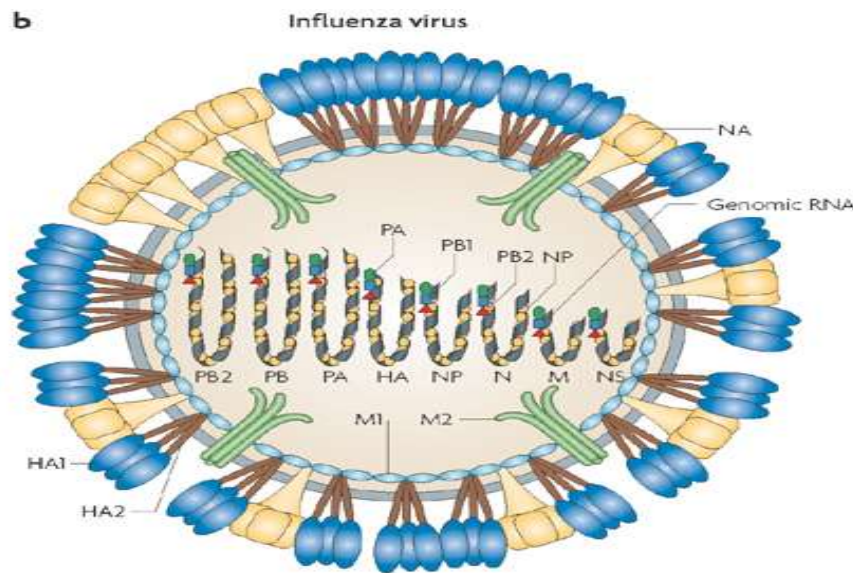
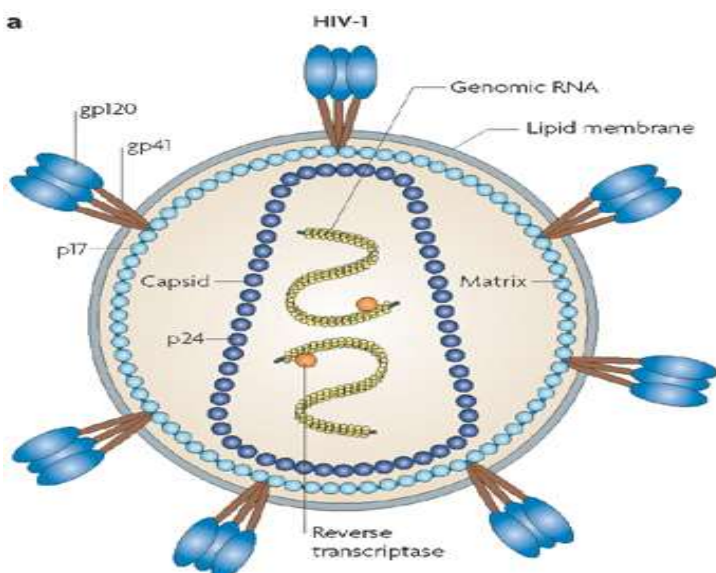


# RESEARCH REPORT



Molecular Diagnostics for Infectious Disease

By Syndrome, Plex, Place and by Country.

With Analysis, Executive Guides and Customization

2022 - 2026



Howe Sound Research is a market research and consulting company based in Vancouver, British Columbia, Canada. In our spare time we like to sail in a large body of water nearby called Howe Sound. We publish market research reports that address scientific industries with an emphasis on Biotechnology and Clinical Diagnostic markets. We consider ourselves experts in these areas.

We approach market research differently than other companies. At any one time we have a limited number of reports and we update them frequently, sometimes several times a year. Our reports are prepared by people who understand the industry and have worked and studied in the area. This contrasts with the many research mills who produce canned reports on the Handbag market one day and the XRay market the next.

Our intellectual property is encryption protected. If you have issues with this or would like to upgrade to a corporate license that is not encrypted, please contact us at the email above.

Please feel free to contact us if you have any questions. We believe in customer service and are more than willing to provide after sales assistance and custom data.

All Rights Reserved. This document contains copyrighted intellectual property. No part of it may be circulated, copied, quoted, or otherwise reproduced without the approval of Howe Sound Research.

