

# IBM Explorys Life Sciences

## Accelerating Insights from Real-World Evidence

In emerging delivery and reimbursement models, evidence as to how a product performs and drives value-based outcomes in the real world is critical for successful commercial adoption.

The traditional approach life sciences has used to develop, market and drive reimbursement for products is no longer adequate as the industry is increasingly being asked to prove the cost-effectiveness and safety of their products in real-world settings.

The IBM Explorys Life Sciences solutions help stakeholders tasked with these challenges translate data into meaningful insights about patients, providers, diseases, and the overall delivery of care.

### IBM Explorys Life Sciences

The solutions draw on de-identified data that resides in a cloud-based, HIPAA-compliant, secure platform. The sources of real-world clinical, operational and financial data are large integrated delivery systems and clinically integrated networks that span the continuum of care. IBM Explorys maintains an ongoing connection to healthcare systems that form the IBM Explorys network.

#### Real-World Data Highlights

**Patient-level longitudinal data, representing ~15% of the US population**

**Rich clinical data from electronic medical record systems across multiple care venues**

**30% of patients with linked clinical (ambulatory and inpatient) and adjudicated claims data**

**New data streams into the cloud daily, allowing potential use cases not possible with stale data**

#### Sources of real-world data span the continuum of care

##### Ambulatory settings

- Primary care
- Specialty centers
- Community practices

##### Inpatient settings

- Hospital inpatient
- Emergency
- Surgical

##### Post-acute care settings

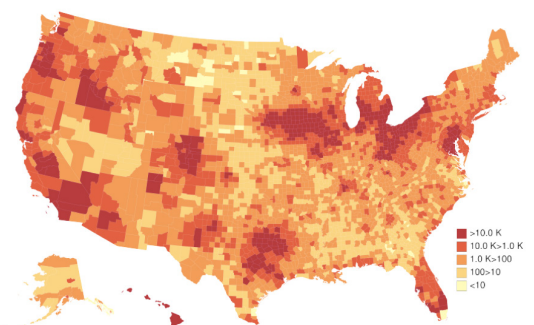
- Long-term care
- Rehabilitation
- Home health

#### Data Sources

- Electronic medical record systems
- Practice management systems
- Laboratory information systems
- Outgoing billing systems
- Adjudicated payer claims feeds

#### National Footprint

- **50M+** unique patients
- **360** hospitals
- **330K** providers

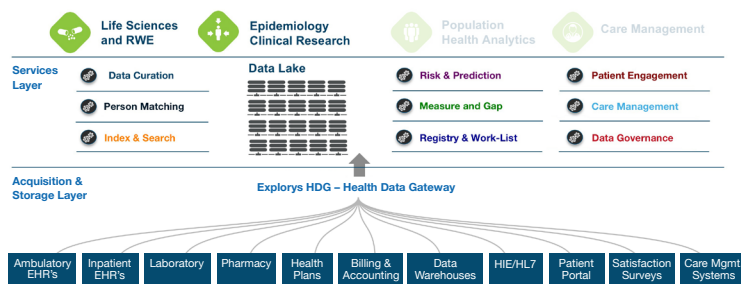


#### Breadth & Depth of Data

- |                |                        |                             |                         |
|----------------|------------------------|-----------------------------|-------------------------|
| • Allergies    | • Health maintenance   | • Past surgical history     | • Provider information  |
| • Biometrics   | • Immunizations        | • Patient-reported outcomes | • Social history/habits |
| • Demographics | • Implantable devices  | • Prescriptions & fills     | • Therapeutics          |
| • Diagnoses    | • Laboratory results   | • Problem list              | • Utilization           |
| • Encounters   | • Past medical history | • Procedures                | • Vital signs           |

## Generate meaningful insights by harnessing advanced data management capabilities in the cloud

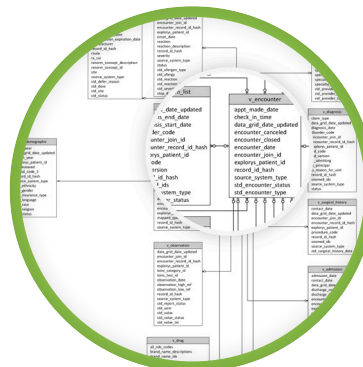
Data generated from care delivery is harmonized to improve accuracy and facilitate analysis across the continuum of care.



## IBM Explorys Life Sciences Offerings

### Therapeutic Datasets

- Underlying patient-level de-identified data for a study population based on client-defined selection criteria
- Comprehensive data with full longitudinal history across venues of care
- May be refreshed weekly with new patients and data



### Virtual Workbench

- Virtual desktop residing within the IBM Explorys cloud
- Required to access and analyze Therapeutic Datasets
- Equipped with IBM and third-party standard analytic tools
- Possible to collaborate on projects with other users

### Cohort Discovery

- Browser-based high-speed search and analysis tool used for adhoc population analytics
- Ideal for testing hypotheses, determining protocol feasibility, and identifying relationships, patterns, and trends



## Value for Life Sciences

Understand disease history, epidemiology and progression

Determine the economic value created for select populations

Ascertain post-marketing signals that may warrant deeper safety surveillance studies

Identify the patients most likely to benefit from a given treatment

