

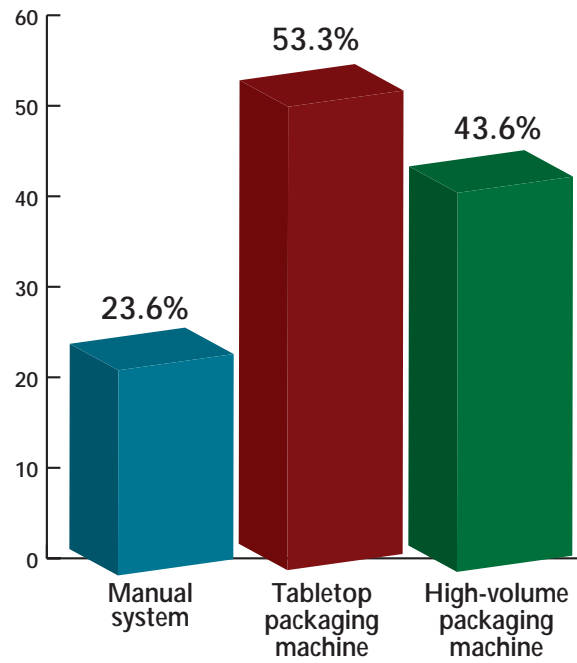


Unit Dose Packaging Systems

Continues on pages 16, 18, and 19

With patient safety as the driving force, bar coded unit dose packaging is on the rise. Pharmacies that package drugs in bar coded unit dose are now in the majority, directors of pharmacy are generally satisfied with their bar code unit dose packaging systems, and a majority of pharmacies are able to source more than 60% of their inventories in bar coded unit dose from the manufacturer.

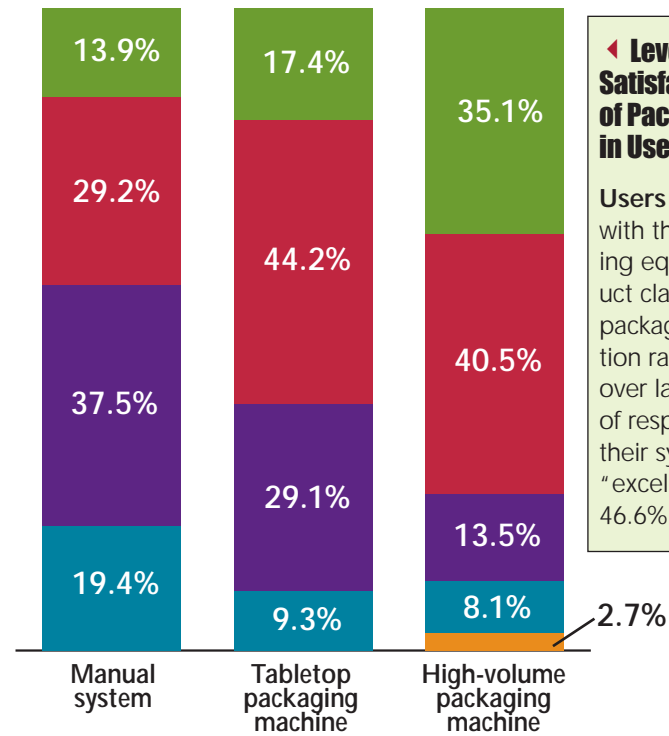
For more information on vendors providing unit dose packaging equipment and services, visit www.findit.pppmag.com or circle the following numbers on the reader service card: 904, 905, 909, 910, 911, 917, 918, 920, 923, and 924.



NOTE: Totals exceed 100% as some respondents report using a variety of packaging equipment.

◀ Packaging Equipment in Use

Tabletop unit dose packaging machines are in use in over half of pharmacies performing bar coded unit dose packaging. Likewise, the use of high-volume packaging machines is also widespread.

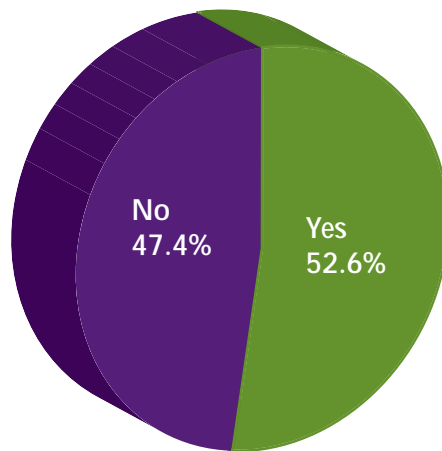


◀ Level of User Satisfaction by Type of Packaging Equipment in Use

Users are generally satisfied with their unit dose packaging equipment, across product classes. In fact, overall packaging system satisfaction rates have increased over last year's results: 57.2% of respondents now classify their systems as "good" or "excellent," compared to 46.6% last year.