Please respect our intellectual property and do not distribute this document beyond the terms of your license.

## Table of Contents

1	Market Guides .....	25
1.1	Strategic Situation Analysis.....	26
1.2	Guide for Executives, Marketing, Sales and Business Development Staff .....	28
1.3	Guide for Management Consultants and Investment Advisors.....	29
2	Introduction and Market Definition .....	30
2.1	What are Molecular Diagnostics? .....	31
2.2	The Diagnostics Revolution.....	32
2.3	Market Definition.....	34
2.3.1	Revenues.....	34
2.4	Methodology.....	36
2.4.1	Methodology.....	36
2.4.2	Sources .....	36
2.4.3	Authors .....	36
2.5	Perspective: Healthcare and the IVD Industry .....	38
2.5.1	Global Healthcare Spending .....	38
2.5.2	Spending on Diagnostics .....	39
2.5.3	Important Role of Insurance for Diagnostics.....	41
3	The Infectious Diseases – Market Analysis by Disease .....	42
3.1	HIV - Human Immunodeficiency Virus (AIDS) .....	43
3.1.1	Virology .....	43

3.1.1.1	Classification .....	43
3.1.1.2	Structure and genome.....	44
3.1.1.3	Tropism.....	47
3.1.1.4	Replication cycle.....	49
3.1.1.5	Genetic variability .....	55
3.1.2	Diagnosis .....	56
3.1.3	Testing.....	58
3.1.3.1	Antibody tests .....	58
3.1.3.2	Point of Care Tests (POCT) .....	61
3.1.3.3	Antigen Tests .....	64
3.1.3.4	Nucleic acid-based tests (NAT) .....	64
3.1.3.5	Other tests used in HIV treatment.....	65
3.1.4	Market Opportunity Analysis .....	66
3.2	HBV – Hepatitis B.....	71
3.2.1	Virology .....	72
3.2.1.1	Genome .....	73
3.2.1.2	Pathogenesis.....	74
3.2.1.3	Hepatitis B virus replication .....	74
3.2.1.4	Serotypes and genotypes.....	75
3.2.2	Mechanisms.....	75
3.2.3	Diagnosis .....	76
3.2.4	Market Opportunity Analysis .....	77
3.3	HCV – Hepatitis C.....	79
3.3.1	Taxonomy.....	80

3.3.2	Structure .....	81
3.3.2.1	Genome .....	81
3.3.3	Molecular biology .....	82
3.3.4	Replication.....	84
3.3.5	Genotypes .....	85
3.3.5.1	Clinical importance.....	86
3.3.6	Market Opportunity Analysis .....	86
3.4	HPV - Human papillomavirus.....	88
3.4.1	Virology .....	90
3.4.1.1	E6/E7 proteins.....	90
3.4.1.2	Role in cancer.....	90
3.4.1.3	E2 research.....	91
3.4.1.4	Latency period .....	93
3.4.1.5	Clearance .....	93
3.4.2	Diagnosis .....	93
3.4.2.1	Cervical testing.....	93
3.4.2.2	Oral testing .....	95
3.4.2.3	Testing men .....	95
3.4.2.4	Other testing .....	97
3.4.3	Market Opportunity Analysis .....	97
3.5	Influenza.....	103
3.5.1	Virology .....	105
3.5.1.1	Types of virus .....	105
3.5.1.2	Influenzavirus A .....	105

3.5.1.3	Influenzavirus B.....	106
3.5.1.4	Influenzavirus C.....	106
3.5.1.5	Structure, properties, and subtype nomenclature.....	106
3.5.1.6	Replication.....	108
3.5.2	Testing.....	110
3.5.2.1	Advantages/Disadvantages of Molecular Assays.....	112
3.5.3	Market Opportunity Analysis.....	113
3.6	CTGC - Chlamydia/Gonorhea.....	123
3.6.1	Gonorrhea.....	123
3.6.1.1	Diagnosis.....	124
3.6.1.2	Screening.....	124
3.6.2	Chlamydia.....	124
3.6.2.1	Diagnosis.....	125
3.6.2.2	Screening.....	126
3.6.3	Testing.....	127
3.6.3.1	Nucleic acid amplification tests (NAATs).....	127
3.6.3.2	Performance of NAAT Tests.....	136
3.6.4	Market Opportunity Analysis.....	137
3.7	Tuberculosis.....	139
3.7.1	Mycobacteria.....	140
3.7.2	Diagnosis.....	142
3.7.2.1	Active tuberculosis.....	142
3.7.2.2	Latent tuberculosis.....	142
3.7.3	Epidemiology.....	143

