



Market Analysis & Sales Strategy Recommendations

BIA 810

Health Care Data & Analytics

Final Project

[Team 1]

Fall 2023

Meet the Team!



Professor: Sanjiv Koshal



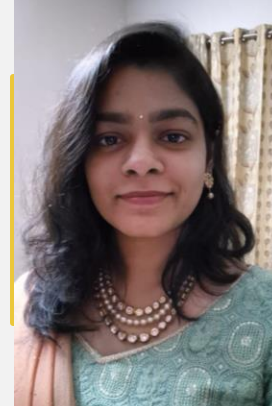
Abhishek



Bhandavi



Harshita



Meghana



Shanmukh



Varsha



Executive Summary

PROBLEM STATEMENT

- As a Healthcare Commercial Analytical Team working for anesthesia drugs portfolio at a big pharma company.
- Your company has a market leading brand (Product 1) in the anesthesia portfolio. Your company also has recently launched a variant of the same brand (Product 2) in the market which is supposed to cannibalize your leading brand.
- However, the expected cannibalization is not happening in the market. It appears that instead of your new product capturing the dropping sales of your old product, one of your competitors (Product 3) is rapidly gaining market share, leaving your new product (Product 2) to lose its expected market share.

BUSINESS SOLUTION

Desirable sales recommendations and strong data-driven, actionable insights to gain market share for Product 2



Our recommendations will

- Enhance HCP Engagement for Product 2
- Reduce market share erosion of Product 2
- Support sales and marketing initiatives to grow Product 2 footprint
- Solve the issue of slow adoption

Business Impact

Comparision Matrix

of the Injectable Anesthetic Market

-Meghana Arumilli

Product 1 - Ketorolac Tromethamine (KETOTROM)

Class: Nonsteroidal Anti-Inflammatory Drug (NSAID)

Indications: Short-term pain management (moderate to severe), often post-surgery

Mechanism of actions: Inhibits COX enzymes, reducing pain and inflammation

Considerations:

Max use: 5 days

- Not recommended for pediatric patients
- Caution in individuals with
- gastrointestinal issues.



Product 2 - Midazolam Hydrochloride(MIDORIDE)

Class: Benzodiazepine

Indications: Sedation, anxiety, and amnesia during medical procedures; treatment of severe agitation and prolonged seizures

Mechanism of actions: Enhances the effect of GABA at the GABA-A receptor, leading to CNS depression

Key Considerations:

- Use with caution in patients with respiratory or hepatic impairment
- Potential for abuse and dependence
- Should be administered under strict medical supervision



Product 3 - Fentanyl Citrate (FENTIRATE)

Class: Synthetic Opioid Analgesic

Indications: Severe pain, particularly in opioid-tolerant patients; adjunct to general anesthesia

Mechanism of actions: Binds to opioid receptors in the central nervous system, leading to analgesia and sedation

Key Considerations:

- High overdose risk due to potency
- Strict adherence to dosing guidelines is essential
- Not recommended for opioid-naïve patients



Product 4 - Propofol (PROFATIV)

Class: Sedative-Hypnotic Agent

Indications: Induction and maintenance of general anesthesia; sedation for mechanically ventilated patients in the ICU

Mechanism of actions: Enhances GABA at the GABA-A receptor, leading to CNS depression

Key Considerations:

- Requires continuous monitoring of vital signs
- Not suitable for patients with allergies to eggs or soy products
- Administered intravenously, with varying doses based on procedure and patient factors.



