

HealthShare NSW

NSW Health Warehousing & Logistics Review

Executive summary

12 December 2022





Current situation analysis

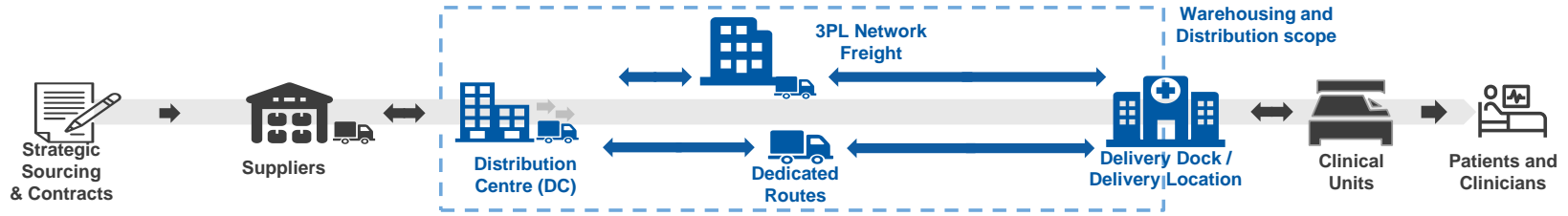
Situation	Proposed solution
<p>Growth - By 2032 the NSW Hospital and Ambulance network will grow by 30%, a significant part of this growth outside of Sydney and in particular, the North. Based on current and future state analysis, both OneLink and SCW warehouses are likely to exceed best practice capacity utilisation by 2027 assuming no changes to warehousing and distribution operations.</p>	<ul style="list-style-type: none"> • Multiple points of distribution across NSW, a major State Based Distribution Centre located in Sydney with potentially up to a further two regional distribution centres. • These will provide further regional employment, better logistical support to our regional customers and support an expanded range of products - almost double the current range (from about 3,500 SKUs to 6,500 SKUs). • Future Health Strategy: service delivery
<p>Cost, capacity and service - NSW Health has significant fiscal constraints over the next 10 years. Our warehousing and distribution cost to serve exceeds comparable cost benchmarks as a result of COVID operational impacts and our growth. Our facilities have reached and exceeded capacity and our services are challenged as a result of current network capacity constraints.</p>	<ul style="list-style-type: none"> • Optimised warehousing and distribution processes supported by automation with increased capacity across Bulk Storage, Pick, Pack and Delivery to enhance service levels and reduce cost per carton delivered. • Freight operations optimised to better consolidate loads, combined with optimally located distribution centres. • Establish warehouse operations as procurement hubs to enable bulk purchasing of potentially direct globally sourced products (e.g. shipping container destuffing on site) such as PPE will enable NSW Health to capitalise on direct sourced and volume discounts. • Future Health Strategy: service delivery
<p>Emissions - NSW Government is committed to a 50% reduction in emissions by 2030.</p>	<ul style="list-style-type: none"> • NSW Health seeks to reduce its projected 2,415 Metric Tonnes of CO₂ emissions by 2032 to zero through sourcing carbon neutral electricity supply and alternative fuels for delivery vehicles as well as reduction in total kilometres travelled. • Future Health Strategy: sustainability



Current situation analysis (continued)

Situation	Proposed solution
<p>Circular Recycling Supply Chain - NSW Health has been reported as NSW Government's largest polluter, the COVID stockpile and its associated out-of-date products has compounded this challenge. Our hospitals continue to dispose of clinical waste into landfill and through incineration.</p> <p>The Federal Govt, under the National Waste Policy Action Plan (DCCEEW) in 2019 has set a target to achieve an 80% average resource recovery rate across all waste streams by 2030.</p>	<ul style="list-style-type: none"> • Setup Circular Supply Chain processing capability to recycle and reuse at the future distribution centres - leverage backhaul routes from our delivery vehicles and our distribution facilities as circular supply chain centres to sort, cleanse, sterilise, and host co-locate recycling micro-factories to reduce carbon-emitting waste and landfill. • Future Health Strategy: sustainability
<p>Resilience - High dependency on a single distribution centre in Sydney - OneLink. COVID demonstrated that our stockpiles for emergencies were too small, our stock management processes whilst good, were not fully up to the task in those critical first few days and weeks.</p>	<ul style="list-style-type: none"> • Co-locate larger and better managed stockpile facilities, as compared to our pre-COVID arrangements, within our new warehouse and replenishment operations. • Moving to a multi distribution centre model will provide the ability to hold supplies in multiple locations, providing business continuity during surge demand or if a facility become inoperable (for example, through fire or storm damage). • Future Health Strategy: service delivery

