World Glucose Self-Testing Markets

Description: The worldwide incidence of diabetes is dramatically increasing, and it is estimated that 439 million people will have developed the disease by 2030. As such, the global market for blood glucose self-testing products is undergoing a significant transition driven by the advent of new analytical technologies and new recommendations for tight glucose control for monitoring diabetes. In addition, the proliferation of the middle class within developing nations, particularly China and India, has resulted in both a substantial rise in Type 2 diabetes and the financial means to manage the disease.

The purpose of this report is to provide a comprehensive analysis of the specific segment of the over-the-counter diagnostics sector known as the glucose self-testing market. The term "self-testing" is used to distinguish it from in vitro diagnostics testing for blood glucose in hospitals, commercial labs and doctor’s offices, the so-called "professional" component of the glucose testing market.

This study reviews the viable technology drivers and assesses the market dynamics of the glucose self-testing market worldwide. This report also looks at the industry challenges and potential threats, and it makes strategic recommendations for boosting market share. Detailed tables and charts with sales forecasts and market share data are also included.

Contents:
1. Overview
   1.1 Statement of Report
   1.2 About This Report
   1.3 Scope of the Report
   1.4 Objectives
   1.5 Methodology
   1.6 Executive Summary

2. Diabetes
   2.1 Demographics of Diabetes
   2.1.1 Worldwide Diabetes Incidence
   2.1.2 Diabetes in the U.S.
   2.2 Understanding the Metabolic Conditions Underlying and Associated with Diabetes
   2.2.1 Pre-Diabetes Syndrome
   2.2.2 Metabolic Syndrome
   2.2.3 Progression of Diabetes
   2.2.4 Diabetes and Inflammation
   2.2.5 Risk Factors and Diabetes
   2.2.5.1 Obesity
   2.2.5.2 Stress-Induced Hyperglycemia
   2.2.6 Complications and Co-Morbidities in Diabetes
   2.2.6.1 Preventing Complications and Co-Morbidities in Diabetes
   2.3 Economics of Diabetes
   2.3.1 Worldwide Costs of Diabetes
   2.3.2 Costs of Diabetes in the U.S.

3. Market Analysis: Size, Growth, Share and Competitors
   3.1 Worldwide Glucose Testing Market
   3.2 Global Glucose Self-Testing Market
   3.2.1 Continuous Glucose Monitoring Markets
   3.3 U.S. Market
   3.4 European Market
   3.5 Asian Market
   3.5.1 Japanese Market
   3.5.2 Chinese Market
   3.5.3 Indian Market
   3.5.4 Korean Market
3.5.5 Southeast Asian Market
3.5.6 ROW Markets
3.6 Competitive Situation
3.6.1 Key Players
3.6.2 Analyses of the Current Market Conditions, Competition and Product Mix
3.6.2 Abbott re-entering Continuous Glucose Monitoring Market in Europe
3.6.3 A Range of Products
3.7 Market Drivers and Restraints
3.7.1 Market Drivers
3.7.2 Market Restraints
3.8 Market and Product Trends
3.8.1 Market Trends
3.8.2 Technology Trends
3.9 Strategic Recommendations
3.10 Competitive Strategies
3.11 Adjacent Markets

4. Glucose Diagnostic and Monitoring Recommendations
4.1 Diagnosis of Diabetes Mellitus
4.2 Tight Glucose Control in Treating Diabetes
4.2.1 Tight Glucose Control Lowers Cardiovascular Complications
4.3 Recommendations for Glucose Control in Diabetic Patients
4.3.1 New Plasma Blood Sugar and HbA1c Target Recommendation for Children with Type 1 Diabetes
4.3.1 Recommended Frequency of Blood Glucose Testing
4.3.2 Using Blood Glucose Data to Monitor and Modify Patient Therapy
4.3.3 Testing in Individuals with Type 2 Diabetes
4.3.4 Continuous Glucose Monitoring (CGM)
4.3.5 A1c Testing Recommendations
4.4 Hypoglycemia and Treatment

