

| | |
|---|------------|
| CHAPTER ONE: INTRODUCTION..... | 1 |
| STUDY GOALS AND OBJECTIVES..... | 1 |
| REASONS FOR DOING THE STUDY | 1 |
| INTENDED AUDIENCE..... | 1 |
| SCOPE OF REPORT | 2 |
| INFORMATION SOURCES..... | 2 |
| ANALYST CREDENTIALS..... | 2 |
| RELATED BCC REPORTS | 2 |
| BCC ONLINE SERVICES..... | 3 |
| DISCLAIMER | 3 |
| CHAPTER TWO: EXECUTIVE SUMMARY..... | 4 |
| <i>SUMMARY TABLE U.S. MARKET FOR ADDICTION AND SUBSTANCE ABUSE TREATMENTS AND DIAGNOSTICS, THROUGH 2013 (\$ MILLIONS)</i> | 5 |
| <i>SUMMARY FIGURE U.S. MARKET FOR ADDICTION AND SUBSTANCE ABUSE TREATMENTS AND DIAGNOSTICS, 2006- 2013 (\$ MILLIONS)</i> | 6 |
| CHAPTER THREE: INDUSTRY OVERVIEW..... | 7 |
| HISTORY OF SUBSTANCE ABUSE | 7 |
| OVERVIEW OF SUBSTANCE ABUSE..... | 8 |
| OVERVIEW OF SUBSTANCE ABUSE (CONTINUED) | 9 |
| MODELS OF ADDICTION..... | 10 |
| ADDICTION THEORIES | 11 |
| Biological Theories..... | 11 |
| Psychological Theories..... | 12 |
| Sociocultural Theories | 12 |
| PATTERNS OF SUBSTANCE ABUSE..... | 12 |
| RISK FACTORS | 13 |
| ADDICTIVE PROCESS | 13 |
| DEMOGRAPHIC TRENDS | 14 |
| <i>TABLE 1 U.S. POPULATION BY SELECTED AGE GROUPS AND BY PERCENT OF TOTAL POPULATION, 2005-2007 (MILLIONS)</i> | 14 |
| <i>FIGURE 1 U.S. POPULATION BY SELECTED AGE GROUPS, 2006- 2008 (MILLIONS)</i> | 15 |
| <i>TABLE 2 WORLDWIDE POPULATION BY SELECTED AGE GROUPS AND BY PERCENT OF TOTAL POPULATION, 2005-2007 (MILLIONS)</i> | 15 |
| <i>FIGURE 2 WORLDWIDE POPULATION BY SELECTED AGE GROUPS, 2006-2008 (MILLIONS)</i> | 16 |
| TOBACCO USE..... | 16 |

| | |
|---|----|
| <i>FIGURE 3 PAST MONTH OF TOBACCO USE AMONG PERSONS AGED 12 OR OLDER BY TYPE OF TOBACCO USE, 2005 (MILLION PEOPLE)</i> | 17 |
| Age..... | 17 |
| <i>FIGURE 4 PAST MONTH OF TOBACCO USE AMONG PERSONS AGED 12 OR OLDER, 2005 (%)</i> | 18 |
| Gender..... | 18 |
| <i>FIGURE 5 PAST MONTH OF TOBACCO USE FOR MALES AND FEMALES AGED 12 OR OLDER, 2005 (%)</i> | 19 |
| Race/Ethnicity..... | 19 |
| <i>FIGURE 6 PAST MONTH OF TOBACCO USE AMONG PERSONS AGED 12 OR OLDER BY RACE/ETHNICITY, 2005 (%)</i> | 20 |
| Education..... | 20 |
| <i>FIGURE 7 PAST MONTH OF TOBACCO USE AMONG PERSONS AGED 18 OR OLDER BY EDUCATION LEVEL, ESTIMATED, 2006 (%)</i> | 21 |
| College Students..... | 21 |
| <i>FIGURE 8 PAST MONTH OF TOBACCO USE ENROLLMENT STATUS FOR COLLEGE STUDENTS AGED 18 TO 22, ESTIMATED, 2006 (%)</i> | 22 |
| Employment..... | 22 |
| <i>FIGURE 9 PAST MONTH OF TOBACCO BY EMPLOYMENT STATUS 18 AND OLDER, ESTIMATED, 2006 (%)</i> | 23 |
| Geographic Area..... | 23 |
| <i>FIGURE 10 PAST MONTH OF TOBACCO USE BY GEOGRAPHIC REGION BASED ON POPULATION DENSITY FOR AGES 12 OR OLDER, ESTIMATED, 2006 (%)</i> | 24 |
