

# Bringing HealthShare NSW procurement into the 21st century

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**Abstract** The paper examines the procurement function within HealthShare NSW which is going through some fundamental changes in the way it practices procurement. The approach taken is to look at each major set of common issues, ideas, approaches and strategies as building blocks, each one forming a essential part of a foundation that will enable the procurement function to achieve the challenges it faces. By introducing category management as a fundamental underpinning of its procurement and sourcing activity, HealthShare NSW will see some major changes in the way it interacts with its stakeholders and suppliers. The development and improvement in a wide range of capabilities will increase the quality of outcomes delivered to NSW Health. Similarly, the improvement in analytical capability will provide the information needed to drive savings, better reporting and opportunity identification for LHDs. Also with better communication and collaboration with its essential stakeholders and suppliers, HealthShare NSW will be able to deliver outcomes that meet the varied needs of stakeholders while getting the best out of suppliers. The approaches and strategies being applied to manage through and implement these changes are explained including the implications and difficulties faced. Seeing these changes as building blocks helps visualise how they all interact and how each block supports the other, and that all are necessary to achieving the overall goals of HealthShare NSW.

**KEYWORDS:** Health procurement strategy, capability, systems analysis, collaboration

## INTRODUCTION

Public healthcare in New South Wales is facing many of the same challenges as other public health systems both across Australia and around the world. Increasing demand for healthcare, an ageing population, and tighter state and federal budgets mean an ongoing requirement to do more for less.

NSW Health is looking to its procurements teams to find ways to make

budgets stretch further while continuing to improve the quality and expand the range of healthcare services. HealthShare NSW has a crucial part to play in achieving those outcomes.

So who or what is HealthShare NSW and how does it fit into the broader NSW Health system? NSW Health is a term used to encompass all elements of the NSW public health system.

The NSW public health system is the biggest public health system in Australia, with more than 230 public hospitals and around 108,000 dedicated staff (full time equivalent) who make up the health workforce. New South Wales's population is growing and it is also ageing. Technology, medical specialisation, new treatments and a wealth of medical research continually informing healthcare mean citizens are living longer but are also costing more to treat.

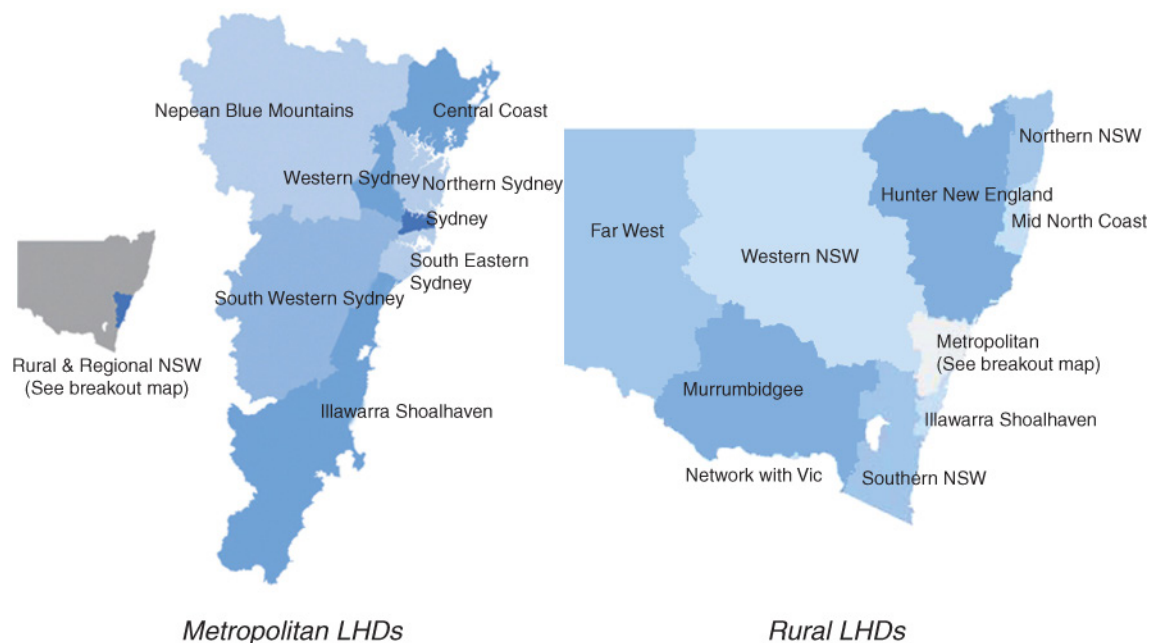
Recurrent spending on health in 2016–17 will be almost AU\$20.6 billion—up AU\$972 million (or 5 per cent) on the previous year to enable NSW Health to meet increased demand. Almost AU\$1.6 billion will be spent on the capital program in 2016–17, taking the total health budget to over AU\$22 billion.

