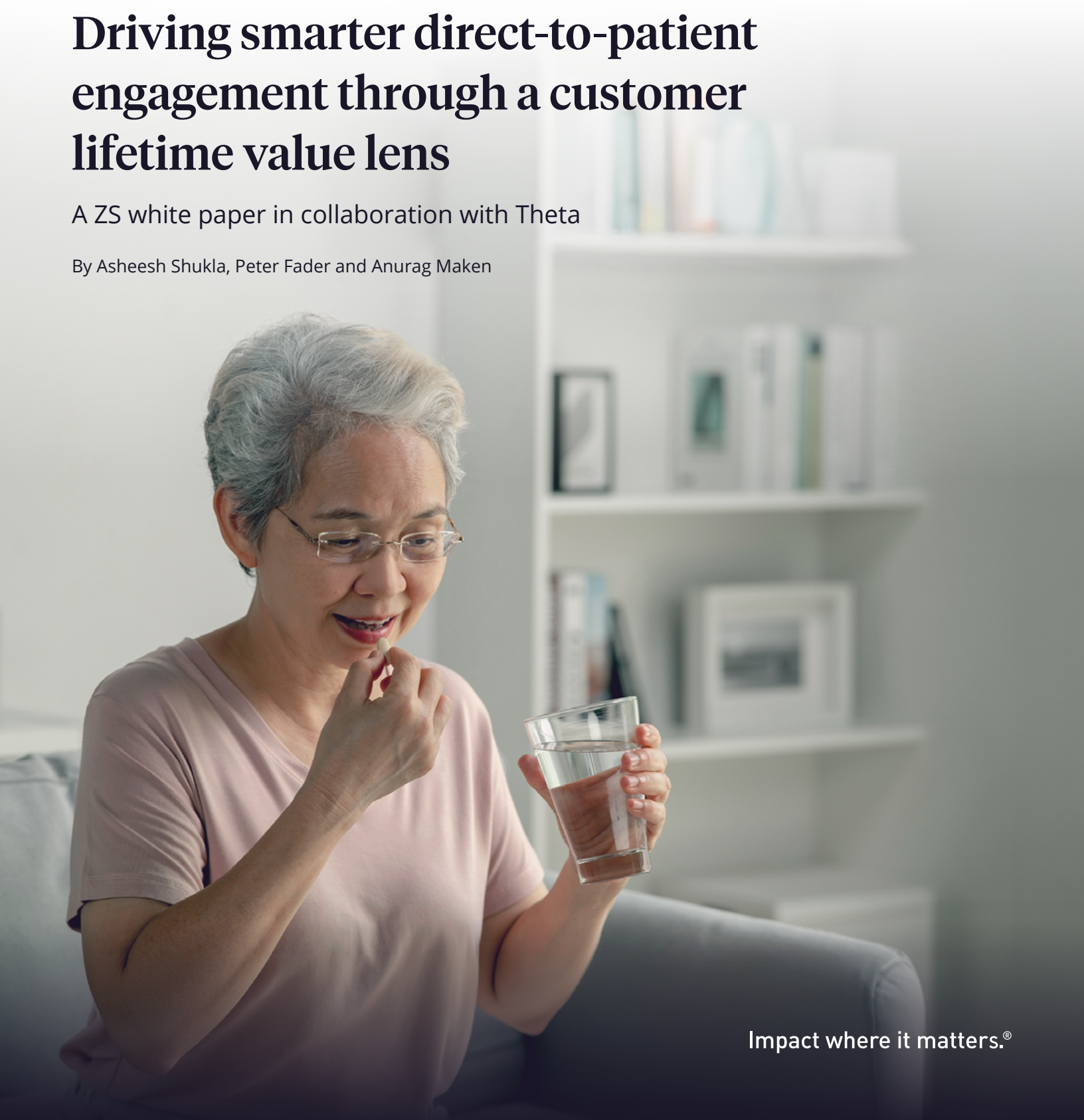
WHITE PAPER

Driving smarter direct-to-patient engagement through a customer lifetime value lens

A ZS white paper in collaboration with Theta

By Asheesh Shukla, Peter Fader and Anurag Maken



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Executive summary

The hardest questions in direct-to-patient (DTP) pharma are no longer about whether to go directly to patients—they're about how to effectively reach and engage them. Seventeen of the world's largest manufacturers—together representing approximately 86% of the U.S. branded pharmaceutical market—have committed to selling medicines directly to cash-paying patients; a federal portal now routes consumers to manufacturer storefronts; and direct-to-consumer (DTC) telehealth platforms serve millions of subscribers. What most organizations don't yet have is the commercial discipline to optimize it.