| Association of Tobacco Use with Illicit Drug and Alcohol Use..... | 24 |
| <i>FIGURE 11 PAST MONTH ILLICIT DRUG, ALCOHOL USE AMONG SMOKERS AND NONSMOKERS AGED 12 OR OLDER, ESTIMATED 2006 (%)</i> | 25 |
| ALCOHOL USE..... | 25 |
| <i>FIGURE 12 ALCOHOL CONSUMPTION AMONG ADULTS 18 YEARS OF AGE AND OVER, BY DRINKING STATUS: UNITED STATES, 1997 AND 2006 (%)</i> | 26 |
| Alcohol Frequency..... | 26 |
| <i>FIGURE 13 PAST MONTH ALCOHOL USE AMONG PERSONS AGED 12 OR OLDER BY FREQUENCY: UNITED STATES, 2002-2005 (%)</i> | 27 |
| Age..... | 27 |
| <i>FIGURE 14 PAST MONTH ALCOHOL USE AMONG PERSONS BY AGE, 2005 (%)</i> | 28 |
| Gender..... | 29 |
| <i>FIGURE 15 PAST MONTH ALCOHOL USE FOR MALES AND FEMALES AGE 12 OR OLDER, 2005 (%)</i> | 29 |

| | |
|---|----|
| Pregnant Women | 29 |
| <i>FIGURE 16 PAST MONTH OF ALCOHOL USE FOR PREGNANT AND NONPREGNANT WOMEN AGED 15-44, ESTIMATED 2002-2007 (%)</i> | 30 |
| Race/Ethnicity..... | 30 |
| <i>FIGURE 17 PAST MONTH ALCOHOL USE AMONG PERSONS AGED 12 OR OLDER BY RACE/ETHNICITY, 2005 (%)</i> | 31 |
| Education | 31 |
| <i>FIGURE 18 PAST MONTH ALCOHOL USE AMONG PERSONS AGED 18 OR OLDER BY EDUCATION LEVEL, ESTIMATED, 2005-2006 (%)</i> | 32 |
| College Students | 32 |
| <i>FIGURE 19 PAST MONTH ALCOHOL USE ENROLLMENT STATUS FOR COLLEGE STUDENTS AGED 18-22, ESTIMATED, 2002 AND 2006 (%)</i> | 33 |
| Employment..... | 33 |
| <i>FIGURE 20 PAST MONTH ALCOHOL USE BY EMPLOYMENT STATUS 18 AND OLDER, ESTIMATED, 2005-2006 (%)</i> | 34 |
| Geographic Area | 34 |
| <i>FIGURE 21 ALCOHOL CONSUMPTION AMONG ADULTS 18 YEARS OF AGE AND OVER, BY UNITED STATES GEOGRAPHIC REGION, 1997 AND 2006 (%)</i> | 35 |
| Driving Under the Influence of Alcohol..... | 35 |
| <i>FIGURE 22 PAST YEAR FREQUENCY OF DRIVING UNDER THE INFLUENCE OF ALCOHOL, AGES 12 OR OLDER, ESTIMATED, 2005 AND 2006 (%)</i> | 36 |
| ILLICIT DRUG USE..... | 36 |
| <i>FIGURE 23 PAST MONTH ILLICIT DRUG USE AMONG PERSONS AGED 12 OR OLDER BY TYPE OF DRUG: UNITED STATES, 2002- 2005 (%)</i> | 37 |
| <i>FIGURE 23 (CONTINUED)</i> | 38 |
| Age..... | 38 |
| <i>FIGURE 24 PAST MONTH ILLICIT DRUG USE BY AGE, 2005 (%)</i> | 39 |
| Gender..... | 39 |
| <i>FIGURE 25 PAST MONTH ILLICIT DRUG USE FOR MALES AND FEMALES AGED 12 OR OLDER, 2005 (%)</i> | 40 |
| Pregnant Women | 40 |
| <i>FIGURE 26 PAST MONTH ILLICIT DRUG USE FOR PREGNANT AND NONPREGNANT WOMEN AGED 15-44, ESTIMATED, 2005-2006 (%)</i> | 41 |
| Race/Ethnicity..... | 41 |
| <i>FIGURE 27 PAST MONTH ILLICIT DRUG USE AMONG PERSONS AGED 12 OR OLDER BY RACE/ETHNICITY, ESTIMATED, 2005</i> | 42 |
| Education | 42 |
| <i>FIGURE 28 PAST MONTH ILLICIT DRUG USE AMONG PERSONS AGED 18 OR OLDER BY EDUCATION LEVEL, ESTIMATED, 2005- 2006</i> | 43 |

| | |