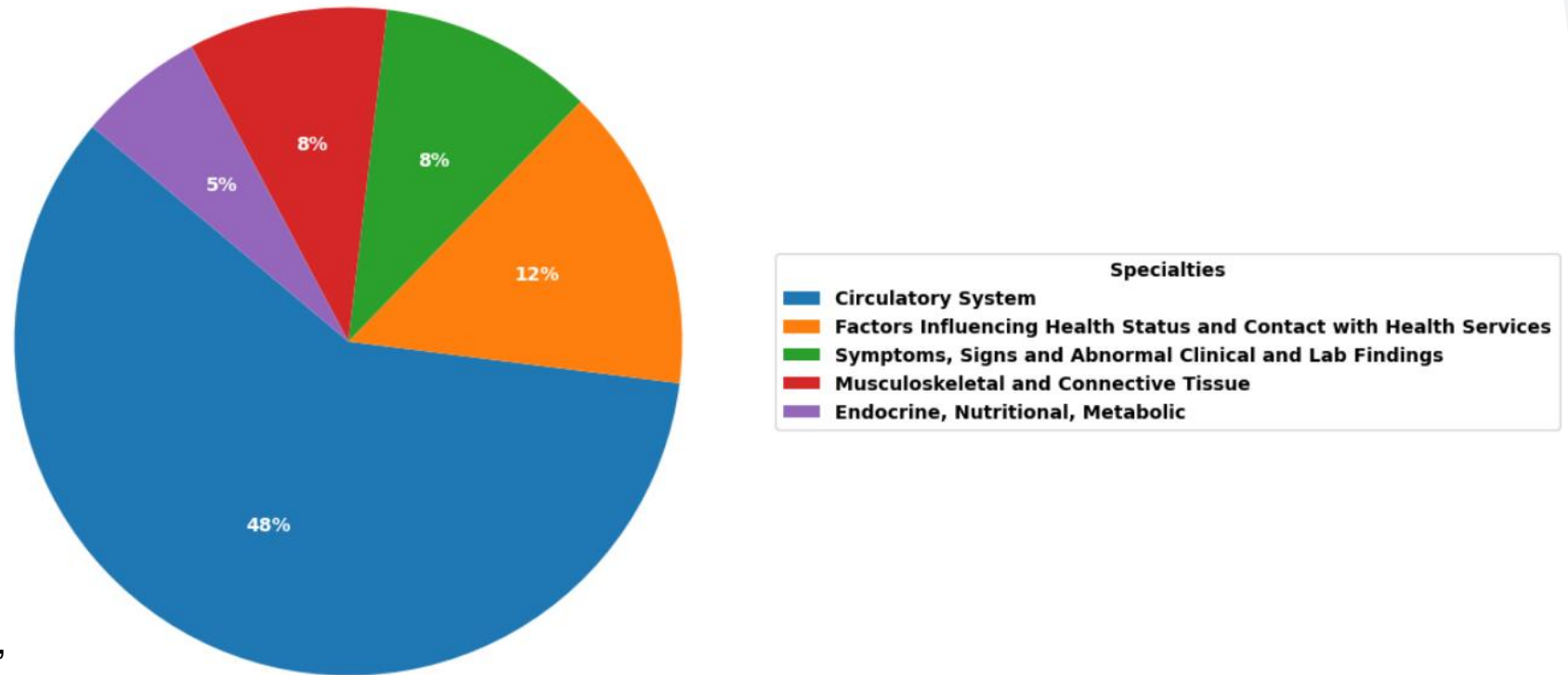
Market Landscape

Bhandavi

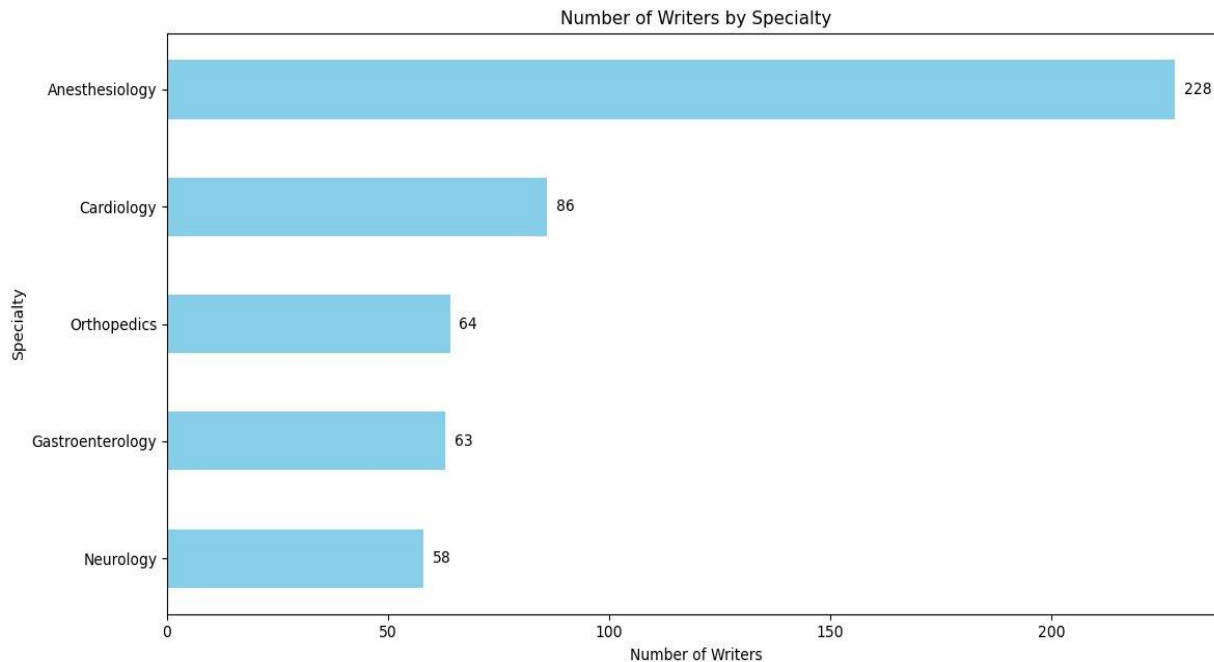
Top 5 Diagnosis Specialties Analysis

- **Circulatory System:** Dominates with **48%** of claims, indicating it is the most significant specialty.
- **Factors Influencing Health Status:** Accounts for **12%**, the second largest specialty.
- **Symptoms, Signs, and Abnormal Clinical Findings:** Represents **8%** of claims.
- **Musculoskeletal and Connective Tissue:** Also contributes **8%** to total claims.
- **Endocrine, Nutritional, Metabolic:** The smallest portion, with **5%** of claims.

