

# Channel Engagement Optimization with Analytics: Physician Segmentation

Modern drugmakers understand the mission-critical role that effective physician engagement can play in the launch, growth, and success of a product. Increasingly, more and more channels are competing for physician awareness, making the process all the more challenging.

Clarkston was engaged by a leading biopharmaceutical company to develop an analytics-based physician segmentation process aimed to maximize engagement across sales and marketing channels. Clarkston's analytics team examined the client's available data and identified opportunities to optimize the sales and marketing mix strategy, with a focus on digital. The team was able to leverage data the company was already collecting around physician attributes and prescribing patterns to group customers and improve and optimize engagement through multiple machine learning models. This new perspective of their target physician group enabled the ability to anticipate reactions to future campaigns and provide data-based insights with a clear roadmap of potential changes.

# **Life Sciences Case Study**

# PROJECT OVERVIEW

## **COMPANY:**



A pharmaceutical manufacturing company

#### PRODUCTS + SERVICES:



Rare disease pharmaceutical manufacturer

#### **EMPLOYEES:**



700

#### **REVENUE:**



\$2 billion

#### PRIMARY OBJECTIVES:

Clarkston partnered with the client to:

- Find and understand clusters of doctors by channel responsiveness,
- Enable the ability to predict and HCP's reaction and engagement with a specific channel and content,
- Establish a repeatable end-to-end data science project methodology, and
- Jumpstart RapidMiner as the go-to analytics tool for the client

### **RESOLUTION:**

In order to achieve the objectives set forth, Clarkston:

- Extracted data from internal and external sources and developed a data dictionary of all fields,
- Transformed, profiled, and tested each data set to develop a deeper understanding of each physician attribute's effect on engagement,
- Used a machine learning algorithm to cluster physicians by an analytically-driven selection of variables,
- Provided a deeper analysis on each cluster's digital and in-person engagement across sub-channel tactics,
- Provided 2 complimentary machine learning models to first, provide predictive values for key attributes where missing and second, use those predicted values in model that will predict cluster for future physicians in the database, and
- Recommended potential opportunities around test cases for targeted tactics and timing for specific physician groups.

## **KEY BENEFITS:**

As a result of the project, the client realized the following benefits:

- Enterprise proof of concept regarding the use of both readily available data and data available for purchase,
- Identified opportunities to improve purchasing decisions around data,
- Enhanced data and analytics sustainability through improved understanding of data governance and data maintenance controls,
- Improved organizational understanding and capability leveraging advanced analytics for decision-making, both strategic and tactical,
- An evolved approach to customer segmentation, from a traditional approach of categorizing customers through manual processes to using an autonomous learning algorithm to detect engagement patterns,
- Identification of customer groups with engagement potential given specific combination of channel, tactic, timing, and content, and
- Understanding of relative effectiveness and predictive capability of currently purchased data on marketing and sales engagement patterns.





Activated 3 new advanced analytics workstreams



Adjusted sales strategy for over 700 doctors to prevent premature adoption of the competitor drug



Conducted large-scale
AB/BA tests that successfully
supported insights on email
send time, subject line
content, and email sender



