Prenatal Diagnostics - Global Strategic Business Report

Description: This report analyzes the worldwide markets for Prenatal Diagnostics in US$ Million. The report provides separate comprehensive analytics for the US, Canada, Japan, Europe, Asia-Pacific, Latin America, and Rest of World.

Annual estimates and forecasts are provided for the period 2015 through 2022. Also, a six-year historic analysis is provided for these markets. Market data and analytics are derived from primary and secondary research.

Company profiles are primarily based on public domain information including company URLs. The report profiles 43 companies including many key and niche players such as -

ANGLE Plc
Ariosa Diagnostics, Inc.
BGI Diagnosis Co., Ltd.
Berry Genomics Co., Ltd.
Hologic, Inc.

Contents:

I. INTRODUCTION, METHODOLOGY & PRODUCT DEFINITIONS
Study Reliability and Reporting Limitations
Disclaimers
Data Interpretation & Reporting Level
Quantitative Techniques & Analytics
Product Definitions and Scope of Study
Prenatal Testing
Prenatal Screening Tests
Prenatal Diagnostic Tests
Non-Invasive Prenatal Diagnostic Tests

II. EXECUTIVE SUMMARY

1. INDUSTRY OVERVIEW
Prenatal Testing
A Rudimentary Overview
List of Available Prenatal Screening and Diagnostic Tests by Indication
Prenatal Testing Market to Rise
The Rationale for Prenatal Genetic Testing
Chromosomal Abnormalities Lead the Prenatal Testing Space
Chromosomal Abnormalities
A Substantial Economic Burden
List of Genetic Disorders by Event, Genetic Manifestation and Prevalence
Counseling
An Imperative Measure Before and After Prenatal Testing
Role of Prenatal Testing in Managing Preterm Births
Conventional Invasive Prenatal Diagnostic Techniques
A Risky Affair
Lower Sensitivity and Specificity of Existing Tests
A Case for New Tests on the Anvil
Table 1: List of Available Prenatal Screening/ Diagnostic Tests by Accuracy
High Sensitivity Serum Tests May Not Have Many Takers
Free Fetal DNA Discovery Revolutionizes Market with Non- Invasive Prenatal Diagnostics (NIPD/NIPT)
NIPD Eliminates Risks and Uncertainty of Conventional Diagnostic Procedures
Benefits Outweigh Snags in NIPD Tests
Major Factors Influencing Penetration of NIPD Tests
Table 2: Price Comparison of Existing Tests and Screening Procedures for Down’s Syndrome
Replacing Screening Tests
A More Conceivable Change through NIPD
Diversity in NIPD Usage on the Cards

2. GROWTH DRIVERS & MARKET TRENDS
Significant Opportunities in Prenatal Testing for Down’s syndrome
List of Select Screening Tests Available for T21 Screening and Confirmation
Molecular Diagnostics Enhance Prenatal Testing
Prenatal Diagnostics: Treading Sensitive Ethical Issues
Controversy Related to “Incidental Findings” of Prenatal Tests
NGS and MPS
Enabling Shorter Time to Test Results
Microarray-Based Testing to See a Boost in Prenatal Diagnosis
Whole Genome Sequencing Technology in NIPD
A New Advancement
DNA
More Ideal Target for NIPD Analysis than Whole Cells
Sequencing in Prenatal Testing
A Potential High Growth Market
Ultrasound
An Indispensable Combination with Blood Based Screening Tests
New Sub-Targets on the Anvil for Ultrasound-Based Screening
Increasing Congenital Disorder Incidence
Key Driver for Prenatal Diagnostics
Beyond Down’s Syndrome
Need to Test Additional Targets Crucial
Trisomy 18 or Edward’s Syndrome
Trisomy 13 or Patau Syndrome
Cystic Fibrosis Screening and Diagnosis
Cystic Fibrosis Screening Market
Highly Fragmented
ACOG and ACGM Recommendations Boost Demand for Prenatal CF Testing
Prenatal Testing Crucial to Detect Risk of Huntington’s Disease
Prenatal Testing
Effective Way of Alleviating Syphilis Related Deaths and Stillbirths
Ballooning Global Female Population Offers Increased Growth Opportunities
Table 3: Percentage Share of Female Population in the Age Group (15-54) by Country: 2015
Improving Healthcare Expenditure to Drive Demand
Table 4: Per-Capita Healthcare Expenditure in Select Regions: 2014 (includes corresponding Graph/Chart)
Table 5: Healthcare Spending as a Percentage of GDP by Region: 2014 (includes corresponding Graph/Chart)
Market Restraints
Opposition to NIPD Technique
A Significant Hurdle to Adoption
Unresolved Issues Hamper Widespread Testing for Monogenetic Disease
Dearth of Genetic Counselors
A Major Hurdle for Genetic Testing

