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Sir Robert Naylor's NHS Estate and Property Review

Naylor Review

Data Analysis – Key Findings

26 October 2016

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Our work, which is summarised in this Report, has been limited to matters which we have identified that would appear to us to be of significance within the context of the scope as identified the Contract.

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Scope of Review

This review has set out to help answer the following three questions:

1. What is the currently available NHS estate both at a national and regional level?

2. What is the relative performance of different areas in terms of estate efficiency?

3. What are the opportunities for estates disposals and residential development at Sustainability and Transformation Plan (STP) level and what would be a fair division of the estates savings requirement at a regional/STP level?

The approach of the Naylor Review to these three questions necessarily reflects the relative maturity of the available data relating to different uses of the estate. The detailed focus of this review is the Acute estate which allows activity and estates data to be combined and to echo the initial focus of the Carter Review. Contextual indicators are also provided for the Non-Acute and Primary Care estates.

The NHS Estate: Context

The NHS occupies a large, diverse and complex estate. The non-Primary Care estate covers over 6,500 hectares of land.

The recorded quality and condition of the estate is stated as variable, ranging from no longer fit for purpose Victorian hospitals to state of the art treatment, teaching and research facilities. By way of example, 14% of the estate by footprint was built before 1948, whilst 36% was built post 1995.

Data Challenges and Impact

Data on the NHS estate is limited. To answer the questions set out above however, the data has been deemed sufficient to indicate the relative size and scale of potential opportunities as the basis for future conversations with STPs. There will need to be an ongoing process of engagement improving both the national data and reconciling this with local intelligence before the scale of challenge to STPs can be further refined.

The analysis provides an estates-focused view to indicate the scale of the potential opportunity to rationalise the health estate. It can provide a basis for challenge of the scale of ambition for estates change in each STP footprint. Through STP engagement, this top down analysis needs to be supported by local site knowledge and clinical requirements to identify and prioritise deliverable opportunities.

The Efficiency Opportunity

Figure 1 – High level methodology

Step 1: Building the dataset and Model

This review developed a linked core dataset which incorporates NHS activity, NHS estates data and other NHS and third party data sources (see Appendix). The development of this dataset represents a significant milestone in estates planning at the national level. However, it should be treated as only the first milestone in a necessary journey to continue to improve collaboration in estate planning across the NHS in order to better understand where the most significant opportunities may exist. The analysis is based on ERIC14/15, which will not capture land sales since data returns were made. The update for ERIC 15/16 could have a material impact on the analysis results and will need to be refreshed.

Step 2: Building Efficiency: Acute

Building efficiency was measured using three separate metrics covering: clinical space efficiency; non clinical space; and un-utilised space. Sites were benchmarked against either the relevant Carter Benchmark or the Upper Quartile of a cohort identified using characteristics appropriate to that benchmark (e.g. using site type for clinical space efficiency).

Comparing current performance to benchmarks across the three metrics, identified a total of c. 4.0 – 5.0 million m^2 in potential surplus space (i.e. c. 18% of total acute GIA) that could be released from buildings.

Step 3: Land Efficiency: Acute

The review indicated that there is a significant potential opportunity to release space from buildings but that the greatest opportunity was likely to be from releasing land: improving the efficiency of site use to the level of the best performers.

Moving all Acute sites to their relevant benchmarks for building and site utilisation suggests a potential opportunity to release c. 1,300 hectares (base case). This represents nearly one third of total Acute land.

Contextual metrics have also been calculated on the efficiency of the non-acute estate. The spread of land efficiency between sites in the non-acute estate is very wide, particularly for mental health, with a small number of very large sites with a small building footprint potentially skewing the position. Further investigation into the mental health estate is recommended before conclusions can be drawn about the potential to extrapolate findings from acute to non-acute.

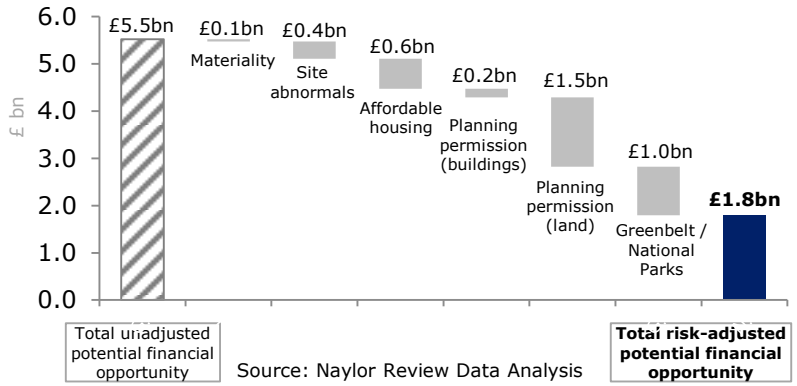
Executive Summary (2)

Step 4: Opportunity: Acute

Converting this potential surplus land into a financial opportunity will be complex, time consuming and could fall short of initial projections for numerous reasons. As a result DCLG 2015 land value benchmarks have been risk adjusted to take account of the challenges of bringing sites to market and maximising value.

Risk adjustments

Figure 2 – Risk Adjustments to Potential Financial Opportunity: Acute



Source: Naylor Review Data Analysis

Figure 2 shows the application of significant risk adjustments to reflect risks and constraints associated with bringing sites to market. Using the base case of c.1,300 hectares of land released, this starts with residential land benchmarks and is then adjusted to a risk adjusted estimate of £1.8bn for the Acute estate, which represents 54% of the acute estate by land area. The £1.8bn estimate does not include any financial opportunity for the remaining 46% of the acute estate. The analysis does not explicitly take account of the time required for these opportunities to be delivered.

The key risk adjustments (accounting for nearly 90% of the downward adjustment) are planning permission, affordable housing and Greenbelt proximity. All of which are amenable to some degree to policy choices and the intervention route chosen. On the ground, the delivery model used can also address planning permission risk, through upfront activity by the landowner to reduce planning risk prior to disposal.

The model is highly sensitive to changes in the benchmarks used around land and to changes in the key risk adjustments impacting value as described above. Being based on benchmarks, the analysis does not include the development potential of ultra-high value sites. It also does not capture radical change in the service delivery model which would allow more intensive land use.

Regional distribution

The regional distribution of the base case opportunity is shown on Table 1 and Figure 3 below. The difference between the regional distribution of area of land and value is stark – the opportunity in London is 13% by size and 57% by value, reflecting a number of very high value sites in London and the South East.

Table 1 – Potential Risk Adjusted Opportunity (Base Case): Acute

Region	Total Acute site area	Total Potential Surplus Land Opportunity	Risk Adjusted Total Potential Financial Opportunity	Total Potential Housing Capacity
	Ha	Ha	£ bn	#
All Regions	**3,548**	**1,322**	**1.8**	**29,922**
North	1,260 (36%)	470 (36%)	0.2 (12%)	8,343 (28%)
South	839 (24%)	321 (24%)	0.3 (18%)	5,302 (18%)
Midlands and East	1,051 (30%)	361 (27%)	0.2 (14%)	6,334 (21%)
London	398 (11%)	170 (13%)	1.0 (57%)	9,943 (33%)

Source: Naylor Review Data Analysis

Figure 3 – Potential Opportunity (Base Case) – Regional Breakdown: Acute

Source: Naylor Review Data Analysis

Executive Summary (3)

Costs and complexity of change

The financial opportunities outlined above are gross of change and reprovision costs. Estimating future reprovision costs is complex - actual costs will depend on site specific factors and local clinical requirements. Analysis of the relative ease of reprovision across STPs suggests that London STPs (where over 50% of the financial opportunity is derived) face relatively high levels of reprovision challenge.

Non-Acute estate (non primary)

Due to differences in service delivery the ratio of building area (GIA) to site area is higher for Acute sites relative to Non-Acutes at an STP level. The distributions of these ratios have been calculated for each setting. The range of building area (GIA) to site area ratios has been calculated for acute and mental health sites. The range between the 10th and 90th decile for this ratio, shown below, indicates that mental health sites are less intensively used than acute sites.

- Acute: 36% - 78%
- Mental health: 11% – 35%

This difference in range warrants a more detailed review, in particular to identify potential opportunities on the Mental health estate.

Primary Care estate

The delivery model of single handed and small GP practices, is likely to be inconsistent with the developing service strategies to move more care out of hospital into community settings. In the absence of a comprehensive national estate dataset on Primary Care, some simple rules were used to test how much of the estate may fit the future vision of care, including a move towards larger branches. On this basis c.30% of branches were identified as likely needing change to align with this vision.

Indicative Opportunities related to the wider estate

The benchmarking analysis has identified a risk adjusted potential financial opportunity for the Acute estate. To better understand the potential opportunity across the wider NHS estate, DH have undertaken some calculations to estimate the additional opportunity that might be available from the Non-Acute Estate and incorporated the findings from the Naylor Review's London High Value Sites workstream. Internal DH analysis has identified an additional £0.9bn in potential opportunity which should now be investigated further to validate. This analysis has not been verified by Deloitte.

Next Steps

The financial opportunity identified is significant but will not all be easy, cheap nor quick to access. Time, substantial capital investment and likely additional / different resources and skills are needed to allow reprovision of services where needed, while other workstreams within the Naylor review have identified the wider system changes required to help support change. The positive conclusion from this review is however that material efficiencies and value could be achieved by a structured and well considered rationalisation of the current portfolio without adversely impacting health provision.

Support should be prioritised in areas where the opportunity is significant, balanced alongside lower value but more deliverable opportunities.

The process of risk adjustment and sensitivity testing has highlighted some of the key areas where actions could be taken to reduce risks:

- Providing support to STPs to help them to release land at scale – the system changes needed to deliver this are being considered through other workstreams in the Naylor review – for example financial incentives, governance and skills;

- Considering how the site delivery model can reduce risk, particularly how planning permission risks can be reduced prior to disposal. Other departments (such as the Homes and Communities Agency and Ministry of Defence) already have strategies in place to allow for the time and investment to de-risk appropriate sites prior to disposal; and

- Working with relevant national, regional and local government stakeholders to consider the impact of major risk factors (planning permission, affordable housing requirements and Greenbelt) which might be amenable to some degree to policy choices.

Additional opportunities outside of the Acute estate should also be investigated in the mental health estate, the remainder of the Non-Acute estate and looking at more intensive back office consolidation. Regarding the Primary Care estate more work is still required on providing the management information needed to support good strategy setting.

Introduction

Sir Robert Naylor has been appointed to advise Department of Health (DH) on the efficient use of health land and property. To support his review, analysis of certain currently available data on the health estate (alongside other data sources) is being undertaken to help answer three questions:

1. What is the currently available NHS estate both at a national and regional level?
2. What is the relative performance of different areas in terms of estate efficiency?
3. What are the opportunities for estates disposals at STP level and what would be a fair division of the estates savings requirement at a regional/STP level?

The reasons why these questions are being asked now include:

- The financial pressures facing the NHS – Lord Carter's independent review of 'Operational productivity and performance in English NHS Acute hospitals' (2016) reported the cost of running the estate as over £8bn per annum and found that the most expensive trusts spend 3.8 times more per m^2 on estates running costs than the least expensive;
- DH targets for the release of surplus land include a capital receipts target of £2bn and a housing land release target to deliver 26,000 units, both over 5 years (Comprehensive Spending Review 2015);
- An estate which is increasingly not fit for purpose based on current delivery models and with a significant backlog maintenance requirement (risk adjusted backlog reported as c. £1.6bn in ERIC 14/15);
- Moves to new clinical models which increasingly emphasise moving delivery of care closer to the patient; and
- New approaches to planning care through 44 multi year Sustainability and Transformation Plans (STP), which will include an STP level estate strategy bringing together all areas of the estate (Acute, Non-Acute, primary, other).

The movement to a more collaborative approach at the STP footprint level has been central to how this estates review has been planned and undertaken, with the STP being the core geography for reporting and comparison. Recognising that different STPs are at different levels of maturity in developing their STP estate plans, the analysis has been prepared to assist and help drive the collaborative estate planning process.

The analysis builds on the approach developed in Lord Carter's independent review which detailed various metrics and benchmarks enabling comparison between providers. One resource area that the review looked at was the hospital estate where the metrics identified variation in both running costs and the amount of non-clinical space. The use of benchmarking in this way was proven to be an effective starting point in helping conversations about 'what good looked like' and where opportunities of underperformance should be investigated further. This analysis further utilises some of the same estates benchmarks as Lord Carter applied.

The analysis included in this report utilises and combines core NHS data sets, which are familiar and regularly used in the health system and have been populated by providers. On estates, amongst other data sets, the analysis in this report utilises ERIC 2014/15 (Estates Return Information Collection). DH intends to refresh the analysis when ERIC 2015/16 data is available.

Data on the NHS estate is limited. To answer the questions set out above however, the data has been deemed sufficient to indicate the relative size and scale of potential opportunities as the basis for future conversations with STPs. There will need to be an ongoing process of engagement improving both the national data and reconciling this with local intelligence before the scale of challenge to STPs can be further refined.

The analysis provides an estates-focused view to indicate the scale of the potential opportunity to rationalise the health estate. It can provide a basis for challenge of the scale of ambition for estates change in each STP footprint. This top down analysis of estates data needs to be supported by local site knowledge and estates priorities emerging from clinical requirements to develop local plans in the light of that additional information.

Unless otherwise stated, all analysis in this report is taken from the **Department of Health Model dated 17/10/16** in accordance with the method and assumptions set out in the Appendix of this report.

