The Economic Impact of NHS Procurement: A Study of the Aneurin Bevan Health Board

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Summary & Recommendations

The School of City and Regional Planning at Cardiff University and the Welsh Economy Research Unit of Cardiff Business School were commissioned by Caerphilly County Borough Council and Newport City Council to undertake an analysis of the local and all-Wales procurement of the Aneurin Bevan Health Board (ABHB).

ABHB is responsible for the delivery of health care services to more than 600,000 people living in the Gwent area. Health services are delivered across the local authority areas of Blaenau Gwent, Caerphilly, Monmouthshire, Newport and Torfaen. The Health Board came into being on the 1st October 2009.

One context of the report is a paucity of evidence on the wider economic effects of Welsh public procurement, and the potential for regional firms to meet needs which are currently serviced by imports. These questions have been brought into a sharper focus with NHS budgets coming under pressure in current spending reviews.

The research objectives in summary were as follows:

- To define the term 'local' with respect to the purchasing behavior of ABHB.
- To demonstrate how far the Board had successfully implemented selected action points contained in the *NHS All Wales Procurement Strategy 2007-2010* relating to communicating opportunities to local suppliers, and assisting suppliers to improve delivery of goods and services.
- To identify whether targets had been set for local procurement by the ABHB, and the nature of actions being taken to achieve these targets.
- To analyse the amount of local spending undertaken by the Board and to analyse the benefits of local procurement for the wider local economy.
- To identify further local procurement opportunities for ABHB.

The definition of local was taken to mean the Health Board area in terms of the local authority areas of Blaenau Gwent, Caerphilly, Monmouthshire, Newport and Torfaen. Regional was taken to mean of whole of Wales.

The report reveals that progress is being made by ABHB in meeting the strategic action points outlined in the *NHS All Wales Procurement Strategy*. However, the report highlighted a series of contextual issues that must be borne in mind in this connection. First, in terms of efficiently communicating requirements and in developing local supply potential, individual health boards are unlikely to be able to act wholly independently. With large amounts of goods and services flowing through designated hubs such as NHS Supply Chain and Welsh Health Supplies it is arguably in these organisations where a lead needs to be taken in communicating and developing local supply potential. The use of supply hubs and framework style agreements, greater procurement cooperation with the other home countries, tighter procurement regulations, the use of electronic portals

and the wider advertising of tender opportunities, places constraints on the amount of supplier development that can be undertaken by organisations such as the ABHB. It is also difficult to escape the conclusion that the trend in the procurement process and tighter public spending conditions could work together to make it more difficult for SMEs to compete in winning NHS business in Wales.

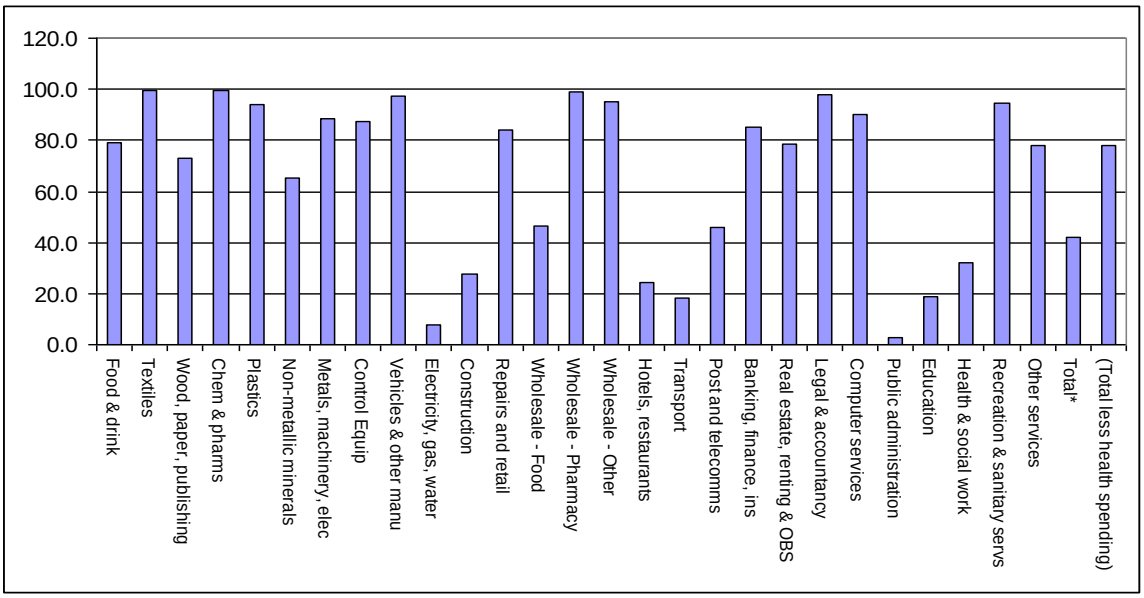
The report provides an analysis of the expenditure undertaken by ABHB for 2009-10. A large amount of total spending relates to the wages and salaries of staff, (nearly £406m) and with this supporting an estimated 10,754 full time equivalent (FTE) jobs. During 2009-10 non-pay operational spending was a little over £547m. Finally, there was estimated total capital spending through the year of £125m and with the vast majority of this relating to the construction of the Ysbyty Ystrad Fawr and Ysbyty Aneurin Bevan hospitals.

Spatial distribution of ABHB (non-pay) operational spending in 2009-10

	£000s	£000s	£000s	£000s
	ABHB	All of Wales (Incl ABHB)	Outside of Wales	Total
Total	**124,015**	**306,519**	**222,155**	**528,674**
(Total less health spending)	*9,196*	*25,176*	*87,905*	*113,081*

Of total ABHB operational spend (net of depreciation) of £528.7m, around 23.5% represents payments to firms and institutions in the ABHB area. Total ABHB spending in Wales as a whole in 2009-10 was £306.5m or 58% of total operational spending. Discounting for spending in health and social work sector, leaves £25.2m. Total operational spending outside of Wales was £222.2m or 42% of overall operational spending. Of the total of non-pay operational spending (less health and social work spending) of £113.1m, around 8% is within the ABHB area, 22% is within Wales as a whole (including the ABHB area), and then with 78% of spend outside Wales.

ABHB Import Propensities 2009-2010 (% of total imports by sector).



The Figure shows the level of purchases outside of Wales by ABHB by sector. In a number of sectors the percentage of total operational spending outside of Wales is in excess of 90%. The high importing propensities across some sectors reflect that Wales is a small open economy. Some of the demands placed by the NHS are very specialist in nature meaning that there would be no suppliers of such products in the regional economy. The report provides an analysis of sectors where import substitution possibilities might occur.

ABHB was shown to directly support some £953m of output, over 10,700 FTE jobs, and around £406m of gross value added in Wales. However, indirectly the Board was shown to support economic activity in a wide range of regional sectors. In total, our analysis suggests that Board activity supports, directly and indirectly some £1.7bn of economic activity in Wales, and nearly 20,000 jobs and around £0.73bn of gross value added. Even discounting the impacts within other parts of the health sector, the ABHB supports a significant number of jobs throughout the Welsh economy.

Among the chief recommendations that emerge from this study, there were two bearing directly on urgent procurement problems.

On the demand side the most urgent challenge is to promote more genuine collaborative procurement across the public sector in Wales. It is urgent for local government and health boards to form integrated services and stronger partnerships. In the case of the ABHB area for example, the five county councils and the health board should consider the creation of a joint collaborative procurement team, working to a combined sourcing plan, to reduce costs and add value. While this evidently brings issues of accountability across responsible authorities and short term costs, this type of collaboration can lead to long run savings on contracts.

On the supply side there is an equally urgent need to design and deliver a better system of business advice for actual and aspiring SMEs in the health board area. SMEs are faced with a bewildering array of business support points, with little or no coordination between them. There is too little coordination among the five local authorities in the ABHB area and there is too little coordination inside the Welsh Assembly Government, especially between the Department for the Economy and Transport (DET) and Value Wales for example. What is urgently required is for local government, the health boards and the Welsh Assembly Government to form an integrated service and a stronger partnership by, for example, creating a single one stop shop for SMEs that need advice about how to become a supplier to the public sector in south east Wales. Moreover, the analysis reveals a need for more targeted events to assist local SMEs to win NHS business and it is recommended that organisations such as Welsh Health Supplies might be key in coordinating such activity.

More specific recommendations arose from the analysis of opportunities to displace ABHB spending on imports. First a large amount of spend is directed to wholesalers and distributors both inside and outside of Wales. There may be scope here to encourage

wholesalers, particularly, those in Wales, to investigate local sources of supply where they are available. Moreover, we expect that wholesalers might be well placed with knowledge on local supply opportunities and are a useful antennae for regional potential particularly in terms of food products, and basic commodities.

Second, the analysis suggests that it is high value added products that are sourced outside of Wales. While the report emphasises the constraints on the regional supply side it recognised that even small levels of import displacement in selected niches of sectors, such as in engineering, equipment and chemicals, could have important effects in terms of the support of good quality employment in south east Wales.

Third, there are some areas of business and computer services where there would seem to be real opportunities to purchase more in the regional economy. We note that one of the problems identified in strategic economic planning documents by the Welsh Assembly Government has been the region's low shares of national (UK) activity in higher value business services. We would argue that public procurement is one potential means to bolster regional activity in these sectors, particularly at a time when there are real pressures on private sector demands for these services i.e. from the regional manufacturing sector.

Fourth, it was shown that the *NHS All Wales Procurement Strategy* suggests the significance of local sourcing but does not specify targets for local sourcing. It is recommended that the scope for such target setting be investigated. This report commends ABHB for monitoring its local procurement and setting implicit targets on Welsh purchases. At the same time it is recognised that year on year increases in local purchasing may be impractical given supply side constraints in the Welsh economy. Furthermore, the level of local purchases in any one year is not entirely within the control of ABHB procurement officers.

The conclusions of the report generally relate to one health board area. A key issue going forward is how far the conclusions reached here might be applicable to other health board areas across Wales. In this context different health boards might have very different regional economic impacts according to the distribution of their spending between capital, operational and labour categories, and the extent to which they purchase in the region. Whether similar conclusions could be made for health boards in the west and the north of Wales is an issue for further research.

Without a more robust evidence base, of the kind we have tried to provide here, it is hard to imagine how the public sector can have an informed debate about the social and economic impact of its spending. This would help to foster a fuller and more mature understanding of value for money.

