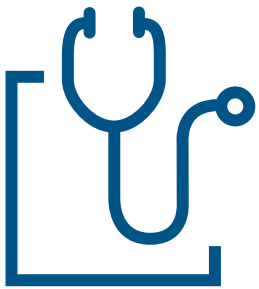
REAL-WORLD INSIGHTS

IMS Health & Quintiles are now IQVIA™

BRINGING A NEW REAL WORLD TO YOU

Human science, meet data science



Worldwide clinical and real-world experience informed by deep scientific expertise across every major therapy area

Solutions to help clients drive healthcare forward

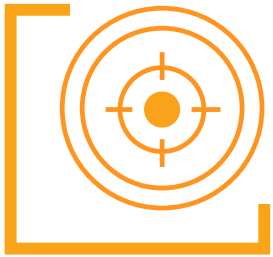
Leading healthcare "big data" and technologies fueled by commercial expertise to find unparalleled insights

Increased demand for real-world evidence

Insights from real-world evidence (RWE) are changing the landscape of healthcare throughout the product lifecycle, with increased use of evidence to improve and drive decision making.

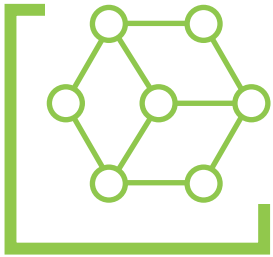
Faster RWE generation

- New study designs: ability to use real-world data (RWD) to reduce recruitment time
- Advances in technology



Deeper therapy area-specific evidence

- Movement from broad enterprise capabilities to deep core therapeutic expertise
- Emergence of therapy area-specific networks

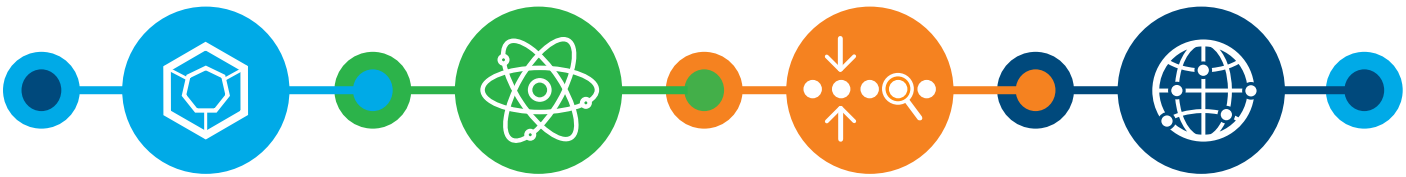


More dynamic approaches

- New, evolving data sources
- Increased stakeholder engagement

IQVIA brings human data science to advance breakthroughs in RWE

Applying technology, data, science, and human ingenuity to address increasingly complex, dynamic evidence and operational requirements.



New innovations powered by the IQVIA CORE™

- 530M+ non-identified patient records
- Advanced analytics
- Machine learning
- Evidence platforms
- Non-identified data from 100+ agencies in 32 countries in our HTA database

Scientific and commercial leadership

- 1,100+ medical doctors, 1,050+ PhDs
- 850+ biostatisticians/ statisticians
- 4,800+ publications

Usability and results

- Methodologies for ongoing evidence generation
- Evidence platforms
- Stakeholder collaboration networks

Globally connected networks

- Access to 4.9M+ potential investigators
- Payer and provider footprints in ~10 markets
- CORE Diabetes Model in 25 countries

Connecting stakeholders to improve health

Powered by the IQVIA CORE™

Almost everything we do is powered by the IQVIA CORE™ – unparalleled data, insightful and actionable analytics, advanced technology, and extensive institutional knowledge.

