Executive Summary

Technological advances in the medical field, high expenditure on research and development and a robust economy provide the building blocks for the growth of the Israeli pharmaceutical market.

During the 2008–2013 period, the Israeli pharmaceutical market increased at a Compound Annual Growth Rate (CAGR) of XX%. It was worth $XX billion in 2008, and is projected to reach approximately $XX billion by 2020 at a CAGR of XX% (AESGP, 2013).

The pharmaceutical sector is the largest and most established sector of the Israeli life science industry. It has a total of XX companies, with XX% involved in drug discovery and XX% in drug delivery. Israel is one of the major markets in terms of healthcare and pharmaceuticals in the Middle East. It is also the location of the headquarters of Teva Pharmaceuticals, which is one of the largest manufacturers and exporters of generic pharmaceuticals and Active Pharmaceutical Ingredients (APIs) in the world.

R&D expenditure in the field of science and technology and medical technological advances are the distinguishing features of the Israeli pharmaceutical market. According to the US Patent and Trademark Office, Israel has the highest number of registered medical device patents per capita in the world, which includes innovations such as ingestible cameras, portable cardiac ultrasound systems, implantable visual aids for the sight-impaired, and instant CT Scanners (USPTO, 2009). Gross Domestic Product (GDP) expenditure on R&D in science in 2008 was $XX billion, and increased to an estimated $XX billion in 2013 (OECD, 2014).

Israel also ranks among the world’s leading countries in terms of number of scientists, engineers and high-tech start-ups per capita, as well as in R&D spending per capita.

The medical device market was worth approximately $XX billion in 2013, and is expected to grow to approximately $XX billion by 2020, at a CAGR of XX%. In terms of market share, the main segments in 2013 were cardiovascular with XX%, nephrology and urology devices with XX%, and vitro diagnostics with XX%. The medical care and diagnostic markets are expected to see strong growth in the future due to increasing awareness of chronic diseases.
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2 Introduction

2.1 GlobalData Report Guidance

- Report begins with an executive summary, which gives an overview of the Israel healthcare market and its key driving factors. It also gives a snapshot of the demographic, regulatory, and reimbursement landscape and healthcare infrastructure in Israel.

- Chapter three provides an overview of Israel’s pharmaceutical and medical device markets, covering market size; the market shares of generic, Over-The-Counter (OTC) and biologic/biosimilar products; and the key drivers and barriers for the overall market. It also includes profiles of the major players, as well as SWOT assessments.

- Chapter four covers the reimbursement and payer landscape, and includes details of the reimbursement process, insurance providers, pricing policies and drug price trends in Israel. It also looks at the regulatory landscape, and gives an overview of the regulatory agencies and approval processes for new drugs and medical devices. Also covered is the licensing process for the manufacture, export and import of pharmaceuticals; regulations for pharmaceutical advertising, labeling, packaging and clinical trials; and an overview of intellectual property rights.

- Chapter five provides detailed analysis of the political and economic environment in Israel, and analyses economic indicators, demographics, and healthcare infrastructure and expenditure.

- Chapter six provides an overview of the opportunities for and challenges to growth in Israel’s healthcare market.
Country Analysis

5.6.4 Healthcare Expenditure by Financing Agent

In 2013, sickness funds were the major financing contributor in healthcare expenditure. Approximately XX% of healthcare expenditure was directed from sickness funds. The share of private financial bodies was approximately XX% in total healthcare expenditure. The rest of the expenditure was financed through the government, local bodies and donations.

![Figure 78: Healthcare Expenditure, Israel, Healthcare Expenditure Financing Agent (%), 2010](image)

Source: CBS, 2013i

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<th>Share</th>
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<td>Sick funds</td>
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<td>Private hospitals and households (including all general hospitals in the economy)</td>
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<tr>
<td>Government, local authorities, the national insurance institute and national institutions</td>
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<tr>
<td>Private non-profit institutions</td>
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Source: CBS, 2013i
5.6.5 Spending in Science and Technology Research and Development

Many entities in Israel, such as the National Council for Research and Development, the Council for Higher Education; the Israel National Academy of Science; the Knesset Science and Technology Committee; the Ministerial Committee for Science and Technology; the Forum of Chief Scientists of Government Ministries; the Office of the Chief Scientist in the Ministry of Industry, Trade, and Labor; the Central Bureau of Statistics; and others, are involved in R&D activities in the field of science and technology. GDP expenditure in the field of science and technology increased at a CAGR of XX% during the 2008–2013 period.

The GDP expenditure on R&D in science in 2008 was $XX billion and increased to an estimated $XX billion in 2013 (OECD, 2014).