NSW Health's vision for Procurement Reform will require fit for purpose Warehousing and Distribution to enable current and future programs



Savings Leadership - better commercial strategies and contracts to reduce the purchase price and overall cost of goods and services across NSW Health (*Warehousing and Distribution - enables bulk purchasing and control of range/specification to end users*)

Smart Chain - enabling quality data flow and digitisation across the Value Chain. (*Warehousing and Distribution will be dependent upon as well as enable the supply of clean data from purchase because of the consolidated purchasing flowing into a single network*)

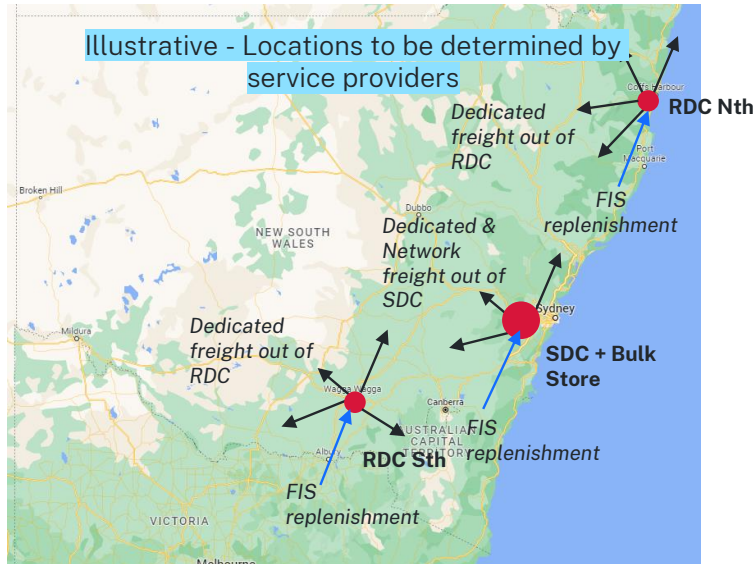
Warehousing and Distribution reform - delivers required future (to 2032) capacity, service levels, cost to serve, resilience and emissions reduction to NSW Health sites. (*Warehousing and Distribution enables Savings Leadership and DeliverEASE through bulk, consolidated and rationalised catalogue purchasing and the delivery of high service levels to hospitals*)

DeliverEASE - optimising Hospital Dock to Ward / Ward Storeroom to Clinician process, streamlined and automated ordering (*Warehousing and Distribution - enables higher service levels and faster flow from Dock to Ward*)

Emissions reduction and Sustainable Supply Chain - whilst not a discrete program within Procurement Reform, Emissions reduction and Sustainable Supply Chain will grow as critical issues over the next 10 years (*Warehousing and Distribution - will be a critical enabler to reduce current freight and electricity consumption, as well as support collection and processing of recyclable material as required*)

A future network configuration will likely require both regional and Sydney-based warehouses with levels of automation to minimise warehousing and freight costs per carton while improving service levels for regional NSW.

We believe to address NSW Health's future requirements, the following configuration of a State Distribution Centre (SDC) + Bulk Store + 1 or 2 Regional Distribution Centres (RDCs) would likely be required, subject to market capacity and pricing.



The scope will likely include:

- All existing sites (OneLink, WGW, SCW Dock 9, SCHN store) except for Pharmacy network, Enable Warehouse and St Vincent's Hospital;
- Regional and State Warehouses are replenished from vendors free into store (FIS);
- Service levels to comply to industry standards;
- Range increased to ~ 6,500 SKU's of which a mix would be fulfilled from SDC and RDC's. Future pick profile is estimated to be 30% full case and 70% split case based on the current OLW pick profile*;
- Bulk storage to be included in the SDC and RDC's to spread disaster recovery risk;
- Warehouse automation to reduce cost per pick to be included;
- Transport and dedicated routes optimised to reduce overall kms travelled and improve service levels; and
- Sites serviced by RDC to move to dedicated routes where possible, subject to market pricing and capacity.

* Based on OneLink Warehouse orders from January to June 2022. The ~6,500 SKUs need to be reviewed as part of a ranging exercise to deepen and broaden the range. Additionally, as a part of this process the volumetrics for each warehouse need to be considered to best service the future network.