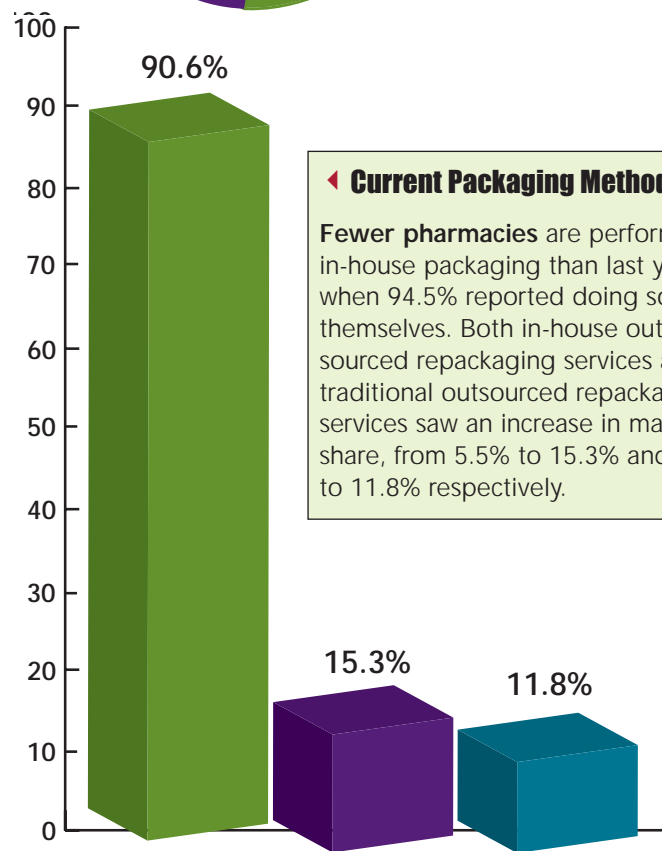
KEY: Packaging

- Excellent
- Good
- Satisfactory
- Less than Satisfactory
- Poor



◀ Facilities Currently Packaging Medications in Bar Coded Unit Dose

Last year, only 46.5% of facilities reported packaging medications in bar coded unit dose; this year, that group is in the majority, with 52.6% of pharmacies actively packaging their drugs.



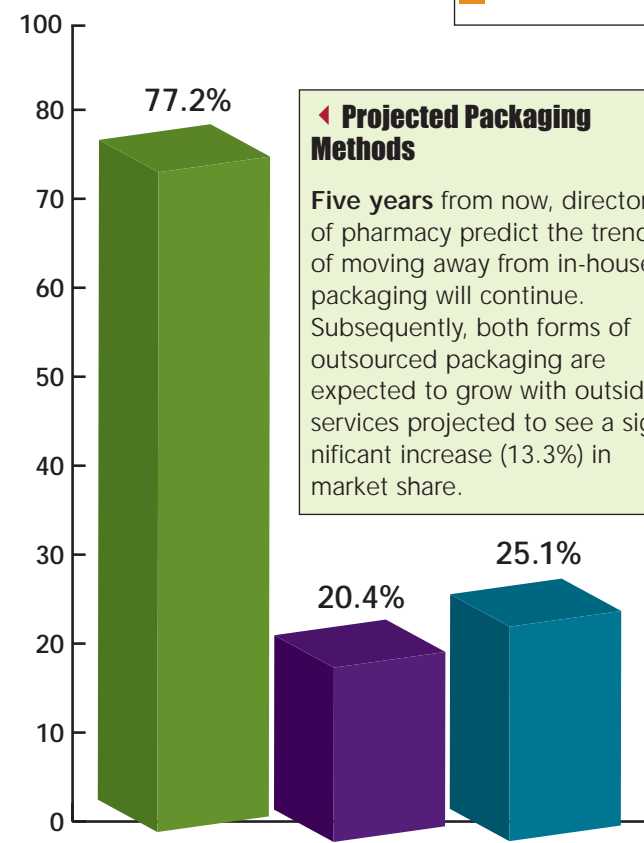
◀ Current Packaging Methods

Fewer pharmacies are performing in-house packaging than last year, when 94.5% reported doing so themselves. Both in-house outsourced repackaging services and traditional outsourced repackaging services saw an increase in market share, from 5.5% to 15.3% and 8.2% to 11.8% respectively.

NOTE: Totals exceed 100% as respondents indicate using multiple packaging methods.

KEY: Packaging Methods

- In-house packaging systems
- In-house outsourced repackaging services
- Outsourced repackaging services



