Leveraging Clinical Propensity Models in Healthcare

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Today's Intention

1. **What is a Clinical Propensity Model, Anyway?**
   - How to leverage models to personalize patient engagement and drive growth

2. **Measuring Success Beyond Marketing Metrics**

3. **Strategies for a Successful Execution and Sustained Impact**

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Meet Helen

Helen's Story

- Age: 66

- Location: Glendale, CA

- Lifestyle: Active, enjoys hikes, loves tennis with friends

- Family: Loves spending time with her grand children

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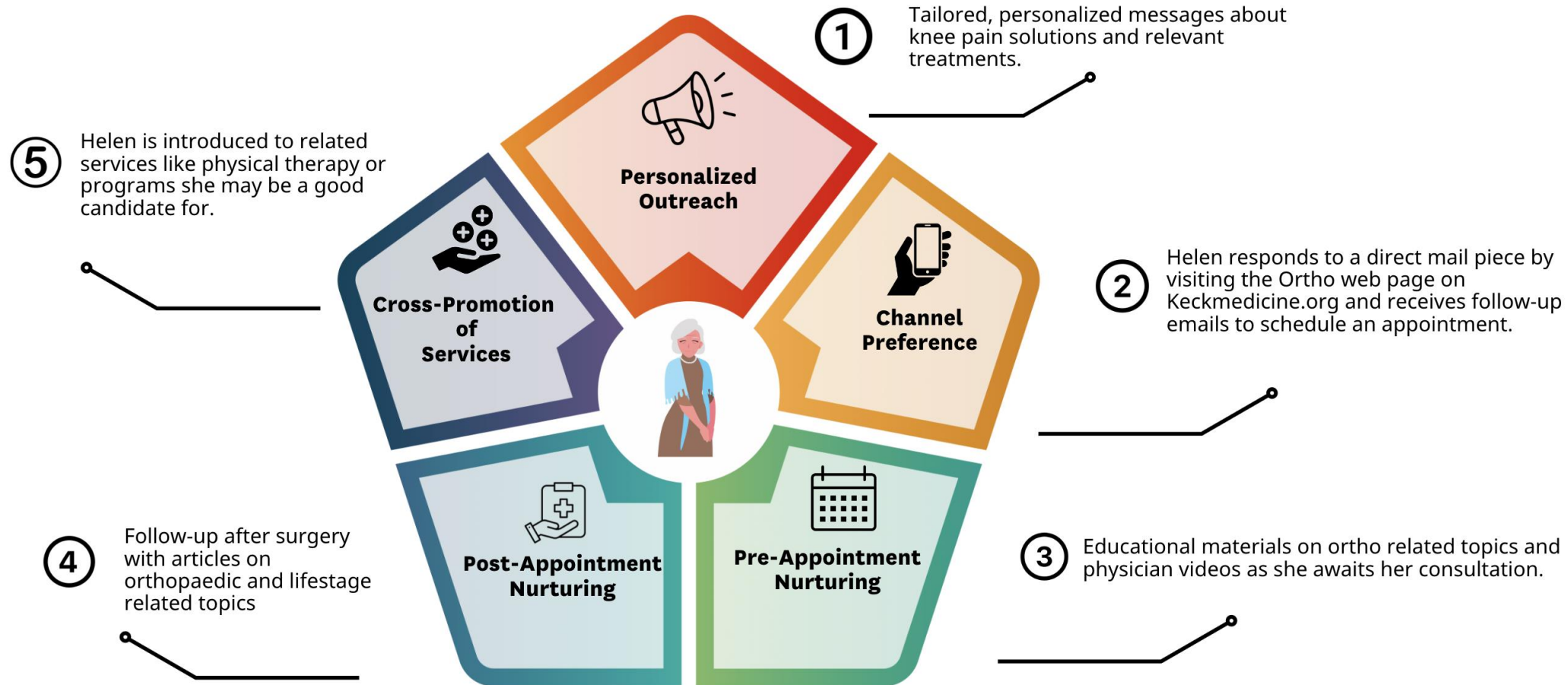
Helen's Challenge

For the past 18 months, Helen has suffered from severe knee pain, preventing her from participating in the activities she loves most.

- **Impact**:

  - Physical: Limited mobility from the pain

  - Emotional: Frustration from missing out on family activities

  - Psychological: Worries about what the future holds for her mobility and health

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Crafting Helen's Ideal Patient Journey

Personalized Outreach

Channel Preference

Pre-Appointment Nurturing

Post-Appointment Nurturing

Cross-Promotion of Services

① Tailored, personalized messages about knee pain solutions and relevant treatments.