|--|----|
| College Students | 43 |
| <i>FIGURE 29 PAST MONTH ILLICIT DRUG USE BY ENROLLMENT STATUS FOR COLLEGE STUDENTS AGED 18-22, ESTIMATED, 2005-2006 (%)</i> | 44 |
| Employment | 44 |
| <i>FIGURE 30 PAST MONTH ILLICIT DRUG USE BY EMPLOYMENT STATUS 18 AND OLDER, ESTIMATED, 2005-2006 (%)</i> | 45 |
| Geographic Area | 45 |
| <i>FIGURE 31 PAST MONTH ILLICIT DRUG USE FOR GEOGRAPHIC REGION BASED ON POPULATION DENSITY AGES 12 OR OLDER, ESTIMATED, 2005-2006 (%)</i> | 46 |
| Criminal Justice Populations | 46 |
| <i>FIGURE 32 PAST YEAR ILLICIT DRUG USE BY PAROLE AND PROBATION STATUS AGED 18 OR OLDER, ESTIMATED, 2005-2006 (%)</i> | 47 |
| Frequency of Use | 47 |
| Association with Cigarette and Alcohol Use | 47 |
| <i>FIGURE 33 PAST MONTH ALCOHOL AND TOBACCO USE AMONG ILLICIT DRUG USERS AND NON ILLICIT DRUG USERS AGED 12 OR OLDER, ESTIMATED, 2005-2006</i> | 48 |
| Driving Under the Influence of Illicit Drugs | 48 |
| <i>FIGURE 34 PAST YEAR FREQUENCY OF DRIVING UNDER THE INFLUENCE OF ILLICIT DRUGS, AGES 12 OR OLDER, ESTIMATED, 2005-2006 (MILLIONS)</i> | 49 |
| ADDICTION TREATMENT COSTS SHIFTING | 49 |
| MANAGED CARE IMPACT | 50 |
| PARITY LAW | 51 |
| REIMBURSEMENT ISSUES | 51 |
| <i>TABLE 3 FACILITY PAYMENT OPTIONS, BY FACILITY OPERATION AND PRIMARY FOCUS OF FACILITY, MARCH 31, 2006 (PERCENT DISTRIBUTION)</i> | 52 |
| <i>TABLE 4 FACILITY PAYMENT OPTIONS, BY FACILITY OPERATION AND PRIMARY FOCUS OF FACILITY: MARCH 31, 2006 (PERCENT DISTRIBUTION)</i> | 53 |
| ECONOMIC COSTS OF SUBSTANCE ABUSE | 53 |
| <i>TABLE 5 COMPARISON OF COSTS OF MAJOR HEALTH PROBLEMS IN U.S. (\$ BILLIONS)</i> | 54 |
| <i>TABLE 6 ECONOMIC COSTS TO SOCIETY OF DRUG ABUSE 1992-2002 (\$ MILLIONS)</i> | 55 |
| STUMBLING BLOCKS TO DRUG ABUSE TREATMENT | 56 |
| NEW AVENUES FOR TREATMENT OF SUBSTANCE ABUSE | 56 |
| <i>TABLE 7 TOTAL ADMISSIONS TO TREATMENT FACILITIES BY PRIMARY SUBSTANCE AND STATE—ALCOHOL, COCAINE, MARIJUANA AND HEROIN</i> | 57 |

| | |
|--|----|
| TABLE 7 (CONTINUED)..... | 58 |
| TABLE 8 TOTAL ADMISSIONS TO TREATMENT FACILITIES BY PRIMARY SUBSTANCE AND STATE—OTHER OPIATES, PCPS, HALUCINOGENS, AMPHETAMINES, OTHER STIMULANTS, AND TRANQUILIZERS..... | 59 |
| TABLE 8 (CONTINUED)..... | 60 |
| TABLE 9 TOTAL ADMISSIONS TO TREATMENT FACILITIES BY PRIMARY SUBSTANCE AND STATE—SEDATIVES, INHALANTS, AND OTHER..... | 60 |
| TABLE 9 (CONTINUED)..... | 61 |
| TABLE 10 USE OF SUBSTANCES BY AMONG PERSONS AGED 50 OR OLDER, ESTIMATED 1999 AND PROJECTED 2020 BY GENDER, RACE, AND AGE GROUP, 1999..... | 62 |
| TABLE 11 USE OF SUBSTANCES BY PERSONS AGED 50 OR OLDER, BY GENDER, RACE, AND AGE GROUP, 2020 | 63 |
| REGULATORY ISSUES..... | 64 |
| EFFECTS OF POLY DRUG ABUSE..... | 64 |
