



A LOUD CANVAS HEALTH SPECIAL REPORT

LIFE SCIENCES MARKETING · 2026

The Ghosts in the Machine

Pharma will spend more than a billion dollars and a decade proving a single drug to the doctors who prescribe it. Then it lets almost all of them vanish from its own website. A report on the most expensive blind spot in modern medicine.



VISITOR INTELLIGENCE PLATFORM

Prepared by Loud Canvas Health, LLC · visitorintelligenceplatform.com

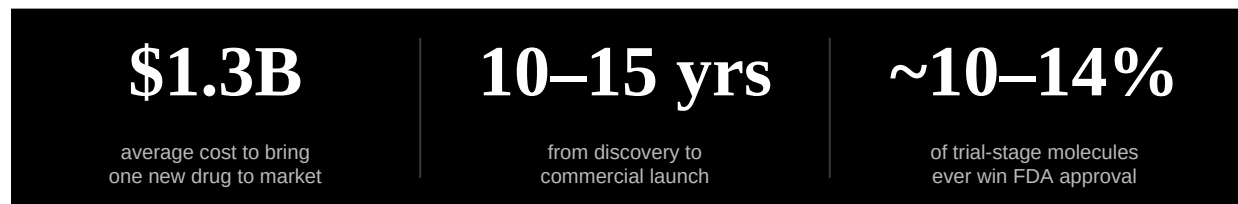
THE ECONOMICS OF ATTENTION

A Billion-Dollar Courtship, Conducted in the Dark

A decade is a long time to spend convincing someone. By the time a new medicine reaches the doctors who might prescribe it, its maker has typically spent between ten and fifteen years and, by the most carefully constructed recent estimate, a median of roughly \$708 million — with an average closer to \$1.3 billion once the failures and the cost of capital are folded in. Most candidates never arrive at all. Depending on whose methodology you trust, somewhere between one in ten and one in seven molecules that enter human trials ever wins approval. The pharmaceutical industry, in other words, runs one of the most expensive and least forgiving courtships in commerce. It exists to earn the attention of physicians.

And then, at the very moment that attention finally materializes — when an oncologist lands on a brand's mechanism-of-action page, or an endocrinologist downloads a dosing guide at 11 p.m. — the industry largely chooses not to look. The visitor arrives, reads, and leaves. No name. No specialty. No record that the encounter ever happened. The single most expensive audience in the economy walks through the front door, and the brand running the building cannot tell you who they were.

This is the paradox at the center of life-sciences marketing in 2026. The same companies that can model a clinical trial down to the patient-month operate their digital front doors essentially blind. The purpose of this report is to measure that blindness, to explain how it became normal, and to describe what closing it would actually require.



Sources: RAND / JAMA Network Open (2025); PhRMA; BIO; MIT Sloan; ScienceDirect (2025). See sourcing notes.

I. THE PROOF AND THE FORGETTING

To appreciate the waste, it helps to sit with the expense. In January 2025, RAND researchers publishing in *JAMA Network Open* examined 268 U.S.-traded drug developers and concluded that the median cost of a 2019-approved drug was about \$708 million, with a mean of \$1.31 billion once you account for the cost of capital and the long tail of discontinued programs. Other respected estimates run higher — a frequently cited figure puts the average near \$2.8 billion, and Deloitte's 2024 analysis of the largest spenders pegged the cost per asset at roughly \$2.2 billion. The numbers diverge because the words do: *new drug*, *R&D*, and *cost* all hide methodological choices. But every credible estimate lands in the same neighborhood — ten figures, give or take.

The bulk of that money is spent for one reason: to generate the evidence that will persuade a regulator, and then a prescriber, that the drug works. Clinical trials are the single largest line item in the enterprise, and the attrition is brutal. The Biotechnology Innovation Organization's landmark decade-long study found that a candidate entering Phase I had roughly a 9.6% chance of eventual approval; more recent work in

ScienceDirect (2025) and at MIT puts the figure closer to 14%. For oncology, the historical odds have been as low as one in twenty. Whichever number you choose, the implication is identical: the industry spends enormous sums to earn the right to a conversation with physicians.

The most expensive audience in the economy walks through the front door — and the brand running the building cannot tell you who they were.