② Helen responds to a direct mail piece by visiting the Ortho web page on Keckmedicine.org and receives follow-up emails to schedule an appointment.

③ Educational materials on ortho related topics and physician videos as she awaits her consultation.

④ Follow-up after surgery with articles on orthopaedic and lifestage related topics

⑤ Helen is introduced to related services like physical therapy or programs she may be a good candidate for.

What Are Clinical Propensity Models?

- **Definition:** Predictive models that help identify the probability of a consumer having a specific health condition.

- **Data Sources:** Insurance claims data, demographics, U.S. Census, social determinants of health, credit agencies, survey's, etc.

- **Why It Matters:** Personalizes outreach and drives better outcomes.

Case Study – Hip, Knee & Total Joint Campaign

- **Campaign Focus:** Increase hip, knee and total joint replacements among consumers with specific payor categories within our primary service area.

- **KPI's for Success:**
  - Increase website visits
  - Increase in phone calls to the access center
  - Increase in online appointment requests for hip & knee replacements
  - Increase in hip/knee surgeon volume

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Why Pilot with Orthopaedic Surgery?

Existing Strong Partnership

Efficient Operations

Past Campaign Support

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Our Approach

Multi-touch, Smart Campaign

Leverage 1st Party & 3rd Party Data to Deliver a…

- Highly targeted
- Personalized
- Multi-channel
- Automated
- Demonstrate a true financial ROI

Lead with ~~Segmentation~~ Empathy...

Using data to anticipate patient needs by understanding their environment,

behaviors & health challenges.
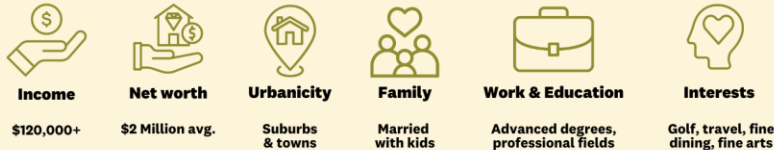

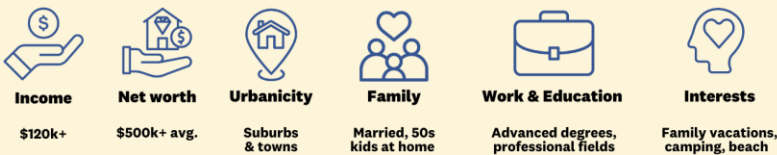**Prospects**

112,232
Total Consumers

Lifestage Group

Bar chart — Lifestage Group (horizontal bars):
- Echelon Earners: ~130,000
- Premium Consumers: ~72,000
- Prestige Status: ~48,000
- Community Minded: ~28,000
- Diverging Paths: ~8,000

X-axis: 0, 20000, 40000, 60000, 80000, 100000, 120000, 140000

Lifestage Portraits

Echelon Earners

Income	Net worth	Urbanicity	Family	Work & Education	Interests
$120,000+	$2 Million avg.	Suburbs & towns	Married with kids	Advanced degrees, professional fields	Golf, travel, fine dining, fine arts

Premium Consumers

Income	Net worth	Urbanicity	Family	Work & Education	Interests
$120k+	$500k+ avg.	Suburbs & towns	Married, 50s kids at home	Advanced degrees, professional fields	Family vacations, camping, beach

Prestige Status

Income	Net worth	Urbanicity	Family	Work & Education	Interests
$75k - $119k	$850k avg.	Suburbs & towns	2/3 are married, 1/3 single	Advanced degrees, professional fields	Fine dining, travel, gardening, walking