IQVIA CORE™

Domain Expertise

Institutional knowledge and domain expertise across diseases, geographies and scientific methods

Transformative Technology

Leading technologies to provide real-time access to operations-critical information

Unparalleled Data

One of the world's largest curated healthcare data sources with innovative privacy protections

Advanced Analytics

Faster, more precise decision-making generated by advanced analytics designed for healthcare

Tap into therapy area-specific evidence networks and capabilities

T-SHAPED EVIDENCE PLATFORMS

The right depth and breadth of data

- Cardiovascular diseases
- Metabolic diseases
- Multiple sclerosis
- Oncology
- Ophthalmology
- Psoriasis
- Rare diseases
- Rheumatoid arthritis

CARDIOVASCULAR

- Registry with American College of Cardiology supporting practitioners post-MACRA[1] era

DIABETES

Commercialized 90% of top 40 diabetes products in 2016

- The CORE Diabetes Model determines the outcomes and economic consequences of interventions in Type 1 or Type 2 diabetes in 25 countries

MULTIPLE SCLEROSIS

- First linkage between MRI and EMR clinical data
- Patient-generated evidence
- Clinical decision support tools

RHEUMATOID ARTHRITIS

- Data linkage
- Deep, relevant, clinical, disease-specific registry data linked to IQVIA Claims data

[1] Medicare Access and CHIP Reauthorization Act 2015

Unparalleled therapeutic depth

Including oncology

15M+

US cancer patients, including EMR for 1M+ patients

660+

Oncology publications

Oncology patient data sources

across Europe and 6 other markets

- Top 5 Europe and Netherlands, China, Japan, South Korea, Canada, Brazil, Mexico
- 200,000+ non-identified patient records per year
- Covering 30 key cancers

Global oncology Center of Excellence

linking all our key experts, research, and scientific networks across the therapy area