Source: OECD, 2014
*Estimated figure
Appendix

7 Appendix

7.1 Abbreviations

ADIN: Drinking Water Standards Revision Committee
ANDA: Abbreviated New Drug Applications
API: Active Pharmaceutical Ingredients
AWH: Abdominal Wall Health
BOI: Bank of Israel
CAGR: Compound Annual Growth Rate
CE: Conformité Européenne
CERT: Coated Extended Release Technology
CFR: Code of Federal Regulations
cGMP: current Good Manufacturing Practice
CIS: Commonwealth of Independent States
cm: centimeter
CMS: Centers for Medicare and Medicaid Services
CNS: Central Nervous System
CoE: Centers of Excellence
COPD: Chronic Obstructive Pulmonary Disease
CPI: Consumer Price Index
CPS: Counts Per Second
CRDM: Cardiac Rhythm Disease Management
CRM: Cardiac Rhythm Management
CT: Computed Tomography
CVD: Cardiovascular Disease
## Appendix

<table>
<thead>
<tr>
<th>Acronym</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>DALYs</td>
<td>Disability Disability-Adjusted Life Years</td>
</tr>
<tr>
<td>DBS</td>
<td>Deep Brain Stimulation</td>
</tr>
<tr>
<td>DEA</td>
<td>Drug Enforcement Administration</td>
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<tr>
<td>DHSS</td>
<td>Department of Health and Human Services</td>
</tr>
<tr>
<td>DTP</td>
<td>Diphtheria, Pertussis and Tetanus</td>
</tr>
<tr>
<td>EBITDA</td>
<td>Earnings Before Interest, Taxes, Depreciation, and Amortization</td>
</tr>
<tr>
<td>ED</td>
<td>Emergency Department</td>
</tr>
<tr>
<td>EHS</td>
<td>Electrical High Speed</td>
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<tr>
<td>EMA</td>
<td>European Medicines Agency</td>
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<tr>
<td>EMEA</td>
<td>Middle East and Africa</td>
</tr>
<tr>
<td>ENT</td>
<td>Ear, Nose and Throat</td>
</tr>
<tr>
<td>FDA</td>
<td>US Federal Drug Administration</td>
</tr>
<tr>
<td>FDI</td>
<td>Foreign Direct Investment</td>
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<tr>
<td>GDP</td>
<td>Gross Domestic Product</td>
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<tr>
<td>GMP</td>
<td>Good Manufacturing Practice</td>
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<tr>
<td>GNI</td>
<td>Gross National Income</td>
</tr>
<tr>
<td>gRED</td>
<td>Genentech’s Research Early Development</td>
</tr>
<tr>
<td>GSK</td>
<td>GlaxoSmithKline</td>
</tr>
<tr>
<td>HAV1</td>
<td>Hepatitis A</td>
</tr>
<tr>
<td>HBV3</td>
<td>Hepatitis B Vaccine</td>
</tr>
<tr>
<td>Hib</td>
<td>Haemophilus influenzae b</td>
</tr>
<tr>
<td>HIPAA</td>
<td>Health Insurance Portability &amp; Accountability Act</td>
</tr>
<tr>
<td>HMO</td>
<td>Health Maintenance Organizations</td>
</tr>
<tr>
<td>HTA</td>
<td>Health Technology Assessment</td>
</tr>
</tbody>
</table>
## Appendix