| POLYDRUG USE BY AGE..... | 64 |
| TABLE 12 ADMISSIONS REPORTING POLYDRUG ABUSE, BY AGE GROUP, 2002..... | 65 |
| PRIMARY AND SECONDARY USE..... | 65 |
| THE UNINSURED | 65 |
| TABLE 13 TOP 10 PRINCIPAL DIAGNOSES IN U.S. HOSPITALS WHICH HAVE UNINSURED RATES, 2002..... | 66 |
| TREATMENT FACILITIES AND PROGRAMS..... | 66 |
| OWNERSHIP OF SUBSTANCE ABUSE FACILITIES..... | 67 |
| TABLE 14 FACILITY OPERATION: NUMBER AND PERCENT DISTRIBUTION, 2002-2006..... | 68 |
| TREATMENT COSTS..... | 68 |
| TABLE 15 ESTIMATED TOTAL COSTS FOR SUBSTANCE ABUSE TREATMENT AND COST PER ADMISSION, BY TYPE OF CARE: 1997 (INFLATED TO 2002 COST LEVELS)..... | 69 |
| RESIDENTIAL REHABILITATION PATTERNS..... | 69 |
| Culture | 69 |
| Antabuse | 70 |
| Basic Methods..... | 70 |
| SELF-HELP GROUPS..... | 71 |
| TABLE 16 PERCENT DISTRIBUTION OF PERSONS AGED 12 OR OLDER WHO ATTENDED A “SELF-HELP” GROUP IN THE PAST YEAR BECAUSE OF THEIR ALCOHOL OR ILLICIT DRUG USE AND OF TOTAL POPULATION AGED 12 & OLDER, BY SOCIODEMOGRAPHIC CHARACTERISTICS: 2006 AND 2007 | 71 |
| TABLE 16 (CONTINUED)..... | 72 |

FIGURE 35 PERCENTAGES OF PAST YEAR SELF-HELP GROUP ATTENDEES AGED 12 OR OLDER, BY SUBSTANCE(S) FOR WHICH THEY ATTENDED A “SELF-HELP” GROUP, 2006 AND 2007

| | |
|--|----|
| <i>(%)</i> | 72 |
| <i>FIGURE 35 (CONTINUED)</i> | 73 |
| NATIONAL PROGRAMS FOR SUBSTANCE ABUSE | 73 |
| BARRIERS TO MARKET ENTRY | 74 |
| NONACCEPTANCE OF MEDICAL MODELS OF ADDICTION | 75 |
| CHAPTER FOUR: PHARMACEUTICAL PRODUCTS..... | 76 |
| STIMULANTS..... | 76 |
| NICOTINE..... | 76 |
| Characteristics..... | 76 |
| Effects of Use | 77 |
| Complications | 77 |
| Therapeutic Management | 78 |
| <i>TABLE 17 SMOKING CESSATION PRODUCTS</i> | 78 |
| Therapeutic Management (Continued)..... | 79 |
| AMPHETAMINES | 80 |
| Characteristics..... | 80 |
| Effects of Use | 81 |
| Complications | 81 |
| Therapeutic Management | 82 |
| <i>TABLE 18 AMPHETAMINE ABUSE TREATMENTS</i> | 82 |
| COCAINE AND CRACK..... | 82 |
| Characteristics..... | 82 |
| Effects of Use | 83 |
| Complications | 83 |
| Therapeutic Management | 84 |
| <i>TABLE 19 COCAINE ABUSE TREATMENTS</i> | 85 |
| OTHER STIMULANTS | 85 |
| DEPRESSANTS..... | 86 |
| SEDATIVES-HYPNOTICS..... | 87 |
| Characteristics..... | 87 |
| Effects of Use | 87 |
| Complications | 88 |
| Therapeutic Management | 88 |
| ALCOHOL | 88 |
| Characteristics..... | 88 |
| Effects of Use | 89 |
| Complications | 89 |
| Complications (Continued)..... | 90 |
| Therapeutic Management | 91 |
| <i>TABLE 20 ALCOHOL ABUSE TREATMENTS</i> | 92 |
| OPIATES | 92 |

| | |
|---|------------|
| Characteristics..... | 92 |
| Effects of Use | 93 |
| Complications | 94 |
| Therapeutic Management | 94 |