Scope and Approach

Approach

Ownership of the health estate is fragmented. This fragmentation of ownership contributes to the variable quality of the data. Ownership sits with Foundation Trusts, NHS Trusts, the property companies (NHS Property Services and Community Health Partnerships) and in Primary Care much of the space is leased from the private sector or owned by GP practices.

The best available estates data is in ERIC and covers the estate owned and operated by secondary care providers, i.e. it excludes Primary, Dental and some Community Care estate. Data on the size of the Primary Care estate is not consolidated nationally. As a result, the approach to the three questions set out in the introduction reflects the relative maturity of data relating to different sectors.

The estate captured within ERIC is highly diverse, ranging from specialist hospitals to community delivery of Mental Health services. In order to allow meaningful consideration of clinical activity alongside estates metrics and to allow greatest like-for-like comparison, the focus of our analysis is the Acute estate (identified as sites where the organisation type and site type are both Acute). This echoes the initial focus on the Acute estate in the Carter Review. The Acute estate represents 75% of the building area within ERIC and 54% of the land, as set out in Table 2.

As a result the three questions have been addressed differently for the different parts of the estate.

Table 2 – Land and buildings within ERIC

	ERIC	Acute	Acute as a % of ERIC
GIA (m^2)	26,361,575	19,801,495	75%
Land (Hec)	6,518	3,548	54%
Number of Sites	1,251	294	26%

Source: ERIC 14/15

Table 3 – How the questions are addressed:

Question	Acute	Non-Acute (ERIC remaining)	Primary Care
1. What is the currently available NHS estate both at a national and regional level?	• Building and site area by site type	• Building and site area by site type	• No. practices • List sizes
2. What is the relative performance of different areas in terms of estate efficiency?	• Building Area / Activity • Additional efficiency measures for land and buildings	High level analysis by • Population / Building Area • Building Area / Site Area	• Fitness for purpose determined by practice list size
3. What are the opportunities for estates disposals at STP level?	• Benchmarking against peer groups to identify potential surplus land	• Highlight areas for further investigation	• N/A due to data limitations

Use of the analysis

The Acute analysis is carried out at the most granular level available, usually site, and then aggregated into an STP level picture. It is important that analysis at a site level is not considered in isolation of the other sites within an STP geography. The analysis is designed to support discussion at the STP level and to assist in highlighting opportunities at the STP level rather than at a individual site level. For example, the analysis may highlight that at one site the ratio of clinical and non-clinical space is too low, which suggests space should be released. However, there may be a very good reason for this if the provider/STP has elected to focus teaching/back office activities on one site and this one site is offset by others where the ratio is better than the benchmark. This highlights the critical importance of any next stage to this review, actively engaging with STPs and Trusts to understand these local factors.

The output of this work will help the system prioritise effort in releasing capital receipts and housing capacity. The analysis will not be able to identify which individual sites should release surplus building area and/or surplus land but instead by looking at activity levels combined with benchmarking of estates utilisation levels, it should enable the system to engage with each STP to have informed discussions about the formation of future estate plans.

The NHS Estate

The NHS occupies a large, diverse and complex estate. The estate as recorded in ERIC (Acute and Non-Acute) includes over 6,500 hectares of land. The regional distribution is shown in Figure 4.

Within the ERIC estate, the Acute estate (by provider and site type) represents the largest proportion (54% of land), followed by the estate relating to mental health and learning disability providers (34% of land) as shown in Figure 5.

The Gross Internal Area (GIA) of the ERIC estate is 26.4 million m^2 – greater than the area of all offices in central London (source: Deloitte research).

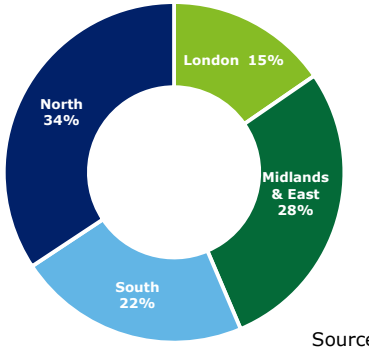
The quality and condition of the estate is variable ranging from no longer fit for purpose Victorian hospitals to state of the art treatment, teaching and research facilities.

- Age: 18% of the estate by footprint was built before 1948, whilst 37% was built post 1995, as shown in figure 6.
- Fitness for purpose and condition of the estate:
  - c. 12% of the provider estate is described in ERIC as not functionally suitable
  - the cost to eradicate the risk adjusted backlog maintenance is reported as almost c. £1.6bn in ERIC and will require substantial validation

As well as its size, the estate has a significant value:

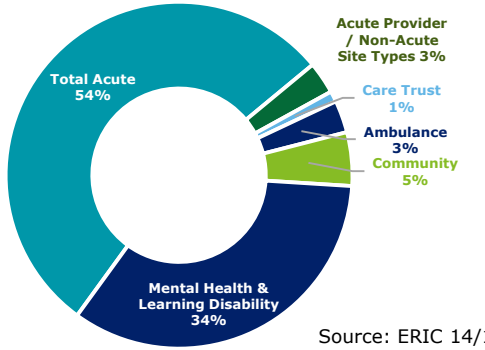
- The book value of the NHS Land is c. **£6bn** (DH 14/15 Financial Accounts) – but it is recognised that book values are calculated based on the accounting requirements to reflect the cost of replacing the remaining service potential / utility of the asset.
- By applying high level publically available data on 2015 DCLG residential land value benchmarks (typically the likely highest value alternative use) and broad risk adjustments (as set out in the Appendix) to the available data on the ERIC estate, we have derived a high level, risk adjusted estimate of the potential scale of the Acute and Non-Acute estate of **c. £9 – 11 bn**. This is an illustrative figure which must be regarded as directional only. It will require substantial validation. It is highly sensitive to assumptions around planning permission, amongst others. DH requested a hypothetical scenario where the risk adjustment for planning permission is removed (i.e. replaced with an assumption that all sites are sold with no planning risk, for example with full planning permission for the purchaser's preferred scheme). In this unlikely scenario the illustrative figure would become £17 bn.
- In Primary Care, nationally there are over 7,000 GP practices (NHS Digital September 2015), occupying premises across different tenures. To illustrate the broad magnitude of area occupied by the primary estate, if each practice occupied the benchmark floor area recommended for its list size (NHS-England), the primary estate would have a building area of the order of 4 – 5 million m^2.

Figure 4 – Site Area by Region (All ERIC land)



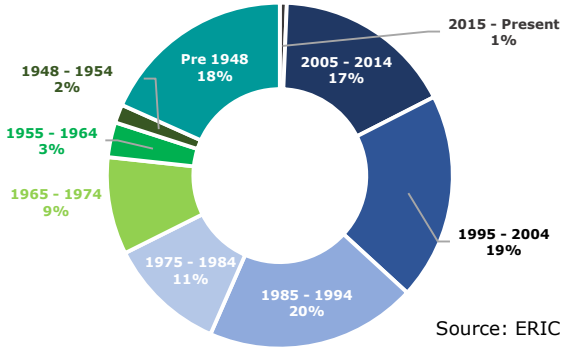
Source: ERIC 14/15

Figure 5 – Site Area by Provider type (All ERIC land)



Source: ERIC 14/15

Figure 6 – Building Weighted Age (All ERIC Land)



Source: ERIC 14/15

Outline of Work Undertaken

The flowchart below outlines the key steps undertaken in completing the analysis. A more detailed explanation of the full methodology can be found in the Appendix.

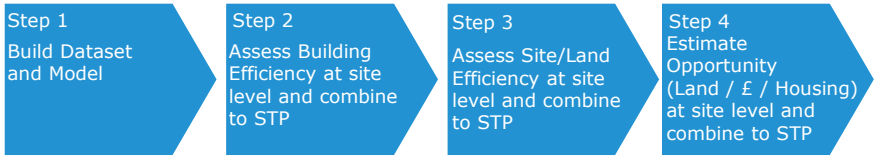


Figure 7 – High level methodology

The overall approach and assumptions have been calibrated in three STP meetings. It is assumed that the work will be tested further with STPs as next steps.

Step 1:

As part of the review we have developed a linked core dataset which incorporates HES activity data, ERIC estates data, and other key data sources that will assist in understanding where significant estates opportunities exist across the NHS. The main data sources used are summarised in Figure 8 opposite.

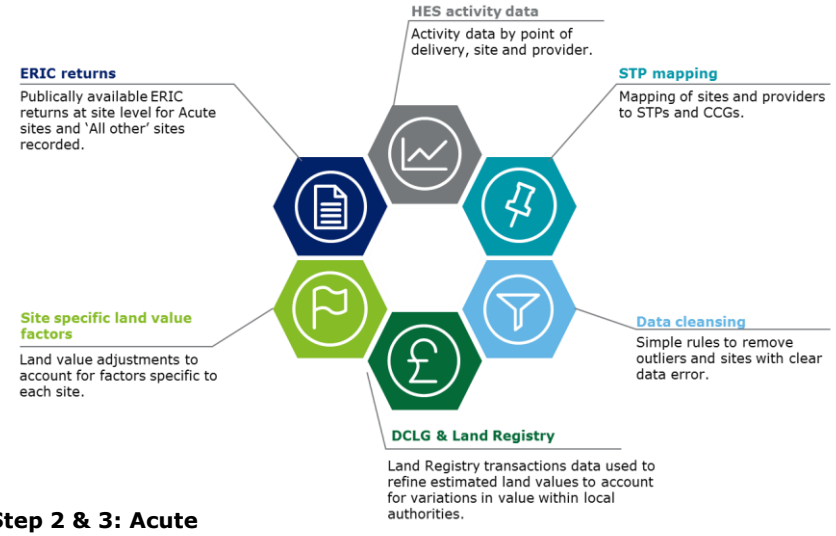
The completion of this dataset represents a significant milestone in estates planning at the national level but should be treated as only the first milestone in a journey to improve collaboration in estate planning across the NHS.

The analysis undertaken represents a 'snapshot' of the estate and is based upon data input during the ERIC 14/15 data returns. The dataset has been developed to enable 15/16 ERIC data returns to be easily incorporated.

In undertaking the analysis and engaging with providers and STP representatives we have highlighted a number of recommendations for how the ERIC data can be improved and key elements of it prioritised. These are set out in the Next Steps section of this report.

Ongoing engagement with STPs and providers as well as the potential to draw on emerging sources of additional data will enable the analysis to be further refined over time. Local representatives will bring to the discussion site specific factors that are not captured in national data sets and are crucial to the validation of each value release opportunity.

Figure 8 – Model Datasets



Step 2 & 3: Acute

Recognising the above limitations, the following metrics have been calculated at site level for the Acute estate (subject to data constraints). Sites have been allocated a cohort and compared against the relevant benchmark to calculate indicative site level opportunities which are then combined to STP level.

Table 4: Metrics, Cohorts and Benchmarks

Metric	Cohort characteristic	Benchmark
1. Clinical floorspace per weighted activity unit	Site type (ERIC)	Upper Quartile
2. Non-clinical occupied floor area / (total clinical + non-clinical occupied floor area)	Carter benchmark	35%
3. Un-utilised building	Carter benchmark	2.5%
4. Facility footprint to site area (Base case)	Rurality (rural / non-rural / London)	Upper Quartile
5. GIA to site area (Unconstrained case)	Rurality (rural / non-rural / London)	Upper Quartile

Step 4: Acute

The building surplus floorspace is translated into hectares before being added to the land opportunity. A capital receipt is estimated using residential development benchmark values and risk adjusted to reflect the barriers and constraints encountered when taking surplus sites to market.

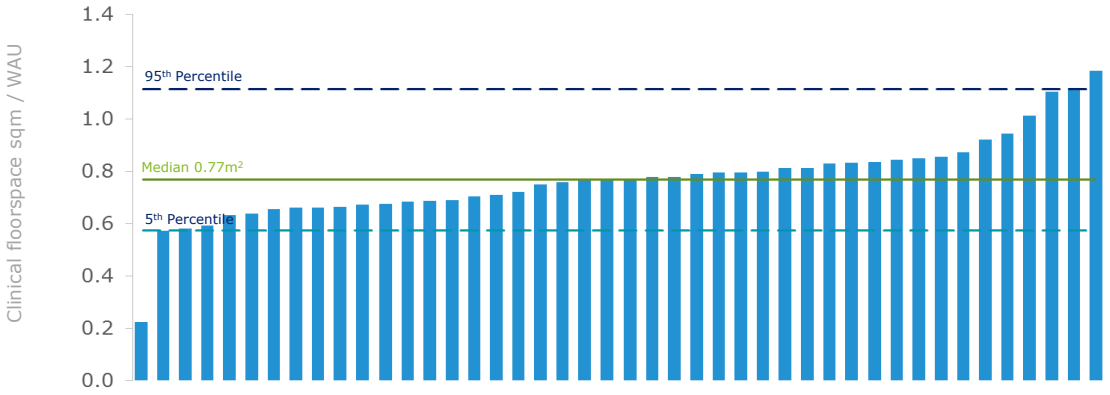
Assess Building Efficiency

Metric 1 - Clinical Floorspace per Weighted Activity Unit (WAU)

Site level benchmarking → Site level opportunity → Combine to STP

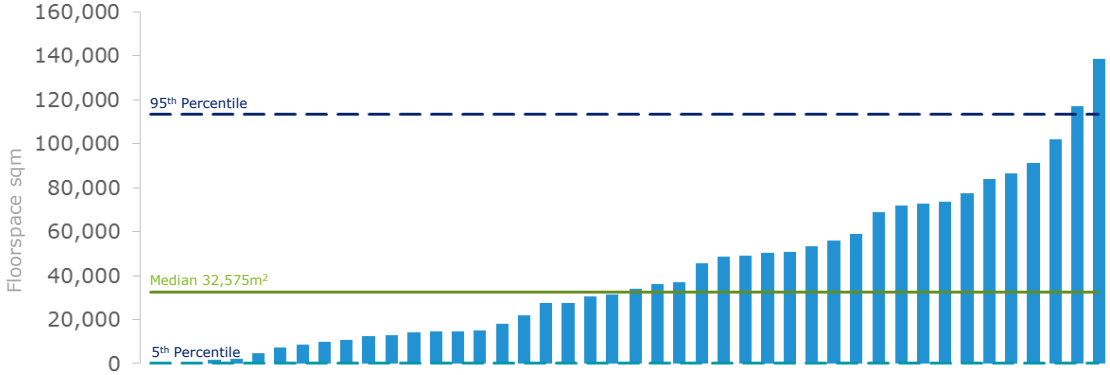
The performance of each site is calculated on each metric, then compared to the relevant benchmark. This difference is used to calculate the floorspace or land opportunity that could be released if the site performed at the benchmark. These are added together to identify a potential opportunity at STP level.