Access the real-world data you need

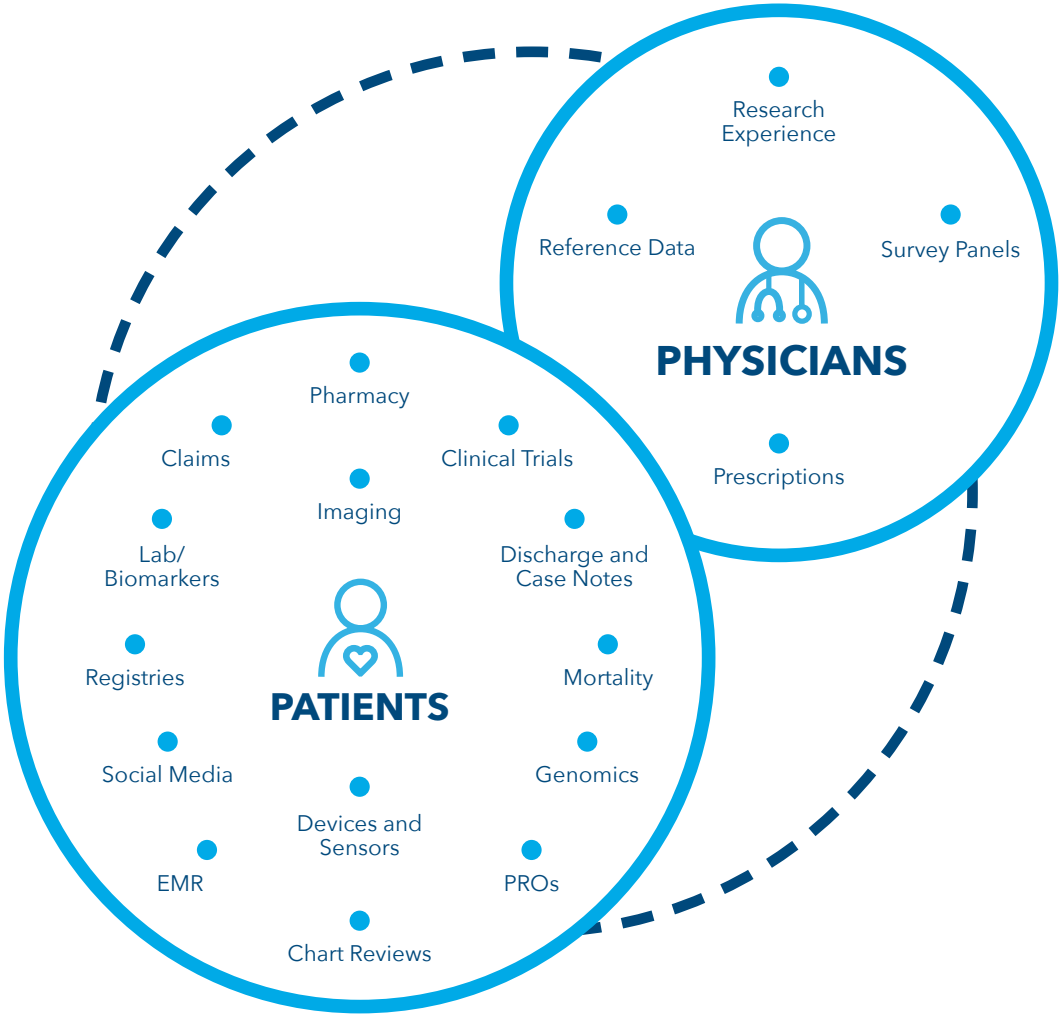
530M+
Non-identified patient records

15M+
Healthcare professionals

400,000+
Sources of social media

800,000+
Data feeds

20+
Petabytes of unique data



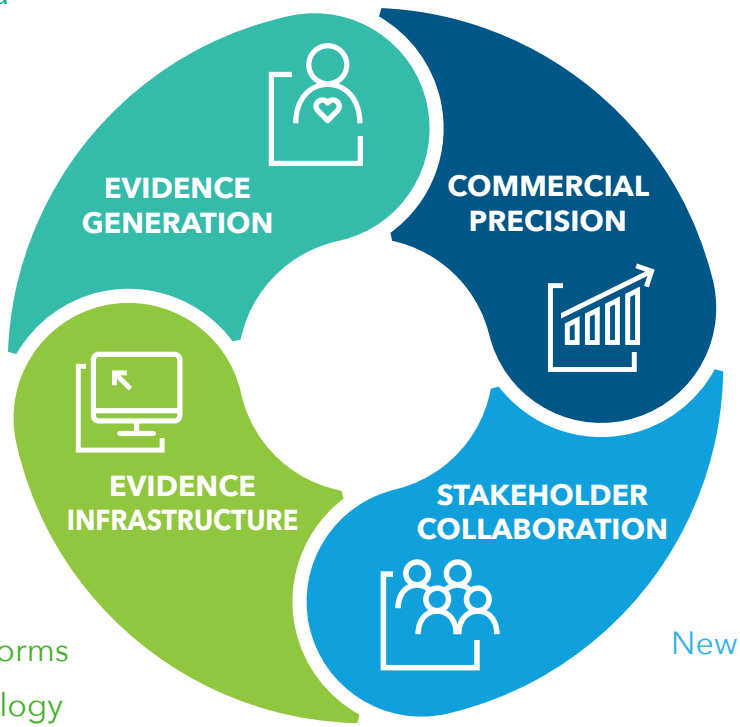
Bringing you value across the product lifecycle

Health economics and value

Epidemiology and outcomes studies

Safety

Regulatory use



Pricing and market access

On-demand brand and market analytics

Target patient treatment patterns

Launch performance by patient segment

Enterprise and therapy area platforms

Enterprise technology and analytics

Evidence networks

Provider registries

New reimbursement models

Privacy preservation and data linkage

HEALTH ECONOMICS AND VALUE

EPIDEMIOLOGY AND OUTCOMES STUDIES

SAFETY

REGULATORY USE

Generate the right evidence

Regulators and payers are asking for RWE as proof of your product's value, to better understand outcomes, evaluate safety and effectiveness, and meet regulatory demands. Today's studies require innovative designs, combined with therapeutic and operational expertise, to increase speed to insight, reduce costs, and optimize efficiencies.

