



DISPOSABLE SYRINGE MARKETS

(SAMPLE COPY, NOT FOR RESALE)

Trends, Industry Participants, Product Overviews and Market Drivers

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SAMPLE

1. Introduction

1.1 Statement of Report

The report examines the disposable syringe market. It provides detailed forecasts for the traditional and safety-engineered sharps markets. It describes the major drivers and restraints, technology trends and industry challenges for the disposable syringe market. It examines the markets for blood collection sets, hypodermic access syringes and needles, sharps-based insulin delivery devices, and other specialty syringes and needles. Additionally, the study considers the disposable syringe supplies utilized in clinics and by patients in their homes to diagnose and monitor diseases, as well as to administer medications. This analysis is intended to provide basic market data pertaining to the U.S. and worldwide market segments. Each market segment is analyzed to determine size, growth rates, sales projections and factors influencing growth in the U.S. and internationally. Unit and dollar volumes have been used to indicate market sizes.

1.2 About this Report

The study specifically focuses on market dynamics, current market drivers and emerging trends within the disposable syringe markets. Additionally, this review examines industry challenges and potential threats to syringe and needle supply manufacturers. The emphasis is on those companies actively developing and marketing products to hospitals, physicians and the public for medically related uses. The reader should consult other TriMark reports at www.trimarkpublications.com for a detailed discussion of the important individual market segments related to syringes, such as glucose testing, blood constituent analyses as used in hospital, point-of-care and doctor's office settings and diabetic markets.

1.2.1 Scope of the Report

The market segments for disposable syringes are:

- Prefilled syringes.
- Safety syringes.
- Insulin injector pens.
- Needleless injectors.
- Vaccination injectors.
- Blood collection needles and syringes.
- Hypodermic needles and syringes.
- Insulin needles and syringes.
- Specialty needles and syringes.

This analysis provides an overview of individual disposable syringe market segments, some of which possess the elements that will lead to high and sustained growth rates for the near future. The report also presents a description of the ancillary supplies marketed by major companies in each market segment. The study presents qualitative and quantitative data as well as information on key market measures and benchmarks such as:

- Market size by segment.
- Company market share.
- Product market share.
- Technology market share.
- Industry structure.
- Economic factors.
- Syringe design criteria.
- Product pricing.
- Emerging markets.
- Market projections.
- Strategic alliances.

- Proprietary technology.
- Technology factors.
- Market factors.
- Regulatory factors.

Technology areas include:

- *Auto-Disable/Single-Use Syringes*: Syringes that deactivate after one use and are especially useful for vaccinations in developing countries.
- *Blood Collection Syringes and Needles*: Winged and standard phlebotomy access devices.
- *Retractable Syringes*: In retractable syringes, the needles retract into the syringe barrel after use, so the barrel acts as the sharps container.
- *Needleless Injectors*: Injection devices that deliver the pharmaceutical through the skin without the use of a needle.
- *Autoinjector Pens*: In autoinjector pens, syringe automatically triggers to insert the needle to deliver the pharmaceutical.

This report does not cover peripheral devices such as lancing devices for patients with diabetes. Moreover, it does not discuss non-syringe devices such as breast examination kits, temperature-measuring devices, fertility control devices, condoms, gels or creams. This review, furthermore, does not cover disposable plastic supplies for the healthcare market unless the products designed specifically for use and sale in one of the designated market segments covered in this report.

A number of companies that market syringe products are primarily distributors of these products, rather than the primary developer. These companies—necessary and important to the medical products industry—are covered here to a limited degree. Concentration is placed on the disposable medical supplies market segment in important worldwide markets such as the U.S., Japan and Europe. It focuses primarily on the hospital market segment and, separately, on a description of the devices and supplies marketed by major companies in this segment for home use. Additionally, the report focuses on the vaccine segment of the disposable syringe market and its growth in developing countries.

1.2.2 Objectives

The primary objectives of this study are to:

- Identify important market drivers through a comprehensive look at various sales segments for disposable syringes.
- Obtain a complete understanding of the structure of the disposable syringe business from its basic principles to its applications.
- Discover feasible market opportunities by identifying high-growth applications in different medical areas, with a focus on the biggest and expanding markets.
- Focus on global industry developments through an in-depth analysis of the major world markets for disposable syringe supplies, including forecasts for growth.
- Define the disposable syringe market including definitions, processes and trends.
- Assess the market drivers and bottlenecks, from the perspective of the medical and commercial communities.
- Discuss the potential benefits of disposable syringes for various sectors of the medical and commercial communities.
- Establish the current total market size and future growth of the disposable syringe market, and analyze the current size and growth of individual segments.
- Provide current and forecasted market shares by company.
- Discuss profit and business opportunities by individual market segment.
- Provide strategic recommendations for near-term business opportunities.
- Assess current commercial uses of disposable syringes.