Figure 9 – STP Distribution: Clinical Floorspace per WAU (m²)



Source: DH estates benchmarking model

Figure 10 – STP Distribution: Floorspace released from WAU (m²) benchmarking



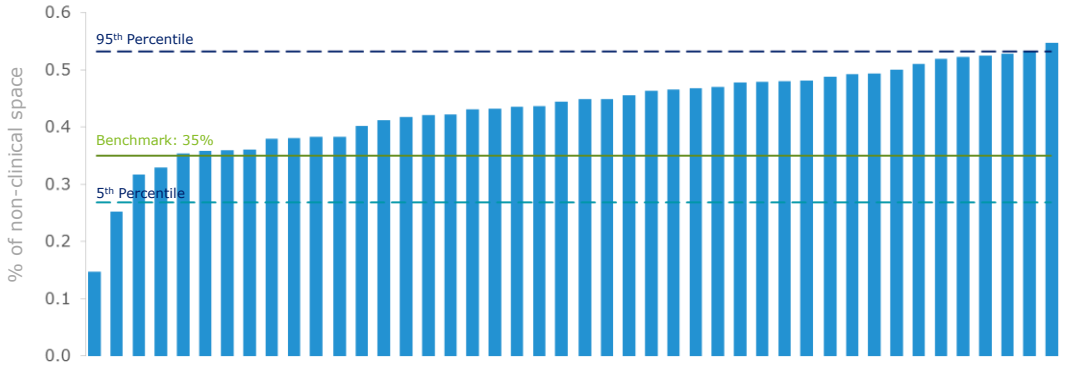
Source: DH estates benchmarking model

- Figure 9 shows the distribution of how much clinical space (m^2) each STP uses to deliver one Weighted Activity Unit(WAU).
- The Carter Weighted Activity Units have been used as the measure of relative total activity levels across each site. The benefit of using this approach is that it relies on existing activity weightings that are already used and recognised by the system.
- Comparing the WAU of each site against the amount of clinical floorspace used gives an indicator of how intensively the clinical elements of the site are being used,.
- At a site level the range is 0.50 – 1.24 m^2 per WAU (based on the inter-decile range to remove outliers). Sites have been allocated to cohorts based on ERIC site types before benchmarking to allow for different delivery models, e.g. specialist hospitals.
- Sites are benchmarked against their cohort (see Table 4) and the site level opportunity is calculated. This is aggregated to STP level.
- The range across STPs is 0.6m^2 to 1.1m^2. The analysis shows a broad distribution across the STPs with some STPs using 50% of the clinical space used by other STPs to deliver each Weighted Activity Unit.
- Figure 10 shows the distribution of space that could be released from each STP if each site within the STP was able to move towards the upper quartile benchmark of their cohort.
- The amount of space released ranging from minimal levels where STPs have most sites performing at or below the benchmark to instances of over 100,000m^2.
- In total this change could potentially release around c.1.8 million m^2. To put this into some context this equates to c.30 average general Acute hospitals. This metric represents 6% of the total surplus land opportunity.
- Rather than consider this space saving in isolation, it is a useful metric for STPs when comparing the efficiency of individual sites, preparing clinical strategies and looking at the transfer of care between sites.
- It should be noted that as a result of an update to the definitions around clinical / non-clinical space in ERIC 15/16 these results may change significantly when the model is updated with ERIC 15/16 data.

Assess Building Efficiency

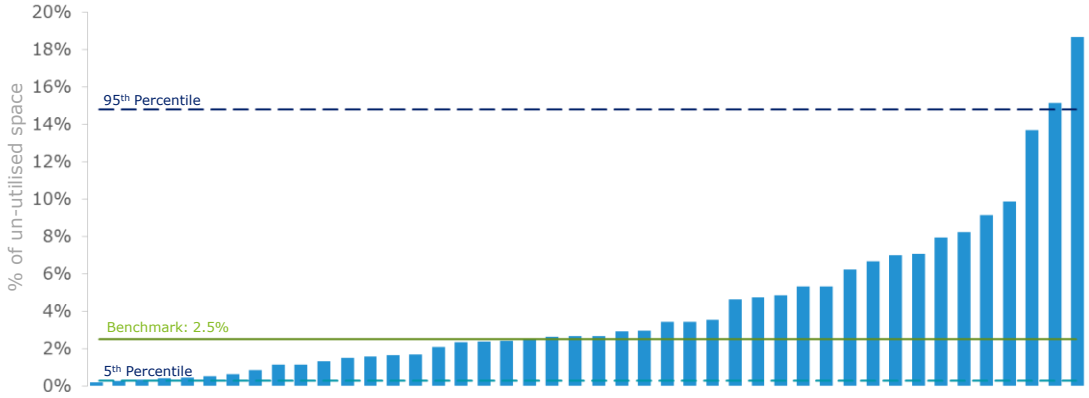
Metric 2 & 3 – Non-Clinical Floorspace and Un-utilised space

Figure 11 – STP Distribution: Non-Clinical Floorspace as % of Total Floorspace



Source: DH estates benchmarking model

Figure 12 – STP Distribution: Un-utilised space as % of Total Floorspace



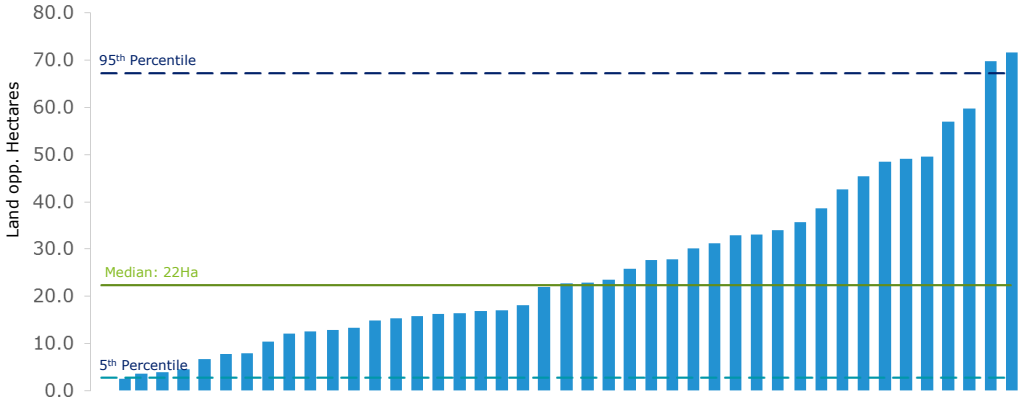
Source: DH estates benchmarking model

- Figure 11 shows the distribution of how much non-clinical floorspace there is in each STP as a percentage of clinical occupied + non-clinical occupied floorspace.
- This metric formed part of the Carter review on estates efficiency and the recommended benchmark was 35% for Acute hospitals.
- Acute sites within each STP have been compared to the Carter benchmark. For non-clinical space a negative opportunity is carried forward to a site level and can be offset against other building metrics. This is intended to provide some allowance for strategic decisions to concentrate non clinical space on one site.
- The calculation shows that 69% of sites are above the recommended benchmark of 35%.
- Once aggregated to STP level, this identifies c. 2.7 million m^2 of potentially surplus non-clinical occupied floorspace. This metric represents 10% of the total potential surplus land.
- Figure 12 shows the distribution of how much space has been classified as un-utilised in ERIC as a percentage of total floorspace aggregated to STP level.
- This metric was also used in the Carter review with a recommended maximum benchmark of 2.5%.
- Adopting the same methodology as in Metric 2 above, 25% of sites are above the recommended benchmark.
- This identifies c. 0.1 million m^2 of potentially surplus un-utilised floorspace, which is less than 1% of the total potential surplus land.
- Once aggregated to STP level, 3 STPs have un-utilised space across their sites of over 10%, which is four times the recommended benchmark.
- The potentially surplus floorspace across the three building metrics (1,2 and 3) is c. 4.7 million m^2. This is converted into hectares before being combined with land opportunities. The combined potential floorspace identified in Metric 1,2 and 3 equates to c. 200 hectares once converted from building area to site area.
- Together the three building efficiency metrics represent 16% of the total surplus land opportunity.
- As a result of an update to the definitions around clinical / non-clinical space in ERIC 15/16 these results may change significantly when the model is updated with ERIC 15/16 data.

Assess Land Efficiency

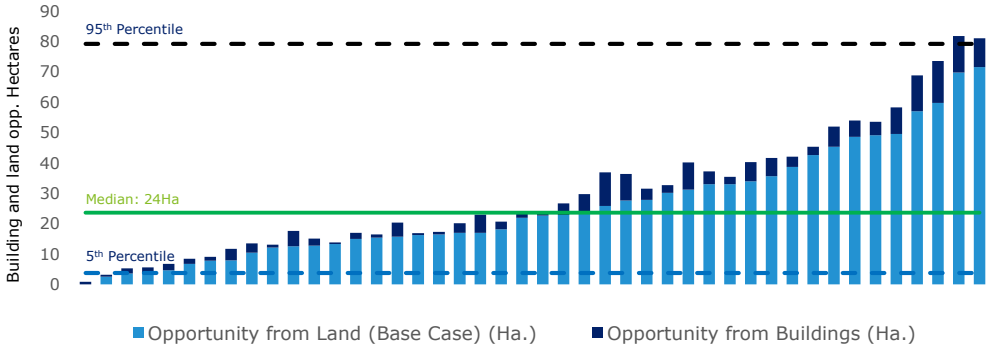
Metric 4 – Measuring Potential Surplus Land (base case)

Figure 13 – STP Distribution: Land Opportunity – Base Case



Source: DH estates benchmarking model

Figure 14 – STP Distribution: Land & Building Opportunity – Base Case

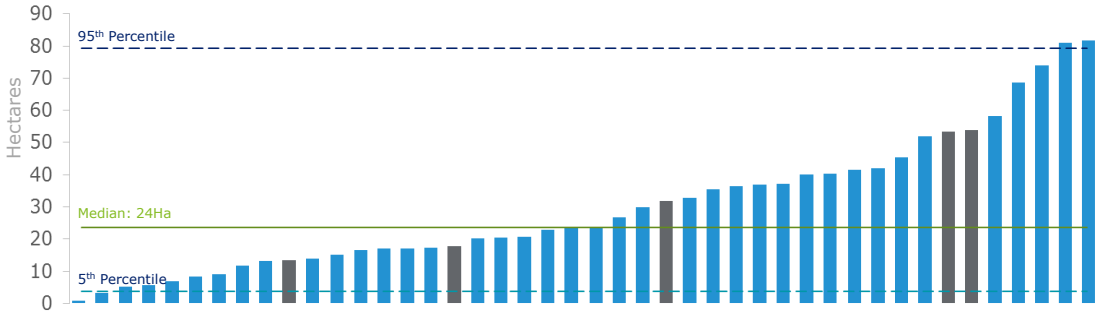


Source: DH estates benchmarking model

- Figure 13 shows the distribution of land opportunities that could be identified for release by each STP.
- In the base case, the land opportunity is calculated by assessing at a site level the ratio of facility footprint (building footprint plus allowances for car parking) compared to the overall site area. This ratio is then benchmarked at a site level against the upper quartile performance of others in the cohort. An alternative (unconstrained) scenario for land release is shown later. This work does not consider the "right" level of car parking to be provided at a hospital, given the range of complex factors involved.
- Once aggregated to STP level, there is a very broad distribution of land opportunity between STPs ranging from 0 to 72 hectares, again highlighting the importance of grouping into cohorts (rural / non-rural / London before benchmarks are applied.
- The total base case land opportunity Metric 4 is c. 1,100 Hectares and represents 68% of the total risk adjusted financial opportunity.
- Figure 14 shows the combination of potentially surplus building floorspace released from Metrics 1, 2 and 3 previously with the base case land opportunity calculated in Metric 4 above. Going forward the combined opportunities arising from the four metrics is referred to as potential surplus land opportunities.
- For each STP the height of the bar represents the aggregate of opportunity from both improved building utilisation and improved land utilisation.
- Across all STPs the majority of the potential opportunity comes from improved land efficiency rather than building efficiency. Typically 70-90% of the surplus land area comes from Metric 4 above.
- The combined potential surplus land opportunity is calculated as c. 1,300 hectares, which is significantly more than the already declared surplus of c. 300 hectares which covers the Acute and Non- Acute estate (Source: 2015 DH Surplus Land Data Collection).
- Although the scale of opportunity has been calculated bottom up, based on the performance of each site against benchmarks it is not intended to suggest that those sites are the right sites for estate rationalisation. At an STP level a strategic review of the estate may conclude that some activities are best consolidated into buildings which currently perform poorly against benchmarks in order to release strategic opportunities elsewhere.
- It is also important to note that land efficiency is considerably influenced by the specifics of the physical site, including access, layout, topography, re-usability, neighbourhood / adjacent uses, etc. So this benchmark approach can only aim to assist in directing focus towards areas of apparent maximum potential opportunity.

