

Diabetes Monitoring Products & Therapies

Study # 1878

February 2005

\$4100

US market to rise 9.5% per annum through 2008

US demand for diabetes monitoring products and therapies will increase 9.5 percent annually to \$17.6 billion in 2008, benefitting from an increasing number of patients as well as trends favoring the use of aggressive management and treatment regimens. Products which provide performance advantages over competitive offerings in blood glucose monitoring, drug delivery or pharmacological actions will offer the best opportunities. Over the long-term, the industry holds vast growth potential in such new product areas as non-injectable insulin formulations; non-invasive, continuous blood glucose monitoring systems; and stem cell implants.

Strict regimens to drive monitoring, diagnostic demand

Demand for blood glucose monitoring and diabetes diagnostic products is projected to advance 8.1 percent annually to \$4.4 billion in 2008. The expansion of patient education programs and promotion of preventive medicine activities will encourage

Diabetes Monitoring Products & Therapies Demand, 2008 (\$17.6 billion)



Oral anti-diabetic agents will continue to comprise the top-selling class of diabetes management products through 2008.

Oral Anti-Diabetic Agents
55%

Monitoring & Diagnostic Products
25%

Insulin Delivery Systems
20%

more diabetic individuals to follow established guidelines for self-testing and periodic professional examinations. This trend will boost demand for blood glucose monitors, test strips and lancets in the home health care market and will broaden opportunities for continuous monitoring systems and diabetes diagnostic products in the primary health care sector.

Improved systems to boost insulin delivery segment

Spurred by the availability of improved analog formu-

lations and administration devices, demand for insulin and related delivery systems will advance at a strong pace, increasing 9.2 percent annually to \$3.5 billion in 2008. Rapid-acting formulations for post-prandial hyperglycemia management and long-acting formulations for continuous basal control will provide the best growth opportunities among insulin formulations. Among insulin delivery devices, prefilled disposable pen injectors will see the fastest gains in demand. External insulin pumps will also post strong advances due to dosing efficacy advantages.

Oral agents to remain dominant

Demand for oral anti-diabetic agents for Type 2 conditions will increase over ten percent per year to \$9.6 billion in 2008. Gains will reflect the effectiveness of thiazolidinedione oral anti-diabetic agents (TZDs) and combinations in controlling hyperglycemia and preventing long-term complications of Type 2 diabetes, such as neuropathy, peripheral vascular disease, foot ulcers and blindness. The introduction of new peptide agonists and non-TZD PPARs (peroxisome proliferator-activated receptors) for a broader range of metabolic targets (i.e., atherosclerosis, atrial hypertension, cholesterol and obesity) will also strengthen demand for oral anti-diabetic agents.

Study coverage

This 282-page Freedonia industry study, *Diabetes Monitoring Products & Therapy*, is available for \$4100. It provides historical US demand data (1993, 1998, 2003) plus forecasts to 2008 and 2013 by type and market. The study also considers market environment variables, evaluates company market share and profiles 24 major players.

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TABLE V-2
BLOOD GLUCOSE MONITORING PRODUCTS DEMAND BY TYPE
(million dollars)

Item	1993	1998	2003	2008	2013
Diabetes Conditions (000)					
\$ monitoring & diag prdts /cond					
Blood Glucose Monitoring Product					
Test Strips					
Monitors					
Testing Supplies					
% blood glucose monitoring pro					
Diabetes Monitoring & Diag Produ					

BLOOD GLUCOSE MONITORING/DIABETES DIAGNOSTIC PRODUCTS

Lancets — Demand for lancets will increase significantly, reaching \$1.5 billion, in 2008. As of 2003, the market was valued at \$1.1 billion, with a projected CAGR of 5.5% through 2008. Advances in technology coupled with greater awareness of the benefits of self testing of blood glucose levels have driven demand. However, increasing awareness of the benefits of self testing of blood glucose levels has driven demand. However, increasing awareness of the benefits of self testing of blood glucose levels has driven demand.

Devices resembling a small knife blade, used for blood glucose monitoring, these devices are based on the principle of amperometry. Generally, two different types of lancets are available to diabetic patients. The first type, which account for the largest usage and sales, consists of small metal blades designed to fit into pen-like lancing devices. The second type includes disposable, self-contained units that combine a lancet with a specially designed activation component. These configurations eliminate the need for a lancing device.

Retail prices of lancets range from approximately 4 cents each for basic, attachable types to as high as 60 cents each for disposable self-contained units. Most attachable types are sold in 100- and 200-unit quantities, while self-contained types are typically sold in 50- and 100-unit quantities. Leading producers of lancets for the US market include Becton, Dickinson; Hypoguard (Medisys plc); ITC; LifeScan (Johnson & Johnson); Owen Mumford; Roche Diagnostics; and Ulster Scientific.

Advances in point geometry technologies have led to significant improvements in the design of lancets. For example, some designs feature a very thin blade that allows for a smaller volume of blood samples.