NSW Health provides healthcare services across New South Wales through eight local health districts (LHDs) covering the Sydney metropolitan region, and seven covering rural and regional NSW.

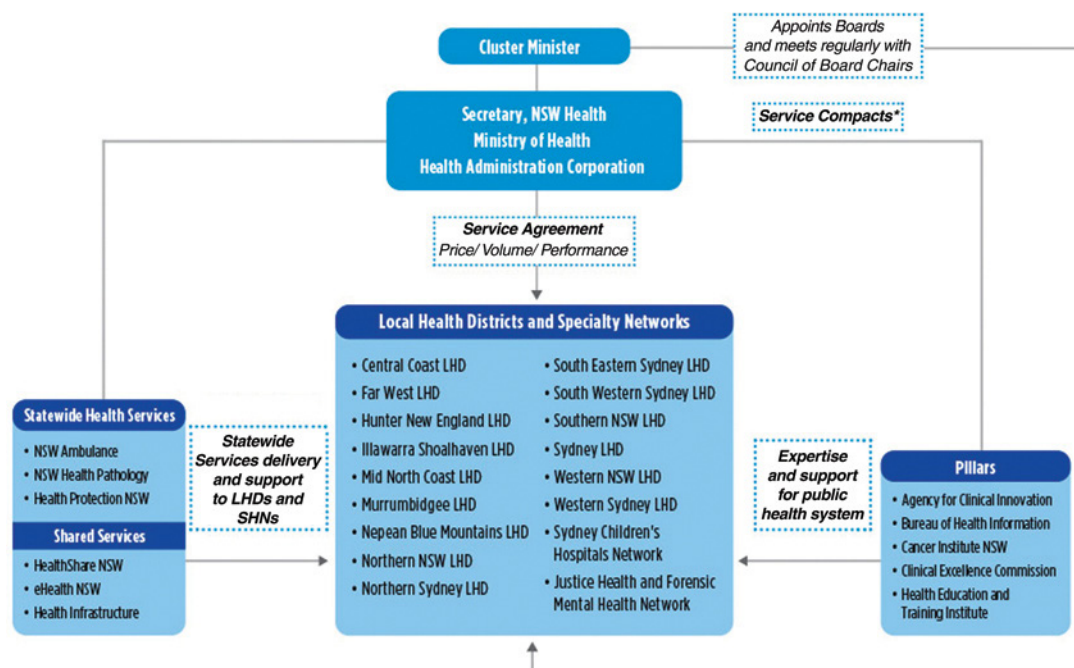
Two specialist networks focus on children's and paediatric services, and justice health and forensic mental health.

In addition, the following entities make up the balance of NSW Health:

- The five pillars — the Agency for Clinical Innovation, the Bureau for Health Information, the Cancer Institute NSW, the Clinical Excellence Commission, and the Health Education Training Institute
- The Ministry of Health and NSW Kids and Families
- NSW Ambulance
- Health Infrastructure responsible for major health infrastructure construction
- NSW Health Pathology
- Health Protection NSW responsible for surveillance and public health response in NSW
- eHealth providing state-wide leadership on the shape, delivery and management of Information Communication Technology (ICT) led healthcare
- HealthShare NSW providing common shared services and information technology services to public health organisations across NSW including payroll and accounts payable functions, supporting patient care through food and



**Figure 1:** Map of Geographical Boundaries of Local Health Districts



St Vincent's Health Network is an affiliated health organisation.

\*Service Compact – Instrument of engagement detailing service responsibilities and accountabilities.

**Figure 2:** Overall structure of NSW Health

linen services, providing procurement and logistics services and assisting people with a disability to live and participate in the community.

On a typical day in NSW:

- 17,000 people spend the night in a public hospital.
- 6,500 people are seen by emergency departments (EDs).
- 5,600 people are admitted to a public hospital.
- 1,000 patients have their surgery (emergency or planned) performed in public hospitals.
- 270 babies are born.
- 100 patients have their cataracts removed.
- 32 patients have their gallbladder removed.
- 25 patients have their appendix removed.
- 20 patients have their hip replaced.
- 18 patients have their knee replaced.

