



American Hospital Association Conference
September 27-29 ∙ Baltimore

Essentials of Measuring Marketing Campaign Effectiveness and ROI in Health Care

Jason Miller | Exec Director Marketing Insights & Analytics | Johns Hopkins

Apoorva Gupta | Sr. Digital Marketing Analyst | Johns Hopkins



Workshop Agenda

This workshop covers the essentials of measuring marketing campaign effectiveness and ROI in health care. Today's agenda and schedule is highlighted below.



Market Research & Prework

Review the market opportunity analysis phase, including geography, competitive landscape, and analytics data sources that inform campaign planning. (20 min)



Campaign Setup & UTM Naming

Learn best practices for campaign naming conventions, UTM parameter setup, and CTA naming. (15 min)

Break (10 min)



Measurement Challenges

Explore marketing measurement in healthcare, common challenges, and their impact on advertising spend and decision-making. (15 min)



ROI Framework & Results

Dive into the ROI measurement framework, key data sources, matching logic, and interpreting results.

*Includes interactive exercise on data-driven decisions. (45 min)

Q&A (10 min)

Activity: Ice Breaker

Common Ground

🕒 You have 3 minutes to discover 5 things everyone in your group has in common.

Rules:

- No obvious answers (e.g., “We’re all at this conference”)
- Ask questions and get creative!
- Bonus points for the most surprising discovery

👥 Be ready to share your group’s most interesting thing in common!



Market Research Phase Overview



Validate the opportunity before launch. Use market research to understand demand, sharpen strategy, and establish a measurable ROI baseline.

Where to start your research?

Reviewing data you have access to across various domains will ensure you have a solid understanding of the current state of the market prior to building and launching a campaign.



Web analytics

Use these findings to understand current consumer behavior.

- ✓ Review sessions, pageviews, bounce rate
- ✓ Review average session duration
- ✓ Identify top-performing pages
- ✓ Identify pages with high drop-off rates



Baseline conversions

Use these baseline metrics to measure campaign lift.

- ✓ Document appointment request conversion rate
- ✓ Document form submission conversion rate
- ✓ Document phone call conversion rate



Operational readiness

Address readiness gaps that could affect ROI results.

- ✓ Confirm EMR/CRM integration
- ✓ Check UTM naming consistency
- ✓ Align the marketing and operational teams on goals



Competition

- ✓ Evaluate the competitive landscape
- ✓ Review seasonal demand patterns
- ✓ Assess market projection trends
- ✓ Account for external factors in the ROI model.



Society for Health Care
Strategy & Market
Development™

Web Analytics Review

Web analytics are a key component for measuring campaign effectiveness. Tracking the right metrics helps identify what is working, where users drop off, and how campaigns drive meaningful engagement across your healthcare service lines.

Reach

Sessions & Traffic Volume

Total sessions indicate overall site activity.

Monitor weekly and monthly trends to detect campaign-driven spikes and measure reach against your target audience.

Landing Page / Message Fit

Bounce Rate

A high bounce rate may indicate poor landing page relevance or misaligned ad messaging.

Benchmark by channel and optimize CTAs and page content accordingly.

Engagement Quality

Session Duration

Longer session duration suggests deeper content engagement.

Low duration on key service pages may indicate friction or irrelevant traffic from campaign targeting.

Acquisition vs Nurture

New vs. Returning Visitors

New visitors signal campaign awareness reach. Returning visitors reflect brand loyalty and re-engagement.

Compare ratios before and after campaign launches to assess impact.

Define your market geography

Understanding geographic factors is essential to building effective healthcare marketing campaigns. By defining target areas and analyzing location-based data, marketers can allocate budget where opportunity is greatest and reach the right patients at the right time.

Location data helps identify high-potential zip codes, service area boundaries, and competitive gaps — turning geographic insight into campaign priorities.



Defining Target Areas

Map service area boundaries, patient origin data, and demographic clusters to identify where your target population is concentrated and underserved.



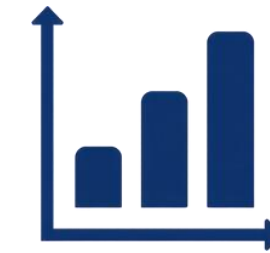
Location-Based Prioritization

Use heatmaps, zip code performance data, and geo-analytics to rank markets by opportunity and direct campaign spend to highest-impact regions.