Note: Certain data points are fictitious and have been altered for the purpose of sharing a case study. They do not represent real patient or financial data
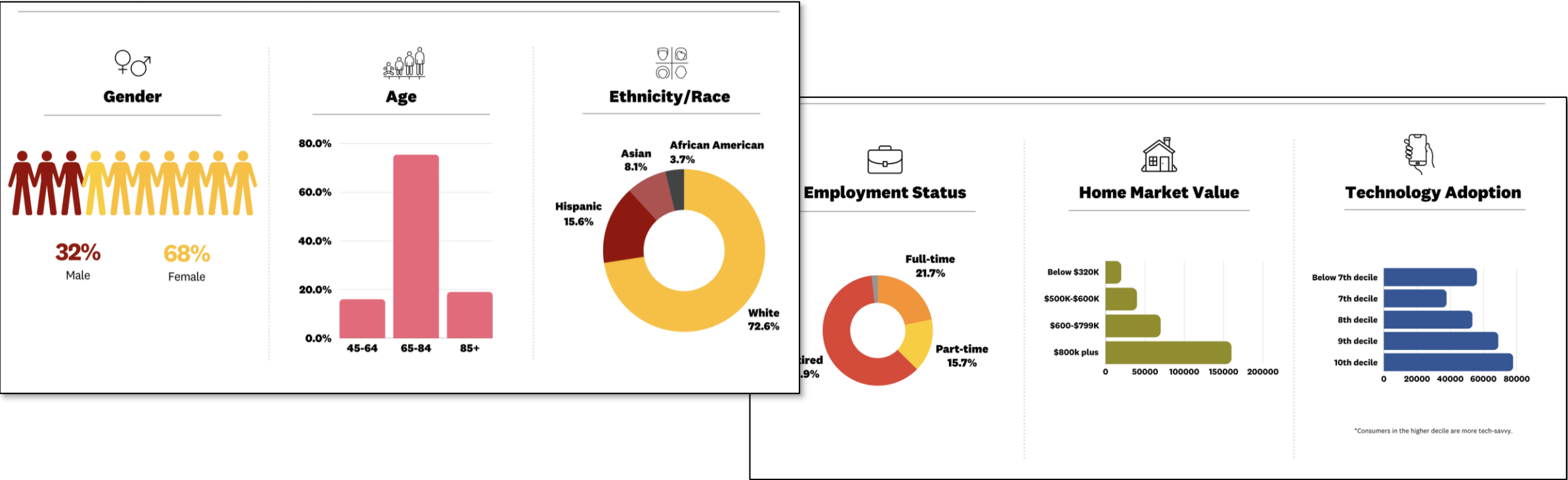
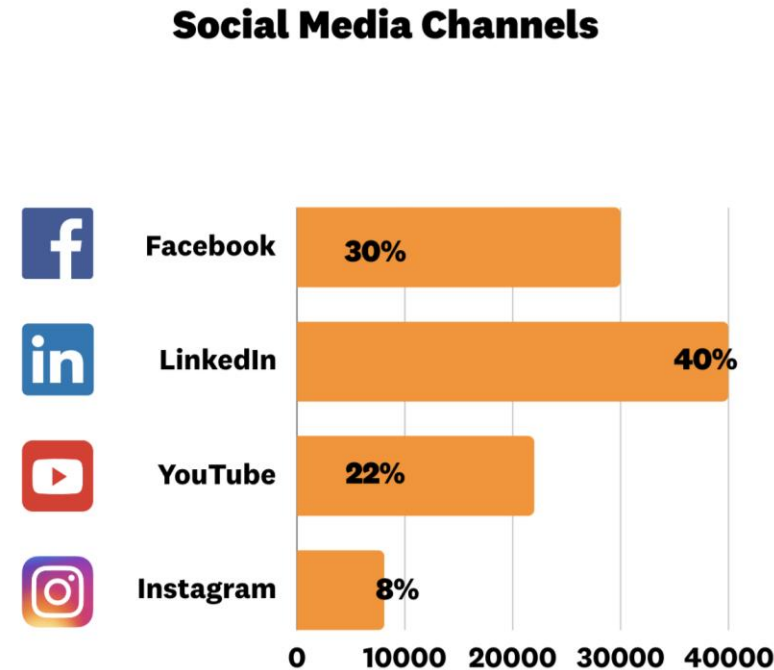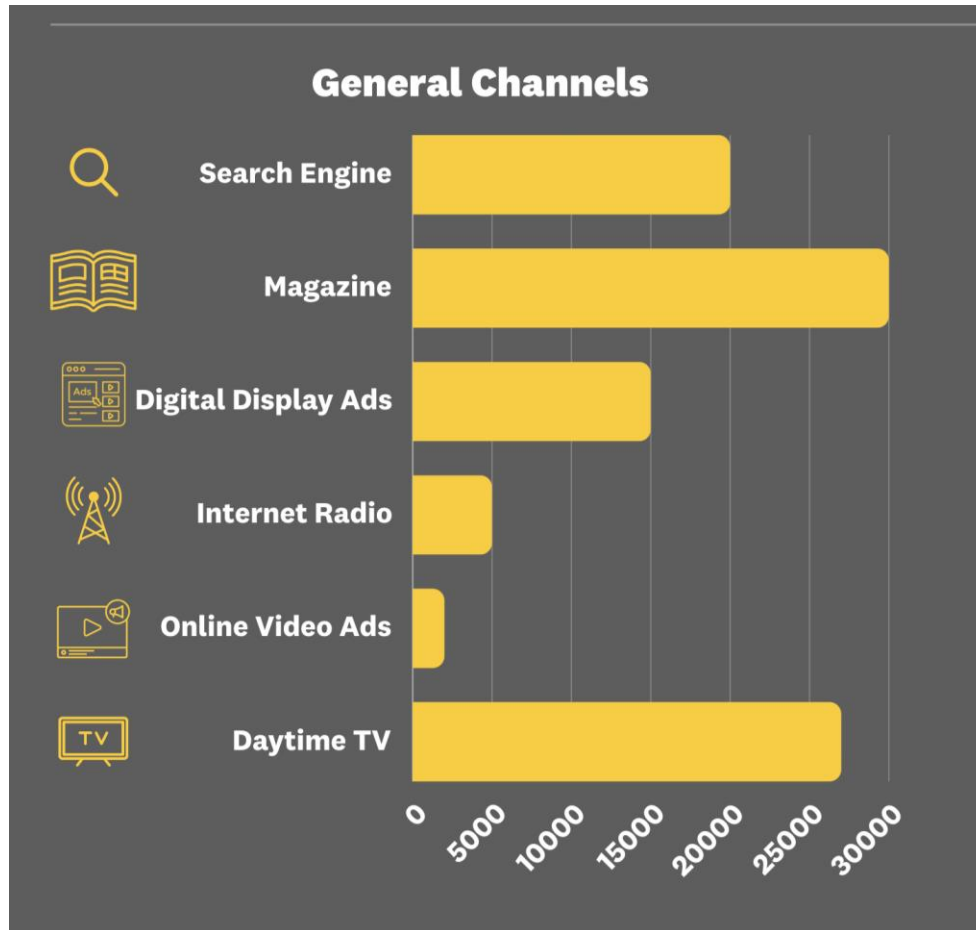**SHSMD** Society for Health Care Strategy & Market Development™

