why things work well, to improve implementation. Ideally formative evaluations are designed alongside the payment approach being designed and implemented. Formative evaluations usually primarily focus on assessing processes qualitatively, and include feedback loops so that implementers can 'learn as they go'. Formative evaluations can make use of monitoring mechanisms that are in place to oversee implementation (eg existing contract or financial monitoring systems). This type of evaluation enablers decision makers to:

- identify the key enablers and barriers that contribute to or hinder implementation
- respond to interim findings on lessons learned and adjust and refine implementation on an ongoing or 'real-time' basis accordingly

Good evaluation design will depend on an appropriate fit between the purpose of the evaluation, the stakeholders' requirement and the available funds. For capitated payment, the formative evaluation must understand during the early stages if the approach being implemented is delivering its key objectives and outcomes or if any unintended consequences have happened as a result. Quantitative data that will support evaluation could include activity, costs, and quality and outcomes information; as discussed in 'Key enabling factors' above.

Qualitative evidence that will support evaluation could include:

- patient feedback and experience
- feedback from relevant staff to understand the enablers and barriers to a capitated payment approach.

For further information you can download and read the RAND, ‘Measuring Success in Health Care Value-Based Purchasing Programs’ (2014).[51]

[51] www.rand.org/content/dam/rand/pubs/research_reports/RR300/RR306/RAND_RR306.pdf

Appendix 1: Benefits of implementing a capitated payment approach and how mitigating factors can be addressed

Description of potential benefit	Identified risks if these benefits are not achieved and how this can be addressed
Can promote primary prevention In the longer term, a capitated payment approach will promote primary prevention by incentive providers to 'keep people healthy' by reducing incidents and overall burden of disease in the population	In the short term, it should be noted that the capitation budget depends on incidence of disease in the first place and any benefits of primary prevention typically take longer to materialise. This could be addressed by: • realising that this benefit will be greatest when a capitated approach is used for a sizeable patient population • having contracts for reasonable durations (eg 3 years or longer), that will allow providers to realise any long term benefits from primary prevention • having metrics for primary prevention explicitly included in the quality assessment framework
Can promote secondary and tertiary prevention Providers are incentivised to treat patients in the most appropriate setting (eg rehabilitation and re-ablement) and reduce the overall cost of treating a condition This would not impact per patient revenue as this is dependant on incidence of disease condition and is paid upfront	For this benefit to be realised, it is important to ensure that providers do not: • restrict access to services • reduce quality of services • cherry pick patients If only some services are covered and other are not (eg primary versus secondary) providers may have an incentive to pass costs on to other providers. These factors could be addressed by: • ensuring the scope includes spend in all care settings (with possible exclusions) as part of the capitated payment so there is an incentive for patients to be treated in the right setting • including measures on quality in payment/ performance framework • benchmarking activity (including key high cost procedures) to identify any anomalies

Can promote allocative efficiency by enabling providers to judge the best intervention holistically for an individual or population This approach will incentive care to take place in the lowest cost setting and hence promotes investment in care co-ordination.	Providers need to be able to successfully manage risk which otherwise might lead to financial distress. This could be managed by: • having an effective risk management approach to mitigate against financial distress. This is particularly important if providers do not have sufficient understanding or capability/ capacity of the activity shifts and risks they are undertaking • ensuring the scope includes spend in all care settings as part of the capitated payment so that allocative efficiency can be captured • having explicit mechanisms to measure the improvements and investments in care co-ordination • reducing provider exposure to unmanageable risk, for instance by excluding the few very high cost patients or procedures (eg highly specialised services; high cost drugs)
Promotes technical efficiency and reduction of factor costs In order to maximise its surplus each provider is incentivised to reduce factor costs and ensure most efficient mix of inputs.	If the commissioner does not have enough transparency into actual costs there is a risk that the tariffs do not reflect the true costs and providers pocket the extra surplus. This could be managed by: • Ensuring reasonable time duration of contracts to allow capture from changes into factor costs and mix of inputs • Ensuring providers submit data on real costs periodically • Using benchmarks for similar segments of population in different regions to review costs