| Methadone..... | 95 |
| Other Products | 95 |
| Other Products (Continued) | 96 |
| <i>TABLE 21 OPIATE ABUSE TREATMENTS.....</i> | <i>97</i> |
| HALLUCINOGENS..... | 97 |
| CANNABIS..... | 98 |
| Characteristics..... | 98 |
| Effects of Use | 98 |
| Complications | 99 |
| Therapeutic Management | 99 |
| LYSERGIC ACID DIETHYLAMIDE, DIMETHYLTRYPTAMINE, MESCALINE, AND RELATED SUBSTANCES | 99 |
| Characteristics..... | 99 |
| Characteristics (Continued) | 100 |
| Effects of Use | 101 |
| Therapeutic Management | 102 |
| OTHER HALLUCINOGENS | 102 |
| INHALANTS AND OTHER DRUGS OF ABUSE | 103 |
| Gases, Solvents and Nitrites..... | 103 |
| Gases, Solvents ... (Continued) | 104 |
| Anabolic Steroids | 105 |
| DIAGNOSTIC TESTING..... | 106 |
| URINE TESTING | 106 |
| SALIVA TESTING | 107 |
| BLOOD TESTING..... | 107 |
| PATCH TESTING | 107 |
| HAIR TESTING | 108 |
| SAMHSA POSITIVE DRUG TEST GUIDELINES | 108 |
| <i>TABLE 22 POSITIVE DRUG TEST GUIDELINES (NG/ML).....</i> | <i>109</i> |
| DRUG TESTING INDEXES..... | 109 |
| <i>TABLE 23 ANNUAL POSITIVITY RATES FOR U.S. WORKERS, BY YEAR 1988-2004 (%).....</i> | <i>110</i> |
| <i>TABLE 24 POSITIVITY RATES FOR U.S. WORKERS BY TESTING REASON, 2000-2004.....</i> | <i>110</i> |
| <i>TABLE 25 POSITIVITY RATES FOR U.S. WORKERS BY DRUG CATEGORY AS A PERCENTAGE OF ALL POSITIVE TESTS (%).....</i> | <i>110</i> |
| <i>TABLE 25 (CONTINUED).....</i> | <i>111</i> |
| POINT-OF-CARE SUBSTANCE ABUSE DIAGNOSTIC TESTING..... | 111 |

| | |
|--|-----|
| Tobacco Testing | 111 |
| <i>TABLE 26 POINT-OF-CARE NICOTINE DIAGNOSTIC TEST</i> | |
| <i>PRODUCTS</i> | 112 |
| Jant Pharmacal..... | 112 |
| Nymox Pharmaceuticals..... | 112 |
| Princeton BioMeditech Corporation..... | 112 |
| Alcohol Testing | 113 |
| <i>TABLE 27 POINT OF CARE ALCOHOL DIAGNOSTIC TEST</i> | |
| <i>PRODUCTS</i> | 113 |
| Jant Pharmacal..... | 113 |
| MEDTOX Scientific, Inc. | 113 |
| OraSure Technologies..... | 113 |
| Princeton BioMeditech Corporation..... | 114 |
| Varian, Inc..... | 114 |
| Drug Testing | 114 |
| <i>TABLE 28 POINT-OF-CARE DRUG DIAGNOSTIC TESTING</i> | |
| <i>PRODUCTS</i> | 114 |
| Alfa Scientific Designs..... | 115 |
| American Bio Medica..... | 115 |
| BioScan Screening Systems..... | 115 |
| Biosite Diagnostics..... | 115 |
| Inverness Medical | 116 |
| MEDTOX Scientific, Inc. | 116 |
| OraSure Technologies..... | 116 |
| Phamatech..... | 116 |
| Princeton BioMeditech | 117 |
| Psychemedics Corp. | 117 |
| Varian, Inc..... | 117 |
| Sun Biomedical | 118 |
| HOME SUBSTANCE ABUSE DIAGNOSTIC TESTING | 118 |
| Alcohol Testing | 118 |
| <i>TABLE 29 ALCOHOL HOME DIAGNOSTIC TESTING PRODUCTS</i> | 118 |
| Jant Pharmacal..... | 119 |