Understanding ~~Demographics~~ Lives

Moving beyond demographics to truly understand their circumstances, lifestyle

and healthcare challenges.

~~Targeting~~ Connecting with Patients Where They Are...

General Channels

- Search Engine
- Magazine
- Digital Display Ads
- Internet Radio
- Online Video Ads
- Daytime TV

(x-axis: 0, 5000, 10000, 15000, 20000, 25000, 30000)

Social Media Channels

- Facebook — 30%
- LinkedIn — 40%
- YouTube — 22%
- Instagram — 8%

(x-axis: 0, 10000, 20000, 30000, 40000)

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Measuring ~~Success~~ Connections Through Patient Interactions

Measuring how patients respond to our communication and take steps toward improving their health.

Metric	Baseline	Target
Visits to Landing Page	730	+10%
Engaged Web Visits	465	+15%
Phone Calls	100	+20%
Appointment Requests	92	+15%
Avg. Weekly Number of Hip/Knee Consults	33	+5%

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Think Like a Scientist!

Test in a scientific method to understand what really works.

Created 4 distinct groups:
- Group A*: Email
- Group B*: Direct
- Group C*: Direct & Email
- Group D: Control Group

*Note: Indicates group was supported by paid search advertisement

Additional variables:
- Segments by condition
- Response Rates (Female/Male)
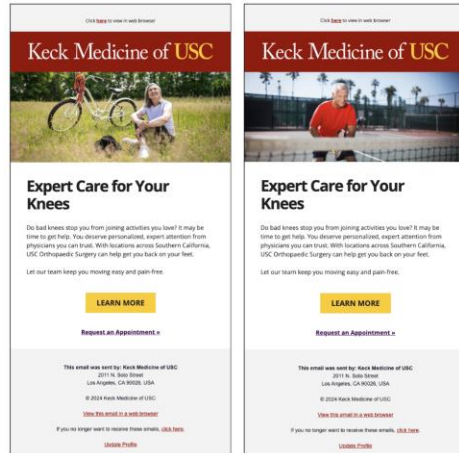- Email Subject Lines

Case Study – Hip & Knee Campaign

Empowering Patients to Take the Next Step

Our targeted tactics helped patients take action, resulting in a significant rise in hip and knee appointment requests