3.7.4	Molecular Diagnostic Tests .....	145
3.7.5	Market Opportunity Analysis .....	146
3.8	MRSA - Methicillin-resistant Staphylococcus aureus .....	148
3.8.1	Diagnosis .....	148
3.8.2	FDA Approved Molecular Tests .....	149
3.8.3	Market Opportunity Analysis .....	150
3.9	VRE - Vancomycin-resistant Enterococcus.....	152
3.9.1	FDA Approved MDx Tests for VRE.....	153
3.9.2	Market Opportunity Analysis .....	154
3.10	Blood Screening .....	155
3.10.1	Collection and Testing .....	155
3.10.2	FDA Approved Multiplex Assays.....	156
3.10.3	Market Opportunity Analysis .....	158
3.11	COVID-19 .....	159
3.11.1	Signs and symptoms.....	160
3.11.2	Transmission.....	162
3.11.3	Diagnosis .....	163
3.11.4	Prevention .....	165
3.11.5	Management .....	166
3.11.6	Prognosis .....	167
3.12	Pandemic Diagnostics.....	168
3.12.1	Risk Management – Spark and Spread .....	168
3.12.2	Dx Technology – Nucleic Acid Based.....	170
3.12.3	Dx Technology - Immunoassay & Serology .....	171



3.12.4	Time to Market and Preparedness Issues .....	172
3.12.5	Unrecognized Role of Multiplex in Pandemic Mangement.....	172
4	Industry Overview.....	174
4.1	Players in a Dynamic Market.....	175
4.1.1	Academic Research Lab .....	176
4.1.2	Diagnostic Test Developer.....	176
4.1.3	Instrumentation Supplier .....	176
4.1.4	Distributor and Reagent Supplier .....	177
4.1.5	Independent Testing Lab.....	177
4.1.6	Public National/regional lab .....	178
4.1.7	Hospital lab .....	178
4.1.8	Physician Office Labs .....	179
4.1.9	Audit Body .....	179
4.1.10	Certification Body.....	179
4.2	The Clinical Laboratory Market Segments .....	181
4.2.1	Traditional Market Segmentation.....	181
4.2.2	Laboratory Focus and Segmentation.....	183
4.3	Industry Structure.....	185
4.3.1	Hospital Testing Share .....	185
4.3.2	Economies of Scale.....	185
4.3.2.1	Hospital vs. Central Lab.....	186
4.3.3	Physician Office Lab's.....	187
4.3.4	Physician's and POCT .....	187
5	Profiles of Key MDx Companies .....	189

5.1	1928 Diagnostics.....	190
5.2	Abacus Diagnostica .....	191
5.3	Abbott Laboratories.....	192
5.4	Accelerate Diagnostics .....	194
5.5	Access Bio.....	195
5.6	Ador Diagnostics .....	196
5.7	ADT Biotech .....	197
5.8	Akonni Biosystems .....	198
5.9	Altona Diagnostics .....	199
5.10	Alveo Technologies.....	200
5.11	Anatolia Geneworks .....	201
5.12	Antelope Dx.....	202
5.13	Applied BioCode.....	204
5.14	Assurance Scientific Laboratories .....	206
5.15	Aureum Diagnostics .....	207
5.16	Aus Diagnostics .....	208
5.17	Beckman Coulter Diagnostics.....	209
5.18	Becton, Dickinson and Company .....	210
5.19	Binx Health .....	212
5.20	Biocartis.....	214
5.21	BioFire Diagnostics (bioMérieux) .....	215
5.22	bioMérieux Diagnostics.....	217
5.23	Bio-Rad Laboratories, Inc.....	219
5.24	Bosch Healthcare Solutions GmbH.....	221