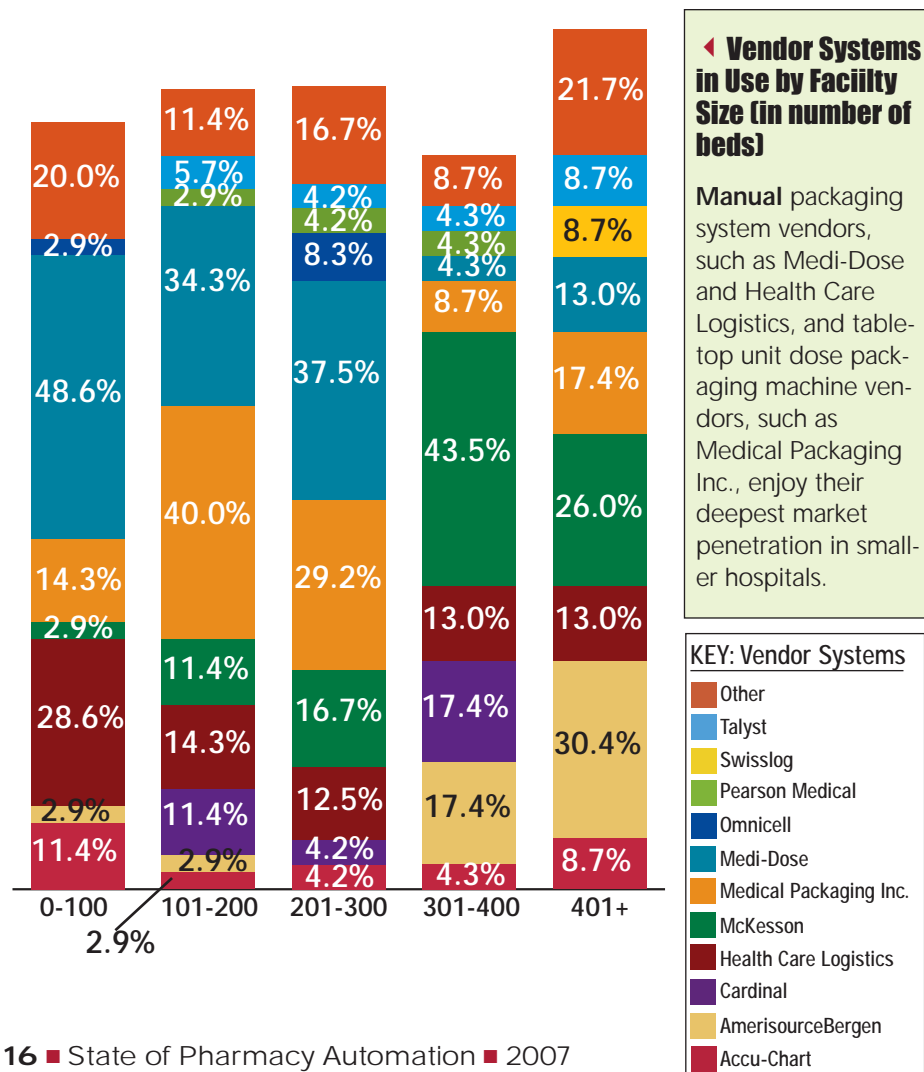
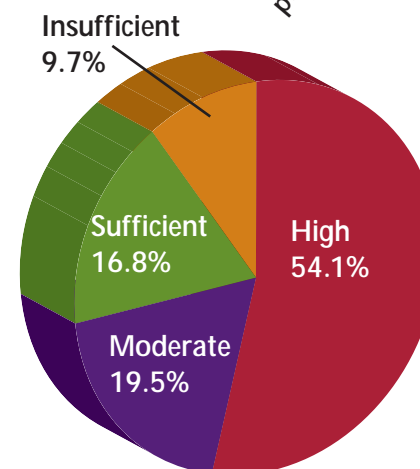
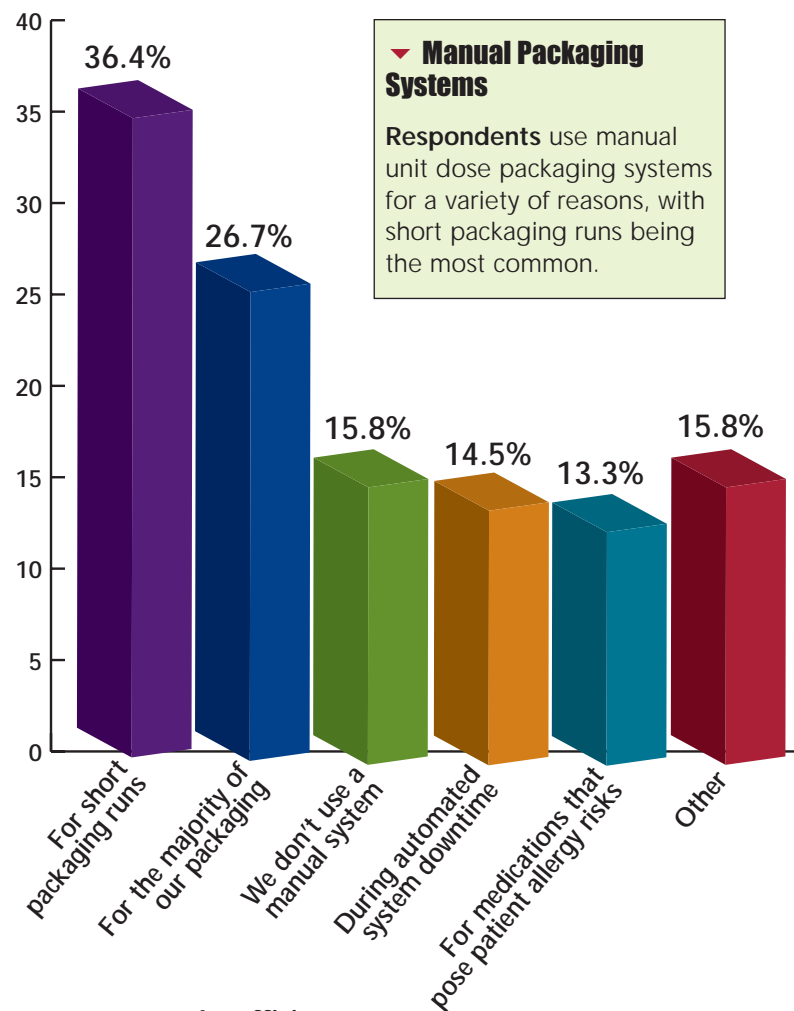
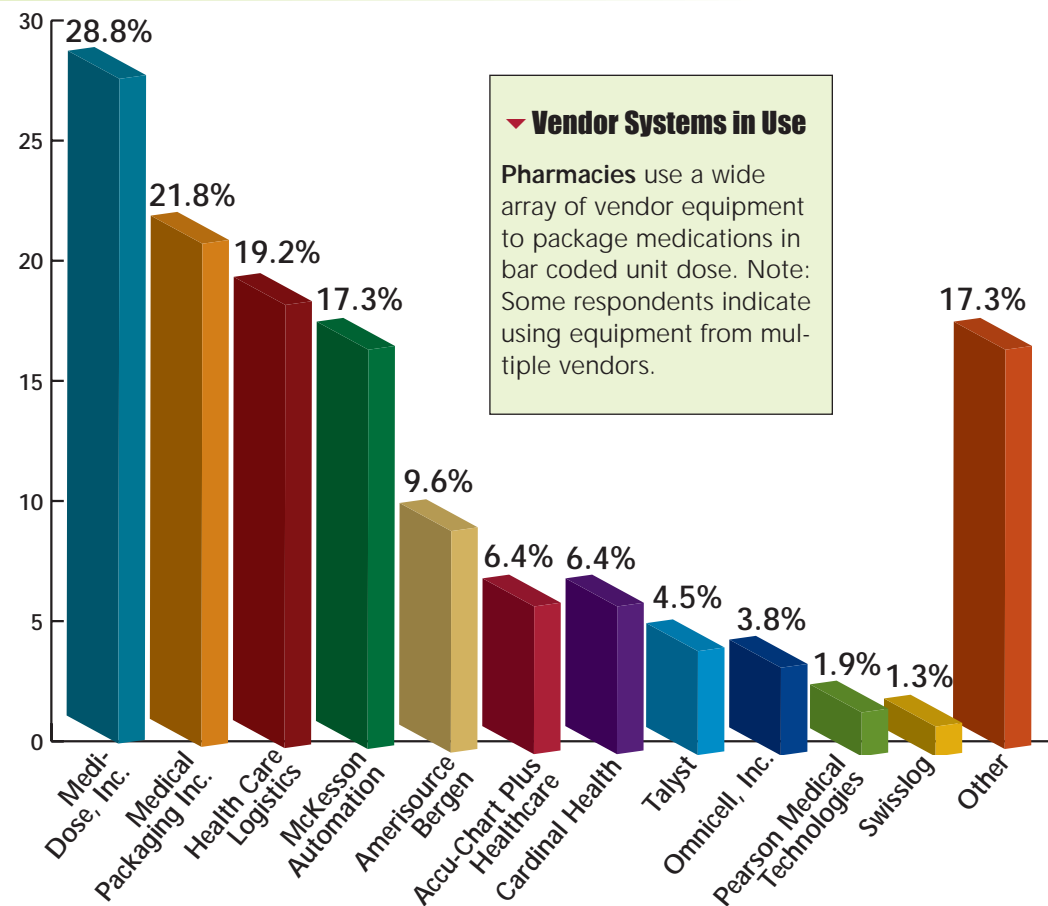
◀ Projected Packaging Methods