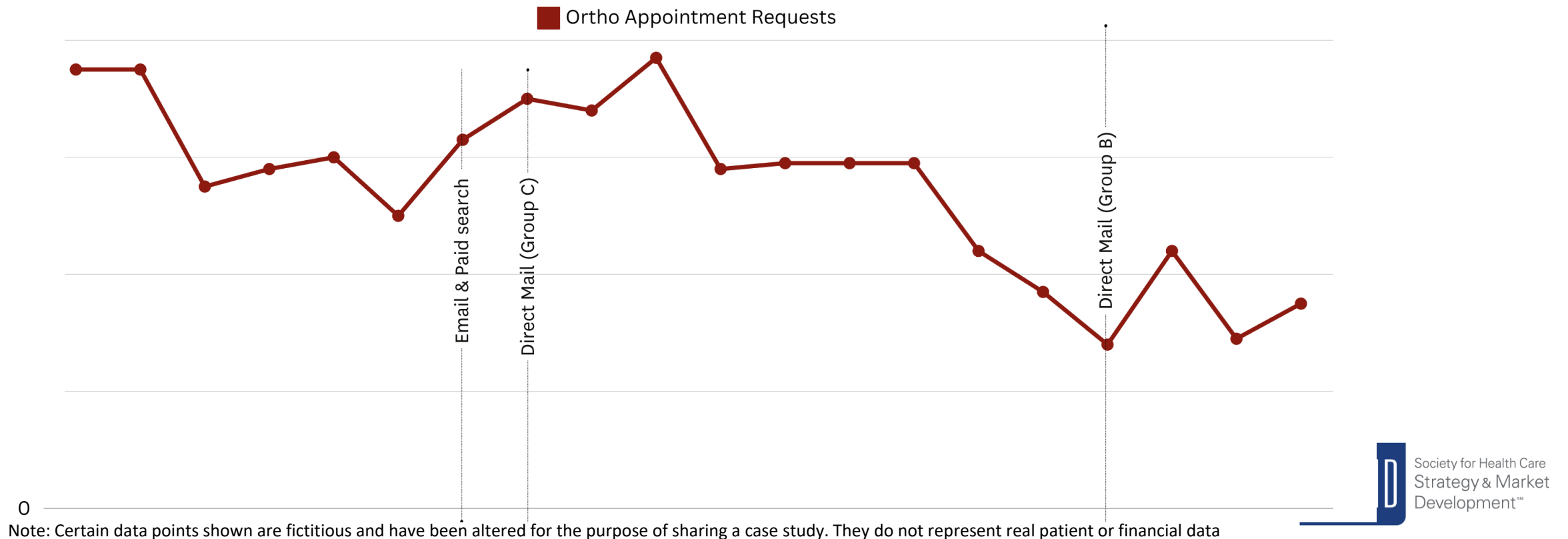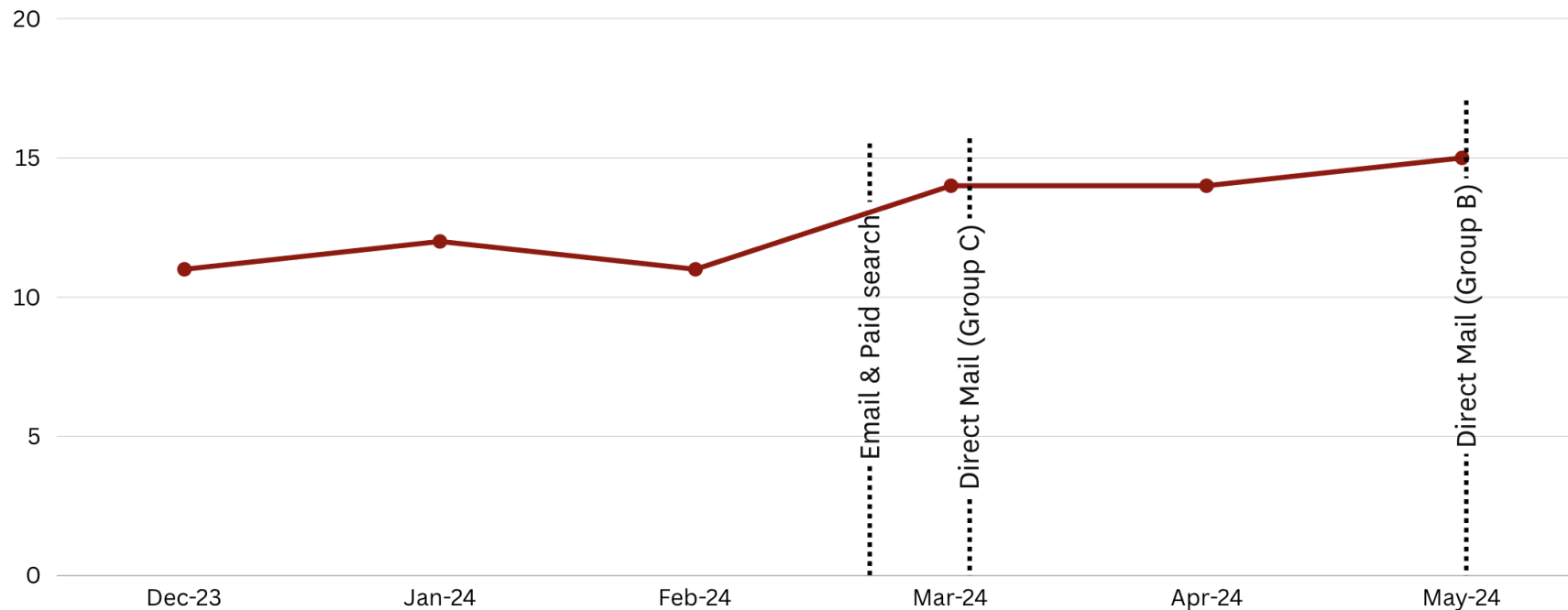Uptick in appointment requests as email and direct mail tactics are in-market