[Table continues on next page]

Promotes investment in productivity and innovative solutions Promotes innovation and incentivises providers to change the productivity frontier as they have flexibility to invest	Providers may not invest if the contract period is too short or if they feel they will not be able to reap the benefits of any long term investment. This could be managed by: • paying part of the budget upfront to provide stability for providers to invest • ensuring reasonable time duration of contracts to allow capture value from changes into factor costs and mix of inputs

Appendix 2: Outcome framework from Cornwall (Penwith) Integrated Care Pioneer site

Outcome 1 – Improved health and wellbeing	Outcome 2 – Improved experience of care and support	Outcome 3 – Reduced cost of care and support
Strategic metrics		
- Equitable health life expectancy - Improved quality of life	- Improved experience of people - Improved quality of service	- Reduced per capita cost - Reduced whole system cost
Intermediate metrics		
Physical health	Experience of people	Cost of unplanned acute activity for Penwith Cohort
- Living Well Scale (Rockwood Frailty)	- University of Plymouth focus groups	- Cost/no of unplanned acute admissions
Mental health	- Qualitative narrative of peoples stories	- Cost/no of emergency department attendances
- Warwick-Edinburgh Mental Wellbeing Scale (adapted)	Experience of carers	- Cost/no of outpatient appointments
- Carers Quality of Life Scale	- University of Plymouth focus groups	- Cost/no of emergency readmissions
Social health	- Qualitative narrative of carers' stories	- Cost/no of delayed discharges
- Qualitative narrative of peoples stories	Experience of practitioners	Cost of planned (elective) activity for Penwith cohort
- Circles of support	- Qualitative focus groups on practitioners experience (University of Exeter)	- Cost/no of elective activity (are we seeing an increase in elective)
Goals and aspirations	- Local area whole system workforce profile	Cost of community activity for Penwith Cohort
- % who achieve their goal/aspiration	- Qualitative narrative of practitioners stories	- Cost/number of unplanned community admissions
Social capital	- Volunteers motivation and impact (University of Exeter)	- Cost/no of district nurse services
- No of people on the programme who become volunteers	Quality of service	- Cost/no of community matron services

No of processes removed

Safety

- TBC

- Cost/no of therapy services
- Length of stay in community services
- Cost/no of Minor Injuries Unit attendances

Cost of equipment

- No of telehealth and telecare (are we seeing an increase in take-up)

- No of people receiving equipment

Penwith – operational delivery metrics

Referrals

- No of referrals
- Source of referrals
- Reason for referral
- % people who decline Living Well intervention

Service delivery

- Time from guided conversation to starting improvement journey
- Length of time in the 'intensive' phase of Penwith programme
- Unmet need identified from guided conversations

Additional services

- % of unmet need met
- No and description of additional courses/services created

Service delivery

- Percentage of guided conversations completed
- No of volunteers recruited
- No of formal volunteer hours

Cost of mental health activity for Penwith cohort

- Cost of mental health services for locality population
- Cost of Improving Access to Psychological Therapies (IAPT)

Cost of social care for Penwith cohort

- Cost of ongoing social care packages
- No of ongoing social care contacts
- No of social care re-assessments as a result of changes in eligible need
- No of short-term placements in residential care
- Cost/no of Early Intervention Service packages
- Cost/no of Short-Term Re-ablement packages

Cost of primary care for Penwith Cohort

- Cost/no of GP contacts
- Cost/no of practice nurse contacts
- Cost/no of out of hours GP contacts

Cost of voluntary sector support for Penwith cohort

- Cost of paid Age UK intervention (to include

travel costs)
- Cost of volunteer intervention

Cost of prescribing for Penwith cohort
- Cost of primary care prescribing
Cost of SWAST for Penwith cohort
- Cost of ambulance transmission