Five years from now, directors of pharmacy predict the trend of moving away from in-house packaging will continue. Subsequently, both forms of outsourced packaging are expected to grow with outside services projected to see a significant increase (13.3%) in market share.

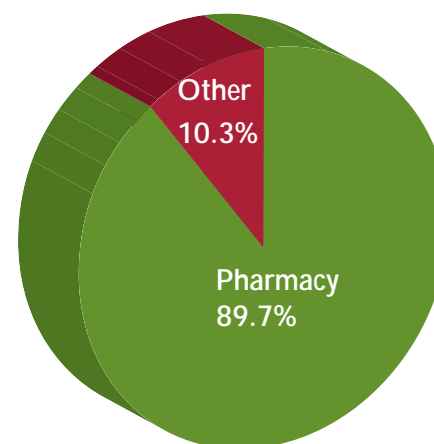


Unit Dose Packaging Systems

Continued from page 14



Pharmacy's Role in Purchase of Bar Code Printers
A majority of respondents report a high level of involvement with the purchase of their facilities' bar code printers. In facilities currently packaging medications in bar coded unit dose, Zebra printers are the most popular, with 69.2% marketshare. Respondents also reported using printers from Intermec (9.5%), Brady Corporation (1.3%), Precision Dynamics (1.3%), and Cognitive Solutions (0.6%).