5.25	Celemics .....	222
5.26	Cepheid (Danaher) .....	223
5.27	Chembio .....	225
5.28	Co Diagnostics .....	226
5.29	Credo Diagnostics Biomedical .....	227
5.30	Cue Health.....	228
5.31	Curetis N.V. / Curetis GmbH.....	230
5.32	Detect .....	231
5.33	Diagenode Diagnostics .....	232
5.34	Diascopic .....	233
5.35	Diasorin S.p.A. ....	234
5.36	Eiken Chemical .....	236
5.37	Enzo Biochem .....	237
5.38	Eurofins Scientific .....	239
5.39	Fluxergy .....	241
5.40	Fulgent Genetics .....	242
5.41	Fusion Genomics. ....	243
5.42	Genedrive.....	245
5.43	Genetic Signatures.....	246
5.44	GenMark Dx (Roche) .....	247
5.45	Grifols.....	249
5.46	Grip Molecular Technologies .....	250
5.47	Hibergene Diagnostics.....	251
5.48	Hologic .....	252

5.49	Illumina .....	254
5.50	Immunexpress.....	255
5.51	Inflammatix .....	256
5.52	Invetech.....	257
5.53	Janssen Diagnostics .....	258
5.54	Karius .....	259
5.55	Lexogene .....	261
5.56	LightDeck Diagnostics .....	262
5.57	Lucira Health.....	263
5.58	Luminex Corp .....	264
5.59	LumiraDx .....	266
5.60	Lumos Diagnostics.....	267
5.61	Mammoth Biosciences .....	268
5.62	Maxim Biomedical .....	269
5.63	Meridian Bioscience.....	270
5.64	Mesa Biotech (Thermo Fisher) .....	272
5.65	Millipore Sigma .....	273
5.66	Mindray .....	274
5.67	Mobidiag (Hologic).....	275
5.68	Molbio Diagnostics.....	276
5.69	Nanomix.....	277
5.70	Novacyt .....	278
5.71	Novel Microdevices .....	279
5.72	Operon.....	280

5.73	Oxford Nanopore Technologies .....	281
5.74	Panagene.....	282
5.75	Pathogenomix.....	283
5.76	Perkin Elmer.....	284
5.77	Prenetics.....	286
5.78	Primerdesign (Novacyt) .....	287
5.79	Prominex .....	288
5.80	Qiagen .....	290
5.81	QuantuMDx .....	292
5.82	Quest Diagnostics .....	293
5.83	Quidel.....	294
5.84	Randox Toxicology.....	296
5.85	Roche Molecular Diagnostics .....	297
5.86	Saw Diagnostics .....	299
5.87	SD Biosensor .....	300
5.88	Seegene.....	301
5.89	Siemens Healthineers .....	303
5.90	SomaLogic .....	305
5.91	Sona Nanotech .....	306
5.92	SpeedX.....	307
5.93	T2 Biosystems.....	308
5.94	Talis Biomedical .....	309
5.95	Thermo Fisher Scientific Inc.....	310
5.96	Veramarx .....	313

5.97	Veredus Laboratories.....	314
5.98	Vir.....	315
5.99	Vircell.....	316
5.100	Visby Medical.....	317
5.101	XCR Diagnostics.....	319
5.102	YD Diagnostics.....	320
5.103	Zhejiang Orient Gene Biotech.....	322
6	Market Trends.....	324
6.1	Factors Driving Growth.....	325
6.1.1	New Genotypes Creating New Markets.....	326
6.1.2	Aging Population a Boon for All Diagnostics.....	326
6.1.3	Developing World Driving ID Dx Growth.....	327
6.1.4	Point of Care – Why Centralization is Losing Steam.....	327
6.1.5	Self Testing.....	328
6.1.6	The Need for Speed.....	328
6.1.7	The COVID Pandemic.....	328
6.2	Factors Limiting Growth.....	329
6.2.1	Lower Costs.....	329
6.2.2	Infectious Disease is Declining.....	331
6.2.3	Wellness Hurts.....	331
6.2.4	Economic Growth improves Living Standards.....	331
6.3	Instrumentation and Automation.....	332
6.3.1	Instruments Key to Market Share.....	332
6.3.2	The Shrinking Machine.....	332