HealthShare NSW is a state-wide organisation of more than 6,500 employees delivering more efficient support services for NSW Health. HealthShare NSW is the

largest public sector shared services model in Australia. Around 90 per cent of HealthShare NSW employees work in frontline roles, directly supporting patients and people living with disability through the provision of food and linen services and the supply of disability services and equipment.

HealthShare NSW aims to be a trusted and valued partner enabling excellent health care in NSW. It does this by supporting the delivery of patient care through the provision of state-wide services, and being responsive to the needs of hospitals, clinicians and health managers working in the state's public health system. Its state-wide services offer value for money solutions which are innovative and operationally effective, ensuring the best utilisation of health resources.

HealthShare NSW is well positioned to pursue efficiencies and to capitalise on economies of scale, with annual recurrent savings to date in the order of AU\$50 million per annum. HealthShare NSW continues to work closely with Local Health Districts and Health Agencies to build a framework

for meaningful customer involvement in all stages of service planning and delivery

HealthShare employees are located in over 160 locations across NSW. It provides a range of services to support the 140,000 strong NSW Health workforce and the patients that workforce cares for. HealthShare NSW provides over 22 million meals per annum, launders 40,000 tonnes of linen each year, picks, packs and delivers over 3.5 million lines of stock and supplies each year, and manages in excess of AU\$2bn of spend annually on behalf of NSW Health.

The procurement function within HealthShare NSW has traditionally divided its spend under management into three distinct areas: Information and Communications Technology (ICT), corporate and medical, and has consequently managed that spend in different ways. ICT spend, largely undertaken on behalf of eHealth, has tended to follow the demands of eHealth and, therefore, has been aligned to each of the major programs undertaken by eHealth. A lack of resources and short timeframes for procurement activities to be completed has resulted in an ad hoc and reactive approach to the market.

Corporate procurement covering a wide range of spend across very diverse categories has also been very ad hoc in nature. Much of the spend has been undertaken without a clear strategy for the category in question and has been focused on putting contracts in place rather than achieving a strategic outcome.

Finally, medical spend has followed a single engagement strategy for the vast majority of spends. That has been to put in place a panel contract with a range of suppliers for a term of usually three years with two rights of extension of one year each. The criteria for getting onto the panel arrangement has usually been to meet the quality and functionality requirements. Once those have been met, the products are accepted and become available for purchase by the LHDs at the tendered price.

Over time, this engagement model has led to a slow disengagement with the market. The major method of communication with suppliers was via a tender process conducted under NSW Government procurement rules which severely restricts the exchange of ideas and information. Because there was no real competitive pressure on suppliers to get on a panel contract, there was little incentive for suppliers to provide sharp pricing. Furthermore, standard contract terms included a right to an annual CPI-based price adjustment, resulting in contracted pricing potentially moving away from current market prices over the contract term.

This has had the effect of encouraging suppliers to agree individual pricing deals with LHDs in order to secure or increase market share. It is an easy sell to offer an LHD a discount over the state-wide price that may be significantly higher than standard market prices. Due to the disengagement from the market, however, HealthShare NSW has had little market intelligence to offer LHDs on whether or not they are really paying competitive prices or getting the most value out of the range of suppliers available to them. Furthermore, due to an excessively high number of 'free text' purchase orders, it has been extremely challenging for HealthShare NSW to analyse and understand spend patterns and prices across the NSW Health system.

HealthShare NSW has nevertheless developed a number of excellent capabilities in a range of areas that have contributed to, and will continue to support, procurement activities. These include dedicated staff with expert knowledge of health products and services, a comprehensive product catalogue that enables online ordering of a vast range of products, a logistics capability that provides next day delivery of a wide range of common products right across many parts of the state, and a single state-wide Enterprise resource planning (ERP) — which means that most spend data is accessible from one data source.

Thus, the challenge for HealthShare NSW is to ensure maximum value for money

is achieved for the products and services procured for NSW Health, which in turn will assist in NSW Health delivering both the quality and quantity of healthcare that the citizens of NSW are demanding.

The approach we are taking is to create a group of conceptual building blocks that will enable the delivery of that challenge. There are five building blocks, and each needs to work interactively with the other to create an environment to deliver maximum value for money.

### **BUILDING BLOCK ONE: STRATEGY**

This is the fundamental building block and is obvious to procurement practitioners but often not well understood in other disciplines. The most basic element of this strategic approach is the category strategy. In healthcare, the challenge is in determining exactly what is an appropriate category to develop a strategy around. One of the best examples of this challenge is in renal care. A traditional procurement approach might look at market structures and attempt to align the category to how the products and services can be procured and which suppliers they can be procured from. This could result in the fluids being aligned to other fluid purchasing, machines being purchased along with other types of medical machinery potentially with attached consumable and servicing contracts, and logistics being aligned to other logistics contracts.