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Balancing Demand with Timely Care…

As patient engagement grew, wait times for hip and knee consultations increased, highlighting the need to align demand with availability.

The average number of days for a new patient to be seen varies greatly across providers but has trended upwards since the launch of the pilot campaign in March.

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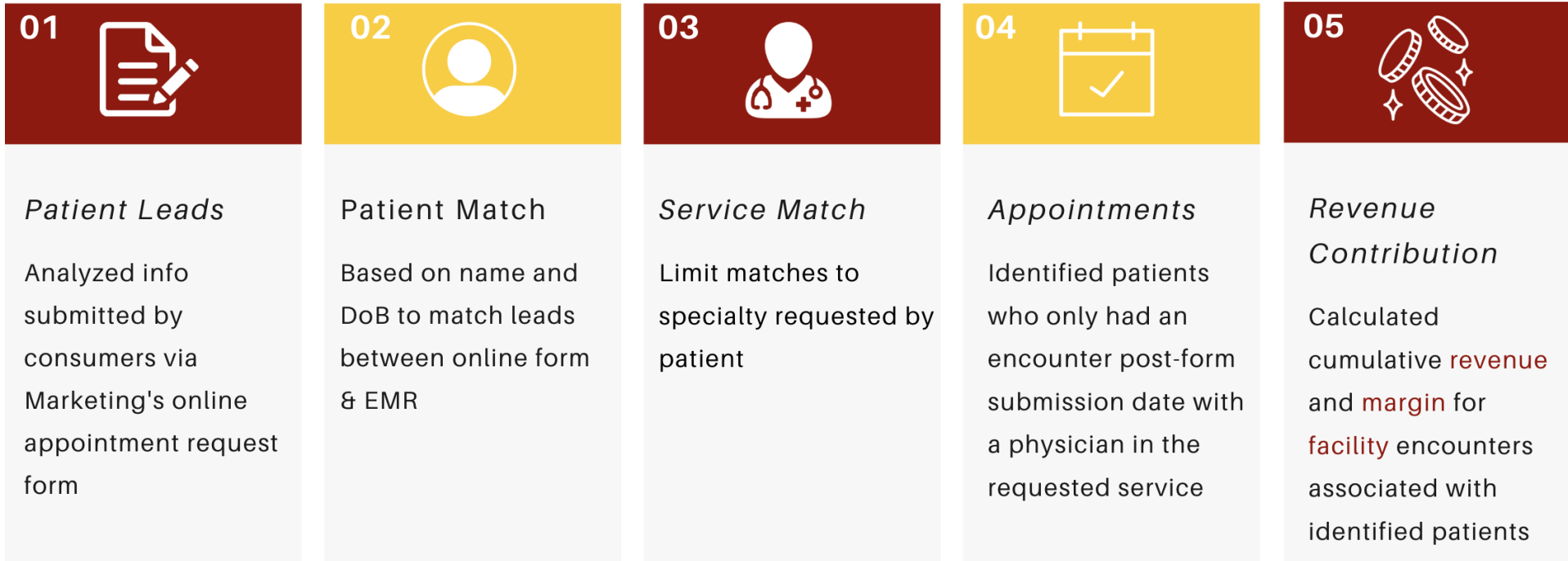# Measuring Success Beyond Marketing Metrics