6.3.3	Multiplex, Point of Care and The Speed Factor.....	332
6.4	Diagnostic Technology Development .....	334
6.4.1	The Sepsis Testing Market – A New Direction? .....	335
6.4.2	POCT/Self Testing as a Disruptive Force .....	335
6.4.3	The Genetics Play – One Test for All Known Infections.....	336
6.4.4	Antibiotic Resistance Genes – Simplifying Diagnostics.....	336
7	Molecular Dx – Infectious Disease Recent Developments .....	337
7.1	Recent Developments – Importance and How to Use This Section .....	338
7.1.1	Importance of These Developments .....	338
7.1.2	How to Use This Section.....	338
7.2	BioMérieux Invests in Sepsis Dx Startup Weezion.....	338
7.3	Domus Diagnostics to Launch POC MDx Test System.....	339
7.4	Proof Dx Plans Infectious Disease, Oncology Tests for CRISPR-Based POC .....	342
7.5	Oxford Nanopore Diagnostics to Develop Clinical Tools .....	346
7.6	Pathogenomix Developing Infectious Disease Platform Using NGS .....	348
7.7	COVID-19 Accelerating Trend Toward Pharmacy-Based Testing.....	353
7.8	Co-Diagnostics Seeks FDA EUA for At-Home PCR Diagnostic .....	356
7.9	Sense Biodetection to Debut Instrument-Free Point-of-Care MDx.....	361
7.10	Home Test Company Prenetics to go Public .....	365
7.11	Roche to Acquire TIB Molbiol to Expand Infectious Disease Portfolio.....	366
7.12	Lucira Health Posts Revenue Growth on OTC C19 Test .....	367
7.13	BforCure Preparing Multiple Panels for Point-of-Care qPCR Platform .....	368
7.14	Talis Biomedical Discusses Point-of-Care.....	371
7.15	Roche to Acquire GenMark Diagnostics for \$1.8B .....	376

7.16	Pandemic Pushes Handheld qPCR Devices Closer to Commercialization.....	377
7.17	Hologic to Acquire Mobidiag .....	384
7.18	Lucira Health Focuses on User Friendly Approach to Home Testing .....	386
7.19	Infectious Disease Dx Firm Talis Biomedical Raises \$254M in IPO.....	391
7.20	Fluidigm Plans 'Durable' Diagnostics, Clinical Business.....	392
7.21	Thermo Fisher Scientific to Acquire Mesa Biotech for Up to \$550M .....	395
7.22	Mammoth Biosciences Developing Pathogen Detection Tech .....	396
7.23	Illumina, IDbyDNA Developing Sequencing-Based Respiratory Tests .....	400
7.24	Scanogen Developing 90 Minute Infection Test.....	404
7.25	Malaria Assays Use CRISPR for Point-of-Care Multispecies Detection .....	407
7.26	FDA Provides Self Testing SARS-CoV-2 EAU Guidance .....	411
7.27	Mammoth Biosciences Announces Rapid, CRISPR-Based COVID-19 Diagnostic ....	412
7.28	Genetic Signatures Gets CE Mark for Coronavirus Molecular Test .....	414
7.29	Qiagen Respiratory Panel with Coronavirus Receives CE Mark.....	415
7.30	Lumos Diagnostics Closes \$15M Series A Funding .....	416
7.31	Fusion Genomics to Assess NGS-Based Respiratory Tract Infection Assay .....	417
8	The Global Market for Molecular Diagnostics Infectious Disease .....	419
8.1	Global Market Overview by Country .....	420
8.1.1	Table – Global Market by Country.....	420
8.1.2	Chart - Global Market by Country .....	421
8.2	Global Market by Syndrome - Overview .....	422
8.2.1	Table – Global Market by Syndrome .....	422
8.2.2	Chart – Global Market by Syndrome – Base/Final Year Comparison .....	423
8.2.3	Chart – Global Market by Syndrome – Base Year .....	424