3. COMPETITIVE ENVIRONMENT
Competition Intensifies in the NIPD Market
Select Companies Marketing/Developing NIPD Tests
Sequenom
A Major Player in the Non-Invasive Test Space
Overview of Sequenom NIPD Tests
MaterniT21™ (Sequenom)
SensiGene Fetal (XY)
SensiGene Cystic Fibrosis Carrier Screening Test
SensiGene Fetal RhD
Sequenom’s Product Portfolio for Prenatal Diagnostics (As of 2016)
Patent Wars in the NIPD Space
The Changing Regulatory Paradigm of LDT
Verifi™ Becomes the First Commercial Test in the Landscape of LDTs
TrovaGene's Transrenal Technology

4. PRODUCT OVERVIEW
Prenatal Testing
Factors Considered for Recommending Prenatal Diagnostic Testing
Types of Prenatal Testing
Prenatal Screening Tests
Evolution of Screening Tests
Ultrasound
Types of Ultrasound
Ultrasound Examination Types and Use in Prenatal Screening of Fetus
Triple Screen Test
Quad Screen Test
Prenatal Diagnostic Tests
Chorionic Villus Sampling
The Procedure
Risks
Amniocentesis
The Procedure
Risks
Cordocentesis
Procedure
Risks
Overview of Current Analysis Methods for Invasive Tests
Comparison of Competitive Technologies Employed in Invasive Prenatal Diagnosis
Major Technologies Used in Analyzing Invasive Procedure- Derived Samples
Karyotyping
Fluorescence In Situ Hybridization (FISH)
Digital PCR
Entering the Realm of Fetal Aneuploidy Detection
Lower Fetal DNA Percentage Stifles Progression in Digital PCR Utility Research
Non-Invasive Prenatal Diagnostic Tests

5. PRODUCT INNOVATIONS/ LAUNCHES
CombiMatrix to Launch NGS in Pre-implantation Genetic Screening
Genetica Launches Panorama NIPT in Switzerland via Natera's Platform
Roche and Ariosa Announce Launch of Harmony Test in Australia and UK
Source BioScience Launches New NIPT Service
Sequenom Laboratories to Launch MaterniT™ GENOME Test
Ariosa Receives CE Approval for FORTE Software
Quest Diagnostics Launches QNatal Advanced NIPT Service
Berry Genomics and Illumina Receive Premarket Clearance from CFDA for NextSeq CN500 and NIPT
Ariosa Introduces Microarray DNA Quantification for Harmony NIPT
LabCorp Launches informaSeq Prenatal Test
Eastern Biotech Launches NIPD Test to Detect Trisomy

6. RECENT INDUSTRY ACTIVITY
PerkinElmer Divests Prenatal Screening Business to Eurofins Scientific
LifeCodexx AG Enters Into Technology Partnerships to Enhance NIPT Availability
PerkinElmer Completes Acquisition of Vanadis
Applied Spectral Imaging and ScreenCell Enter Into Global Partnership
Sequenom Enters Into Prenatal Diagnostic Services Agreement with United Healthcare
A*STAR’s IME and INEX Innovations Collaborate to Develop NIPT
Illumina Enters Into Collaboration with Chinese Company Annoroad
MedGenome and Natera Enter Into Product License Partnership
Roche Acquires NIPT Player Ariosa Diagnostics
BGI Europe and NIM Genetics Sign Technology Transfer Agreement
Sequenom Acquires NIPT Intellectual Property from Isis Innovation
Illumina Signs Agreements to Expand NIPT Reach in Europe
BGI Europe and Genomed Enter into Strategic Partnership
Illumina Acquires Verinata
Quest Diagnostics to Offer Access to Natera's Panorama NIPT
7. FOCUS ON SELECT GLOBAL PLAYERS
ANGLE Plc. (UK)
Ariosa Diagnostics, Inc. (US)
BGI Diagnosis Co., Ltd. (China)
Berry Genomics Co., Ltd. (China)
Hologic, Inc. (US)
Illumina, Inc. (US)
Laboratory Corporation of America® Holdings (US)
LifeCodeX AG (Germany)
Natera, Inc. (US)
Quest Diagnostics, Inc. (US)
Ravgen, Inc. (US)
Sequenom, Inc. (US)
Sequenom Center for Molecular Medicine, LLC (US)
TrovaGene, Inc. (US)