Top 5 Diagnosis Specialties by Percentage of Claims



Number of Writers by Specialty

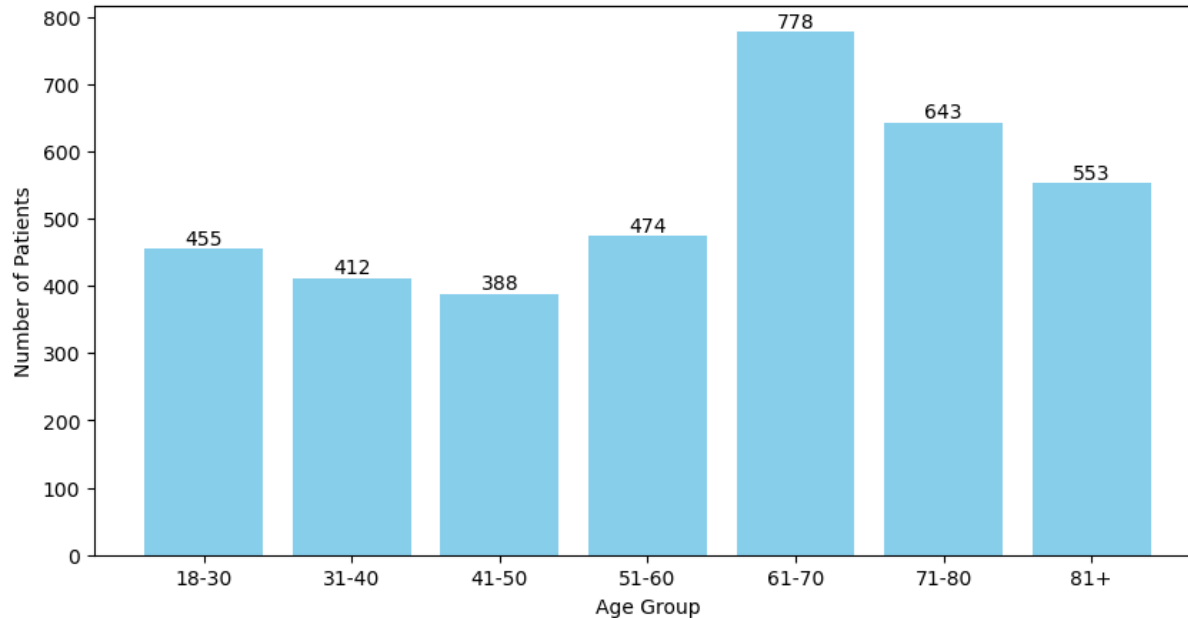


- **Intensify Focus on Anesthesiology :** Organize specialized workshops and training sessions for anesthesiologists, emphasizing Product 2's benefits in efficiency and safety.
- **Target Cardiology Specialists:** Collaborate with hospital networks to position Product 2 as the default anesthetic for cardiac surgeries.
- **Expand into Orthopedics and Gastroenterology:** Offer bundled discounts for procedures commonly performed by these specialties.
- **Capture New Prescribers:** Identify HCPs in smaller specialties (e.g., neurology, geriatrics) who have yet to adopt Product 2 and engage them with free trials and introductory pricing.