<table>
<thead>
<tr>
<th>Acronym</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>ICD</td>
<td>Implantable Cardioverter Defibrillator</td>
</tr>
<tr>
<td>ILS</td>
<td>Israeli New Shekel</td>
</tr>
<tr>
<td>IPC</td>
<td>Integrated Power Console</td>
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<tr>
<td>IPV4</td>
<td>Poliomyelitis Vaccine</td>
</tr>
<tr>
<td>ISCP</td>
<td>Institute for Standardization and Control of Pharmaceuticals</td>
</tr>
<tr>
<td>ISE</td>
<td>Ion Selective Electrodes</td>
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<tr>
<td>ISO</td>
<td>International Standard Organization</td>
</tr>
<tr>
<td>IVD</td>
<td>In Vitro Diagnostics</td>
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<tr>
<td>MHRA</td>
<td>Medicines and Healthcare products Regulatory Agency</td>
</tr>
<tr>
<td>mm</td>
<td>millimeter</td>
</tr>
<tr>
<td>MMR 1</td>
<td>Measles, Mumps, and Rubella Vaccine</td>
</tr>
<tr>
<td>MoH</td>
<td>Ministry of Health</td>
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<tr>
<td>MP AG</td>
<td>Molecular Partners AG</td>
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<tr>
<td>MRI</td>
<td>Magnetic Resonance Imaging</td>
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<tr>
<td>MS</td>
<td>Multiple Sclerosis</td>
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<tr>
<td>MSR</td>
<td>Center for Medical Simulation</td>
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<tr>
<td>NCE</td>
<td>New Chemical Entity</td>
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<tr>
<td>NHI</td>
<td>National Health Insurance</td>
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<tr>
<td>NII</td>
<td>National Insurance Institute</td>
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<tr>
<td>NIM</td>
<td>Nerve Integrity Monitor</td>
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<td>NOₓ</td>
<td>Nitrogen Oxides</td>
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<tr>
<td>NRC</td>
<td>National Research Council</td>
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<tr>
<td>OECD</td>
<td>Organization for Economic Co-operation and Development</td>
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<tr>
<td>OPM</td>
<td>Out Patient Market</td>
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<tr>
<td>Abbreviation</td>
<td>Full Form</td>
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<td>--------------</td>
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<tr>
<td>OTC</td>
<td>Over-The-Counter</td>
</tr>
<tr>
<td>PCR</td>
<td>Polymerase Chain Reactions</td>
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<tr>
<td>PCT</td>
<td>Patent Cooperation Treaty</td>
</tr>
<tr>
<td>PerioChip</td>
<td>Periodontal Pocket Delivery System</td>
</tr>
<tr>
<td>PIC</td>
<td>Pharmaceutical Inspection Convention</td>
</tr>
<tr>
<td>pRED</td>
<td>pharma Research and Early Development</td>
</tr>
<tr>
<td>PRTR</td>
<td>Pollutant Release and Transfer Register</td>
</tr>
<tr>
<td>PT</td>
<td>Preconcentrate Technology</td>
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<tr>
<td>QC</td>
<td>Quality Control</td>
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<tr>
<td>RITE</td>
<td>Rekah Investment in Tec</td>
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<tr>
<td>RLI</td>
<td>Roche Laboratories Inc.</td>
</tr>
<tr>
<td>RRMS</td>
<td>Relapsing Remitting Multiple Sclerosis</td>
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<tr>
<td>SDR</td>
<td>Special Drawing Rights</td>
</tr>
<tr>
<td>TB</td>
<td>Tuberculosis</td>
</tr>
<tr>
<td>TCDS</td>
<td>Time-Controlled Delivery System</td>
</tr>
<tr>
<td>TFR</td>
<td>Total Fertility Rate</td>
</tr>
<tr>
<td>UNECE</td>
<td>United Nations Economic Commission for Europe</td>
</tr>
<tr>
<td>Var</td>
<td>Varicella</td>
</tr>
<tr>
<td>VHI</td>
<td>Voluntary Health Law</td>
</tr>
<tr>
<td>WHO</td>
<td>World Health Organization</td>
</tr>
<tr>
<td>Y-o-Y</td>
<td>Year-on-Year</td>
</tr>
<tr>
<td>ZNDR</td>
<td>Zero Neutralized Delayed Release</td>
</tr>
</tbody>
</table>
Appendix

7.2 Bibliography


7.3 Research Methodology

GlobalData’s dedicated research and analysis teams consist of experienced professionals with advanced statistical expertise and marketing, market research and consulting backgrounds in the pharmaceutical industry.

GlobalData adheres to the codes of practice of the Market Research Society (www.mrs.org.uk) and Strategic and Competitive Intelligence Professionals (www.scip.org).

All GlobalData databases are continuously updated and revised. The following research methodology is followed for all databases and reports.

7.3.1 Coverage

The objective of updating GlobalData’s coverage is to ensure that it represents the most up-to-date vision of the industry possible.

Changes to the industry taxonomy are built on the basis of extensive research of company, association and competitor sources.

Company coverage is based on three key factors: revenue; products; and media attention, innovation and market potential.

The estimated revenue of all major companies, including private and governmental, are gathered and used to prioritize coverage.

Companies that are making the news or are of particular interest due to their innovative approach are prioritized.

GlobalData aims to cover all major news events and deals in the pharmaceutical industry, updated on a daily basis.

The coverage is further streamlined and strengthened with additional input from GlobalData’s expert panel (see below).
7.3.2 Secondary Research

The research process begins with extensive secondary research using internal and external sources to gather qualitative and quantitative information relating to each market.

The secondary research sources that are typically referred to include, but are not limited to:

- Company websites, annual reports, financial reports, broker reports, investor presentations and SEC filings
- Industry trade journals, scientific journals and other technical literature
- Internal proprietary databases
- Relevant patent and regulatory databases
- National government documents, statistical databases and market reports
- Procedure registries
- News articles, press releases and webcasts specific to the companies operating in the market

The CountryFocus reports are largely based on secondary research and use reliable and authoritative sources such as the IMF, the World Bank, OECD, WHO, UNICEF, UNStats, BEA, MHLW and NHS, among others.

7.3.3 Forecasts

The CountryFocus reports use the data available from the secondary sources to forecast and validate the future trends for a country's healthcare market, as well as parameters related to the economy and healthcare infrastructure and expenditure.

7.3.4 Expert Panel

GlobalData uses a panel of experts to cross-verify its databases and forecasts.

GlobalData's expert panel comprises marketing managers, product specialists, international sales managers from pharmaceutical companies, academics from research universities, consultants from venture capital funds, and distributors/suppliers of pharmaceuticals and supplies.

Historic data and forecasts are relayed to GlobalData's expert panel and adjusted in accordance with their feedback.
7.4 Disclaimer

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