1 Introduction

1.1 Background

The School of City and Regional Planning at Cardiff University and the Welsh Economy Research Unit of Cardiff Business School were commissioned by Caerphilly County Borough Council and Newport City Council to undertake an analysis of the local and all-Wales procurement of the Aneurin Bevan Health Board (ABHB). In what follows we report on the main findings from the study. Section 1 of the report provides background to the research, and the main research questions that were addressed, before summarising the structure of this report. We are particularly grateful to Graham Davies and Simon Davies at ABHB for their assistance in collecting the financial and supplier information on which the analysis was based. However, final responsibility for the report rests with the authors.

1.2 Public procurement: a change of direction

Over the past decade the status of public procurement has been elevated from a lowly back office function to a strategic boardroom function. At least this is what has happened in the more dynamic and more innovative parts of the public sector in the UK, where the procurement function has been a major political priority since 1999. It was in that year that the seminal Gershon Review of civil procurement in central government was published, exposing a catalogue of problems - including neglect, waste, variability, duplication and ignorance – the net effect of which was that many public bodies did not even know how much they were actually spending on goods and services.

Of all the problems identified in the review, two stood out for particular attention: (i) the absence of any common measurement systems to record what was purchased from whom and this was said to be the greatest single concern and (ii) the fact that overall levels of skill, capability and seniority needed to be raised significantly if the public procurement function was to shed its Cinderella status (Gershon, 1999). The immediate outcome of the review was the creation in 2000 of the Office of Government Commerce, which was charged with the twin tasks of modernising the public procurement process and securing better value for money (VfM) outcomes for the taxpayer. This VfM goal is reinforced by a battery of multi-level procurement regulations – from the European Union level down to the local government level – which requires public bodies to pursue best value for the taxpayer and to do so in a transparent and non-discriminatory manner, treating all firms within the EU in a uniform way.

Although some genuine progress has been achieved in the past decade, the story of public procurement in the UK remains a story of untapped potential. The fact of the matter is that the public sector spends more than £220 billion annually on goods, services and works, which is equivalent to £1 in every £4 spent in total by the Exchequer, and this constitutes an awesome power if it can be deployed in an effective manner. One

of the main reasons why this procurement power has not been deployed effectively is because it is fragmented among some 44,000 separate public bodies in the UK. The problem of fragmentation is compounded by the shortage of professional procurement skills in the public sector, a problem that is especially acute in Wales, where the numbers of Chartered Institute of Purchasing and Supply (CIPS) qualified staff is below the 1 to 15 rule recommended by current good practice guidelines, which means there should be 1 CIPS qualified public procurement manager for every £15 million of public spending. This suggests that Wales is some 55% deficient in its stock of public procurement professionals (Morgan, 2010a).

The situation in Wales reflects the wider UK scene in other respects too. Indeed, when the Assembly Government conducted its own review of procurement in the public sector, which it launched in April 2000, it found similar problems to what had been revealed by the Gershon Review. In Wales the main problems were the following:

- There was no common understanding of the full scope and role of procurement;
- There was very little management information available on what was being spent;
- Procurement activity was unduly fragmented across 94 public bodies in Wales and performance varied greatly across the Welsh public sector;
- There was too little investment in training, with the result that the public procurement community needed to become better qualified, more professional and more commercially-minded;
- There was no agreed procurement performance measurement system and few examples of benchmarking of procurement performance (National Assembly for Wales, 2001).

To address these problems the policy response has been similar in London and Cardiff. One of the main policy prescriptions in both cases has been collaborative procurement – in other words to urge public bodies to aggregate their demand so as to secure better value for money outcomes from their preferred suppliers.

1.3 Health sector procurement

Nowhere have the above pressures been more severe than in the health sector. Health sector procurement is the process through which the health sector buys goods and services. Generally where policymakers have shown interest in public procurement it is invariably either because they wanted to use it to spearhead the growth of advanced technology sectors that were deemed to be of strategic value, or to enable domestic firms to act as “national champions” in international competition. Public procurement strategies in the health sector might be related to these strategic aims.

However, at the level of the NHS in Wales there is an explicit recognition that local purchasing can support high levels of employment and output in the regional economy. At the same time the sector imports a significant amount of goods and services from the

rest of the UK and overseas, and with the possibility that moves to aggregate demands across the NHS in Wales could in the long term work to affect aggregate levels of local purchasing and trade.

Yet a more positive corollary is that Welsh based institutions and firms might wrest business that previously went to firms outside of the region. Therefore spatial changes in the pattern of NHS spending, particularly moves toward regional import substitution in some goods and services, potentially have strong local economic effects. Moreover, there may be more subtle social and economic effects connected to purchasing goods and services in close proximity to where they are employed, and this has been recognised in a number of academic studies.

At the same time issues relating to the quality of the local supply side impose a reality check on the consolidation of buyer supplier partnerships at local level, and indeed, with uncertainty about the meaning of 'local' in terms of public procurement. Moreover, in the context of the above, it is important to realise that procurement managers in the NHS are not free agents, but are bound by an array of national and international regulations. These regulations ensure that procurement processes are as open and competitive as possible and that the product used will not endanger patients and staff. An element of the EU Single Market is an elaborate set of regulations on public procurement. In short there are rules to the game governing public procurement in the EU. These rules have ramifications for the extent to which procurement managers in the NHS can 'support' regional producers. For example, EU regulations mean that contract award criteria must comply with the pro-competitive principles of the Single Market i.e. transparency, non-discrimination and equal treatment of all tenders irrespective of where they are located. However, the NHS and other public procurers in Wales are not obligated to select "the lowest price" tender. Rather, there is the possibility of awarding a contract to "the most economically advantageous tender", in which case they can use criteria linked to the subject-matter of the contract in question (such as quality, price, technical merit, aesthetic and functional features, after-sales service, delivery date and completion date), all of which have to be weighted in descending order of importance.

In the UK, the NHS, as a whole, spends more than £17 billion a year on goods and services, ranging from large construction projects to seemingly mundane (but no less important) items like food and drink. The procurement of food and drink may seem mundane, but it is actually part of a complex system that spends more than £500 million a year on food, contract and catering in which 300 million patient meals are served annually in more than 1200 hospitals in the UK (Kings Fund, 2005). It is worth contrasting construction and catering because the NHS procurement process will be concerned with different priorities when they procure goods and services in these two sectors. The aggregation of demand makes a lot of sense if the NHS wants to drive down the costs of a large construction project that it is procuring from a large national or multinational civil engineering firm. But low cost needs to be distinguished from best value, which is not an easy concept to define when public procurement is expected to

deliver so many different political priorities – like local sourcing and SME support for example.

In the catering sector, however, the aggregation of demand creates a problem if it leads to the aggregation of supply, where a small number of large firms monopolise the supply of food to the NHS. In Wales, and some other parts of the UK too, there is a strong public policy concern to use as much local food (i.e. food from Wales) as possible in NHS catering contracts, and there is also a concern to try to open up these contracts to small and medium sized enterprises (WAG, 2010). In 2008/09 the NHS in Wales spent £59.1 million on catering and 63.6% of its gross catering cost was absorbed by labour costs. Although many health organisations had difficulties in providing robust data for what they actually spent on catering per patient, it seems that the average "patient meal day" cost indicator is the most reliable, which puts the cost at £10.78.

Although catering and procurement managers will face intense cost pressures in the next few years, it is worth remembering that there is considerable food waste in the NHS in Wales, where more than 88,000 meals were wasted in 2008/09, an increase of 1% on the previous year. Indeed, in some hospitals the level of food waste is now in excess of 20% on certain wards, much higher than the 7% average for the whole of Wales (NHS Cymru, 2009). In some parts of the UK, especially in Cornwall for example, the NHS has dramatically reduced its level of food waste and this was largely achieved by sourcing more locally produced fresh food, which led to the highest patient satisfaction rates in the UK (Morgan, 2010).

Reducing food waste, and re-investing the savings in more locally-produced fresh food, may be one of the ways in which the NHS in Wales can preserve the quality of the food it procures in coming years, when it will face unprecedented budgetary pressures. In fact this is the biggest challenge facing the procurement profession in the NHS in Wales because, on top of the £850 million savings it achieved between 2005-2010, the NHS is expected to make a further £430 million savings in the current financial year, amounting to some 8% of its total budget. To make matters worse, up to £1.9 billion of additional savings may be required by 2015 as a result of the decision to reduce the government deficit in a single parliamentary term.

Speaking to a recent public services summit in Wales, Edwina Hart, the Health Minister, said that savings on this scale cannot be sustained "without integrated services and strong partnerships" (Brindley, 2010).

1.4 Research objectives

This context informed the objectives of this study. At one level there is a lack of a robust evidence base on the wider effects of public procurement in areas such as employment, skills and cluster development. More specifically for this study there is limited information on how far areas of NHS procurement support employment and output in defined Welsh sectors, and the potential for regional firms to meet needs which are currently serviced by

imports. Furthermore, there is limited evidence on how far the wage spending of NHS employees support activity in the regional economy. These questions have been brought into a sharper focus with NHS budgets coming under pressure in current spending reviews.

The reference case is the Aneurin Bevan Health Board (ABHB) in South East Wales. ABHB is responsible for the delivery of health care services to more than 600,000 people living in the Gwent area. Health services are delivered across the local authority areas of Blaenau Gwent, Caerphilly, Monmouthshire, Newport and Torfaen. The Board area contains three major general hospitals and eighteen community hospitals. There are also a range of specialist health centres, local clinics and primary care facilities providing medical, dental, pharmacy and optometric services along with facilities providing mental health and learning disability services. Some one thousand hospital and general practitioner doctors and six thousand nurses, allied health professionals and community based staff deliver services to these local communities. The Health Board came into being on the 1st October 2009 and replaced the former Gwent Healthcare NHS Trust and Blaenau Gwent, Caerphilly, Monmouthshire, Newport and Torfaen Local Health Boards.

The core research objectives of the project were:

- To define the term 'local' with respect to the purchasing behavior of the Aneurin Bevan Health Board
- To demonstrate how far the Health Board had successfully implemented the action points contained in the *NHS All Wales Procurement Strategy 2007-2010* relating to communicating opportunities to local suppliers, and assisting suppliers to improve delivery of goods and services.
- To identify whether targets had been set for local procurement by the Aneurin Bevan Health Board, and the nature of actions being taken to achieve these targets.
- To analyse the amount of local spending undertaken by the Board and to analyse the benefits of local procurement for the wider local economy. This includes an evaluation of the direct, indirect and induced impacts of local expenditure by the Aneurin Bevan Health Board.
- To identify further local procurement opportunities for the Aneurin Bevan Health Board, and other public sector bodies, and identifying where Caerphilly County Borough Council and Newport City Council may target support to assist local suppliers in increasing levels of business with the NHS.