Key Competitors

Identify primary and secondary competitors by service line, geography, and digital presence. Map their positioning and messaging strategies.



Marketing Benchmarks

Benchmark competitor ad spend, keyword targeting, search visibility, and campaign frequency to set realistic performance goals.



Competitive Insights

Gather insights on competitor CTAs, landing pages, reviews, and service offerings to inform your own campaign differentiation strategy.

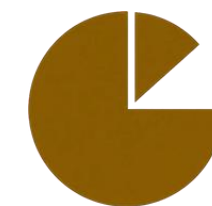
Market Competition

Understanding the competitive landscape is essential before launching any healthcare marketing campaign. Analyzing competitor activity helps identify gaps, benchmark performance, and allocate budget more effectively to maximize ROI and market share.



Market Sizing

Estimate total addressable market using geography, demographics, and service line demand data to define realistic opportunity size.



Share Calculation

Calculate potential market share by benchmarking against competitors and applying historical conversion rates to projected volume.



Growth Forecast

Project growth using trend data and campaign performance baselines to set quarterly and annual targets for each service line.

Market Projections

Using data-driven analysis to forecast market opportunity and set realistic campaign goals. Estimating market size and potential share helps prioritize spend and align stakeholders around measurable targets for healthcare marketing ROI.

Healthcare Market Research Resources

Use complementary public data sources to size demand, assess access, and strengthen ROI planning.

1 Population & Demographics

U.S. Census Bureau: ACS, Decennial Census, Population Estimates

2 Healthcare Utilization

CDC PLACES, BRFSS, CMS Medicare/Medicaid, Care Compare, AHRQ HCUP

3 Insurance & Coverage

ACS/Census insurance tables, KFF State Health Facts, CMS Marketplace/ACA

4 Community Health & Local Demand

County Health Rankings, HRSA AHRF, HRSA Data Warehouse

5 Provider Supply & Access

NPPES NPI Registry, CMS Provider of Services, HIFLD

6 Social Determinants & Vulnerability

ACS + Census + CDC PLACES, EPA EJScreen, USDA ERS

7 State & Local Open Data

Hospital discharge, ED visits, births/deaths, immunizations, behavioral health, Medicaid enrollment, provider directories

Campaign Setup Overview



Once the opportunity and market are defined, you need to setup the campaign so performance can be measured appropriately.

Consistent naming conventions and UTM parameters are the backbone of accurate campaign tracking. Without standardized naming, data becomes fragmented, ROI calculations are unreliable, and marketing decisions are based on flawed information.

UTM Naming Good vs Bad Naming Standards

Which examples follow the standard? Mark each Good or Bad.

1 utm_source=GOOGLE

2 utm_campaign=cardiology-heart-health-spring2024

3 utm_content=ad

4 utm_medium=paid-search | utm_source=google

5 utm_campaign=Test1 or Campaign_New

6 utm_content=banner-300x250-cta-schedulenow

DISCUSS How would naming inconsistencies affect your ROI measurement? What standard would work for your team?

Campaign & CTA Naming Best Practices

Consistent naming conventions are the foundation of accurate campaign tracking.

Apply these best practices across every campaign, channel, and call-to-action to ensure clean, comparable data throughout the campaign lifecycle.



Standardized campaign names

Use a consistent format: [Year][Season/Month][ServiceLine]_[Channel]. Avoid spaces, special characters, or abbreviations that vary by team. Apply the same structure across all platforms.



Clear CTA descriptions

Name your Calls to Action (CTAs) to reflect the specific action: "ScheduleAppointment", "RequestCallback", or "DownloadGuide". Avoid vague labels like "LearnMore" or "ClickHere" that obscure intent in reporting.



Consistent formatting rules

Decide on capitalization (CamelCase or lowercase), delimiter style (underscores vs. hyphens), and enforce it team-wide. Document the convention in a shared naming guide accessible to all stakeholders.



Good vs. bad examples

✓ Good:
2024_fall_orthoservices_paid_cta_bookappt
2024_spring_cardiaccare_googleads_cta_scheduleappt

✗ Bad:
FALL campaign ortho - new ad (final)

The bad example breaks tracking, skews attribution, and makes ROI comparison nearly impossible.

Solution: Create a UTM Management System

Standardize UTM governance in a shared Word or Google Doc — one source of truth for all campaigns.

