

**Reimbursement  
of urgent and  
emergency care:  
discussion  
document on  
options for  
reform**



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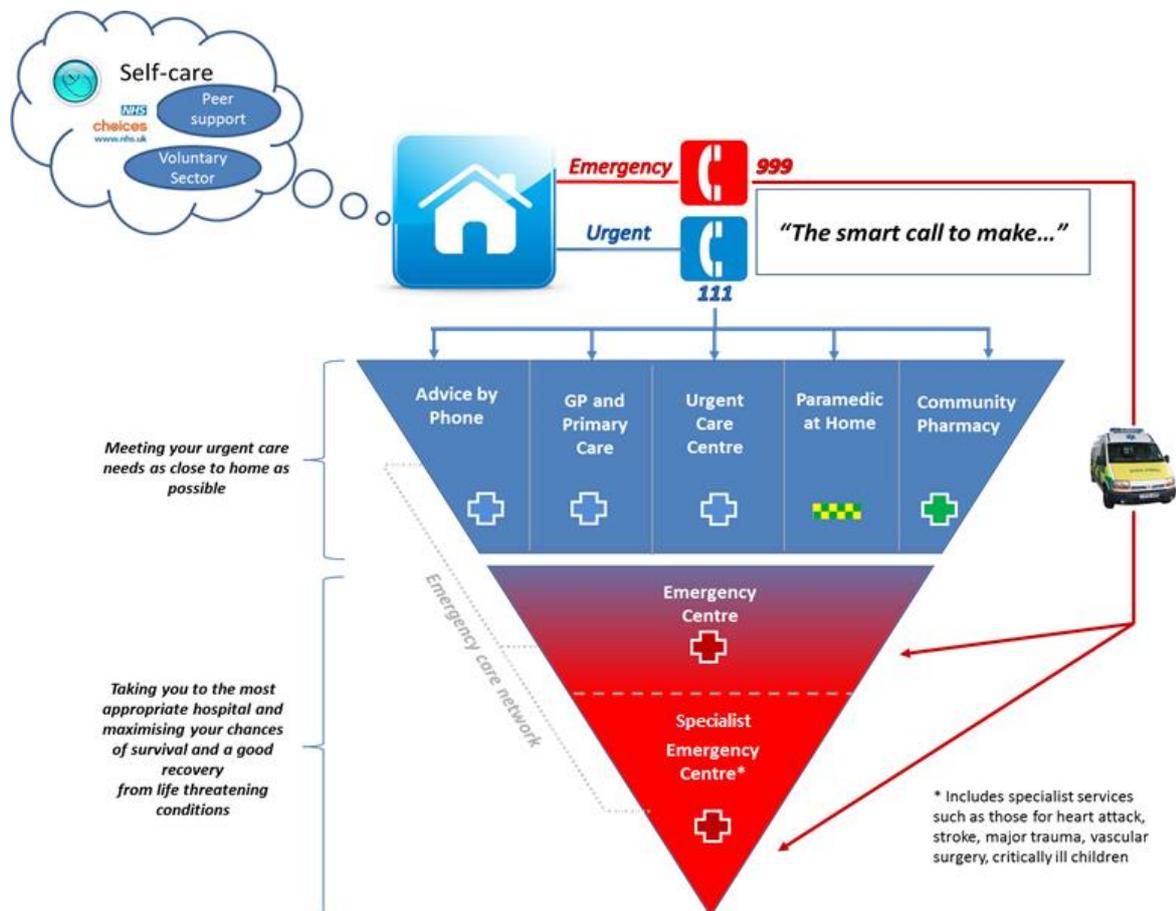
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## Summary

NHS England’s review of urgent and emergency care (the ‘UEC Review’)<sup>1</sup> described a vision for a new way to deliver urgent and emergency care as a co-ordinated system. In any given locality, the envisaged system comprises all the providers and components of care delivery that lie along urgent and emergency patient pathways, from first contact to specialist emergency care and including all patient ‘touch points’ in between (see Figure 1). In the UEC Review, NHS England recommends:

- delivering care closer to the home and even within it where safe
- a move towards planned care to prevent urgent needs from arising
- better access for patients to specialist advice and specialist care when needed.

**Figure 1: A new vision for the urgent and emergency care system**



<sup>1</sup> Phase 1 report of NHS England’s review of urgent and emergency care led by Professor Sir Bruce Keogh (the ‘UEC Review’) (November 2013) ‘Transforming urgent and emergency care services in England – Urgent and Emergency Care Review End of Phase 1 Report’. NHS England has also published an update on the review (August 2014) ‘Transforming urgent and emergency care services in England – Update on the Urgent and Emergency Care Review’.

NHS England and Monitor recognise that a new approach to reimbursing urgent and emergency care ('UEC') services could make this vision more achievable. A consistent approach to payment for all providers in the system that recognises the 'always-on' nature of UEC services, and where individual providers share in the financial effects of their actions on the system as a whole, would be a powerful spur for the system to provide better quality, co-ordinated care for patients within the budget available.

We are developing such an approach. Although still some way from presenting detailed designs for formal consultation, we are developing options for a new UEC payment approach that would combine:

1. a **substantial proportion of fixed core funding**, to reflect the 'always-on' nature of the services and to concentrate providers' and commissioners' attention on planning capacity across the system to specified minimum access and quality standards, in line with the UEC Review vision
2. a **proportion of volume-based funding**, to make it possible for individual providers across the system to manage unpredictable fluctuations in demand and to share in the financial impacts of their actions on the system as a whole, as well as to enable risk to be allocated between providers and commissioners in a way that supports the behaviours needed to achieve the UEC Review vision
3. using **provider-specific and system-wide quality metrics** as eligibility criteria for different rates of fixed and volume-based funding, and as the basis for bonuses and penalties, to support service change and promote quality improvement.

In this document NHS England and Monitor set out our current thinking on options for reforming the UEC payment approach<sup>2</sup> for comment and feedback. This is supported by the findings from our research and analysis so far, including our 2013 review of the marginal rate rule for emergency admissions. The options presented in this paper identify a longer term solution for payment for urgent and emergency care, one where the marginal rate rule in its current form may not be required. However, all final proposals regarding payment design for urgent and emergency care will be determined through our formal tariff engagement processes.

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<sup>2</sup> This document follows the publication in May 2013 of the NHS England and Monitor discussion paper 'How can the NHS payment system do more for patients?'. In that document we argued that the reformed payment system should be designed around the types of patient needs, and that the payment approach that is most effective in achieving quality of care and better value for patients could vary according to the context of care.

The document is structured as follows:

- Section 1 summarises the case for reforming the UEC payment approach.
- Section 2 describes a suggested payment approach, including the supporting evidence and analysis.
- Section 3 sets out preliminary options for implementing a new payment approach to support improved delivery of UEC.
- Section 4 describes the next steps for our work.

In this document we also set out questions on the topics covered. We invite all interested stakeholders to respond to the questions [online here](#) and to send any further evidence by email to [pricing@monitor.gov.uk](mailto:pricing@monitor.gov.uk) by 5pm on Tuesday 9 September. In addition, we intend to further develop payment options in close collaboration with commissioners and providers working on implementing recommendations of the UEC Review. If you would like to take part in this, please express your interest by writing to [england.paymentsystem@nhs.net](mailto:england.paymentsystem@nhs.net) and [pricing@monitor.gov.uk](mailto:pricing@monitor.gov.uk) by 5pm on Tuesday 9 September.

## 1. The case for reform

NHS England's UEC Review sets out a vision for changing UEC services and practices so that they form a co-ordinated system covering all patient touch points, from first contact to specialist emergency care. The vision set out by the review has two main objectives:

- Firstly, it proposes that for those people with **urgent but non-life threatening needs** we must **provide highly responsive, effective and personalised services outside of hospital**. These services should deliver care **in or as close to people's homes as possible**, minimising disruption and inconvenience for patients and their families.
- Secondly, it proposes that for those people with **more serious or life threatening emergency needs** we should ensure they are treated **in centres with the very best expertise and facilities**, in order to **maximise their chances of survival and a good recovery**.

The vision is built on evidence that shows both how better self management, care planning and co-ordination could prevent the need for urgent responses and how the changes it proposes could, in addition to improving care for patients, lead to care being delivered in more effective and potentially lower cost settings. In particular, the evidence illustrates significant scope for moving activity away from hospitals towards alternative settings.

The approach we take to payment is key to achieving two of the main elements of change that the Phase 1 UEC Review report identifies as needed to deliver the vision:

- helping people to get the right advice in the right place, the first time
- connecting UEC services so that the overall system becomes more than the sum of its parts.

Sector feedback and work undertaken by NHS England and Monitor to date suggest that a fundamental change to the way that different UEC services are currently funded would help to achieve the envisaged service reforms. The current range of payment arrangements across the UEC system is often cited as a barrier to co-ordination between services and to the overall UEC system becoming more than the sum of its parts. It is also necessary to consider how payment for the wider care economy such as wider primary care, social care, community health care and mental health care (eg liaison psychiatry) might be better aligned to help achieve the vision set out in the UEC Review.

Currently, individual providers bear little or no accountability for the cost and quality performance of the UEC system as a whole, and may face financial incentives in conflict with working with others to improve the system's operational performance if

this would impact their own revenue. For example, at present, funding to hospitals and urgent care centres is mostly activity based, while providers of urgent care close to home are mostly paid through fully fixed block contracts. So, providers in both settings could be financially disadvantaged by working together to relocate care closer to home (where clinically appropriate):<sup>3</sup> community services' ability to respond to changing urgent care demand in-year can be limited due to fully fixed block funding; the incentive for hospitals to maintain volumes above the level required to cover their fixed costs may act as a disincentive to desirable relocation of care. Finally, exclusively activity-based payment for acute UEC services may encourage providers to deliver more activity of relatively low value to patients in acute settings at the expense of opportunities for commissioners to spend their budgets on care models that are better for patients.<sup>4</sup>

The service changes envisaged in the UEC Review would involve delivering higher quality and more efficient care for patients across all of the different providers in the UEC system. Reimbursing services between different providers and care settings in a way that makes co-ordination worthwhile for all the parties involved would help to achieve this. For example, the payment approach could allow ambulance services to share in the savings they generate for the system by up-skilling paramedics to carry out more hear-and-treat and treat-at-scene activity leading to reduced conveyance to and attendances at emergency departments. Reciprocally, hospitals could benefit from savings they generate for the system by providing specialists to advise paramedic crews, so these crews can treat-at-scene more effectively. Similarly, investment into care planning or preventing the exacerbation of care needs in the community, for example through advice from GPs or multi-disciplinary teams could help prevent urgent needs from arising in the first place. There are many similar opportunities for co-ordination for commissioners and providers to consider that would improve the quality of care and efficiency of the UEC system.