| Sun Biomedical Laboratories | 119 |
| Drug Testing | 119 |
| <i>TABLE 30 DRUG HOME DIAGNOSTIC TESTING PRODUCTS</i> | 119 |
| Psychemedics | 119 |
| Dr. Brown's (Elan Corporation)..... | 119 |
| Inverness Medical Innovations, Inc. | 120 |
| Phamatech..... | 120 |
| Princeton BioMeditech | 120 |
| Psychemedics | 120 |
| Sun Biomedical Laboratories | 120 |
| Sun Biomedical ... (Continued)..... | 121 |

| | |
|--|-----|
| CHAPTER FIVE: MARKET SIZE AND GROWTH | 122 |
| MARKET SIZE AND GROWTH | 122 |
| <i>TABLE 31 U.S. MARKET SIZE OF ADDICTION AND SUBSTANCE ABUSE TREATMENTS AND DIAGNOSTICS, THROUGH 2013 (\$ MILLIONS)</i> | 123 |
| <i>FIGURE 36 U.S. MARKET SIZE OF ADDICTION AND SUBSTANCE ABUSE TREATMENTS AND DIAGNOSTICS, 2006-2013 (\$ MILLIONS)</i> | 123 |
| PRESCRIPTION AND OVER-THE-COUNTER PHARMACEUTICAL TREATMENTS | 123 |
| SMOKING CESSATION..... | 123 |
| DRUG AND ALCOHOL ABUSE..... | 124 |
| <i>TABLE 32 U.S. MARKET SIZE OF ADDICTION AND SUBSTANCE ABUSE PHARMACEUTICAL TREATMENTS BY TREATMENT TYPE, THROUGH 2013 (\$ MILLIONS)</i> | 124 |
| <i>FIGURE 37 U.S. MARKET SIZE OF ADDICTION AND SUBSTANCE ABUSE PHARMACEUTICAL TREATMENTS BY TREATMENT TYPE, THROUGH 2013 (\$ MILLIONS)</i> | 124 |
| DIAGNOSTIC TESTING..... | 125 |
| POINT-OF-CARE TESTING | 125 |
| HOME TESTING | 125 |
| <i>TABLE 33 U.S. MARKET SIZE OF SUBSTANCE ABUSE DIAGNOSTICS, THROUGH 2013 (\$ MILLIONS)</i> | 125 |
| <i>FIGURE 38 U.S. MARKET SIZE OF SUBSTANCE ABUSE DIAGNOSTICS, 2006-2013 (\$ MILLIONS)</i> | 126 |
| CHAPTER SIX: RESEARCH AND DEVELOPMENT..... | 127 |
| GOALS..... | 127 |
| AREAS OF CONCENTRATION | 127 |
| INDUSTRY NEEDS..... | 128 |
| CURRENT DRUGS IN CLINICAL TRIALS | 129 |
| ALCOHOL TREATMENT | 129 |
| OPIATE TREATMENT..... | 129 |
| GENERAL ADDICTION..... | 130 |
| TOBACCO TREATMENT..... | 130 |
| <i>TABLE 34 SUBSTANCE ABUSE PRODUCTS IN DEVELOPMENT</i> | 131 |
| <i>TABLE 34 (CONTINUED)</i> | 132 |
| MISCELLANEOUS SUBSTANCE ABUSE TREATMENT DISCOVERIES | 132 |
| MISCELLANEOUS SUBSTANCE ABUSE ...(CONTINUED)..... | 133 |
| MISCELLANEOUS SUBSTANCE ABUSE ...(CONTINUED)..... | 134 |
| CHAPTER SEVEN: INDUSTRY STRUCTURE | 135 |
| MARKET LEADERS | 135 |
| PFIZER..... | 135 |

| | |
|--|------------|
| RECKITT BENCKISER..... | 135 |
| GLAXOSMITHKLINE | 135 |
| NOVARTIS | 135 |
| PSYCHEMEDICS | 136 |
| ORASURE TECHNOLOGIES..... | 136 |
| <i>TABLE 35 TOTAL MANUFACTURERS MARKET SHARE OF SUBSTANCE ABUSE PHARMACEUTICAL TREATMENTS, 2007.....</i> | <i>136</i> |
| <i>FIGURE 39 TOTAL MANUFACTURERS MARKET SHARE OF SUBSTANCE ABUSE PHARMACEUTICAL TREATMENTS, 2007 (%).....</i> | <i>137</i> |
| <i>TABLE 36 U.S. MANUFACTURERS MARKET SHARE OF SUBSTANCE ABUSE DIAGNOSTICS, 2007.....</i> | <i>137</i> |