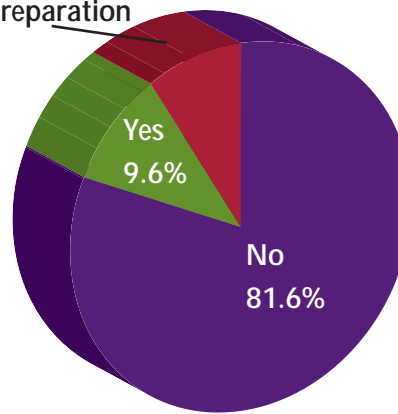
Pharmacy's Role in Sourcing Bar Code Printer Labels
A vast majority of pharmacies purchase the labels for their bar code printers themselves.



Unit Dose Packaging Systems

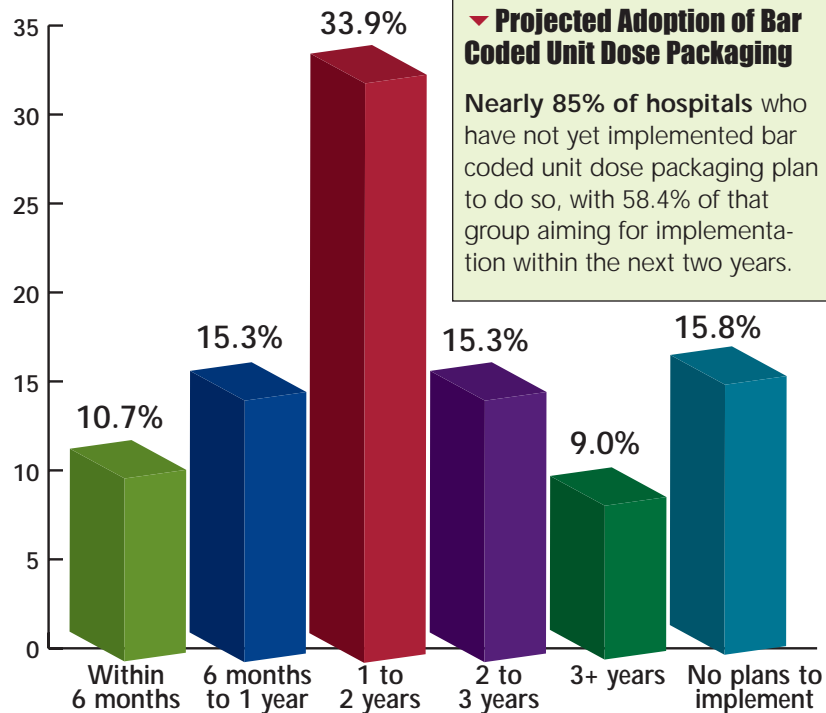
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What's a robotic IV syringe preparation device?
8.8%



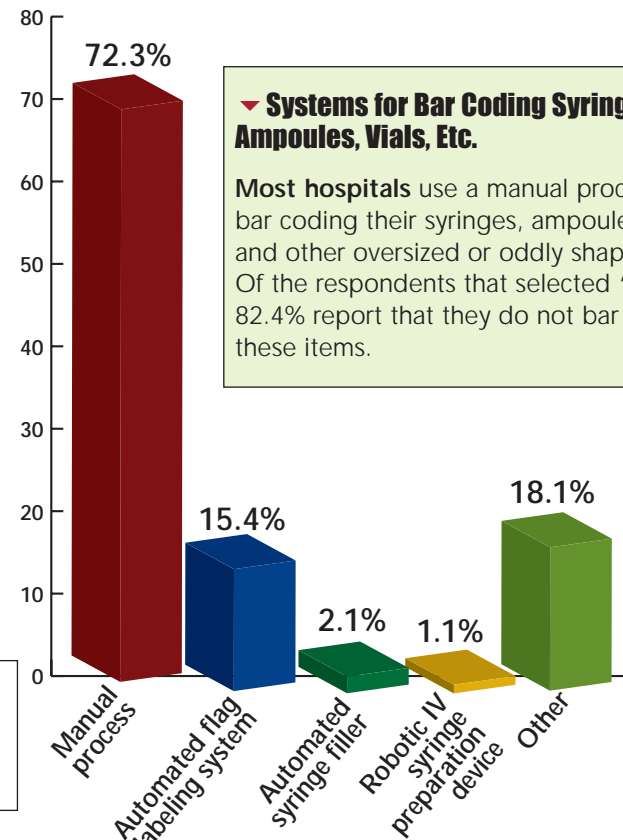
Robotic IV Preparation

Robotic IV preparation devices, available from vendors including ForHealth Technologies, Intelligent Hospital Systems, and Health Robotics, automate the filling, labeling, and bar coding of IV syringes – and in some cases, bags – within a controlled environment. Just 9.6% of respondents use these devices, suggesting growth for this product class in years to come.