UTM Master Registry — Shared Document

Campaign Name	Source	Medium	Content	Owner
cardiology-spring-2024	google	cpc	banner-300x250	J. Miller
womens-health-q3	facebook	paid-social	video-30s-cta	A. Gupta
ortho-joint-camp	newsletter	email	hero-image-v2	J. Miller
peds-back-to-school	google	cpc	text-ad-main	A. Gupta

Governance Rules:

- All values lowercase, hyphens only (no spaces, underscores, or camelCase)
- New UTMs require approval before campaign launch
- Quarterly audit: flag and retire unused or duplicate entries
- Version history tracked — never delete, only archive

Workflow: Request → Review → Approve → Register → Launch

- 1

Naming Conventions
Lowercase only, hyphens as separators, no spaces or special characters. Define allowed values for source, medium, campaign, content, and term.
- 2

Required Fields per Campaign
Every campaign must include: utm_source, utm_medium, utm_campaign. Optional but recommended: utm_content, utm_term for A/B tests and paid search.
- 3

Team Ownership & Roles
Assign a UTM owner per department. Marketing ops maintains the master doc. Campaign managers submit new UTMs for approval before launch.
- 4

Approval Workflow
New UTM requests submitted via form → reviewed by marketing ops → added to master registry → shared back to requestor with confirmation.
- 5

Single Source of Truth
One shared Google Doc or Word file holds the complete UTM registry. No campaign launches without a registered, approved UTM string.

Why UTM Naming Standards Matter Across Platforms

01

Reliable Tracking

Consistent casing and naming keeps identical traffic streams together instead of splitting them into separate analytics buckets, preserving total conversion counts.

02

Comparable Performance

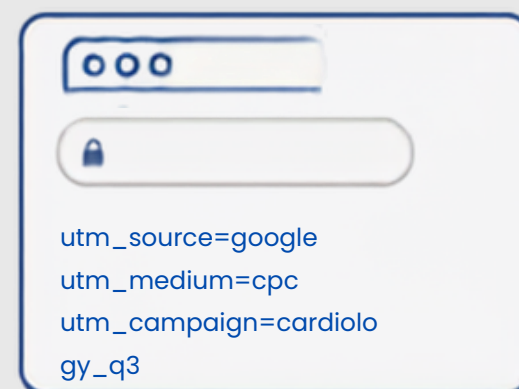
Uniform tags make it possible to compare channel, medium, audience, and campaign performance under the same logic, such as LinkedIn professional targeting versus Meta demographic targeting, without manual cleanup.

03

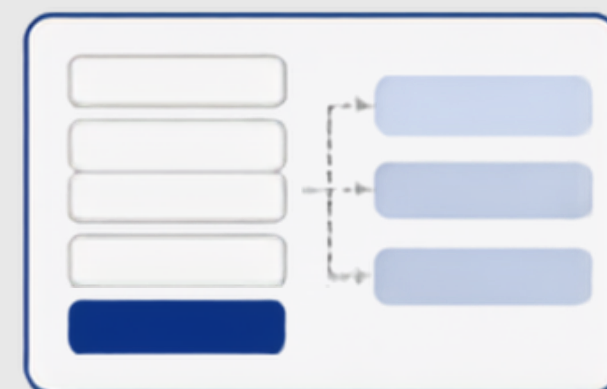
Trustworthy ROI

Exact UTM strings let hidden form fields, forms embedded data, and dynamic call tracking carry the original touchpoint into downstream systems, so revenue can be matched direct back to ad spend.

Standardized naming turns campaign data into comparable ROI.



1. Consistent Naming



2. Unified Data



3. Comparable Performance



4. ROI Attribution



Break Time

Break – 10 Mins

Step away, stretch, and recharge. Grab a coffee or water and return refreshed for the next session on ROI Framework and Data.

We'll resume shortly. Feel free to connect with fellow participants and share your thoughts on the morning's sessions.

Understanding past tracking practices to solve today's ROI challenges

Healthcare marketing measurement has evolved significantly, yet measurement challenges persist.

Inconsistent naming conventions, fragmented data sources, and unclear attribution models continue to undermine campaign effectiveness — leaving marketers unable to accurately assess what is working and what is not.

These measurement gaps have a direct impact on advertising spend and strategic decision-making. When ROI data is unreliable, budgets are misallocated, high-performing campaigns go unrecognized, and opportunities for growth are missed across service lines.



