



Consumer health – a blueprint for life sciences

How life sciences can choose to shape the critical layer in health value ecosystems, or risk ceding value to others in the era of consumer health

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Executive summary

The next leaders in life sciences will be determined by more than molecules alone. The companies that lead on patient outcomes and long-term economics will be those that build, shape, and govern the critical layer in health value ecosystems.

That's the strategic shift now underway. Health is increasingly experienced as a continuous journey across prevention, diagnosis, treatment, chronic management, caregiving, ageing, and daily life. As that journey becomes more connected, more data-rich, and more consumer-shaped, value is migrating beyond the product alone and towards the systems that surround it. The shift is being accelerated by drug classes (e.g. GLP-1) that make consumer health a viable channel for pharma – not a destination in itself.

It's a shift that changes the basis of competition. In the previous era, competitive advantage came primarily from scientific discovery, regulatory approval, and commercial scale. In the next, those factors will remain necessary, but no longer sufficient. The companies that will win are those that shape the interfaces, data loops, evidence engines, trust mechanisms, and economic models that influence health over time.

That's why consumer health matters much more than just as a segment, adjacency or digital add-on. It is now central to how relevance, growth, and margin will increasingly be decided.

The shift is already visible in the economics. Consumers are spending at scale on health optimisation, prevention, and self-management. The Global Wellness Institute estimates that the global wellness economy reached USD 6.3 trillion in 2023¹, signalling that health optimisation is increasingly organised by consumer rather than clinical logic. The world is living longer, but not necessarily more healthily, expanding the addressable space for prevention, monitoring, adherence, early intervention, and long-term condition management². Chronic multi-condition living is becoming the norm. OECD PaRIS² finds that 54% of adults live with two or more chronic conditions, and 29% with three or more, making continuous management the default mode of modern health.

The reality of continuous health management is also shaped by social determinants of health – such as income, housing, education, food access, transport, digital access, health literacy, and social support – which influence whether people can access, engage with, and sustain health interventions over time.

At the same time, more than USD 300 billion in prescription drug revenues are expected to lose exclusivity between 2025 and 2030³, putting pressure on traditional sources of advantage and intensifying the need for new avenues of growth.

The implication is clear: if life sciences businesses do not define their role in this new environment, others will.^a Retailers, diagnostics players, pharmacies, device ecosystems, payers, digital platforms, and technology companies are increasingly shaping access, data capture, navigation, and the consumer relationship. In that world, a life sciences company can produce breakthrough science and nonetheless face limits on the value it can capture if others shape the surrounding health value ecosystem.

^a Treatment decisions remain with healthcare professionals; the players named here shape the surrounding system, not clinical choice.

The strategic question for CEOs therefore goes beyond whether consumer health matters. It is where the company will hold influence in that space.

In each chosen disease or journey context, there are three credible positions. A company can act as an ecosystem leader, shaping the critical layer around evidence, trust, journey design, and long-term economics. It can act as a system partner, influencing selected interfaces inside a broader multi-party ecosystem. Or it can become a component supplier, contributing molecules or technologies inside health value ecosystems shaped by others.

All three positions can be viable. The only real danger is a company drifting into a weaker role by default, within an ecosystem shaped by others. Disintermediation, rather than scientific failure, is the real risk. Whoever earns the relationship, governs the data loop, and operates the evidence engine will increasingly shape the economics of the industry.

This paper argues that life sciences must now be understood differently. Rather than viewing the business primarily as a portfolio of products managed through functions, companies must increasingly think in terms of health value ecosystems. These ecosystems bring together biology, behaviour, data, evidence, regulation, and economics to improve outcomes, strengthen adherence, and sustain the value of treatment over time.

As a result, the economics of a molecule increasingly depend on the system around it. What makes this different from earlier beyond-the-pill approaches is that advances in data, behavioural science, and AI now make these ecosystems far more practical to build and operate.