The renal care market is, however, much more complex and requires far more alignment to the different treatment modalities and an even broader look at the drivers within the health sector. This is because the products and services utilised in renal care are very self-contained. The fluids, machinery and consumables utilised in treatment are all largely single purpose, and due to the degree of horizontal integration within the industry, can all be acquired from a single supplier. While in-home treatment adds a degree of logistical complexity, the

alignment of fluid and consumable delivery with machinery maintenance can provide cost efficiencies.

Managing renal care as a category in itself, even though it does cut across some other categories, provides such a wide range of strategic benefits, that it is the only logical way to manage the spend. It also enables such longer-term strategies such as turning the delivery of renal care into an end-to-end service to be realised.

Developing integrated category strategies, ensuring that they are fit for purpose and driving procurement behaviour that is consistent with the strategic direction for a category is vital to achieving the challenge that HealthShare NSW faces.

### **BUILDING BLOCK TWO: CAPABILITY**

It is self-evident that, in order to implement a broad range of category strategies in an effective manner, it is vital to have a capable procurement team with a broad range of expertise across a range of disciplines. This is especially the case in healthcare, where seemingly innocent procurement decisions can have extremely serious outcomes.

There are only two ways to build capability within a team, either develop it internally, or buy it in. At HealthShare NSW, both approaches are being taken. A series of tailor-made training packages have been rolled out, including basic catalogue management and financial analysis. This is an ongoing process focusing on the areas of highest need and with a clear goal of developing a level of skills, knowledge and understanding of modern procurement practices across the procurement team.

There is also, however, a need to bring in external expertise to bolster and improve the current knowledge and skill level. It is always advantageous to bring in new and different ways of thinking, both to raise awareness of alternative methodologies and approaches, and to challenge current thinking and accepted practice.





**Figure 3:** Transition journey from five warehouses to one

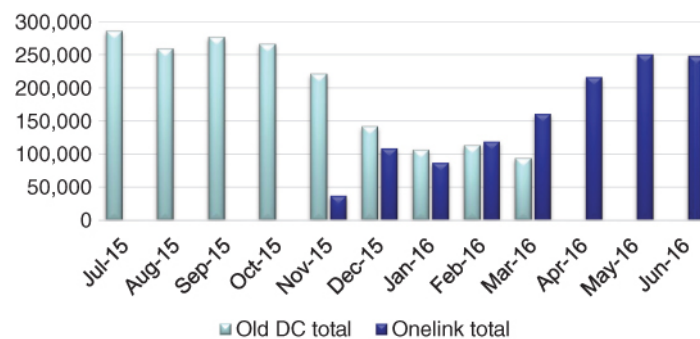
At HealthShare NSW, the procurement team is being restructured to align the organisation to the new strategic approach. This has involved creating category teams that align to the category structure and developing job descriptions that are category agnostic but describe the procurement functions and activities to be carried out. This creates a structure that not only provides a clear career path from junior to senior roles, but also enables ease of movement between category teams. This further encourages cross team fertilisation of ideas and strategies and assists in talent retention.

Beyond people capability, there is also organisational capability. HealthShare NSW in conjunction with the Ministry of Health started a program a few years ago to increase its logistics capability in relation to delivery of medical consumables. At the time, HealthShare NSW centrally purchased and distributed approximately 20 per cent of the LHDs medical consumable needs through five warehouses spread throughout Sydney and across the state. Following a market testing process lead by the Ministry, this function is now provided by a third-party provider operating from a single warehouse in western Sydney.

By centralising to one warehouse, it is now possible to get a single consolidated view of all products supplied from the warehouse including the quantity, size and velocity of those products. With that information, HealthShare NSW will start to optimise the products managed through the central warehouse. Consolidation into the warehouse was only completed at the end of March 2016, and until at least three months of stable data is available from the new warehouse, it is hard to make decisions around products. Some easy decisions have already been made, however, including moving any single product that currently goes out of the warehouse as a full pallet load will be moved to a direct delivery from the supplier. Routing those products through the warehouse is a simple case of double handling both from a transport and warehouse management perspective.

The graph in Figure 4 represents the number of lines picked per month. A line can relate to a large number of individual items, so the more revealing figure is the number of individual items picked which averages at approximately 60 million per month.