- Assess the disposable syringe business model.
- Analyze and evaluate safety syringe products, and assess the market potential for existing and probable future products.
- Analyze product designs, technologies and marketing challenges of syringe manufacturers.
- Provide detailed descriptions of segments in safety syringe market, market demographics and business strategies.
- Chart product sales data, market share and forecasts.
- Profile safety syringe companies, noting their product development activities, business strategies, and corporate alliances and affiliations

This report answers the following questions:

- What are the near term business opportunities in disposable syringes?
- What are the current and forecasted sizes of the disposable syringe market?
- What are the business models currently used by companies in disposable syringe market?
- What are the technologies used in disposable syringe supplies?
- Who holds the proprietary rights to disposable syringe technology?
- What regulatory processes must disposable syringes undergo in the U.S., Japan and Europe?
- How will technology changes in disposable syringes affect treatment and payment paradigms?
- How will litigation concerns increase physician and hospital use of disposables?
- How will technology reduce adverse growth trends and decrease total patient care cost?

1.2.3 Methodology

The author of this report has a Ph.D. with over 40 years of consulting experience. He has written over 1,000 articles and has published four books. The editor holds a Ph.D. and is a retired college professor with vast experience in biochemistry, biotechnology and pharmacology. He also has six years of experience in writing market research reports. Company-specific information is obtained mainly from industry trade publications, academic journals, news and research articles, press releases and corporate websites, as well as annual reports for publicly-held firms. Additionally, sources of information include the non-governmental organizations (NGOs) such as the World Health Organization (WHO) and governmental entities like the U.S. Department of Health and Human Services (HHS) and U.S. federal agencies such as the National Institutes of Health (NIH), the Food and Drug Administration (FDA) and the Centers for Disease Control and Prevention (CDC). Where possible and practicable, the most recent data available have been used.

Some of the statistical information was taken from Biotechnology Associates' databases and from TriMark's private data stores. The information in this study was obtained from sources that TriMark believes to be reliable, but TriMark does not guarantee the accuracy, adequacy or completeness of any information or omission or nor does TriMark guarantee the results obtained by the use of such information. Key information from the business literature was used as a basis to conduct dialogue with and obtain expert opinion from market professionals regarding commercial potential and market sizes. Senior managers from major company players were interviewed for part of the information in this report.

Primary Sources

TriMark collects information from hundreds of Database Tables and many comprehensive multi-client research projects, as well as Sector Snapshots that are published annually. TriMark extracts relevant data and analytics from TriMark's research as part of this data collection.

Secondary Sources

TriMark uses research publications, journals, magazines, newspapers, newsletters, industry reports, investment research reports, trade and industry association reports, government-affiliated trade releases and other published information as part of its secondary research materials. The information is then analyzed and translated by the

Industry Research Group into a TriMark study. The Editorial Group reviews the complete package with product and market forecasts, critical industry trends, threats and opportunities, competitive strategies and market share determinations.

TriMark Publications Report, Research and Data Acquisition Structure

The general sequence of research and analysis activity prior to the publication of every report in TriMark Publications includes the following items:

- Completing an extensive secondary research effort on an important market sector, including gathering all relevant information from corporate reporting, publicly-available data and proprietary databases.
- Formulating a study outline with the assigned writer, including important items, as follows:
 - Market and product segment grouping, and evaluating their relative significance.
 - Key competitors' evaluations, including their relative positions in the business and other relevant facts to prioritize diligence levels and assist in designing a primary research strategy.
 - End-user research to evaluate analytical significance in market estimation.
 - Supply chain research and analysis to identify any factors affecting the market.
 - New technology platforms and cutting-edge applications.
- Identifying the key technology and market trends that drive or affect these markets.
- Assessing the regional significance for each product and market segment for proper emphasis or further regional or national primary and secondary research.
- Completing a confirmatory primary research assessment of the report's findings with the assistance of expert panel partners from the industry being analyzed.