| <i>FIGURE 40 U.S. MANUFACTURERS MARKET SHARE OF SUBSTANCE ABUSE DIAGNOSTICS, 2007 (%)</i> | <i>138</i> |
| INDUSTRY PARTICIPANTS BY PRODUCT TYPE | 138 |
| <i>TABLE 37 LEADING SUBSTANCE ABUSE PHARMACEUTICAL TREATMENT AND DIAGNOSTIC TESTING MANUFACTURERS BY PRODUCT TYPE, 2008.....</i> | <i>138</i> |
| <i>TABLE 37 (CONTINUED).....</i> | <i>139</i> |
| MARKET ANALYSIS | 139 |
| Anti-Depressant Market | 139 |
| Additional Therapies | 140 |
| Opportunities..... | 140 |
| Opportunities (Continued)..... | 141 |
| CHAPTER EIGHT: COMPANY PROFILES | 142 |
| GLAXOSMITHKLINE PLC | 142 |
| HISTORY..... | 142 |
| NOVARTIS PHARMACEUTICALS CORP. | 142 |
| HISTORY..... | 143 |
| ORASURE TECHNOLOGIES..... | 143 |
| HISTORY..... | 143 |
| PFIZER, INC..... | 143 |
| HISTORY..... | 144 |
| PHAMATECH, INC. | 144 |
| HISTORY..... | 144 |
| PSYCHEMEDICS CORP..... | 144 |
| HISTORY..... | 145 |
| RECKITT BENCKISER PLC | 145 |
| HISTORY..... | 145 |
| APPENDIX A—LIST OF COMPANIES..... | 146 |
| ABBOT DIAGNOSTICS | 146 |
| ABBOTT LABORATORIES..... | 146 |
| ALFA SCIENTIFIC DESIGNS, INC..... | 146 |
| ALKERMES, INC. | 146 |

| | |
|--|-----|
| AMERICAN BIO MEDICA CORPORATION..... | 146 |
| ARADIGM CORPORATION | 147 |
| BARR LABORATORIES, INC..... | 147 |
| BIOSCAN SCREENING SYSTEMS, INC..... | 147 |
| BIOSITE, INC..... | 147 |
| BIOVAIL CORPORATION..... | 147 |
| BRISTOL-MYERS SQUIBB COMPANY | 148 |
| CARY PHARMACEUTICALS, INC..... | 148 |
| CELTIC PHARMA MANAGEEMNT L.P..... | 148 |
| CEPHALON, INC..... | 148 |
| CYTOS BIOTECHNOLOGY AG | 148 |
| DRUG ENFORCEMENT ADMINISTRATION..... | 149 |
| ELAN CORPORATION, PLC..... | 149 |
| ELBION NV | 149 |
| ELI LILLY & COMPANY..... | 149 |
| ENDO PHARMACEUTICALS | 149 |
| FOOD AND DRUG ADMINISTRATION..... | 150 |
| FOREST LABORATORIES, INC..... | 150 |
| GLAXOSMITHKLINE PLC | 150 |
| INVERNESS MEDICAL INNOVATIONS, INC..... | 150 |
| JANT PHARMACAL CORPORATION..... | 150 |
| JOHNSON & JOHNSON | 151 |
| JOINT COMMISSION ON ACCREDITATION OF HEALTHCARE ORGANIZATIONS (JCAHO) | 151 |
| MALLINCKRODT | 151 |
| MEDTOX SCIENTIFIC, INC..... | 151 |
| NABI BIOPHARMACEUTICALS..... | 151 |
| NATIONAL INSTITUTE ON ALCOHOL ABUSE & ALCOHOLISM | 152 |
| NATIONAL INSTITUTE ON DRUG ABUSE | 152 |
| NOVARTIS INTERNATIONAL AG..... | 152 |
| NOVARTIS PHARMACEUTICALS CORP. | 152 |
| NYMOX PHARMACEUTICAL CORP..... | 152 |
| OFFICE OF NATIONAL DRUG CONTROL POLICY..... | 153 |
| ORASURE TECHNOLOGIES, INC..... | 153 |
| OVATION PHARMACEUTICALS, INC..... | 153 |
| PFIZER, INC..... | 153 |
| PHAMATECH, INC..... | 153 |
| PLIVA, INC..... | 154 |
| PRINCETON BIOMEDITECH CORP..... | 154 |
| PSYCHEMEDICS CORPORATION | 154 |