8.2.4	Chart – Global Market by Syndrome – End Year.....	425
8.2.5	Chart – Global Market by Syndrome – Share by Year .....	426
8.2.6	Chart – Global Market by Syndrome – Segments Growth.....	427
8.3	Global Market by Plex - Overview .....	428
8.3.1	Table – Global Market by Plex.....	428
8.3.2	Chart – Global Market by Plex – Base/Final Year Comparison .....	429
8.3.3	Chart – Global Market by Plex – Base Year.....	430
8.3.4	Chart – Global Market by Plex – End Year .....	431
8.3.5	Chart – Global Market by Plex – Share by Year.....	432
8.3.6	Chart – Global Market by Plex – Segments Growth.....	433
8.4	Global Market by Place - Overview .....	434
8.4.1	Table – Global Market by Place.....	434
8.4.2	Chart – Global Market by Place – Base/Final Year Comparison .....	435
8.4.3	Chart – Global Market by Place – Base Year.....	436
8.4.4	Chart – Global Market by Place – End Year .....	437
8.4.5	Chart – Global Market by Place – Share by Year.....	438
8.4.6	Chart – Global Market by Place – Segments Growth .....	439
9	Global MDx Infectious Disease Markets – By Syndrome .....	440
9.1	Respiratory .....	441
9.1.1	Table Respiratory – by Country .....	441
9.1.2	Chart - Respiratory Growth.....	442
9.2	Gastrointestinal.....	443
9.2.1	Table Gastrointestinal – by Country .....	443
9.2.2	Chart - Gastrointestinal Growth .....	444

9.3	Blood .....	445
9.3.1	Table Blood – by Country .....	445
9.3.2	Chart - Blood Growth.....	446
9.4	Meningitis/Encephalitis .....	447
9.4.1	Table Meningitis/Encephalitis – by Country.....	447
9.4.2	Chart - Meningitis/Encephalitis Growth .....	448
9.5	Sexually Transmitted Disease.....	449
9.5.1	Table Sexually Transmitted Disease – by Country .....	449
9.5.2	Chart – Sexually Transmitted Disease Growth.....	450
9.6	Other .....	451
9.6.1	Table Other – by Country .....	451
9.6.2	Chart - Other Growth.....	452
10	Global MDx Markets for Infectious Disease – by Plex.....	453
10.1	Single Plex .....	454
10.1.1	Table Single Plex – by Country.....	454
10.1.2	Chart - Single Plex Growth.....	455
10.2	Duplex .....	456
10.2.1	Table Duplex – by Country .....	456
10.2.2	Chart - Duplex Growth.....	457
10.3	Triplex.....	458
10.3.1	Table Triplex – by Country.....	458
10.3.2	Chart - Triplex Growth .....	459
10.4	Multiplex Technology .....	460
10.4.1	Table Multiplex – by Country .....	460

10.4.2 Chart - Multiplex Growth..... 461

11 Global MDx Infectious Disease Markets – by Place .....462

11.1 Hospital Lab ..... 463

11.1.1 Table Hospital Lab – by Country ..... 463

11.1.2 Chart - Hospital Lab Growth..... 464

11.2 Outpatient Lab..... 465

11.2.1 Table Outpatient Lab – by Country ..... 465

11.2.2 Chart - Outpatient Lab Growth ..... 466

11.3 POC ..... 467

11.3.1 Table POC – by Country ..... 467

11.3.2 Chart - POC Growth..... 468

11.4 Other Place ..... 469

11.4.1 Table Other Place– by Country ..... 469

11.4.2 Chart – Other Place Growth..... 470

12 Appendices .....471

12.1 United States Medicare System: 2022 Clinical Laboratory Fees Schedule..... 471

## Table of Tables

Table 1 Classification of HIV Species.....	44
Table 2 HIV Tests - CMS Codes & Prices .....	67
Table 3 Current HIV Molecular Tests and Instruments Used.....	68
Table 4 HBV Tests - CMS Codes & Prices .....	79
Table 5 HCV Tests - CMS Codes & Prices .....	87
Table 6 HPV Clearance Rates .....	93
Table 7 HPV Tests - CMS Codes & Prices.....	98
Table 8 HPV Tests, Technology, Types .....	99
Table 9 Types of Influenza Tests .....	111
Table 10 Influenza Tests - CMS Codes & Prices.....	114
Table 11 FDA Cleared Molecular Assays for Influenza .....	115
Table 12 FDA Cleared NAAT CTGC Tests .....	129
Table 13 CTGC NAAT Target Sequences and Possible False Reactions .....	133
Table 14 CTGC Tests - CMS Codes & Prices.....	138
Table 15 FDA Approved MDx Tests for Tuberculosis.....	145
Table 16 Tuberculosis Tests - CMS Codes & Prices.....	146
Table 17 FDA Approved Tests for MRSA .....	149
Table 18 MRSA Tests - CMS Codes & Prices .....	151
Table 19 FDA Approved Tests for VRE .....	153
Table 20 VRE Tests - CMS Codes & Prices .....	154