1.3 Executive Summary

The main product groups within the syringe and needle sector of this report include disposable and safety syringes, injection pens, needleless injectors, insulin pumps and specialty needles. The disposable syringe market is driven substantially by the need for the safe administration and delivery of thousands of injectables that offer quick relief for diseases than the oral medications. According to the International Association of Safe Injection Technology, about [REDACTED] syringes are manufactured and used globally every year. Most of the therapeutic injectables are administered within healthcare facilities such as acute care hospitals and long-term care centers. Other consumers of syringes include patients who self-administer prescription medication such as insulin, government agencies that sponsor harm reduction programs and non-government organizations that conduct vaccination programs.

According to our estimates, the global disposable syringe market was worth about \$ [REDACTED] in [REDACTED] with a potential to reach \$ [REDACTED] in [REDACTED]. In the U.S., approximately seven billion syringes are used annually, earning more than \$ [REDACTED] in revenue. Initially, the European market used to prefer the glass syringes to plastic syringes. However, in the recent past, plastic syringes have gained much ground. The European market is dominated by several large dominant players that are active on a global scale. These manufacturers invest large amounts of resources in product innovation and development. The overall European market for disposable syringes in 2012 was worth about \$ [REDACTED] and it is predicted to grow and reach \$ [REDACTED] in [REDACTED].

The three major segments in the global syringe market are traditional disposable syringes, safety syringes and prefilled syringes. Traditional disposable syringes continue to rule the market because of their affordable price in the developing markets. According to Revolutions Medical, about seven billion safety syringes were sold globally in [REDACTED]. Unilife Corporation estimates the volume of prefilled syringes sold in the global market in this period to be about three billion units. If these figures are analyzed together, the traditional disposable syringes constitute the largest segment with [REDACTED]% share; its growth has been on the decline in the developed markets with the regulatory compulsions and rapid adoption of safety syringes. The safety syringe market is particularly strong in the developed markets and enjoys a share of [REDACTED]% in the global disposable syringe market. Due to its ease of use, prefilled syringes have gained a market share of [REDACTED]% and the future holds great promises for the prefilled syringes.

According to Medigard, the market for safety syringes was worth about \$ [REDACTED] in [REDACTED] and syringes with sheaths, manually retractable syringes and auto-retractable syringes had a [REDACTED]%, [REDACTED]% and [REDACTED]% share respectively in

this market. In the U.S., the syringe market primarily includes four different user groups: hospitals, physician offices, long-term care facilities and retail consumers. Hospitals consume the largest volume, representing about two thirds of the market. The retail group is the second largest group representing about █% of the units sold, and includes syringes sold directly to patients and caregivers for the delivery of injectables, such as insulin, epinephrine and other drugs. In █, the U.S. market for safety hypodermic syringes alone was valued at \$█ with a potential to reach \$█ in █. Europe is rather lagging behind the U.S. in the adoption of safety syringes mainly because of the lack of legislation. There is no mandatory requirement for the use of safety syringes in Europe except the fact that most countries of the region have only issued broad guidelines for the use of safety syringes and the final decision has been left to the discretion of the purchasing agencies.

A thorough analysis of the different segments of syringe industry indicates the fact that the future belongs to prefilled syringes. The prefilled syringe industry will witness continued growth with the development of new vaccines, blood-stimulant drugs and therapeutic proteins. As more and more drug classes and therapeutic categories adopt prefilled syringes, the overall prefilled syringe market is expected to grow by █% per year. The U.S. prefilled syringe market is growing at twice the speed of the European market. The market has been showing a growth rate of █% and █% for the U.S. and Europe respectively. Currently, the U.S. and Europe are the two largest markets for prefilled syringes and both are almost equal with █% and █%, respectively, in the global prefilled market sales. Today, prefilled syringes are the preferred drug delivery devices for more than █ injectables that are supplied by about █ pharmaceutical companies. The overall market for these █ injectables has been valued at about \$█. Globally, the market value for prefilled syringes in █ was worth about \$█ and it has the potential to reach \$█ in █. In the overall prefilled syringe market, vaccines account for █%, anti-coagulants for █%, drugs for multiple sclerosis for █%, HGH for █%, drugs for obstetrics for █%, anti-inflammatory drugs for █% and anti-infectives for █%.

Nearly one billion insulin cartridges are filled each year for the global insulin pen market and almost half the cartridges are used in disposable pens and the other half in reusable pens. The rate of adoption of insulin pens has been higher in Europe than in the U.S. as U.S. healthcare facilities generally stick to the use of insulin syringes and vials. The convenience of insulin pens suits the needs of today's insulin users. The U.S. market is more robust for insulin pumps. The global insulin pen market was worth about \$█ in █ with a potential to grow and reach \$█ in █.