5. Glucose Self-Testing Technology Platforms and Consumable Products
5.1 Types of Glucose Self-Testing Devices
5.2 Enzymatic Reactions Used in Glucose Self-Testing Devices
5.2.1 Glucose Oxidase (GOX)
5.2.2 Glucose Dehydrogenase (GDH)
5.2.2.1 GDH-NAD (Glucose Dehydrogenase-Nicotinamide Adenine Dinucleotide)
5.2.2.2 GDH-FAD (Glucose Dehydrogenase-Flavin Adenine Dinucleotide)
5.2.2.3 GDH-PQQ (Glucose Dehydrogenase-Pyrroloquinoline Quinone)
5.2.3 Glucose Hexokinase
5.3 Development of Blood Glucose Monitors: A Historical Evaluation
5.3.1 First-Generation Blood Glucose Biosensors
5.3.2 Second-Generation Blood Glucose Biosensors
5.3.3 Third-Generation Blood Glucose Biosensor
5.4 Accuracy and Precision in Glucose Meters
5.4.1 International Organization for Standardization (ISO) 15197:2013
5.4.2 FDA Guidelines for Blood Glucose Testing Systems
5.4.3 Determining Clinical Accuracy Using the Error Grid Analysis (EGA)
5.4.4 Quality Control Criteria
5.4.5 Potential Variables Affecting Glucose Concentrations
5.4.6 Calibration Methods
5.4.7 Common User Errors
5.5 Key Issues for Glucose Self-Testing Devices
5.5.1 Important Elements for Glucose Self-Testing
5.5.2 Key Features to Aid Specific Patient Populations
5.6 Limitations of Existing Glucose Self-Testing Products
5.7 Interfering Substances and Conditions
5.7.1 Environmental
5.7.2 Physiologic
5.7.3 Operational
5.7.4 Manufacturing Variations
5.7.5 Drugs
5.7.6 Patient Factors
5.7.6.1 Errors Associated with GDH-PQQ Technology
5.8 Potential Areas of Improvement in Blood Glucose Monitor Performance
5.8.1 Blood Glucose Reagent Test Strips
5.9 Continuous Glucose Monitoring Technology
5.9.1 Advantages of Continuous Readings
5.9.2 FDA Approval of CGM
5.9.3 CGM Functions to Consider
5.9.4 New Technologies for CGM
5.10 Summary of Technologies being Explored for Non-Invasive Glucose Monitoring
5.10.1 GlucoTrack
5.10.2 Non-Invasive Glucose Monitoring Technologies in Development
5.10.3 Goals of Non-Invasive Testing
5.10.4 Non-Invasive Diabetes Screening Test
5.11 A1c Monitoring Technology
5.11.1 PTS Diagnostics' (Chek Diagnostics') A1c Home Test
5.12 Fructosamine Test
5.13 Related Reagents and Equipment
5.13.1 Lancets
5.13.1.1 Types of Lancing Devices
5.13.1.2 Market Size
5.13.2 Control Solutions and Calibrators
5.13.3 Sharps Devices
5.13.4 Needle Destruction Devices
5.13.5 Ketone Testing
5.14 New Developments in Glucose Self-Testing Systems
5.14.1 Voice Operated Glucose Self-Testing Meters
5.14.2.1 MyGlucoHealth Wireless Meter
5.14.2.2 Fora D40, Fora Test N'Go, and Fora Test N'Go Voice Meters
5.14.2.3 OneTouch VerioSync Blood Glucose Monitoring System
5.14.2.4 Genesis Health Technologies (GHT) Meter
5.14.2.5 iHealth Wireless Smart Gluco-Monitoring System
5.14.2.6 Accu-chek Aviva Connect
5.14.3 Cellular-enabled Glucose Self-Testing Meters
5.14.3.1 Telcare BGM
5.14.3.2 Solus Mobile
5.14.3.3 Livongo Health’s In Touch
5.14.3.4 iGlucose meter
5.14.4 Glucose Self-Testing Meters with Computer Connectivity
5.14.5 Data Management
5.14.5.1 Log Sheets/Spreadsheets
5.14.5.2 Glucose Self-Testing Software
5.14.5.3 External Servers and Cloud-based Data Collection Systems
5.14.5.4 Smart Phone and iPad/iPod Touch Applications
5.14.6 Remote Patient Monitoring
5.14.6.1 Infopia Eocene System
5.14.6.2 Health Buddy Systems Monitoring Technologies
5.14.6.3 GlucoCom Glucose Monitoring System
5.14.6.4 Alere's DayLink Monitor
5.14.6.5 Alere HomeLink Receives FDA Approval for Over-the-Counter Use
5.14.6.6 iGlucose System
5.14.7 Integrated Testing: Glucose Meter, Test Strips and Lancet
5.14.8 Long-Term Glucose Sensing Bio-Implants
5.14.9 Glucose Self-Testing Meters that Wirelessly Communicate with Insulin Pumps
5.14.9.1 Medtronic's MiniMed Paradigm Revel
5.14.9.2 MiniMed 530G with Enlite
5.14.9.3 Nova Max Link
5.14.9.4 Contour Next Link
5.14.9.5 One Touch Ping
5.14.9.6 Accu-Chek Combo System