Table 21 FDA Approved Multiplex Assays.....	156
Table 22 Characteristics of Coronavirus Pandemic Infections .....	159
Table 23 COVID-19 Symptoms.....	161
Table 24 Market Players by Type .....	175
Table 25 Clinical Laboratory Departments and Segments .....	182
Table 26 Laboratory Management Focus – Different Approaches .....	183
Table 27 Key Segmentation Variables Going Forward.....	184
Table 28 Five Factors Driving Growth .....	325
Table 29 Four Factors Limiting Growth .....	329
Table 30 Key Diagnostic Laboratory Technology Trends .....	334
Table 31 - Global Market by Region .....	420
Table 32 Global Market by Syndrome .....	422
Table 33 Global Market by Plex.....	428
Table 34 Global Market by Place.....	434
Table 35 Respiratory by Country.....	441
Table 36 Gastrointestinal by Country .....	443
Table 37 Blood by Country.....	445
Table 38 Meningitis/Encephalitis by Country.....	447
Table 39 Sexually Transmitted Disease by Country .....	449
Table 40 Other by Country.....	451
Table 41 Single Plex by Country.....	454
Table 42 Duplex by Country .....	456
Table 43 Triplex by Country .....	458
Table 44 Multiplex by Country .....	460

Table 45 Hospital Lab by Country .....	463
Table 46 Outpatient Lab by Country .....	465
Table 47 POC by Country .....	467
Table 48 Other Place by Country .....	469
Table 49 2022 Clinical Lab Fee Schedule .....	471

## Table of Figures

Figure 1 Global Health Care Spending.....	39
Figure 2 The Lab Test Pie .....	40
Figure 3 HIV Virion .....	45
Figure 4 Diagram of the HIV Replication Cycle .....	49
Figure 5 The Structure of the HBV Virus.....	73
Figure 6 Hepatitis B Replication .....	74
Figure 7 Structure of the HCV Virus.....	81
Figure 8 HCV Replication Cycle .....	84
Figure 9 Structure of the Influenza Virion .....	107
Figure 10 Influenza Replication.....	108
Figure 11 Scanning Electronmicrograph of Tuberculosis.....	141
Figure 12 Percentage of World Population Over 65.....	327
Figure 13 Chart Infectious Disease Decline .....	330
Figure 14 Global Market Shares Chart.....	421
Figure 15 Global Market by Syndrome - Base vs. Final .....	423
Figure 16 Global Market by Syndrome Base Year .....	424
Figure 17 Global Market by Syndrome End Year .....	425
Figure 18 Syndrome Share by Year .....	426
Figure 19 Syndrome Segments Growth.....	427
Figure 20 Global Market by Plex - Base vs. Final.....	429
Figure 21 Global Market by Plex Base Year.....	430

Figure 22 Global Market by Plex End Year .....	431
Figure 23 Plex Share by Year.....	432
Figure 24 Plex Segments Growth .....	433
Figure 25 Global Market by Place - Base vs. Final.....	435
Figure 26 Global Market by Place Base Year.....	436
Figure 27 Global Market by Place End Year .....	437
Figure 28 Place Share by Year.....	438
Figure 29 Place Segments Growth .....	439
Figure 30 Respiratory Growth.....	442
Figure 31 Gastrointestinal Diagnostics Growth.....	444
Figure 32 Blood Growth.....	446
Figure 33 Meningitis/Encephalitis Growth.....	448
Figure 34 Sexually Transmitted Disease Growth .....	450
Figure 35 Other Growth.....	452
Figure 36 Single Plex Growth.....	455
Figure 37 Duplex Growth.....	457
Figure 38 Triplex Growth .....	459
Figure 39 Multiplex Growth .....	461
Figure 40 Hospital Lab Growth.....	464
Figure 41 Outpatient Lab Growth .....	466
Figure 42 POC Growth.....	468
Figure 43 Other Place Growth .....	470