1.5 Structure of the report

This report reveals how these research questions were examined. In the second section of the report we summarise the method adopted in dealing with each of the research questions. The third section of the report examines some of the issues surrounding the purchasing behaviour of the ABHB, and examines how far the Board has been able to

meet key action points in the *NHS All Wales Procurement Strategy*. The fourth section focuses on an analysis of the local and regional spending of the Board. This includes an examination of areas where spending is and is not focused in Wales, and an outline analysis of how far imports in key sectors might be displaceable through the use of local and regional firms. The fifth sector examines the wider economic effects of ABHB spending on the local and regional economy identifying the multiplier effects of this expenditure. The final section contains conclusions and recommendations that draw on each part of the analysis. The recommendations include possibilities for exploring how far it might be possible to strengthen the local economic impacts arising from Board expenditure.

2 Methods

2.1 Defining 'local'

Prior to the analytical elements of the study it was necessary to define the term local. This was important because in the analysis it was proposed to separate out spending in the ABHB area from that in the rest of Wales, and then spending outside of the region. The definition of local was agreed in the initial steering meeting for the project. Local was taken to mean the Health Board area in terms of the local authority areas of Blaenau Gwent, Caerphilly, Monmouthshire, Newport and Torfaen. Regional was taken to mean of whole of Wales. Therefore in reporting on local sourcing and economic impacts we attempt to provide two sets of results.

One rationale for a two level approach (local and region) is that the key areas of spending interest are very close to the Health Board hospitals, other centres and clinics. However a number of key procurement linkages may exist within relatively close proximity, but outside of the immediate Health Board area. Additionally the Welsh Assembly Government and other bodies will have an interest in the regional as well as local impacts and issues. A final reason for the suggestion of a Welsh level analysis is that the research team proposed the use of an economic modelling framework which covers the region as a whole.

2.2 The Board and the All Wales NHS Procurement Strategy

The second research question related to assessing the progress made by Aneurin Bevan Health Board in implementing specific action points contained in the NHS All Wales Procurement Strategy 2007-10. The first of these relates to communicating procurement requirements to suppliers, especially local companies, to allow them the opportunity to work up innovative solutions. The second specific point referred to the NHS supporting the development of suppliers to improve the delivery of all goods and services.

Progress on these specific points was firstly assessed through an analysis of documentation, and secondly though interviews with key Health Board personnel with

responsibility for procurement. Within the context of the Action Points the main issues addressed during interviews with procurement officers were as follows:

- Does the Health Board track the availability of local goods and services provision?
- Does the tendering process allow involvement of smaller firms; or does seeking to meet this objective lead to real diseconomies for the health board in real and pecuniary terms?
- How did the Board communicate requirements and how has this changed as a result of the *NHS All Wales Procurement Strategy*?
- What are barriers to local purchasing in key non-pay categories?
- What did the Board understand by local firms working up innovative supply solutions?
- Does meeting the strategy objectives actually work against savings in procurement?
- Do e-tendering and e-auctions improve prospects for local procurement or do they provide opportunities for those further afield?
- What types of goods and services go through these procurement hubs?
- How does/can Health Board work to support supplier development; and should this be part of their remit?
- Were there any cases where ABHB had supported local supplier development?

Findings in relation to the above questions are discussed in section 3 of this report.

2.3 The Measurement of Direct Impact

The examination of the 'direct' spend in the local area and region, including the levels of expenditure, was the cornerstone of this project, and with the findings here linking to all the research questions addressed. The analysis of spending was informed by detailed records provided by the Board showing expenditures with identified companies and institutions. Initially the database was analysed by isolating supplier addresses within Wales, and then within the Board area. This then left the more problematic exercise of classifying each individual firm to an industry classification. This was necessary for the economic modelling element of the study and to inform the analysis of supply chain potentials in Wales. This classification process was aided by the use of internet searches and bespoke Companies House databases to identify the main activities of firms. This process was repeated for firms and institutions in the wider UK that supplied the Board. All Board transactions were then aggregated into 25 defined sectors.

The analysis of Board spending in spatial and sectoral terms was not straightforward. There were a series of issues that had to be overcome in the above analysis.

First, at the time the research was undertaken the Board had not been in operation for a full financial year. This meant that initial analysis proceeded on transactions information for the first part of the 2009-2010 accounting year, and then with a need to adjust the

spending analysis once accounts for the first full year of Board activity became available in August 2010.

Second, there were some large transactions through supply hubs such as Welsh Health Supplies, NHS Supply Chain and others. In these instances it was possible that spending might be directed to a hub outside the region but that the supply chain contract was with a locally based firm. Where possible these specific cases were discussed with procurement officers.

Third, for the economic analysis it was necessary to separate capital spending, for example on new hospitals, from that relating to 'normal' operations.

Fourth, a decision was made early in the project that consideration should be given to economic impacts associated with the spending of Board employees. Much of the indirect economic impact associated with the Board comes through the spending of its staffs such that in understanding the impact of the Board these impacts needed to be considered.

Finally, an issue that is considered later in the analysis was that the Health sector in Wales undertakes a great deal of trade with itself. Some of this spending does relate to purchases from the private health sector. However it also includes many instances where, for example, one Board may purchase services from another part of the NHS in Wales. For these reasons part of our analysis focuses on operational spend excluding internal health sector transactions. A rationale for this approach was to identify goods and services purchases which involved the private as opposed to the public sector.

In identifying supply chain potentials the analysis was used to reveal goods and services categories where the Board was purchasing outside Wales. Using sources such as Companies House data, the Annual Business Inquiry and related statistical sources we then identify whether there is significant capacity in Wales linked to these sectors. We accept that the industry typology adopted may not be fine grained enough to pick up on supply chain potentials. For example, while the analysis might pick up on a high degree of imports in terms of pharmaceutical products one has to recognise that Wales may have capacity with respect to some pharmaceuticals rather than others. However, the analysis does identify key importing sectors.

The results from this analysis are reported in section 4.

2.4 Wider economy effects

The research required an assessment of the benefits of local procurement to the wider economy. While the analysis in 2.3 enabled the identification of direct effects in the local and Welsh economy, it could provide no indication of the supply chain effects linked to Board spending. For example the spending of the Board supports economic opportunities in local and Welsh suppliers. These same suppliers also spend monies in the local

economy that support further economic output and employment. Furthermore employees of the Board also spend money in the local economy that supports further regional economic output and jobs. These effects through the supply chain and household sector are termed indirect and induced effects respectively.

The magnitude of indirect effects is largely determined by how far suppliers to the Board themselves purchase goods and services in the local economy as opposed to outside of Wales. Similar arguments apply to the employees of the Board. This analysis requires care. For example an employee of the Health Board may spend within local shops, however the majority of those products will have been made outside of the locality. In this case the retail 'margin' would be a local spend whereas the spending relating to the product itself would 'leak' out to the rest of the UK or overseas.

The economic modelling exercise was aided through supplementary information derived from a small purposeful sample of key regional suppliers to the Board. This process provided information relevant for the economic modelling exercise, and provided information relevant for developing the study conclusions. Discussions with suppliers covered areas including:

- General company background (size, product/service mix, main customer types etc).
- Key non-wage spending categories, and extent spend is in Wales/rest of UK.
- General characteristics of the firm's market, in Wales and UK.
- The relative financial/commercial importance of the Aneurin Bevan Heath Board in particular and the health sector in general to the supplier firm.
- How well NHS procurement requirements were communicated to the supplier firm?
- Supplier observations regarding the state/nature of procurement with respect to the health sector.
- If the supplier firm had clients outside the heath sector, how did this sector compare with others in terms of procurement demands?
- The nature of the 'business support' relationship (if any) between the supplier firm and its local authority.
- Supplier comments on what could be done to further improve supplier protocols with respect to the healthcare sector.
- Critical constraints (on growth) facing the supplier firm at the present time.
- Key business development opportunities (in terms of new customers or more generally) facing the supplier firm.
- The sensitivity of the supplier firm to changes in procurement protocols.

The information derived was complemented by that contained within the Welsh Input-Output tables which incorporate estimates of local spending patterns of defined industry groups/sectors. In combining these methods the research team aimed to provide a

comprehensive assessment of the Health Board's 'total' multiplier effects in Wales. This also permitted the analysis of sectors in the region most affected by Board spending indirectly. In undertaking this analysis impacts connected to construction activity (capital spending linked to new hospital) were examined separately from general operational spending. Further information on the development and design of the Welsh Input-Output tables and their use for economic modelling purposes can be found at (www.weru.org.uk).

The results from this analysis are reported in section 5. The final part of the analysis used material collected during each part of the study to identify where support could be targeted to assist local suppliers in increasing levels of business within the NHS. This is reported in section 6.

3 Progress made by ABHB in implementing key action points contained in the NHS All Wales Procurement Strategy 2007-2010

3.1 The strategy in summary

This section outlines the key points from the *NHS All Wales Procurement Strategy*, before examining the key points arising from consultations with procurement staff at ABHB and with a sample of local suppliers to ABHB in relation to the action points. The section concludes with how far progress has been made by the Board in meeting the action points.

The *NHS All Wales Procurement Strategy* established the goals to be achieved through the strategic alignment of contracting, and the principles to be used to guide decisions on whether NHS contracting is undertaken on a local or national basis. The preamble to the strategy argued that while progress had been by the NHS in Wales in more efficiently sourcing goods and services, that there was still an opportunity for further improvement. The strategy concluded that all organisations needed to be supported by a combination of Welsh Health Supplies and the local Consortia/Procurement function to gain what was termed the 'once only' principle of contracting at a level which is appropriate for the item or service. The Strategy also showed that more effort was needed to standardise specifications for goods and services in order that the benefits of contracting on a wider/ All Wales level were captured.

Furthermore the Strategy also posited that the procurement links with the other Home Countries should continue and opportunities taken to build and strengthen these relationships where they offer benefit to the Welsh NHS, or potentially, the wider Welsh public sector. This would include developing relationships with the Procurement Hubs that are emerging and developing within the English NHS (p.11).

While the Strategy placed a high value on pecuniary economies in purchasing through hubs, and the minimisation of multiple tendering procedures it also posited the following action points:

'All procurement departments / Welsh Health Supplies to communicate requirements to suppliers, especially local companies, to allow them the opportunity to work up innovative solutions'.