6.1 Blood Glucose Self-Testing Meters and Strips
6.1.1 LifeScan, Inc.
6.1.2 Roche Diagnostics Corporation
6.1.3 Bayer
6.1.4 Abbott (MediSense)
6.1.5 Agamatrix, Inc.
6.1.6 ARKRAY, Inc.
6.1.7 Bionime Corporation
6.1.8 BioSense Medical Devices
6.1.9 CVS/Pharmacy
6.1.10 Diabetic Supply of Suncoast
6.1.11 Entra Health Systems
6.1.12 Fifty50 Pharmacy
6.1.13 Fora Care
6.1.14 Genesis Health Technologies
6.1.15 GlucoCom
6.1.16 iHealth
6.1.17 Infopia
6.1.18 Livongo Health
6.1.19 Nipro Diagnostics, Inc.
6.1.20 Nova Biomedical
6.1.21 Oak Tree International Holdings, Inc.
6.1.22 Omnis Health
6.1.23 Phylosis
6.1.24 Prodigy Diabetes Care, LLC (an affiliate of Diagnostic Devices, Inc.)
6.1.25 Sanofi
6.1.26 Target
6.1.27 Telcare
6.1.28 Tyson Biomedical
6.1.29 US Diagnostics
6.1.30 Walgreens
6.1.31 Walmart
6.1.32 77 Elektronika Kft.
6.1.33 A. Menarini Diagnostics
6.1.34 All Medicus
6.1.35 i-SENS
6.1.36 Apex Biotechnology Corp.
6.1.37 Glucoplus, Inc.
6.1.38 Polymer Technology Systems
6.1.39 Smiths Medical MD, Inc.
6.1.40 TaiDoc Technology Corp.
6.1.41 IN4 Technology Corporation
6.1.42 ACON Laboratories
6.1.43 Pepex Biomedical
6.1.44 HMD BioMedical
6.1.45 BTNX, Inc.
6.1.46 Decision Diagnostics Corporation and Pharma Tech Solutions
6.2 Continuous Glucose Patient Monitoring Systems
6.2.1 Medtronic’s Continuous Glucose Monitoring Systems (CGMS)
6.2.1.1 MiniMed Paradigm Revel System
6.2.1.2 Guardian REAL-Time
6.2.1.3 MiniMed 530G with Enlite
6.2.1.4 iPro®2 Professional CGM
6.2.2 Dexcom, Inc.’s Continuous Glucose Monitoring Systems
6.2.2.1 Dexcom G4 Platinum Continuous Glucose Monitoring System
6.2.2.2 Dexcom G4 Platinum Continuous Glucose Monitoring System with Share
6.2.2.3 Dexcom G5 Mobile Continuous Glucose Monitoring System
6.2.3 Animas Vibe System
6.2.4 Abbott’s Continuous Glucose Monitor System
6.2.4.1 FreeStyle Libre
6.2.4.2 FreeStyle Navigator (discontinued)
6.2.5 GlucoDay S Continuous Glucose Monitor
6.2.6 Minimally-Invasive Continuous Glucose Monitors in Development
6.2.6.1 GlySens, Inc.
6.2.6.2 Senseonics (formerly Sensors for Medicine and Science)
6.2.6.3 Ultradian Diagnostics
6.3 Non-Invasive Glucose Patient Monitoring Systems in Development
6.3.1 Cygnus GlucoWatch Biographer
6.3.2 AiMedics
6.3.3 Echo Therapeutics, Inc.
6.3.4 EyeSense GmbH
6.3.5 Freedom Meditech
6.3.6 Google and Novartis
6.3.7 Integrity Applications Ltd.
6.3.8 Lein Applied Diagnostics
6.3.9 LighTouch Medical, Inc.
6.3.10 Miraculins, Inc.
6.3.11 Xhale, Inc.
6.4 A1c Self-Testing
6.4.1 A1CNow SELFCHECK
6.4.2 DTI Laboratories
6.4.3 Polymer Technology Systems’ A1C Tests
6.4.4 Walmart's ReliOn A1c Test (Mail-in)
6.5 New Product Launches
6.5.1 OneTouch VerioSync Blood Glucose Monitoring System
6.5.2 Medtronic's MiniMed 530G with Enlite Sensor Technology, the First Artificial Pancreas Device System
6.5.3 Contour Next Link Meter Approved for Use with Medtronic's New MiniMed 530G with Enlite Insulin Pump System
6.5.4 Abbott Receives CE Mark for FreeStyle Optium Neo Blood Glucose and Ketone Monitoring System
6.5.5 LabStyle Innovations' Dario Diabetes Management System
6.5.6 BlueStar by WellDoc
6.5.7 FDA Approves Bayer’s Contour Next EZ