To encourage this kind of system-wide co-ordination, we are considering a number of options for developing the payment approach. We are seeking ways to better match the economics of organising and delivering UEC services, particularly to reflect their 'always-on' nature, which requires having a planned level of capacity continuously available to respond to patient needs. The approach would seek to make sure that risks are allocated between different providers, and between providers and commissioners, in a way that supports the behaviours needed to achieve the patient benefits envisaged by the UEC Review. It would also look to develop a more reliable means of measuring activity, costs and quality of care

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<sup>3</sup> This issue has been widely recognised, including by the National Audit Office in: 'Progress in making NHS efficiency savings', December 2012. Available at: [www.nao.org.uk/report/progress-in-making-nhs-efficiency-savings/](http://www.nao.org.uk/report/progress-in-making-nhs-efficiency-savings/)

<sup>4</sup> The marginal rate rule for emergency admissions is the only existing attempt at system-wide accountability to address these issues in the context of current payment approaches, but it is only a partial solution and has been inconsistently applied.

across the system as a whole, so that any financial savings (or losses) to the system can be shared for reinvestment proportionately between all the contributing parties. Lastly, we are considering payment approaches that would work if new commissioning, contracting and contract management arrangements are put in place to redistribute funding in line with providers' operational contribution to the system.

An approach to paying for UEC services that includes these features could align commissioners' and providers' incentives in a given local health economy with making continual improvements to the quality and efficiency of the local UEC system.

We describe such an approach in the following section.

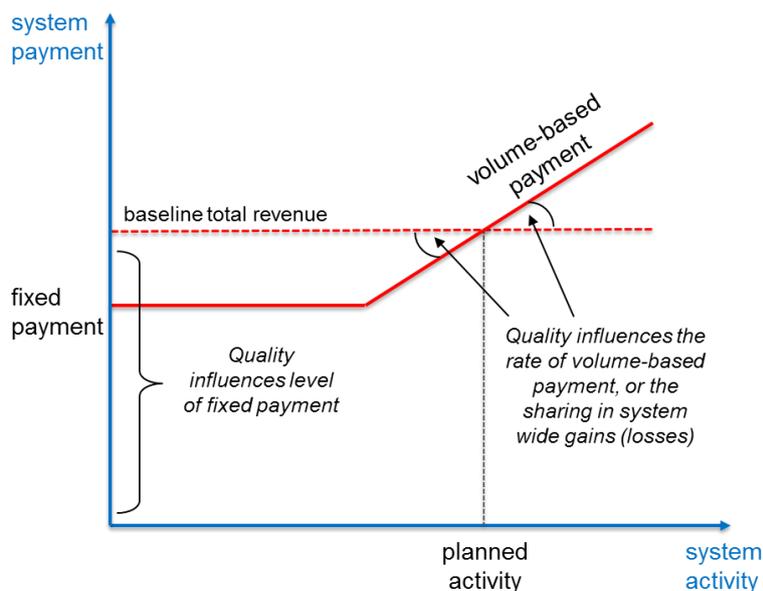
## 2. A potential new payment approach for urgent and emergency care

To facilitate system-wide co-ordination of the delivery of care, a new payment approach would seek to be consistent across all components of care delivery, and to enable individual providers to share in the benefits (or costs) of their actions to the system as a whole. This approach could combine:

1. a **substantial proportion of fixed core funding**, to reflect the ‘always-on’ nature of the services and to concentrate providers’ and commissioners’ attention on planning capacity across the system to specified minimum access and quality standards, in line with the UEC Review vision
2. a **proportion of volume-based funding**, to make it possible for individual providers across the system to meet unpredictable fluctuations in demand and to share in the financial impacts of their actions on the system as a whole, as well as enable risk to be allocated between providers and commissioners in a way that supports the behaviours needed to achieve the UEC Review vision
3. using **provider-specific and system-wide quality metrics** as eligibility criteria for different rates of fixed and volume-based funding, and as the basis for bonuses and penalties, to support service change and promote quality improvement.

The figure below captures a potential new payment approach for the UEC system which combines these features.

**Figure 2: Summary of potential payment approach**



The remainder of this section sets out the evidence and logic supporting this approach.

## 2.1 To support the delivery of the UEC Review recommendations, the potential payment approach would seek to support system-wide accountability

The realisation of the vision from the UEC Review would benefit from a system of care delivery that is connected and that recognises the impacts of individual provider actions on the system as a whole. Such a system could become more than a sum of its parts in terms of its value and outcomes for patients. The payment approach can enable this through providing a consistent approach to the different components of care delivery that recognises the interdependency of the system, and by establishing system-wide sharing in benefits (or costs).

There are many examples of opportunities for improving quality of care and the efficiency of the system through better co-ordination. Enabling and facilitating such co-ordinated behaviours may include establishing UEC system-wide accountability for:<sup>5</sup>

- overall volume of activity and costs in the system
- ensuring care is delivered in the right setting, first time
- improving quality of care and outcomes for patients.

All providers in the system could benefit from the savings they generate for the system as a whole, as well as for themselves. Any losses from slow implementation of the service redesign would be shared between all the parties responsible for delivering change.

It remains an open question which of the component services in Figure 1 (see page 3) would be covered by the new payment approach. The approach that would best support the UEC Review vision would cover as many of the services as possible. However, what is feasible (at least in the short term) would be dependent on the scope and capability of commissioning and contracting arrangements in place across the different care settings, as well as on the quality of data available across the different services. It is likely that (again, at least in the short term) while the payment arrangements could cover most of the components of the system (in Figure 1), care provided for example through community pharmacies, in primary care settings such as at GP surgeries, and some specialised services commissioned by NHS England, could come under the new payment approach later.

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<sup>5</sup> Changes to commissioning and contracting approaches are likely to be necessary as well and NHS England is progressing work in this area. However, the role of payment in enabling system-wide accountability does not necessarily need to be conditional on those changes.

## 2.2 The payment approach could include a substantial proportion of fixed funding to reflect the planned level of capacity

A new payment approach could include a substantial proportion of fixed core funding to reflect a planned level of capacity to respond to patient needs. This would aim to:

- reflect the economic model of how UEC services are organised and delivered, particularly their 'always-on' nature
- concentrate providers' and commissioners' attention on planning capacity across the system to specified minimum access and quality standards, as the changes in operational delivery are implemented in line with the UEC Review vision.

Our primary research on the cost structures of providing UEC (see Annex 1) shows that:

- The large majority of costs are either fixed or semi-fixed over a 12-month period with respect to changes in volume of activity, with the proportion of variable costs ranging between 0% and 21% of total costs across the different system components (see Table A1 in Annex 1).
- A substantial proportion of semi-fixed costs are associated with making a planned level of capacity available irrespective of the number of patients actually seen in-year. These unavoidable semi-fixed costs, taken together with fixed costs, can account for more than 90% of total costs for ambulance services within a year, over 55% for short stay emergency admissions, and nearly 50% for a minor injuries unit at the bottom of the range in the sample (see Table A2 in Annex 1).
- While implementing the UEC Review vision could lead to a significant change in input mix, activity volumes or cost levels, it may leave the relationship between costs and volume largely unchanged in the short term. This means that current cost structures could provide a good indication of likely cost structures even once the service reform is complete. However, a multi-year transition path could allow for the recalibration of the proportions of fixed and semi-fixed costs should cost structures change over time.

Since exclusively volume-based payments may not create the right incentives for the efficient delivery of UEC as a system, any new payment approach could benefit from a proportion of fixed funding. This should help reduce, and potentially eliminate, incentives that run counter to the vision of the UEC Review, and ensure that funding promotes service reform consistent with the UEC vision.

Including a core funding element also appears feasible since it is possible through benchmarking and trend analysis to forecast overall levels of demand for the services at an annual as well as day-to-day level for capacity and operational

planning purposes.<sup>6</sup> Additionally, through analysing linked patient-level datasets commissioners and providers in local health economies can establish which population groups use UEC services and which patients could benefit or suffer no loss from reducing or substituting their consumption. Further analysis is required, particularly for services outside of hospitals, but our preliminary findings indicate that it is possible to estimate the core funding requirement for the different services, and, if necessary, for different patient cohorts within each service.

### **2.3 The payment approach could maintain a proportion of volume-based payment**

A key risk with payment approaches that include a substantial proportion of fixed funding is that the demand for services fluctuates around the predicted volume, for the local UEC system as a whole or for the individual components of the system. If payment was fully fixed in advance, upward fluctuations in demand would likely place all financial risk from under-predicting demand (and therefore required capacity) on providers. Downward fluctuations in demand, or over-predicting demand (and required capacity) could lead to providers gaining unearned surpluses at the expense of commissioner budgets. Similarly, demand may fluctuate between different parts of the system. The payment approach can help providers and commissioners manage this uncertainty by allocating some of the funding to where care actually takes place. A potential solution to these issues is that the payment approach includes a proportion of volume-based payment to facilitate provision of care in the most appropriate setting to deliver benefits for patients.<sup>7</sup>

Fully fixed payment would potentially place on acute providers a disproportionate financial impact from any delays in service reform and demand management effectiveness. Providers may not have sufficient means of control to manage demand, care substitution and access to the UEC system, particularly if in the short term some key elements of the system such as urgent primary care provision remain outside the co-ordinated payment approach and collective financial responsibility it seeks to establish. It may also be necessary to incentivise increased activity in some parts of the UEC system during the transition to new models of operational delivery. Partially volume-based payment provides a potential tool to incentivise substitution and to allocate risks and financial responsibility between providers and commissioners in a way that supports delivery of the UEC vision.

Finally, the system-wide sharing of benefits (or costs) from individual provider actions and the effects of the envisaged service changes would require metrics that

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<sup>6</sup> We recognise that current forecasting of demand for capacity and operational planning purposes varies across localities and we seek to bear this in mind in further developing options for a core payment element.

<sup>7</sup> It will be important also to collect and continue to improve the quality of data on activity, costs and quality of care. The provider licence conditions could be one of the wider regulatory tools available to drive these changes to improve transparency and accountability.

could be used as a basis of attributing those benefits (or costs). Maintaining a proportion of volume-based payment could address this need. We set out some early thinking on options for how this could be accomplished in Section 3.