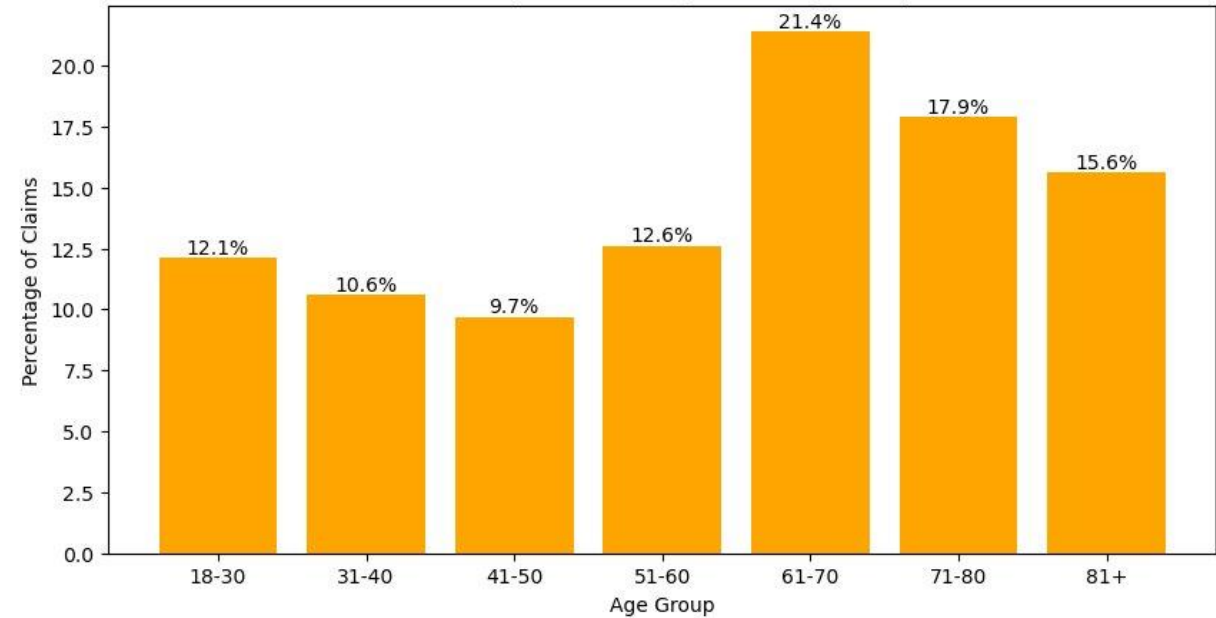


Age Group based analysis

Number of Patients by Age Group



Percentage of Claims by Patient Age Group



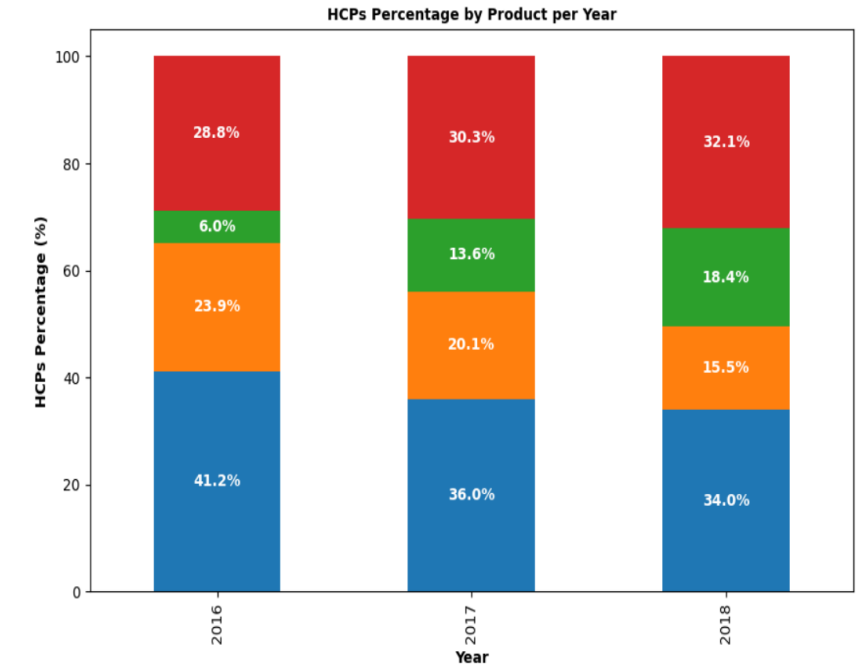
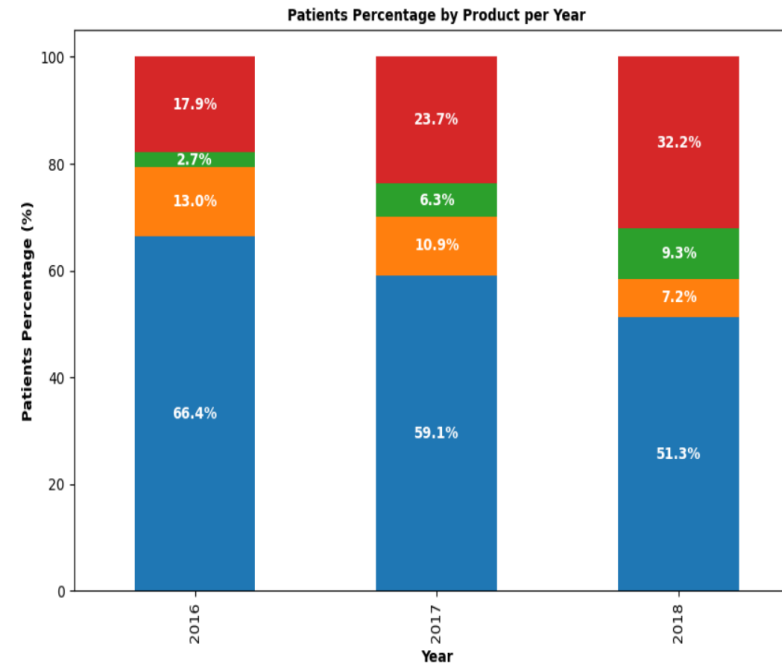
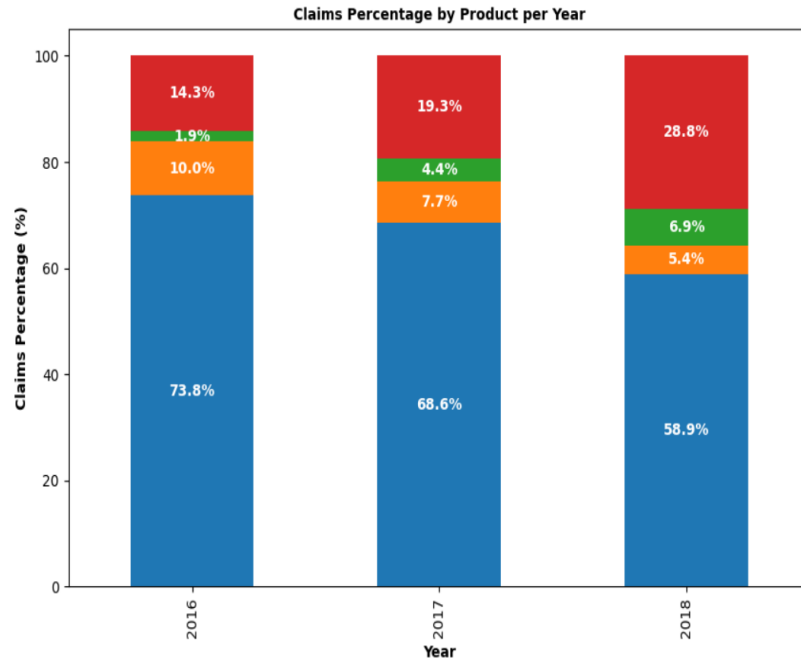
- **Collaborate with Long-Term Care Facilities:** Partner with nursing homes and geriatric care centers to integrate Product 2 into their anesthesia protocols.
- **Expand Market Share in Younger Demographics:** Highlight Product 2's applicability for procedures common among younger populations, such as sports injury surgeries (orthopedic) and diagnostic interventions.