New patient volume for hip & knee surgeons overall has trended upward since launching the pilot campaign in March.
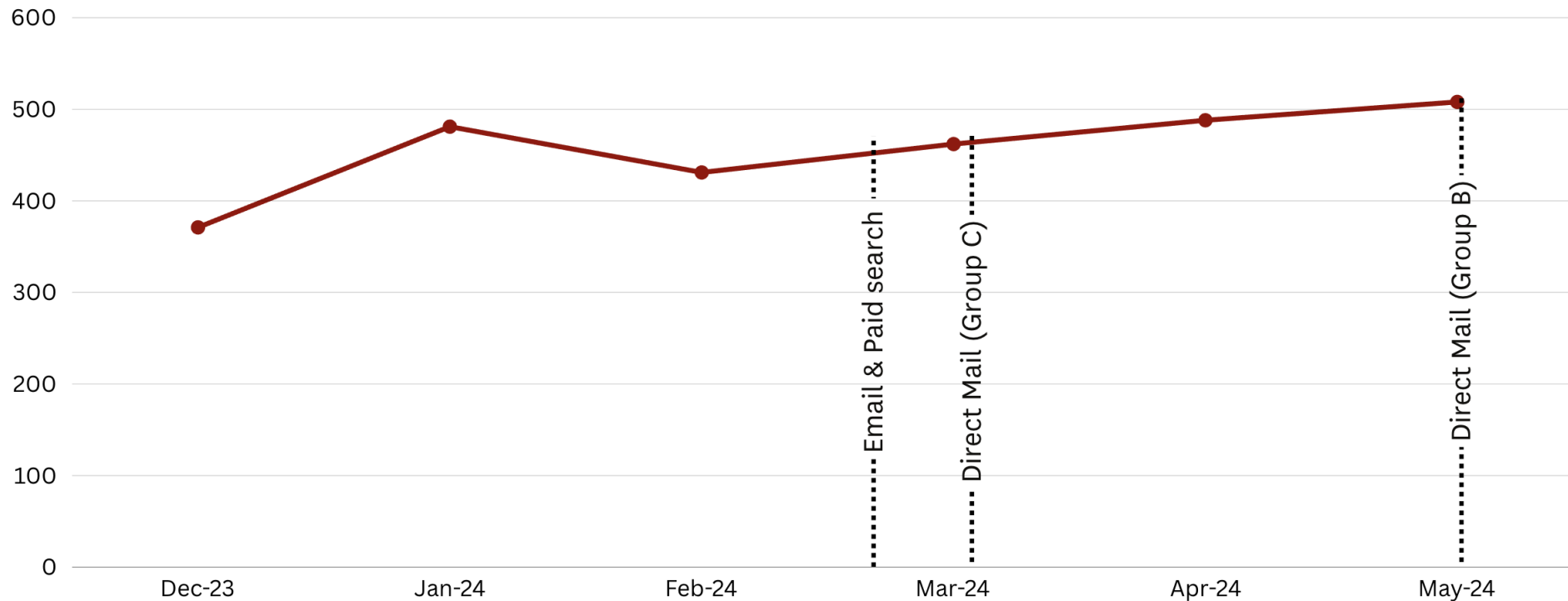
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Connecting Campaigns to Patient Outcomes

Using patient matching process to quantify how marketing efforts lead to real-world consults and care for those in need.

01 Patient Leads

Analyzed info submitted by consumers via Marketing's online appointment request form

02 Patient Match

Based on name and DoB to match leads between online form & EMR

03 Service Match

Limit matches to specialty requested by patient

04 Appointments

Identified patients who only had an encounter post-form submission date with a physician in the requested service

05 Revenue Contribution

Calculated cumulative revenue and margin for facility encounters associated with identified patients

Engaging Patients Through a Multi-Channel Approach

A blend of direct mail, email, and paid search connected with patients where they were most responsive.

Group	Channel	Unique Matches	Sample Size	Conversion Rate	New Patients	New Patient Conversion Rate
Group	Channel	Sample Size	New-to-Ortho	Conversion Rate	New-to-Keck	Net New Conversion Rate
A	Email only	30,558	25 (+18)	0.081%	10 (+6)	0.033%
B	Direct mail only	18,856	7 (+4)	0.037%	4 (+2)	0.021%
C	Direct mail + email	30,732	30 (+9)	0.098%	14 (+7)	0.046%
D	Control	118,839	6 (+3)	0.005%	**2 (+1)**	0.002%

Notes: Emails for Group B & C were sent simultaneously on 3/17, Direct Mail (Group C) sent on 3/27, Direct Mail (Group B) send on 5/13.

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Driving Real Impact for Patients and the Health System

The initial pilot generated 62 new patients for Orthopaedic Surgery and 29 new patients for other services within 90 days of launch.

| Patient Category	Count	Avg. 1-Year Revenue*	Expected 1-Year Rev (columns 'b' x 'c')
New-to-Service (Ortho)	62	-	-
New-to-System	29	-	-
Totals	**91**	-	-

6X Margin ROI**

12.6X Revenue ROI**

Note: Average 1-year values are specific to Keck service lines using historical data of marketing-led patients.