#### **2.4 Linking quality to the payment mechanism could be beneficial, particularly if payment includes a substantial fixed funding element**

A frequently cited risk of using a substantial proportion of fixed funding is that providers could feel obliged to restrict access or cut down on quality of care to achieve acceptable margins (rather than finding the necessary cost efficiencies). Making payment to some extent contingent on quality is one possible tool to enhance accountability and incentives for quality, both in terms of improving outcomes for patients and supporting delivery of right care at the right time in the right setting across the system.<sup>8</sup>

There are various ways that quality could be linked to payment, for example, making fixed funding depend on meeting minimum standards, or as qualification criteria for differential volume-based rates of payment or participation in different levels of gain/loss share arrangements. A bonus/penalty system used as an additional incentive to support desired service changes could be based on system-wide or provider-specific outcome and quality metrics. The link between quality and payment could make use of various types of metrics, including minimum standards, process measures with proven links to quality, as well as direct patient outcome and experience measures.

More work is needed in this area, starting with establishing the extent to which there are enough robust quality metrics available to measure provider-specific and system-wide outcomes. Nevertheless, in the context of a substantial core funding element, enhancing accountability and incentives for quality through relating payment to quality measures could be beneficial for the UEC system and for patient outcomes. This is a topic we will continue to develop and test further with stakeholders.

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<sup>8</sup> Payment rules are of course only a part of the regulatory package of results and incentives that govern quality, performance and access to care. The impact of other measures that also drive provider behaviour, such as clinical guidelines, the 4-hour A&E target, and potential of monitoring and publishing data on quality and outcomes needs to be recognised.

**Box 1: Questions for engagement on the inclusion of the different payment elements and establishing system-wide accountability**

1. Taken together, would the elements of the potential new payment approach improve patient outcomes, promote efficient use of resources and allocate risk in a way that supports delivery of the UEC vision?
2.
  - a) How can we best use the payment system to establish system-wide accountability for risks and rewards for activity, costs and outcomes?
  - b) What are the main risks/complications for this type of system-wide accountability?

### 3. Emerging thinking on options for the detailed design

In Section 2 we set out a potential new payment approach for UEC services. This section sets out some preliminary options on how the elements of that approach might be determined and combined to best support improved delivery of UEC. We hope to receive comments from the sector on the preliminary options described here as possible directions of travel to shape the detailed design of the long-term payment approach.

#### 3.1 Combining the payment elements to determine the overall revenue profile for the UEC system

The overall revenue profile that the payment approach produces, and how this revenue profile compares to the cost profile, ultimately provides signals from the payment system to providers that will influence their service designs and practices.

Combining the fixed, volume-based and quality elements of payment in a gain/loss sharing arrangement around a baseline total revenue requirement might be a practical way of reimbursing services in a way that allows different providers to realise the benefit (or cost) of their actions. However, further work is required on the feasibility and the impact of all alternatives before any firm conclusions can be drawn.

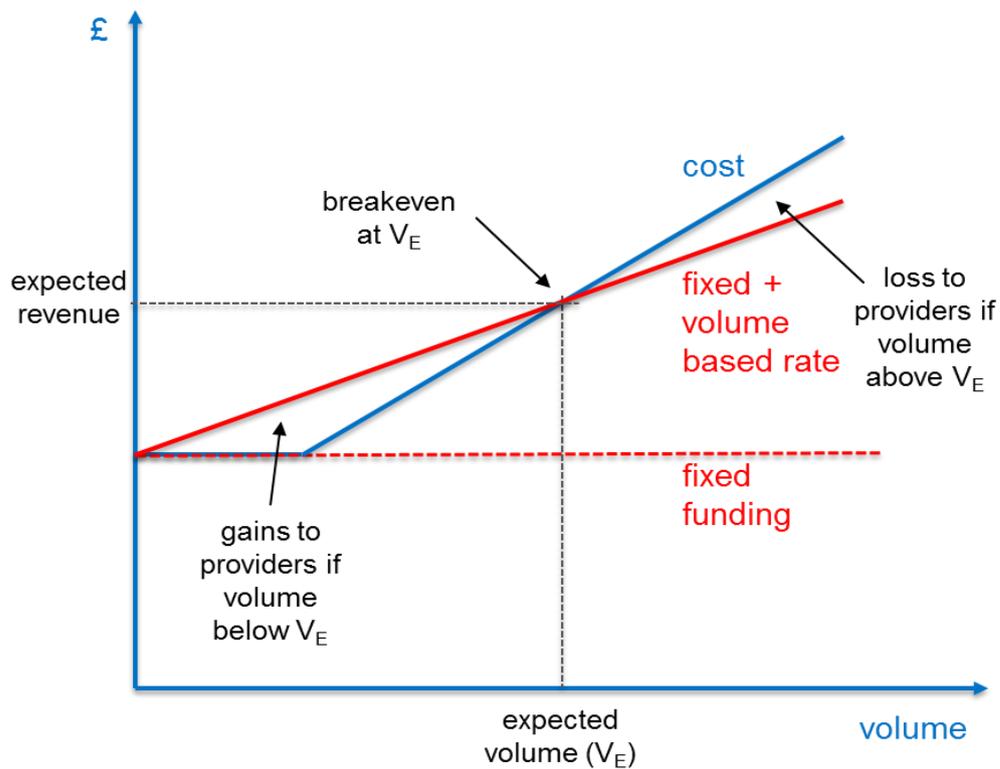
We are considering two broad types of options for combining an element of fixed core and volume-based funding.<sup>9</sup>

**Type A:** Approaches that add a volume-based rate (or rates) on top of a fixed lump sum. Both the fixed lump sum and volume-based rates are set in advance. The volume-based rate can be set at equal to, at less than or at more than the estimated incremental cost of a unit of activity, and can be set to vary at different levels of activity, depending on the desired behavioural signal. Figure 3 below illustrates the simplest version of this type of approach, with a constant volume-based rate paid on top of a fixed lump sum.

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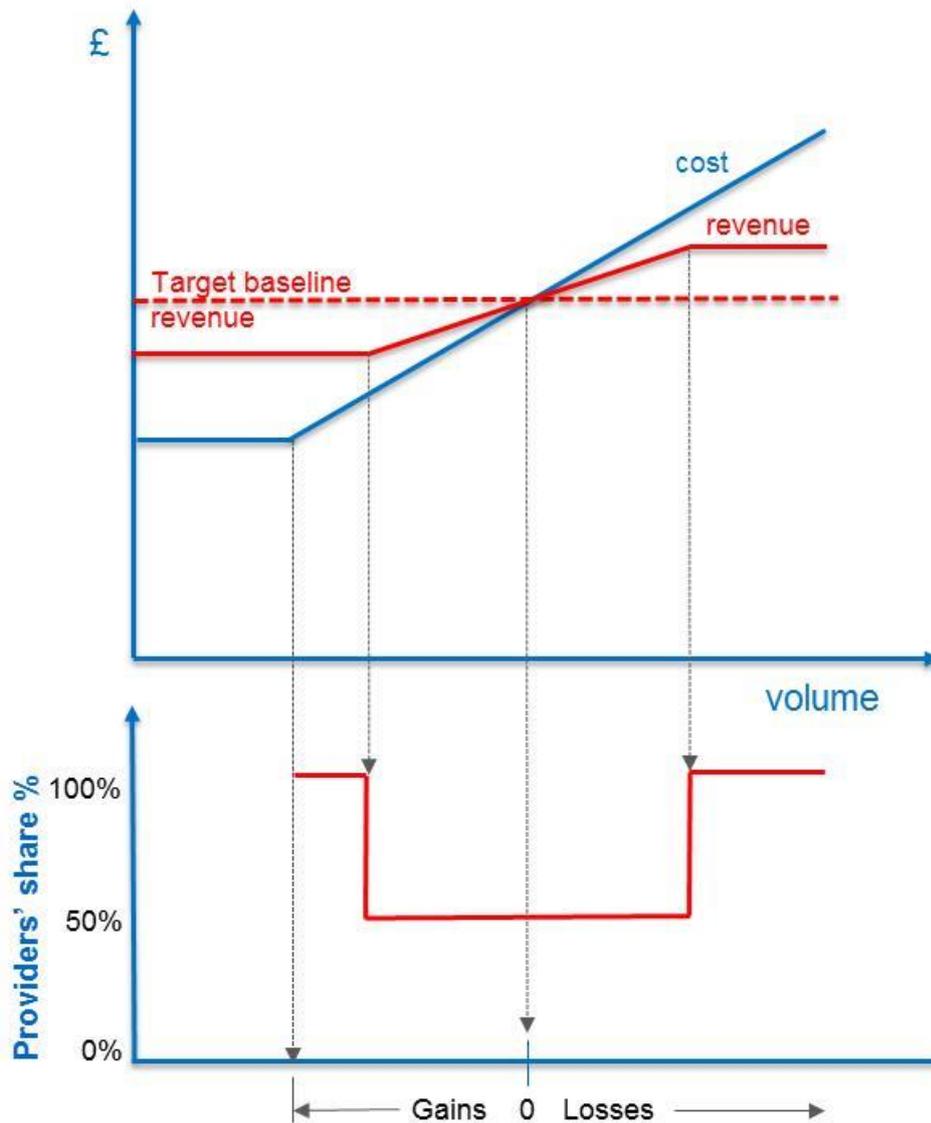
<sup>9</sup> Quality metrics could be used equally under both types of approaches. We leave quality out of these descriptions for simplicity only.

**Figure 3: 'Type A' approach of fixed core funding plus volume-based rate**



**Type B:** Approaches that focus on gain/loss share arrangements around a prospectively estimated baseline revenue requirement. In these approaches the amount of guaranteed core funding and the volume-based rate are implicit in the gain/loss share design. As with Type A approaches, the rates of gain/loss shares with respect to actual activity can be set with reference to estimated incremental costs. Figure 4 below illustrates this type of approach with a 50/50 sharing in savings and losses within 10% of the baseline revenue, beyond which providers benefit from all further savings and are exposed to all further costs.

**Figure 4: ‘Type B’ approach of gain/loss sharing around target baseline revenue**



Note: The savings for gain/loss sharing could arise from successful relocation or management of activity levels, or due to other factors.

The two types of approaches could in principle be designed to result in very similar revenue profiles for the system as a whole and the individual providers within it. Nevertheless they do have some important differences:

- Signals provided by the payment system to providers and commissioners:** The starting point for Type A approaches is a target volume at each provider, whereas the starting point for Type B approaches is a target cost (or revenue) of the UEC system. As such, Type A approaches could be used to send signals to providers in relation to their own activity and costs; whereas Type B approaches could provide signals in relation to the impact of

individual provider actions on the system as a whole, with an implicit (or no) reference to individual provider cost profiles and the volume-based rate.