One of the challenges facing the warehouse operation is the difference in



**Figure 4:** Total number of pick slip lines per month

size of the various sites supplied. Some of the major tertiary hospitals in Sydney receive up to three truckloads a day from the warehouse, whereas other community health sites may only receive a few cases each week. Therefore optimising both the range of products and the unit of issue is vital to maximising the efficiency and effectiveness of the warehouse. HealthShare NSW is collaborating with the University of Western Sydney to help solve this issue. Students from the university, as part of their course work, are developing models and decision-making tools to assist in optimising product choice.

Figure 5 represents a theoretical model to assist selecting products to be managed within the warehouse. The concept of difficulty to handle the product encompasses a range of issues including size, shape, volume, weight, handling requirements (eg, fragility, hazardous nature of products), ordering patterns, etc. The optimal products are those that sit within the hashed shape, balancing spend and volume of throughput with difficulty to handle the product.

There are two main advantages to NSW Health in centralising and outsourcing the warehouse function: reducing traffic into hospital docks and cost savings. By centralising product delivery from suppliers to a warehouse, the number of individual trucks delivering products to hospital docks

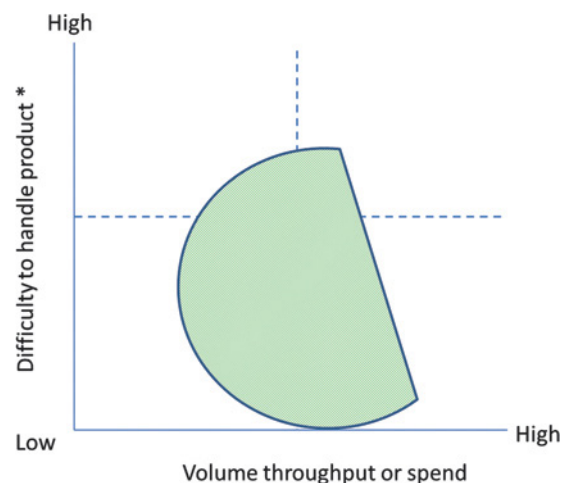
is significantly reduced. Hospital docks are often relatively cramped and under pressure as they already receive linen, food and other general goods deliveries. Reduction in truck movements assists in the efficient operation of those docks.

Cost savings are also achievable through lower overall cost of warehouse and transport operations, and through gaining volume discounts and price reductions for a single point of delivery from suppliers. Gaining visibility over total spend through the warehouse and rationalisation of products has already provided significant savings and will continue to be the main contributor to the economic rationale for centralising the warehouse function.

### BUILDING BLOCK THREE: SYSTEMS

It is vital to the effective operation of the end-to-end procurement function that not only are the right systems in place but also that they are operated and inter-operating effectively. This requires not only a full understanding of each system and how to get the most out its functionality, but also how information flows between systems and through the processes.

Within NSW Health, there are a myriad of interacting procurement related systems in addition to the main ERP. There are four different systems through which individual



**Figure 5:** Optimal Zone for Warehousing Products

items can be purchased via purchase orders, three different spend reporting and analysis tools, a cataloguing tool, a contract lifecycle management tool and two sourcing tools. Managing the interaction between the different systems is time consuming, and to the extent that any data interchange is manual, significantly raises the risk of data entry error.

A programme of work has been designed to oversee all of the development work on the range of systems that directly affect the cataloguing process and to improve the flow of data through those systems. HealthShare NSW manages around 100 panel contract arrangements with each one having between two to more than 30 suppliers on the panel and often many thousands of individual products available through the panel. During the lifecycle of the contract, which may

extend beyond five years, there will be price changes, product description changes, product size and packaging changes and unit of purchase changes, each of which needs to be agreed and recorded, and the flow of those data changes needs to be managed throughout the range of systems affected.

Accuracy and timeliness, particularly in the Health portfolio, is vital. The first step in achieving this is to ensure the basic product data is received in a standardised format. While this may, at first glance, seem self-evident and relatively straight forward, it requires over 60 data fields per product to be collected, collated, verified and managed. Once that is multiplied by the hundreds of thousands of products on contract, and then, randomly varied throughout the contract lifecycle, the data management task becomes extremely complex.