'The NHS to support the development of suppliers to improve the delivery of all goods and services'.

With respect to the first of these points it is noted that the Strategy did not set specific targets with respect to local purchasing of goods and services. We return to this issue in the report conclusions.

3.2 Key points from consultations with Board procurement

A series of interviews were undertaken with personnel from the ABHB purchasing division, and the pertinent documentation has been examined. In what follows some of the key points from these interviews are outlined.

- ABHB must follow NHS guidelines in its purchasing, and therefore value for money is very important; moreover ABHB and the NHS more generally in Wales tends to work very collaboratively in its purchasing. There are expected to be some tensions between objectives relating to value for money, scale economies in purchasing and local procurement. Furthermore spending conditions were noted as being very tight. For many classes of goods and services it was mandatory to use established supply contracts, and there was a need to drill people to use contacts that have already been negotiated for selected classes of goods and services.

- The importance of Welsh Health Supplies (WHS) was highlighted in the purchasing process. For some contracts ABHB would first go to this overarching portal to examine whether there was an all Wales contract for the good or service in question. Moreover WHS also had the scope to examine a wider set of NHS supply points in England and Scotland (and Northern Ireland). A common electronic purchasing system meant that some classes of goods and services could be examined nationally.

- Key categories of spending relate to drugs and pharmaceuticals, food and provisions (a key local sourcing area), energy and utilities (noted Board deals with British Gas and BT, and while these have bases in Wales, power could be generated anywhere), construction, facilities management, IT, medical and surgical consumables and equipment, office equipment and consumables, works and estates.

- ABHB track the availability of local provision. For example, all spending through the original Gwent healthcare trusts was tracked. There were no specific targets set for local sourcing [but there is an implicit aim to increase local sourcing by 1% pa]. Local sourcing as a variable was measured by the Board using the Oracle Purchasing system which records post code information. However, the postcode information relates to invoicing addresses and with products potentially made at other locations. It was estimated that around 25-30% of spend was in Wales.

- On construction in particular there is scope to use local contractors where they are available and for contracts of a certain size (less than £6m). For capital contracts in excess of £6m there are dedicated construction suppliers who do all NHS work.

- There are some common categories of goods and services which are commonly purchased locally. Food is one category. There is a national contract for meat for example, amongst others, however there is a limited amount of business that routinely goes to Welsh firms.

- Board requirements are communicated to local suppliers and others through portals such as *Sell to Wales*. From October 2009 in its standing orders ABHB goes through the *Sell to Wales* website for anything valued at over £25,000; and suppliers are advised to go to this portal.

- All processes allow, and never exclude, the involvement of smaller firms. However, there were challenges facing smaller firms particularly in terms of efficiently tendering, and meeting NHS needs; some local suppliers may not be aware of the portals they need to go through to win NHS business. Also for construction contracts – the potential supplier need to show 3 years of accounts, and firms need to provide extensive documentary material on process and procedures. This is more burdensome for smaller firms.

- There is an issue that by working with smaller firms the Board may face diseconomies in purchasing. This means there are challenges facing smaller firms particularly in terms of efficiently tendering, and meeting NHS needs.

- A recent innovation has been e-tendering and e-auctions, and these processes could improve information flows to local firms but also those further afield. All suppliers have to go through the same portals. In auction processes there is the ever present danger of 'winners curse' – where companies may quote too low in order to win a contract, but then find they cannot operate with such small margins.

- The barriers to local purchasing in key non-pay categories often relate to the strict rules that the Health Board has to comply with; these are in place to protect public money.

- There is scope for local suppliers to work up innovative solutions in terms of winning business in new ways, and ensuring that they can rigorously meet contract requirements; there is also a challenge for selected firms to link up with other suppliers i.e. not just putting in a price and hoping for the best, but undertaking the background research to maximise the local opportunities.

- To help suppliers there are periodic national and local meet the buyer events (for a recent example see https://www.sell2wales.co.uk/3407.html). These are run for all suppliers, and include general sessions on working with the NHS. The Health Board attempts to make these as open as possible, and to link with councils and other local institutions to show opportunities. Many local councils have supplier development schemes but there is possibly a confusing array of initiatives. There are periodical national and local meet the buyer events. These are run for all suppliers, and include general sessions on working with the NHS; the meet the buyer events that are put on do attract Welsh Suppliers, but unfortunately are not usually targeted effectively such that the wrong type of suppliers frequently turn up.

- Historical procurement links with the home countries are becoming more important; in particular there are a lot more avenues for suppliers to challenge purchasing decisions that are made which means that using the established portals is important. There is an issue that some Welsh suppliers simply do not realise the frameworks through which the Health Board sources selected goods and services, and the potential for them to win business in England.

3.3 Key points from consultations with suppliers

A small number of consultations (seven) were undertaken with suppliers to ABHB. It is important to stress here that some of the responses from the supplier consultation spoke to general transactions with the NHS in Wales. The main points emerging with respect to the main action points in the *NHS All Wales Procurement Strategy* were as follows.

- Each of the consultations stressed the increasing purchasing power of the NHS. It was stressed that price had become a far more significant factor in the procurement process.

- Suppliers believed that changing procurement processes actually led to less involvement of clinicians ‘up front’, and increasing power in the procurement function. According to one supplier: “There have been changes in terms of the procurement. It used to be clinician led but now the procurement side takes the

lead; they will ask for a framework of prices for different volumes. Then representatives will go to workshops with the clinicians; when contracts get to renewal, we go to the clinicians and show them what we can do. However, the emphasis of price minimisation means that the product becomes under-valued and we cannot undertake so much education work. Clinicians are always part of the process in developing new technology". An emphasis on price minimisation led to the belief that products and services had become far more 'commodified' and with firms less able to offer 'add-ons' for hospitals, within selected agreements.

- Added to this was a concern that procurers are not the users. One supplier argued that it could create demand for its medical product by talking to Theatre Directors but then "they don't always get what they want". However, the supplier noted that hospitals wanted good products and because of this the supplier had an order book full of individual hospitals who by-passed the standard supplier networks. However, in another supplier, the vast majority of their output went to NHS Supply Chain, and with the latter holding a wide stock of their products, meaning that they sold directly to hospitals quite rarely.

- In terms of tendering processes suppliers were concerned about 'constant' changes. Moreover, some concerns were voiced regarding procurement contracts being specified for some items in very general terms and with a perceived need in contracts to provide more specific details of what is required. However suppliers were well aware that it was difficult to specify a country requirement in larger contracts.

- Due to procurement arrangements firms were not always clear about how important Welsh hospitals and then ABHB were to them. For example, for one supplier around 12% of all their business was with ABHB, another had no idea, and a third less than 5%.

- One supplier highlighted that procurers sometimes required discounts in return for quick payment but were not always capable of making the quick payments.

- A food producer showed that on some meat products they were asked to specify a Welsh sourced and 'other price'. Welsh products nearly always came out dearer.

- Suppliers believed that procurers were aware of changing cost drivers particularly in terms of seasonality (food) and exchange rate variations. Firms noted the ability of suppliers to build in price variation subject to notification e.g. if lamb prices go up. For example, one supplier mentioned that organisations such as Welsh Health Supplies had good market intelligence on what was happening to meat prices at market, and the impacts of seasonality. Moreover one supplier

highlighted that when they work through NHS Supply Chain they had less problems with individual hospitals coming back and complaining because these issues were dealt with by procurement hubs.

- Two companies stressed increasing competitive pressure from overseas. In one case competitors were setting up large plants in China and then with product quality assured locally. One corollary was the outsourcing of 'Welsh' operations to China. For example, in one case a firm imported/packaged and distributed single use medical disposables. The largest by volume and value were made in China. Up until recently the products were imported part finished with some packaging and sterilisation undertaken in the UK. In order to save costs now more of the operation was outsourced to China and employment at the Welsh supplier had fallen as a result.

3.4 Progress made by ABHB

The findings from the consultations reveal that progress is being made in meeting the strategic action points outlined in the *NHS All Wales Procurement Strategy*. There are a series of contextual issues that must be borne in mind prior to any conclusions.

First, in terms of efficiently communicating requirements and in developing local supply potential individual health boards are unlikely to be able to act wholly independently. With large amounts of goods and services flowing through designated hubs such as NHS Supply Chain and Welsh Health Supplies it is arguably in these organisations where a lead needs to be taken in communicating and developing local supply potential. Moreover, when examining the spending undertaken by health boards such as ABHB it is important to recognise that there is only part of the expenditure to which the action points in the procurement strategy really apply. For example, in the next section (4) we demonstrate that a very large proportion of spending by ABHB actually represents payments to households (wages and salaries) and then payments to other health boards and hospitals. Then the amounts of spending that are more receptive may be small compared to total Board spending.

Second, current procurement activity in the NHS is being undertaken in the context of very tight public spending conditions. There are tremendous pressures to gain cost savings without damaging the quality of frontline medical and social services. Consequently, the use of supply hubs and framework style agreements, together with greater cooperation with the other home countries in NHS sourcing of selected goods and services is expected to increase. This pressure naturally restricts the amount of goods that can be procured in the Welsh economy.

Third, the importance on increasing returns in the NHS procurement function will increase the use of electronic portals and the wider advertising of tender opportunities. For contracts above a certain size there is a requirement to place information on sites such as *Sell to Wales* which advertise opportunities across the UK and in the European

Union. The active fostering of fair competition and transparency again places limits on what can be procured in the region.

Fourth, and more locally, the supplier consultations revealed stronger trends towards outsourcing the manufacture of goods overseas. Again this links though to a cost down emphasis in the supply chain.

Each of the above points places constraints on the amount of supplier development that can be undertaken by organisations such as the ABHB. The general legal process associated with procurement regulation has led to greater levels of communication to a wider potential supplier set. Indeed in none of the consultations with suppliers was the lack of communication of needs from organisations such as ABHB highlighted as an issue. Rather there were concerns linked to the finer detail of procurement processes.

However, at the same time it is difficult to escape the conclusion that the trend in the procurement process and the general context of tighter spending conditions will work to make it more difficult for small and medium sized enterprises to compete in winning NHS business in Wales. For example, the greater levels of information required to win places on framework agreements inevitably increase competitive pressures on those Welsh firms working with ABHB in Wales, and with particular difficulties facing smaller firms in the round.