- **Ability to promote co-ordination:** Gain/loss share (Type B) approaches might be more able to make different providers realise the benefit (or cost) of their actions on the UEC system as a whole. To establish the same under Type A approaches could be complicated and less effective, requiring multiple and blended volume-based rates to be determined conditional on UEC system performance.
- **Information requirements:** Type A approaches require knowing top-down how much demand to shift between settings to enable the core and volume-based payment rates and thresholds to be set accordingly. Type B approaches could be more suited to allowing the optimal configurations to emerge through co-ordination between providers in the system. However, Type B approaches might require more reliable metrics on costs, volumes and quality to safeguard individual provider and system performance, access and quality of care.

### 3.2 Currencies for calculating/pricing the fixed core funding element

This section describes three types of currency<sup>10</sup> which could be used to determine the fixed core funding requirement under either the Type A or Type B approach above. It is important that this part of the payment approach is designed in a way that supports improved delivery of care.

Further work is required to define these currencies in more detail and to assess their advantages and disadvantages. This may depend also on the contracting and commissioning approach taken. The best solution may involve a combination of currencies, with one currency being used during transition and another currency used as the preferred long-term solution.

The three types of currency for determining the core funding element that we have considered so far are:

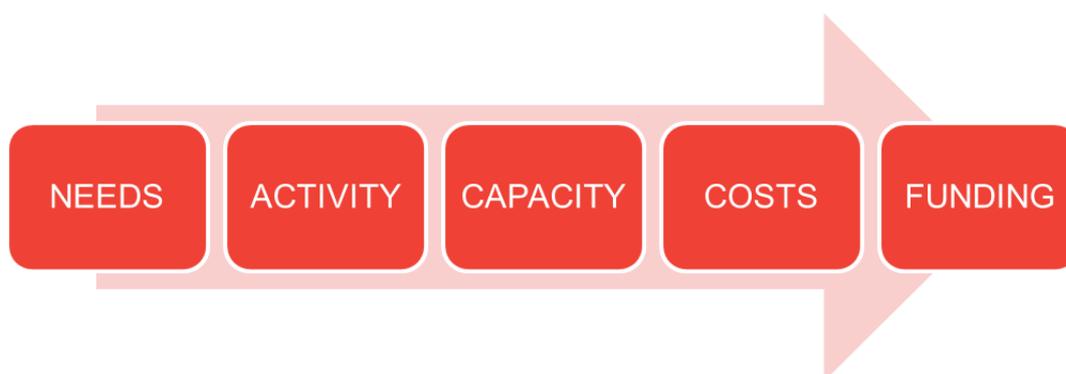
- **geographic coverage (capitation):** payment is made per person per year and determined on the basis of the needs of the patient population
- **expected activity:** payment is determined by expected volume of activity
- **planned capacity:** payment is made on the basis of specified inputs needed to deliver required capacity and the efficient cost of those inputs.

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<sup>10</sup> We use currency in this context to refer to the specification of a service or services for the purpose of determining the core funding element of payment.

Each currency can be used to determine the core or baseline total funding requirement. The currencies are also related as illustrated in Figure 5. For example, it helps to take account of population needs in the estimation of expected level of activity. Similarly, the expected level of activity is likely to be a key input to estimating planned capacity. Nevertheless, the three currencies differ in the factors that you need to analyse in order to determine required payment. For example, expected activity could be linked directly to costs without consideration of the specific inputs used, and a capitation approach need not necessarily consider the exact activities or specific inputs used to meet population needs.

**Figure 5: Determining the fixed core funding requirement under different currencies**



The following subsections provide some initial thoughts on the alternative currencies, which we invite the reader to comment on.

### **Geographic coverage through a capitation approach**

**Definition:** Under capitation, payment is made on a per-person basis, for a defined package of services to meet the needs of a specified population group, during a fixed period of time (usually a month or year). Ideally, capitated budgets take into account the fact that some patients require additional or more costly services.<sup>11</sup>

Capitation (if comprehensive in coverage) encourages care to be delivered in the most appropriate setting and in doing so facilitates system-wide co-ordination to deliver more integrated care. As it does not specify inputs used, this approach can provide flexibility for innovation in service delivery. It may also fit well with options for long-term payment approaches being considered for people with multiple long-term conditions and those with mental health needs.

A key challenge for a capitation approach is that it requires the accurate estimation of demand for services based on population risk profiles (such as deprivation, age and prevalence of long-term conditions). This may be challenging for UEC payment for whole geographic populations of potential patients whose individual risk profiles

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<sup>11</sup> This definition of capitation follows those set out by the World Bank and Nuffield Trust.

could vary significantly. It also requires a definition of the catchment (or membership) population, which may be hard to make with certainty for example, for open access services such as A&E in urban areas or rural areas that are holiday destinations. The demand for UEC would further be influenced by primary care, community care, social care and mental health care provision, which may further complicate the estimation.

Finally, a capitation approach to funding based on needs would not necessarily take into account the current level of inputs used, hence could lead to significant changes from the current level of funding received by different providers in the UEC system. This would need to be carefully managed.

### **Expected level of activity approach**

**Definition:** Under this approach, payment is made to cover a specified volume of (a range of) services over a fixed period of time, based on, for example, time series forecasts of how existing activity is expected to change (and so not necessarily by direct reference to defined population groups and their needs, or specified inputs to provide capacity).

A fixed core payment based on expected UEC component volumes can ensure providers make available a sufficient range and/or level of services to meet the needs of a given population, reducing the risk that services are underprovided. This approach requires a definition of, and ability to contract for, the schedule of services (the activities) that best meet patient needs now and in the future. This may discourage or constrain innovation to deliver better value care for patients beyond agreed service levels. It may also expose providers and commissioners to volatility in the activity based currencies over time, as clinical and technological innovation leads to a need for the currencies to be updated.

It could, however, be relatively straightforward to implement in the short term, at least for services that have widely accepted clinically relevant activity measures in place. Providers and commissioners have more limited experience with the other two currencies under consideration (capitation and planned capacity). For this reason, it may provide a feasible starting point for transition for those service components that already have nationally or locally established activity measures that can be used as a basis of estimation, so long as a meaningful number of components of the UEC system can be covered.

### **Planned capacity approach**

**Definition:** Under a planned capacity approach, payment is made on the basis of providing a prescribed level and mix of defined inputs to specified quality standards, to enable care to be delivered to the number of patients expected to flow through the UEC system over a fixed period of time, such as a month or year.

Payment on the basis of providing capacity may be a more precise and targeted way of encouraging providers to make available sufficient inputs to meet the needs of a given population, so reducing the risk that too little capacity is provided. This approach would require NHS England and Monitor (or local commissioners and providers) to use standards informed by professional bodies and the National Institute for Health and Care Excellence to:

- estimate the 'optimal' (minimum<sup>12</sup> or expected) capacity that each provider should operate at
- be able to define capacity based and clinically relevant payment currencies in a way that does not lead to unintended consequences, particularly with respect to incentives to continue making capacity available when it is no longer necessary
- have confidence that the planned inputs to provide the planned capacity will deliver best care for patients.

This may be challenging to achieve in practice. A planned capacity approach also risks locking in specific inputs, technologies, service configurations and delivery models, thereby discouraging the kind of service innovation that is likely to achieve dynamic efficiency gains over time.

On the other hand, being specific about inputs may be a benefit of the approach. This may be the case if there is clear agreement on the right service configurations and level of capacity to be provided by different components of the UEC system, and how those should evolve over time. It may also be relatively straightforward to attach quality requirements to the capacity (or input) measures used, in contrast with the other two currency types. A capacity based approach could reassure the sector that, as capacity is reallocated across the system to deliver the vision of the UEC Review, funding follows the efficient costs of the specified inputs in different care settings.

It is likely that the choice of the fixed core funding currencies will be influenced by other payment design choices. For example, a planned capacity approach could be well suited to estimating the fixed core funding requirement under a Type A approach set out above.

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<sup>12</sup> Specifying minimum rather than expected or desired capacity could mitigate the risk of locking in capacity that may not be required later on as activity shifts to other care settings.

**Box 2: Questions for engagement on combining the payment elements and determining the fixed core funding requirement**

4. What are the pros and cons of combining the payment elements through a Type A, Type B or any other approach that we should consider?
5. What are the pros and cons of determining the fixed core funding element through using capitation, expected activity, planned capacity or any other approach we should consider?

### **3.3 Which elements of the payment approach should be centrally determined and which locally determined?**

How far different aspects of the payment system should be centrally or locally determined is an area we will continue to explore in the context of NHS England's work on potential contracting and commissioning changes to support the delivery of the UEC Review vision. This is also likely to depend on the detailed features of the payment options that we take forward following further development and testing.

There are a number of potential approaches, from nationally mandated prices through to fully locally determined payment. Even if the proportions and rates of the payment elements are locally determined, the data requirements, payment rules, currencies, payment methods and the precise formulas used to calculate the payment could still be nationally determined.

Approaches that involve national determination of the payment elements may send positive behavioural signals (for example, promoting efficiency), while more localised approaches could provide flexibility to account for variations in cost that providers/commissioners have little control over but would need to be balanced against any additional burden on commissioners and providers of a more disaggregated approach. The best choice of approach is also likely to depend on the extent to which NHS England:

- envisages central/regional planning of all or some of the UEC components (such as specialist emergency centres)
- encourages clinical commissioning groups to create larger planning or contracting units
- allows the UEC component mix to be tailored locally.

In addition to establishing which payment elements should be nationally versus locally determined, we also need to establish the extent to which the payment elements ought to vary by factors such as specific UEC component.

The research on cost structures (see Annex 1) shows that the proportion of fixed and semi-fixed costs associated with providing a minimum level of capacity varies significantly between the different components of the UEC system, likely reflecting variation in the underlying economic characteristics of provision. The cost structures of different providers of the same service also differ – as illustrated by our two case studies (see Annex 1). This may be due to differences in population needs and case mix, geographic setting (rural or urban), the current configuration and mix of services provided, or the relative efficiency of different providers.

These findings suggest that there could be benefits to determining the proportions and rates of fixed core and volume-based funding separately for the different UEC services, possibly by location and potentially by provider.

It is too early to put forward proposals on how disaggregated the payment elements should be and to what extent they should be nationally versus locally determined, but we would welcome suggestions about key factors to consider and their relative importance.

