Data Integrity Clean-up for Health-Tech startup and New Performance Metric Creation for Regional Health System

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CHIP 793: Internship Final Presentation
June 12, 2022
Presentation Overview

Business Development and Analytics at Cured Health
- Data Integrity Clean-Up
- HubSpot
- Dashboard Building

TPMG Analytic Consulting Internship
- Overview of TPMG
- SAS and SQL Programming
- Tableau Dashboards

Challenges and Lessons Learned
- First time working in sales
- Learning new programming language and software: SAS and Hubspot
- Juggling two different projects at once
Background

Sponsoring Organization #1
Series A Health Tech Start-up
Manager: Josh Kalscheur – VP of Business Development
Supported: Business Development Team

Project Goals:
• Improve data integrity of HubSpot Sales Management platform
• Create workflows to ensure consistent record upkeep
• Create dashboards to track representative outreach, deal progression, and market segment activity
Data Integrity Clean-up

Updated over 4,000 records within the sales tracking platform Hubspot

- Researching and building out prospective customers and associated contacts in HubSpot
- I researched and updated over 4,000 company, deal, and contact records
  - This was a huge help to the BD team who was struggling to keep on top of updating records within Hubspot
- Created multiple workflows that would automatically update company records if they were missing fields in the future
Dashboard Building

Created dashboards in Hubspot used to track representative outreach, deal progression, and market segment activity

- created dashboards that tracked the BD team's performance on outreach and allowed the team to see their outreach based on market segment and industry
- created dashboards that tracked deal progression based on market segment
- created a dashboard that tracked all company records in which the team had completed a discovery call
  - ensured all these company records contained all the necessary data types
Examples of Dashboards Created in Hubspot
PE Backed Healthcare Services Companies

Identified need to increase outreach to healthcare services companies - researched subtypes and added new company records for outreach in Hubspot

- Collaborated with Cured CEO to brainstorm healthcare services subtype categories
- Researched possible companies within these subtypes, and built them out in Hubspot
- CEO was particularly interested in Private Equity backed healthcare services companies
  - Researched PE firm portfolios to find PE-backed healthcare services companies
- Created a healthcare services tracking dashboard within Hubspot

<table>
<thead>
<tr>
<th>Categories to Focus On</th>
<th>PE Firms to Focus On</th>
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<tbody>
<tr>
<td>Urgent Care (1)</td>
<td>Adams Street</td>
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<tr>
<td>Mental &amp; Behavioral Health</td>
<td>Water Street</td>
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<tr>
<td>MSK - Physical Therapy, Chiropractic, Joint, Ortho (2)</td>
<td>Linden</td>
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<tr>
<td>Long Term Care (SNF, Post Acute Rehab)</td>
<td>BPOC</td>
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<td>Dental</td>
<td>General Atlantic</td>
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<td>Radiology</td>
<td>SilverSmith</td>
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<td>Oncology Care</td>
<td>Merlis</td>
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<tr>
<td>Eye Care (Optometry, Ophthalmology)</td>
<td>Triple Tree</td>
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<td>Dermatology (3)</td>
<td>Silver Oak</td>
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<td>Primary Care</td>
<td>TPG</td>
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<td>Home Health &amp; Hospice</td>
<td>General Atlantic</td>
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<td>Dialysis</td>
<td>Deerfield</td>
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<td>Women's Health</td>
<td>Great Hill</td>
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<td>Digestive and Gastro</td>
<td>JMI</td>
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<td>Vein Care</td>
<td>Spectrum</td>
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<td>Ambulatory Surgery Center (4)</td>
<td>ObiMed</td>
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<td>Insight</td>
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<td>Audax</td>
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**Background**

- **Sponsoring Organization #2**
- The Permanente Medical Group is the largest medical group in the United States
- **Manager:** Paul Sims – Data Analytics and Reporting Consultant IV
- **Supported:** TPMG Consulting Services – Analytic Consulting Department – Primary Care Homeroom

**Project Goals:**

- Create new Prenatal Screening Performance Metric and dashboard to visualize data
- Transfer existing procedure dashboard from Excel to Tableau and add demographic information
Disclaimer:

- I cannot provide specific details about my projects including pictures of dashboards or code because it would be considered a breach of Kaiser Permanente sharing policies.
- Both of my projects included analyzing and querying highly classified PHI directly from the clarity database which holds all patient records from Epic.
- Because of this, the department has particular and strict sharing policies about projects, and we must treat all project details as proprietary information.
New Prenatal Screening Metric

Worked with TPMG Chair of Chiefs - OBGYN - to create new prenatal screening metric (modeled after existing HEDIS measure specifications)

- Researched HEDIS measurement specifications, and CA recommendations to create specifications for the new metric
  - This included defining the measurement period, initial population, numerator and denominator
- Used SAS and SQL code to query clarity database in order to get the necessary numerator and denominator data
- Exported metric data to Tableau and created a dashboard to visualize the performance by service area and medical center

HEDIS and Performance Measurement

The Healthcare Effectiveness Data and Information Set (HEDIS) is one of healthcare’s most widely used performance improvement tools. 191 million people are enrolled in plans that report HEDIS results. Visitors to this page often check HEDIS FAQs, ORS FAQs, or ask a question through MyNCOA.

HEDIS MEASURES

HEDIS® includes more than 90 measures across 6 domains of care:

- Effectiveness of Care.
- Access/Availability of Care.
- Experience of Care.
- Utilization and Risk Adjusted Utilization.
- Health Plan Descriptive Information.
- Measures Reported Using Electronic Clinical Data Systems
Procedure Dashboard Update

Worked with TPMG Chief of OB/GYN to update an existing excel procedure dashboard to include race/ethnicity information and re-design in Tableau

- Use SAS and SQL code to query database in order to get the race/ethnicity information that was requested by the physician client
- Create a SAS table with all of the necessary information requested by client for the dashboard
- Export data from SAS to Tableau and create a dashboard that visualizes the procedure data by service area, race and ethnicity
  - the goal of the new dashboard was to make it more user friendly and interactive by moving it from Excel to Tableau
Challenges & Lessons Learned

01 Thrown into the hectic world of BD for a small series A Healthcare Tech startup
   • No prior sales or business development experience
   • Realized how integral BD is for a new company

02 Learned new software and programming language
   • Hubspot
   • SAS programming

03 Juggled two different deliverables and clients at once for TPMG
   • Can be overwhelming at first but with organization and sticking to a schedule, you can conquer both successfully

04 Small startup vs large regional health system
   • really enjoyed getting to experience the pros and cons of working for a small vs large company
   • allowed me to reflect and decide how I want to start my career
THANK YOU

I hope you enjoyed learning about my internship experiences

CONTACT INFORMATION

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