Then while procurement officers in the NHS and the Boards can see the potential regional effects linked to higher levels of local sourcing there are a number of reasons why the focus has to be retained on value for money and the use of common hubs. Moreover, there is an issue here that invoice points may not correspond to where products are actually made. In consequence local sourcing might actually be greater than indicated by analysis of invoices. Importantly, in the context of the objectives of this report, it was noted that ABHB does monitor its level of local purchasing and did have an implicit target of increasing the value of goods and services purchased in Wales by 1%pa. It is accepted that setting such a target might create difficulties because there are strict limits on how much of some goods and services can actually be bought in the region. However, monitoring local sourcing in this way, and particularly the monitoring of local sourcing of sub-contract packages on capital projects, is very much in the spirit of the *NHS All Wales Procurement Strategy* action points outlined earlier in the report.

In summary there are limits to how far an individual health board can work to support development of regional suppliers, and questions on how far they have the resources and expertise available to develop suppliers in the region. At one level ABHB had participated in events which encouraged suppliers to meet key public sector buyers. However, procurement officers questioned the effectiveness of targeting of meet the buyer events, and then with problems surrounding the large array of available initiatives. We return to these issues in the conclusions to the report.

4 Aneurin Bevan Health Board: Expenditure analysis.

4.1 Introduction

This section of the report provides an analysis of the expenditure undertaken by ABHB for the financial year 2009-10. The Board spends on many different categories of goods and services. For the analysis in this section we have classified spending to a limited number of 25 categories.

The analysis of potential supply chain opportunities is based on these same categories. In what follows we briefly summarise Board headline spending in 2009-10 before focusing in on the spatial distribution of spending by ABHB area, rest of Wales and then spending outside Wales. The report then compares total expenditure within and outside Wales to identify the main categories of goods and services that are imported, and with this becoming the basis of a supply gap analysis for operational spending.

4.2 Spending headlines

Table 1 shows the overall spending headlines for ABHB for 2009-10. The first thing to note here is that a large amount of total spending relates to the wages and salaries of staff, nearly £406m and with this supporting an estimated 10,754 full time equivalent (FTE) jobs. This makes the Board one of the largest employers in South East Wales.

Table 1: ABHB Expenditure headlines 2009-10

Spending category	£000s/fte
Total non-pay spending (including depreciation)	547,136
Total salaries and wages	405,747
Total capital expenditure	125,297
Estimated employees during year	10,754 full time equivalents

During 2009-10 non-pay operational spending was a little over £547m, but with this including some monies (just under £20m) categorised as depreciation. Finally, there was an estimated total capital spending through the year of £125m, largely relating to the construction of the Ysbyty Ystrad Fawr and Ysbyty Aneurin Bevan hospitals.

4.3 Sectoral breakdown of operational spending

Table 2 provides a summary breakdown of operational spending (less depreciation) by sector. By far the largest category and accounting for nearly £416m out of £529m (79%) is health spending, and this is allocated to the defined health and social work sector (this is a pre-defined sector of the modelling framework used for the analysis in this report). Health spend is large partly because of 'transfer' payments. For example, neighbouring health board areas might have a large cardiology unit to which patients from ABHB get referred; likewise ABHB will get referrals from other health board areas. The result is the

existence of a health trade balance between board areas. Clearly, these arrangements also potentially result in leakages outside Wales. However, expenditures in this sector also reflect payments to private sector providers for items such as domicile care, nursing homes and mental health care. For ABHB there are pressures to bring as much of this spending in-house as is possible.

Table 2: Sectoral distribution of ABHB Operational Spending 2009-10

	Total £000s	% total
Primary and manufacturing	36,999	7.0
Electricity, gas, water	6,743	1.3
Construction (operational)	1,500	0.3
Repairs and retail	3,018	0.6
Wholesale - Food	2,418	0.5
Wholesale - Pharmacy	7,490	1.4
Wholesale - Other	14,324	2.7
Hotels, restaurants	41	0.0
Transport	235	0.0
Post and telecommunications	2,646	0.5
Banking, finance & insurance	1,518	0.3
Real estate, renting of moveables, OBS	15,589	2.9
Legal services	3,862	0.7
Computer & related services	4,228	0.8
Public administration	4,086	0.8
Education	1,142	0.2
Health & social work	415,593	78.6
Recreation & sanitary services	330	0.1
Other services	6,912	1.3
Total*	**528,674**	**100.0**
(Total less health spending)	*113,081*	21.4

Note: Column totals may not sum due to rounding

Other large items of spending were in sectors such as chemicals and pharmaceuticals manufacture (£14.3m), and medical control equipment (15.2m) (each of which has been aggregated into the primary and manufacturing sector here), and professional/other business services (£15.6m). Assuming that much of the spending on health and social work represents a form of 'local' internal transfer payment, then it is the remaining elements of operational spend (i.e. just over £113m) which might be of more interest in a supply gap analysis in this case.

4.4 Spatial distribution of operational spending

Table 3 shows the spatial distribution of ABHB operational spending by sectors. Again there is some aggregation here to aid a summary description. Total spending in the ABHB area was a little over £124m in 2009-10 and with around 93% of this on health and social work activity. Of the small remainder of £9.2m around 35% is payments to the public and local authority sector, and with 27% to the real estate, renting and other business services sector. Of total ABHB operational spend (net of depreciation) of £528.7m, around 23.5% represents payments to firms and institutions in the ABHB area.

Table 3: Spatial distribution of ABHB (non-pay) operational spending in 2009-10

	£000s	£000s	£000s	£000s
	ABHB	All of Wales (Incl ABHB)	Outside of Wales	Total
Primary and manufacturing	1,002	3,186	33,813	36,999
Electricity, gas, water	0	6,206	537	6,743
Construction	692	1,082	418	1,500
Repairs and retail	383	473	2,544	3,018
Wholesale - Food	29	1,297	1,121	2,418
Wholesale - Pharmacy	14	74	7,416	7,490
Wholesale - Other	416	677	13,647	14,324
Hotels, restaurants	28	31	10	41
Transport	192	193	43	235
Post & telecommunications	1	1,432	1,214	2,646
Banking, finance & insurance	182	225	1,293	1,518
Real estate, renting of movables, other business & professional services	2,475	3,345	12,244	15,589
Legal services	0	76	3,786	3,862
Computer & related services	51	425	3,804	4,228
Public administration	3,260	3,971	115	4,086
Education	53	929	214	1,142
Health & social work	114,820	281,343	134,250	415,593
Recreation & sanitary services	9	18	312	330
Other services	409	1,537	5,375	6,912
Total*	**124,015**	**306,519**	**222,155**	**528,674**
(Total less health spending)	*9,196*	*25,176*	*87,905*	*113,081*

Note: Column totals may not sum due to rounding

Total ABHB spending in Wales as a whole in 2009-10 was £306.5m or 58% of total operational spending. Once again, discounting for spending in health and social work sector, leaves £25.2m. Of this £6.2m (24.6%) is payments for utilities, £4.0m payments to public administration and local authorities, and then with £3.2m and £3.3m respectively going to the primary & manufacturing sector, and then to real estate, renting and other business services. Note that in this table, payments to retail and wholesale sectors include the value of the products bought (which may or may not be local) as well as the wholesale add-on (margin).

One conclusion from an examination of the spending within Wales would be that amounts that would be interesting in the context of this study, in terms of links with the Welsh economy outwith the health sector, are a small proportion of overall spending but nonetheless are still significant spends in the round.

The analysis of spending involving payments to firms and institutions outside of Wales still shows the significance of payments to the health and social sector. Total operational spending outside of Wales was £222.2m or 42% of overall operational spending. However, in this case, discounting for health sector spending leaves nearly £88m of spend.

In summary this means that of the total of non-pay operational spending (less health and social work spending) of £113.1m, around 8% is within the ABHB area, 22% is within Wales as a whole (including the ABHB area), and then with 78% of spend outside Wales. Again we stress that some caution is needed in interpreting these numbers because these figures largely reflect where invoices are paid (see also section 5.1).

The level of imports from outside Wales, particularly in terms on goods and services outside the health and social work sector, is of some interest given that one of the objectives of the report is to examine potential supply chain gaps and where there may be possibilities to spend more locally.

Table 4 provides a different representation of this issue. By sector it shows the level of purchases outside of Wales. For a large number of sectors there is a strong likelihood that invoices are paid to locations outside of Wales. In a number of sectors the percentage of total operational spending outside of Wales is in excess of 90%. In the case of the health and social work sector just 32% of operational spending is outside of Wales. However, once this sectoral spend is discounted the average for spending outside of Wales grows to nearly 78%.

Figure 1 provides a representation of this issue with an extended number of manufacturing sectors included.

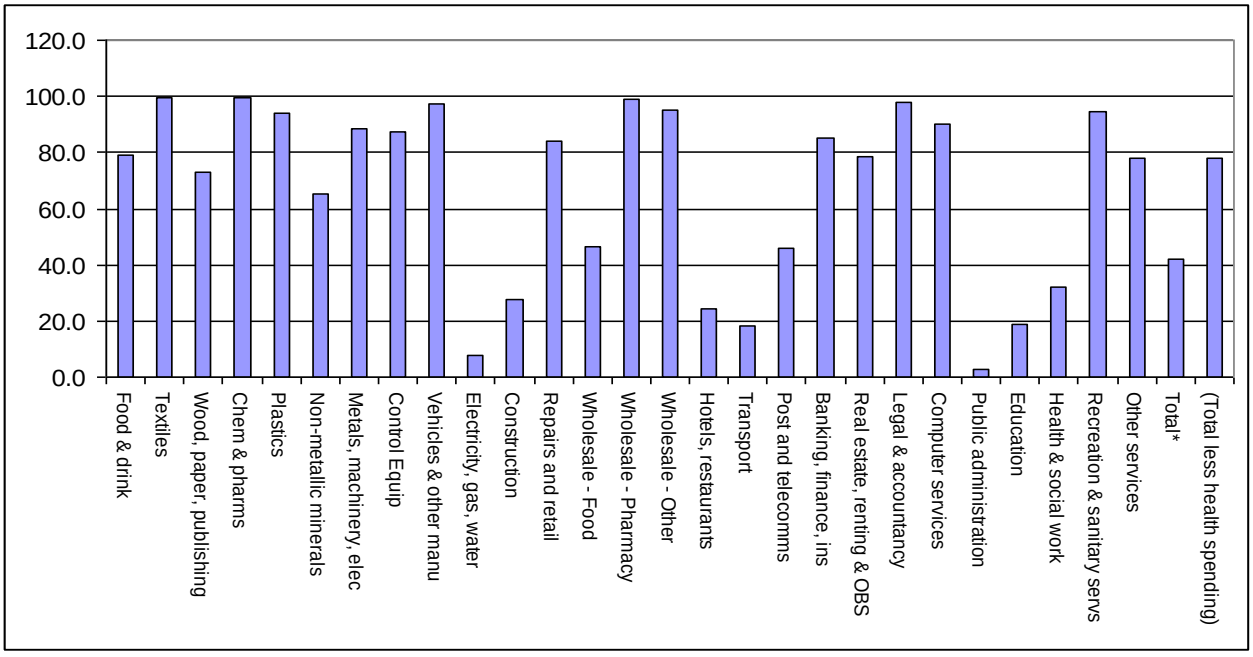
Table 4: ABHB (non-pay) Operational Spending - % outside of Wales