**Box 3: Questions for engagement on level of disaggregation of the payment elements and extent of national versus local determination of payment**

6. Should the payment elements be uniform or specific across:

- a) different UEC components
- b) different providers of the same UEC components
- c) different UEC systems in different regions?

What are the key factors we should take into account to inform this decision?

7. What aspects of the payment approach should be centrally determined or locally specified? What are the key factors we should take into account to inform this decision?

## 4. Next steps and longer term outlook

This document has set out options for the long-term reform of the payment approach for UEC. Our next steps, subject to receiving feedback indicating that the options provide a sensible starting point, will be to develop and to assess the more detailed elements underlying these options. In particular, we plan to:

- develop proposals on which components of the UEC system should be covered by the co-ordinated and jointly accountable payment approach
- develop further the options on how to combine the three different payment elements, including design and operation of gain/loss share arrangements
- develop options for currencies for calculating/pricing the fixed core funding element
- develop further how quality metrics could be linked to payment
- assess data requirements for testing and evaluating the proposals
- analyse the interaction of the payment approach for UEC with payment approaches for other areas of care.

Further to this, over the next six months or so we plan to:

- produce an example (or examples) of the new payment approach, addressing the points set out above, for the purpose of testing and evaluating them in the NHS context during 2015/16
- publish the example(s) together with guidance to encourage commissioners and providers to test in 2015/16 as local variations
- identify local health economies to test the designs further in collaboration with us during 2015/16.

Assuming the test sites demonstrate positive results, we hope to start transition to the new payment approach possibly as early as 2016/17.

### Getting involved in the payment reform

We appreciate any time you can give to considering and commenting on the options set out in this document. Please send us your responses to the questions set out in this paper [online here](#) and any further information, eg on any experiences you have with local payment arrangements that have enabled beneficial service reform and co-ordination to [pricing@monitor.gov.uk](mailto:pricing@monitor.gov.uk) by 5pm on Tuesday 9 September.

We hope to develop the details for a proposed long-term payment system for UEC in close collaboration with the people who will eventually be using it. To do this we intend to deliver a combination of workshops and publications aimed at a broad

audience, together with closer working with a small number of development and test partner sites. We are particularly keen to hear from whole health economies that are keen to take forward the redevelopment of the complete UEC pathway.

If you would like to take part in the broader engagement, or perhaps become a development and test partner, please write to [england.paymentsystem@nhs.net](mailto:england.paymentsystem@nhs.net) and [pricing@monitor.gov.uk](mailto:pricing@monitor.gov.uk) by 5pm on Tuesday 9 September.

## **Annex 1: Reimbursement of urgent and emergency care – summary of findings on cost structures of different UEC services**

### **Introduction**

This annex provides a summary of findings from Monitor and NHS England research which examined how costs vary with volumes of activity in the different components of the urgent and emergency care ('UEC') system. We needed to develop this evidence base on cost structures to inform our options for a new UEC payment approach that reflects the realities of providing the different services within the system.

To help establish the evidence base, we commissioned Deloitte to describe and assign costs to the clinical and non-clinical inputs necessary to provide different components of the system through case studies of two local health economies, one urban and one rural. We selected non-exceptional case study locations and took care to ensure that the providers we worked with in the two local health economies were not outliers on available quality, performance, cost, governance risk or financial risk indicators. The study covered the majority of component services in the local UEC systems:

- NHS 111
- GP out-of-hours
- walk-in centre
- 999 and ambulance see-and-treat
- 999 and ambulance treat-and-convey
- minor injuries unit
- type 1 A&E and emergency admissions shorter than 48 hours
- type 1 A&E and emergency admissions longer than 48 hours
- type 1 A&E trauma
- type 1 A&E and emergency admissions longer than 48 hours, with rehabilitation.

The research aimed to establish detailed, bottom-up costings for the actual clinical models caring for the actual patient flows in the case study local health economies. It generated a full list of inputs required for each component service, categorising them as fixed, semi-fixed or variable depending on how they respond to changes in activity

levels.<sup>13</sup> The research also identified, based on clinical assumptions and data from the case study components, the size of the changes in activity that would lead to changes in the various semi-fixed inputs. Crucially, the Deloitte team also identified the minimum level of semi-fixed and variable inputs that would be needed to provide a viable capacity to respond to demand, even at low volume of service for the relevant case study. The clinical models, input data and assumptions generated through this process were validated against audited accounts and reference cost data where available, and tested directly with the participating providers in the case study local health economies.

The research focused on the current service configuration at the case study locations. However, Deloitte also generated a scenario of how the levels and mix of inputs might change after the vision set out by the UEC Review is achieved. The scenario applied assumptions developed with Monitor, NHS England and with providers in the case study health economies. This provides insight into how relevant the current cost structures will be in the future when the vision of the UEC Review has been realised.

## Key findings

The findings of the research indicate that:

- The large majority of costs are either fixed or semi-fixed over a 12-month period with respect to changes in volume of activity, with the proportion of variable costs ranging between 0% and 21% of total costs across the different service components in the system.
- Further, a substantial proportion of semi-fixed costs are associated with making a planned level of capacity available irrespective of the number of patients actually seen in-year. Together with fixed costs these unavoidable semi-fixed costs related to expected capacity can be over 90% of total costs for ambulance services within a year, over 55% for short stay emergency admissions, and nearly 50% for a minor injuries unit at the bottom of the range in the sample.
- The cost structure varies significantly between different components. For example, the 111 service may have almost no variable costs compared to 21% at the minor injuries unit. There are also differences in the cost structures of the comparable components of the rural and urban case study local health economies.

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<sup>13</sup> We defined fixed inputs as those that do not change in a 12-month period, such as buildings. Semi-fixed inputs can be changed within a 12-month period after a threshold level of activity is reached, such as clinical staff.

- While implementing the UEC Review vision could significantly change the input mix, levels of activity and levels of input costs, it may leave the relationship between costs and volume largely unchanged. This could mean that current cost structures are a good guide to the cost structures once the service reform is complete.

The remainder of this annex provides some of the detailed results behind the four key findings.

### 1. The large majority of costs are either fixed or semi-fixed over a 12-month period with respect to changes in volume of activity

Table A1 below shows the basic classification of costs at the current level of activity for each of the components.

**Table A1: Headline results for the components of case study UEC systems**

Component	Fixed (%)	Semi-fixed (%)	Variable (%)
NHS 111	48 – 49	51 – 52	0*
GP out-of-hours (urban only)	17	79	3
Walk-in centre (urban only)	18	75	7
Ambulance see-and-treat	8 – 20	72 – 78	8 – 14
Ambulance treat-and-convey	7 – 7	79 – 84	9 – 14
Minor injuries unit (rural only)	22	57	21
A&E + admissions <48h	22 – 25	64 – 75	3 – 12
A&E + admissions >48h	16 – 18	69 – 72	10 – 15
A&E trauma	19 – 21	78 – 79	1 – 3
A&E + full non-elective pathway including rehab	10 – 12	72 – 76	14 – 16

*Note: results at current volumes of activity, ranges are between the rural and urban case studies*

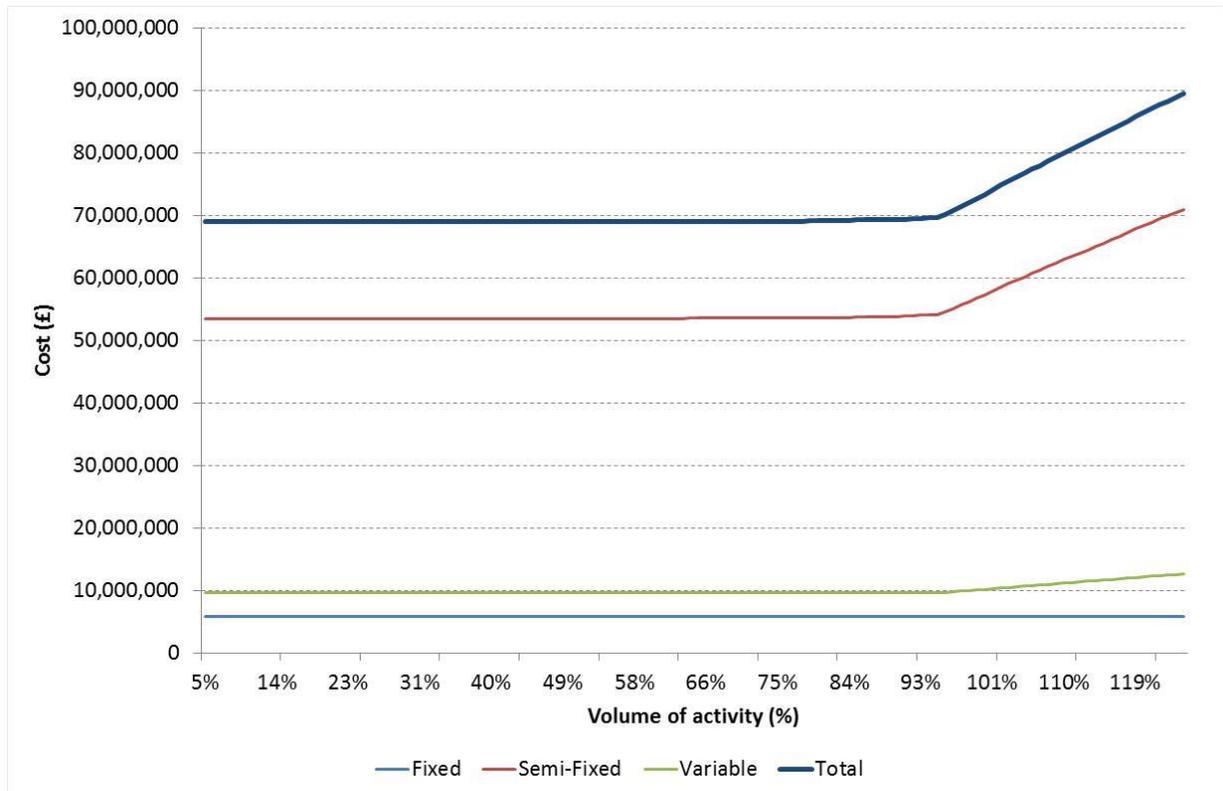
*\* The unit of activity for NHS 111 is a single call*

### 2. A substantial proportion of semi-fixed costs are associated with making available a planned level of capacity regardless of the number of patients actually seen

A substantial proportion of semi-fixed costs are associated with making available a viable level of capacity irrespective of the number of patients actually seen, and are therefore in practice unavoidable and fixed within a year. This effect is particularly strong for components that are built to provide availability to specified response times, such as ambulance services and 111. Together with fixed costs these in-year semi-fixed costs related to expected capacity can be over 90% of total costs for ambulance services, over 55% for A&E attendances and short stay emergency admissions, and nearly 50% for a minor injuries unit at the bottom of the range in the sample.