Which makes the next fact strange. Having spent a decade and a fortune earning that conversation, brands conduct it through a medium that, as deployed, forgets the participants almost instantly. Standard web analytics — the GA4 dashboards that sit behind most pharma brand sites — are built to count behavior, not to identify people. They report sessions, bounce rates, and page depth. They do not, and by design largely cannot, tell a brand team that the visitor who spent four minutes on the safety page was a board-certified rheumatologist in Ohio. The encounter is logged as an anonymous integer.

II. WHERE THE DOCTORS ACTUALLY ARE

None of this would matter if physicians had stopped going online. They have done the opposite. In a survey published in the *Journal of Medical Internet Research*, 88.5% of health-care professionals reported searching for medical information daily or several times a week, most often about dosing, interactions, and safety — precisely the content that lives on brand and HCP-portal pages. Earlier industry research found that physicians rank independent HCP websites as more influential on clinical decisions than pharma's own owned channels. The audience is present, engaged, and self-directed.

The money has followed. EMARKETER projects U.S. healthcare and pharma digital ad spending will reach roughly \$26 billion in 2025, having overtaken television years ago. A meaningful and growing slice of that — the professional, HCP-directed portion — is spent specifically to drive physicians to brand destinations. Yet the same outlet's most recent reporting describes HCP digital journeys as *splintered*: 69% of pharma marketers say their hardest problem is simply knowing when an HCP is ready to engage, and 68% of physicians report feeling burned out by generic pharma email. The spend is rising; the precision is not.

The spend is rising. The precision is not.

This is the gap that defines the category. Brands are paying historic sums to summon an audience they then cannot see. The visitor-identification tools that solved this problem for ordinary B2B software — the platforms that tell a SaaS company which firms browsed its pricing page — were never built for medicine. They resolve to companies, not clinicians; they carry no NPI registry, no specialty taxonomy, and none of the compliance architecture a regulated promotional environment demands. The healthcare data giants, meanwhile, sell static databases — a rear-view mirror, not a live feed.

III. THE ANATOMY OF A BLIND SPOT

Inside brand teams, the blindness expresses itself as a set of recurring, unanswerable questions. A digital director can report how many sessions a campaign produced but not which prescribers they belonged to. A

brand manager spending several million dollars a year on HCP digital cannot say, with evidence, whether the right specialists ever arrived. A commercial VP assembling a board deck must stitch together Veeva, GA4, and a media agency's self-graded report — three systems with no shared notion of a person — and call the result a single source of truth.

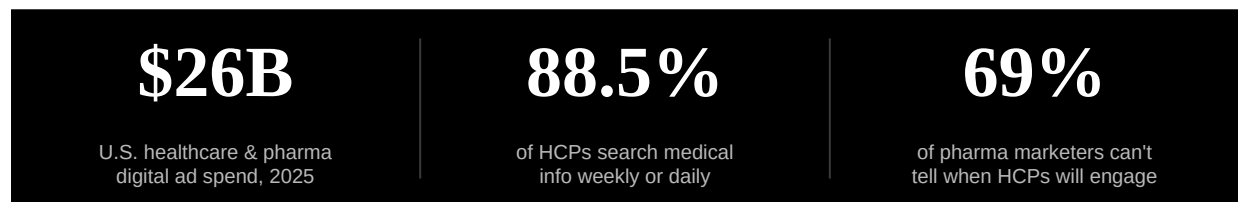
The reliance on the agency's own numbers is its own quiet problem. When the party that buys the media also grades the media, the evaluator and the evaluated are the same. That is not an accusation of bad faith; it is a structural conflict that no amount of good intention removes. Independent, visitor-level measurement is the only thing that turns a media report from a delivery receipt into evidence.

And in a regulated industry, the cost of not knowing is not merely inefficiency. Promotional compliance increasingly turns on documentation — who saw which material, when, and whether it reached an appropriate professional audience. A system that cannot identify its visitors cannot produce that record. The blind spot is therefore not only a marketing problem but a governance one, sitting one audit away from becoming urgent.