	Total £000s	Outside Wales %
Primary & manufacturing	36,999	91.0
Electricity, gas, water	6,743	8.0
Construction	1,500	27.9
Repairs and retail	3,018	84.3
Wholesale - Food	2,418	46.3
Wholesale - Pharmacy	7,490	99.0
Wholesale - Other	14,324	95.3
Hotels, restaurants	41	24.4
Transport	235	18.1
Post and telecommunications	2,646	45.9
Banking, finance & insurance	1,518	85.2
Real estate, renting of movables, other business and professional services	15,589	78.5
Legal services	3,862	98.0
Computer & related services	4,228	90.0
Public administration	4,086	2.8
Education	1,142	18.7
Health & social work	415,593	32.3
Recreation & sanitary services	330	94.4
Other services	6,912	77.8
Total*	**528,674**	**42.0**
(Total less health spending)	*113,081*	*77.7*

Note: Column totals may not sum due to rounding

The high importing propensities across some sectors would be expected. Fundamentally Wales is a small open economy and some of the demands placed by the NHS are very specialist in nature meaning that there would be no suppliers of such products in the regional economy. Examination of Figure 1 reveals a higher likelihood of regional purchasing in sectors such as food & drink, printing & publishing, utilities, construction (operational not capital), hotels & catering, transport & communications, and other services. The main question here is how far there is potential to reduce imports across the sectors identified in Figure 1, and the extent to which the estimated direction of trade exemplified here reflects genuine supply gaps in the regional economy. We deal with this issue of section 4.5 below.

Figure 1: ABHB Import Propensities 2009-2010 (% of total imports by sector).



4.5 Supply chain potentials: operational spending

Ideally a supply chain gap analysis needs to be undertaken at a very fine level of disaggregation. For example, there is a high import propensity in terms of textiles and clothing products. However, while there is capacity in Wales to produce textiles and clothing items, this might not be the appropriate capacity for very specific items which might be required in surgical environments. Furthermore it is important to recognise that the high import propensities for some operational spend items might also reflect a lack of capacity in the UK. With these problems noted the research team undertook several steps here. First the *Annual Business Inquiry* for 2008 was examined to reveal estimated employment in the sectors identified in Figure 1. This enabled the team to make a judgement on whether there were relatively high or low levels of activity in these sectors within the region. A second step was to make a judgement on whether this capacity was likely to be appropriate to NHS needs. For example, while Wales might have some

capacity in terms of chemicals and pharmaceuticals, it would not meet the specific needs on the NHS sector.

For presentational purposes we summarise the activity issues in terms of high, medium or low. For example high would imply that there is a relatively high level of economic activity in this sector in Wales compared to the UK average.

To explore how far available capacity is appropriate to the needs of ABHB an element of judgement is obviously required, but any measure has to reflect the structural characteristics of each sector. For example, there are relatively few producers of chemicals and pharmaceuticals in Wales meaning that the capacity to fill import gaps is necessarily restricted. Again we classify the likelihood of being able to reduce the level of imports as high, medium or low.

Table 5 presents the results from this analysis. While this is a large table, it does hint at where some of the import substitution possibilities might be. The potential for import substitution score is also informed by how much ABHB currently spends in the sector. For example, some categories of spending are very low such that efforts to increase local sourcing would have minimal effect. Key sectors on which a focus might be placed here include food & drink, printing & publishing, plastics, wholesale, and elements of the financial and business services sector. Clearly, this omits the possibilities within the health sector itself where over £134m is placed outside Wales. However, care is needed here because this may be counteracted in part by incoming monies from health bodies in England.

In the scenario development in section 5 of the report we highlight how import substitution in some of these sectors could have impacts on the wider regional economy.

Table 5: Scoping of import substitution possibilities

	Activity level in Wales in overall sector	Potential for import substitution	Comment
Food & drink	High	High	In selected parts of the sector such as dairy, and some specialist foods where there is Welsh capacity
Textiles & clothing	Low	Low	Much of clothing and textiles used in Wales is imported, and this is a fairly low spend for ABHB, with much coming from wholesalers
Paper, printing & publishing	Medium	High	Expected that inputs required could be serviced by Welsh firms. Over £2m of spend outside Wales in this category
Chemicals & pharmaceuticals	High	Low	While some capacity in the sector it could not serve all specific needs of a health board. Much of trade ultimately to large multinational firms
Soaps, plastics	High	High	For plastic moulded products strong capacity in the region
Glass, cement, metals, oil processing	High	Low	Low level of ABHB spend in this category
Metal products, machinery, electronics	High	Unknown	Broad sector
Control Equipment	High	Low	Complex medical instruments where Welsh capacity would not be able to service all needs of local health sector
Vehicles, furniture, other manufacturing	High	Unknown	Broad sector featuring limited ABHB spend
Electricity, gas, water	Medium	Medium	ABHB already purchases high level of utilities from Wales
Construction	Medium	Medium	Complex; in terms of capital spend second round spending tends to come back in terms of use of local subcontractors. For operational spend linked to construction already high level of local spend
Repairs and retail	Medium	Medium	Existing levels of local purchasing fairly high
Wholesale - Food	Low	High	In each of the wholesale sectors some scope to increase of use local firms in terms of distribution
Wholesale - Pharmacy	Low	High	See above
Wholesale - Other	Low	High	See above
Hotels, restaurants	Medium	Low	Already high proportion of local spend but not a category in which ABHB spends significant monies
Transport	Medium	Low	Existing high level of local spending, and not a large sector of ABHB spending
Post and telecoms.	Low	Low	Relatively high level of local spending already, larger telecomms providers are nationally based.
Banking & finance	Low	Medium	Significant spend outside region; although Wales does not have many HQ functions in sector, some scope for making more use of regional supply points
Real estate, renting of movables, other business and professional services	Low	High	Although relatively low level of activity in sector, scope for greater use of local real estate, rental and other business services firms
Legal services	Low	Low	Some specialised legal services available from Welsh offices of national and international firms, but most of 'import' in this sector in 2009-10 a one-off item
Computer & related services	Low	Unknown	Depends heavily on nature of contract involved
Public administration	High	Low	Not really applicable and high level of extant Welsh spend
Education	Medium	Low	Existing high levels of spend in Wales
Health & social work	High	High	High level of spend but direction of trade governed by existing specialist capacity and government policy towards NHS
Recreation & sanitary services	Medium	High	Strong scope for import substitution
Other services	Medium	Unknown	Very diverse sector

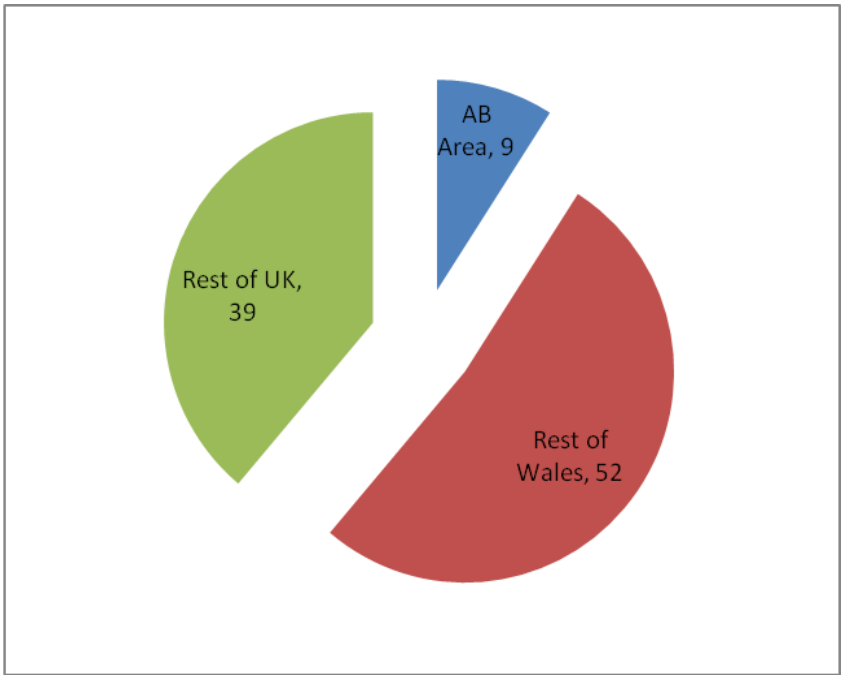
4.6 Capital spending analysis

The analysis above has focused in on operational spending, but not capital spending linked to major projects. The main item of capital expenditure for ABHB for the 2009-10 year related to the construction of two new hospitals. According to the purchasing records, all of the construction (capital) spending of the Health Board would be from the rest of the UK, as the main contractor for large items of capital spend is based outside of Wales. As a result, a straightforward analysis would classify the full amount as a leakage with no impact, or multiplier effect, on the Aneurin Bevan or Welsh economies.

However the main construction contractor (BAM Construction) provided the Health Board with detailed information relating to sub-contractor packages. This includes the nature of the 'package', (for example, groundworks, external walls and roof, internal partitions etc) the name and location of the sub-contractor involved in each package, and the package value. Additionally, if packages have been awarded to sub-contractors based outside of Wales, then a reason for the award has been provided. These reasons include 'lowest competitive tender', and 'specialist supplier not in Wales'.

This information provided by the main contractor reveals that significant sums of construction spend 'return' to Wales and the ABHB area through the sub-contractor packages. Indeed analysis of these figures suggests that just over 60% of the total construction expenditure was with Welsh suppliers (9% within the Aneurin Bevan Health Board Area, and 52% within the rest of Wales, see Figure 2).

Figure 2: ABHB Construction (capital) expenditure by location, %.

