INSIGHT BRIEF

Synthetic Controls: A Smarter Way to Measure Marketing Impact

Measurement challenges in an omnichannel world

Healthcare marketers are reaching patients and healthcare professionals in more ways than ever before. Modern campaigns are intended to maximize reach across multiple fragmented channels: linear television, connected TV (CTV), streaming, display, social, search and programmatic media.[1] While omnichannel approaches meet this goal, they have also inadvertently impacted a cornerstone of traditional campaign measurement: the control group (unexposed audience).

Test-versus-control analysis has been the traditional gold standard for measuring campaign incrementality, comparing individuals exposed to a campaign with a comparable group that was not exposed. However, when touchpoints overlap and nearly everyone has been exposed to a campaign in some way, finding a truly unexposed control group becomes increasingly difficult. As control groups shrink, confidence in measurement can drop.

As a result, marketers increasingly face this question:

How can we confidently measure incremental campaign impact when almost everyone has been exposed?

Synthetic controls: Extending the gold standard of campaign measurement

IQVIA Digital's synthetic controls build on the established test-versus-control framework to address this challenge. This solution doesn't replace traditional control groups — it strengthens them when real-world controls alone are no longer sufficient.

Synthetic controls are not meant to supersede real-world data. Used only when necessary to supplement the control group (reduce bias or address limited sample sizes), they preserve the integrity and rigor of campaign measurement while improving statistical reliability.

How is a synthetic control created?

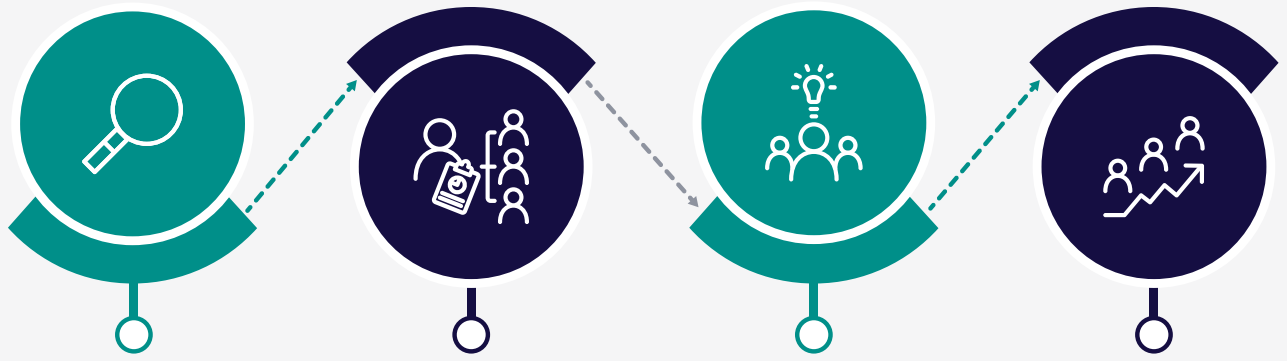
Creating a synthetic control group starts with observed control patients. When additional control populations are needed, advanced AI models (built on real-world healthcare data) generate statistically comparable synthetic individuals. This group closely mirrors the characteristics of the observed control group across demographic, market and clinical attributes. Together, these real and synthetic controls create a balanced and robust comparison group capable of supporting rigorous 1-to-1 matching and unbiased incrementality analysis.

Initial testing of our methodology has produced meaningful results across high-reach campaigns, where the availability of natural control groups has been limited. Across validated use cases, IQVIA Digital's synthetic control has shown the ability to:

- Create more representative control groups by reducing distribution bias between exposed and control populations by 66%-82%.
- Expand effective control populations by up to 10 times.

These improvements lead to tangible business value.

Four steps to campaign measurement impact



Observe

Begin with a real-world control group.

Supplement

Add synthetic controls only when needed to mirror real patient group.

Strengthen

Create a more representative comparison population.

Decide

Measure campaign impact with confidence and make faster, better-informed marketing decisions.

Better controls lead to better marketing decisions

IQVIA Digital's synthetic controls deliver more than methodological rigor — they give marketers the ability to optimize campaigns earlier, invest with greater certainty, and make better-informed decisions. Without a credible control group, marketers may make important decisions on incomplete or biased results.