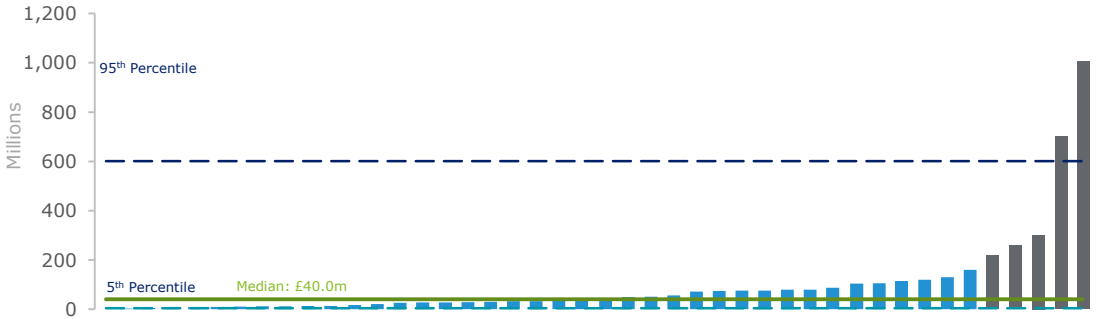
Estimate of Opportunity
Surplus Land

Figure 15 – STP Distribution: Potential Surplus Land Opportunity (Base Case)



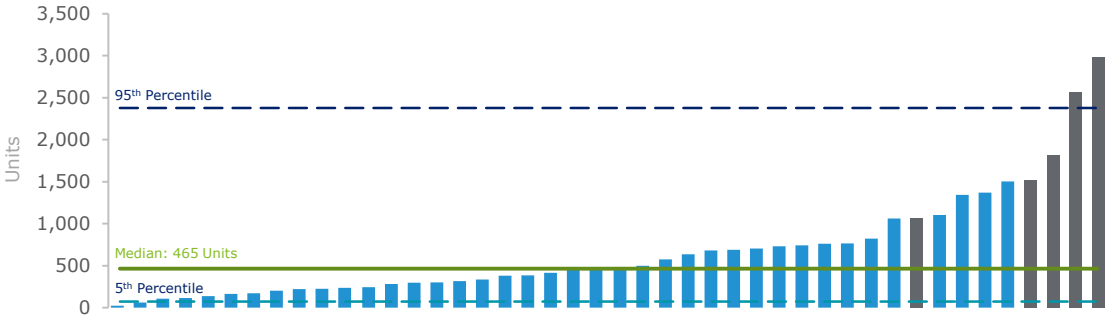
Source: DH estates benchmarking model

Figure 16 - STP Distribution: Potential Financial Opportunity (£)



Source: DH estates benchmarking model

Figure 17 – STP Distribution: Potential Housing Capacity (Base Case)



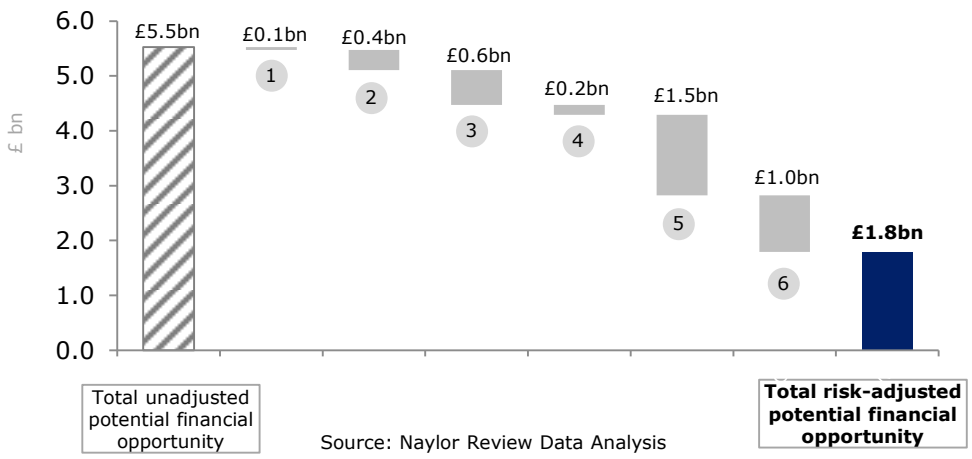
Source: DH estates benchmarking model

- Figures 15, 16, and 17 show the STP distribution of potential surplus land opportunities (calculated as the sum of building and land opportunities, taking the land base case (metric 4)). The first expresses the opportunity as hectares, the second as financial opportunity, and the third in housing units.
- As set out in Figure 14, moving all Acute sites to the relevant benchmarks for building and site utilisation releases a potential opportunity of c. 1,300 hectares. Figure 15 illustrates how each STP contributes towards the c. 1,300 hectares of potential opportunity, with London STPs highlighted in dark grey.
- As part of the analysis we have attributed an unadjusted financial value to the potential surplus area. Figure 16 shows the total potential financial opportunity for each STP. The financial opportunity is heavily concentrated in a small number of STPs. The top five STPs by value are all in London and represent over 50% of the financial opportunity. These are shown opposite in grey bars.
- This estimate of potential financial opportunity needs to be adjusted for a range of risk factors as shown on the next page.
- This analysis also assumes that the surplus land can be released for residential development (typically the highest value alternative use) although in practice other lower value uses may be more closely aligned to planning policy.
- Figure 17 shows the STP distribution of how many housing units the potential surplus land could translate into with a total of c.30,000 units and a median of 465 units per STP footprint. The reason why the shape of the distribution does not exactly match that in Figure 15 is because a higher housing density is assumed in London compared to the rest of England.
- In reality, there will be many barriers and challenges in releasing parcels of land for residential development and in many instances across the country this will not be possible nor represent value for money. The analysis shows that the highest value opportunities sit in London whilst land and housing opportunities are more evenly spread across the country. Prioritisation of effort to support land value release is likely to need to consider value, scale and ease of estates change.
- Local site factors will also considerably influence the nature of any development, its density, attractiveness and value. There is also a potentially substantial variance across geographies between market housing value and affordable housing values.

Risk adjusted potential financial opportunity

As set out on the previous page the base case analysis suggests a "potential opportunity" of c. 1,300 hectares. Converting this potential surplus land into real capital receipts will be complex, time consuming and likely to fall short of initial aspirational projections. This page therefore sets out how initial benchmark values have been pragmatically adjusted for risk factors.

Figure 18 – Adjustments to Potential financial opportunity



Source: Naylor Review Data Analysis

- DCLG land value estimates have been applied. These are residential land values based on Valuation Office Agency (VOA) calculations and assume amongst other things, planning consent, nil affordable housing and a clean, serviced site.
- The use of residential values reflects DH's housing targets. In the majority of cases, residential would be the highest alternative value for the site. In practice some sites will gain planning consent for lower value uses which would reduce values below the levels described here.
- Simply applying the DCLG land values estimates would translate into over £5bn of potential financial opportunity from the potential surplus land identified. This is unrealistic as it fails to account for the many challenges in taking surplus sites to market and maximising value.
- The timeframes associated with releasing sites and taking surplus land sites to market have also not been considered in the analysis. The financial opportunities set out are not timebound and would take a significant period of time to be received.
- The DCLG land value estimates were prepared in 2015. Land value assumptions reflect the market at the time and are not forward looking. Potential financial opportunities are not adjusted for future housing market expectations.

- The analysis has therefore applied a number of adjustments to these land values to endeavour to more accurately reflect the realistic value that could be identified. These are as follows (described in more detail along with sources in the Appendix):

1. Materiality – Removal of all surplus building opportunities under 100 sqm and land under 0.5 ha on the basis that the time and effort to release and dispose of them piecemeal might not be financially viable (although this might not be the case for small London sites).
2. Site Abnormals – Costs incurred prior to disposal, which would not apply to a typical site, e.g. asbestos, demolition and remediation.
3. Affordable Housing - Typically 35% - 50% requirement for affordable housing in Local Plans. Our market insight suggests that due to the economic viability of health sites, the lower end of this range is typically achieved.
4. Planning Permission risk (Building) – A discount of 25% has been applied to building space to reflect planning risks (see land below).
5. Planning Permission risk (Land) - At each site, the risk associated with obtaining planning permission will be different, impacted by factors such as Local Plans and the purchaser's view of risks relating to obtaining planning permission for their envisaged scheme. Market insight suggests that discounts applied range from 30-80% depending upon site status. A mid-point of 50% has been used for land to reflect the wide range of sites in the portfolio.
6. Greenbelt / National Parks – At each site within or on the fringe of Greenbelt and National Parks boundaries, the 50% planning permission discount for land is replaced with a 75% discount to reflect the reduced likelihood of gaining planning consent.

- Once adjusted for the above factors the potential financial opportunity of the base case is reduced from **£5.5bn** to **£1.8bn** in gross receipts (i.e. before transaction and reprovision costs).
- Adjustment factors were calibrated in three meetings with STPs.
- This shows that the financial opportunity that can be realised is heavily driven by government policy and planning considerations (Adjustments 3-6) and the extent to which Trusts can obtain planning consent for residential development at higher density levels (which will likely require skills not always present in the health system at the moment). Additional costs associated with gaining planning consent have not been included.
- Planning, affordable housing and Greenbelt assumptions are all amenable to some degree with policy levers.

Acute Estate – The base case, risk adjusted opportunity (Ha / £ / Housing Capacity)

Table 5 – Potential Risk Adjusted Opportunity (Base Case) – Regional Breakdown

Region	Total Acute site area	Total Potential Surplus Land Opportunity	Risk Adjusted Total Potential Financial Opportunity	Total Potential Housing Capacity
	Ha	Ha	£ bn	#
All Regions	**3,548**	**1,322**	**1.8**	**29,922**
North	1,260 (36%)	470 (36%)	0.2 (12%)	8,343 (28%)
South	839 (24%)	321 (24%)	0.3 (18%)	5,302 (18%)
Midlands and East	1,051 (30%)	361 (27%)	0.2 (14%)	6,334 (21%)
London	398 (11%)	170 (13%)	1.0 (57%)	9,943 (33%)

Source: Naylor Review Data Analysis

Figure 19 – Potential Opportunity (Base Case) – Regional Breakdown

Source: Naylor Review Data Analysis

Key Findings

- Based on benchmarks, the analysis shows that a significant surplus land opportunity is potentially available across the Acute estate. The base case analysis shows a potential opportunity of c. 1,300 hectares which represents over one third of the total Acute land.
- The regional distribution of land opportunities reflects the distribution of the estate. However, the regional distribution of the potential financial opportunity demonstrates the variation in land values across the country.
- Once risk adjusted for planning permission, affordable housing, Greenbelt proximity and other abnormals, this equates to £1.8bn in potential financial opportunity.
- Over half of this financial opportunity is focussed within the London STPs. The high value of land in London results in 57% of the potential financial opportunity being driven by 13% of the total potential opportunity in terms of hectares.
- The housing opportunity also has a greater London emphasis, as a result of higher residential development densities. Potential housing capacity across the surplus estate has been estimated at c. 30,000, with 33% of these being delivered by potential surplus land identified in the London STPs. It should be noted that a single density (35 units p ha) has been applied outside London (reflecting the assumptions underpinning VOA calculations for DCLG land value benchmarks). This means that the scale of housing opportunity in high density, non-London locations (e.g. city centres) could be understated. This is an area that should be further refined as the model is taken forward.
- This supports the need for careful prioritisation of effort particularly towards the London STPs balanced across relatively lower value, relatively deliverable opportunities elsewhere in the country.
- Reduction in the size of the estate also has the potential to reduce running costs. If all the building opportunities identified were implemented this would lead to a reduction in building area of c. 5 million m^2. Applying average FM costs from ERIC would provide an illustrative reduction of c. £0.5bn (soft FM) to c. £1bn (hard and soft FM) if all running costs associated with the buildings could be saved. In practice it is unlikely that all costs could be saved due to the existence of fixed costs and because more intensive use of the remaining estate would be likely to increase the running costs of those buildings, significantly reducing potential net savings. In addition, the profile of sites where reductions are calculated may not reflect the average of sites in ERIC. However, this potential saving is a viable additional benefit of the process.