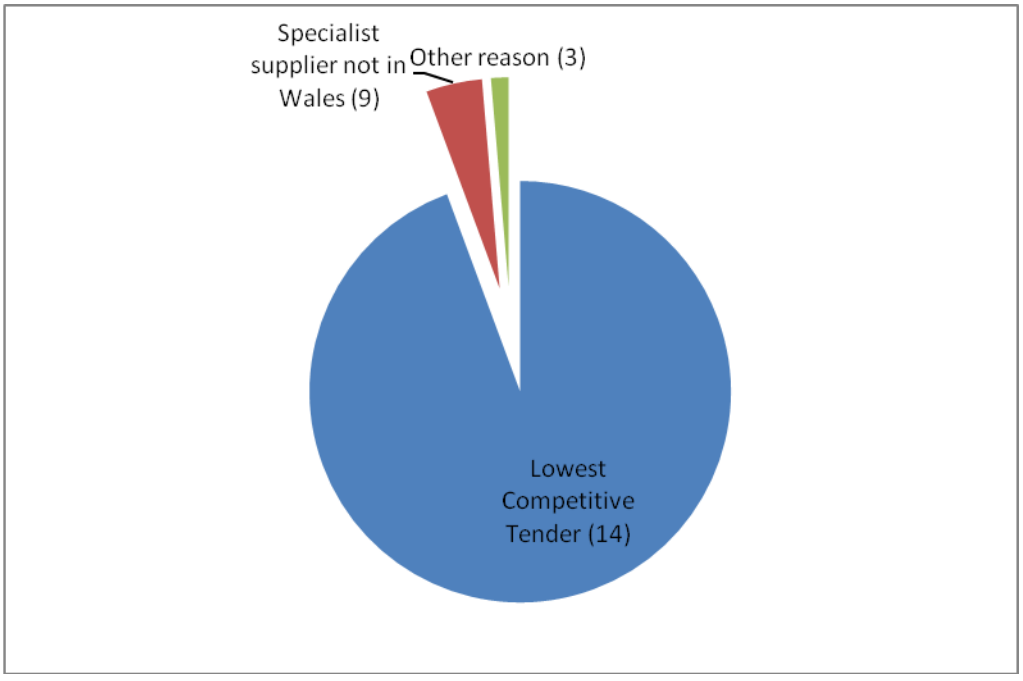


Note: Results derived from an analysis of sub-contractor package values relating to the Ysbyty Ystrad Fawr project. The main contractor costs (e.g. management fees etc.) are assumed to be outside of Wales.

As with operational (revenue) expenditure, identifying local spend provides some indication of economic impact (see section 5 of the report). However, the other purpose of such analysis, is to identify the key leakages from the locality, and then to possibly find ways of preventing such leakages, and then enhancing local impacts.

As already noted, for sub-contract packages awarded outside of Wales, the main contractor provided a reason for why this had happened. From the information supplied, a total of 26 sub-contract packages were awarded outside of Wales. In just over half of these cases (14 packages) the reason of lowest competitive tender was given. However, these contracts account for 94% of contract values awarded outside of Wales (see Figure 3). For a further 9 sub-contract packages, the reason of 'specialist supplier not in Wales' was given, however these contracts only account for less than 5% by value. Other reasons for contracts to be given outside of Wales include value for money, and supplier named in specification.

Figure 3 Reasons why sub-contract packages were awarded outside of Wales, % by contract value (number of sub-contract packages in brackets).



From Figure 3 it is evident that those sub-contracts awarded due to lowest competitive tender reasons were for considerably higher average contract values (at over £1.2m) than those where the specialist supplier was not in Wales (averaging around £0.90m per sub-contract package).

Table 6 shows some examples of sub-contract packages awarded outside Wales by reason for award.

Table 6 Examples of sub-contractor packages awarded outside of Wales.

Reason	Sub-contract purchase
Lowest competitive tender	External Walls & Roof
	External Windows & Doors
	Screeding, Carpet & Vinyl, Resin Floor
	Furniture, Fixtures and Equipment
	Intruder Prevention Systems
Specialist supplier not in Wales	Buffer Rails
	Lead Lining
	Entrance Canopies
	Audiology

4.7 Conclusion

The focus of this section has been on the direct effects associated with ABHB spending. In the next section we turn to examine how the spending of the Board supports activity in the wider Welsh economy.

5 The regional economic impacts of ABHB spending

5.1 How ABHB supports activity in other parts of the economy

Section 4 has already described the scale and nature of purchasing by the Health Board. The aim of this section is to estimate the economic impacts of the Health Boards local spending in terms of employment and value-added.

One issue noted in section 4, which is also of relevance in this chapter, is the treatment of spending with wholesalers. Table 3 showed that the Board spent over £2m with Welsh-based wholesalers. However this expenditure includes the value of goods supplied by the wholesaler (which may or may not be 'local'), as well as the wholesale margin (or add-on element). In terms of measuring impacts, conventionally only the wholesale (or retail) margin would be counted within the analysis, with the other component allocated as the output of producers (either 'local' or imported).

As part of this project, some information was obtained from selected wholesalers regarding their purchases of supplies. For a number of suppliers, even a very broad estimate of how much of a diverse product range is sourced from within Wales is extremely difficult. However, in other cases, for selected products, some estimates were possible. A further complication, is that a number of wholesalers with invoice addresses outside of Wales (and allocated outside Wales in the Section 4 analysis), serve the Health Board through Welsh depots. In these known cases, some of the wholesale margin from outside of Wales, was allocated to the Welsh wholesale sector.

5.2 Regional impacts of operational spending

Once the wholesale and retail sectors were adjusted, the ABHB spending data (as described in Section 4) was incorporated within the Welsh Input-Output framework. This stage involved creating an 'Aneurin Bevan Health Board' sector within the framework, and then subtracting this from the existing 'Health and Social work' sector. In this way, the spending of the Health Board is fully incorporated within the model of the Welsh economy, and the full significance of its purchasing activity can be separately identified.

The two key drivers of the economic significance results of the Health Board, are the spending on health services, and the spending on wages and salaries as these are the main elements of Welsh spending. However, even without the significant health service spending, impacts will spread to other parts of the economy. These impacts may come directly, if the Health Board purchases its output, or may come indirectly, for example, as a result of the wage spending of the almost 11,000ftes, who create demands on retail and other sectors.

Table 7 shows the economic significance of the Aneurin Bevan Health Board. The first column of data shows the output (or spending) effects. The top line of the table shows the direct Board impact. In terms of output, this is total revenue expenditure for 2009-10. The eight rows under this show the direct plus indirect and induced effects on other parts of the Welsh economy (these sectors are aggregate versions of those in Tables 3 and 4).

Table 7: The economic significance of Aneurin Bevan Health Board's operational expenditure on the Welsh Economy.

		Output (£m)	Employment (fte)	Value-added (£m)
	ABHB direct	952.8	10,754	405.7
1	Producers/manufacturers	53.4	511	16.5
2	Energy & water	37.4	39	7.2
3	Construction	11.9	183	4.4
4	Wholesale, retail, hotels & restaurants	80.1	1,798	42.6
5	Transport, post & telecommunications	24.4	293	11.6
6	Banking, finance, business & professional services	121.6	951	86.1
7	Health & social work	387.9	4,532	139.4
8	Other public & private services	28.4	488	16.3
	Total	**1697.9**	**19,548**	**729.6**
	Multiplier (Total/ABHB direct)	**1.78**	**1.82**	**1.80**

Note: Column totals may not sum due to rounding

Unsurprisingly the highest impact numbers in amongst the other sectors are for the health sector. In terms of output, Table 7 shows that the Anuerin Bevan Health Board supports almost £400m of output in the Welsh health sector. Table 4 showed direct spend on the Health sector to be just over £280m. However this £280m will be further multiplied within the health sector (due to high levels of within-sector 'trade'), to give a full (with multiplier) effect of almost £400m. Table 7 also shows that output is supported within manufacturing and private sector services, as well as in the utilities and

construction sectors. The total output effect of the Health Board is estimated to be almost £1,700m on the Welsh economy, which gives a multiplier of 1.78. This means that for every £1m of total direct spending by the Health Board, a further £0.78m is supported within the Welsh economy.

The output effects shown in the first column are translated into employment effects (in terms of ftes) and value-added in the second and third columns of Table 7. The Health Board directly employs over 10,700 ftes, with an associated value-added of £405.7m. Almost 1,800 jobs are estimated to be supported within the wholesale, retail, hotels, catering sector (some of this impact is from the direct spend with wholesalers (margin only), whilst other impacts on this sector come through the wage spending of the Health Board's employees, and the spending of employees within supplier firms).

The almost £400m of output supported within the health sector, translates into approximately 4,500 fte jobs, with the total employment impact summing to over 19,500. The multiplier of 1.82 shows that for every 1 full-time ABHB employee, a further 0.82 ftes are supported within the rest of the economy. The same interpretation can be used for value-added effects, where the multiplier effect is estimated to be 1.80.

Table 7 estimates the significance of the Health Board's supplier linkages, and as noted, the main effects are in other parts of the Health sector. ABHB 'buys' the services of other health boards (as well as from private sector providers) on behalf of patients, and can thus be said to be supporting activity in other parts of the health sector. However, ABHB will in turn be providing services to other health boards, such that some of the 10,700 direct employees may be supported by the spending of other health boards. The exact 'balance' of within-NHS trade is difficult to determine, however with this information, some judgement could be made about the relative size of any adjustments to the results to account for such trade flows.

In addition to the above points relating to within NHS trade flows, and in relation to local procurement, the impacts of non-health related purchases are of particular relevance. In order to estimate these impacts, the health sector spending of just over £281m has been removed from the modelling framework in order to isolate the non-health sector spending effects on the Welsh economy. The results of this process show that even without the health sector spending, the Aneurin Bevan Health Board supports an extra 2,900 ftes and £133m of value-added within other sectors of the economy (note that the jobs effect has fallen by more than the 4,532 ftes shown in Table 7. This is because the effects of the wage income spending supported by the £280m will be within other sectors of the economy, e.g. retail).

5.3 Impact of capital spending

The analysis in section 4 also examined capital spend related to a new hospital. The capital spend related to new hospital development also supports output, incomes and employment in other parts of the economy. In the absence of direct estimates of

employment associated with each sub-contract package, information can again be sought from the Input-Output Tables, in conjunction with data on the sub-contract companies (obtainable through the FAME database). Once a direct estimate is obtained, the Input-Output Tables are used to derive an average multiplier which could be associated with this employment, to capture economic impacts on suppliers further down the supply chain.