The symptoms are consistent across programs. Acquisition costs rise as competition for patient attention intensifies. Engagement remains broad-based; every enrolled patient receives roughly the same journey, the same touch points, the same investment, even though patients differ dramatically in engagement, ability to pay and likelihood to persist. And program return on investment is argued from activity metrics—enrollments, app usage, satisfaction scores—that describe what happened inside the program without proving it changed patient behavior. The result is a channel that is strategically essential and operationally unmeasured, overinvesting in patients who will lapse regardless of outreach, underinvesting in patients who would respond to the right engagement at the right moment.

Drawing on ZS's pharmaceutical expertise and Theta's customer-value science, we believe pharma will not realize the full value of DTP by adding another channel; it must build a patient-value operating model that integrates data, engagement, services and investment around the needs and potential of each patient. Customer lifetime value (CLV) provides the economic discipline to make that model actionable, helping companies identify differences in future patient value and use them to guide engagement, service and investment decisions. The case for applying CLV to DTP rests on three core ideas:

1. **The optimization challenge is structural, not transitional.** The forces that enabled DTP growth—the economics of insured channels, federal pricing policy, consumer-grade patient expectations—also guarantee that undifferentiated engagement becomes more expensive every year. Waiting for the program to stabilize is not a strategy.

2. **CLV is the methodology that resolves it.** A bottom-line-oriented, validated approach proven across consumer industries, CLV enables organizations to quantify residual lifetime value, identify underlying cohort heterogeneity and optimize retention strategies around their most valuable patients.

3. **Activation, not analytics, creates value.** CLV changes outcomes when it becomes a shared operating metric across marketing, finance, sales and patient services—an enterprise operating model, not a score in a dashboard.

The winners in DTP pharma will be the companies that learn to identify their highest-value patients early and earn those relationships deliberately. The path forward begins with a shift from patient volume to patient value.

The DTP shift: From patient volume to patient value

For decades, pharma sold through intermediaries: payers controlled access and physicians drove demand. That is changing. The patient is now also the consumer, the decision-maker and, increasingly, the payer. DTP programs, meaning direct commercial relationships with cash-paying patients, took hold first in aesthetics, sexual health and weight management. GLP-1s and manufacturer direct channels have since brought the model into mainstream prescription brands, including immunology, diabetes and respiratory.

This shift, driven by the economics of insured channels, policy and competitive pressure and changing patient expectations, is structural, not cyclical.

- **Patients who pay like consumers expect to be served like consumers.** A patient spending several hundred dollars a month out of pocket benchmarks that experience against every other subscription in their life: transparent pricing, fast delivery, a seamless digital experience, proactive and personalized communication.
- In DTP categories, **patients discover brands,** compare options and drive demand through preference—yet they differ dramatically in engagement, affordability and likelihood to persist. Predicting that variation is now commercially consequential.
- **Traditional pharma commercialization, by contrast, is engineered for breadth, not depth.** Its operating logic—negotiate access, make patient services broadly available, reach the largest possible population—was rational for a world where payer access and prescriber pull-through determined outcomes and success was measured in volume: prescriptions written, share captured, patients reached. Carried into DTP, that logic produces equal spends across every patient regardless of likely trajectory and the inefficiency compounds as acquisition costs rise, competition for patient attention intensifies and persistence remains a challenge across categories.



It is important to note that while DTP looks like a consumer business, three differences shape how it has to be run:

- The stakes are clinical. A patient who drops off therapy loses an outcome, not just a product, so retention has to feel like care rather than promotion.
- Loyalty has to be earned. In insured channels, formulary position, benefit design and prescriber habit initiate and sustain therapy. DTP gives cash-pay patients greater choice. They compare prices and platforms and may leave when the experience falls short. Pharma can no longer count on access dynamics or clinical inertia alone to hold them.
- The prescriber's role changes but doesn't disappear. Patients may drive demand and choose how and where to access therapy, but a physician still decides whether therapy continues, so a DTP program has to work for both.