Product Based Analysis

Abhishek, Harshita, Meghana and
Shanmukh

Claims/Patients/HCP % by Product per Year



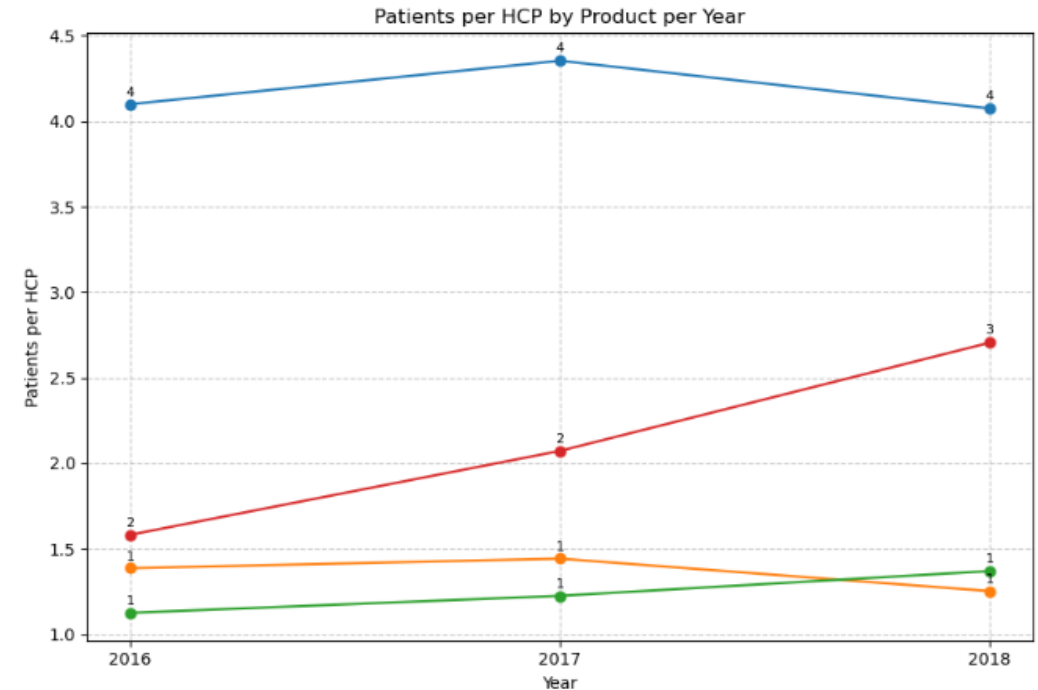
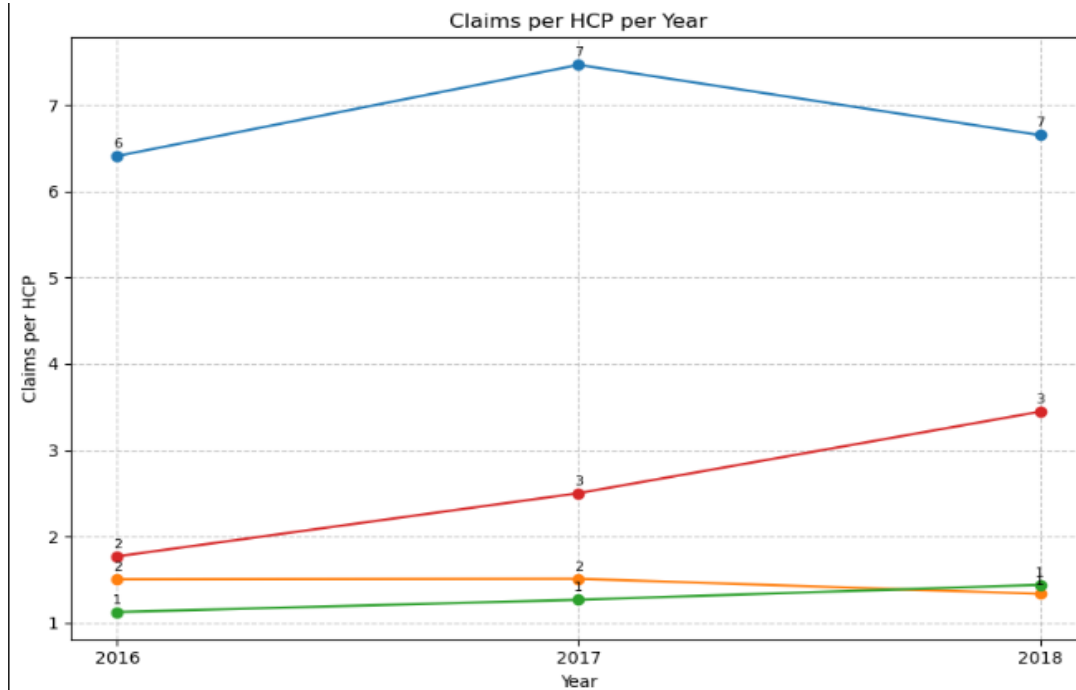
Product 1 (J1885): Experienced a consistent decline in market share, patients, and HCPs from 2016 to 2018, indicating significant market erosion, likely due to competition from Product 3.

Product 2 (J2250): Underperformed from 2016 to 2018, with sharp declines in claims, patients, and HCPs, suggesting weak adoption and difficulty capturing market interest.

Product 3 (J3010): Aggressively gained market share, showing strong growth in claims, patients, and HCPs, highlighting its appeal as a more effective alternative to Products 1 and 2.

Product 4 (J2704): Showed steady growth, with a gradual increase in market share, patient numbers, and HCP adoption, indicating growing popularity in niche markets.

Claims per HCP vs. Patients per HCP



Product 1 (J1885): It shows initial strong engagement with HCPs and patients, but failure to sustain momentum in claims and lack of new patient adoption suggest a need for revitalization.

