Life Sciences Forecasting & Analytics Reference Sources (July 2023)

Subject	Reference Sources	Notes
Multi-Client Therapeutic Area Reports	 <u>Clarivate</u> (formerly Decision Resources) Informa Pharma Intelligence <u>Datamonitor</u> <u>Spherix</u> 	 Multi-client (syndicated) reports typically provide information on a specific therapeutic area and can provide considerable information at a moderate cost Such reports often cover epidemiology, current treatment practices, current and pipeline products to treat the disease, and may provide forecasts Regions covered typically include the United States, the five major European countries (France, Germany, Italy, Spain, and the United Kingdom), and may include Japan These reports are also valuable for determining factors such as diagnosis or treatment rates that may be difficult to estimate without
Real-World Data (Claims/EHR/EMR)	 IQVIA (available for some ex-US regions) Symphony Health Clarivate Definitive Healthcare Komodo Aetion Forian Flatiron (oncology-focused) Merative MarketScan Cerner Enviza Truveta Compile Optum 81qd CareJourney 	 primary research Real-World Data (RWD) is derived from samples of health insurance claims data and/or electronic health/medical records (EHR/EMR) Many of these companies access the same claims data, but may have more extensive or proprietary agreements with individual payers RWD may be cross-sectional or longitudinal (treatment of individual patients may be followed across several years) RWD providers may have differing abilities to clean and present the data, especially EHR/EMR
Pharmaceutical Audit Data	 IQVIA US prescription data: <u>NPA/Xponent</u> US unit sales data: <u>NSP/DDD</u> <u>MIDAS</u> (ex-US) Symphony Health Integrated Dataverse (IDV) 	 Nationally projected prescription data are comprehensive, but may not include products distributed through specialty pharmacies and provider-administered drugs Prescriptions are US-only; other regions are unit-based



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Provider Affiliations	 <u>CareJourney</u> Compile (<u>Provider360</u>) Definitive Healthcare (<u>PhysicianView</u>) <u>IQVIA</u> <u>Populi</u> <u>Precisionxtract</u> Veeva (<u>OpenData</u>) 	These services map relationships between health care providers, facilities where they work, and insurance and provider/hospital networks in which they participate
Commercial Survey Data	IQVIA NDTI (US) Ipsos Global Therapy Monitor	 These products are surveys of office- based physicians and collect patient- visit information: patient characteristics (including diagnoses) and treatments provided These are conducted on an ongoing basis Data are nationally projected
Government Outpatient Care Survey Data	 NCHS <u>National Health and Nutrition Examination</u> <u>Survey</u> (NHANES)–US NCHS <u>National Health Interview Survey</u> (NHIS)– US NCHS <u>National Ambulatory Medical Care Survey</u> (NAMCS)–US (office-based) NCHS <u>National Hospital Ambulatory Medical Care</u> <u>Survey</u> (NHAMCS)– US (hospital outpatient, emergency department, and ambulatory surgery) AHRQ HCUP <u>Nationwide Emergency Department</u> <u>Sample</u> (NEDS)–US <u>Medicare Current Beneficiary Survey</u> (MCBS)–US AHRQ HCUP <u>Medical Expenditure Panel Survey</u> (MEPS)–US University of Michigan <u>Health and Retirement</u> <u>Study</u> (HRS)–US 	 Government survey data provide an easily accessible, cost-effective way of determining diagnosis and treatment volume These data are based on a sample of patient visits, so they are not well- suited for rare conditions MCBS and MEPS are useful for estimating household and personal insurance coverage and medical expenditures, including out-of- pocket costs
Inpatient & Ambulatory Procedures	 NCHS National Hospital Ambulatory Medical Care Survey (NHAMCS)– US (hospital outpatient, emergency department, and ambulatory surgery) AHRQ HCUP National Inpatient Sample (NIS)–US AHRQ HCUP Kids' Inpatient Database (KID)–US AHRQ HCUP Nationwide Ambulatory Surgery Sample (NASS)–US Premier (inpatient data) 	Like the outpatient care data above, but focused on inpatient or ambulatory surgery settings