Healthcare Measurement: Past to Present



Why is measurement in healthcare so challenging?

Four structural realities make reliable measurement harder — and make governance essential.

01

Decentralized campaign ownership

Marketing teams and service line or practice leaders often own campaigns independently, creating fragmented decision rights.

02

Legacy analytics environments

Years of Google Analytics, Adobe, CRM, and marketing automation data often carry inconsistent taxonomy.

03

Agency/vendor variation

External agencies frequently create their own campaign structures with minimal governance.

04

Privacy & Regulations

Core safeguards shape what can be measured and how data

HHS & OCR Guidelines

Consent Management

HIPAA & Tracking Limitations (e.g., pixels)

How Tracking Gaps Undermine Marketing ROI

20–40%

**of campaigns suffer
from inconsistent
UTM naming per
Cometly research ***

01



UTM Inconsistency

Inconsistent links break channel attribution across platforms, surveys, and call tracking.

02



Inaccurate ROI

Fragmented data misleads performance metrics, resulting in flawed strategic decision-making.

03



Wasted Spend

Unreliable data allocates budget to underperforming campaigns and obscures growth.



Standardized measurement protects ROI integrity by keeping attribution, performance metrics, and budget decisions grounded in reliable data.

Organizational Impact Example

Estimated cost of not measuring patient ROI

Illustrative model — separate the inputs, the math, and the business impact.

01 INPUTS

Annual marketing budget

\$200,000

% of spend that is inefficient

20%

Estimated missed patients per year

50

Contribution margin per patient

\$500

02 CALCULATIONS

Wasted spend

\$40,000

Lost patient margin

\$25,000

FORMULA

**Total cost = Wasted spend
+ Lost patient margin**

03 IMPACT

TOTAL ESTIMATED COST

\$65,000

per year

Interpretation

This model reflects:
Lower marketing efficiency
Budget allocated to underperforming campaigns
Missed opportunity to connect spend to patient value

KEY TAKEAWAY

Organizations without closed-loop measurement may be unable to identify where marketing investment is creating actual patient value.

These inputs can be adjusted to match your organization's actual performance.

Example only. Replace with actual organization data.

SHSMD

Society for Health Care
Strategy & Market
Development™

Interactive Survey

What are your campaign ROI measurement challenges?

Take a few minutes to reflect on your biggest pain points and summarize in a few words using the survey QR code.

Consider:

- Do you struggle with inconsistent UTM naming or tracking?
- Are your ROI reports inaccurate or incomplete?
- Do you find it difficult to connect campaign results to patient conversions?