IV. WHAT CLOSING THE GAP REQUIRES

Naming an anonymous physician on a website is not a single trick but a chain. It begins with an identification layer — first- and third-party signals resolving a visitor from a permissioned publisher network — and proceeds through correlation with the brand's own behavioral analytics, enrichment against the public NPI registry maintained by CMS, and storage under a data-processing agreement that keeps the brand the owner of its data and keeps protected health information out of the pipeline entirely. The output is not a list of companies. It is a named clinician, a specialty, an organization, and a record of what they read.

Done correctly, the same plumbing serves four ends at once. It **identifies** the HCP behind the session. It **attributes** media spend to real engagement, independent of the agency that placed it. It **complies**, generating the documentation a regulated promotional program is increasingly expected to keep. And it **activates**, alerting a field team the moment a target physician engages — turning a silent pageview into a reason to call.



Sources: EMARKETER (2025); Journal of Medical Internet Research (2021). See sourcing notes.

V. THE UNCLAIMED CATEGORY

The striking thing about this problem is that no one owns the solution. Generic visitor-identification vendors serve technology, not medicine. The healthcare data incumbents sell history, not real-time identity. The dominant pharma CRM commands the field but runs almost no paid acquisition of its own. The intersection — real-time, visitor-level intelligence built specifically for life sciences, with NPI matching and compliance documentation native to the product — sits empty. It is, in the language of strategy decks, white space; in plainer terms, it is a problem the industry has simply learned to live with.

It did not have to. The economics that make a drug expensive to develop are the same economics that make an unidentified physician expensive to lose. A brand willing to spend ten years and a billion dollars to earn a prescriber's attention can afford to learn that prescriber's name when the attention finally arrives. The technology to do so, compliantly and without touching patient data, now exists. What remains is the decision to stop treating the most valuable audience in medicine as a crowd of ghosts.



Visitor Intelligence Platform (VIP) is a service of Loud Canvas Health, built to occupy exactly this gap: Caller ID for the pharmaceutical website. To request the live benchmark data behind this report — or a walkthrough on your own brand traffic — write to nick@loudcanvashealth.com or visit visitorintelligenceplatform.com.

SOURCES & METHODOLOGY

Figures in this report are drawn from public, third-party research except where explicitly identified as Loud Canvas Health market analysis. Estimates for drug-development cost and clinical success vary by methodology; ranges are presented rather than single points where the literature disagrees.

1. **Drug-development cost (median \$708M / mean \$1.31B).** Mulcahy A, et al. “Use of Clinical Trial Characteristics to Estimate Costs of New Drug Development.” *JAMA Network Open*, Jan 2025; RAND press release, Jan 7, 2025.
2. **Higher cost estimates (\$2.2B–\$2.8B).** Deloitte, “Measuring the return from pharmaceutical innovation” (2024 / 2025 reporting via Fierce Biotech); DiMasi et al., as cited in *JAMA Network Open* (2025).
3. **Cost range across the literature (\$161M–\$4.5B).** Schlander M, et al. “How Much Does It Cost to Research and Develop a New Drug?” *PharmacoEconomics*, 2021.
4. **Clinical success / approval rate (~9.6%–14%).** BIO / BioMedTracker / Amplion (2006–2015 cohort); Wong, Siah & Lo, MIT Sloan (2018); Schuhmacher et al., *Drug Discovery Today / ScienceDirect* (2025).
5. **Development timeline (10–15 years).** PhRMA; Statista industry summary (2024–25).
6. **U.S. healthcare & pharma digital ad spend (~\$26B, 2025).** EMARKETER, “Pharma prescription drug TV advertising spend...” and “US Healthcare and Pharma Ad Spending” (2024–2025).
7. **HCP information-seeking behavior (88.5% search weekly/daily).** “Preferences for Accessing Medical Information in the Digital Age,” *Journal of Medical Internet Research*, 2021.
8. **Splintered HCP journeys (69% timing; 68% email burnout).** EMARKETER, “Pharma marketers navigate splintered HCP digital journeys” (2026).
9. **HCP-website influence vs. owned pharma channels.** DRG Digital / Manhattan Research, *Taking the Pulse* (2018–2019), as reported by BioPharma Dive.
10. **Digital-spend slice for HCP/professional marketing (~\$6.6B) and share of HCP web traffic that leaves unidentified (98%).** Loud Canvas Health VIP market analysis (2026). Internal estimate; presented as the company's own figure, not a third-party benchmark.