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Oncology Data & Information	 SEER (US) CI5plus (WHO IARC, international) Cerner Enviza <u>CancerMPact</u> (US, Europe, Japan, China) Ipsos Global Oncology Monitor (formerly Tandem/Synovate Cancer Audit) Clarivate <u>Disease Landscape Reports</u> CIBMTR <u>Stem Cell Transplant Data</u>–US EBMT Stem Cell <u>Transplant Activity Survey</u>–Europe NCCN <u>Treatment Guidelines</u> MD Anderson <u>Clinical Practice Algorithms</u> National Cancer Institute <u>Physician Data Query</u> (PDQ) 	 In addition to CancerMPact and Ipsos Oncology Monitor, real-world data suppliers (see above) can calculate oncology patients by treatment and lines of treatment Note that patient sub-segments (such as mutation status or presence of other biomarkers) may be difficult to determine without EHR/EMR integration
Population Data	 US Census Bureau (<u>historical, projections</u>) Eurostat (<u>historical, projections</u>) US Census Bureau <u>International Database</u> (IDB) Statistics Canada (<u>historical, projections</u>) United Kingdom (<u>historical, projections</u>) Japan (<u>IPSS</u>) China (<u>National Bureau of Statistics</u>) – English language link currently appears to be unavailable 	 Most statistics authorities separate population data into estimates (historical) and projections (future)
Rare/Genetic Diseases	 <u>Orphanet</u> <u>National Organization for Rare Disorders (NORD)</u> NIH Genetic & Rare Diseases Information Center (GARD) Disease-specific patient advocacy groups Online Mendelian Inheritance in Man (OMIM) Genome Aggregation Database (gnomAD) 	 In many rare disorders, it may be necessary to conduct medical literature research to gain a more complete profile of the disease, as sources such as Orphanet may only have cursory descriptions and epidemiology estimates
Pricing Information (US) (note: ex-US information is generally paywalled or geo- restricted)	 <u>SSR Health</u> (US) <u>First Databank</u> (US) <u>46brooklyn</u> (US) State drug price transparency websites (e.g., <u>Texas</u>) <u>Costco Pharmacy</u> <u>GoodRx</u> 	 First Databank has an extensive history of Wholesale Acquisition Cost (WAC), while SSR Health can provide both gross (WAC) and net pricing 46brooklyn is a non-profit research organization focusing on drug pricing Costco and GoodRx are decent sources for estimating list pricing, as their price quotes are often close to WAC
Promotional Effort	• <u>PharmaForce</u>	Has syndicated reports for selected therapeutic areas. Also has database covering US, Europe, Japan, and Brazil

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Clinical Trials	<u>ClinicalTrials.gov</u> (US)	These sources may also list study
	<u>Clinical Trials Register</u> (EU)	sites located outside the US and EU
	Informa <u>TrialTrove</u> (global)	
NME/NBE Probability of	MIT Project Alpha	Probability of success is broken out
Success	Tufts <u>Center for the Study of Drug Development</u>	by development stage and
	Evaluate <u>Omnium</u>	therapeutic area
Pipeline Product	BioCentury IQ	• Information on development stage,
Competitive Intelligence	Informa <u>Pharmaprojects</u>	mechanism of action, and available
	AdisInsight Drugs	preclinical and clinical data
Other Sources	<u>Corporate SEC filings</u>	Useful for disease and product
	Analyst reports	background (including epidemiology)
	• <u>EvaluatePharma</u>	and product sales
	<u>Managed Care Digest</u>	
Disease Background	<u>Medscape</u>	
Information	Patient advocacy groups	
	• <u>PubMed</u> (review articles, clinical trial results)	
	• <u>Semantic Scholar</u> (review articles, clinical trial	
	results)	