8. GLOBAL MARKET PERSPECTIVE
Table 6: World Recent Past, Current & Future Analysis for Prenatal Diagnostics by Geographic Region
US, Canada, Japan, Europe, Asia-Pacific, Latin America, and Rest of World Markets Independently Analyzed
with Annual Revenue Figures in US$ Million for Years 2015 through 2022 (includes corresponding
Graph/Chart)
Table 7: World Historic Review for Prenatal Diagnostics by Geographic Region
US, Canada, Japan, Europe, Asia-Pacific, Latin America, and Rest of World Markets Independently Analyzed
with Annual Revenue Figures in US$ Million for Years 2009 through 2014 (includes corresponding
Graph/Chart)
Table 8: World 14-Year Perspective for Prenatal Diagnostics by Geographic Region
Percentage Breakdown of Dollar Sales for US, Canada, Japan, Europe, Asia-Pacific, Latin America, and Rest of
World Markets for Years 2009, 2016 & 2022 (includes corresponding Graph/Chart)

III. MARKET

1. THE UNITED STATES
A. Market Analysis
   Current & Future Analysis
   Leading NIPT Tests
   Popularity of Screening and ACOG Guidelines Sink Invasive Prenatal Diagnosis Numbers
   Product Launches
   Strategic Corporate Developments
   Select Key Players
B. Market Analytics
   Table 9: The US Recent Past, Current & Future Analysis for Prenatal Diagnostics
   Analyzed with Annual Revenue Figures in US$ Million for Years 2015 through 2022 (includes corresponding
   Graph/Chart)
   Table 10: The US Historic Review for Prenatal Diagnostics
   Analyzed with Annual Revenue Figures in US$ Million for Years 2009 through 2014 (includes corresponding
   Graph/Chart)

2. CANADA
A. Market Analysis
   Funding Uncertainty
B. Market Analytics
   Table 11: Canadian Recent Past, Current & Future Analysis for Prenatal Diagnostics
   Analyzed with Annual Revenue Figures in US$ Million for Years 2015 through 2022 (includes corresponding
   Graph/Chart)
   Table 12: Canadian Historic Review for Prenatal Diagnostics
   Analyzed with Annual Revenue Figures in US$ Million for Years 2009 through 2014 (includes corresponding
   Graph/Chart)

3. JAPAN
Market Analysis
Table 13: Japanese Recent Past, Current & Future Analysis for Prenatal Diagnostics
   Analyzed with Annual Revenue Figures in US$ Million for Years 2015 through 2022 (includes corresponding
   Graph/Chart)
Table 14: Japanese Historic Review for Prenatal Diagnostics
Analyzed with Annual Revenue Figures in US$ Million for Years 2009 through 2014 (includes corresponding Graph/Chart)

4. EUROPE
A. Market Analysis
Current & Future Analysis
Strategic Corporate Developments
B. Market Analytics
Table 15: European Recent Past, Current & Future Analysis for Prenatal Diagnostics by Geographic Region
France, Germany, Italy, UK, Spain, Russia, and Rest of Europe Markets Independently Analyzed with Annual Revenue Figures in US$ Million for Years 2015 through 2022 (includes corresponding Graph/Chart)
Table 16: European Historic Review for Prenatal Diagnostics by Geographic Region
France, Germany, Italy, UK, Spain, Russia, and Rest of Europe Markets Independently Analyzed with Annual Revenue Figures in US$ Million for Years 2009 through 2014 (includes corresponding Graph/Chart)
Table 17: European 14-Year Perspective for Prenatal Diagnostics by Geographic Region
Percentage Breakdown of Dollar Sales for France, Germany, Italy, UK, Spain, Russia, and Rest of Europe Markets for Years 2009, 2016 & 2022 (includes corresponding Graph/Chart)

4a. FRANCE
Market Analysis
Table 18: French Recent Past, Current & Future Analysis for Prenatal Diagnostics
Analyzed with Annual Revenue Figures in US$ Million for Years 2015 through 2022 (includes corresponding Graph/Chart)
Table 19: French Historic Review for Prenatal Diagnostics
Analyzed with Annual Revenue Figures in US$ Million for Years 2009 through 2014 (includes corresponding Graph/Chart)

4b. GERMANY
A. Market Analysis
Strategic Corporate Development
Lifecodexx AG
A Key German-based Player
B. Market Analytics
Table 20: German Recent Past, Current & Future Analysis for Prenatal Diagnostics
Analyzed with Annual Revenue Figures in US$ Million for Years 2015 through 2022 (includes corresponding Graph/Chart)
Table 21: German Historic Review for Prenatal Diagnostics
Analyzed with Annual Revenue Figures in US$ Million for Years 2009 through 2014 (includes corresponding Graph/Chart)

