



# **Syneos Health™** **Rare Disease Consortium**

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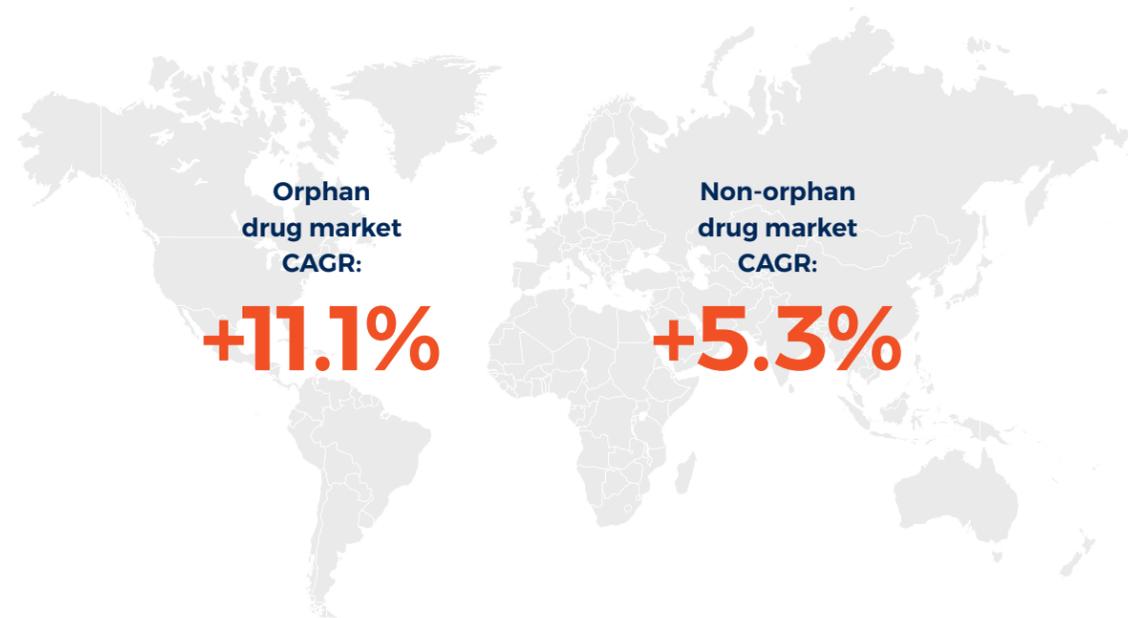
Aligned patient-centric solutions for rare disease  
clinical and commercial success



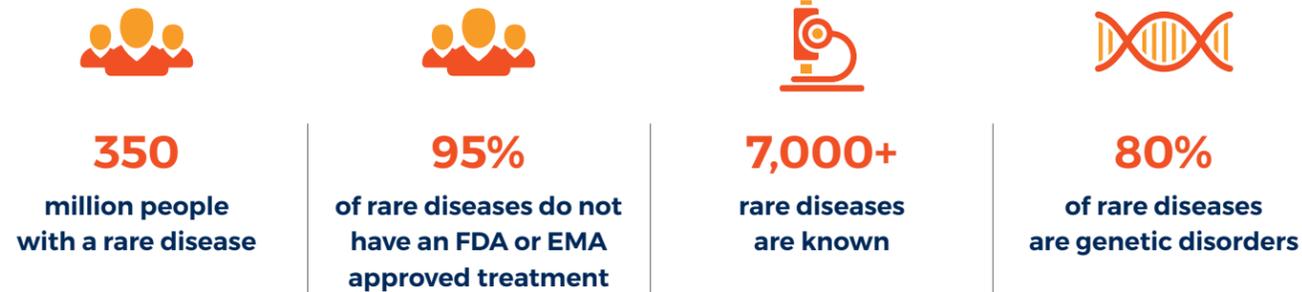
## Increasing Competition Needs a Unique Commercialization Approach for Rare Diseases

Global market growth for rare disease products is projected to outpace annual growth for non-rare products by more than double over the next several years. This crowded and competitive environment requires a unique model that integrates early commercialization consideration with therapeutically aligned and patient-centric solutions to support clinical and commercial success of rare disease assets.