slido.com

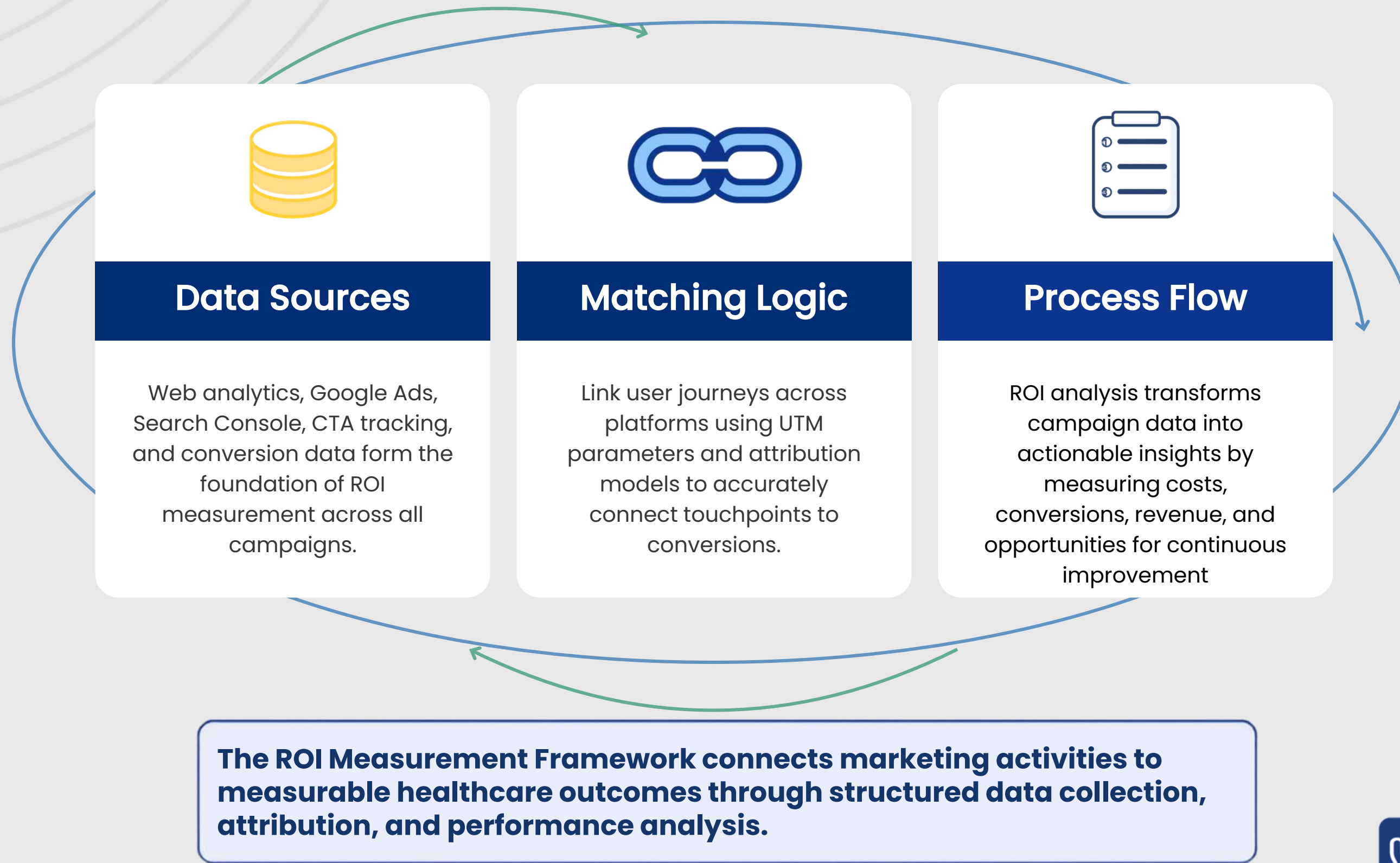
At the top of the page enter join code: **SHSMD26ROI**



Interactive Survey Results Discussion

Discuss survey results.

ROI Starting Point: Components & Framework



ROI Consumer Journey & Data Matching Architecture

The detailed matching logic is where measurement becomes actionable.



Data Sources

- Digital touchpoints
- Call and form activity
- Clinical and appointment data

What Gets Connected

- Campaign and service-line context
- Patient journey signals
- Financial outcomes

From Visitor Traffic to Measurable ROI



Consumer Campaign ROI Refinement



New Visitors

Track new visitor volume to measure campaign reach. High new visitor rates indicate strong awareness but may reflect lower conversion intent. Monitor trends by service line.



Returning Visitors

Returning visitors show brand recall and nurturing success. Higher return rates often correlate with stronger conversion and appointment booking metrics across campaigns.



Key Insights

Compare ratios over time to identify shifts. A healthy mix balances acquisition and retention. Use data to decide which campaigns to scale, pause, or refine.

Visitor Analysis

Comparing new vs. returning visitors reveals how campaigns attract prospects versus re-engaging existing audiences. New visitors indicate reach and awareness, while returning visitors signal nurturing and conversion effectiveness. Together, these metrics guide budget allocation and campaign refinement decisions.

Service line campaign ROI — Not all are evaluated the same

Different economics, patient volumes, and care journeys make comparisons challenging.



(1) Set a baseline trend → (2) Evaluate CPA against service-line thresholds →
(3) Optimize actions based on channel performance → (4) Track results over time against the baseline

 **Compare within a service line—not across service lines.**

Interactive Exercise | Evaluate Campaign Performance

Based on sample ROI data, consider the following:

1. Which campaigns are driving the highest return and should be scaled?
2. Which are underperforming and should be paused or restructured?
3. How should budgets be reallocated to maximize impact across service lines?

Share your insights with the group — what decisions would you make?



SAMPLE ROI ANALYSIS: HEALTHCARE MARKETING CAMPAIGNS

Performance & Conversion Volume Review | Illustrative Example

You are the CMO. You have a \$197K next quarter for marketing. Where would spend the allocated funds?