6.5.8 Glooko Received its Second 510(k) Clearance for Glucose Monitoring Logbook App
6.5.9 Sanofi-Aventis's iBGStar
6.5.10 iHealth Glucose Meter Device
6.5.11 Nipro Diagnostics TrueMetrix Air
6.5.12 Animas Vibe System
6.5.13 Abbott's FreeStyle Libre and FreeStyle Libre Pro
6.5.14 Abbott's FreeStyle Precision Neo Blood Glucose Monitoring System
6.5.15 Dexcom G4 Platinum Continuous Glucose Monitoring System with Share
6.5.16 Medtronic's MiniMed Connect
6.5.17 Dexcom G5 Mobile CGM System
6.6 Blood Glucose Meters, CGMs, and Data Management Software in Development
6.6.1 Abbott's Flash Glucose Monitoring System
6.6.2 Google Announces Plan to Create Contact Lens Glucose Sensors
6.6.3 Socrates Health Solutions’ Companion Blood Glucose Monitor
6.6.4 Boston University's Bionic Pancreas Project
6.6.5 IGI Stat's Test to Identify Type 1 Diabetes
6.6.6 Medtronic’s Next-generation Combination Pump and CGM
6.6.7 Medtronic and IBM's Watson Health to Develop Data Management Solutions
6.6.8 Recent Industry Activity
6.6.9 Roche Diagnostics Corp. Cutting Jobs in Diabetes Division
6.6.10 AgaMatrix and Sanofi-Aventis Enter Global Diabetes Partnership
6.6.11 LifeScan, Inc. Terminates Exclusive Supply Agreement with Medtronic MiniMed
6.6.12 Medtronic and Bayer Healthcare Expand International Alliance
6.6.13 PositiveID Corporation Licenses iglucose Technology to Smart Glucose Meter Corp
6.6.14 BD and JDRF Collaborating on a Device Using a Single Infusion Catheter for Both CGM and Pump
6.6.15 Court Sides with Decision Diagnostics in Patent Infringement Case
6.6.16 Senseonics Partners with Rubin Medical to Commercialize New CGM
6.6.17 Abbott re-entering Continuous Glucose Monitoring Market in Europe with FreeStyle Libre
6.6.18 Medtronic and IBM’s Watson Health Partnering to Develop Personalized Diabetes Management Solutions
6.7 M&A Activity
6.7.1 Home Diagnostics, Inc. and Nipro Diabetes Systems, Inc. Merge to become Nipro Diagnostics, Inc.
6.7.2 Medtronic, Inc. (MDT) Acquires New Diabetes Technology from PreciSense AS
6.7.3 Geonostics Acquires FlexSite’s Consumer Diabetes Tests
6.7.4 Additional M&A
6.7.5 Important Deals in BGM Market
7. Business Trends in the Industry
  7.1 Wholesale Distribution Overview
  7.2 Factors Affecting OTC Medical Product Distribution
  7.3 Drugstores Critical to the Diabetic Care Category
  7.4 Drivers of OTC and Self-Testing Markets
    7.4.1 Brand Loyalty
  7.5 Cost Elements of Glucose Self-Testing
  7.6 Important Elements of OTC Testing
  7.7 Growth of Home Care and Self-Testing
  7.8 Blood Glucose Self-Testing Insurance Coverage and Reimbursement
    7.8.1 American OTC Testing and Self-Testing Reimbursement
    7.8.2 European Reimbursement
    7.8.3 Reimbursement Challenges
    7.8.4 New Medicare Part B
  7.9 Government Regulation of Medical Devices
    7.9.1 U.S. Regulations
    7.9.2 E.U. Regulations
    7.9.3 U.K. Regulations
  7.10 Clinical Laboratory Improvement Act (CLIA)
    7.10.1 Off-Label/Modified Use of Waived Blood Glucose Monitoring Systems
  7.11 FDA Labeling Requirements
  7.12 Legal Liability for Glucose Meters
  7.13 FDA's Artificial Pancreas Guidance Document