The required shift is from volume and efficiency to value and effectiveness. ZS analysis makes the cost of the old model concrete: major brand launches 2008-2025 underperformed forecasts by an average of $530 million in their first three years—evidence that awareness alone does not move patients to action and that the next era of commercial performance will be won on relevance, not reach. From "how many patients can we reach?" to "which patients represent long-term value, how do we identify them early, how do we engage them in proportion to what they are worth, and how do we attract more high-value patients or develop lower-value patients into higher-value ones?" As patient intent and consumer influence become genuine drivers of therapy adoption—alongside clinical outcomes, payer access and prescriber decisions—the commercial model must evolve to meet them. Pharma DTP now has both the direct patient data and the commercial imperative to make that shift.

> **"We believe pharma will not realize the full value of DTP by adding another channel; it must build a patient-value operating model that integrates data, engagement, services and investment around the needs and potential of each patient."**

CLV as the north-star consumer value metric

What is CLV?

CLV is a forward-looking, probabilistic estimate of the total value a customer—in this case, a patient—will generate over the full life of the relationship. Its premise is "not all customers are created equal," and companies that act on that insight, investing disproportionately in the customers who will generate disproportionate returns, systematically outperform those that treat everyone the same. It's a strategy that aligns the development and delivery of products and services with the current and future needs of a select set of customers, to maximize their long-term financial value to the firm. The model does not describe what has happened; it projects what will happen and attaches a probability to each outcome.

Importantly, CLV is a profit metric, not just a revenue metric. Cost allocation is built in, and the objective is to optimize the return on engagement investment, not simply to cut spend. It is most powerful when applied at the microsegment or individual-patient level—grouping patients by past spend, channel or behavioral profile—because churn is not uniform across a patient population, and aggregate metrics obscure where the real levers sit. The discipline begins by celebrating heterogeneity: treating differences between customers as the primary source of strategic signal, not as noise to be averaged away.

At ZS, drawing on Theta's customer-value science, we see CLV as the economic discipline that enables pharma to turn direct patient relationships into smarter decisions about whom to engage, how to serve them and where to invest.

How consumer companies use CLV

Consumer companies offer pharma a proven lesson: The advantage of going direct comes from using first-party data to understand customer value and act on it.

Consumer companies in retail, apparel, streaming, banking and beauty have applied CLV frameworks at scale and seen measurable commercial impact. For example, first-party customer data and predictive customer analytics anchored Nike's DTC transformation (see Appendix A).

More concretely, as an example, a pharma company running a GLP-1 DTP program with millions of enrolled patients isn't managing one patient population. It's managing several: early high-engagers likely to persist, price-sensitive trial-and-lapse patients, midvalue patients whose trajectory is still uncertain and lapsed high-value patients worth a targeted win-back. **CLV makes those populations visible and actionable.** Without it, the company is investing equally across all of them, and leaving significant value unrealized at both ends.

Activating customer lifetime value: The four lenses of CLV segmentation

From a ZS perspective, activating CLV means translating patient value into clear decisions about whom to retain, develop, win-back or serve more efficiently. Theta's four-lens framework provides a practical structure for doing so.

To move beyond past actions and focus on future value, organizations must adopt a data-driven approach to customer segmentation. That means recognizing the heterogeneity among your customers—in what they need from you, how they want to be engaged and what they are worth to your business. Value-based segmentation is what closes the gap. It's the operational layer that turns the principle of customer centricity into concrete answers for every customer in your database: What should we do with this customer? What is our goal? How should we communicate with them? What should we offer and how much should we spend?

To answer these questions, we rely on predictive metrics at the individual customer level that accurately forecast the total profit you can expect from a customer going forward, the probability that a customer remains active and the predicted number of orders and average order value. Together, these metrics make it possible to distinguish between a patient who has not refilled in 90 days because they have discontinued and one who has not refilled because a 90-day supply is simply their cadence—and to predict what their future behaviors will look like. We then translate these metrics into four overlapping lenses that add context to each engagement decision an organization may face: What is our primary commercial objective? Is the customer's economic trajectory positive? What tone does relationship maturity dictate? And how does this customer prefer to buy?

The first lens, **retention and development,** combines total forecasted individual-level profit with engagement to derive a clear primary objective for each customer. That may be nurturing high-value segments, nudging refill cadence, deploying personalized win-back efforts or simply suppressing them from further marketing investment. The second lens, **value momentum,** measures future potential relative to past behavior, identifying active customers on an upward trajectory versus once-valuable customers now in decline. This also changes how aggressively you invest. The third lens, **customer life cycle,** anchors communication to relationship maturity. A first-fill patient and a three-year loyalist need fundamentally different messaging, even if they're in the same value tier. The final lens, **purchase persona,** spotlights how customers purchase differently, even at the same value level. High-value patients managing multiple conditions across the portfolio may warrant concierge-level service and proactive clinical support rather than generic email drip campaigns, whereas single-therapy patients with steady, low-touch refill behavior might be better served with refill-cadence nudges, adherence-support tiers and service upgrades that deepen the relationship.