Another example of a comfortable lancet design is a small rectangular design that allows for a smaller volume of blood samples.

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TABLE V-12
BLOOD GLUCOSE TESTING SUPPLIES DEMAND BY TYPE
(million dollars)

Item	1993	1998	2003	2008	2013
Diabetes Conditions (000)	15743	16100	16500	17000	17500
\$ testing supplies/condition	6.7	7.2	7.7	8.2	8.7
Blood Glucose Testing Supplies	106	115	125	135	145
Lancets	96	105	115	125	135
Lancing Devices	10	10	10	10	10
Biosensors	†	†	†	†	†
% testing supplies	15.1	15.1	15.1	15.1	15.1
Blood Glucose Monitoring Products	703	703	703	703	703

Explanations to support each table's numbers and projections

SAMPLE PAGE

SAMPLE TABLE

This study can help you:

- Determine your market & sales potential
- Complement your research & planning
- Learn more about industry competitors
- Assess new products & technologies
- Identify firms to merge with or acquire
- Gather data for presentations
- Confirm your own internal data
- Make better business decisions

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**TABLE VI-4
SULFONYLUREAS DEMAND**

Item	1993	1998	2003	2008	2013
Type 2 Diabetes Conditions (million prescriptions/000 conditions)					
Sulfonylureas (mil Rx) \$/prescription					
Sulfonylurea Demand (mil \$)					
% sulfonylureas					
Oral Anti-Diabetic Agents (mil \$)					

INSULIN DELIVERY SYSTEMS

Syringe & Needle Sets

Adversely affected by the increasing price of injectors, growth in the value of demand generally. Needle sets will decelerate over the next few years. Additional injection supplies is forecast to reach 10 percent annually from 2003.

Insulin syringe and needle sets consist of a syringe and a microneedle attached to a small, hollow barrel with a plunger. A plastic cover is positioned over the needle to prevent accidental piercing. Most brands are packaged in a ready-to-use format with the needle attached to the barrel. Insulin syringe and needle sets are available in a variety of barrel sizes and needle gauges. The most widely used types have capacities of 3/10, 1/2 and 1 cubic centimeter (cc).

Insulin syringe needles are coated with a special lubricant that provides for smooth skin penetration with minimum discomfort. These devices are available in five different sizes and four different gauges. Needle lengths range from 1/5 to 1/2 inch, with gauges ranging from 28 to 31. The selection of an appropriate insulin syringe and needle depends on the dosage and concentration of the insulin to be administered.

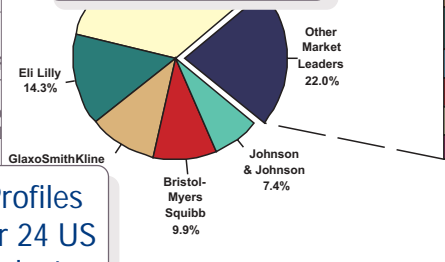
Insulin syringe and needle sets are intended for single use in the withdrawal and injection of insulin from vials. The products are sold in package quantities of 30, 50 and 100 units. Depending upon size and brand, retail prices range from \$0.10 to \$0.50 per set.

Presents historical data through 2003 plus Freedonia forecasts to 2008 and 2013

CHART IX-1

DIABETES MONITORING PRODUCTS & THERAPIES MARKET SHARE, 2003 (billion)

Data illustrated with the aid of 71 tables and charts



SAMPLE CHART

Profiles for 24 US industry players

SAMPLE PROFILE

COMPANY PROFILE

Cygnus Corporation
400 Penobscot
Redwood City,
650-369-
http://www.
Revenues
Employment
Key Products
Management

Cygnus Corporation markets non-invasive blood glucose monitoring devices for diabetics. These items are sold to physicians and patients to provide diabetics with improved opportunities for better blood glucose control. Products accounted for \$2.7 million of Cygnus' total 2003 revenues. In January 2005, Animas Corporation (West Chester, Pennsylvania) announced plans to acquire Cygnus for \$100 million. The transaction is expected to be completed in the first quarter of 2005.

Cygnus Corporation markets products and services industry through the market. The G2 BIOGRAPHER blood glucose monitoring device is a blood glucose management software. The Company's GLUCOWATCH BIOGRAPHER devices collect glucose molecules from the interstitial fluid in the skin, making them a pain-free alternative to traditional blood glucose monitoring systems. These systems use low-level electrical currents to draw up glucose molecules from interstitial fluid layers under the skin. Each device, which is worn like a wristwatch, has an AUTOSENSOR, or proprietary measuring device, that is calibrated with a standard blood glucose measurement. The AUTOSENSOR then measures glucose levels at ten-minute intervals for a period of up to 13 hours, alerting users if glucose levels are too high or too low. GLUCOWATCH G2 BIOGRAPHER blood glucose monitoring devices can store up to 8,500 blood glucose readings, and determine trends and patterns in glucose levels to facilitate meal planning and scheduling. These readings can be downloaded to a personal computer by using its ANALYZER software program.

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Company Profiles feature:

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