8. Technology Trends
  8.1 Improving Today's Over-the-Counter (OTC) Blood Glucose Meters
  8.2 Biosensor Technology
  8.3 Artificial Pancreas
  8.4 Fructosamine Test
  8.5 Teledicine
    8.5.1 Remote Patient Monitoring
      8.5.1.1 Infopia Eocene System
      8.5.1.2 Health Buddy Systems Monitoring Technologies
      8.5.1.3 GlucoCom Glucose Monitoring System
      8.5.1.4 Alere's DayLink Monitor
      8.5.1.5 Alere HomeLink Receives FDA Approval for Over-the-Counter Use
      8.5.1.6 iGlucose System
  8.6 Non-Traditional Methods for Sample Collection
  8.7 Data Management
    8.7.1 Medical Device Radiocommunications Service (MedRadio)
    8.7.2 FDA Required Software Verification

9. OTC Testing: Critical Issues
  9.1 Moderators of Growth for OTC Testing
  9.2 Attitudes of Critical Care Nurses and Physicians
  9.3 Personnel Impact for OTC Testing
  9.4 Data Management Issues

10. Current Issues for OTC and Diagnostic Self-Testing
  10.1 New Markets for OTC and Diagnostic Self-Testing
  10.2 Utility of OTC and Self-Testing
  10.3 Generational Drivers of Home Testing
  10.4 Move Away from Central Laboratories
  10.5 Healthcare Cost Controls
  10.6 Mergers of Diagnostic Companies
  10.7 Home Healthcare Trends
  10.8 Home Healthcare Providers versus Mass Market Retailers
  10.9 Demographic Merchandising
  10.10 Marketing Strategies
  10.11 Third-Party Pharmacy Networks
  10.12 Which Customer Segments Purchase Home Healthcare? Which Products Fit Their Needs?
  10.13 Future of Patient Self-Testing
11. SWOT Analysis
11.1 Roche
11.2 LifeScan

12. Company Profiles
12.1 A. Menarini Diagnostics
12.2 Abbott Laboratories
12.3 ACON Laboratories
12.4 AgaMatrix
12.5 Allmedicus Co., Ltd.
12.6 Apex Biotechnology Corporation
12.7 ARKRAY USA, Inc.
12.8 Bayer
12.9 B. Braun Melsungen
12.10 Bionime
12.11 Cambridge Sensors
12.12 Cardiocom
12.13 DexCom
12.14 Diagnostic Devices/Prodigy Diabetes Care
12.15 Echo Therapeutics, Inc.
12.16 Entra Health Systems
12.17 Fora Care
12.18 FIFTY50 Medical, Inc.
12.19 Genesis Health Technologies
12.20 GlucoPlus
12.21 GlySens, Inc.
12.22 Google
12.23 Hainice Medical
12.24 Home Diagnostics
12.25 Infopia
12.26 IN4 Technology
12.27 Integrity Applications
12.28 i-Sens
12.29 Johnson & Johnson
12.30 LabStyle Innovations Corporation
12.31 Livongo Health
12.32 Medtronic
12.33 Miraculins
12.34 Nipro Corporation
12.35 Nova Biomedical
12.36 Novartis
12.37 PTS Diagnostics
12.38 Prodigy Diabetes Care, LLC (formerly Diagnostic Devices, Inc.)
12.39 Roche
12.40 77 Elektronika Kft.
12.41 Senseonics
12.42 Smart Meter Corporation
12.43 Smiths Group
12.44 TaiDoc Technology
12.45 Telcare
12.46 US Diagnostics