CARDIOLOGY

Paid Search & Geo-Targeting

Situation

Initial campaign had broad demographic targeting with high CPA. Landing pages were restructured, and targeting was narrowed to high-intent zip codes.

Total Spend	\$50,000
Converted Patients	1,190 Patients
CPA	\$42 (Target: \$110)
Net Margin Contribution	+\$625,000

- Conversion Rate: 4.2x higher
- Appointment Bookings: 2x increase

ORTHOPEDICS

Out-of-Home & Digital Video

Situation

High spend on OOH billboards and digital video yielded high impressions but low direct digital bookings and trackable phone calls (-45% below target).

Total Spend	\$102,000
Converted Patients	150 Patients
CPA	\$680 (Target: \$180)
Net Margin Contribution	-18000 (Net loss)

- Conversion Rate: 0.8%
- Tracked Phone Leads: -45% below target

PRIMARY & URGENT CARE

Search & Display Capacity Shift

Situation

Primary Care search ads were maxing out daily budgets by 1:00 PM with uncaptured demand, while Urgent Care display ads ran below capacity with excess spend.

Total Spend	\$45,000
Converted Patients	630 Patients (+210 Patients/mo)
CPA	\$71 (Down 28% Combined CPA)
Net Margin Contribution	+\$180,000

- Uncaptured Demand: +84% Recaptured
- Budget Shifted: \$25K / month

Sample ROI Analysis: High-Performing Campaign (Scale)

Cardiology Illustrative Example Campaign | Hospital SHSMD | 90-Day Optimization Window

1SITUATION	2ACTIONS TAKEN	3RESULTS	4WHY IT MATTERS
Launched with broad demographic targeting across Maryland. Initial results showed high impressions but weak conversion efficiency—CPA was elevated and appointment volume was below forecast.	• Redesigned landing page for higher CTA visibility • Shifted 30% of budget from display to paid search after Day 30 • Tightened geo-targeting to high-intent Baltimore/DC corridor	• Updated Conv. Rate: 4.2x higher • Geo-Target Conversions: 72% of total at 40% lower CPA • Appointment Bookings: 2x (no spend increase) • Monthly Conv. Growth: +136% • CPA Change: -61% • Campaign ROI: +1,208%	Strategic targeting and budget reallocation improved ROI by over 1,200% without increasing total spend. Proves that optimization discipline, not bigger budgets, drives marketing performance.

Sample ROI Analysis: Underperforming Campaign (Restructure)

Orthopedics Illustrative Example Brand Awareness | Hospital SHSMD | 60-Day Review Window

1SITUATION	2ACTIONS TAKEN	3RESULTS	4WHY IT MATTERS
Out-of-Home (billboards) and local digital video spend were allocated to boost regional orthopedic care awareness. High reach metrics were achieved, but downstream digital conversion tracking showed minimal online schedule completions.	• Implemented CallRail call-tracking phone numbers on all billboard creative • Ran A/B tests on digital video CTAs directing viewers to specific specialty landing pages • Evaluated patient catchment data against ad delivery zip	• Tracked Phone Leads: – 45% below benchmark • Cost Per Acquisition (CPA): \$680 (Target: \$180) • Conversion Rate: 0.8% • Overall ROI: –32%	High brand awareness did not translate to patient acquisition. Pausing underperforming video channels and shifting funds into high-intent search protects overall service line ROI.

Sample ROI Analysis: Budget Reallocation (Cross-Service Line)

Primary Care & Urgent Care Illustrative Example | Hospital SHSMD | Mid-Year Realignment

1SITUATION	2ACTIONS TAKEN	3RESULTS	4WHY IT MATTERS
Primary Care search ads hit budget caps daily by 1:00 PM with uncaptured appointment demand, while Urgent Care display campaigns ran below capacity with excess spend.	• Reallocated \$25K monthly budget from Urgent Care display to Primary Care high-intent search • Established dynamic schedule landing pages for real-time appointment booking • Set up automated daily budget caps based on clinic capacity	• Uncaptured Demand Recaptured: +84% • New Patient Volume: +210 monthly bookings • Combined Service Line CPA: -28% reduction • Reallocated Spend ROI: +450%	Real-time demand matching across service lines unlocks capacity without requesting incremental budget approval.  Society for Health Care Strategy & Market Development™

ROI Measurement Expanded



Brand Awareness Lift

Campaigns increase branded search volume, direct traffic, and recall even when patients don't convert immediately. Track uplift in organic brand queries over time.



