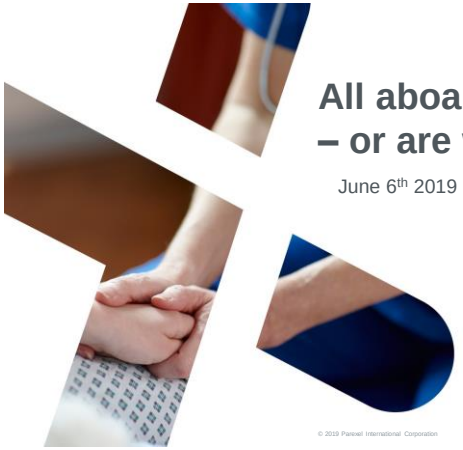

All aboard for big data – or are we?

June 6th 2019

parexel

Introduction

- **Aim**
  - To Discuss the opportunity of Big Data in Life Science and some of the hurdles in realizing the opportunity
    - Brief Presentation to position the topic
    - Panel Discussion to dig deeper on some Key Themes
- **Panel**
  - Francis Kendall, Senior Director, Biostatistics & Statistical Programming, Cytel
  - Nan Shao, VP, Global Head of Biostatistics & Statistical Programming, Parexel
  - Sam Roosz, Head of Life Sciences, Datavant

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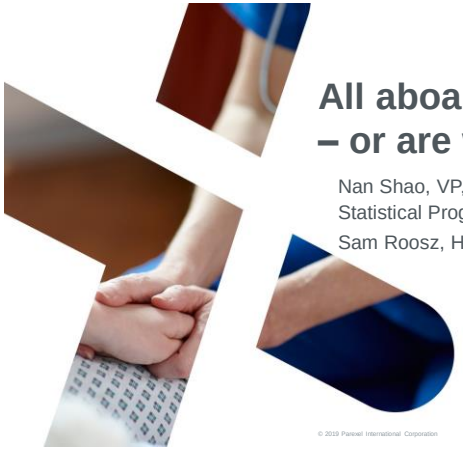

All aboard for big data – or are we?

Nan Shao, VP, Global Head of Biostatistics & Statistical Programming, Parexel

Sam Roosz, Head of Life Sciences, Datavant

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Driving innovation through partnering and collaboration

- Brief intro to Datavant & Parexel's approach

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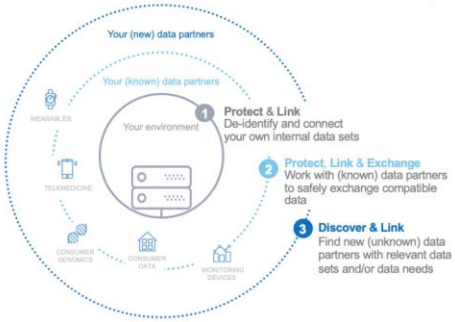
The key: build your own data network . . .



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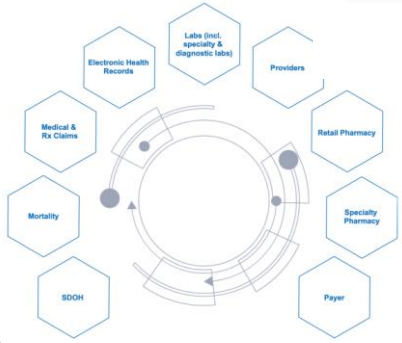
Leveraging an open real-world data ecosystem



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Datavant life science applications

1. **Linked Real-World Data Asset:** Datavant's technology is used to create real-world data assets that link data from multiple dimensions to create a more holistic and longitudinal view of patients to support:
   - Protocol Design
   - HEOR
   - Market Sizing
   - Patient Identification / Site Selection
2. **Enhancing Trial Data:** Datavant's tokens can be applied to trial datasets, enabling the following (with appropriate patient consent):
   - Enhanced analysis of RCT data through linking in additional data pertaining to patient journey concurrent to trial
   - Extended observational studies / patient registries linked to RWD
   - Post-marketing surveillance of studied patients
3. **Commercialization:** The Datavant solution provides a means to connect health data to marketing data without compromising patient privacy, enabling new avenues for marketing and measurement

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Tapping into the value of real-world data

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The value of real-world data

- Economist Intelligence Unit (EIU) evaluating Phase II & III studies incorporating RWD:

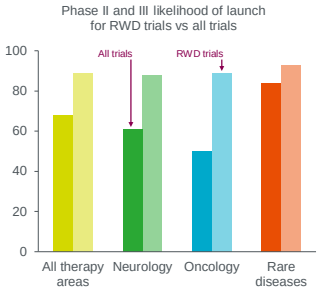
Significantly Higher Trial Enrollment Rates

Improved Drug Development Efficiency

Early Payer Engagement & Reimbursement Decisions

Support for Regulatory and Market Access Decisions

Greater Launch Success



Data: 2012-2017. Source: Trialtrove® | Pharma Intelligence.

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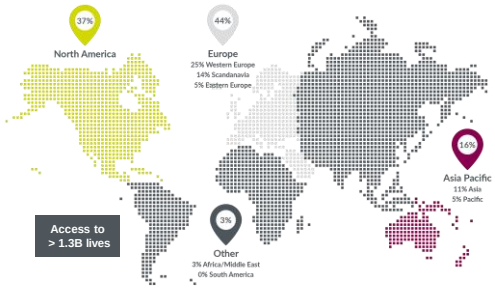
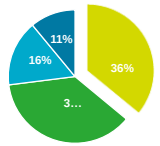
Global access to real-world data



Access to > 1.3B lives

Diverse Range of Data Types



- Longitudinal EMR/Claims
- Drug/Disease Registries
- National Surveys
- Surveillance/Spontaneous Reporting

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Evolving use of real-world data in drug development

Innovative approaches beyond traditional applications

Traditional use cases

- Health economic modeling
- Market access strategy
- Optimizing operational models and protocols for studies
- Informing corporate and product development strategies

Emerging use cases

- Hybrid data delivery models
- Randomized studies within EMR systems
- Direct-to-patient study designs
- Mobile health device-based studies

Identify the outcomes (endpoints) **Measure the outcomes (endpoints)**

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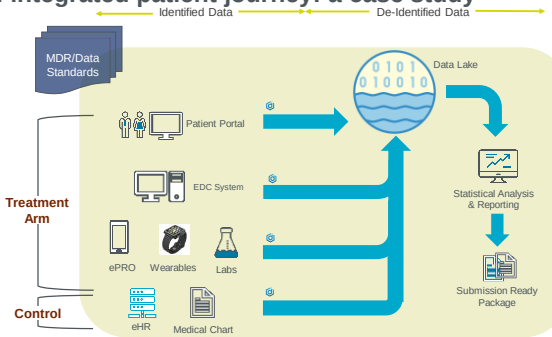
An integrated patient journey: a case study



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Thank you
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