Cost and emission comparison between current and (potential) future network

	Freight Costs \$M pa (A)	Warehousing Costs \$M pa (B)	Total 12 month costs / Emissions \$M (A+B) t CO ₂	Potential Annualised Benefits
Pick / Pack / Deliver Base case (‘do nothing’, used to compare hypothesis results)	~\$12.4M	~\$36.8M	~\$49.1M ~2,078 t CO ₂	
Bulk Stockpile Storage Baseline (‘do nothing’, used to compare hypothesis results)	~\$0.7M	~\$30.5M (WGW FY22 baseline cost)	~\$31.2M ~599 t CO ₂	
Hypothesis A (1 x SDC, 1 x RDC)	\$9.4M	\$35.2M	\$44.5M	\$4.6M
Hypothesis B (1 x SDC, 2 x RDC)	\$8.8M	\$35.2M	\$43.9M	\$5.2M
Bulk Stockpile storage costs (6 months to 48 months)	6 months pallet spaces at 70% util / 6,500 pallets OR 48 months pallet spaces at 70% util/ 51,700 pallets		\$1.4M \$10.9M	(Relative to WGW FY22 baseline cost of ~\$30.5M) \$29.1M \$19.6M
Procurement savings through consolidated purchases	Increase in spend through warehouses from \$596M (Future Baseline “Do Nothing” to \$760M (Future State) assuming 1% to 2% Minimum Order Quantity discount benefits (inclusive of FY22 to FY32 30% growth, deepening and broadening of the range)		\$760M pa	~\$1.8M to ~\$3.5M
Emissions	Based upon 18 months Bulk Stockpile stock on hand Hypothesis A: (1 x SDC, 1 x RDC) Hypothesis B: (1 x SDC, 2 x RDC)		Hypothesis A: ~1,976 t CO ₂ Hypothesis B: ~2,296 t CO ₂	701 t CO₂ (26% reduction) 381 t CO₂ (14% reduction)



It is estimated that including automation within warehouse operations **cost benefit of ~\$5.2M pa (~10.5%)** for Hypothesis B in 2032 over the Base case operations could be achieved

	Costs (\$M) (PPD + Freight + automation savings + bulk store)	Emissions t CO₂	Service	Capacity	Risk
Base case (‘do nothing’, used to compare hypothesis results)	\$49.1	2677 t CO ₂	Refer base case	4.0M cartons and 6439 SKUs across all warehouses	High
Hypothesis A (1 x SDC, 1 x RDC)	\$44.5 (9% < base case)	1976 t CO ₂ (26% < base case)	At meet industry benchmarks: <ul style="list-style-type: none"> • Pick accuracy (TBD) • Product availability (> 98%) • Pack density (TBD) • Adherence to schedule (97%) 	SDC (3.6M cartons, 6387 SKUs) RDC (0.4M cartons, 3987 SKUs)	Medium
Hypothesis B (1 x SDC, 2 x RDC – one Northern RDC and one Southern RDC)	\$43.9 (10% < base case)	2296 t CO ₂ (14% < base case)	<ul style="list-style-type: none"> • Lead time (1 day metro, 2 day regional) • Delivery in full (>99.7%) • Delivered in full first time (>98%) 	SDC (3.4M cartons, 6072 SKUs) RDC(S) (0.2M cartons, 4173 SKUs) RDC(N) (0.4M cartons, 4013 SKUs)	Medium

Critical program to support service delivery, sustainability and reform linked to Future Health Strategy

Timeframe considerations:

- Both OLW and SCW warehouses are likely to exceed best practice capacity utilisation by 2027;
- Services challenged as a result of the current network constraints;
- NSW Health reported as NSW Government's largest polluter;
- High dependency on a single distribution centre in Sydney.

Summarising statements:

- HealthShare NSW's Warehousing and Logistics network is close to full capacity and will require renewal. Our proposed solution will not only address capacity issue but will deliver cost savings (>\$5.2m p.a. when fully rolled out), will reduce emission by 14-26% and will increase resilience towards unexpected events.
- The whole program will take between 2-3 years to implement and we will need a Go To Market team whose role is to prepare detail requirements, detailed business case and RFP preparation, followed by evaluation and provider selection in 2023, then to manage the implementation throughout 2024-25.