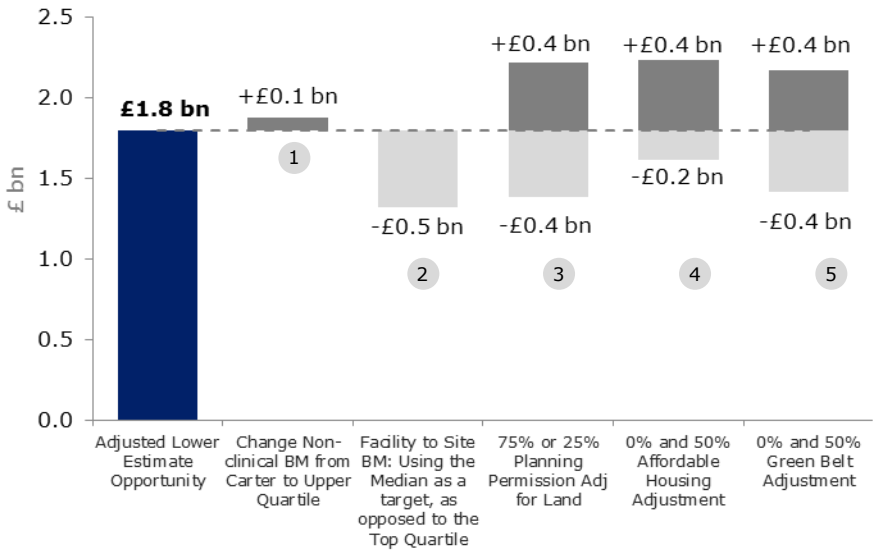
Sensitivity Testing – Impact of changing key assumptions in the base case

- This analysis relies on a number of assumptions, outlined in the Appendix, along with the rationale and source for each.
- Sensitivity analysis has been undertaken to understand the materiality of each of the following five assumptions to the assessment of the potential financial opportunity:

  Taking each adjustment in turn:

  1. Non-Clinical Benchmark – Rather than use the Carter benchmark of 35% it was changed to the national upper quartile figure of 32%. The impact at c. £80m reflects the increase in estimated opportunity from using a more efficient benchmark.
  2. Land Opportunity Benchmark – Rather than use the upper quartile Metric 4 was changed to the median facility to site ratio. In simple terms this reflects the impact of asking what if 50% of the sites improved to the median, instead of asking what if 75% of the sites moved to the upper quartile. The impact of c. £500 m shows that the point at which this benchmark is set is material to the outputs of the analysis.
  3. Planning Permission risk adjustment – Rather than use the assumption of a 50% value adjustment for planning permission risk relating to surplus land, it was changed to 75% or 25%. This demonstrates the impact of the planning risk of sites when they are taken to market and the resulting discount that a purchaser may apply. Changing this assumption by 25% results in the potential financial opportunity increasing or decreasing by c. £400m, reflecting the significant impact that this assumption has in driving the total financial opportunity estimated by the analysis.
  4. Affordable Housing element – Rather than use the assumption of 35% of housing units being required as affordable, it was changed to 0% or 50%. This reflects the impact of the affordable housing requirements placed on a development by local planning authorities on the residual value of land. The potential financial opportunity increases by c. £400m when 0% affordable housing is assumed demonstrating the materiality of this assumption.
  5. Greenbelt adjustment – Rather than use the 75% planning permission risk adjustment for land for sites that are located in proximity to Greenbelts or National Parks, it was changed to 100% or 50%. The resulting c. £400m increase or decrease to potential financial opportunity reflects the value of the potential opportunities at sites impacted by this issue.

Figure 20 – Sensitivity Testing (Base Case)



Source: Naylor Review Data Analysis

The sensitivity analysis demonstrates that the financial opportunity is highly sensitive to the key determinant of the volume of potentially surplus land (benchmark metric 4) and to the key adjustments made to value (most significantly the planning permission risk adjustment).

Taking the sensitivities individually, a range of £1.3bn - £2.2bn can be seen.

Combining several sensitivities gives a range of:

- Lower (sensitivities 2, 3, 4 and 5) – £0.7bn
- Upper (sensitivities 1, 3, 4 and 5) – £3.3bn

(Note these do not reconcile to the sum of the individual impacts due to interaction).

In seeking to maintain and potentially grow the financial opportunity, STPs and DH might therefore want to consider

- What are the barriers of getting to upper quartile performance on facility to site ratio and does the investment needed represent good value for money?
- What can be done to increase planning certainty and reduce associated risks (e.g. through more upfront work to de-risk sites prior to disposal and skills and expertise to support the development process)?
- Are national and regional policy discussions about planning, affordable housing and Greenbelt appropriate?

Estimate of Unconstrained Opportunity

Alongside the sensitivity testing, the model also tests a more radical approach to land release through reconfiguration of sites, which would rely on significant investment to allow sites to be redeveloped to achieve the most efficient land use.

Table 6 – Potential Opportunity (Unconstrained) – Regional Breakdown

Region	Total Acute site area	Total Potential Surplus Land Opportunity		Risk Adjusted Total Potential Financial Opportunity	
		Base Case	**Unconstrained**	Base Case	**Unconstrained**
	Ha	**Ha**	**Ha**	**£ bn**	**£ bn**
All Regions	**3,548**	**1,322**	**2,086**	**1.8**	**2.9**
North	1,260 (36%)	470 (36%)	748 (36%)	0.2 (12%)	0.3 (11%)
South	839 (24%)	321 (24%)	473 (23%)	0.3 (18%)	0.5 (16%)
Midlands and East	1,051 (30%)	361 (27%)	572 (27%)	0.2 (14%)	0.4 (13%)
London	398 (11%)	170 (13%)	294 (14%)	1.0 (57%)	1.7 (60%)

Source: Naylor Review Data Analysis

The efficiency of land use in the base case is measured by the ratio between the facility footprint (building footprint + allowance for car parking) and the site area (See Metric 4 on page 10). This takes account of the use of the site given the current configuration of buildings.

A more radical approach to considering the efficiency of land use takes account of the intensity to which sites are used. By way of a simple example, a four storey hospital will have broadly twice the area of a two storey hospital of the same footprint. Using the ratio of GIA / site area allows us to test how intensely sites are used – with the upper quartile benchmark driven by building height as well as land use. It is worth noting this approach incorporates efficiencies identified in the base case.

This therefore represents a far more challenging measure – considering what could be achievable with significant investment in site reconfiguration. For those sites where there is a major step between the base case and the unconstrained land scenario, this would typically be a long term and high investment change and in lower value areas it might not represent good value for money. It does however demonstrate the additional surplus that could be released by a more radical approach.

The unconstrained approach does not capture potential to go further through radical change in the service delivery model and does not include the development potential of ultra-high value sites where redevelopment beyond the upper quartile benchmark might be feasible.

Cost and Complexity of Estate Change

Estimating future reprovision costs is very complex - actual costs will depend on site specific factors and local clinical requirements. This review does not make recommendations about where or how reprovision or rationalisation of sites should take place locally nor does it seek to model site by site reprovision costs.

Recognising these limitations the review has captured at a high level the relative difficulty / ease and cost that STPs may face when looking to reconfigure their estates.

The analysis identified two main drivers of cost and complexity:

Site Condition & Fit for Purpose

At an STP level how many of the sites are in good condition and deemed fit-for-purpose from an estates perspective?

Metrics used:

- Building Age (ERIC) (Weighted age by proportion of GIA construction date)
- Risk Adjusted Backlog Maintenance Per Sqm (ERIC)
- Running Costs (£) (ERIC) / GIA (ERIC)

Outcome: A higher number of fit-for-purpose sites will be more appropriate to receive reprovided services than a non-fit-for-purpose estate

Building & Site Utilisation

At an STP level what is the level of capacity across the estate both at the building level (free space) and at a site level (surplus land)?

Metrics used:

- Potential Surplus Building Floorspace
- Potential Surplus Land

Outcome: The more potentially surplus building area, combined with surplus land, means capacity to receive transfer of services between sites and/or reprovision of services without new facilities.

Figure 21 allocates the total London STP opportunity (by hectares) to one of the nine quadrants based on whether each site had a low, medium or high level of utilisation and whether each site is considered fit-for-purpose (for example a newer building, with no backlog maintenance would score 'Good' and an older building with lots of backlog maintenance would score 'Poor')

Figure 21 – London STPs Consolidated Dashboard

Total Opportunity (Ha)	170.3 Ha
Total Opportunity (risk adjusted £m)	£1.0bn

Condition	Utilisation: Low	Utilisation: Medium	Utilisation: High
Good	0.8 Ha	17.7 Ha	6.2 Ha
Medium	44.4 Ha	5.5 Ha	2.9 Ha
Poor	52.6 Ha	35.7 Ha	4.5 Ha

We would expect opportunities that are related to sites that are in 'Good' condition and/or have 'Low' or 'Medium' utilisation to have lower reprovision costs and be capable of quicker implementation. This is because the buildings are more likely to be good target sites to enable rationalisation from elsewhere and the lower utilisation allows more 'flex space' which is crucial in reconfiguring services.

Figure 21 clearly shows that the highest proportion of the London opportunity (52.6 hectares) is in the Poor and Low utilisation category, while very little of the opportunity (0.8 hectares) is in 'Good' condition and 'Low' utilisation quadrant which suggests that London has few sites capable of receiving additional activity without significant reconfiguration and/or spend.

Outside of London, the analysis did not indicate that any one region scored significantly better or worse than others. This further supports the narrative that within each region there is a mixture of buildings and sites both in terms of condition and utilisation. The analysis did show a greater variation in results at an STP footprint level. These will hopefully become useful tools when Trusts collaborate to formulate joint estate plans and inform identification of those sites where limited or no reprovision might be needed to release surplus land.

Non-Acute Estate

The remaining estate* has been considered in two parts – the Non-Acute ERIC estate (including Mental Health and some of the community estate) and the Primary Care estate (see next page).

As indicated earlier in the report, more limited, contextual analysis has been carried out on the Non-Acute ERIC estate. The analysis has looked at two metrics which will be helpful to consider for STPs as they develop and refine their estate planning.

1. Ratio of GIA to Site Area – This is a measure of how intensively each site is used for building. To take a very simple example; if a single storey building represented exactly half of a site this would produce a ratio of 50%.
2. Population to GIA Ratio – At an STP level this metric shows the amount of space that is used to provide Non-Acute care to the STP population.

Figure 22 opposite shows the aggregate Non-Acute distribution of GIA to Site Area for each STP. It ranges from 10% at the lowest end up to 55% at the highest. When split by different provider types, the ranges are as follows (based on the inter-decile range to remove outliers and only those STPs that have mental health, community and other non-acute facilities):

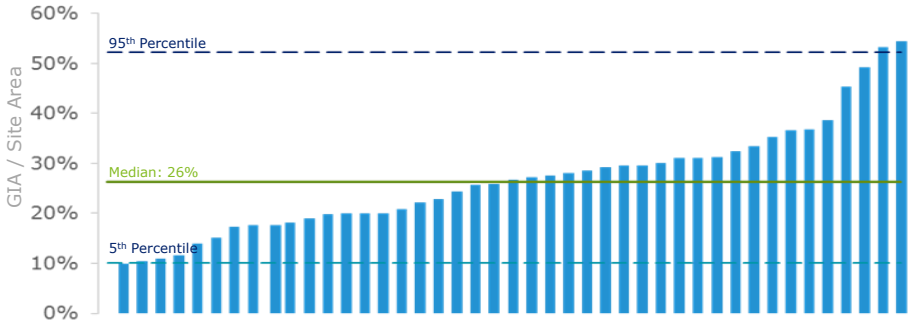
- Mental health: 11% – 35% (shown in figure 23)
- Community: 23% - 66%
- Other: 19% - 96%

In the Acute estate these ratios are typically much higher, reflecting different service delivery models, ranging from 25% up to over 600% for very high density urban hospitals. The difference in range on the Mental health estate warrants a more detailed review, since it represents 34% by land of the ERIC estate.

Figure 24 shows for each region the ratio of Building Area to Site Area (grey line) and the Population to Total Area Ratio (blue bars). In London a relatively small built estate serves a large population (tall blue bar) whilst land use is relatively inefficient. The opposite is true in the Midlands and East whilst there is a closer relation between the two in the North and South. The lack of a clear finding would support further more detailed analysis with particular focus on land efficiency in London.