FIGURE 1:

The four lenses at a glance

Lens	Strategic question	What it does
Retention and development	What is our primary goal for this customer?	Dictates how you allocate your resources by telling you whether your immediate job is to retain a high-value customer who is slipping away ("at-risk VIP"), develop a promising one ("loyal core"), win back a valuable churned customer ("hibernating whale") or reduce spend on a low-potential one ("suppress/monitor").
Value momentum	Where is their value trajectory heading?	Provides the "why" behind your action for customers at the extremes of their value journey. For a "rising star," the strategy is to accelerate positive momentum with an encouraging message. For a "fallen angel," the strategy is to diagnose what went wrong with a respectful, feedback-oriented message.
Customer life cycle	What is the message context?	Sets the tone and context of your message based on relationship maturity—tenure since first purchase. For a new customer, the tone is welcoming and onboarding-focused. For an established customer, the tone acknowledges long-term loyalty and history.
Purchase persona	What are the rules of engagement?	Sets the rules of engagement for communication—timing, frequency and offer type—ensuring you market to customers on their terms by understanding how they prefer to buy.

The first lens in practice: combining each patient's predicted value tier with their engagement status yields a primary objective—and a named segment—for every patient in the database.



CLV for DTP pharma

What pharma should do

When embedded as a commercial operating principle, CLV changes how every function makes decisions—from how marketing allocates budget, to how finance evaluates patient-program ROI to how customer service prioritizes support resources. Five moves define the path:

1. **Build the patient data asset.** Treat every DTP program as a longitudinal data asset: unify transactions, fulfillment and engagement signals at the patient level across dispensing platforms, hubs and digital tools.
2. **Score forward-looking value from day one.** Estimate each patient's residual lifetime value from the first fill, using cohort-based priors for new patients, rather than waiting for behavioral history to accumulate.
3. **Segment through the activation lenses.** Apply the four-lens framework to translate CLV scores into a primary goal, a strategy, a tone and rules of engagement for every patient. Segment on predicted value rather than demographics, which Fader and Toms describe in "The Customer Centricity Playbook: Implement a Winning Strategy Driven by Customer Lifetime Value" as "archaic customer acquisition approaches that should be retired."
4. **Right-size engagement investment**. Redesign journeys around segments—high-touch onboarding for high-potential new patients, targeted win-back for lapsed high-value patients, efficient automation elsewhere—and calibrate offer generosity to expected return.
5. **Embed CLV as a shared cross-functional metric.** Make patient lifetime value the common currency for marketing, finance, sales and patient-services decisions—and evolve success metrics with it. In practice that means giving the DTP program its own patient-level profit and loss (P&L), reviewing acquisition cost against lifetime value alongside prescription volume and aligning field teams to the prescribers whose patients carry the most value.

"The companies that learn to identify their highest-value patients early—and invest in them accordingly—will not just win on efficiency. They will build the patient relationships that define their next decade. The organizations that start now will be the ones the rest of the industry benchmarks against."

FIGURE 2:

The cross-functional reach of the framework

Function	Key questions CLV enables
Marketing	Who are our highest-value patients? Which acquisition channels deliver them most efficiently? How much should we spend to retain them versus acquire new ones?
Finance	What is the profitability of each patient cohort? How do pricing, discounting and support investment decisions affect customer-level margins? Where should capital be allocated for the highest CLV-adjusted return?
Sales	Which patients warrant priority engagement? Where are the highest-return cross-sell and portfolio expansion opportunities?
Customer service	How do we prioritize support resources toward high-value patients? What proactive interventions reduce at-risk lapse before it happens?
Outreach and programs	Which loyalty programs, premium service tiers and third-party partnerships move patients from lower to higher CLV segments—and at what incentive level?
Corporate development	What is the CLV-adjusted value of a potential acquisition or partnership? Which platform integrations strengthen the patient data asset?

Operationalizing CLV: from score to system

A CLV score changes nothing on its own. It creates value only when it flows into the systems that decide, every day, which patient gets which engagement at what cost. Operationalizing that flow requires three connected layers: a data foundation, an intelligence layer and an activation layer, plus the measurement discipline to prove what each is worth.