List of Figures
Figure 2.1: Worldwide Diabetes Cases, 2014 and 2035
Figure 2.2: Worldwide Prevalence of Diabetes (%) in Adults (20-79 Years)
Figure 2.3: New Cases of Diabetes Diagnosed in the U.S. Adult Population by Age
Figure 2.4: Prevalence of Diabetes by Age in the U.S.
Figure 2.5: Diagnosed Diabetes by Age in the U.S.
Figure 2.6: Percentage of U.S. Adults Diagnosed Diabetes by State
Figure 2.7: Number of Deaths from Diabetes by Age in the U.S.
Figure 2.8: Number of Diabetes Deaths by Race and Sex in the U.S.
Figure 2.9: Maintenance of Normal Blood Sugar Levels
Figure 2.10: Prevalence of Self-Reported Obesity (BMI $\geq 30$) Among U.S. Adults
Figure 2.11: Prevalence of Obesity (BMI $=30$) Among Adults in the U.S.
Figure 2.12: Trends in Obesity Among Children and Adolescents in the U.S.
Figure 2.13: Age-Adjusted Percentage of People with Diabetes Aged 35 Years or Older Reporting Heart Disease or Stroke, by Sex, in the U.S.
Figure 2.14: Percentage of Adults with Diagnosed Diabetes Reporting Any Mobility Limitation, by Age, in the U.S.
Figure 2.15: Number (in Millions) of Adults Aged 18 Years or Older with Diagnosed Diabetes Reporting Visual Impairment in the U.S.
Figure 2.16: Mean Diabetes Healthcare-Related Expenditures Per Adult (20-79 Years) with Diabetes
Figure 2.17: How Diabetes Dollars are Spent in the U.S.
Figure 3.1: Geographic Segments of the Worldwide Glucose Self-Testing Market
Figure 3.2: Worldwide Glucose Self-Testing Market by Region
Figure 3.3: Worldwide Glucose Self-Testing Market Segments
Figure 4.1: Approach to Management of Hypoglycemia
Figure 4.2: Glycemic Status-Ranges and Health Implications
Figure 5.1: EGA Zones of Clinical Accuracy
Figure 5.2: Single-Day Continuous Blood Glucose Data
Figure 5.3: Factors that may Adversely Affect Glucose Testing
Figure 5.4: Personal Lancet Unit Sales Market Share by Geographic Region, 2014
Figure 6.1: Medtronic's Threshold Suspend Feature