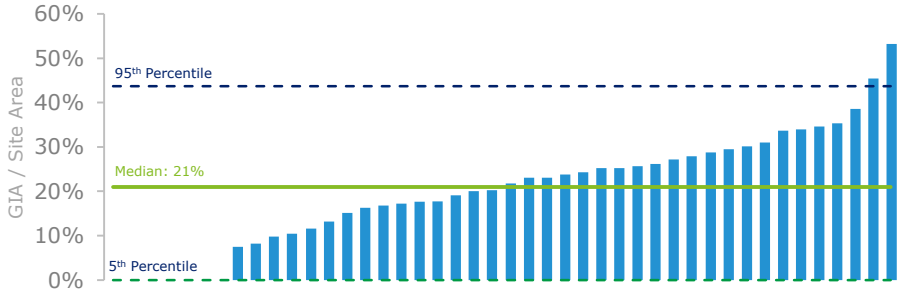
**Note: The remaining Non-Acute estate excludes 14 aggregate sites, included all ambulance trusts, due to issues around mapping*

Figure 22 – STP Distribution: Non-Acute: Building Area to Site Area (%)



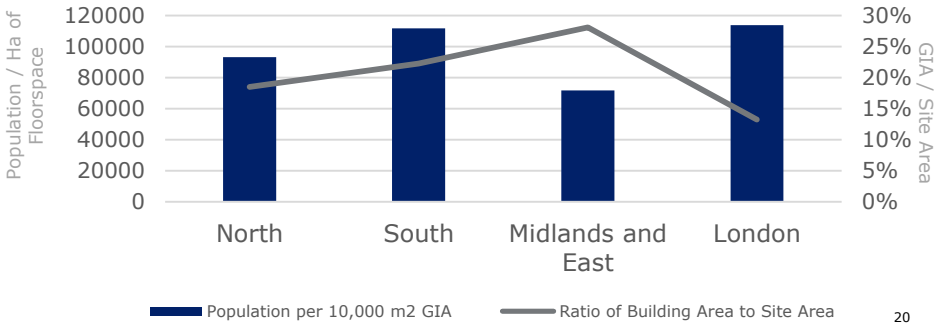
Source: Naylor Review Data Analysis

Figure 23 – STP Distribution: Mental Health: Building Area to Site Area (%)



Source: Naylor Review Data Analysis

Figure 24 – Non-Acute Regional Metrics



Source: Naylor Review Data Analysis

Primary Care Estate

Figure 25 – Distribution of the Primary Care estate

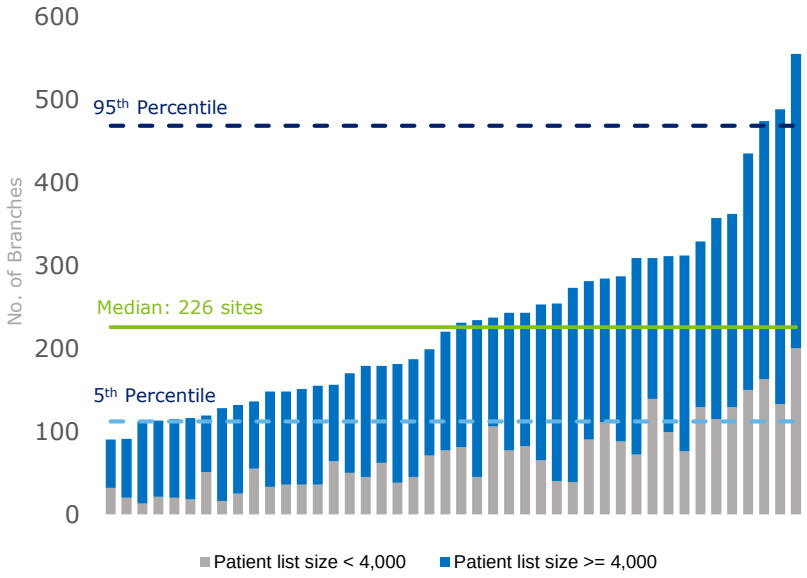
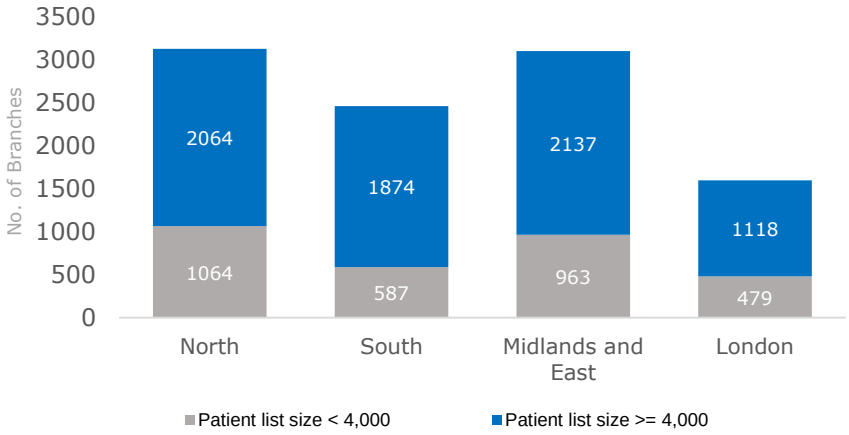


Figure 26 – Primary Care Regional distribution



Source: Naylor Review Data Analysis

Distribution of primary care by STP

Although relatively limited data is held consistently on the primary care estate, NHS Digital (September 2015) data has been used to consider the distribution of the estate. The NHS Digital data identified 7,660 GP practices in England with patient lists of over 100 (14 GP Practices were removed as they had patient list sizes of below 100). These were then mapped to branches using the NHS Digital branch data, amounting to 10,286 branches. Figure 25 opposite shows the distribution of Primary Care sites across STPs. The distribution is very broad, ranging from 90 sites at the lowest end STP through to c. 550 sites at the top end.

Alignment of estates with future vision for care

The extent of single handed and small GP practices is understood to be inconsistent with the developing service strategies to move more care out of hospital into community settings. The five-year forward view is, therefore, predicated on major change in the primary care estate.

In the absence of a comprehensive national estate dataset on Primary Care, some simple rules were developed to identify those practices which, based on high level indicators, might not meet the future vision of care moving towards delivery through larger Primary Care hubs.

From the NHS Digital data set, branches with a patient list size of under 4,000 were identified on the grounds that these were likely to be either single GP practices or FTE equivalent of less than two GPs. 3,093 branches (30%) were identified as falling into this category.

Looking at the regions (Figure 26) the results were broadly similar between the North (34%), the Midlands & East (31%) and London (30%) but the South had fewer branches (24%) that had a patient list size of under 4,000.

Overall, based on this simple but objective test the findings suggest that significant change is required in order to improve the Primary Care estate to fit the future vision for care. This change could be very time consuming and costly and further more detailed analysis is warranted as a priority.

[1] Source: Principles of best practice | Part 1: Procurement & development, NHS England

DH Estimated Opportunity across the wider NHS estate

This section is included here to provide an indication of the wider opportunity and is based on analysis provided by DH and has not been verified by Deloitte.

The Deloitte benchmarking analysis identified a risk adjusted potential financial opportunity of £1.8bn for the acute estate (the methodology adopted in this benchmarking analysis is set out earlier in the report).

A number of areas have been identified as outside the scope or not fully captured by the benchmarking analysis which would warrant further investigation to allow a better understanding of the potential financial opportunity across the wider NHS Estate:

1. The Deloitte benchmarking analysis has been undertaken concurrently with another workstream within the Naylor Review looking at High Value Sites (HVS) in London. It was recognised that the Deloitte benchmarking methodology may not fully capture the potential for change and land release in ultra-high value London sites which on a site-by-site basis might potentially support very high density redevelopment and/or significant changes to service delivery models, which could lead to additional land release above that identified from the benchmarking analysis in this report.
2. The contextual analysis of the Non-Acute estate has identified areas for further investigation, particularly mental health.
3. For the primary care estate, in the absence of a comprehensive national dataset contextual benchmarking indicators have been provided rather than surplus land estimates or potential financial opportunities, and more work is needed to improve data quality.

Additional DH analysis

In order to understand the potential scale of the overall financial opportunity related to the wider estate, DH has undertaken analysis on (1) the High Value Sites and (2) the Non-Acute estate, but further opportunities from (3) the Primary Care estate have not been estimated. Deloitte has not undertaken this analysis and cannot verify this analysis.

1. High Value Sites

For the High Value Sites in London, DH used evidence from a range of direct engagement with providers including Sir Robert Naylor's review and the DH Partner Engagement Programme to estimate an opportunity for London which seeks to capture specific provider level proposals.

This DH estimate is a gross disposal receipt and does not account for any costs of reprovision. It was prepared at a Trust level for both Acute and Non-Acute sites (with only partial coverage of Non-Acute) and the additional opportunity (over and above benchmarking) is presented. The DH analysis indicates that there could be potential for an additional opportunity of £0.2bn for the Acute sites and £0.3bn for the Non-Acute sites in London.

2. Non-Acute Estate

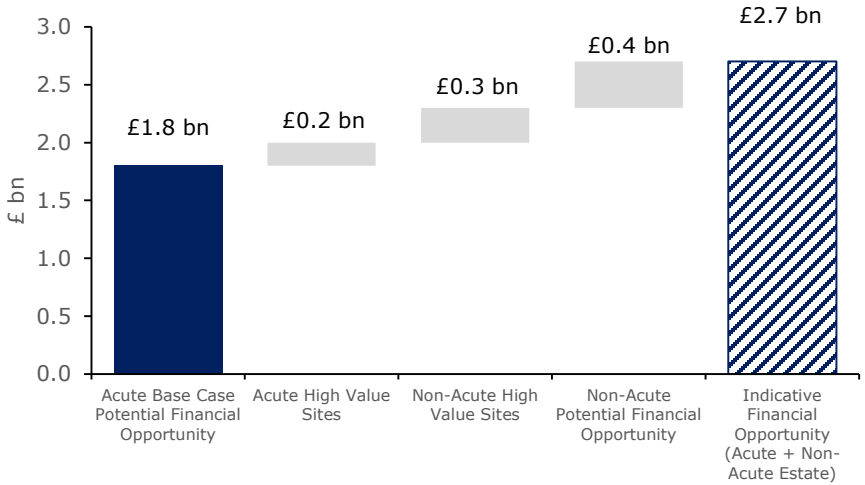
For the Non-Acute estate outside London, DH have calculated a further financial opportunity, assuming that two thirds of the total opportunity will come from the Acute estate and one third from the Non-Acute. The benchmarking analysis estimated an opportunity of £0.8bn (rounded) for the non-London Acute estate (See Table 5 on pg 16). DH scaled this up to assume a total non-London opportunity of £1.2bn, of which the additional £0.4bn is attributed from the Non-Acute estate.

The rationale DH adopted for the scale of the opportunity apportioned to Non-Acute is:

- Based on the current surplus public sector land programme – 1/3rd of the housing units outside of London comes from the Non-Acute estate with the remainder of the opportunity coming from the Acute estate.
- The Non-Acute estate represents over 40% of the total area in ERIC (See Figure 5 on pg 9) which means that the ratio of 66% / 33% (Acute / Non-Acute) might understate the opportunity compared to a ratio based only on the split of total land between Acute and Non-Acute.

DH Estimated Opportunity across the wider NHS estate

Figure 27 – Wider Estate Indicative Financial Opportunity (Acute & Non Acute): DH Analysis



[1]Source: DH Analysis

The £0.9bn of additional opportunities identified by DH (above) has not been developed through the detailed Deloitte benchmarking methodology for the Acute estate described elsewhere in this report, it has been calculated outside of the Model and has not been calibrated. However, the preliminary DH analysis does suggest that these estimates are both significant in scale and materiality which further supports the recommendations highlighted elsewhere in this review:

- To prioritise London based STPs as these contain High Value Sites, and
- To undertake detailed analysis on the Mental Health estate as it represents 34% of land according to the ERIC estate.

Next Steps

Opportunities identified

The analysis that supports this report has identified significant potential opportunities for estates efficiency in the Acute estate: up to c. one third of current Acute land, based on the available data and the applied benchmarks.

As part of the methodology for this analysis we sought to calibrate the outputs of the analysis with three STP areas. The findings from the calibration with three STPs highlighted the importance of further review with other STPs. Much like the Carter report this work represents the start of an engagement process to both verify the data and assumptions and to start the process of challenge around the scale of ambition for estates change, recognising that at a site level, individual opportunities on the ground may be less than or greater than those identified by a benchmarking approach. Local discussions will also be informed by the ability to take a strategic approach to estates across the STP – whilst the model identifies efficiencies on a bottom up (site level) basis, STP planning offers the opportunity to take a strategic approach to consolidate services on sites and release more land elsewhere in the estate, and with greater knowledge around which are the high value sites/areas. Clinical requirements will however inform estates priorities and improved estates data should allow clinical planning to be cognisant of estates financial drivers.

The opportunities identified in this analysis are not all easy to access. Time and investment will be needed to allow reprovision of services where required. Other workstreams within the Naylor review have identified the System changes needed to promote the desired behaviours – from financial incentives to the right skills to support development. Whilst System changes are introduced opportunities will need to continue to be pursued to maintain momentum and meet the scale of ambition. In this interim period this is likely to require prioritisation across value, scale and ease. Other peer organisations have tried to balance across these three – not just focusing on large and consequently higher risk projects but balancing those with some easier wins.

Other area for further investigation

Through this work a number of opportunities have been identified where further investigation could identify additional opportunities:

- Mental health – which is the next largest element within the ERIC estate
- Back office – an element of the non-clinical floorspace opportunity and a key theme across many STPs
- Primary Care – issues about poor condition and a move to greater out of hospital delivery are known. More work is needed on providing the management information needed to support good strategy setting
- Housing capacity – in high-density non-London locations where greater local refinement could identify additional opportunities.

Data

A number of data issues have been identified which make the exercise of answering relatively simple questions about the estate more complex than might be expected. For example, there are a number of instances in ERIC where the occupied floor area reported is greater than the Gross Internal Area of a site. In Primary Care there is no single data set that provides comprehensive area and location information for the majority of the estate. Data is fragmented and held in a number of organisations without shared codes to allow data to be combined. Some initial steps which could improve data analysis include:

- Consistent use of unique site codes across data sets and over time
- Review of all the information held on Primary Care and identification of how data sets could be designed for cross data-set analysis (again potentially though unique site codes)
- Focus on improvement of data in ERIC (likely to be helped by the 15/16 update with providers incentivised by the increasing use of the data by this work and Carter)
- A single consistent data set to allow this methodology to be applied more widely across the estate

APPENDIX

Supporting the Naylor review: Methodology

The table below describes the extent to which the key questions of the enquiry are being addressed for different parts of the estate at STP level (aggregated wherever feasible from site level information)

Key questions	Acute	Non-Acute provider (sites in ERIC)	Primary
A. What is the currently available NHS estate both at a national and regional level?	Building and site area by site type	Building and site area by site type	• No. of practices • No. GPs • List size
B. What is the relative performance of different areas in terms of estate efficiency?	Detailed analysis by activity and benchmarks Historic comparison (considered outside the model) • GIA / Activity (Activity measured by Carter Weighted Activity Units) • Additional measures for buildings and land	High level analysis by • Population / GIA • Need / GIA • GIA / site area	Indication of fitness for purpose (e.g. list size less than 4,000 per GP)
C. What are the opportunities for estates disposals at STP level and what would be a fair division of the estates savings requirement at a regional/STP level?	Full analysis taking account of detailed efficiency metrics to identify potentially surplus • buildings and • land against benchmarks Apply relative and adjusted land values Potential ease of re-provision Forward look based on demand growth and efficiency	Efficiency metrics expected to highlight areas for future investigation	N/A

Methodology for the Acute estate

Analysis is typically carried out at site level then aggregated to each STP to inform STP level discussions.