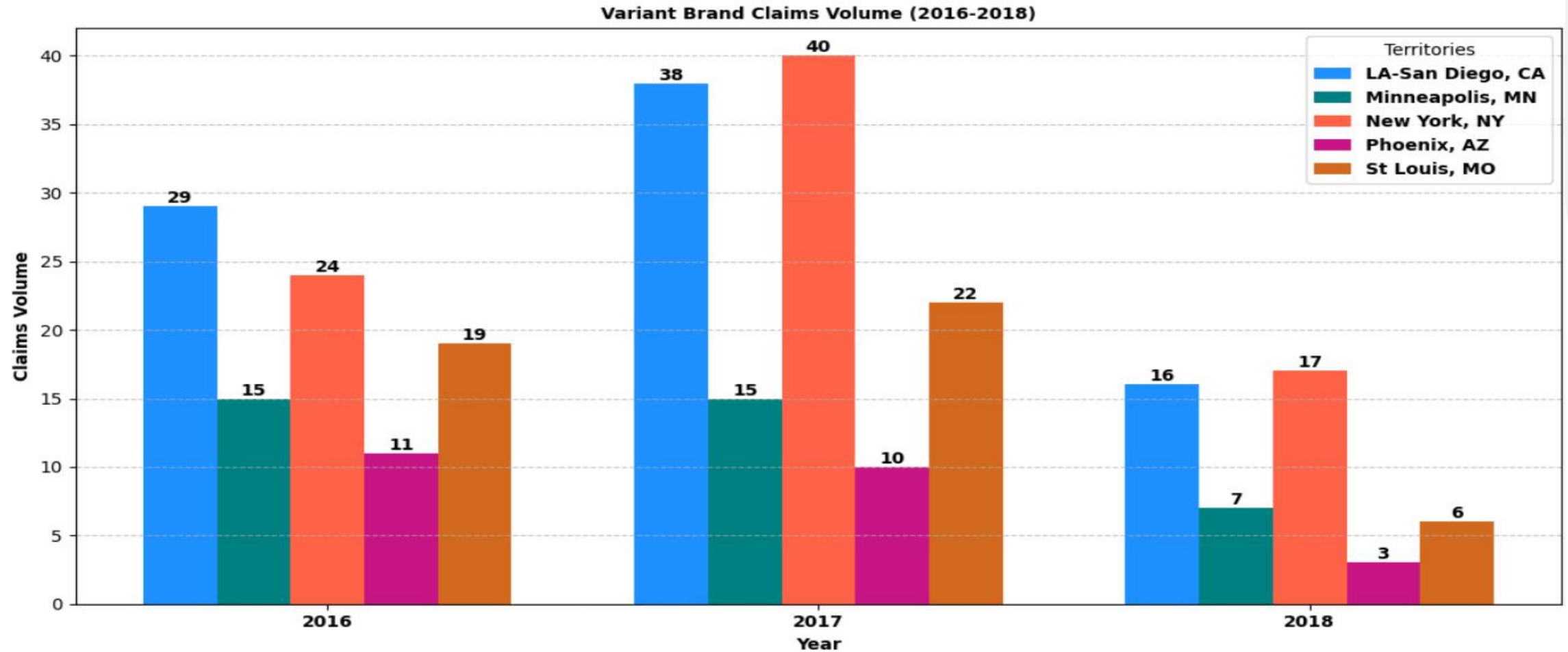
Product 2 (J2250): It is struggling with both declining claims and patient usage per HCP, reflecting a failure to engage HCPs and patients, and requiring significant efforts to regain traction.

Product 3 (J3010): It shows strong growth in both HCP engagement and patient adoption, positioning it as a successful competitor in the market with continued momentum.

Product 4 (J2704): It is seeing minimal growth in both claims and patient usage, suggesting it is not gaining significant traction and remains within niche markets.