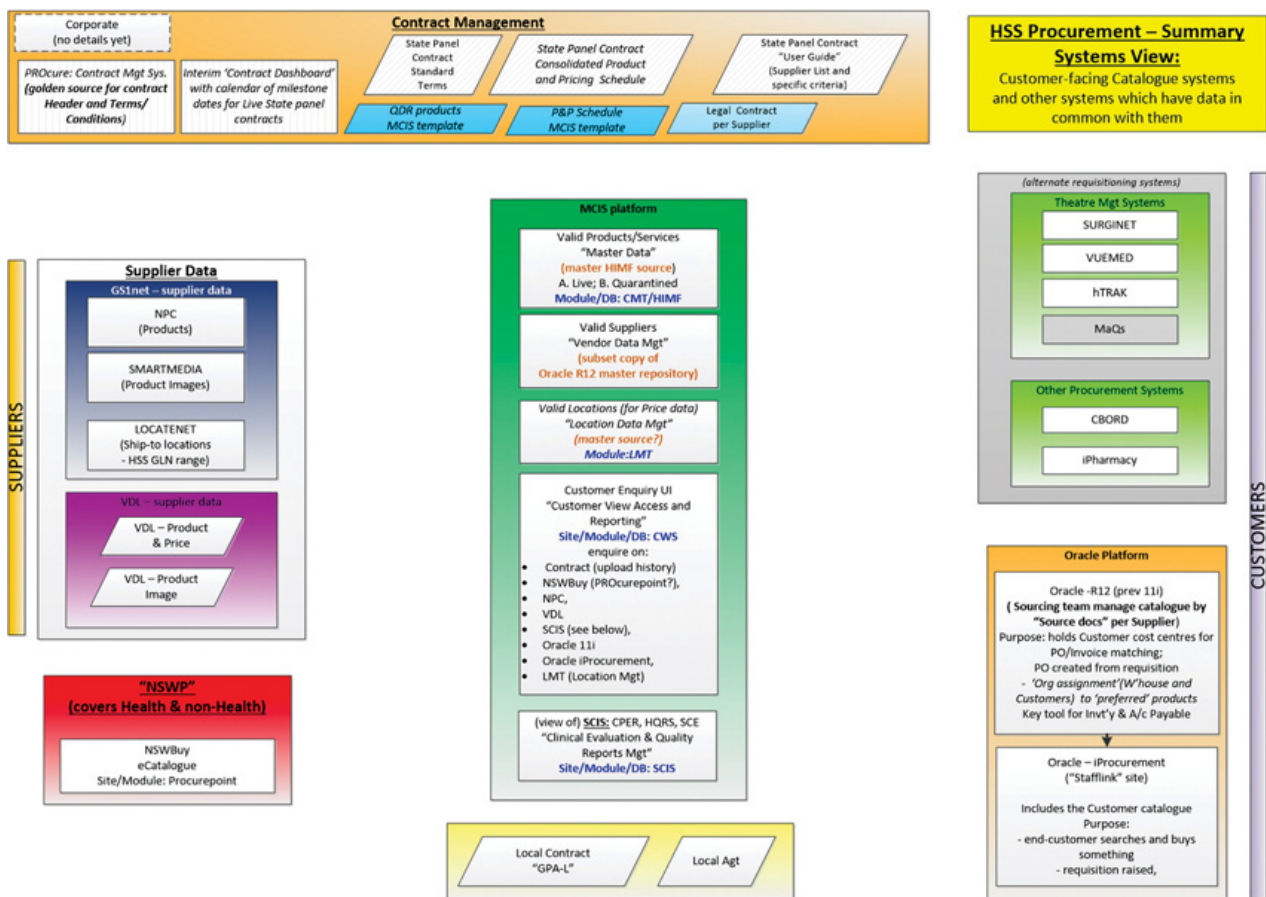


Figure 6: Systems view of architecture and data interfaces



In order to manage this complexity, the data exchange between systems needs to be automated wherever possible, and some level of data manipulation within systems needs to occur. Part of the programme of work is to complete the automation process across as many of the systems as possible and develop processes and protocols for the necessary data manipulation. As the processes and timing is refined and adjusted, there are impacts back through the end-to-end system that often require changes to contracts and even to tendering and sourcing processes. This requires working with suppliers to ensure that the data supplied to HealthShare NSW is accurate, complete and timely.