Figure A1 and Figure A2 illustrate this for the rural ambulance treat-at-home case study (Figure A1) and the urban A&E and long-stay admissions (Figure A2).<sup>14</sup> As the volume of activity falls from the planned level, some of the inputs are no longer needed. However this is true only up to a point, after which the inputs are needed to maintain a level of capacity required by the nature of the service.

**Figure A1: Cost-volume relationship of rural ambulance treat-at-home**



<sup>14</sup> The graphs and the analysis abstracts from potential costs associated with reducing staff and potential premium costs associated increasing the number of staff or other inputs.

**Figure A2: Cost-volume relationship of urban A&E and long-stay admissions**

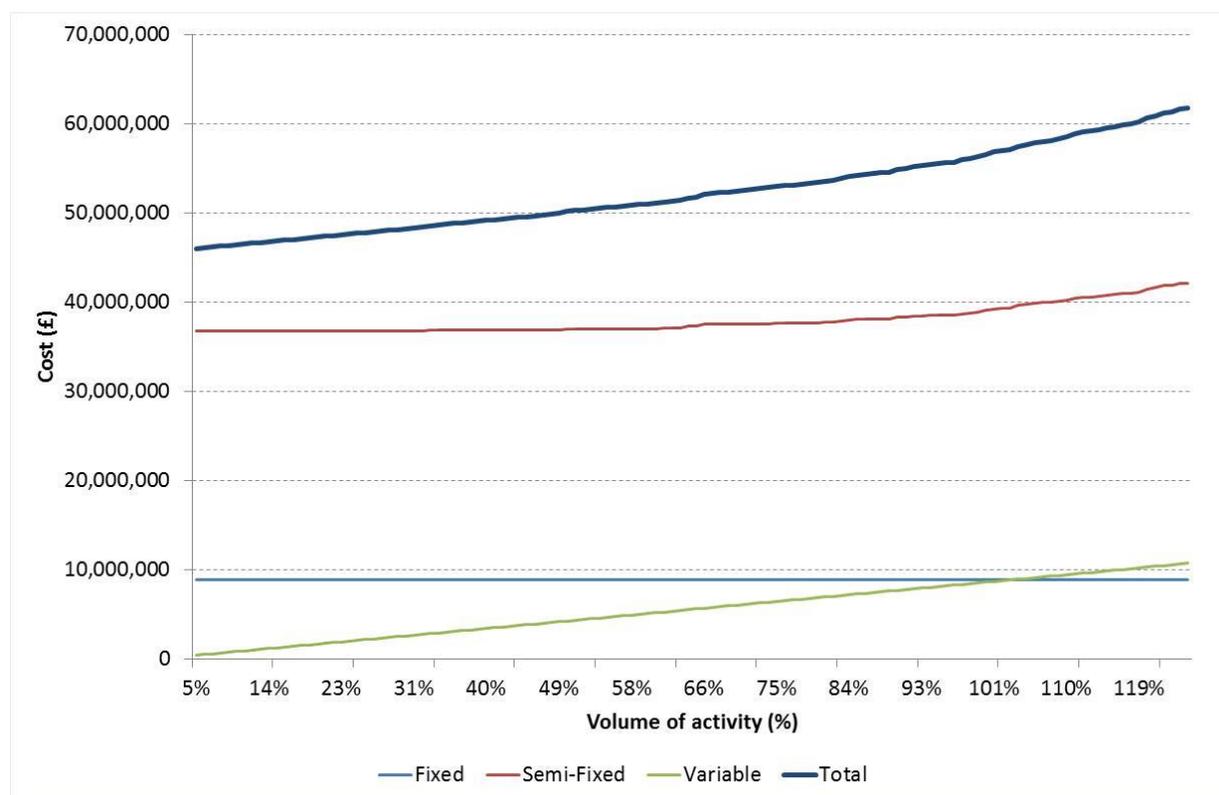


Table A2 shows the proportion of these ‘unavoidable’ capacity costs for each of the components studied at the current level of activity at the case study locations.

**Table A2: Proportion of ‘unavoidable’ capacity costs at current level of activity**

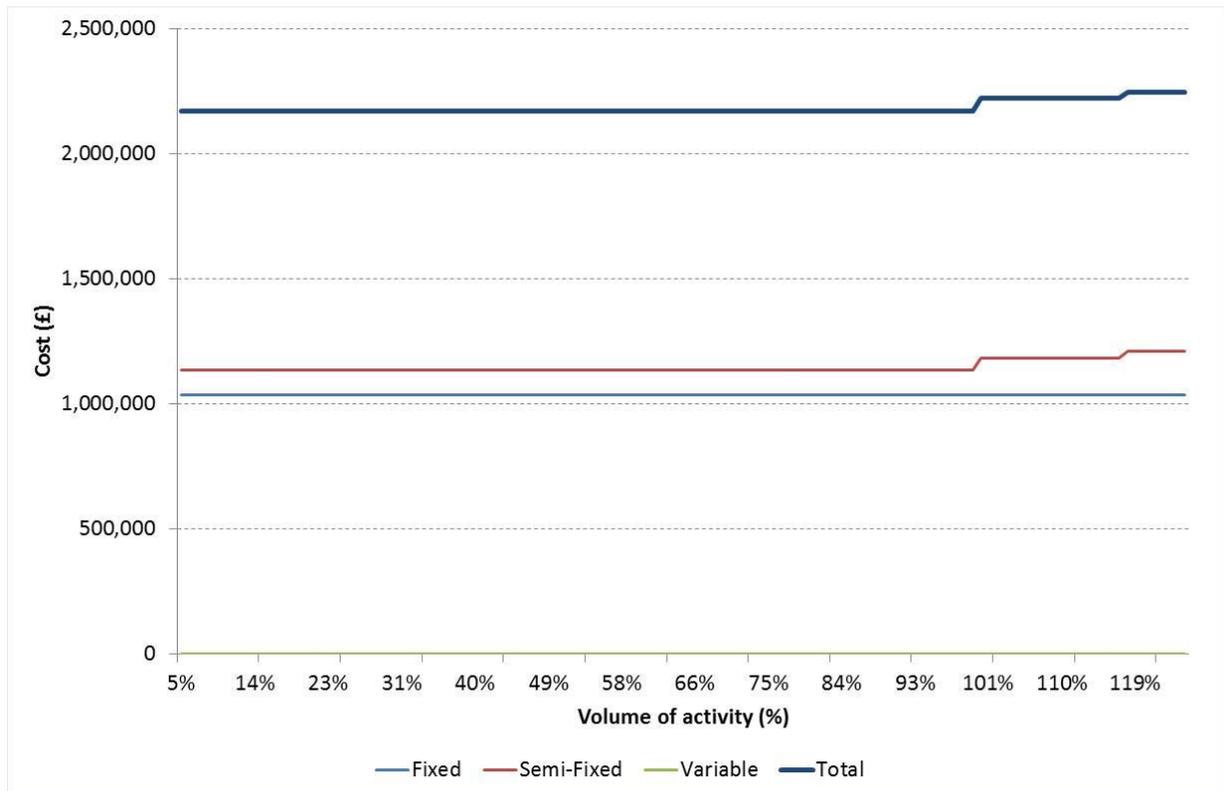
Component	% of ‘unavoidable’ capacity costs (fixed and semi-fixed)	% of costs varying with volume (semi-fixed and variable)
NHS 111	100	0
GP out-of-hours (urban only)	65	35
Walk-in centre (urban only)	75	25
Ambulance see-and-treat	89 – 95	5 – 11
Ambulance treat-and-convey	88 – 95	5 – 12
Minor injuries unit (rural only)	47	53
A&E + admissions <48h	55 – 62	38 – 45
A&E + admissions >48h	82 – 89	11 – 18
A&E trauma	95 – 99	1 – 5
A&E + full non-elective pathway including rehab	47 - 56	44 - 53

*Note: results at current volumes of activity, ranges are between the rural and urban case studies*

### 3. The cost structure varies significantly between different components

As seen in Table A1 above, different components have different levels of fixed, semi-fixed and variable costs. This is also illustrated in Figure A3 and Figure A4 below. For the rural 111 service, costs do not vary significantly with volumes of activity. This is due to the high level of costs required to create the necessary capacity for an area. The costs at the rural district general hospital (DGH) on the other hand are relatively more responsive to volume of activity.