4c. ITALY
Market Analysis
Table 22: Italian Recent Past, Current & Future Analysis for Prenatal Diagnostics
Analyzed with Annual Revenue Figures in US$ Million for Years 2015 through 2022 (includes corresponding Graph/Chart)
Table 23: Italian Historic Review for Prenatal Diagnostics
Analyzed with Annual Revenue Figures in US$ Million for Years 2009 through 2014 (includes corresponding Graph/Chart)

4d. THE UNITED KINGDOM
A. Market Analysis
Current & Future Analysis
Increasing Need for Less Risky Prenatal Diagnostic Methods in the UK
Product Launch
Angle plc
A Key Regional Player
B. Market Analytics
Table 24: The UK Recent Past, Current & Future Analysis for Prenatal Diagnostics
Analyzed with Annual Revenue Figures in US$ Million for Years 2015 through 2022 (includes corresponding Graph/Chart)
Table 25: The UK Historic Review for Prenatal Diagnostics
Analyzed with Annual Revenue Figures in US$ Million for Years 2009 through 2014 (includes corresponding
4e. SPAIN
Market Analysis
Table 26: Spanish Recent Past, Current & Future Analysis for Prenatal Diagnostics
Analyzed with Annual Revenue Figures in US$ Million for Years 2015 through 2022 (includes corresponding Graph/Chart)
Table 27: Spanish Historic Review for Prenatal Diagnostics
Analyzed with Annual Revenue Figures in US$ Million for Years 2009 through 2014 (includes corresponding Graph/Chart)

4f. RUSSIA
Market Analysis
Table 28: Russian Recent Past, Current & Future Analysis for Prenatal Diagnostics
Analyzed with Annual Revenue Figures in US$ Million for Years 2015 through 2022 (includes corresponding Graph/Chart)
Table 29: Russian Historic Review for Prenatal Diagnostics
Analyzed with Annual Revenue Figures in US$ Million for Years 2009 through 2014 (includes corresponding Graph/Chart)

4g. REST OF EUROPE
A. Market Analysis
Product Launch
Strategic Corporate Developments
B. Market Analytics
Table 30: Rest of Europe Recent Past, Current & Future Analysis for Prenatal Diagnostics
Analyzed with Annual Revenue Figures in US$ Million for Years 2015 through 2022 (includes corresponding Graph/Chart)
Table 31: Rest of Europe Historic Review for Prenatal Diagnostics
Analyzed with Annual Revenue Figures in US$ Million for Years 2009 through 2014 (includes corresponding Graph/Chart)

5. ASIA-PACIFIC
A. Market Analysis
China: NGS Assays Widely Used in Domestic NIPT Market
Australia: Need for Standardized Approach
Product Launches
Strategic Corporate Developments
Select Key Players
B. Market Analytics
Table 32: Asia-Pacific Recent Past, Current & Future Analysis for Prenatal Diagnostics by Geographic Region
China, India, and Rest of Asia-Pacific Markets Independently Analyzed with Annual Revenue Figures in US$ Million for Years 2015 through 2022 (includes corresponding Graph/Chart)
Table 33: Asia-Pacific Historic Review for Prenatal Diagnostics by Geographic Region
China, India, and Rest of Asia-Pacific Markets Independently Analyzed with Annual Revenue Figures in US$ Million for Years 2009 through 2014 (includes corresponding Graph/Chart)
Table 34: Asia-Pacific 14-Year Perspective for Prenatal Diagnostics by Geographic Region
Percentage Breakdown of Dollar Sales for China, India, and Rest of Asia-Pacific Markets for Years 2009, 2016 & 2022 (includes corresponding Graph/Chart)

5a. CHINA
Market Analysis
Table 35: Chinese Recent Past, Current & Future Analysis for Prenatal Diagnostics
Analyzed with Annual Revenue Figures in US$ Million for Years 2015 through 2022 (includes corresponding Graph/Chart)
Table 36: Chinese Historic Review for Prenatal Diagnostics
Analyzed with Annual Revenue Figures in US$ Million for Years 2009 through 2014 (includes corresponding Graph/Chart)

5b. INDIA
Market Analysis
Table 37: Indian Recent Past, Current & Future Analysis for Prenatal Diagnostics
Analyzed with Annual Revenue Figures in US$ Million for Years 2015 through 2022 (includes corresponding
Graph/Chart)
Table 38: Indian Historic Review for Prenatal Diagnostics
Analyzed with Annual Revenue Figures in US$ Million for Years 2009 through 2014 (includes corresponding
Graph/Chart)