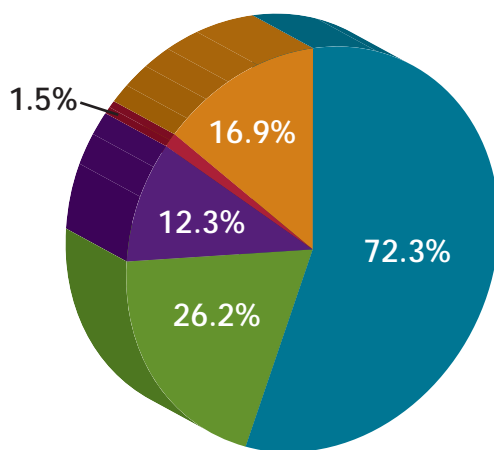
Projected Adoption of Bar Coded Unit Dose Packaging

Nearly 85% of hospitals who have not yet implemented bar coded unit dose packaging plan to do so, with 58.4% of that group aiming for implementation within the next two years.



Systems for Bar Coding Syringes, Ampoules, Vials, Etc.

Most hospitals use a manual process for bar coding their syringes, ampoules, vials, and other oversized or oddly shaped items. Of the respondents that selected "other," 82.4% report that they do not bar code these items.



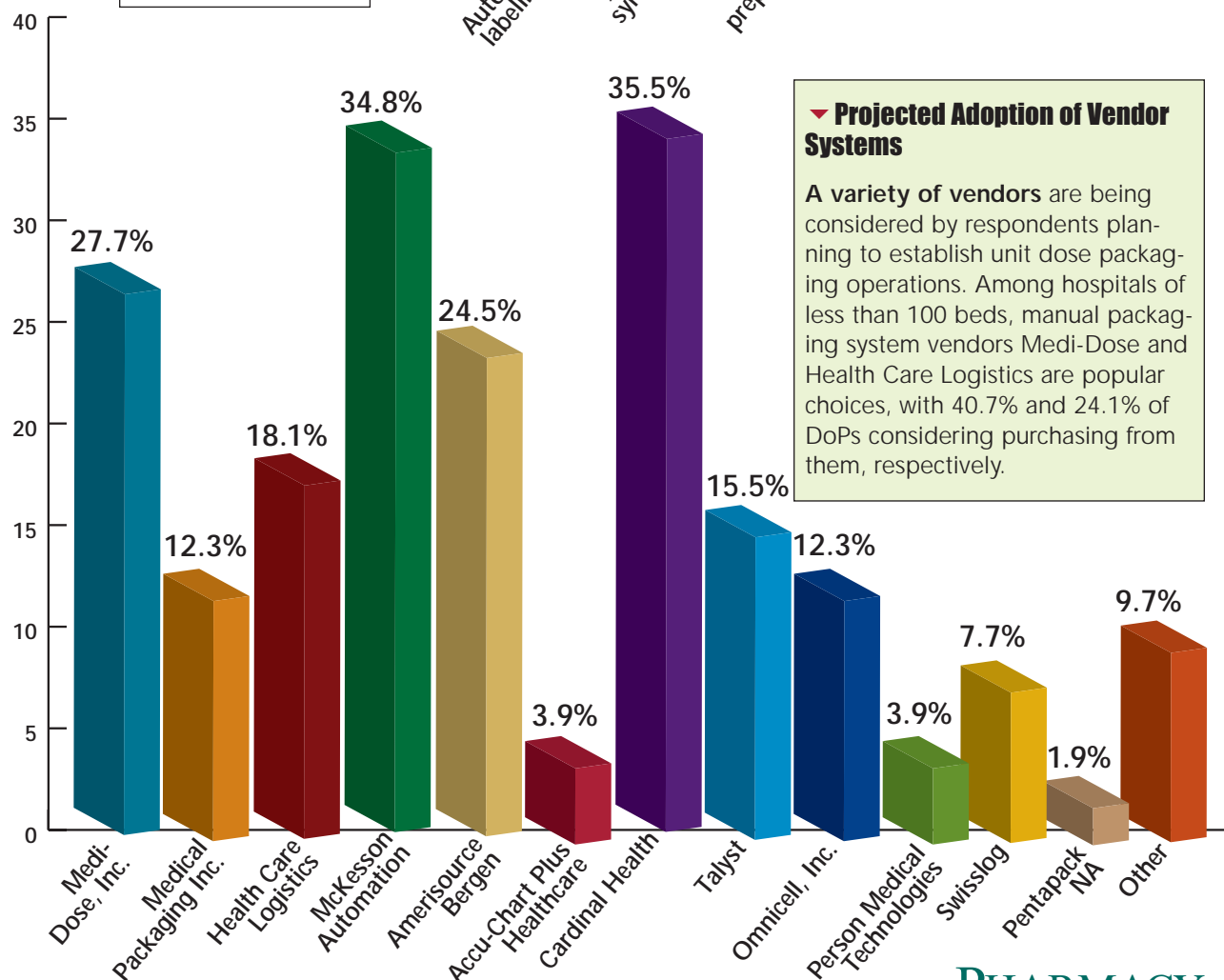
KEY: System Adoption

- Lack of budget
- Lack of support from hospital administration
- See no need
- Lack of support from pharmacy leadership
- Other

Reasons for Lack of Plans to Adopt Bar Coded Unit Dose Packaging

Of the 15.8% that do not plan to implement unit dose packaging systems, "lack of budget" is the prevailing reason.