Enabled by expansive primary and secondary data capabilities, our solutions bring you insights faster, while optimizing your budget. Generate the right evidence through

- Innovative study design and technology-enabled data collection
- Better execution of traditional studies and trials
- Scalable approaches to evidence generation for appropriate reuse and repurpose
- Relevant networks of RWD sources
- Advanced analytics and health economic modeling capabilities
- Extensive scientific affiliations and commitment to research excellence

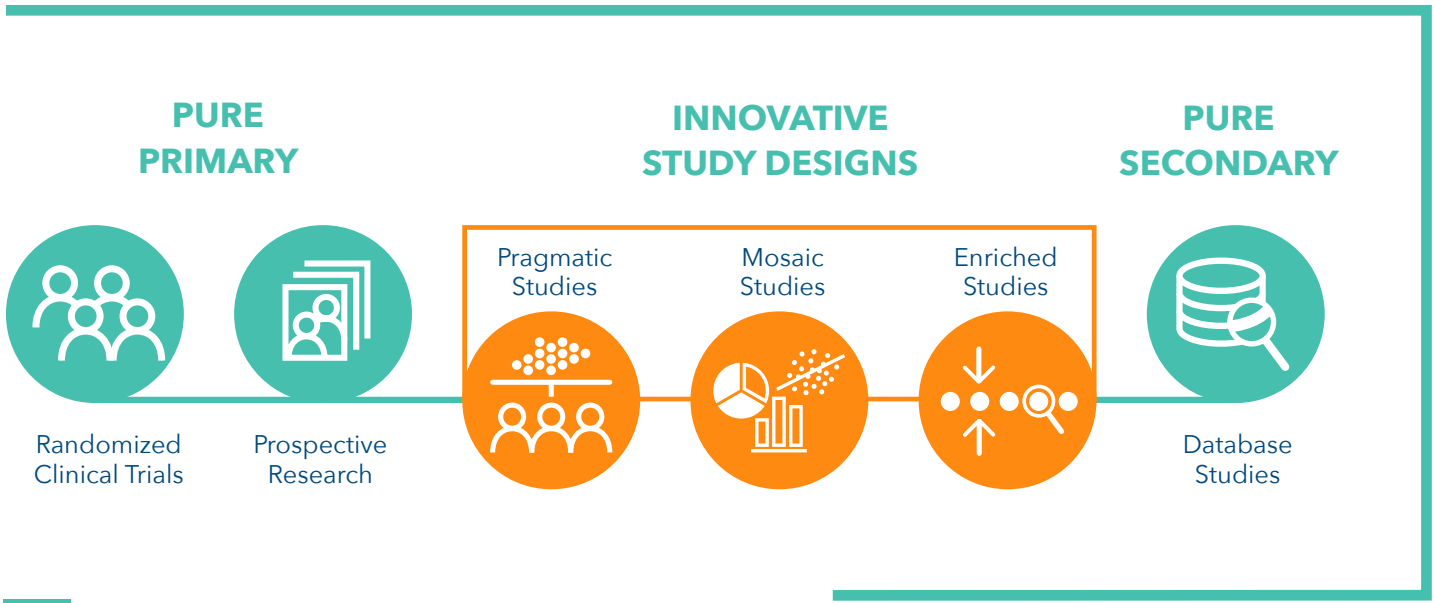
565+
Prospective real-world and late-phase studies with
>647k patients and
>89K sites
since 2011

100+
Markets

4.9M+
Potential accessible investigators

Expand your study options

Our information and technology backbone opens up new approaches



- **MORE** credible evidence
- **FASTER** generation of evidence
- **BETTER** decisions using evidence

Explore proven innovations in evidence generation

HEALTH ECONOMICS AND VALUE

- Pricing and market access strategy
- HTA Accelerator
- Global dossiers and local adaptations
- CORE Diabetes Model
- Global models and local adaptations
- Meta analyses and indirect comparisons
- Burden of illness studies
- Piggy-back studies

OUTCOMES STUDIES

- Patient-reported outcomes studies (PROs)
- Quality of life studies
- Comparative effectiveness research
- Prevalence and incidence studies
- Observational studies

SAFETY AND REGULATORY USE

- PASS, PAES, REMS and EU-RMP
- Signal detection algorithms
- Drug utilization studies
- Pregnancy registries
- Vaccine registries
- Expanded access programs (EAPs)
- Phase IIIB/IV studies
- Label expansion studies

Drive a higher payer rating in major markets

How to proactively anticipate and improve HTA recommendations?

