**2020 Accomplishments**

**Innovation**

* Patient Support Program Launch Cost Benefit Studies: constructed a new baseline based on Merck’s financial claims forecast when there is no copay program in place to measure impact of proposed copay designs – for the Vericiguat Launch.
* Copay Design Tool: continued to work w/vendor (DataZymes) to create an Excel/R tool to automate copay design studies for national and state-based copay programs
* Employee Development: Continue to work on developing procedures to expand the scope of marketing mix models and on improving the measurement of coupon utilization programs.
* Consulting: approached customers to determine measurement opportunities for coupon utilization programs early in the year; instructed customers on new ways of measuring impact of copay programs. Worked w/sales operations and Finance to produce copay design studies.

**Core Services**

* Coupon/Voucher Design Optimization – consulted on the following projects:
  + Analytic Roadmaps: constructed analytic roadmaps for the Diabetes, Insomnia, and HIV market which described the copay analytic services that MAIO could provide to the brand teams. Met with the Diabetes and Insomnia brand teams to go over the copay analytic plan for their brands.
  + Copay Design Tool: supervised and QCed the development of an Excel tool that will automate the production of copay design abandonment/adherence cost benefit studies.
  + Steglatro Family 2020 Quantity EV Copay Design – evaluated EV design based on quantity discounts (higher buydowns for 60-90 day scripts). Concluded that this design was not cost-effective.
  + Prevymis EV State Analysis: performed a cost-benefit study of expanding the Prevymis EV program to more states. Concluded that it was not cost effective to expand the program.
  + Gefapixant Benefit Study: forecast the estimated patient benefit (claims) from the Gefapixant launch based on commercial/Medicare patient forecasts, estimated copays, and abandonment/adherence rates (from IQVIA) for selected analogs.
  + IQVIA Abandonment/Adherence Study for the Congestive Heart Failure Market – helped developed requirements for an IQVIA cost-benefit study of proposed Vericiguat 2021 Copay and Denial Conversion programs. Supervised the analytic work and QCed the study results.
  + Vericiguat 2021 Patient Support Program Cost Benefit Study: performed a cost-benefit study of the proposed Coupon/EV/Denial Conversion programs to coincide with the Vericiguat launch in 2021. Incorporated findings from selected analogs and the IQVIA study. Recommended that the brand team launch all programs in early 2021 and to monitor the cost of these programs during the year.
  + IQVIA Abandonment/Adherence Study for 5 Markets – developed requirements for IQVIA study w/Senthil Murugan needed for optimal design of 2022 coupons. The study will provide utilization and abandonment/adherence metrics for brand teams (DPP4, SGLT2, HIV, Chronic Cough, and Congestive Heart Failure).
* Vaccine/Specialty Promotion Response Curves (PRC): developed customer segment PRCs (year ending May20) for:
  + Gardasil (High/Low Meningitis Market, Nation)
  + Rotateq (High/Low Meningitis Market, High/Low Rotateq sales, Nation)
  + Pneumovax 23 (Clinics, Hospitals, Clinics/Hospitals)
* Marketing Mix Models: Pneumovax 23 (P23) MCM/MMF/HCP/HCC ROI Analysis: evaluated the sales impact of P23 HCP/HCC promotional programs for year ending Jan20 using marketing mix models for:
  + Biopharm: $0.17MM measurable
  + Doximity: $1.19MM measurable
  + Medscape: $1.98MM measurable
  + Peer Direct: $0.83MM measurable
  + Field Email not measurable
  + SFMC $0.22MM not measurable
  + Alerts $0.96MM measurable
  + Banners $0.15MM measurable
  + eDetails $0.24MM measurable
  + eMails $1.87MM measurable
  + Expanded Banners $1.19MM measurable
  + Overall MCM: $4.40MM measurable
  + Overall MMF: $0.18MM measurable
  + HCC Display $2.16MM measurable
  + HCC eMail $0.48MM not measurable
  + HCC Print $0.46MM not measured
  + HCC Paid Search $1.36MM measurable
  + HCC Social $1.56MM measurable
  + HCC Video $1.34MM measurable
  + HCC Organic Search measurable
  + HCP Mass media not measured – organic search, paid search, display

**COE Development**

* Recruiting:
  + 2020 Graduate Interns: recruited, hired, trained and helped supervise two graduate interns in summer of 2020. The interns worked on developing machine and deep learning models for market mix analyses, promotion response curve estimation, and optimizing next best engagements.
  + 2021 Graduate Intern: recruiting graduate interns for summer of 2021.
  + MA&IO Graduate Intern Program: supervised MA&IO graduate intern program. Worked with Mike DeFazio to implement and manage MA&IO intern recruitment.