### Worldwide Market Compound Annual Growth Rates (CAGR), 2017-2022



### The Worldwide Scale and Impact of Rare Diseases in 2018



## The Magnitude of Change in the Rare Disease Market

The dynamics of rare disease markets are impacted by the same key market events and changes as any “traditional” therapeutic market. One key difference is the magnitude of change. Actions and events that may cause a limited impact to a “traditional” market will cause a significant impact in a rare disease market simply because of the underlying market and therapeutic-area characteristics:



## Operational Challenges and Solutions in Clinical Development

Dispersed population	+	Diagnosis	+	Study start-up timelines compliance	+	Sites experience in clinical trials
<ul style="list-style-type: none"> <li>Site selection driven by patient localization strategy (creating sites around the patient)</li> <li>Identification of sites of excellence and implement the logistics to facilitate patient access (bringing patients to the sites)</li> <li>Specific strategies for patient identification: Cooperation with patient associations and specialized networks, leveraging available registries, connection with commercial data (i.e., insurance data), collaboration with specialized genetic testing labs</li> <li>Logistic management: travel/transfer, home care, drug home delivery, technologies for PRO</li> </ul>		<ul style="list-style-type: none"> <li>Patient pathway analysis</li> <li>Collaboration with local laboratories</li> <li>Close connection with medical monitor for potential case review</li> <li>Eligibility review</li> <li>Collaboration with sites of excellence</li> </ul>		<ul style="list-style-type: none"> <li>Adequate assumptions and rationale for sample size</li> <li>Proper selection of endpoints and evaluations: Novel endpoints and use of biomarkers</li> <li>Informed consent in pediatric population</li> <li>Site selection strategy with deep involvement of medical experts</li> <li>National Coordinator responsibilities</li> </ul>		<ul style="list-style-type: none"> <li>Adequate GCP compliance training plan for inexperienced sites</li> <li>Provide study sites with generous support through CRA acting as site manager</li> <li>Data review plan to ensure data quality, adequate follow-up of early withdrawals</li> <li>Minimize lost to follow-up</li> </ul>

## The Syneos Health Rare Disease Consortium

### Extensive Hands-On Experience and Specialized Knowledge in Rare Diseases

Syneos Health is uniquely qualified to facilitate seamless clinical and commercial planning and execution within the special environment of rare diseases through our Rare Disease Consortium. This collaborative group harnesses the power of our physicians, scientists, commercial strategists and key professionals to ensure a holistic view—from clinical trial planning and execution through successful commercialization.

#### The Rare Disease Consortium

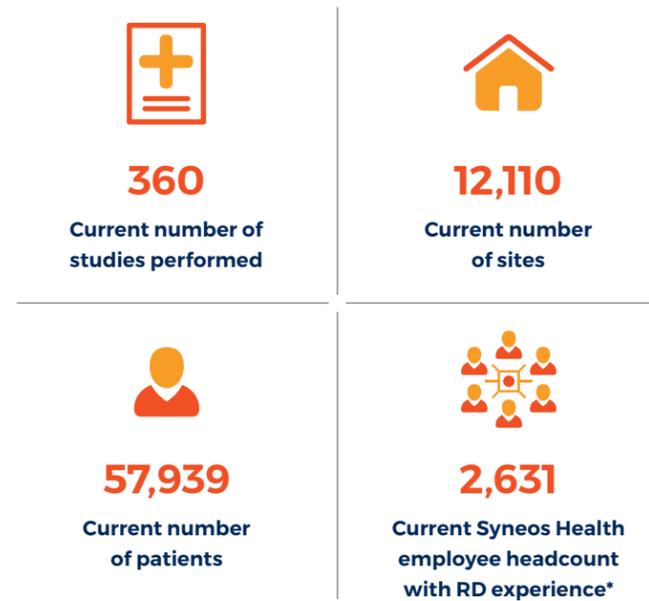
- Understands the unique considerations and issues associated with developing innovative new treatments for rare diseases
- Believes in a patient-centered approach to allow the best patient experience and the most robust clinical data
- Integrates strong medical, operational, regulatory science and commercial expertise driven by collaborative relationships between investigative sites, treating physicians, patient advocacy groups, academic thought leaders and sponsor companies
- Shortens the distance from lab to life for products and patients with rare diseases in a faster, better way

### Supporting Patient Access to Treatment

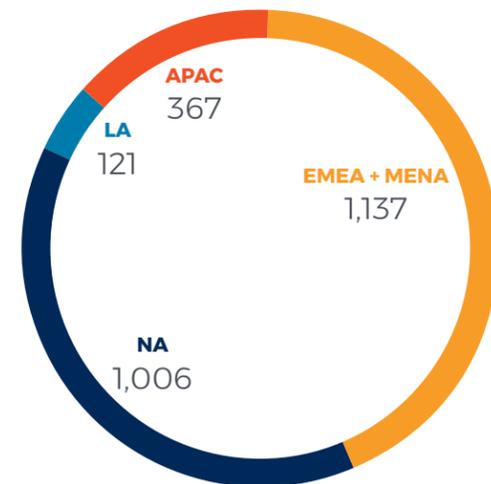
Helping our clients develop the medicines people need is something we take personally. Rare disease clinical development presents very specific challenges. We understand the sense of urgency to accelerate development of rare disease treatments and to facilitate access to medicines for these patients. It is our responsibility to develop highly tailored strategies aimed at managing the potential challenges that rare disease studies can present, to ensure that every single patient with a rare disease has the option to access a potential treatment through participation in clinical trials.