FORWARD-LOOKING EVIDENCE EVALUATION

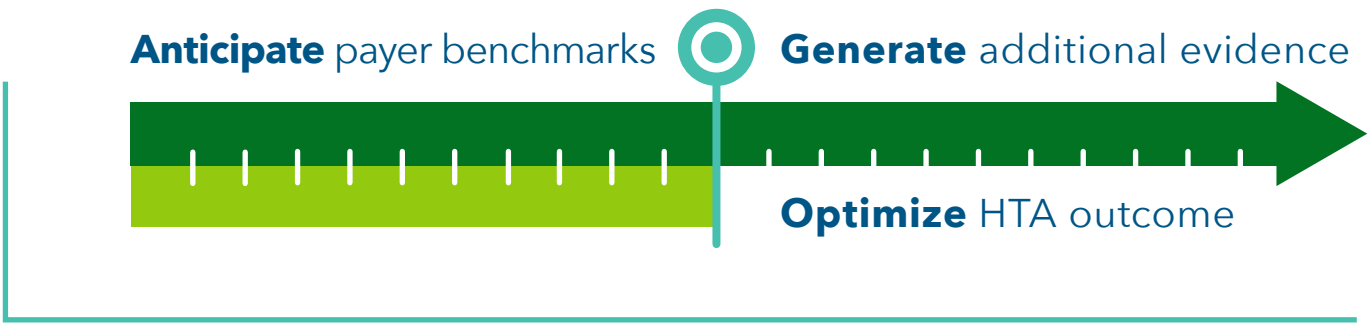
IQVIA conducted a detailed assessment to

- Review current and future landscape and drug's expected trial outcomes
- Compare anticipated evidence package with competitors
- Identify analogous situations using *HTA Accelerator* to predict payer responses
- Define additional evidence that would improve HTA outcome

POSITIONED TO MAXIMIZE PAYER SUCCESS

The client had a clear understanding of expected HTA ratings in key markets under alternative launch scenarios, enabling

- Immediate action to address shortfalls in evidence generation plan
- Product benefit dossier fully aligned to payer needs
- Optimal HTA outcome



Sharpen your commercial precision

PRICING AND MARKET ACCESS

ON-DEMAND BRAND AND MARKET ANALYTICS

TARGET PATIENT TREATMENT PATTERNS

LAUNCH PERFORMANCE BY PATIENT SEGMENT

Differentiating your product in a competitive market is challenging. Having precise knowledge of market dynamics and finding the unique value for your target patients are key. To remain competitive, products must have compelling value stories for all relevant stakeholders – providers, regulatory agencies, HTA bodies, payers, and patients.

IQVIA's commercial expertise and diverse portfolio of **530M+ non-identified patient records** can help you optimize launch, monitor brands, address market access, reduce risk, and align resources, based on the patient journey.

Predictive analytics for rare disease detection, treatment progression and adherence

Machine learning and advanced analytics

Clinical parameters linked to usage patterns

Global consistency and local expertise

Find undiagnosed patients sooner using predictive analytics

How to identify patients for a new orphan drug when 40% are diagnosed late?

TAILORED PREDICTIVE ALGORITHM

To improve detection of undiagnosed cases, IQVIA

- Created a predictive algorithm combining fit-for-purpose data with advanced statistics and machine learning
- Collaborated with stakeholders to find a means of diagnosing and engaging identified patients

EARLIER DETECTION OF HIGH-RISK PATIENTS

The algorithm created a high-risk group 300 times more likely to have the disease than the general population, enabling

- Earlier identification of patients
- More effective use of treatment
- Generation of evidence on burden of disease

Identified rare disease patients by pinpointing a 'high-risk' group

300 times

more likely to have the disease

Access our stakeholder collaborations

EVIDENCE NETWORKS

PROVIDER REGISTRIES

NEW REIMBURSEMENT MODELS

PRIVACY PRESERVATION AND DATA LINKAGE

Today's environment brings complex challenges: changing reimbursement; demands for quality of care improvements; expectations to keep growing; and tighter budgets.

