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# Pharmaceutical Packaging

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US Industry Study with Forecasts for **2014 & 2019**

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*New regulations and standards that address such issues as barrier protection, infection control, patient drug compliance, drug dispensing errors, and drug counterfeiting will underlie growth.*

## US demand to increase 5.3% annually to 2014

Demand for pharmaceutical packaging in the US (including Puerto Rico) is forecast to increase 5.3 percent annually to \$18.5 billion in 2014. Recently upgraded regulations and standards that address such issues as barrier protection, infection control, patient drug compliance, drug dispensing errors, and drug diversion and counterfeiting will underlie growth. An increased focus on these issues will boost demand for high value-added containers and accessories, including enhanced barrier plastic bottles, calendar and wallet blister packaging, prefillable syringes and inhalers, track and trace and authentication labels, and unit dose pouches.

## Prefillable syringes to pace primary containers

Demand for primary pharmaceutical containers will increase 5.2 percent annually to \$11.3 billion in 2014. The fastest growth is anticipated for prefillable syringes, which will expand applications as advances in biotechnology lead to the introduction of new therapies that must be injected. Plastic bottles will remain the most widely used package for oral drugs distributed in bulk and prescription dose volumes to retail and mail order pharmacies. They will also continue to dominate applications in OTC medicines sold in tablet and capsule quantities of 50 or more. Pharmaceutical blister packaging will derive growth



based on its adaptability to unit dose formats with expanded label content, high visibility, and built-in track and trace features.

The market for pharmaceutical pouches will expand at a fast pace, spurred by increasing applications in the unit dose packaging of transdermal patches, powders for reconstitution, and topical creams and ointments. Prefillable inhalers will command strong growth opportunities as the number of chronic asthma, allergy and migraine patients treated with inhalation drugs rises. Ongoing improvements in aesthetic and barrier properties will keep tubes a leading primary container for topical medication.

## Closures to remain largest packaging accessory

Pharmaceutical closures will comprise a \$3 billion US market in 2014, up 5.5 percent annually from 2009. Vial stoppers, syringe tips and plastic flip-top vial closures will command strong growth as injectable bioengineered drugs broaden emergency care and chronic disease indications. Push-and-turn child-resistant caps will remain the top closures for oral and liquid drug containers, but growth will slow as blister packs and pouches penetrate unit dose applications. Plastic dispensing closures will fare much better among drug makers based on ease of use and convenience in the delivery of liquid medicines and lotions.

## Sample Text, Table & Chart

### PRIMARY CONTAINERS

**Compartmented Packs --** Based on breadth of application, compartmented containers will continue to post the demand among pharmaceutical blister packaging in both units. Total demand for these containers is projected to increase annually to \$1.5 billion, in 2014. The packaging of oral pharmaceuticals, particularly supplements, sample, insulin, and other drugs will continue to be a major form of packaging.

**SAMPLE  
TEXT**

Compartmented packs are available in a variety of major forms. They are used widely in the packaging of over-the-counter and physicians' sample medication, controlled substances, and multiple-compartment thermoformed plastic film sealed to a backing composed of one or more materials. Each compartment is designed to hold a unit dose of medication. The primary blister pack component is usually enclosed in a secondary plastic or paperboard container, which is often overwrapped with plastic shrink film.

The second type of compartmented blister pack encloses medication in flexible strips of single bubble compartments attached end-to-end at perforated edges. The backing of each compartment is printed with the name and dosage formulation of the drug and contains a bar coding for that provides the lot number, expiration date and other security information. Except in the case of light sensitive medication, the top is usually made from clear plastic film, enabling health professionals to inspect the contents for quality prior to opening. Used primarily in the packaging of institutional medicines, flexible blister pack strips are usually folded into folding cartons containing 100 to 500 tablets or capsules.

Efforts to improve compartmented pharmaceutical blister packaging have focused on upgrading security properties. For example, the SMART BLISTER PACKAGE produced by Amcor Flexible Packaging is a security-enhanced blister pack.

100

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TABLE V-2

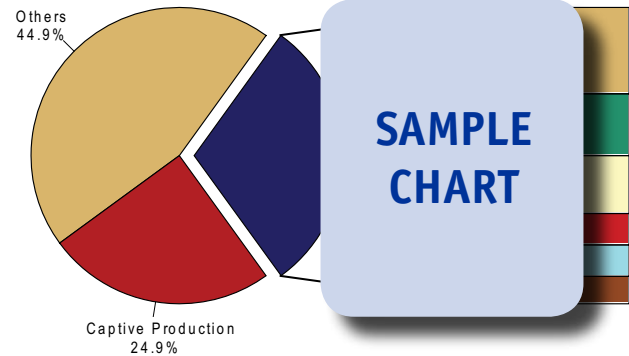
PLASTIC PHARMACEUTICAL BOTTLES  
 DEMAND BY PRODUCT GROUP  
 (million dollars)

Item	1999	2004	2009	2014	2019
Oral Pharmaceutical Shipments (bil \$)					
\$ plastic bottles/000\$ shipments					
Plastic Pharmaceutical Bottles Demand					
Ovals, Squares & Rounds					
Dispensing Bottles					
Jars					
Cans					
cents/unit					
Plastic Pharmaceutical Bottles (mil units)					
% plastic bottles					
Primary Pharm Containers (mil units) 2009					

**SAMPLE  
TABLE**

CHART VIII-1

US PHARMACEUTICAL PACKAGING MARKET SHARE BY COMPANY  
 (\$14.3 billion, 2009)