### Our Rare Disease Experience



### Syneos Health Staff with Rare Disease Experience



### Syneos Health Orphan Drug and Rare Disease Commercial Experience Since 2015

	Number of projects	Project examples
<b>Consulting</b>	5+	<ul style="list-style-type: none"> <li>• Launch Strategy Development</li> <li>• Market Access Commercial Model</li> <li>• Go-to-Market Strategy</li> </ul>
<b>Advertising</b>	30+	<ul style="list-style-type: none"> <li>• Multiple HCP, DTC, and Consumer U.S. Agencies of Record</li> <li>• Multiple Brand Name and Backup Naming Development and Testing</li> <li>• KOL Mapping</li> <li>• Messaging Development</li> <li>• Unbranded HCP Concepts Qualitative Research</li> <li>• Campaign Execution &amp; Website Rebrand</li> <li>• 2018 Brand Tactics</li> <li>• FDA Documentation Support</li> <li>• Managed Markets Strategic Consulting</li> </ul>
<b>PR &amp; Medical Communications</b>	30+	<ul style="list-style-type: none"> <li>• Virtual Ad Board Series</li> <li>• Virtual Global Stakeholder Sessions</li> <li>• Sales Video Development</li> <li>• FDA Approval Support, Data Communications, Disease Awareness, and Traditional Media Relations</li> <li>• Employee Engagement and 10 year Anniversary Support</li> <li>• Corporate Support and Issues Management</li> <li>• PR, Data and Regulatory Milestones</li> <li>• Advocacy and Issue Management, Product Approval and Launch Support</li> <li>• Expanded Access Policy Communication</li> <li>• Medical Affairs and Strategy Execution</li> <li>• Media Relations Support and Advocacy</li> <li>• Conference and PR AOR Support</li> </ul>
<b>Selling Solutions</b>	10+	<ul style="list-style-type: none"> <li>• Referral Team</li> <li>• Tele Team</li> <li>• Learning Solutions eCourse Redesign</li> </ul>
<b>Medication Adherence</b>	1	<ul style="list-style-type: none"> <li>• Patient Adherence Programs</li> <li>• in-Pharmacy</li> </ul>

\*Clinical team experience only. Additional teams across the organization have this experience as well.

## Identifying the Right Patients for the Right Studies

### Fostering Collaboration Among Investigators, Advocacy and Support Services

The key challenge in developing treatments for rare diseases is identifying, recruiting and retaining suitable patients in clinical trials. Enrollable patients might exist interspersed throughout a given country or may be geographically clustered due to inheritance patterns. Trial setup and operations must be mindful of this in order to provide the best access for patient participation.



#### Academic investigators/ thought leaders

Collaboration with key academic investigators and thought leaders is one of our critical strategies to successfully identify patients with a specific rare disease.



#### Advocacy groups

Patient communities and advocacy groups lend a voice to those suffering from rare diseases and can provide insight into acceptable procedures and specific concerns. They can share specifics of the disease and how it affects everyday life, which can be particularly important when the patient population is predominantly pediatric. Focusing on advocacy networks helps us include the voice of the patient in development.



#### Home health organizations and support services

In addition, the cooperation with specialized vendors, such as home nursing support companies and dedicated travel agencies managed through our Rare Disease Consortium, allows Syneos Health to provide integrated trial solutions.

### Integrated Evidence Planning

For those of us in the business of developing rare disease treatments, our field is already a test bed for the kinds of evidence payers seek. We, too, need a panoramic view—precisely because there are so many research challenges and constraints in rare diseases. These obstacles have forced researchers in orphan drugs to become early adopters of real world evidence, adaptive and pragmatic clinical trial designs, and other still experimental approaches that yield valuable information.