**Figure A3: Cost-volume relationship of a rural 111 service**



**Figure A4: Cost-volume relationship of the non-elective pathway at a rural DGH**

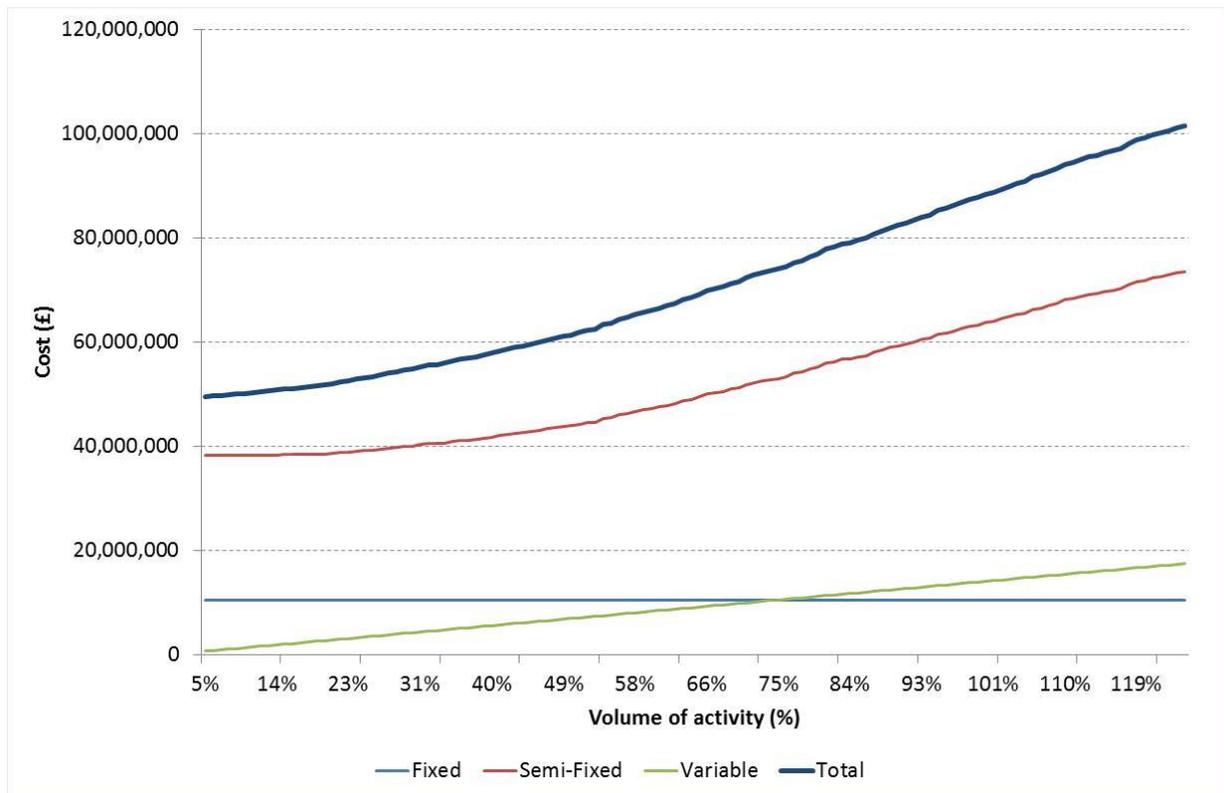
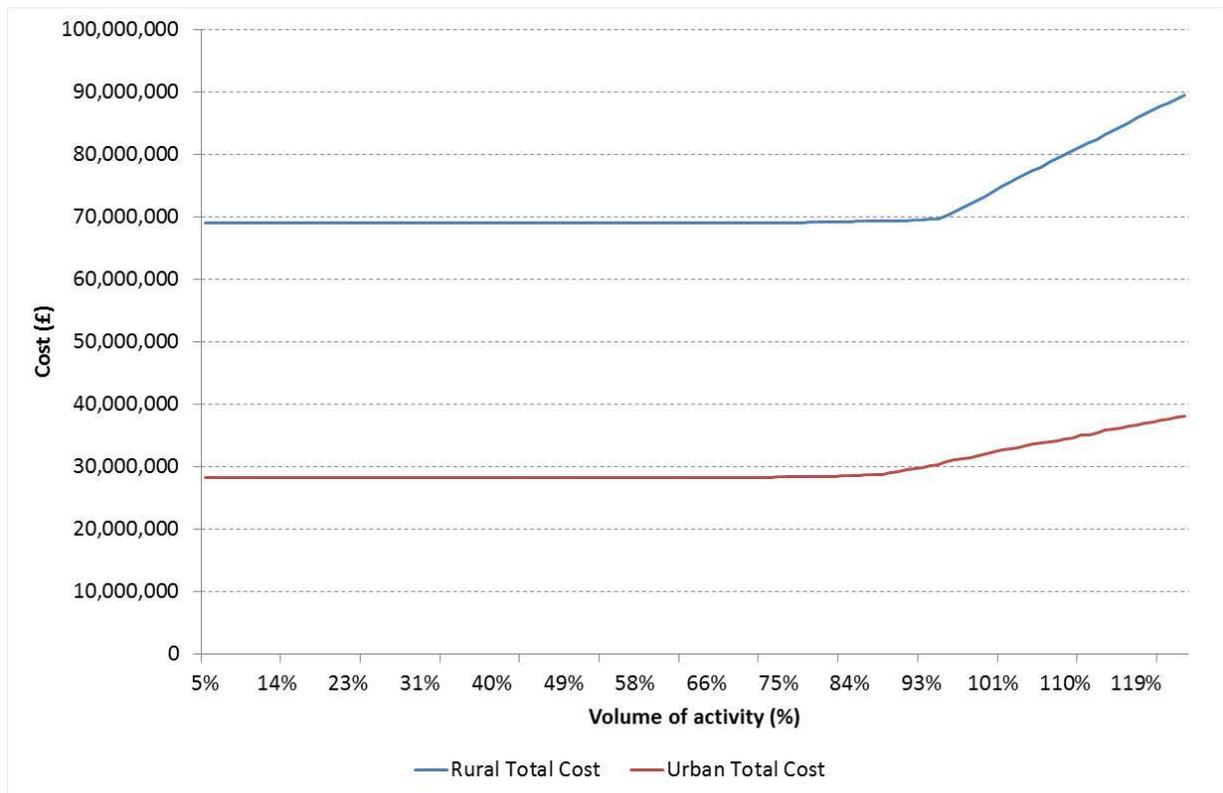


Figure A5 on the next page in turn illustrates the differences between the two case study providers of the same component, ambulance see-and-treat service. In the rural case study, variable costs are 14% of the total compared to only 8% at the urban case study. The urban case study also has a lower proportion of unavoidable capacity costs (89%) compared to the rural case study (95%). However, as can be seen from the graph below, the cost-volume relationships in the two case studies are fundamentally similar.

**Figure A5: Cost-volume relationship of rural see-and-treat**



#### **4. Implementing the vision of the UEC Review may leave the relationship between costs and volume largely unchanged in the short term**

The analysis considered a plausible scenario of changes in service specifications and volumes of activity that might result from implementing the UEC Review in the case study local health economies. The assumptions in this future scenario were:

- Enhanced role for 111 to become a single point of access, with assumed 20% increase in call volumes, 20% increase in clinical input, and increase in overhead admin costs associated with direct referral rights
- Enhanced paramedic role at ambulances services to increase the volume of patients treated at scene by assumed 15%, requiring an increase in numbers of advanced paramedics
- Walk-in centre to become an urgent care centre co-located with an A&E, with admitting rights to acute beds, leading to assumed transfer of volumes and advanced nursing staff from the A&E
- A&E overall attendances to reduce by 30% (transfer to the co-located urgent care centre) with associated transfer of advanced nursing staff
- GP out-of-hours call volume to increase 8%
- Minor injuries unit overall attendances to increase by 10%.

The overall system average cost structure using the headline categorisation of fixed, semi-fixed and variable costs is unaffected by the assumed changes to the components, as shown in Table A3 below. Also the minimum and maximum values of fixed, semi-fixed and variable costs across the different components do not change radically between the current service specification and future scenario.

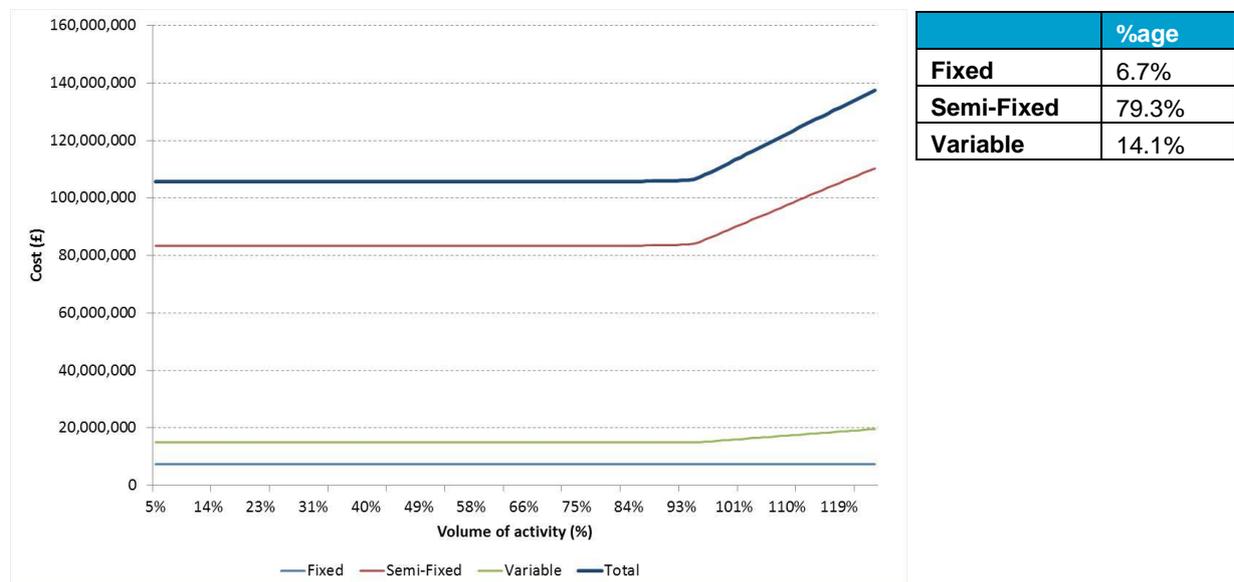
**Table A3: Summary impact of the future scenario assumptions**

	Current Cost Structure			Future Cost Structure			Variance		
	Overall	Min	Max	Overall	Min	Max	Overall	Min	Max
Fixed	13%	7%	49%	14%	7%	53%	-0.7%	0%	-5%
Semi-Fixed	76%	51%	78%	76%	47%	84%	-0.1%	5%	-5%
Variable	11%	0%	21%	10%	0%	22%	0.9%	0%	-1%

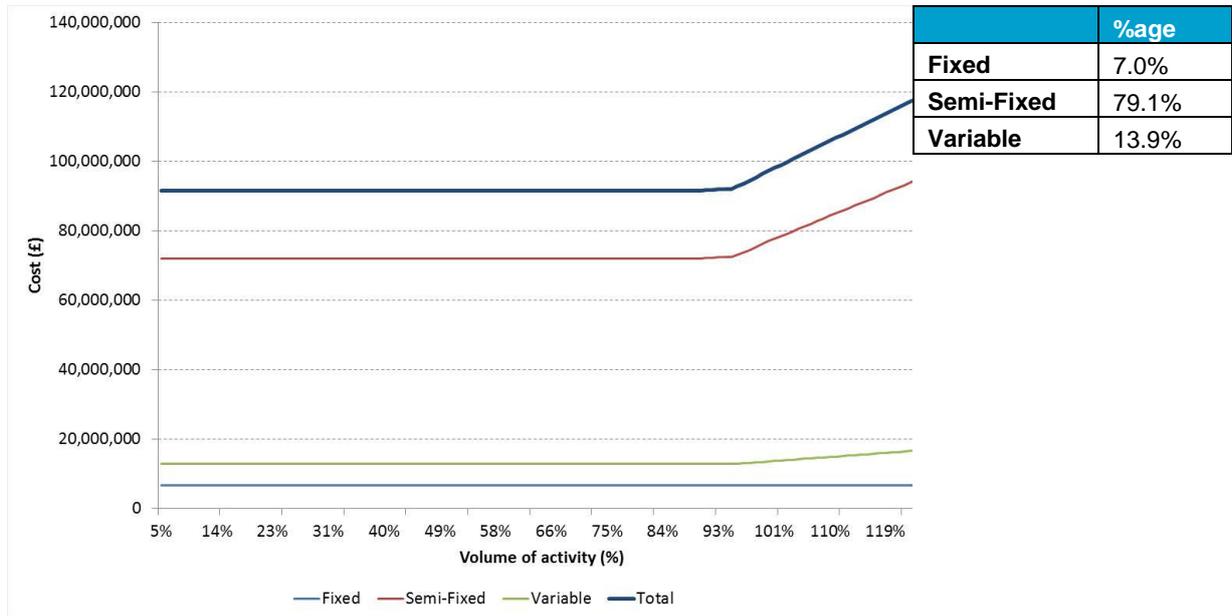
At a more detailed level, the different components see variation which is sometimes negligible, whereas in some components differences up to 5 percentage points can be seen.