Cross-Channel Influence

Patients interact across multiple touchpoints before converting. Paid ads may influence later organic visits or phone calls. Use multi-touch attribution to capture this effect.



Long-Term Value

A new patient acquired through a campaign may generate years of recurring service revenue. Factor lifetime patient value into ROI calculations for a complete picture.

Indirect Impact

Beyond direct conversions, healthcare marketing campaigns generate significant indirect value. Understanding brand awareness lift, cross-channel influence, and long-term patient value is essential to capturing the full ROI picture and making informed budget decisions.



Follow-Up Cycle Overview

The follow-up cycle is the foundation of continuous improvement in healthcare marketing. Once a campaign launches, this step of the process focuses on systematically reviewing performance and making data-driven refinements rather than relying on assumptions.

By analyzing campaign results, identifying optimization opportunities, and implementing ongoing improvements, this phase transforms one-time campaigns into a continuous optimization process that drives stronger performance and maximizes ROI over time.

Campaign Refinement Checklist

After each campaign review cycle, a structured refinement process ensures continuous improvement in performance and ROI.

Use this checklist to guide your post-campaign review and optimization activities.



Update Keywords

Review search query reports and add high-performing keywords. Pause or remove underperforming terms. Expand match types as appropriate for your service lines.



Adjust Geographic Targeting

Analyze location-based performance data. Increase bids or budget in high-converting regions. Exclude or reduce spend in areas with low ROI or poor engagement rates.



Revise CTAs & UTMs

Update call-to-action messaging based on conversion data. Ensure UTM parameters remain consistent and correctly formatted across all campaign assets and landing pages.

Set recurring calendar reviews — weekly for active campaigns, monthly for overall performance. Document changes made and track impact to build an optimization history.



Regular reviews help align your campaigns with evolving market conditions and audience behaviors.