Are we able to analyse data across estates, activity and over time?

Contextual: Has each STP's estate changed to keep pace with changing demand? (considered outside of model)

How efficient is use of buildings and land against benchmarks and what does this tell us about the scale of potentially surplus estate?

Buildings:
- Activity (Carter WAUs) per Clinical Occupied Floorspace
- % Non-clinical Floorspace
- % Un-utilised Space

Land:
- Facility Footprint per Site Area
- GIA per Site Area

Based on the amount of potentially surplus buildings and land and illustrative values, where is the greatest potential for value from release of land?

- Postcode adjustment
- Planning risk
- Affordable housing
- Abnormals
- Green belts and national parks

Relatively, how complex and difficult might reprovision be in each STP?

- Site Condition & Fit-for-purpose
- Site utilisation

What is the potential change in demand / efficiency over time?

How might this affect the amount of potentially surplus land and buildings available?

What can we learn from calibrating the approach in 3 STP areas?

Developing the base data set

Analysis will be supported by a main linked data set developed from a combination of several sources at site level

HES activity data

Activity data by point of delivery, site and provider

HEFS ERIC returns (ERIC)

Publically available ERIC returns (FY14/15) at site level for Acute sites and 'All other' sites recorded. Available data includes GIA, site area, clinical and non-clinical occupied floor area, utilised space, age category, backlog maintenance.

STP mapping

Acute providers are mapped to STP based on NHSE mapping. All Acute sites within a provider will be mapped together. Non-Acute sites are mapped to an STP based on post code mapping.

Land value factors

Land value adjustments (applied in estimating potential financial opportunity) for factors such as planning permission, site abnormals, affordable housing and Greenbelt / National Parks.

Data cleansing

Simple rules used to remove outliers and sites with clear data error. Note data has not been validated or corrected.

DCLG and Land Registry

Land Registry transactions data (2014-2016) used to refine estimated land values (DCLG) to account for variations in value within local authorities and inform estimated potential financial opportunity.

Data assumptions

Methodology clarifications

To allow the various required data sets to be mapped and analysed a number of methodological assumptions are used. Some of the more important assumptions are summarised below:

Acute STP and CCG mapping

- Sites are mapped to STPs and CCGs based on a site and CCG activity matrix provided by the DH. Sites are allocated a rurality based on the rurality of the CCG that the highest proportion of its activity flows from. CCG rurality is based on the 2011 Census.

Classification of Acute providers/sites

- Providers are classified by an 'Organisation type' and each site is classified by a 'Site type'.
- The analysis focuses on Acute sites only. Only sites that have **both** an Acute organisation type and site type in ERIC are included in the analysis For example, a provider may be classified as 'Acute- Teaching' as an organisation, but may include a site which is classified as 'Community Hospital'. In this case the estate associated with this Community Hospital site would not be included in the Acute analysis, but would be captured in the STP analysis of 'Other' estates captured in the ERIC data.

Classification of Acute aggregate sites

- Estates m2 allocated to aggregate site will be proportionally apportioned to other estates (with associated activity), treated effectively as a 'provider level overhead'.

Weighted activity methodology

Activity driver

The Activity per Clinical Occupied Floorspace benchmark which allows sites efficient use of GIA to be benchmark requires a site level activity variable. Several methods have been considered to define a single metric which captures patient activity across points of delivery (EL, NEL, DC, OP and A&E). In selecting an approach it was important that the method was: simple to explain, did not rely on detailed econometric analysis, and would not be contentious.

Method selected: Carter Weighted Activity Units

Existing activity weightings used by the Carter review, Carter Weighted Activity Units (WAU), have been used as the measure of relative total activity levels across each site. The benefit of using this approach is that it is simple and relies on existing activity weightings that are already recognised by the system.

However, there are a number of limitations:

- The weights are based on reference costs and cost of activity will not necessarily be linked to estates requirements (high cost activity will not always request in more intense use of estates e.g. treatment with high cost drugs); and
- WAUs are available at provider level only, not site level. An approach has been taken to allocate provider level activity to sites using point of delivery (POD) level reference costs.

Site level allocation method:

Assign 2014/15 provider level Cost Weighted Outputs (CWO) to relevant provider sites:

1. Map HES (15/16) activity data by POD to each of the providers and sites considered as Acute and included in the wider analysis;
2. Map POD level HES activity data (DC, EL , NEL, OP and A&E) to unit costs as presented in the reference cost 2014/15 summary table (DC, EL, NEL, CL OP, and EM) respectively;
3. Estimate POD level costs by site by multiplying HES activity with the relevant unit cost;
4. Estimate total costs at a site level by adding together each of the POD level costs for that site;
5. Estimate total costs at a provider level by repeating the above steps at the provider level;
6. Estimate proportion of provider level cost accounted for within the Acute sites (for each provider); and
7. Apply site level cost weightings to provider WAU to estimate site level WAUs.

Benchmarks and Cohorts

To compare efficiency across sites cohort groups are specified for each benchmark

A range of variables have been compared to benchmarks to identify potential for improvement of building or land utilisation at each site.

For each of the benchmarks used to drive the estimation of potential for land opportunities, a characteristic for determining each cohort group can be selected in the model. Due to issues with cohort size only one characteristic e.g. site type is used to define each cohort in reported findings. Increasing to two characteristics e.g. site type and age reduces the size of the cohorts such that they are no longer viable.

The model allows other cohorts to be tested and applied for each of the benchmarks. A list of the cohort characteristics is included in the appendix.

Metric Type	Variables	Description	Benchmark	Cohort characteristic
Building Utilisation	Clinical floorspace per weighted activity unit	The intensity of use of clinical floorspace	Upper Quartile	Site type (ERIC)
	Non-clinical occupied floor area / (total clinical + non-clinical occupied floor area)*	The ratio between the clinical and non clinical floor space	35%	Carter benchmark**
	Un-utilised building	Space classified as "empty" or "under-used".	2.5%	Carter benchmark**
Land Utilisation	Facility footprint to site area (Base case)	Facility footprint (building footprint + car parking) as a proportion of site area	Upper Quartile	Rurality (rural / non-rural / London)
	GIA to site area (Unconstrained case)***	Intensity of land use	Upper Quartile	Rurality (rural / non-rural / London)

* For all but non-clinical, if a site performs better than the benchmark, opportunity is set to nil. For non-clinical a negative opportunity is carried forward to a site level. This is intended to provide some allowance for strategic decisions to concentrate non clinical space on one site.

** Operational productivity and performance in England NHS Acute hospitals: unwarranted variation, An independent review for DH by Lord Carter of Coles, February 2016

*** This benchmark incorporates the total base case opportunity (in terms of land and buildings combined)

Estimate potential financial opportunity

In estimating receipts it is necessary to step through the process outlined below for each site, selecting the correct value benchmarks and making appropriate adjustments.

Potential total Surplus Land arising from current estate utilisation calculation against benchmarks for both buildings and land

Building space is converted from sqm to Ha: sqm / 10,000) / (GIA / building footprint)

Estimate potential financial opportunity through use of Land Registry data adjusted for local house price variances.

(1) DCLG residential land value estimates per Ha (at local authority level)
(2) Adjusted by Land Registry transactions data to allow for house price variation within local authority

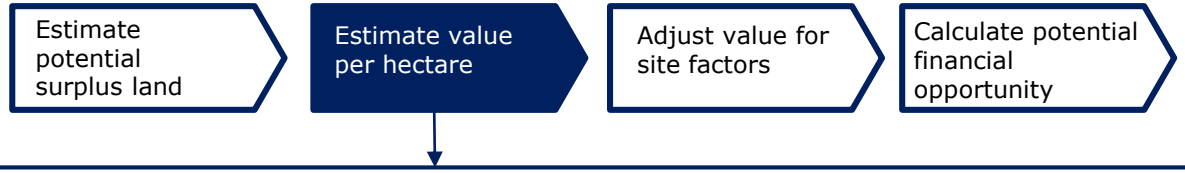
Adjustments for: planning permission likelihood; affordable housing; site abnormals; and Greenbelt / National Parks

Potentially Surplus Land (Ha) multiplied by land value (adjusted for local house price variances and site factors)

DCLG land value estimates are dated 2015. Land values assumptions reflect the market at the time and are not forward looking. Potential financial opportunities contained within the report are at 2015 values and not adjusted for future expectations including any impacts of Brexit on market volatility.

Estimate potential financial opportunity

Local residential development values are adjusted for local house price variances



Use postcode mapping to identify a potential value per hectare for surplus land:

Step 1: Identify which local authority each site is located within. Use the DCLG residential land value estimates per hectare* which are provided at the Local Authority level.

Step 2: Further refine the land value estimate by comparing the relative value of each site's location with the surrounding area. The rationale for this additional step is due to potentially significant variation in value within each Local Authority. Factors such as proximity to major towns and transport infrastructure will drive these differences in value. As a proxy for the difference in land value, house prices may be analysed. The below approach compares Land Registry price paid data at a postcode district level (e.g. EN5) to the average price paid for the Local Authority / borough. This percentage difference may then be applied to the land value.

Illustrative example:

Site	Borough	Postcode District	Borough Land Value (£ / Ha)	Average House Price in Borough	Average House Price in Postcode District	Adjustment (% Price Difference)
Barnet Hospital	Barnet	EN5	£17.8m	£592,522	£620,514	4.72%
Edgware Hospital	Barnet	HA8	£17.8m	£592,522	£440,540	-25.65%
Rampton Hospital	Bassetlaw	DN2	£0.37m	£158,240	£178,819	+13.00%
Scunthorpe General	North Lincolnshire	DN1	£0.37m	£144,975	£144,386	-0.41%

**Land value estimates for policy appraisals*, DCLG, Dec 2105

Estimate potential financial opportunity

Benchmark land values also need to be adjusted for a number of risks (1/2)

The DCLG residential land value estimates are calculated by the Valuation Office Agency and amongst other things assume planning consent. They are also calculated on the basis of nil affordable housing and at a density of 35 units per ha outside London and 269 units per ha inside London. They assume a serviced site with no abnormal costs. A number of adjustments are made to take account of site risks which could result in lower values being achieved at disposal. These do not represent an exhaustive list of all factors which influence the developability of land but rather aim to capture key drivers of value where global assumptions may be applied (i.e. factors are not included where risk mitigation strategies will be highly variable and locally determined). No financial reduction has been made for title risk, e.g. the risk of land not being developable or limitation on its use due to restrictions on title.

Factor	Value reduction	Basis of assumption
Planning permission	50% identified surplus land 25% identified surplus Building space	• In each site, the risk associated with obtaining planning permission will be different, impacted by factors such as Local Plans. • Market values when sites are sold will be impacted by the purchaser's view of risks relating to obtaining planning permission for their envisaged scheme. • Market insight suggests that discounts applied range from 30-80% depending upon site status. • A mid-point has been used for land to reflect the wide range of sites in the portfolio • A lower discount has been applied to building space to reflect the higher probability of obtaining planning permission (given that development has already taken place).

Estimate potential financial opportunity

Benchmark land values also need to be adjusted for a number of risks (2/2)

Factor	Value reduction	Basis of assumption
Affordable housing	Applied both within and outside London: 35% x 50%	• Typically 35% - 50% requirement for affordable housing in Local Plans (RICS Training: Valuation of Affordable Housing V.5). • Market insight suggests that due to the unique nature of health sites, the lower end of this range is typically achieved. • Given uncertainty in the tenure mix of affordable housing that would be required at each site, an illustrative land value of 50% has been assumed for the percentage of the site assumed for affordable housing. • In practice, given economic viability constraints, developers might seek to negotiate a lower level of affordable housing particularly outside of London. However as we have not include a further discount for the Community Infrastructure Levy, affordable housing has not been further reduced.
Site abnormal costs	10%	• HCA costs incurred on the Hospital Sites Programme prior to disposal, which would not apply to a typical site, e.g. asbestos, demolition and remediation.
Greenbelt / National Parks	Adjustment applicable to identified surplus land only: Planning permission adjustment increased to 75%	• Radius of 0.25km drawn around site postcodes and overlaid with Greenbelt and National Parks dataset to identify those falling within or near to areas of specific designations. • 0.25km equivalent to a site area of 20 hectares (c. 85% are smaller than 20 Ha). • Planning permission adjustment for identified surplus land made to identified sites. • Planning permission for identified surplus building space has not been further adjusted as development has already taken place on this area. • Recognising that new development on Greenbelt sites is restricted by planning policy, a small allowance has been added to land to account for required circulation space and access.

Estimate potential housing capacity

In estimating potential housing capacity of surplus land and buildings, a number of factors are applied.