The data foundation: one patient, one longitudinal record. DTP pharma generates patient-level data that traditional commercialization never could, but it arrives fragmented across dispensing platforms, hub services, co-pay programs and digital engagement tools. The prerequisite for CLV is a unified patient data layer that resolves these signals to a single longitudinal identity, governed for consent and compliance from the start. Connected health tools can now join fulfillment, services and engagement data into one compliant patient record and every downstream model depends on getting this layer right.

The intelligence layer: AI that converts value scores into next best actions. Probabilistic CLV models supply who and how much: each patient's remaining lifetime value, lapse risk and value trajectory. AI converts those into what and when. Drop-off risk stratification identifies which patients are approaching the moments where persistence breaks; machine-learning models diagnose the nonclinical barriers—affordability, logistics, motivation—driving each patient's risk; and next-best-action engines pair each patient with the intervention most likely to work, at the intensity their value justifies. Across therapy areas, we estimate an AI-forward patient engagement approach can reduce fulfillment and retention leakage by 20% to 30%.

The activation layer: engagement that is differentiated, not merely automated. The four-lens segmentation translates model outputs into journey design: concierge-level onboarding and proactive support for high-value, high-risk patients; efficient automated journeys for stable segments; targeted win-back for lapsed high-value patients; suppression where investment cannot return. Patient services are where this differentiation becomes tangible and where the economics are most compelling: as one pharma executive has put it, keeping one patient on therapy is worth acquiring three new ones. The operational shift is from calendar-based, one-size-fits-all outreach to interventions triggered by each patient's predicted state, with case managers, nurse navigators and field reimbursement teams equipped to bring human connection to the patients whose value and risk warrant it.

The measurement discipline: outcomes accountability, not activity tracking. The final layer connects engagement to patient behavior and commercial value. ZS's work with Novo Nordisk to evaluate and strengthen WeGoTogether®, its flagship support program for patients using GLP-1 therapies, shows the standard. Rather than relying on enrollment and activity metrics, ZS connected program engagement data with pharmacy claims and applied causal modeling to determine whether the program changed patient behavior and outcomes. The analysis found that engaged patients achieved a 3%-6% improvement in early prescription fulfillment and remained on therapy approximately six to 22 days longer. Registered patients also achieved 6%-12% greater BMI reduction. Patients managing serious comorbidities responded to coaching, while patients facing affordability barriers benefited more from a simplified access pathway. These findings enabled Novo Nordisk to move beyond a broadly applied support model and make more precise decisions about where and how to invest. That's CLV logic in action: connect engagement to outcomes, identify meaningful differences among patient segments and direct resources toward the interventions most likely to improve behavior.

The operating model that holds it together. Making CLV durable requires:

- **People:** A named owner of patient value with authority across functions, and analytics translators embedded in brand teams so model outputs shape decisions rather than decks.
- **Process:** A governance cadence that puts cohort-level CLV, customer acquisition cost (CAC)-to-CLV ratios and retention-curve shape on the same dashboard as prescription volume, with a test-and-learn budget that reallocates engagement spend quarterly as the models learn.
- **Technology:** The data layer, model operations and activation platforms described above, built once and reused across brands.
- **Change management:** The deepest barrier is cultural. The "every patient is equal" norm runs deep, and the resolution must be explicit and repeated: no patient loses access or receives worse care; some receive a more personalized, higher-touch experience.

How CLV is calculated: matching the model to the relationship

For pharma leaders, the first modeling decision is not which algorithm to use, but how the patient relationship actually works. Some DTP relationships have clear enrollment and cancellation signals; others are visible only through fills, transactions or engagement behavior. ZS helps organizations define these relationship structures, determine which signals reliably indicate persistence or lapse and select the modeling approach that best supports commercial decisions.

The models may differ, but the objective remains consistent: estimate future patient value accurately enough to guide acquisition, engagement, service and retention investment.

FIGURE 3:

Matching the CLV approach to the patient relationship

Relationship structure	DTP pharma example	What the model must account for	Decision it supports
Episodic purchase (noncontractual)	Medical aesthetics	Whether inactivity signals lapse or a naturally irregular cadence	When to reengage and how much to spend
Recurring fulfillment (contractual or subscription)	Monthly direct-pharmacy programs	Renewal probability, cancellation and expected duration	Retention investment and intervention timing
Portfolio (multiple concurrent)	Patient using multiple therapies or services	Value and persistence across connected relationships	Cross-portfolio service and support allocation
Engagement-led (noncontractual, multiple behaviors)	Patient platform or support program	How digital and service interactions predict future behavior	Which signals should trigger outreach
Membership plus purchase (hybrid contractual and noncontractual)	Weight-management membership with medication fills or add-ons	Recurring membership value plus discretionary spend	Offer design, service tiers and retention

Depending on the relationship and available data, estimation may draw on transaction, survival, probabilistic or machine-learning models.