To meet these challenges, we can help you shift away from passive analysis to active cross-stakeholder engagement with payers, providers, and patients. IQVIA provides a full range of services to enable cost-effective insights for your teams, pricing evidence for access and use, and dynamic relationships with providers, through

- Advanced EHR and medical device integration capabilities
- Collaborative solutions to help you create and support outcomes-based contracting and innovative pricing agreements
- Integrated evidence networks across therapeutic categories

code collaboration for oncology data in europe

www.code-cancer.com

COLLABORATION FOR ONCOLOGY DATA IN EUROPE (CODE)

IQVIA's innovative Collaboration for Oncology Data in Europe (CODE) is setting up the

Unlock your data with responsible de-identification and common standards

As the value of real-world insights (RWI) grows, so do concerns over protection of patient privacy. The more the healthcare industry leans on RWI to understand patient outcomes, the more we need common standards in data management and analytics.

IQVIA advances individual privacy and legal compliance, while leveraging world-class open standards to produce higher quality data with our

- Risk-based de-identification, compliance and certification services
- Expert OMOP[1] team
- Bespoke extraction technology across data sources and data linkage capabilities

[1] Observational Medical Outcomes Partnership

Oncology Data Network to collate up-to-date data on the use of anti-cancer medicines in real-world clinical settings. As well as informing patient care, this will support the independent development of flexible payment models by biopharma to help address the financial considerations associated with anti-cancer medicines use.

Create your harmonized, at-scale oncology evidence network

How to create outcomes-based value messaging for meeting multiple requirements in oncology?

ONCOLOGY EVIDENCE NETWORK

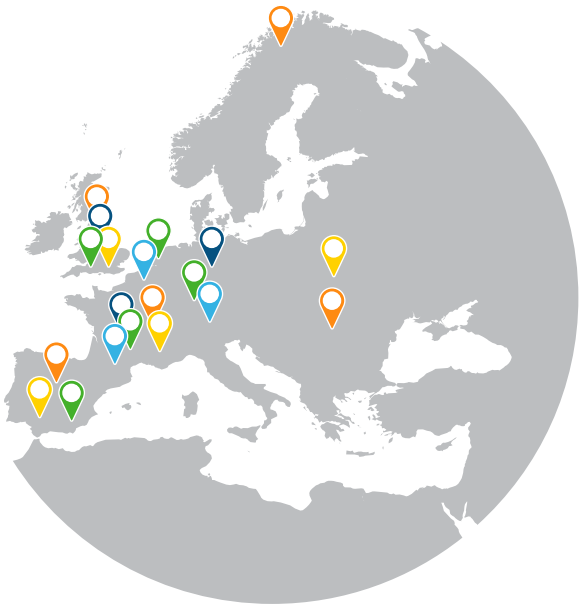
- IQVIA utilized a pan-European data assessment and custom data sourcing to build an RWD oncology network for organization-wide use.

POWERFUL, HIGH-VALUE RESULTS

Enabling routine and ad hoc evidence generation, the network is supporting

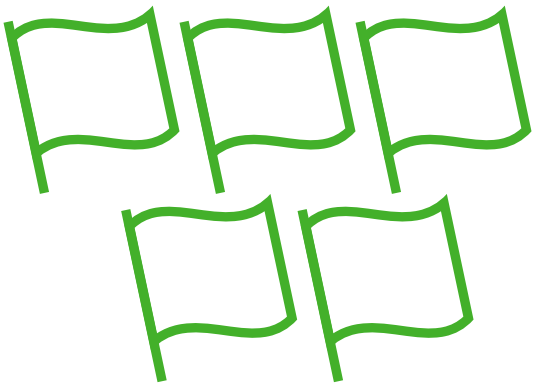
- Stakeholder and KOL engagement
- Local reimbursement plans
- Selection of trial comparators
- Optimized late-phase research