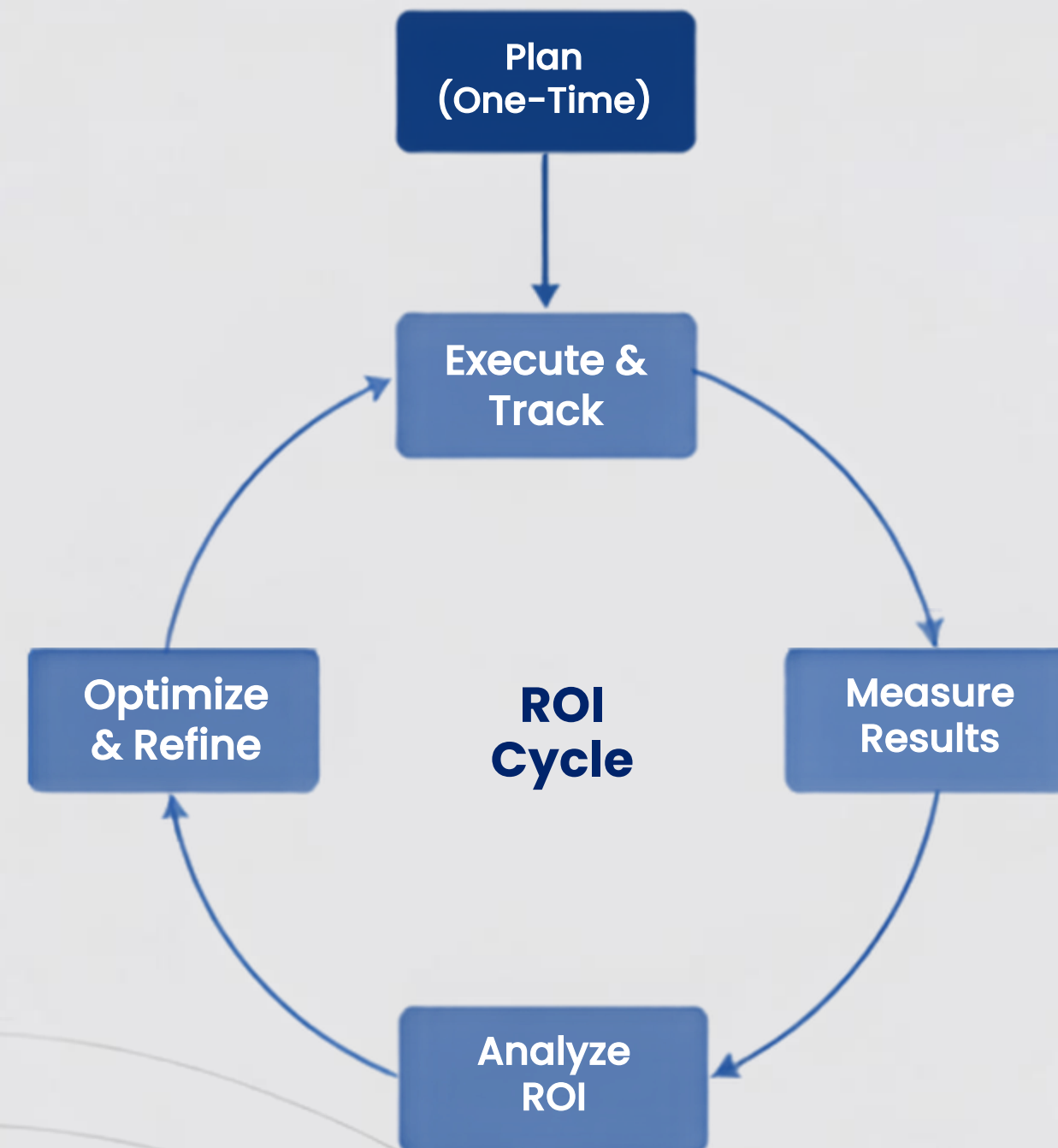


Society for Health Care
Strategy & Market
Development™

ROI : An Iterative Cycle

How It Works

1. Plan — Define goals, KPIs, budget, and targeting strategy (done once at the start)
2. Execute & Track — Launch campaigns with proper UTM tracking
3. Measure — Collect data on conversions, cost, and outcomes
4. Analyze — Calculate ROI by service line and channel
5. Optimize — Refine targeting, messaging, and spend allocation



Each cycle builds on the last — creating a compounding improvement in campaign performance and accountability.



Society for Health Care
Strategy & Market
Development™

Key Takeaways & What you should do

Reflect on the core principles and practical insights from this workshop.

These takeaways will guide your next steps in building measurable, accountable marketing campaigns.



Research & Planning First

Ground every campaign in geography, competitive landscape, and analytics. Data-informed planning reduces wasted spend and sharpens targeting.



Standardize & Audit

Reliable ROI measurement starts with consistent naming conventions and well-structured UTM tracking. Without clean data, optimization becomes guesswork.



Create an ROI framework and measurement process

ROI is not a single number — it is a repeatable process of matching, attribution, and performance evaluation across service lines and channels.



Continuous Refinement

Campaigns improve through structured review cycles. Document changes, track impact, and build an optimization history over time.



Society for Health Care
Strategy & Market
Development™



Jason Miller

Executive Director Marketing Insights & Analytics

Johns Hopkins

jasonmiller@jhmi.edu

I hold a B.S. in Information Systems Management from the University of Maryland, Baltimore County, and a Master's in Health Informatics from the University of Illinois at Chicago. I have over 20 years of data expertise that spans the full spectrum of healthcare data—finance, quality, clinical outcomes, and marketing analytics—with a deep technical IT foundation.

I've led teams of up to 20 professionals, building cultures of data-driven decision-making across complex healthcare environments. I am passionate about analytics and data modeling for organization growth to deliver meaningful impact for the patients and communities we serve.





Apoorva Gupta

Sr. Digital Marketing Analyst
Johns Hopkins
agupt125@jhu.edu

I hold an MBA in Business Analytics from the University of Wisconsin–Milwaukee, with a foundation that blends creative strategy, marketing execution, and data science. My expertise spans the full marketing lifecycle across both organic and paid channels—SEO, social, and campaign reporting, funnel optimization, privacy and consent architecture, and ROI reporting—across healthcare, nonprofit, and media industries.

I've led analytics modernization efforts and cross-functional collaboration with legal, UX, and BI teams to build privacy-first, data-driven infrastructure from the ground up—including predictive segmentation and AI-driven personalization to anticipate audience needs before they arise. I'm passionate about turning complex data into clear strategy, and I'm driven to deliver insights that create real impact for the patients and communities we serve.



Q & A Session

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