Estimate potential surplus land	Apply potential # units per hectare	Adjust for planning permission risk	Adjust for risk of non-developable land
Potential total Surplus Land arising from current estate utilisation calculation against benchmarks for both buildings and land Building space is converted from sqm to Ha: sqm / 10,000) / (GIA / building footprint)	• Outside London: 35 units per Ha (source: DCLG land value estimates (VOA assumptions)) • London: 150 units (source: average density of approvals in London over the past 6 years: 147 units p Ha: GLA)	A discount is applied to the estimated number of units to account for planning permission risk. A 50% reduction is applied to identified surplus land and a 25% reduction to identified surplus building. For sites identified as within 0.25km of Greenbelt or National Parks, as per the land value adjustments, the reduction made to identified surplus land is increased to 75%.	Recognising that source data is not readily available in the time available for the proportion of land that may not be developable for housing units, as a result of abnormals, for illustrative purposes, the same adjustment factor has been applied to housing across the portfolio as to potential financial opportunity.

Understanding the costs and complexity of service reprovision

Release of land/buildings from the estate will often require reconfiguration of existing space or even the reprovision of new space/buildings.

Estimating future reprovision costs is very complex and should include numerous site specific factors and other macro issues such as how estate is used to enable changes to clinical pathways and how new facilities are evaluated in comparison to the old facilities on a like-for-like basis. This review does not make recommendations about where or how reprovision or rationalisation should take place locally.

Recognising these limitations an attempt has been made to capture at a high level the potential relative difficulty / ease between STP areas looking to rationalise or reconfigure their estates so that this can be considered alongside the scale of potential surplus land. The review has therefore considered several metrics to assess, at an STP level, two aspects that are drivers of reprovision: First, what condition is the current estate in and is it fit-for-purpose? and secondly, how well utilised is the current estate?

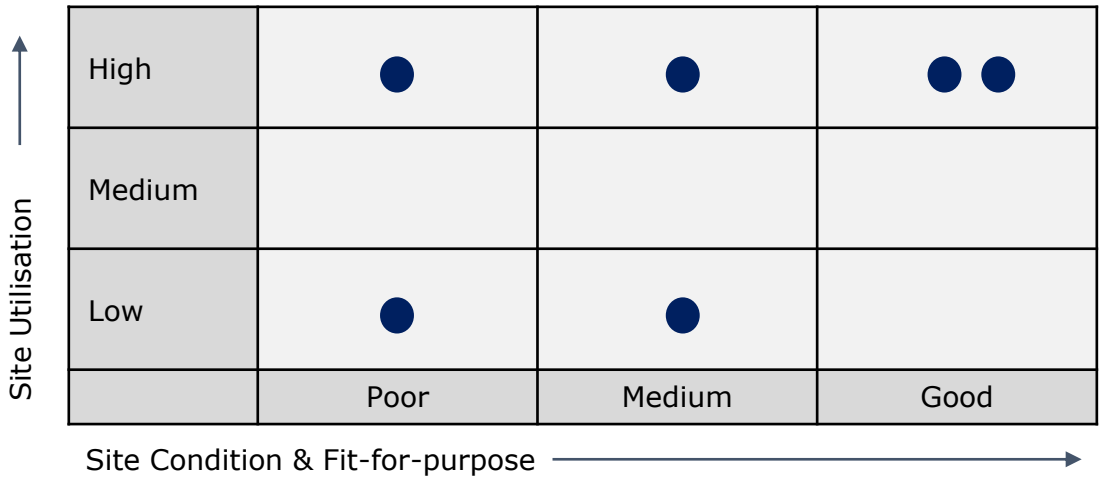
Metric Type	Measurement	Methodology:	Threshold
Site condition & Fit-for-Purpose	Metric 1: Weighted Age	Proportion of GIA Constructed in a given decade [ERIC] x median year in each decade	1948 < Medium < 1990
	Metric 2: Risk Adjusted Backlog	Total Risk Adjusted backlog of Maintenance [ERIC] / GIA [ERIC]	Cohort Q1 < Medium < Cohort Q3
	Metric 3: Running Costs per sqm	Running Costs (£) (Hard FM + Soft FM + Estates and Facilities Finance Costs) [ERIC] / GIA [ERIC]	Cohort Q1 < Medium < Cohort Q3
Site Utilisation	Metric 4: Potentially Surplus Floorspace	Surplus against building utilisation benchmark / GIA [ERIC]	100sqm, Cohort Q1 < Medium < Cohort Q3
	Metric 5: Potentially Surplus Land	Surplus land on base case estimation / Site Area [ERIC]	0.5 Ha, Cohort Q1 < Medium < Cohort Q3

Understanding the costs and complexity of service reprovision

Each site is allocated to a Condition & Fit-for-purpose group and a Site Utilisation group

Example STP Output

	Site Condition & Fit-for-purpose				Site Utilisation		
Site	Metric 1: Weighted Age (Years)	Metric 2: Risk Adj Backlog (£ per sqm)	Metric 3: Running Costs (£/sqm)	Overall	Metric 4: Surplus Floorspace to GIA (%)	Metric 5: Surplus Land to Site Area (%)	Overall
R1K01	1973	108	297	Poor	28%	47%	Low
R1K02	2007	4	365	Good	-	-	High
R1K04	1981	90	359	Medium	17%	37%	High
RAS01	1974	213	389	Poor	9%	15%	High
RAS02	1974	114	157	Medium	20%	72%	Low
RFW01	1987	10	330	Good	-	13%	High



Calibration

Once the analysis was completed we tested the outputs with three STP area and made necessary adjustments to the assumptions within the Model.

STP Selection

DH identified three suitable STPs to include in the calibration process. South Yorkshire and Bassetlaw, Cambridgeshire and Peterborough and North West London.

Who the engagement was with?

For the three selected STPs the calibration process involved the relevant PEP lead, Strategic Estate Advisor and at least one representative from STP estates workstream. Participants typically had knowledge of some but not all sites within their area.

What was included in the calibration process?

A summary report / dashboard was prepared showing the results of the analysis for each STP. This included the site utilisation calculations for the largest sites and how the surplus area was calculated.

Through a workshop we looked to test these assumptions both at a selected individual site level and at the aggregate STP level to calibrate the assumptions.

The calibration meetings informed the assumptions described above in the following areas:

- Inclusion of Greenbelt adjustment
- Other factors which influence the developability of land, e.g. Ancient Woodlands and listed buildings. These have been noted but global assumptions have not been applied given the range of potential factors and because risk mitigation strategies will be highly variable and locally determined.
- Data – it was noted in all areas that ERIC data was being revised and that 2015/16 data would soon be available. The Model includes the DH surplus site list but it was noted this does not include all disposals / lettings taking place locally (e.g. non residential land).

The calibration meetings also focused on the use of the analysis as directional and as the start of a conversation.

Glossary

Term	Explanation
A&E	• Accident and Emergency.
Acute Sites	• Identified as sites within ERIC where the Organisation Type and Site Type are both Acute.
Affordable housing	• Requirement for the provision of affordable housing within new residential developments.
Base Case	• Scenario including land opportunity based on the facility footprint / site land area benchmark.
Building Footprint, or, Site Footprint.	• The site footprint is the total ground floor area of all buildings or premises or part therein occupied and unoccupied which is operated by the NHS Trust and is either owned by the NHS Trust or is defined within the terms of a lease, license, Service Level Agreement, or tenancy agreement. Enclosed communication routes or walkways that are covered but open to the elements should be included, however, building overhangs above ground level should be excluded. Also excludes leased-out and licensed-out areas. (Source: ERIC).
Carter Benchmark	• Benchmarks established as part of the Carter Review: Non-Clinical Floor Space: 35% of total occupied space; Unutilised Space: 2.5% of total space.
Carter Review	• 'Operational productivity and performance in English NHS Acute hospitals: Unwarranted variations' by Lord Carter of Coles, Published: 5 February 2016.
CCG	• CCG (Clinical Commissioning Groups). CCGs replaced Primary Care trusts (PCTs) on April 1 2013. CCGs are clinically led statutory NHS bodies responsible for the planning and commissioning of healthcare services for their local area.
Cohort	• Is the 'Peer Group' to which a site belongs for benchmarking.
DC	• Day Case.
EL	• Elective Procedure.
ERIC	• Estates Return Information Collection collected and published by the Health and Social Information Centre on behalf of the Department of Health.
Facility Footprint	• Building Footprint plus calculated carpark space.
FTE	• Full-Time Equivalents.
Functional Suitability	• Percentage of occupied floor area that is below Estate Code Condition B for functional suitability (i.e. below an acceptable standard, or unacceptable in its present condition, or so below standard that nothing but a total rebuild will suffice). (Source: ERIC).
GIA	• Gross Internal Area.
Greenbelt	• Geographical area defined with the aim of preventing urban sprawl (Planning Practice Guidance, Department of Communities and Local Government). • Source of boundaries: Natural England.

Glossary

Term	Explanation
Hectare	• 10,000 m^2
HES	• Hospital Episode Statistics: dataset containing details of all admissions, outpatient appointments and A&E attendances at NHS hospitals in England.
National Park	• Geographically protected areas because of their countryside, wildlife and cultural heritage (source Nationalparks.gov.uk). • Source of boundaries: Natural England.
NEL	• Non-elective Procedures.
Non-Acute	• Identified as all sites in ERIC which do not meet the above definition of 'Acute'.
Non-Patient Occupied Floor Area / Non-Clinical Occupied Floor Area	• The gross internal floor area within the boundary of all departments which are not accessible to patients, inclusive of administration offices, laboratories, industrial processes, plant rooms, operational support areas and amenity areas. Exclude external car parking areas but include multi-story car parking areas used by staff. This figure plus the total patient occupied area and main circulation areas should equal the total occupied floor area for the site. Excludes leased out areas. (Source: ERIC).
Occupied Floor Area	• The total internal floor area of all buildings or premises or part therein which are in operational use and required for the purpose of delivering the function/activities of the NHS Trust (i.e. occupied by the NHS Trust), and either owned by the NHS Trust or defined within the terms of a lease, license, Service Level Agreement or tenancy agreement. Include leased-in areas, multi-storey car parks, industrial process areas. Includes also embedded education and training facilities and university accommodation which are occupied. Measured as for the Gross Internal Floor Area, inclusive of plant rooms, and circulation spaces, but excluding areas which are not required for operational purposes (i.e. non-occupied areas and not in use). See Figure 1 on the Completion Notes. The total of the non-occupied floor area and occupied floor area should equal the gross internal floor area. Excludes leased-out and licensed-out areas. (Source: ERIC).
OP	• Out Patient Procedures.
Patient Occupied Floor Area / Clinical Occupied Floor Area	• The total internal floor area within the boundary of all departments which provides patient care and where patients are exposed to risk (e.g. Wards, OPD, A&E, Theatres, ITU, SCBU, CCU, Day Surgery, Radiology, Clinics etc.) All Facilities such as offices, toilets, dining rooms, and circulation spaces within the boundary of the relevant department should be included but common circulation spaces (e.g. hospital street, visitors toilets, main entrance reception/waiting, stairways etc.) outside the boundary of the department should be excluded. Exclude external car parking areas but include multi-storey car parking areas used by patients. • Excludes leased-out and licensed-out areas. (Source: ERIC).
PEP	• Provider Engagement Programme.
POD	• Point of Delivery.

Glossary

Term	Explanation
Provider	• Also referred to as 'Organisation' in ERIC, is the trust responsible for a particular site's operation.
Running costs	• Hard FM + Soft FM + Estates and Facilities Finance Costs (ERIC)
Site abnormal costs	• Costs which would not apply to the development of a typical site, e.g. asbestos, demolition and remediation.
Site Area	• Refers to the physical size of the land in hectares of a particular site. (Source: ERIC).
STP	• STP (Sustainability and Transformation Plan), of which there are 44. Each STP has a different 'footprint' or geographical area in England. • It is intended that each plan will show how local services will evolve and become sustainable over the next five years – ultimately delivering the Five Year Forward View vision of better health, better patient care and improved NHS efficiency. • It should be noted that 'STP' is also used to refer to the partnership developing the plan.
System	• Refers to the wider Health System, including all organisations, institutions and resources within an area that contribute towards the delivery of health care services.
Unconstrained Opportunity	• Scenario including land opportunity based on the GIA / site land area benchmark.
Unoccupied Floor Area	• The total internal floor area of all buildings or premises or part therein, which are not used by the NHS Trust for the purpose of delivering the function/activities of the NHS Trust (i.e. non-occupied area) but are in the ownership of the NHS Trust or within the terms of a lease, license, Service Level Agreement or tenancy agreement. Includes unoccupied embedded education and training facilities, university accommodation and areas temporarily in the possession of building contractors. • Measured as for the Gross Internal Floor Area, inclusive of any associated plant rooms, and circulation spaces, or part therein, which are directly related to the non-occupied area(s)[see Figure 1 in the Completion Notes]. The total of the non-occupied floor area and occupied floor area should equal the gross internal floor area. Excludes leased-out and licensed-out areas. (Source: ERIC).
WAU	• WAU (Weighted Activity Units), is a 'common currency' unit developed as part of the Carter Review to measure hospital output, and is a measure of activity where one WAU is a unit of hospital activity equivalent to an elective inpatient admission, based on the average cost of providing that treatment. • Is similar to the Australian health system's 'National Weighted Activity Unit' and the US health systems 'Adjusted Admissions'.

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