NOTE: Totals exceed 100% for these graphs as some respondents gave multiple answers.

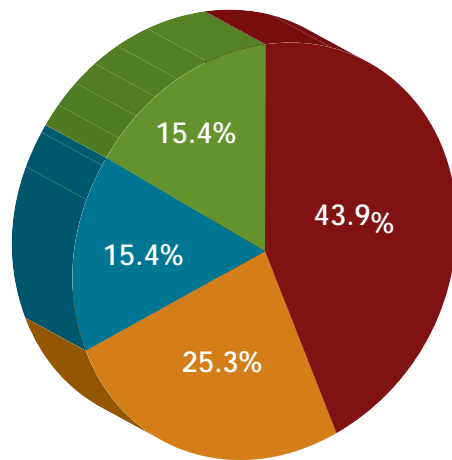


Projected Adoption of Vendor Systems

A variety of vendors are being considered by respondents planning to establish unit dose packaging operations. Among hospitals of less than 100 beds, manual packaging system vendors Medi-Dose and Health Care Logistics are popular choices, with 40.7% and 24.1% of DoPs considering purchasing from them, respectively.

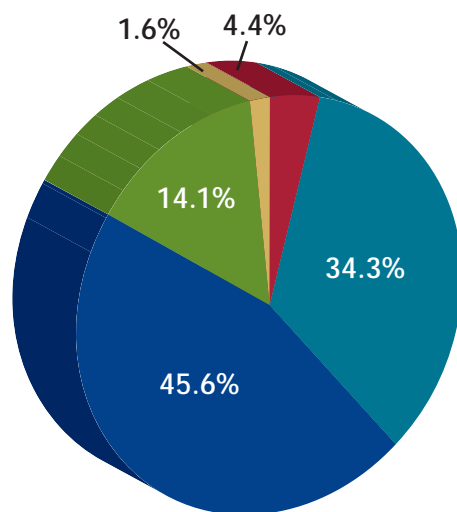
▶ Two-Dimensional Bar Codes

Two-dimensional bar codes are capable of encoding more information than a standard linear, one-dimensional bar code in a smaller footprint. With over a quarter of respondents currently using two-dimensional bar codes, and another 15.4% planning to do so, awareness of the benefits of these once-unheard-of bar code symbologies is seemingly on the rise.



KEY: Two-Dimensional Bar Codes

- Not using two-dimensional bar codes
- Using two-dimensional bar codes
- Planning to use two-dimensional bar codes in the near future
- What's a two-dimensional bar code?



◀ Manufacturer Bar Code Quality

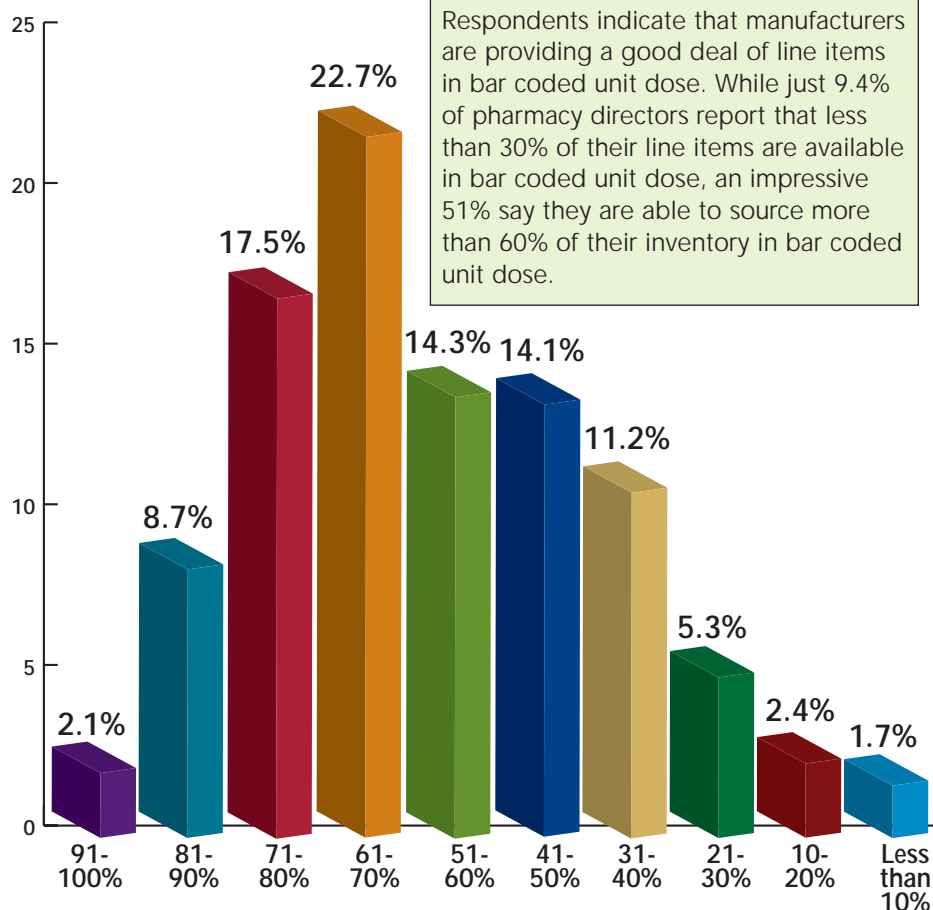
A vast majority (84.3%) of respondents are at least satisfied with the quality of manufacturer bar codes.