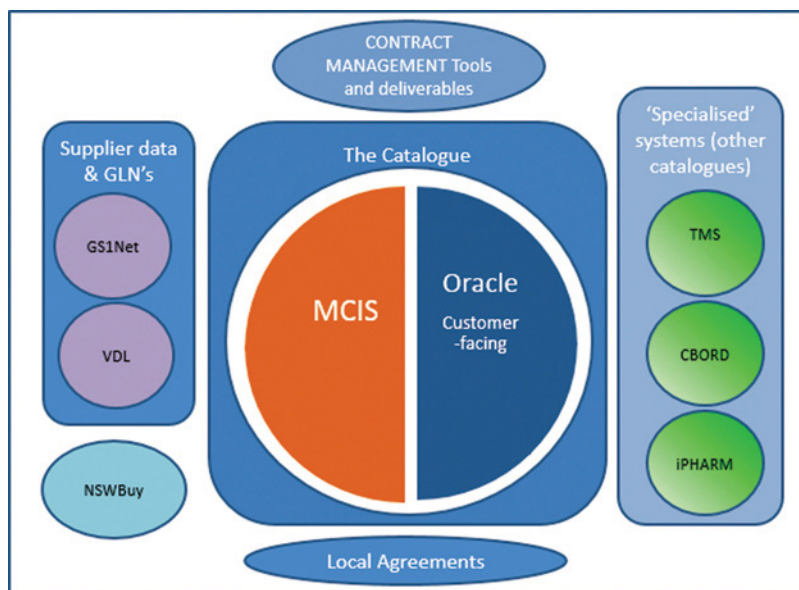
HealthShare NSW has been working with representatives from the health departments from the other states of Australia and an international standards body to develop a National Product Catalogue (NPC), which is a single nation-wide repository of all common data on the vast range of products purchased predominantly by the health system. All of HealthShare NSW's suppliers are encouraged to utilise the NPC as the single source of truth for their common

product data. This allows HealthShare NSW to automatically feed this data through to the internal Master Catalogue Information System (MCIS) including regular updates or changes to the NPC data. The MCIS also captures HealthShare NSW specific data, such as pricing, and any special contract terms. From there, data can be fed directly to each of the purchasing systems and, again, automatically updated as and when required. This is the desired end state of the programme of work currently underway.

#### BUILDING BLOCK FOUR: ANALYSIS

In a procurement context, analysis can be broadly divided into two areas of focus: internal and external analysis. External analysis focuses on the market and, for HealthShare NSW, what other states in Australia are doing. Internal analysis focuses on activity within NSW Health, and more particularly on spend and spend patterns and changes.

Currently, external analysis is conducted on a somewhat ad hoc basis but will improve over time as the category management approach being introduced



**Figure 7:** High-level catalogue structure

beds down. Much of the market intelligence will be gained through collaboration with suppliers and the other states, which will be described in the next section. In addition, a range of research tools and practices including utilising Gartner and other providers, attending relevant conferences and accessing specific training opportunities are used. This is also a part of growing the capability of the procurement team, and the introduction of category management and development of category strategies enables the more effective application of that market analysis to HealthShare NSW's procurement processes.

Internal analysis has a greater level of technical complexity due to the vast amount of data available for analysis and the difficulty in organising and making sense of that data. One of the major side benefits of the data flow programme of work described in the section above is more accurate data in the system. HealthShare NSW currently suffers from a high rate of free-text purchase orders. Improving the accuracy, timeliness, and user-friendliness of the online catalogue should reduce the number of free-text purchase orders. In addition, HealthShare NSW is implementing a spend analysis tool which has the capability to analyse free-text purchase orders and categorise those spend as long as it includes sufficient information in the free text.

The spend analysis tool will be used to analyse spend across a range of parameters including price variation, on and off contract spend, spend by product group, and spend by entity. These four important parameters will enable HealthShare NSW to identify and act on a wide range of savings and improvement opportunities.

Because of the panel contract structure used and the complexity of NSW Health, price variation for the same product is relatively common. Being able to identify these price variations, understanding the savings opportunity presented and then being able to act on them to standardise

pricing at the lowest level where appropriate will be one of the major benefits provided by the new tool.

Identifying off contract spend is also an ongoing challenge. In many cases it is expected this can be resolved through educating purchasers on the range of products available on contract. Having detailed data on the scope of off contract spend, the potential savings impact and even the name of the purchaser making the off contract spend will all be available to support an improvement programme.

One of the essential factors HealthShare NSW always has to be cognisant of is clinical choice. HealthShare NSW does not and cannot direct clinical choice of the products made available for use within NSW Health. It can however, influence those decisions where appropriate. Analysis of spend and savings opportunities is one of the essential tools in influencing those decisions. It, however, requires an in-depth analysis of spend on interchangeable products and understanding spend patterns between different entities within NSW Health.

HealthShare NSW will be providing detailed reports to each entity (predominantly the LHDs) on spend patterns and opportunities to change behaviour where appropriate. By also providing the size of the savings opportunity and usage comparison data with other LHDs, an LHD will be fully informed of the impact and benefits of changing purchasing behaviour.

The final element for HealthShare NSW is to track and understand the changing patterns of spend and identify the implications of those changing patterns for procurement activity. Are a particular vendor's products being favoured over another? Is spend on a particular group of products increasing or decreasing? This type of analysis combined with category and market knowledge will be vital to making effective category and sourcing decisions in the future.