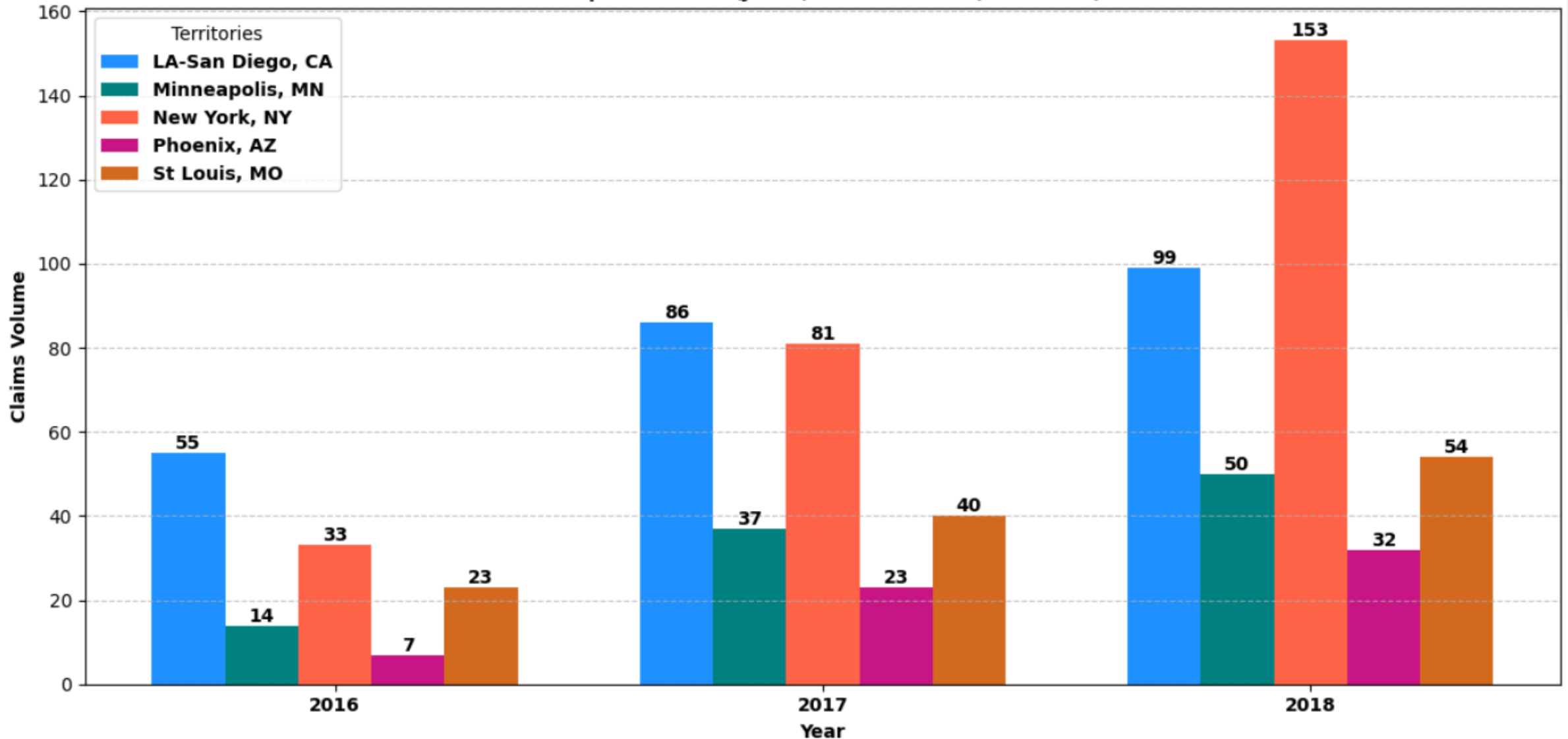
Variant Claims Volume Territories



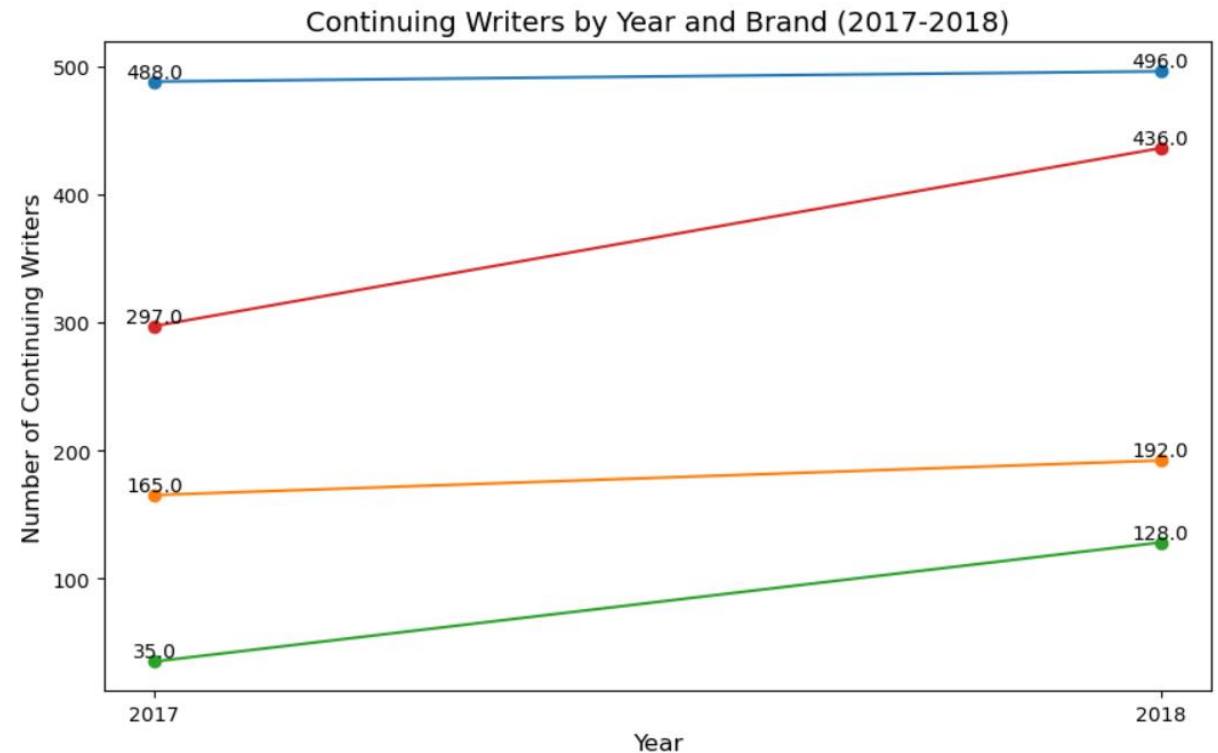
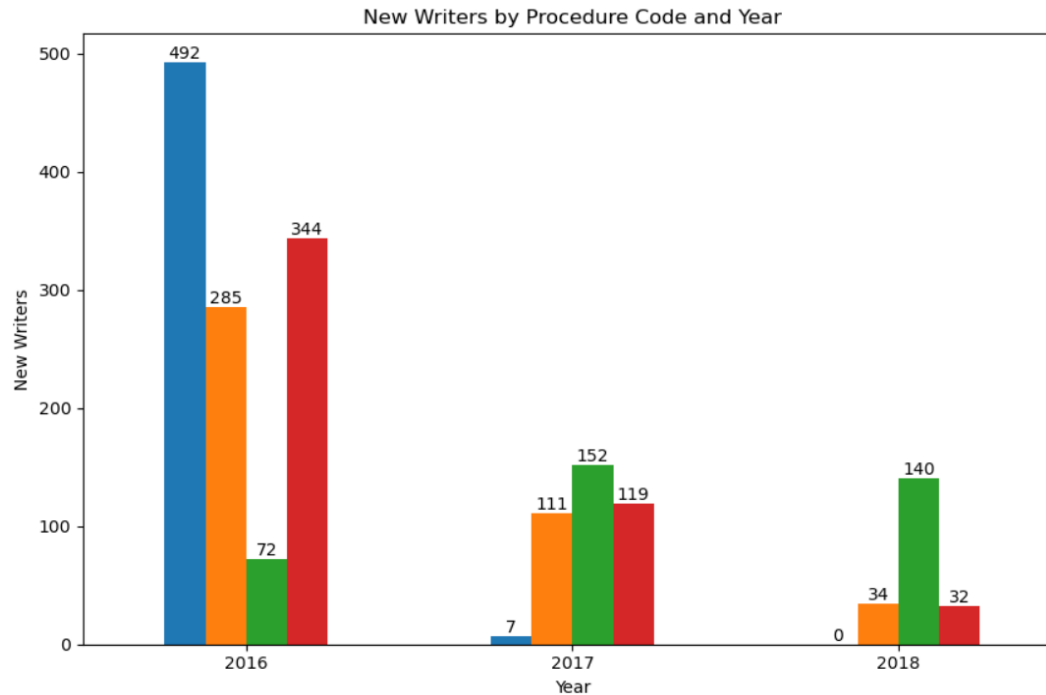
The graph shows significant fluctuation in variant brand claims by location, with the highest claims coming from Phoenix in 2017, followed by LA-San Diego, CA. Claims generally decreased by 2018 for most regions.