5c. REST OF ASIA-PACIFIC
Market Analysis
Table 39: Rest of Asia-Pacific Recent Past, Current & Future Analysis for Prenatal Diagnostics
Analyzed with Annual Revenue Figures in US$ Million for Years 2015 through 2022 (includes corresponding
Graph/Chart)
Table 40: Rest of Asia-Pacific Historic Review for Prenatal Diagnostics
Analyzed with Annual Revenue Figures in US$ Million for Years 2009 through 2014 (includes corresponding
Graph/Chart)

6. LATIN AMERICA
Market Analysis
Table 41: Latin American Recent Past, Current & Future Analysis for Prenatal Diagnostics by Geographic Region
Brazil, and Rest of Latin American Markets Independently Analyzed with Annual Revenue Figures in US$ Million for Years 2015 through 2022 (includes corresponding Graph/Chart)
Table 42: Latin American Historic Review for Prenatal Diagnostics by Geographic Region
Brazil, and Rest of Latin American Markets Independently Analyzed with Annual Revenue Figures in US$ Million for Years 2009 through 2014 (includes corresponding Graph/Chart)
Table 43: Latin American 14-Year Perspective for Prenatal Diagnostics by Geographic Region
Percentage Breakdown of Dollar Sales for Brazil, and Rest of Latin American Markets for Years 2009, 2016 & 2022 (includes corresponding Graph/Chart)

6a. BRAZIL
Market Analysis
Table 44: Brazilian Recent Past, Current & Future Analysis for Prenatal Diagnostics
Analyzed with Annual Revenue Figures in US$ Million for Years 2015 through 2022 (includes corresponding
Graph/Chart)
Table 45: Brazilian Historic Review for Prenatal Diagnostics
Analyzed with Annual Revenue Figures in US$ Million for Years 2009 through 2014 (includes corresponding
Graph/Chart)

6b. REST OF LATIN AMERICA
Market Analysis
Table 46: Rest of Latin American Recent Past, Current & Future Analysis for Prenatal Diagnostics
Analyzed with Annual Revenue Figures in US$ Million for Years 2015 through 2022 (includes corresponding
Graph/Chart)
Table 47: Rest of Latin American Historic Review for Prenatal Diagnostics
Analyzed with Annual Revenue Figures in US$ Million for Years 2009 through 2014 (includes corresponding
Graph/Chart)

7. REST OF WORLD
A. Market Analysis
Product Launch
B. Market Analytics
Table 48: Rest of World Recent Past, Current & Future Analysis for Prenatal Diagnostics
Analyzed with Annual Revenue Figures in US$ Million for Years 2015 through 2022 (includes corresponding
Graph/Chart)
Table 49: Rest of World Historic Review for Prenatal Diagnostics
Analyzed with Annual Revenue Figures in US$ Million for Years 2009 through 2014 (includes corresponding
Graph/Chart)

IV. COMPETITIVE LANDSCAPE
Total Companies Profiled: 43 (including Divisions/Subsidiaries 44)
The United States (19)
Europe (17)
- France (1)
- Germany (2)
- The United Kingdom (4)
- Spain (1)
- Rest of Europe (9)
Asia-Pacific (Excluding Japan) (6)
Middle-East (2)

Ordering:

Order Online - [http://www.researchandmarkets.com/reports/2228063/](http://www.researchandmarkets.com/reports/2228063/)

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: Prenatal Diagnostics - Global Strategic Business Report
Web Address: http://www.researchandmarkets.com/reports/2228063/
Office Code: SCH3772S

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

<table>
<thead>
<tr>
<th>Quantity</th>
<th>Product Format</th>
<th>Price</th>
</tr>
</thead>
<tbody>
<tr>
<td>Single User: Electronic (PDF)</td>
<td></td>
<td>USD 4500</td>
</tr>
<tr>
<td>1 - 5 Users: Electronic (PDF)</td>
<td></td>
<td>USD 6300</td>
</tr>
<tr>
<td>1 - 10 Users: Electronic (PDF)</td>
<td></td>
<td>USD 8550</td>
</tr>
<tr>
<td>1 - 15 Users: Electronic (PDF)</td>
<td></td>
<td>USD 10800</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:
Account number 833 130 83
Sort code 98-53-30
Swift code ULSBIE2D
IBAN number IE78ULSB98533083313083
Bank Address Ulster Bank,
27-35 Main Street,
Blackrock,
Co. Dublin,
Ireland.

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

Please fax this form to:
(646) 607-1907 or (646) 964-6609 - From USA
+353-1-481-1716 or +353-1-653-1571 - From Rest of World