As DTP evolves toward platform and marketplace models, CLV approaches will also need to account for the interdependent value of patients, providers and service partners across the ecosystem.

What pharma should be aware of

CLV-based approaches carry known limitations and caveats, particularly around data availability and evolving patient behavior. Three matter most:

- **Data infrastructure:** CLV modeling requires longitudinal, patient-level transaction data. In DTP settings, this data is often fragmented across dispensing platforms, specialty pharmacies and digital engagement tools. Cold-start conditions, where a new program lacks historical cohort data, require model adaptation and the quality of early predictions improves as data accumulates. Investment in a unified patient data layer is a prerequisite for full CLV capability.
- **Compliance and regulatory constraints.** Pharma DTP operates within regulatory boundaries that consumer industries don't face. Patient data usage must comply with HIPAA, and engagement programs must respect promotional rules and inducement restrictions. Legal and compliance review is not optional, it is a prerequisite for any CLV-based activation.
- **Celebrating heterogeneity.** The most culturally challenging aspect of CLV is its core premise: patients differ in future value, and investment should reflect that. This sits uneasily with pharma's equitable-access ethos. The resolution is simple: no patient loses access; some gain a more personalized, higher-touch experience. The goal is not to treat any patient worse. It is to treat high-value patients better. This framing matters for internal alignment, where the "every patient is equal" norm runs deep.

"A CLV score changes nothing on its own. It creates value only when it flows into the systems that decide, every day, which patient gets which engagement at what cost."



Case studies

The methodology behind this paper has been validated across more than 500 client engagements spanning retail, banking and consumer health. What's more, it's already been applied inside healthcare on both sides of the relationship pharma DTP now combines: the cash-pay consumer and the traditional prescriber.

FIGURE 4:

From patient insight to measurable impact

Case	What CLV revealed	Decision enabled	Business impact
Allergan Aesthetics	The second treatment is the pivotal retention moment. Consumer and provider value varies significantly by behavior and product use.	Redesign CRM and service around high-value cohorts and the first-to-second-treatment transition.	9% year-over-year retention improvement; $1 billion projected CLV uplift over 10 years.
Nike	First-party data made differences in customer value visible and actionable.	Shift from broad promotion toward personalized, value-calibrated engagement.	Direct channels grew from about 28% to 44% of Nike Brand revenues.
Global biopharma company	Future prescriber value varied substantially by geography and specialty.	Reallocate acquisition and development investment and improve field prioritization.	A fact-based input to sales forecasting and territory investment decisions.
Weight management company	Early behavior could accurately predict future member value and distinguish cohort quality across brands.	Compare acquisition quality, retention potential and revenue opportunity across the portfolio.	Predictions correlated 0.97-0.99 with observed outcomes.

Turning patient value into action

The DTP shift is already under way. GLP-1 platforms, aesthetic medicine and digital health subscriptions have created a generation of patients who expect a direct, personalized relationship with the companies whose products they pay for out of pocket. At most pharma companies, the commercial infrastructure to serve that expectation doesn't exist yet. What makes this moment particularly consequential is that the business case and the patient case point in exactly the same direction: the patients who receive the most relevant, personalized, high-quality engagement are the ones most likely to persist, and the ones who generate the most long-term value. There is no trade-off between serving patients well and running a commercially effective DTP operation. CLV shows they're the same objective.

The most important implication isn't analytical, it's organizational. CLV only delivers its value when patient lifetime value becomes a shared metric across commercial functions, not a number that lives in a marketing dashboard. When finance evaluates program ROI through a patient-cohort lens, when sales prioritizes engagement based on forward-looking value rather than past prescribing, when patient services calibrates support investment to persistence probability—that is when the framework changes outcomes rather than just producing insights.

Getting there requires three deliberate bets and one metric shift. The bets:

- First, **data**—a unified, patient-level data layer across dispensing, hub and digital engagement, the prerequisite asset.
- Second, **capability**—probabilistic CLV modeling and the activation muscle to act on it, whether built, bought or accessed through partnership.
- Third, **operating model**—cross-functional governance that puts patient lifetime value on the same dashboard as prescription volume.