List of Tables
Table 2.1: Regional Estimates of the Number of Diabetes (20-79 Years) in Millions
Table 2.2: Countries with the Largest Numbers of Diabetics
Table 2.3: Countries with the Largest Estimated Numbers of Diabetics
Table 2.4: Worldwide Undiagnosed Diabetes in Adults (20-79 Years) by Region and Income Group
Table 2.5: Countries with the Largest Number of Deaths Attributable to Diabetes
Table 2.6: New Cases of Diagnosed Diabetes Among U.S. Adults Aged 20 Years or Older
Table 2.7: U.S. Population of Diagnosed Diabetics Aged 20-79 Years
Table 2.8: Percentage of U.S. Adults with Diagnosed Diabetes by State
Table 2.9: Ten Leading Diagnoses for Co-Morbid Chronic Diseases in the U.S.
Table 2.10: Odds Ratio of Progression to Complications Associated with Type 2 Diabetes
Table 2.11: Prevalence of Complications Among Patients with Diabetes
Table 2.12: Major Causes of End-Stage Renal Disease
Table 2.13: Novel Risk Factors and Possible Mechanisms of the Excess Risk of Coronary Heart Disease in Type 2 Diabetes Mellitus
Table 2.14: Clinical Recommendations for Adults with Diabetes
Table 2.15: Laboratory Assessment of Diabetic Vascular Disease
Table 2.16: Average Years Gained Free of Diabetes-Related Disease with Intensive Management
Table 2.17: Cost of Diagnosed Diabetes in the U.S.
Table 2.18: Annual Cost of Care of United Healthcare Adult Members with Diabetes
Table 2.19: Healthcare Utilization by Diabetic Patients
Table 3.1: Total Global Unit Demand for Glucose Testing Reagent Strips
Table 3.2: Global Dollar Sales of Glucose Testing Reagent Strips
Table 3.3: Worldwide Glucose Self-Testing Market Sales (Meters, Strips and Lancets)
Table 3.4: World Market Share of Glucose Self-Testing Marketers
Table 3.5: Global Revenues for Continuous Glucose Monitoring Systems
Table 3.6: Market for Glucose Self-Testing in the U.S. (Includes Meters, Strips and Lancets)
Table 3.7: Market Share of U.S. Blood Glucose Self-Testing
Table 3.8: U.S. OTC Glucose Self-Testing Market Repeat Retail Replacement Sales Percentages
Table 3.9: OTC Blood Glucose Instrument Reagents by Manufacturer Retail
Table 3.10: Demographic Characteristics Glucose Self-Testing Kit Buyers
Table 3.11: Top Brand Preferences for Glucose Self-Testing Kits
Table 3.12: Instances when Patients Prefer Professional’s Glucose Testing
Table 3.13: Advantages of a Glucose Self-Testing Kit
Table 3.14: Disadvantages of Using a Glucose Self-Testing Kit
Table 3.15: Popular Shopping Destinations for Buying or Seeking Information on Glucose Self-Testing Kits
Table 3.17: European Market for Glucose Self-Testing (Includes Meters, Strips and Lancets)
Table 3.18: Asian Market for Glucose Self-Testing (Includes Meters, Strips and Lancets)
Table 3.19: Japanese Market for Glucose Self-Testing (Includes Meters, Strips and Lancets)
Table 3.20: Chinese Market for Glucose Self-Testing (Includes Meters, Strips and Lancets)
Table 3.21: Southeast Asian Market for Glucose Self-Testing (Includes Meters, Strips and Lancets)
Table 3.22: Southeast Asian Market for Glucose Self-Testing by Country (Includes Meters, Strips and Lancets)
Table 3.23: ROW Market for Glucose Self-Testing (Includes Meters, Strips and Lancets)
Table 3.24: Key Market Drivers for Glucose Self-Testing
Table 3.25: Market Drivers for Continuous Glucose Monitoring
Table 3.26: Key Market Restraints for Glucose Self-Testing
Table 3.27: Market Restraints for Continuous Glucose Monitoring
Table 4.1: Criteria for the Diagnosis of Diabetes
Table 4.2: Categories of Increased Risk for Diabetes (Pre-Diabetes)
Table 4.3: Normal Glucose Values-Fasting State
Table 4.4: Criteria for Testing for Diabetes in Asymptomatic Adults
Table 4.5: Criteria for Type 2 Diabetes in Asymptomatic Children
Table 4.6: Screening for and Diagnosis of Gestational Diabetes Mellitus (GDM)
Table 4.7: Glycemic Recommendations for Non-Pregnant Adults with Diabetes
Table 4.8: Glycemic Recommendations for Women with Gestational Diabetes
Table 4.9: Glycemic Recommendations for Pregnant Women with Pre-Existing Diabetes
Table 4.10: Plasma Blood Glucose and A1c Goals for Type 1 Diabetes by Age-group
Table 4.11: Glucose Monitoring Recommendations
Table 4.12: Key Issues for SMBG in Insulin-Independent Type 2 Diabetics
Table 4.13: A1c Testing Recommendations
Table 4.14: Correlation of A1c with Mean Blood Glucose
Table 5.1: Analytic Performance Criteria for Glucose Meters
Table 5.2: Potential Variables Affecting Glucose Concentrations
Table 5.3: Common User Errors Made while Self-Testing for Blood Glucose
Table 5.4: Key Features Considered for Glucose Self-Testing Devices
Table 5.5: Key Features Considered for Reagent Test Strips
Table 5.6: Compatibility of Various Blood Glucose Meters with Icodextrin PD Solution
Table 5.7: Ten Factors Needed to Improve the Performance of Blood Glucose Monitors
Table 5.8: Key Features Considered for Reagent Test Strips
Table 5.9: Relationship of A1c to Average Whole Blood and Plasma Glucose Levels
Table 5.10: Unit Sales of Homecare Lancets in the U.S.
Table 5.11: Unit Sales of Homecare Lancets in the E.U.
Table 5.12: Dollar Sales of Homecare Lancets in the U.S.
Table 5.13: Dollar Sales of Homecare Lancets in the E.U.
Table 5.14: Unit Sales of Homecare Glucose Self-Testing Lancets in the U.S.
Table 5.15: Unit Sales of Homecare Glucose Self-Testing Lancets in the E.U.
Table 5.16: Competition in the Lancet Market Segment
Table 5.17: Blood Ketone Reading Indications
Table 5.18: Leading Companies for Patient Monitoring Products
Table 6.1: Current Blood Glucose Self-Testing Meters: Sample Size, Test Time, and Other Features
Table 6.2: Detailed Features of Selected CGM Systems Currently Available
Table 6.3: Non-Invasive Glucose Monitoring Systems in Development
Table 7.1: Financial Comparison for Moderate and Waived CLIA Labs
Table 8.1: Data Entry and Data Management Features to Include in Future Meters
Table 8.2: Leading Companies for Patient Monitoring Products