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Continuous Growth, Focused on Patient Needs

Starting with one pilot campaign, we've scaled to 6 campaigns in year two, with 12 more projected for year three—all while refining our approach to patient care
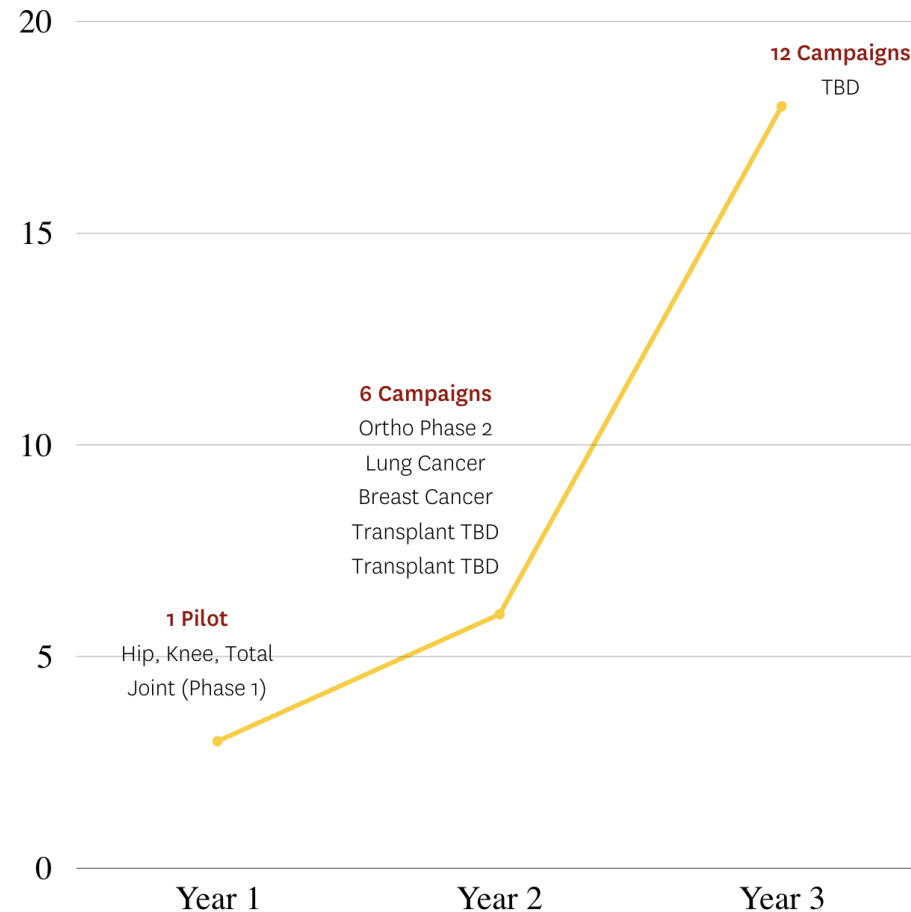
Collaborating for Success: It Takes a Village

Team Alignment:

IT, Access Center, clinical leadership, and executive buy-in are essential.

Cross-Functional Collaboration:

Design, content, analytics, digital marketing, and email teams all play a key role.

Channel Expertise:

Working with specialists across channels ensures effective patient outreach.

Communication:

Regular updates keep teams aligned and agile.

Shared Vision:

A unified goal keeps everyone focused on patient care.

Key Takeaways: Empowering Patients Through Empathy and Innovation

1. Empathy Drives Engagement

Understanding patient needs enables more compassionate and effective healthcare marketing.

2. Data Enables Personalization

Clinical propensity models help predict and meet patient needs with targeted, timely outreach.

3. Collaboration Amplifies Impact

Cross-departmental teamwork leads to better patient outcomes and enhanced care.

4. Multi-Channel Outreach Maximizes Reach

Direct mail, email, and paid search effectively engage patients on their preferred platforms.

5. Patient Outcomes and Volume Growth Define Success

Success is measured by getting patients the care they need while meeting the organizational growth goals

6. Continuous Improvement Fuels Growth

Refining tactics and scaling successful campaigns help reach more patients effectively.

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Questions?

Please be sure to complete the session evaluation on the mobile app!

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Jonathan Beltran is the Senior Director of Marketing Analytics & Operations at Keck Medicine of USC, a nationally ranked, multi-billion-dollar health system. He has been a marketer for over 10 years and currently leads the data analytics strategy and process improvement across six divisions, including provider business development, strategic marketing, and digital marketing. Jonathan is known for implementing clinical propensity models for precision targeting, driving multi-channel campaigns, and fostering collaboration to enhance patient engagement and operational efficiency.

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