| PURDUE PHARMA, L.P..... | 154 |
| RECKITT-BENCKISER PLC..... | 154 |
| ROCHE..... | 155 |
| SANOFI-AVENTIS | 155 |

| | |
|---|------------|
| SOMAXONE PHARMACEUTICALS, INC..... | 155 |
| SUBSTANCE ABUSE AND MENTAL HEALTH SERVICES | |
| ADMINISTRATION (SAMHSA)..... | 155 |
| SUN BIOMEDICAL LABORATORIES, INC. | 155 |
| TITAN PHARMACEUTICALS, INC..... | 156 |
| U.S. DEPARTMENT OF HEALTH AND HUMAN SERVICES..... | 156 |
| THE UNIVERSITY OF TEXAS HEALTH SCIENCE CENTER AT | |
| SAN ANTONIO | 156 |
| VALEANT PHARMACEUTICALS INTERNATIONAL | 156 |
| VARIAN, INC..... | 156 |
| XANODYNE PHARMACEUTICALS, INC..... | 157 |
| | |
| APPENDIX B—LIST OF SUBSTANCE ABUSE TREATMENT FACILITIES..... | 158 |
| <i>TABLE 38 LIST OF SUBSTANCE ABUSE TREATMENT FACILITIES.....</i> | <i>158</i> |
| <i>TABLE 38 (CONTINUED).....</i> | <i>159</i> |
| <i>TABLE 38 (CONTINUED).....</i> | <i>160</i> |
| <i>TABLE 38 (CONTINUED).....</i> | <i>161</i> |
| <i>TABLE 38 (CONTINUED).....</i> | <i>162</i> |
| <i>TABLE 38 (CONTINUED).....</i> | <i>163</i> |
| <i>TABLE 38 (CONTINUED).....</i> | <i>164</i> |
| <i>TABLE 38 (CONTINUED).....</i> | <i>165</i> |
| <i>TABLE 38 (CONTINUED).....</i> | <i>166</i> |
| <i>TABLE 38 (CONTINUED).....</i> | <i>167</i> |
| <i>TABLE 38 (CONTINUED).....</i> | <i>168</i> |
| <i>TABLE 38 (CONTINUED).....</i> | <i>169</i> |
| <i>TABLE 38 (CONTINUED).....</i> | <i>170</i> |
| <i>TABLE 38 (CONTINUED).....</i> | <i>171</i> |
| <i>TABLE 38 (CONTINUED).....</i> | <i>172</i> |
| <i>TABLE 38 (CONTINUED).....</i> | <i>173</i> |
| <i>TABLE 38 (CONTINUED).....</i> | <i>174</i> |
| <i>TABLE 38 (CONTINUED).....</i> | <i>175</i> |
| <i>TABLE 38 (CONTINUED).....</i> | <i>176</i> |
| <i>TABLE 38 (CONTINUED).....</i> | <i>177</i> |
| <i>TABLE 38 (CONTINUED).....</i> | <i>178</i> |
| <i>TABLE 38 (CONTINUED).....</i> | <i>179</i> |
| <i>TABLE 38 (CONTINUED).....</i> | <i>180</i> |
| <i>TABLE 38 (CONTINUED).....</i> | <i>181</i> |
| <i>TABLE 38 (CONTINUED).....</i> | <i>182</i> |
| <i>TABLE 38 (CONTINUED).....</i> | <i>183</i> |
| <i>TABLE 38 (CONTINUED).....</i> | <i>184</i> |
| <i>TABLE 38 (CONTINUED).....</i> | <i>185</i> |
| <i>TABLE 38 (CONTINUED).....</i> | <i>186</i> |
| <i>TABLE 38 (CONTINUED).....</i> | <i>187</i> |
| <i>TABLE 83 (CONTINUED).....</i> | <i>188</i> |
| <i>TABLE 38 (CONTINUED).....</i> | <i>189</i> |

| | |
|-----------------------------------|-----|
| <i>TABLE 38 (CONTINUED)</i> | 190 |
| <i>TABLE 83 (CONTINUED)</i> | 191 |
| <i>TABLE 83 (CONTINUED)</i> | 192 |
| <i>TABLE 83 (CONTINUED)</i> | 193 |
| <i>TABLE 83 (CONTINUED)</i> | 194 |
| <i>TABLE 83 (CONTINUED)</i> | 195 |
| <i>TABLE 83 (CONTINUED)</i> | 196 |
| <i>TABLE 83 (CONTINUED)</i> | 197 |