JSI
John Snow, Inc.

Getting Products to People:
Segmentation: A Commercial Sector Approach to Designing Supply Chains

Condoms with vaccines on the same truck? Maybe not. Vaccines with laboratory reagents in the same storage unit? Maybe so. How do you design a supply chain that effectively manages thousands of health products? Segment it.

Public health supply chain context

Public health programs handle 1000's of products with many characteristics, going to a diverse group of clients through many different kinds of facilities.

Procuring, storing, or delivering all of these products in the exact same way does not make sense and will not achieve 100% availability.

Commercial sector solution: segmentation

Segmentation can help. It is the process of analyzing data on customers' needs and product characteristics to determine which segments – or groupings – of products make most sense to procure, store, or deliver together.

Once defined, logistics processes are tailored to meet the needs of each segment.

Segmentation has six basic steps

1 **Position** segmentation within the overall supply chain strengthening process.
- *Can stakeholders agree to design a supply chain that looks beyond program distinctions to better respond to product and facility requirements?*

2 **Clarify and align** expectations for the availability of products managed in the supply chain.
- *Is product availability the most important customer service consideration?*

3 **Analyze** health facility and product-specific characteristics data.
- *Where is this product used, who is intended for, and what are its characteristics?*

4 **Categorize** products into a manageable number of segments using characteristics data.
- *What product and facility characteristics have the greatest effect on the supply chain and program objectives?*

5 **Design** logistics operating procedures for each segment.
- *What are the best procedures for distributing, storing, and managing products in each segment (i.e., handling of cold chain products)?*

6 **Implement** and periodically review designed segments for continuous improvement.
- *Are segments successfully getting products to people and helping programs meet their targets, or are revisions necessary?*
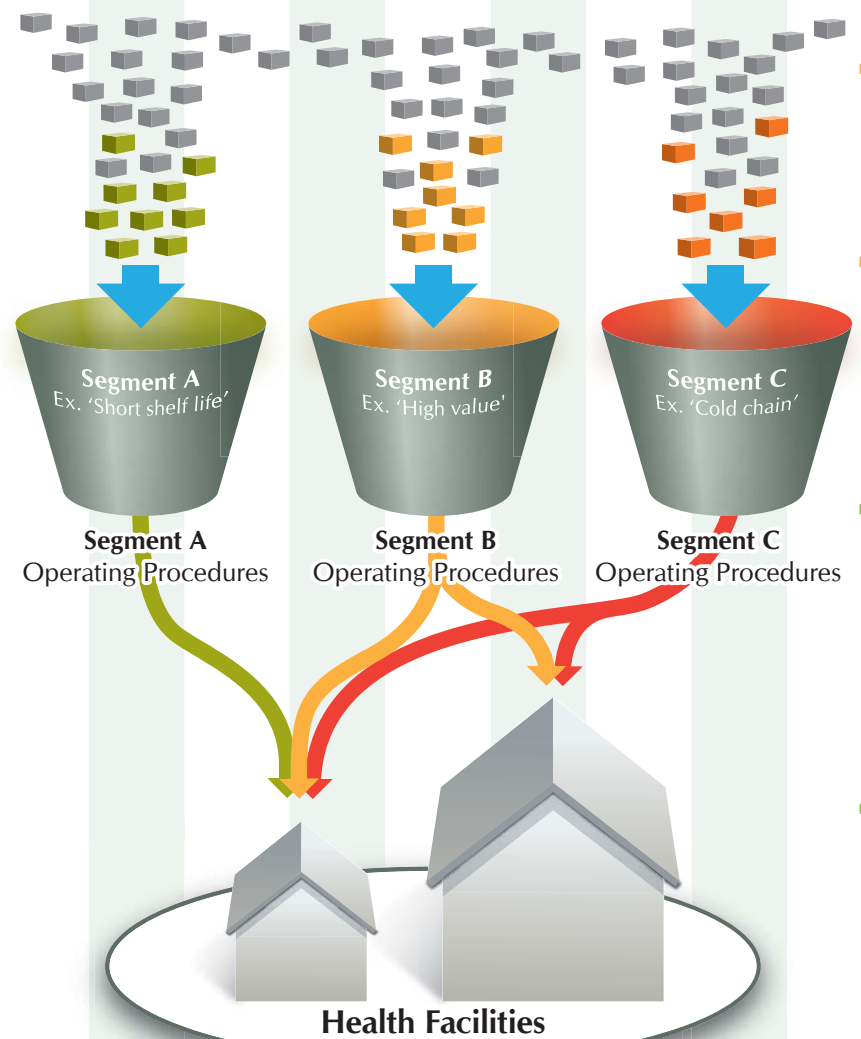
Analyze data to separate products into segments

Health Facilities
- Seasonal variability
- Services provided
- Average order size
- Timing of resupply

Product
- Shelf life
- Cold/cool chain requirements
- Value
- Variability of demand

Segment A Ex. 'Short shelf life'
Segment B Ex. 'High value'
Segment C Ex. 'Cold chain'

Segment A Operating Procedures
Segment B Operating Procedures
Segment C Operating Procedures

Health Facilities

Commercial and public health examples of segmentation

Dell, Inc. – Personal Computers

Before 2008, Dell operated a global supply chain with a single 'made to order' strategy.

Dell segmented its supply chain through a quantitative analysis of customer data, creating six different supply chains to serve different groups of customers – each with individual sales channels, production strategies, and transportation modes.
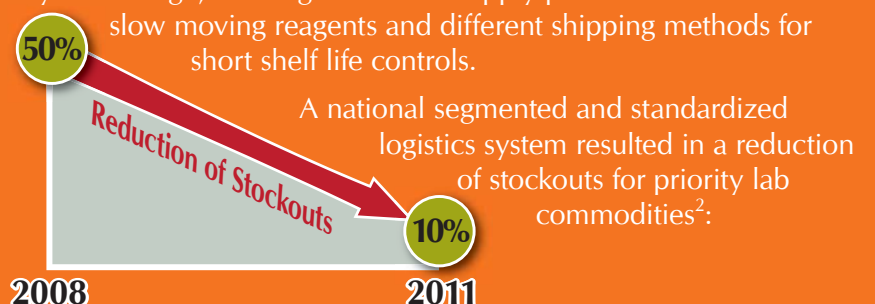
Segmentation has saved Dell $1.5 billion in operating costs[1].

$1.5 billion saved

Zambia – Laboratory Program

Before 2006 in Zambia, laboratory products were frequently stocked out, causing service interruptions.

Zambia segmented lab products as part of a national logistics system design, creating different resupply procedures for fast and slow moving reagents and different shipping methods for short shelf life controls.

A national segmented and standardized logistics system resulted in a reduction of stockouts for priority lab commodities[2]:

50%
Reduction of Stockouts
10%
2008   2011

Recommended sources and citations:
1   Thomas, Kelly. 2012. *Supply chain segmentation: 10 steps to greater profit.* CSCMP's Supply Chain [Quarterly].
2   With technical assistance provided by USAID through the Supply Chain Management System (SCMS) Project.
•   John Snow, Inc. January 2012. *Getting Products to People: The JSI Framework for Integrated Supply Chain Management in Public Health.* Arlington, VA.: John Snow, Inc.
•   Allain, Linda, Jarrod Goentzel, James Bates, and John Durgavich. 2010. *Reengineering Public Health Supply Chains for Improved Performance: Guide for Applying Supply Chain Segmentation Framework.* Arlington, VA.: USAID | DELIVER PROJECT, Task Order 1.