Estimated employment effects of the capital expenditure by the Aneurin Bevan Health Board during 2009-10 are shown in Table 8. It should however be noted that capital expenditure may vary significantly from year to year. This is particularly true in the case of the Board during the last financial year when significant sums have been spent on new hospital construction. Consequently, much of the impact described will be of short duration, and should not be considered as indicative of capital spend impacts in future years. However, on this basis we estimate that activity associated with capital spend during 2009-10 supported over 1,000 jobs in Wales.

Table 8: The Employment Impact of ABHB Capital expenditure during the 2009-10 financial year.

	Direct	Total	Multiplier
Employment (Fte)	673	1026	1.52

5.4 Some possible scenarios

Table 9 shows the potential impact of changes in Health Board spending patterns, using the some of the sectors identified earlier as having a high potential for import substitution.

For example, the first row shows food and drink manufacturers (again as distinct from food wholesalers). The data contained within the Welsh Input-Output Tables allows the estimation of multipliers by defined sectors. Table 9 shows that if spending on the food and drink sector in Wales increased by £1m, then that spending would multiply to a total of up to £1.65m in the Welsh economy (depending on which part of the food sector received the extra demand). The related employment impact of each £1m of spending, is up to 20.9 ftes in food and drink (including multiplier effects). The higher of this employment range is the dairy sector, whilst the lowest is the drinks sector.

Plastics is another sector identified as having some potential for import substitution. For this sector, each additional £1m of spending would support a total of £1.5m of spending within Wales and an estimated 15 jobs. In the wholesale and financial services sector, the spending impact is similar, however due to differences in labour intensities with the sectors, and their suppliers, there is some variation in the related employment effects. In the wholesale sector, each additional £1m of spending would ultimately support 22 jobs, compared with 13 in financial services.

Table 9 Effects of expenditure switching

	Output/spending multiplier	Total employment (fte) generated (including multiplier effects) per £1m direct spend
Food & drink	1.47 - 1.65	9.4-20.9
Plastics	1.5	15
Wholesale	1.58	22
Financial services	1.52	13

6 Conclusions, recommendations & further research

6.1 Conclusions from the study

This report has focused on how the expenditure of the ABHB supports activity in the local and regional economy. The Board directly supports some £953m of output, over 10,700 FTE jobs, and £423m of gross value added. However, indirectly the Board has been shown to support economic activity in a wide range of regional sectors. In total, our analysis suggests that Board activity supports, directly and indirectly some £1.7bn of economic activity in Wales, and nearly 20,000 jobs and around £0.73bn of gross value added. Even discounting the impacts within other parts of the health sector, the ABHB supports a significant number of jobs throughout the Welsh economy.

The report has also made a first attempt to explore the spatial distribution of ABHB operational and capital spending. This exercise was not straightforward. The nature of NHS contracts and specific NHS supply patterns make it difficult to pin down the geographical locale of spending. However, the report has revealed some details of sectors where the Board spends monies on imports goods and services from the rest of the UK and overseas. A context for the study was the extent to which it might be possible to substitute these imported goods and services for regional production. The analysis suggests some sectors where this might be possible. Yet we realise that there are a series of structural and processual constraints regarding the efficiency and effectiveness of purchasing goods and services regionally.

The report revealed progress where the Board is meeting key strategic aims put forward in the NHS All Wales Procurement Strategy. Yet there are limits on how far the Board can take local purchasing. Our interviews with procurement officers and suppliers to the ABHB in Wales highlighted the growing importance of collaboration in NHS purchasing with the home countries, and the growth of framework style agreements with designated hubs such as NHS Supply Chain and Welsh Health Supplies.

The analysis also showed that NHS procurement strategy in the round is strongly affected by tight public spending conditions with pressures to control costs but safeguard health services. Our conclusion was that the procurement process and the general context of tighter spending conditions could make it difficult for small and medium sized enterprises to compete in winning NHS business in Wales.

6.2 General Recommendations

Among the chief recommendations that emerge from this study, we highlight two general ones in particular because they bear directly on urgent procurement problems, one on the demand side speaking to structure and one on the supply side.

On the demand side the most urgent challenge is to address the problem that the Minister identified at the public services summit, namely to forge more integrated services and stronger partnerships to reduce costs so as to save resources for front line service needs. This was the problem of fragmentation that was first identified by the Gershon Review over ten years ago. The answer is to promote more genuine collaborative procurement across the public sector in Wales and not just within each sector, though the latter is important as well. Local government and the NHS will be the key battle grounds because, between them, they account for more than 80% of all public procurement expenditure in Wales. Of the two sectors, the NHS has been more successful in achieving collaborative procurement. Why? Because in organisational terms it is less fragmented and because in political terms it has a single master in the form of the Health Minister. Although local authorities are forming their own consortia in the north and the south, this is too little and too late, with the result that local government remains the most fragmented part of the public sector from a procurement standpoint, with 22 separate organizations, each with its own political master. What is urgently required is for local government and health boards to form integrated services and stronger partnerships. In the case of the ABHB area for example, the five county councils and the health board should consider the creation of a joint collaborative procurement team, working to a combined sourcing plan, to reduce costs and add value. While this evidently brings issues of accountability across responsible authorities and short term costs, this type of collaboration can lead to long run savings on contracts.

On the supply side there is an equally urgent need to design and deliver a better system of business advice for actual and aspiring SMEs in the health board area. As things currently stand, SMEs are faced with a bewildering array of business support points, with little or no coordination between them. There is too little coordination among the five local authorities in the ABHB area and there is too little coordination inside the Welsh Assembly Government, especially between DET and Value Wales for example. What is urgently required is for local government, the health boards and the Welsh Assembly Government to form an integrated service and a stronger partnership by, for example, creating a single one stop shop for SMEs that need advice about how to become a supplier to the public sector in south east Wales. Moreover, our analysis reveals a need for more targeted events to assist local SMEs to win NHS business and it is recommended that organisations such as Welsh Health Supplies might be key in coordinating such activity.

These two organisational innovations may seem modest, but they would help to bring about the integrated services and stronger partnerships that WAG believes are essential if the public sector is to preserve its integrity in the face of five years of austerity.

6.3 Specific recommendations from the analysis

Some more specific recommendations arise from the analysis of opportunities to displace ABHB spending on imports.

First a large amount of spend is directed to wholesalers and distributors both inside and outside of Wales. There may be scope here to encourage wholesalers, particularly, those in Wales, to investigate local sources of supply where they are available. Moreover, we expect that wholesalers might be well placed with knowledge on local supply opportunities and are a useful antennae for regional potential particularly in terms of food products, and basic commodities.

Second, the analysis in Table 5 earlier would suggest that it is high value added products that are sourced outside of Wales. This possibly tells us more about the contemporary structure of the regional economy and in some cases the UK economy. While we have emphasised here the constraints on the regional supply side (see earlier Table 5 where some sectors provide for 'low' potential to displace imports) we still recognise that even small levels of import displacement in selected niches of sectors, such as in engineering, equipment and chemicals, could have important effects in terms of the support of good quality employment in south east Wales. This has become a more important issue with several of the suppliers in our sample stressing greater pressure to outsource production to lower cost locations, and with these moves tending to take higher quality employment outside the region.

Third, there are some areas of business and computer services where there would seem to be real opportunities to purchase more in the regional economy. We note that one of the problems identified in strategic economic planning documents by the Welsh Assembly Government has been the region's low shares of national (UK) activity in higher value business services. We would argue that public procurement is one potential means to bolster regional activity in these sectors, particularly at a time when there are real pressures on private sector demands for these services i.e. from the regional manufacturing sector.

Fourth, it was shown in the initial part of this report that the *NHS All Wales Procurement Strategy* suggests the significance of local sourcing but does not specify targets for local sourcing. It is recommended that the scope for such target setting be investigated. Our report commends ABHB for monitoring its local procurement and setting implicit targets on Welsh purchases. At the same time it is recognised that year on year increases in local purchasing may be impractical given supply side constraints in the Welsh economy. Furthermore, the level of local purchases in any one year is not entirely within the control of ABHB procurement officers.

6.4 Further research

It was shown at the outset of the report that we believed that this study would contribute to the evidence base on the local economic impacts associated with public sector purchasing in the Welsh economy. We also believe that the study evidences the strong inter-dependence of public and private sectors, such that public spending changes are expected to adversely affect the latter, and hints that the skills of the public sector need to be developed, especially as regards the chronic shortage of public procurement professionals in Wales.

We also believe that there is scope for further research in the area.

For example, within the scope of this study it was difficult to identify how far, where contracts were awarded outside Wales, they supported activity in Wales. We expect this to become more important issue through time. While it has been possible to identify these feedback effects in terms of major construction spending, we suspect this is also relevant with other purchases. The danger here would be that while we have attempted to control for this in some major purchases, that there is still some under-estimation of the amount of economic activity supported in Wales by procurement decisions which, on the face of it, involve firms outside the region.

A related issue relates to intra-sectoral trade within the NHS in Wales. Here there is some danger that the analysis does not take enough account of how activity in one health board area is dependent on conditions in another area. The accurate quantification of the 'balance of trade' between ABHB and other Boards would greatly add to this type of study.

Related to the above the report argued in the analysis that some categories of spending may be more subject to influence than others. In part financial transfers between health authorities are a zero sum game in terms of economic impact. However, the study identifies categories of spending which there may be greater discretion. Clearly, these are dwarfed by spending in the health sector but they still represent huge sums of money, particularly where these sums are aggregated across health board areas. Further research into individual spending categories is needed. In our analysis we have had to aggregate together sectors, partly for the purposes of the economic modelling exercise. We believe an analysis grounded in a more detailed disaggregation of sectors would better identify both supply chain gaps and new opportunities.

This report also touched upon issues related to sustainable procurement and this was also an important theme in the *NHS All Wales Procurement Strategy.* In this respect the current analysis might be viewed as a first step in developing a carbon and waste footprint for ABHB activity and investigating how far Board purchasing creates waste and carbon in Wales, and then in the rest of the UK.

Finally, we are mindful that the conclusions here relate to one Health Board area. A key issue going forward is how far the conclusions reached here might be applicable to other Health Board areas across Wales. In this context we might expect different Boards to have very different regional economic impacts according to the distribution of their spending between capital, operational and labour categories, and the extent to which they purchase in the region. Clearly the ABHB area abuts the English border and then perhaps with a greater expectation of a higher level of spending leakages in this case. Whether similar conclusions could be made for Boards in the west and the north is an issue for further research.

Without a more robust evidence base, of the kind we have tried to provide here, it is hard to imagine how the public sector can have an informed debate about the social and economic impact of its spending. This would help to foster a fuller and more mature understanding of value for money.

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