Competitor Claims Volume Territories

Competitor Brand (J3010) Claims Volume (2016-2018)



New Writers vs. Continuing Writers



Product 1 (J1885) shows early success but is struggling to maintain engagement and grow new patients.

Product 2 (J2250) is facing severe decline in both HCP engagement and patient adoption, requiring targeted strategies for recovery.

Product 3 (J3010) is gaining momentum with steady growth in both new writers and continuing writers, reflecting strong HCP adoption.

Product 4 (J2704) is steadily gaining market share through consistent growth in both new and continuing writers, positioning itself as a growing alternative competitor.

Strategic Recommendations

- Abhishek & Varsha

Strategic Recommendation

1. Position J2250 as a Superior Product Highlight unique clinical benefits of J2250.
2. Focus on Specialty-Centric Campaigns
 - Cardiology and Neurology
 - Primary Care Physicians (PCPs)
3. Optimize Sales Force Strategy Territory Reprioritization through
 - Sale Training
4. Enhance Non-Personal Promotional Efforts through:
 - Digital Outreach
 - Patient Assistance Programs
 - Content Development
5. Data-Driven Monitoring and Feedback
 - Immediate Action Plan Allocate Budget
 - Launch Specialty-Specific Campaigns
 - Target Territories



Final Sales Recommendation: Integrated Solution for Geriatric Anesthetic Care

Proposal:

Combine Product 1 and Product 2 into a seamlessly integrated offering, rebranded as a Comprehensive Surgical Anesthesia Package, tailored specifically for geriatric patients.

Key Features:

- Bundled Solution: A complete anesthetic surgery experience, ensuring consistency and optimal outcomes for elderly patients.
- Targeted Pricing: Offer the package at a discounted price point, aligned with the reimbursement models of geriatric medical insurance plans.
- Rebranding: Create a unified, easily recognizable product identity that emphasizes safety, efficacy, and convenience for geriatric care.

Strategic Marketing Focus:

- Primary Audience:
 - Geriatric departments in major hospitals.
 - Specialized geriatric clinics with high patient volumes.
- Marketing Approach:
 - Highlight the package's tailored benefits for elderly patients, particularly in minimizing risks and ensuring comprehensive surgical support.
 - Collaborate with healthcare professionals to position the solution as the go-to choice for geriatric anesthesia.





Data Exploration

- Varsha

Data Exploration

- **Data Gap** : Missing patient medical history, especially concerning addiction, comorbidities, and opioid dependence, limits insights into the risks associated with Product 3.
- **Actionable Step** : Use external datasets, such as *Exponent/Exponent or DDD*, to assess trends in opioid dependence and related adverse events.
- Highlight the safety of Product 2 as a non-opioid alternative, especially for high-risk patients like those with a history of addiction or comorbidities.
- **Recommended Analysis - HCP Loyalty Analysis** :
 - **Focus** : Measure the loyalty of HCPs prescribing Product 2 and analyze factors driving retention or churn.
 - **Outcome** : Develop targeted loyalty programs to prevent churn and grow the base of repeat prescribers.
- **Data Gap** : Insufficient information on HCP prescribing behavior, such as prescribing frequency, loyalty trends, or response to promotions.
- **Actionable Step** : Include **NPP (Non-Personal Promotion)** and **HCP profile datasets** to understand what motivates HCPs to switch or stay loyal to specific products.
- **Recommended Analysis - Promotion Response Correlation** :
 - **Focus**: Correlate past promotional activities with changes in claims for Product 2.
 - **Outcome**: Design targeted promotional strategies that are more likely to drive HCP engagement.



Data Exploration

- **Data Gap** : The data lacks insight into distribution channels (e.g., hospital supply chains, direct-to-HCP sales) and their influence on claims.
- **Actionable Step** : Use ***Channel Dynamics datasets (IMS Health Channel Dynamics Data (IQVIA))*** to analyze how distribution availability impacts claims and identify potential bottlenecks for Product 2.
- **Recommended Analysis – Distribution Impact Analysis** :
- **Focus** : Analyze the stock levels and delivery times for distributors in high-demand regions.
- **Outcome** : Identify that frequent stock-outs in Region A are causing anesthesiologists to switch to Product 3 (fentanyl citrate). Plan targeted interventions to improve supply in Region A.
- **Data Gap** : Minimal data on Product 3 and Product 4's marketing efforts or price sensitivity limits competitive analysis.
- **Actionable Step** : Acquire data on **promotion response**, pricing strategies, and salesforce effectiveness for competitor brands to counter their growth more effectively.
- **Recommended Analysis - Competitor Price Sensitivity Analysis** :
- **Focus**: Study the price elasticity of Product 3 and Product 4.
- **Outcome**: Optimize Product 2's pricing to be more competitive in sensitive regions or procedures.



Q&A





Thank you!