That shift is already visible across the six disease-cluster realities examined in this paper:

- Cardiometabolic and lifestyle-driven diseases – the scale test
- Oncology and survivorship – the complexity test
- Neurology, mental health, and cognition – the trust test
- Immune-mediated and chronic inflammatory diseases – the durability test
- Rare diseases, cell and gene, and radioligand therapies – the system-integrity test
- Infectious diseases and pandemic-type threats – the civilisational relevance test

Across these domains, the same pattern is emerging: growth depends less on product launch and more on the ability to orchestrate outcomes over time across multiple actors, channels, and decision points.

The companies that will lead in this era will not necessarily own the whole ecosystem. In most cases, that's neither realistic nor desirable. But leaders will know, with precision, which strategic control points they must hold, which capabilities they must govern, with which partners they must align, and which layers they can outsource without surrendering strategic influence.

Two capabilities will become decisive across all six clusters. The first is designing and operating regulated growth capabilities, including engagement, personalisation^b, adherence, and responsible demand development, as governed infrastructure, not campaigns. The second is designing, testing, and scaling new business models (B2B2C, selective direct-to-consumer, and health value ecosystems) with the same rigour traditionally applied to R&D and manufacturing.

The most attractive value pools are now found in health value ecosystems where diagnostics, evidence, services, adherence, and engagement help move episodic revenue towards sustained, outcomes-linked economic models. Novo Nordisk's reported 2024 obesity-care sales of USD 10.1bn (DKK 65,146m)⁴, for example, illustrate how rapidly such system dynamics can reshape an entire portfolio – not because of the molecule alone, but because of the health value ecosystem built around it.

This is the real fork in the road for life sciences: whether the company will help shape the future economics of health or supply into ecosystems shaped by others. This paper is written as a CEO blueprint for making that choice deliberately, offering a practical framework for deciding where to lead, where to partner, where to remain modular, and which capabilities in the 'age of the consumer' are now non-negotiable.

^b 'Personalisation' in this paper refers to engagement, education, and access workflows – never to treatment decisions or pricing, which remain regulated and HCP-determined.

How to read this paper

The six strategic truths

In this paper, health value ecosystem is the primary business term, while value stream refers to the internal operating logic that makes a health value ecosystem work.

The six strategic truths are synthesised from the structural pressures examined in the paper: rising chronicity and multi-morbidity, capacity constraints, digital health adoption, regulatory pressure, evidence expectations, and the redistribution of value across multi-party health ecosystems.

‘Consumer health’ is not a segment. It’s the operating reality of modern health.

It is the environment in which health is now produced, experienced, regulated, financed, and sustained.

The firm must be understood through the lens of health value ecosystems.

Competitive advantage no longer comes from optimising departments in isolation, but from designing end-to-end systems that manage outcomes, evidence, trust, and economics over time.

Margin increasingly depends on the system around the product.

Profitability is increasingly determined by architecture, control points, data loops, trust, and lifetime economics.

Growth is now designed and governed, not extracted.

It rests on engagement, personalisation, adherence, and access models operated as enterprise capabilities.

Data, evidence, and trust are now compounding strategic assets.

They determine who learns fastest, who earns the right to personalise, who creates durable engagement, and who builds long-term value across the life-course.

The leader does not own everything. The leader shapes and governs the critical layer.

Leadership comes from shaping the rules, interfaces, evidence flows, trust mechanisms, and economics of the health value ecosystem, even when execution is distributed across partners. The patient is the ultimate beneficiary. The firm’s role is to help govern the system layer that makes superior patient outcomes economically sustainable.



The age of the consumer

Consumer health as the new operating reality

The framing of consumer health as a market segment is already obsolete. Consumer health is the lived, continuous experience of health management across a person's life. It spans from prevention, symptoms, diagnosis, treatment, and ongoing condition management, to caregiving, ageing, and end-of-life. It's enabled by an expanding ecosystem of clinical, therapeutic, diagnostic, retail, technology, and support players.

We use 'consumer' to refer to the active, self-directed dimension of health management (prevention, lifestyle, navigation) and 'patient' to refer to the care-seeking dimension. A person is typically both consumer and patient, either sequentially or simultaneously.