KEY: Bar Code Quality

- Excellent
- Good
- Satisfactory
- Less than satisfactory
- Poor

▼ Availability of Bar Coded Unit Dose Generics

Respondents indicate that manufacturers are providing a good deal of line items in bar coded unit dose. While just 9.4% of pharmacy directors report that less than 30% of their line items are available in bar coded unit dose, an impressive 51% say they are able to source more than 60% of their inventory in bar coded unit dose.

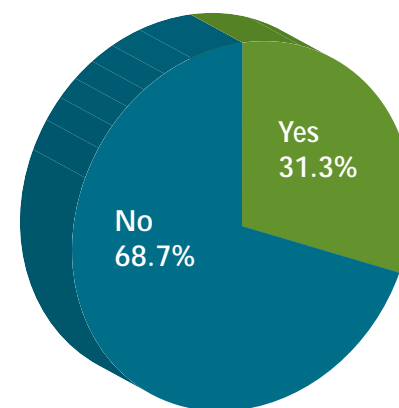


Outpatient Pharmacy Services & Technology



About one third of our respondents indicate that their facilities operate outpatient pharmacies, with 45.8% of them working for hospitals of more than 300 beds.

For more information on outpatient pharmacy automation vendors, circle reader service number 915 or visit www.findit.pppmag.com.



◀ Facilities Operating an Outpatient Pharmacy

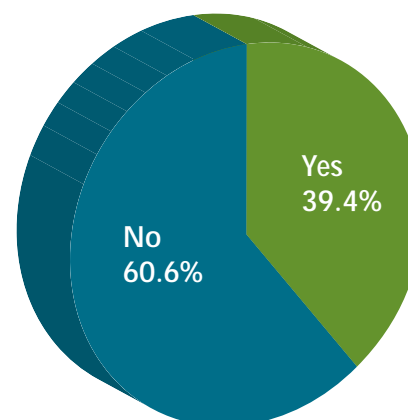
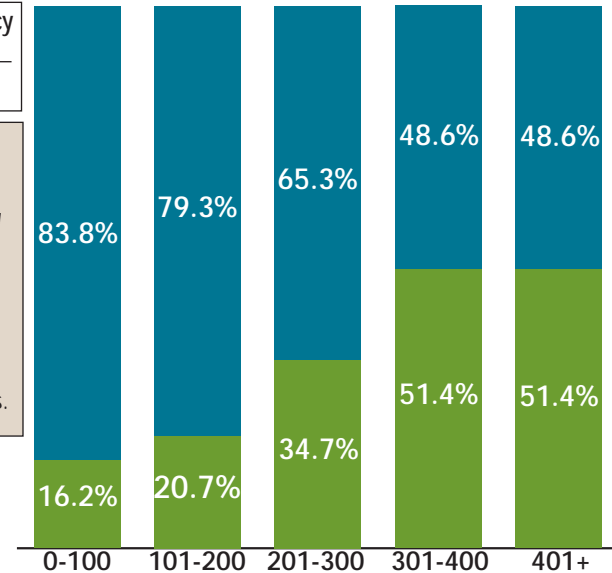
While a significant number of hospitals (31.3%) offer outpatient pharmacy services, the majority does not.

KEY: Outpatient Pharmacy Services

- No
- Yes

▶ Facilities Operating an Outpatient Pharmacy by Facility Size (in number of beds)

Larger hospitals are more likely to operate outpatient pharmacies.



◀ Automated Medication Storage and Retrieval Systems in Facilities with an Outpatient Pharmacy

Facilities with outpatient pharmacies are more likely to have automated their storage and retrieval processes than facilities without outpatient pharmacies (39.4% vs. 23.8%, respectively). These facilities also report more implementations of carousels (53.8%) than robots (38.5%). Furthermore, of facilities planning to automate their storage and retrieval systems, those with outpatient pharmacies plan more implementations (58.7%) than those without (50%).