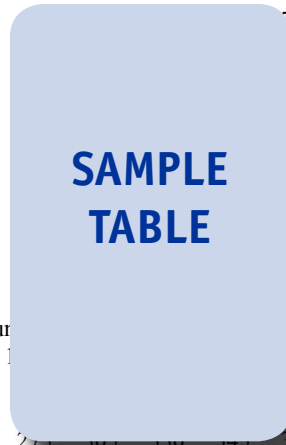


**SAMPLE  
CHART**

## Sample Profile, Table & Forecast

**TABLE VI-8**  
**PRESCRIPTION CONTAINERS DEMAND BY TYPE**  
(million dollars)

Item	1999	2004	2009	2014	2019
Secondary Pharmaceutical Containers					740
% prescription containers					1.8
Prescription Containers Demand					80
Plastic Vials					40
Blister Packs					85
Glass Vials					15
Other					40
cents/unit					1.0
Prescription Containers Demand (mil units)					70
Plastic Vials					70
Blister Packs					00
Glass Vials					45
Other	275	305	330	345	355



**COMPANY PROFILES**

**Oliver-Tolas Healthcare Packaging Incorporated**  
 445 6th Street, Northwest  
 Grand Rapids, MI 49504  
 616-456-7711  
<http://www.oliver-tolas.com>

Annual Sales:  
 Employment:

Key Products: foils, and anti-counterfeiting

**SAMPLE PROFILE**

Oliver-Tolas is active in the production of sterile-grade medical device packaging and pharmaceutical packaging. The Company is privately held.

Oliver-Tolas is active in the US pharmaceutical packaging industry through the manufacture of such products as pouches, lidding, high-barrier films and foils, and anti-counterfeiting and branding packaging. The Company was formed in December 2008, when Oliver Medical LLC (Grand Rapids, Michigan)--a sterile-grade packaging producer owned by private equity firm Mason Wells Incorporated (Milwaukee, Wisconsin)--acquired Tolas Healthcare Packaging Incorporated, also a manufacturer of sterile-grade packaging. Following the transaction, Oliver Medical merged its operations with those of Tolas Healthcare Packaging and changed its name to Oliver-Tolas Healthcare Packaging.

Oliver-Tolas produces pouches in OVANTEX, TYVEK (DuPont), foil, film and paper varieties. For example, the Company's patented OVANTEX material is a strong, breathable, synthetic fiber-based substrate with enhanced sterile barrier properties. Other representative pouch products include the Company's DISPOS-A-VENT range of film

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"Demand for (blister packs) in secondary applications is projected to increase 3.8 percent annually to 590 million units, valued at \$67 million, in 2014. Two principal trends will promote gains. First, to attract business from pharmaceutical benefit plans and consumers, an increasing number of retail and mail order pharmacies will offer blister packs as optional containers for prescription drugs. Second, ..."

--Section VI, pg. 183



**OTHER STUDIES**

**Caps & Closures**

US demand for caps and closures will rise 4% yearly through 2014. Advances will be aided by greater use of more costly dispensing and child-resistant closures, and by the ongoing popularity of single-serving containers. Plastic will remain the dominant material, while elastomer and rubber stoppers grow the fastest. This study analyzes the \$7.8 billion US cap and closure industry, with forecasts for 2014 and 2019 by raw material, product and market. It also evaluates company market share and profiles industry players.

#2688 ..... *October 2010* ..... \$4900

**Plastic Containers**

US plastic container demand will rise 4.3% yearly to 2014, driven by performance advantages over alternative packaging media. Bottles and jars will remain the dominant type, while pails and other containers grow the fastest. PET and HDPE will remain the most common resins while polypropylene leads gains. This study analyzes the 12.5 billion pound US plastic container industry, with forecasts for 2014 and 2019 by type and resin. It also evaluates company market share and profiles industry players.

#2672 ..... *August 2010* ..... \$4900

**Tube & Stick Packaging**

US tube and stick packaging demand will rise 5.1% annually through 2014. The fastest gains are expected for stick packs, driven by advantages of product differentiation, portability and material savings compared to conventional single-portion pouches. The dominant squeeze tube segment will slightly lag the overall industry. This study analyzes the \$1.4 billion tube and stick packaging industry, with forecasts for 2014 and 2019 by product type and market. It also evaluates company market share and profiles industry players.

#2631 ..... *May 2010* ..... \$4800

**Converted Flexible Packaging**

US converted flexible packaging demand will grow 3.4% yearly through 2013, supported by cost, performance and source-reduction advantages over most rigid packaging. Pouches will lead gains, including stand-up types as well as relatively newer products such as flat-bottomed, side-gusseted and stick types. This study analyzes the \$15.2 billion US converted flexible packaging industry, with forecasts for 2013 and 2018 by material, product and market. It also evaluates market share and profiles industry players.

#2558 ..... *October 2009* ..... \$4900

**Labels**

US label shipments are projected to advance 4.5% annually through 2013. The pressure sensitive segment will claim most gains, while more rapid growth will be achieved by heat-shrink and stretch-sleeve, and in-mold labels. Paper will remain the most widely used stock material, but will be outpaced by plastic. This study analyzes the \$15.4 billion US label industry, with forecasts for 2013 and 2018 by material, application method, printing technology and function. It also evaluates market share and profiles industry players.

#2536 ..... *August 2009* ..... \$4800

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