ONCOLOGY NETWORK

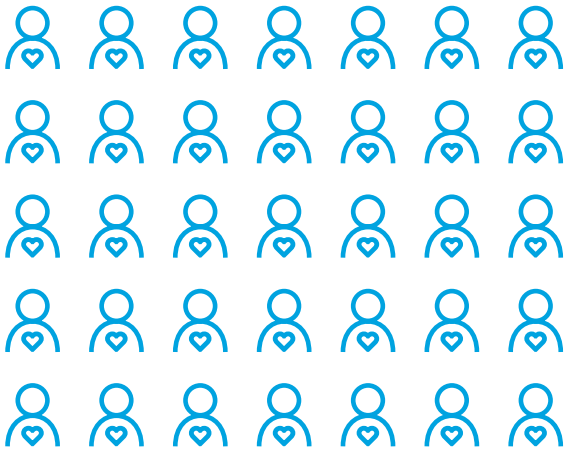


- Registry/EMR 'off-the-shelf'
- Registry/EMR + 'enhancement'
- Claims
- Panel
- Non-interventional studies

5
countries covered by the data network



3,000 patients



9
datasets

3
indications

Will deliver **>10** scientific papers annually, aligned with key conferences

ENTERPRISE AND THERAPY AREA PLATFORMS

ENTERPRISE TECHNOLOGY AND ANALYTICS

Power evidence from within

Shifting from single RWE studies to ongoing data collection and access opens up vast possibilities for life science companies. An evidence platform can give you scalable, on-demand, fit-for-purpose generation of RWE across your organization, therapeutic areas and geographies.

With our unique ability to utilize IQVIA and non-IQVIA data, our therapeutic area knowledge, and our proprietary analytics and technology, we can help you create a bespoke platform that gives you

- **Frequency of data**: Move to a model of 'continuous' data access
- **Speed to insights**: Dramatically reduce study timelines
- **Flexibility**: Provide rapid response to questions across stakeholders
- **Geographic breadth**: Harmonize data to enable pooling of geographies and sources
- **Cost-effectiveness**: Typical per-study costs substantially lower than one-off studies
- **Credibility**: IQVIA's industry-leading standards provide highest quality results