The metric shift follows: success measures must evolve from volume metrics alone toward cohort-level CLV, CAC-to-CLV ratios, retention-curve shape and win-back economics. None of these bets are exotic. Each is a decision—and the discipline to sustain it.

The question is no longer whether patient lifetime value matters in DTP pharma; it demonstrably does. The question is what to do about it this quarter. The good news: the path does not begin with a transformation program. It begins with four moves, each of which creates standalone value and compounds into the next:

1. **Audit the customer base you already have.** Run a customer-base audit on existing DTP program data to quantify how concentrated patient value actually is. Most organizations discover the distribution is far more skewed than their engagement spend assumes. This takes weeks, not quarters, and typically pays for itself in the reallocation decisions it makes obvious.
2. **Build the first CLV model where the data is richest.** Pick one brand or program, stand up forward-looking value and lapse-risk scoring and validate predictions against observed behavior before scaling. Cold-start methods mean new programs need not wait for years of history.
3. **Activate in one journey.** Pilot value-based segmentation where the economics are sharpest: onboarding through second fill or win-back of lapsed high-value patients. Measure against a holdout, linking engagement to fulfillment and persistence, not activity metrics.
4. **Institutionalize what works.** Stand up the cross-functional governance that puts CLV beside volume on the commercial dashboard and expand brand by brand.

This is the sequence ZS and Theta run together, from data-readiness assessment and customer-base audit, through model development and validation to activation pilots and operating-model design. ZS brings the end-to-end DTP perspective required to redesign pharma's patient commercial model; Theta strengthens that perspective with proven customer-value science from consumer markets.

The companies that learn to identify their highest-value patients early—and invest in them accordingly—will not just win on efficiency. They will build the patient relationships that define their next decade. The organizations that start now will be the ones the rest of the industry benchmarks against.

"There is no trade-off between serving patients well and running a commercially effective DTP operation. CLV shows they're the same objective."

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About ZS and Theta

The partnership

ZS is a global management consulting and technology firm that partners with companies to improve life and how we live it. By combining data, science, technology and human ingenuity, ZS helps organizations transform ideas into impact and deliver better outcomes for patients, customers and businesses. In this partnership, ZS brings deep pharmaceutical commercial expertise—across marketing, field deployment, market access and patient services—and the organizational implementation experience to ensure CLV insights translate into operational change.

Theta, cofounded by CLV pioneer Peter Fader and Daniel McCarthy, brings a validated CLV modeling framework shaped through 500+ client engagements across retail, banking and consumer health. Theta's expertise helps organizations quantify customer value, optimize engagement strategies and improve long-term commercial performance, including customer-based corporate valuation, the methodology Fader and McCarthy cocreated.

Together, ZS and Theta deliver something categorically different from a modeling engagement: end-to-end capability, from problem framing and data-infrastructure assessment, through model development and segmentation, to activation roadmaps and cross-functional change management. **The goal is not a CLV score in a spreadsheet, it is a durable commercial operating model where patient lifetime value becomes the central organizing logic for investment decisions.**

About the authors



Asheesh Shukla leads ZS's global patient strategy and services practice area, helping pharmaceutical clients evolve their commercial models to be more care-centric—ensuring patients achieve the best possible outcomes from their therapies. His work centers on care enablement solutions that engage consumers throughout the healthcare journey: from driving diagnosis to timely and seamless therapy onboarding to ongoing services that reduce friction for patients, caregivers and providers. He also leads ZS's product and platform business for pharma.



Peter Fader is the Frances and Pei-Yuan Chia professor of marketing at the Wharton School of the University of Pennsylvania and cofounder and director of Theta. His expertise centers on the analysis of behavioral data to understand and forecast customer purchasing activity, and he is widely regarded as the leading academic voice on customer lifetime value and customer centricity. He is the author of "Customer Centricity: Focus on the Right Customers for Strategic Advantage" (2020), and co-author of "The Customer Centricity Playbook" (2018, with Sarah Toms) and "The Customer-Base Audit" (2022, with Bruce Hardie and Michael Ross). In 2015, he cofounded Zodiac, a predictive customer analytics firm acquired by Nike in 2018, before cofounding Theta to commercialize customer-based corporate valuation.