## **BUILDING BLOCK FIVE: COLLABORATION**

The final building block recognises that HealthShare NSW cannot effectively manage and implement improvement without collaborating with a wide range of people and organisations. The two most obvious areas of collaboration are with its internal customers the LHDs and with its suppliers.

HealthShare NSW has always collaborated with its customers throughout the sourcing process. Customer Reference Groups, involving representatives from LHDs with relevant product expertise, develop and approve specifications for all major sourcing activities. Representatives from LHDs are also heavily involved in evaluating tender responses to ensure products are fully assessed for capability, functionality and quality. However, there has not been effective collaboration in the development of sourcing or category strategy. This is changing with the development of various processes including involving relevant advisory bodies in the development and approval of category strategies.

This is a new initiative and will involve educating an audience unfamiliar with the concept the purpose and value of category strategies. Engaging with the clinicians is vital in developing and implementing category strategies that have the clinician's support. It is also, however, important to be aligned to both the policy and financial requirements that are driving NSW Health. The availability and type of financial resources affects commercial decisions and drives different procurement models. Ongoing limitations on capital spending require innovative pricing models including purchasing services rather than equipment. These different models also require careful financial analysis to ensure they make economic sense over the longer term.

One example where this has not been carried out adequately is a model where the capital cost of equipment was funded through inflated consumable prices over

a five-year term. The failure in the model was that the capital equipment had a seven to ten year life and the consumables were proprietary to the supplier. This has meant that at the expiry of the five year contract, when the capital cost of the equipment will have been fully repaid, NSW Health is exposed to paying higher prices for the consumables that may include higher than usual margins. A lack of transparency in the pricing, not aligning the contract term to the lifecycle of the equipment and not explicitly dealing with pricing following effective payment for the equipment has left NSW Health exposed.

The other area of collaboration, that is a major focus for HealthShare NSW is its suppliers. In the past, for a range of reasons, the level of interaction and communication with suppliers has been low. While it is necessary to strictly control communication processes with suppliers during sourcing processes, outside of the subject matter and duration of any sourcing process, communication is allowable and should be encouraged.

In order to develop better models and practices in this area, HealthShare NSW along with the Ministry of Health is piloting a supplier development management process aimed at significantly improving its relationships with its major strategic suppliers. Depending on the success of the programme, it will be more widely rolled out at an appropriate level across a wider range of suppliers. The programme involves a series of intensive workshops with a single supplier aimed at developing a pipeline of improvement initiatives that have the aim of producing mutually beneficial outcomes. The initiatives need to be able to be delivered over a short to medium timeframe with specific and measurable outcomes.

The programme is a part of a wider NSW Government programme and NSW Health is the first participant to get activity underway with two major suppliers. All of the activity is being measured and reported against, and as initiatives and outcomes are developed,



**Figure 8:** Key considerations of SDM program

the learnings will be shared across the other participants. There have been some challenges in ensuring the programme manages the NSW Government's requirement to act fairly and openly across its supplier base, ensure the requirements of probity are met, and to protect intellectual property rights on both sides.

The two suppliers involved have been enthusiastic participants, and a large number of ideas have been generated to date. These are in the process of being refined, culled and prioritised, and will, in the near future, become active initiatives.

There is a broader range of consultation and collaboration with suppliers including preliminary discussion around category strategies and consultation on the sourcing process prior to the issue of open tenders. This activity will continue to expand over time as HealthShare NSW grows its capability in this area.

## CONCLUSION

HealthShare NSW is going through some fundamental changes in the way it practices procurement. Introducing category management as a fundamental underpinning of its procurement and sourcing activity

will see some major changes in the way it interacts with its stakeholders and suppliers. The development and improvement in a wide range of capabilities will increase the quality of outcomes delivered to NSW Health. Similarly, the improvement in analytical capability will provide the information needed to drive savings, better reporting and opportunity identification for LHDs.

Also with better communication and collaboration with its essential stakeholders and suppliers, HealthShare NSW will be able to deliver outcomes that meet the varied needs of stakeholders while getting the best out of suppliers.

By looking at each major set of common issues, ideas, approaches and strategies as building blocks, each one forming an essential part of a foundation, the linkages and co-dependencies become easier to recognise and understand. It is necessary to work on all of the building blocks at the same time, as without improvement in each one of them, failures, mistakes and missed opportunities will continue to occur. Only by a continuous focus on improving each aspect of each building block will HealthShare NSW be able to support NSW Health in meeting the challenges it faces.