



New Zealand Healthcare Sector sees significant growth in GS1 Barcode use

Product identification in the healthcare sector at all levels of product packaging is recognised as a key enabler for the efficient management of hospital and pharmacy supply chains and improved patient safety outcomes. Ground-breaking research by global consulting firm McKinsey highlights that alignment on a single standard is compelling in terms of lives saved, medication/ device errors averted and increased business value. The sector has an opportunity to create a true win-win environment: a 'win' for industry and 'win' for the patient.'

Clinicians, managers and those involved in the healthcare sector throughout New Zealand more broadly, have recognised that adoption of GS1 global standards provide numerous benefits. Significantly, in 2012, the Health Information Standards Organisation (HISO) endorsed the use of GS1 identification standards in New Zealand. GS1 standards are also an integral part of the DHB National Catalogue initiative.

Internationally, progress has been made on Unique Device Identification legislation in The United States and Europe as well as a range of legislative initiatives relating to identification and barcoding of medicines using GS1 Standards.

Another significant milestone was the release in October 2012 of the McKinsey Report, 'Strength in Unity: the promise of global standards in healthcare', which established the business case for implementation of supply chain standards in healthcare and recognised the key role that product identification and barcoding play. McKinsey outline that use of global standards could enable worldwide inventory reduction of \$60-94 billion and reduce the costs of managing and storing inventory by \$10 – 14 billion. Obsolescence could be reduced by \$19-27 billion.

A pioneering study of product identification was conducted in 2005 under the auspices of The Safe Medication Management Group. This was repeated in 2014. These surveys involved assessing both pharmaceuticals and medical device products where researchers reviewed and reported on all products and levels of packaging. Surveys were conducted in hospital pharmacies, hospital warehouses and third party logistic operations.

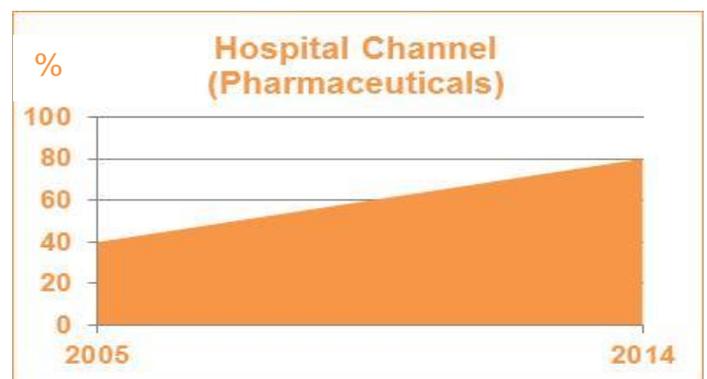


Figure 1 - Penetration of GS1 barcodes in Hospital Channel - Pharmaceuticals

What the findings reveal

Hospital Channel - Pharmaceuticals

There is a clear trend showing increased use of GS1 standards for product identification and barcoding. For pharmaceuticals used in the hospital channel, GS1 barcode use has increased significantly at the secondary packing level (often referred to as a retail or consumer pack) from 40% (2005) to 80% (2014) - *Figure 1*. Of the products surveyed, 81% had barcodes printed on the packaging and of these, 99% were GS1 barcodes typically GTIN 8, 12 or 13. Of items surveyed, 19% had no barcodes displayed. Product production and traceability identifiers, (typically lot/batch number and expiry date) were ubiquitous in human readable format but were not generally encoded into barcodes. There is a low incidence of the use of two-dimensional (GS1 DataMatrix) barcodes. However DataMatrix penetration is expected to increase significantly as regulators and manufacturers adopt the endorsed industry standard in combating pharmaceutical and device falsification².

Hospital Channel - Medical Devices

There is a clear increase in the use of barcodes for medical devices at the primary packaging level; 19.30% (2005) and 66% (2014) – *Figure 2*. Of these, 95% were GS1 barcodes typically GS1 12, 13 and 14 and to a lesser extent, GS1 128 (barcodes with manufacturer encoded production and traceability identifiers typically batch/lot and expiry date). Thirty percent (30%) of items surveyed had no barcodes. Analysis of secondary packaging (cases, shipper units) revealed 90% were barcoded in some way and of these, 94% were GS1 barcodes, typically GS1 14 and GS1 128 (with manufacturer's lot/batch and expiry date production and traceability identifiers encoded). Use of in-house or other codes totalled 6%.

Retail Pharmacy – OTC Pharmaceutical

Analysis of barcode use in the community pharmacy / over-the-counter (OTC) environment revealed widespread use of GS1 standards. At the secondary packaging (often referred to as a retail or consumer pack) level, 96% of items were barcoded of which 100% were GS1 barcodes; invariably GTIN 8, 12 and 13.

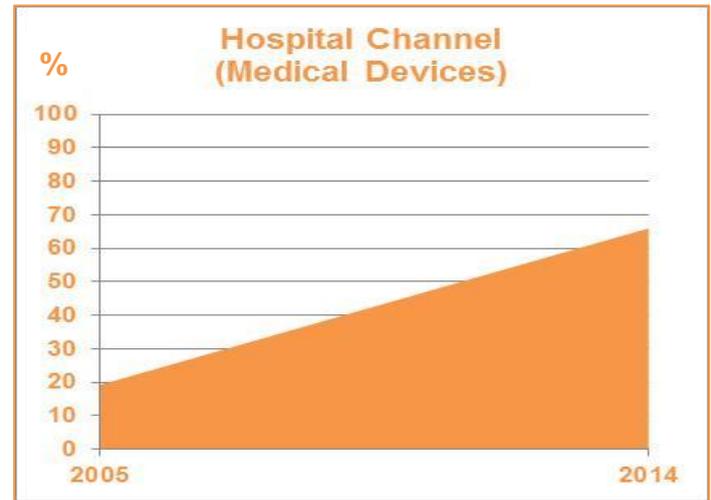
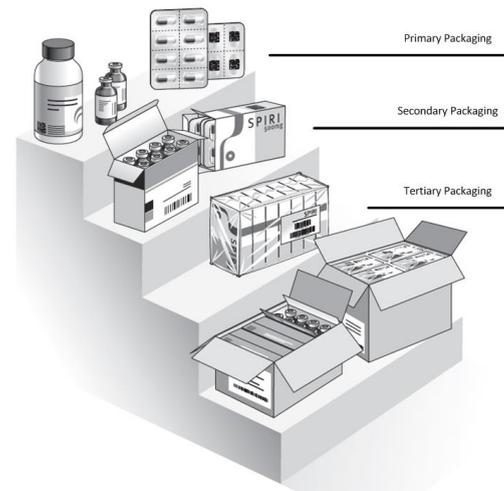


Figure 2 - Penetration of GS1 barcodes in Hospital Channel - Medical Devices



In conclusion.....

The marked increase in the use of GS1 standards and barcodes over the past ten years, clearly demonstrates that the global healthcare community is aligning around a suite of standards for the significant benefits on offer. This approach leverages standards as a foundation for collaboration across the value chain. Standardised product identification enables new processes and capabilities that create both patient and business value, including bedside scanning in hospitals, more effective and efficient product recalls, medication authentication, inventory management and automated information sharing. Healthcare leaders now have an opportunity to continue to work together and collaborate around a single set of global standards to further drive adoption of the practices enabled by these standards. There is strength in unity; the patient would be the ultimate beneficiary.

2. Healthcare community endorses use of GS1 DataMatrix - www.gs1.org/docs/healthcare