Anurag Maken is an associate principal in ZS's New York office, where he helps pharmaceutical clients maximize patient access. His work centers on designing and negotiating access, affordability and distribution solutions that reduce friction between patients and the therapies they need—increasingly through direct-to-patient channels. In his 14 years at ZS, Anurag has worked across therapy areas and commercial functions, from access and contracting strategy through patient services design and implementation. He holds a bachelor's degree from the Indian Institute of Technology and is an MBA candidate at the Wharton School of the University of Pennsylvania.

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Appendix A: From consumer playbook to pharma practice: Nike

Nike faced the same structural challenge pharma DTP faces today: a largely noncontractual customer relationship, low switching costs and no natural retention mechanism beyond product quality. In fiscal 2017, direct channels accounted for roughly 28% of Nike Brand revenues. By investing in the Nike app, NikePlus membership and a personalized engagement infrastructure, including the 2018 acquisition of Zodiac, the predictive customer analytics firm cofounded by Theta's Peter Fader, Nike built something wholesale could never deliver: first-party customer data at scale.

That data asset let Nike see who its highest-value customers were, what they responded to and where to invest to deepen the relationship—shifting from broad-based promotional spend toward personalized, relevance-driven engagement calibrated to each customer's value. By fiscal 2023, Nike Direct revenues reached $21.3 billion—approximately 44% of Nike Brand revenues—at structurally higher gross margins than wholesale. Nike has since rebalanced its channel mix back toward wholesale partners; the durable asset is not the channel split but the customer-data and customer-valuation capability the direct push created. **Nike did not win by reaching more customers. It won by knowing its customers better than its competitors did.**

There's an exact parallel with pharma DTP. Going direct is not a distribution decision, it's an information strategy: holding direct, longitudinal, behavioral patient data to **make engagement more relevant, more efficient and more genuinely personalized.**

Appendix B: Applying CLV in consumer health and biopharma

Allergan Aesthetics (consumer health and medical aesthetics)

Allergan Aesthetics, a market leader in medical aesthetics with Botox Cosmetic and a portfolio of injectables and other products, operates a B2B2C model, selling to providers who resell to consumers. Facing steep competition in the nonsurgical segment and low consumer participation rates relative to the addressable market, the company invested in DTC advertising, rebuilt its technology stack and launched a data-driven loyalty program (Allē)—then needed to understand which consumer behaviors were associated with high lifetime value, and how to orient commercial strategy around them.

Theta built two forward-looking CLV models—one for providers, one for end consumers—each composed of three probability submodels of underlying behavior: churn, transaction frequency and transaction value. The consumer analysis covered 34 million transactions across 6 million consumers; the provider analysis covered nearly 7 million transactions across 68,000 provider customers. A regression analysis then quantified how consumer attributes—geography, discounts, product usage, provider characteristics—drive CLV.

The work drove a projected $1 billion increase in CLV over a 10-year horizon, a redesigned CRM program that lifted patient retention 9% year over year, the identification of a product line that drives 2x customer lifetime value and differentiated models of service, promotion and value creation for heterogeneous customer cohorts. A pivotal operational insight: consumers are most often lost between their first and second treatment—securing the second treatment anchors the routine and is the highest-leverage retention moment in the journey.

Global pharmaceutical R&D firm (biopharmaceuticals, HCP model)

A global, multi-billion-dollar pharmaceutical R&D company with multiple product lines engaged Theta to gain a deeper understanding of its customers—prescribing physicians—for a specific product in its portfolio, to optimize market position against a key competitor and forecast future drug sales.

The data spanned two years and included roughly 3 million prescriptions written by approximately 120,000 physicians, at daily, individual prescription-level granularity—prescriber, claim and fill date, patient ID, pill quantity, drug, insurance and first-time-prescriber flags, enriched with physician geography and specialty. Theta built two probability models of physician behavior—a retention/churn model and a pills-per-prescription model—and combined their forecasts into physician-level lifetime revenue projections, with customized buy-till-you-die models applied across acquisition cohorts to produce a five-year forward view of revenue and volume.

The engagement gave the firm a fact-based, predictive framework for growth: forward-looking value distributions revealed that physician value varied dramatically—with a substantial population of high-value prescribers—and clarified acquisition and development opportunities by geography and specialty, providing a direct input to field-force prioritization and sales forecasting.

About ZS

ZS is a management consulting and technology firm that partners with companies to improve life and how we live it. We transform ideas into impact by bringing together data, science, technology and human ingenuity to deliver better outcomes for all. Founded in 1983, ZS has more than 15,000 employees in 40-plus offices worldwide.

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