Using synthetic controls when they are needed provides:

- Greater confidence in demonstrated campaign lift.
- A more reliable measure of return on investment.
- The ability to optimize omnichannel campaigns in-flight with stronger, more granular evidence.
- The ability to consistently benchmark performance across channels and campaigns.

As omnichannel campaigns make traditional control groups increasingly difficult to maintain, IQVIA Digital's synthetic controls help marketers preserve rigorous incrementality measurement across today's complex media landscape.

1-to-1 Matching of real-world patient characteristics

The table below illustrates how IQVIA Digital's synthetic controls preserve the distribution of key patient attributes when constructing control populations for a high reach, multichannel campaign. Real and synthetic control groups closely mirror each other across demographic, market and clinical dimensions, supporting unbiased campaign level impact analysis:

Attribute	Real control	Synthetic Control
Female	60.1%	60.3%
Male	39.9%	39.7%
Diagnosis	43.8%	43.9%

Data quality and methodology shape measurement quality

Not all measurement methodologies are created equal.

While synthetic controls are gaining traction in marketing, their value depends entirely on the quality of the underlying data and the methodological rigor behind their construction. Creating a representative synthetic control group requires more than advanced modeling. IQVIA Digital's approach combines high-quality data with deep healthcare expertise, a rigorous methodology and patent-pending innovation to create representative control populations for today's omnichannel healthcare campaigns.

Using healthcare-specific data ensures the clinical, demographic and market context needed to create synthetic controls that reflect the characteristics of observed control groups. Without that foundation, even sophisticated models can produce comparisons that are less representative and ultimately less trustworthy.

Methodology matters just as much. Best practice is to use synthetic controls only when real-world control populations alone are insufficient. At IQVIA Digital, synthetic controls supplement real-world control populations only when needed, to overcome bias or smaller sample sizes while preserving the integrity of campaign measurement. Every synthetic comparison should remain anchored to observed data. This helps preserve the integrity of the analysis while boosting confidence in the results.

As healthcare marketing becomes increasingly data-driven, it becomes more important for marketing leaders to understand how their control groups are created, validated and maintained.

QUESTIONS EVERY MARKETER SHOULD ASK ABOUT CAMPAIGN MEASUREMENT

As omnichannel campaigns continue to grow in reach, is your current measurement approach keeping pace? Ask these questions:

1. Can you consistently identify a sufficiently large unexposed audience for your multichannel campaigns?
2. What happens when campaign reach exceeds 80%-90% of your measurable audience?
3. How do you validate that your control group truly reflects the characteristics of your exposed audience?
4. Does your measurement methodology work consistently across linear TV, CTV, streaming and digital channels?
5. How does your approach maintain statistical rigor when natural control populations become too small or difficult to isolate? Are controls being reused?
6. How confident are you that reported campaign lift is driven by campaign exposure rather than differences between your test and control groups?

If these questions are difficult to answer, it may be time to assess your current control methodologies.

Looking ahead

Healthcare media will continue becoming more connected, more personalized and more complex. Measurement methodologies must keep pace.

For marketers looking to gain confidence in campaign performance and optimize media investments more effectively, adopting the latest, most effective measurement methodologies will be an increasingly important competitive advantage. IQVIA Digital is helping lead this evolution through our scientifically grounded and validated approaches to healthcare campaign measurement.

Ready to take a closer look into your campaign measurement?
Learn how IQVIA Digital's synthetic control methodology helps healthcare marketers generate more reliable insights and make faster, more confident marketing decisions.

About IQVIA Digital

IQVIA Digital powers exceptional brand experiences, delivering innovative solutions based on a customer-first, insights-driven, and integrated omnichannel vision. We provide authenticated, enhanced data and analytics, innovative fit-for-purpose healthcare technology, and the expertise to enable an effective and adaptable marketing model that drives better quality of care and patient outcomes. IQVIA is the leading global provider of data, advanced analytics, technology solutions and clinical research services for the life sciences industry.

Learn more at www.iqviadigital.com.

References

1. iSpot. 2025 TV & video ads trends, unified: preparing for an outcomes-led 2026. Page 4. Available from: https://www2.ispot.tv/tv-and-video-ad-trends-unified.

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