Figure A6 and Figure A7 provide an example of a component where the change to cost structures is only apparent at the first decimal point (requiring a spurious level accuracy to detect), resulting from an assumed increase in rate of see-and-treat calls and associated changes to staff mix.

**Figure A6: Current rural ambulance treat-and-convey**

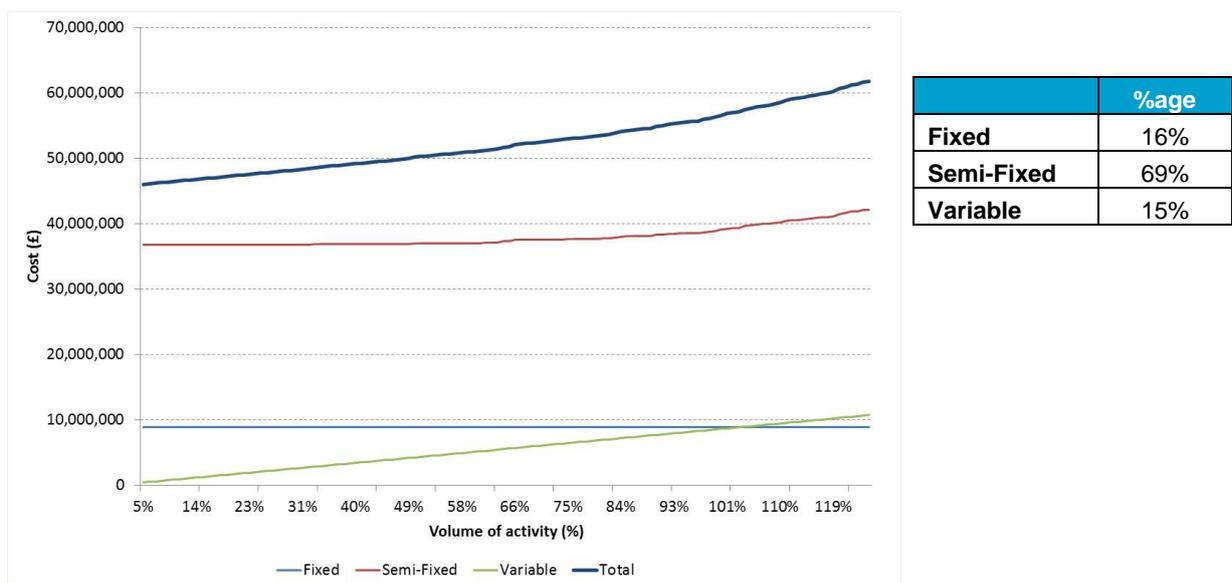


**Figure A7: Future scenario ambulance treat-and-convey**

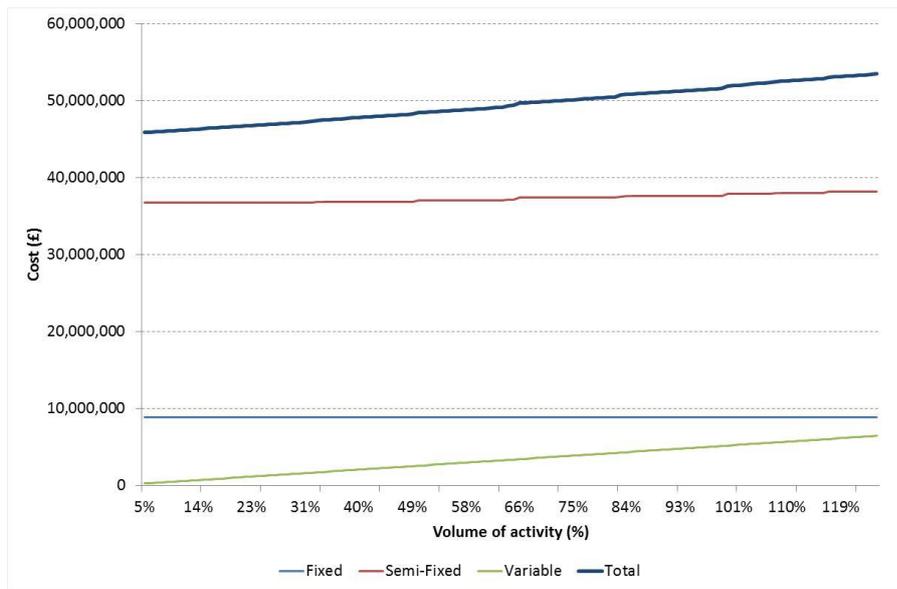


In contrast, the following figures illustrate two examples of components where cost structures do change in the future clinical scenario. Figure A8 and Figure A9 show that the proportion of variable costs falls by 5 percentage points in the future scenario for A&E attendances and long-stay emergency admissions. Figure A10 and Figure A11, for a walk-in centre that is assumed to change into an urgent care centre by volume of attendances and mix of staff, show a 5 percentage point change in the mix between fixed and semi-fixed costs. The total costs are higher due to assumed higher number of attendances.

**Figure A8: Current A&E and long-stay admissions**

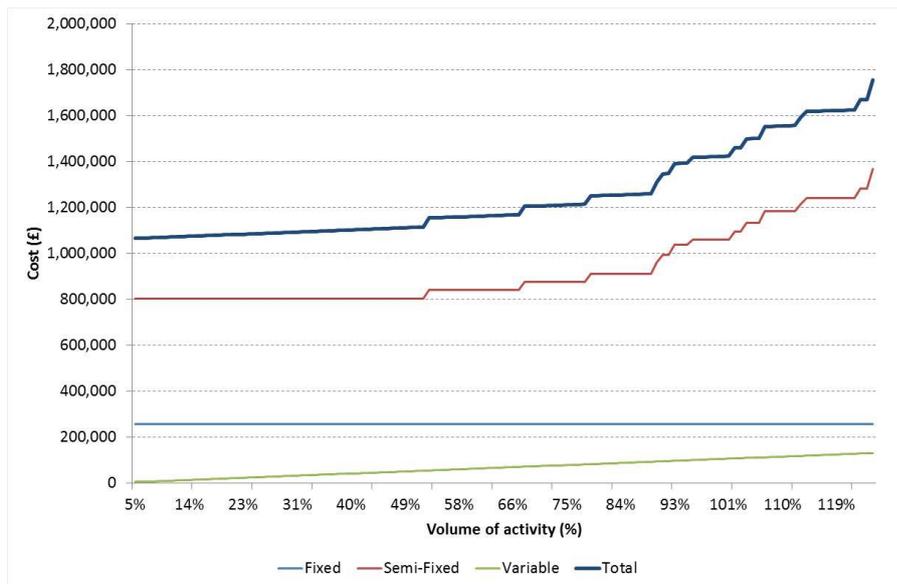


**Figure A9: Future scenario A&E and long-stay admissions**



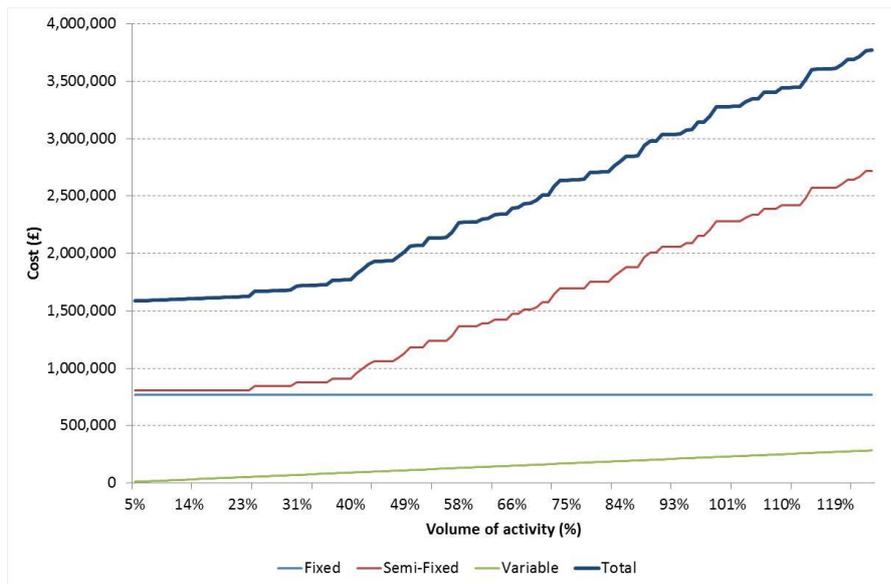
	%age
<b>Fixed</b>	17%
<b>Semi-Fixed</b>	73%
<b>Variable</b>	10%

**Figure A10: Current walk-in centre**



	Headline
<b>Fixed</b>	18%
<b>Semi-Fixed</b>	75%
<b>Variable</b>	7%

**Figure A11: Future scenario walk-in centre (urgent care centre)**



	Headline
<b>Fixed</b>	23%
<b>Semi-Fixed</b>	70%
<b>Variable</b>	7%

The main impact for the walk-in centre is in the proportion of unavoidable capacity costs, which fall from 75% of costs currently to 48% of the costs in the future scenario. The above graphs illustrate this – in Figure A11 the semi-fixed costs begin to increase at lower volumes relative to full utilisation (ie further to the left) than in Figure A10. This is driven by the increase in the planned volume of activity in the future scenario.

The proportion of unavoidable costs across all the components on average across the case studies, however, increases by approximately 5 percentage points.

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