Technology and analytics are driving new ways to do business

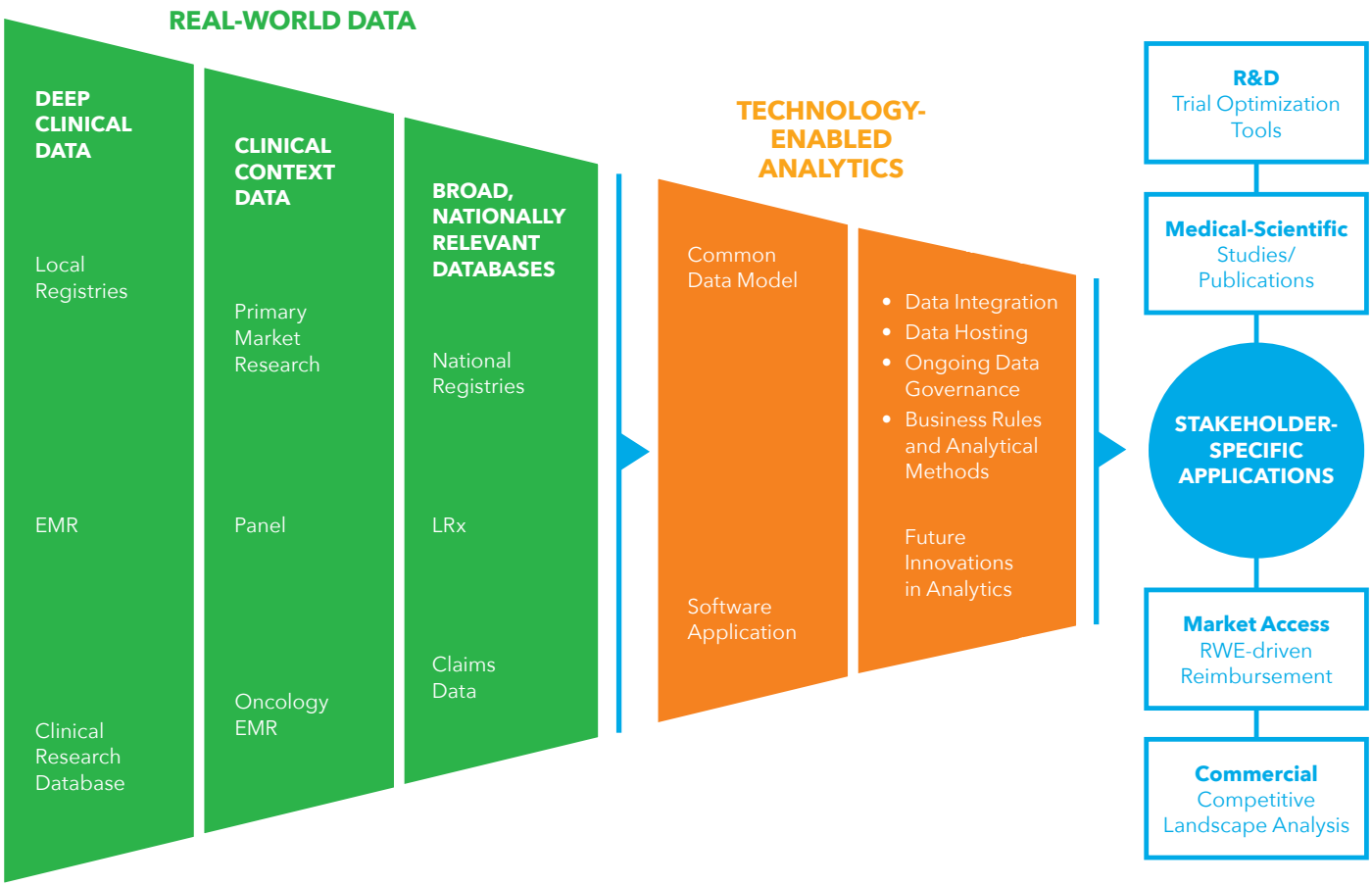
E360™ REAL-WORLD INSIGHTS

E360™ analyzes global data at scale with a proven SaaS platform. It provides solutions for data discovery, clinical development, HEOR and data science, commercial and brand, and the enterprise.

IQVIA is advancing **predictive analytics** to model, simulate and forecast future outcomes. We employ machine learning to automate model building and more precisely analyze bigger and more complicated datasets. You gain the ability to predict outcomes, and identify and treat the right patients faster and more accurately.

Enable future innovation through bespoke platforms

Deliver insights and value from real-world data throughout the product lifecycle.



Helping to shape the future of evidence

Promoting standards for good study conduct

- AHRQ Patient Registries Guide
- AHRQ Observational CER Guide
- GRACE Initiative
- PCORI Methodology Report
- PASS studies for the EMA

Pioneering new approaches and collaborations

- ENCePP Research Center
- EUnetHTA
- OMOP – Observational Medical Outcomes Partnership (USA)
- CODE – Collaboration for Oncology Data in Europe

THOUGHT LEADERSHIP

4,800+

published scientific papers

and presentations
in virtually all therapy areas
and projects completed in

50+

countries

with leadership and advisory roles on boards and in major scientific societies

Ensuring quality and protecting patient privacy

The IQVIA Quality Management System (QMS) ensures the highest quality and compliance with regulatory and industry standards (ISO[1], ICH[2])

- Geographic and methodological breadth
- Systems for quality and operational standards; training and qualification; and investigations and CAPA, with individual quality control plans
- Client audits and benchmarking passed

IQVIA is a global leader in health information stewardship including privacy and data protection

- Unique, proprietary software to de-identify data in accordance with the Expert Determination method
- Pioneering de-identification solutions through privacy analytics
- Strong administrative, technical and physical safeguards including advisory board oversight

[1] International Organization for Standardization

[2] International Council for Harmonisation of Technical Requirements for Pharmaceuticals for Human Use

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