Ordering:
Order Online - [http://www.researchandmarkets.com/reports/2067289/](http://www.researchandmarkets.com/reports/2067289/)
Order by Fax - using the form below
Order by Post - print the order form below and send to
Research and Markets,
Guinness Centre,
Taylors Lane,
Dublin 8,
Ireland.
Fax Order Form
To place an order via fax simply print this form, fill in the information below and fax the completed form to 646-607-1907 (from USA) or +353-1-481-1716 (from Rest of World). If you have any questions please visit http://www.researchandmarkets.com/contact/

Order Information
Please verify that the product information is correct and select the format(s) you require.

Product Name: World Glucose Self-Testing Markets
Web Address: http://www.researchandmarkets.com/reports/2067289/
Office Code: SCPL5TF8

Product Formats
Please select the product formats and quantity you require:

<table>
<thead>
<tr>
<th>Format</th>
<th>Quantity</th>
<th>Price</th>
</tr>
</thead>
<tbody>
<tr>
<td>Electronic (PDF) - Single User</td>
<td></td>
<td>USD 4000</td>
</tr>
<tr>
<td>Electronic (PDF) - 1 - 10 Users</td>
<td></td>
<td>USD 8000</td>
</tr>
<tr>
<td>Electronic (PDF) - Enterprisewide</td>
<td></td>
<td>USD 12000</td>
</tr>
</tbody>
</table>

Contact Information
Please enter all the information below in BLOCK CAPITALS

Title: Mr □ Mrs □ Dr □ Miss □ Ms □ Prof □
First Name: __________________________________________ Last Name: __________________________
Email Address: * ________________________________________
Job Title: __________________________
Organisation: __________________________________________
Address: ____________________________________________
City: ________________________________________________
Postal / Zip Code: _____________________________________
Country: _____________________________________________
Phone Number: _________________________________________
Fax Number: __________________________________________

* Please refrain from using free email accounts when ordering (e.g. Yahoo, Hotmail, AOL)
Payment Information

Please indicate the payment method you would like to use by selecting the appropriate box.

☐ Pay by credit card: You will receive an email with a link to a secure webpage to enter your credit card details.

☐ Pay by check: Please post the check, accompanied by this form, to:

Research and Markets,
Guinness Center,
Taylors Lane,
Dublin 8,
Ireland.

☐ Pay by wire transfer: Please transfer funds to:

<table>
<thead>
<tr>
<th>Account number</th>
<th>Sort code</th>
<th>Swift code</th>
<th>IBAN number</th>
<th>Bank Address</th>
</tr>
</thead>
<tbody>
<tr>
<td>833 130 83</td>
<td>98-53-30</td>
<td>ULSBIE2D</td>
<td>IE78ULSB98533083313083</td>
<td>Ulster Bank, 27-35 Main Street, Blackrock, Co. Dublin, Ireland.</td>
</tr>
</tbody>
</table>

If you have a Marketing Code please enter it below:

Marketing Code: _______________________

Please note that by ordering from Research and Markets you are agreeing to our Terms and Conditions at http://www.researchandmarkets.com/info/terms.asp