**If a research approach holds the promise of speeding safe medicines to patients who have no treatment options, it is guaranteed to be part of our tool kit.**

## Making a Case for Real World Evidence (RWE)

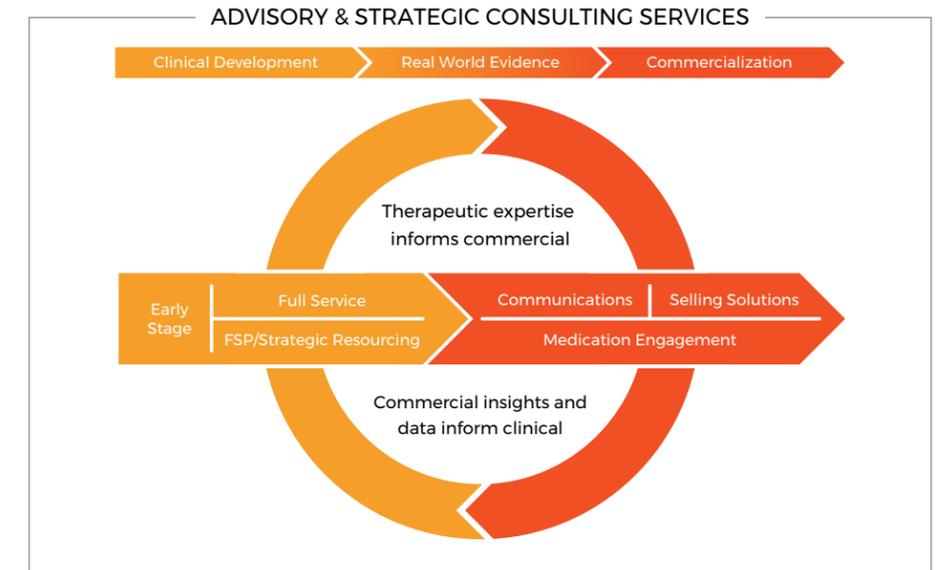
RWE is an imperfect classification covering a myriad of data sets from diverse sources, including:

- Health data streaming from smart phones and other mobile devices
- Patients' self-reported experience of their conditions, through message boards, or medical social media, or in structured formats such as patient registries and patient-reported outcome (PRO) measures
- Electronic medical records, insurance claims and archives of lab results

Unfortunately, RWE is likely to include unstructured data and can be subject to bias and “confounding” when used to compare medical treatments. However, RWE enables you to design trials around patients, rather than forcing patients to fit the protocol, as has been the case historically for non-rare treatments.

### Custom Solutions for Specific Data-Generation Needs

RWE generation allows us to see evidence generation as is a continuous process throughout the product life cycle. RWE influences everything we do through our Biopharmaceutical Acceleration Model—giving us a unique and competitive edge for customers looking to do everything they can to ensure success for their products.



## Navigating the Evolving Global Regulatory Environment

### Balancing Emotion and Expedited Approval

When advocacy groups become activists in the regulatory process pressing for the speedy approval of promising medicines, drug development companies and investigators seek to expedite study conduct and data generation. Regulators aim to balance patient engagement with approval standards for new products. Insurers worry emotions will overrule evidence. Payers, although sympathetic to patients, are more inclined to rely on clinical evidence.

Ambiguities in the rare disease market may slow adoption of real world evidence and novel trial designs in some regulatory settings. Fortunately these tools are already embedded in the 21st Century Cures Act and PDUFA VI. They also have the endorsement of payers, who ultimately determine whether patients gain access to these new therapies.

Syneos Health understands the burdens and challenges associated with regulatory pitfalls. Our Rare Disease Consortium encompasses experts in regulatory consulting who develop highly tailored strategies aimed at managing the challenges that rare disease development can present. Our regulatory experts can help companies with:

- Applying for orphan drug designation
- Advising on potential expedited development pathways
- Obtaining early agency advice and agreement on the development program at key milestones
- Preparing and submitting applications for clinical trials and marketing authorization
- Considering the pros and cons of expanded access programs
- Designing a development program to meet current regulatory expectations with appropriate consideration of the flexibility needed for investigation of rare diseases

**By using best-in-class people, processes and technologies in our approach to rare diseases, we develop clinical research designs and scientific insights to improve commercial strategies—to shorten the distance from lab to life.**

## Purpose-Built to Create Biopharmaceutical Acceleration



Shortening the distance  
from lab to life®.

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**Contact us for more information about how Syneos Health can support your Rare Disease development initiatives.**

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### About Syneos Health

Syneos Health™ (Nasdaq:SYNH) is the only fully integrated biopharmaceutical solutions organization. Our company, including a Contract Research Organization (CRO) and Contract Commercial Organization (CCO), is purpose-built to accelerate customer performance to address modern market realities. Created through the merger of two industry leading companies – INC Research and inVentiv Health – we bring together more than 23,000 clinical and commercial minds with the ability to support customers in more than 110 countries. Together we share insights, use the latest technologies and apply advanced business practices to speed our customers' delivery of important therapies to patients. To learn more about how we are **shortening the distance from lab to life®** visit [syneoshealth.com](https://syneoshealth.com).