This matters because it shifts the lens in three decisive ways:

- from **episodic care** delivery to **continuous health** management^c
- from **institution-centred** to **person-centred**
- from **clinical only** to **clinical + behavioural + digital + social**

This is the deeper change now reshaping health. Care is delivered. Health is lived continuously, by the person, across episodes and between them as a consumer-shaped journey that's increasingly orchestrated across sectors.⁵ That change is larger than any single technology wave, therapy class, or business model trend. It's a long-term reorganisation of the health industry itself that's likely to shape the next 10 to 15 years and beyond. This life-course view is consistent with the direction of health-system policy, which increasingly emphasises person-centred, integrated, digitally enabled, and longitudinal care rather than isolated encounters.⁶

A1. The human journey across the life-course

The appropriate lens is now the lived journey rather than the isolated episode. That journey is rarely linear or neatly segmented; an individual may be healthy in one area, managing a chronic condition in another, and acting as a caregiver for someone else, all at the same time.

Healthy and aware

The person is trying to stay well, build habits, detect risk early, and maintain resilience through fitness, nutrition, sleep, screening, mental wellbeing, and passive or active monitoring. In practice, this stage is shaped by cardiovascular and metabolic risk markers, behavioural-health screening, sleep and recovery, and increasingly by social determinants of health, which should therefore be treated as part of the journey context, not as a separate topic. Factors such as affordability, housing stability, food access, transport, education, employment, digital inclusion, health literacy, caregiver support, and trust in institutions shape prevention, diagnosis, adherence, engagement, and long-term outcomes.

^c This shift does not deny capacity constraints in care delivery. It reflects that an increasing share of health value is now created outside clinical settings, freeing scarce clinical capacity for higher-acuity work.



For life sciences, the implication is not to own or solve these determinants, but to design health value ecosystems that recognise where social conditions affect access, evidence, trust, and sustained value creation.

Concern, symptom, or episodic event

The person is trying to understand what is happening, access advice quickly, navigate where to go, obtain diagnosis, receive treatment, and recover with minimal friction.

Living with one chronic condition

The person is trying to manage a condition over time through monitoring, medication adherence, lifestyle adaptation, periodic care interactions, and avoidance of deterioration.

Living with multiple chronic conditions

The person is trying to manage complexity: multiple providers, multiple therapies, competing priorities, polypharmacy, fragmented information, and a growing need for coordination and support.

Advanced illness, palliative care, and end-of-life

The person is trying to maximise comfort, dignity, continuity, and family support, often through home-based, supportive, or hospice-oriented pathways.

Caregiver overlay

Caregiving is not a separate stage but a cross-cutting layer. Family members, informal caregivers, and professional support networks increasingly carry coordination, decision support, logistics, monitoring, advocacy, and emotional burden across the full journey.

The strategic implication is fundamental:

The consumer is not a patient at a point in time.

They are a person moving across health states, care needs, and support systems over the course of their life.

A2. The expanding health ecosystem

Once health is understood as a continuous journey, the industry's traditional sector boundaries need to change to accommodate that new reality. Consumer health is created by an expanding set of players that perform different roles across the journey:

- **Providers** diagnose, treat, intervene, and coordinate care across hospital, clinic, outpatient, virtual, and home settings.
- **Pharma and biotech** remain central to therapeutic innovation, but increasingly extend into patient support, adherence, evidence, companion diagnostics, and outcomes-based engagement.
- **Medtech and device players** matter not only through intervention, but also through connected devices, monitoring, durable medical equipment (inhalers, CPAPs, glucose monitors and similar devices used over months or years), and the data generated by use over time.
- **Diagnostics** increasingly function as the signal layer of health: detecting, confirming, stratifying, and monitoring conditions across the journey.
- **Pharmacies and retail health** increasingly serve as a front door to care through dispensing, vaccination, minor care, convenience, and adherence support.
- **Big tech and digital platforms** increasingly shape the consumer interface, data layer, AI layer, device layer, workflow layer, and cloud infrastructure that power health experiences, and increasingly shape consumer trust through the privacy, security, and identity controls embedded in the digital experience.
- **Digital health, virtual care, and condition-support platforms** increasingly sit between institutions and daily life through navigation, coaching, telehealth, remote monitoring, and condition support.
- **Payers and insurers** increasingly influence navigation, financing, utilisation, care management, and value-based orchestration.
- **Home health, post-acute, and community care** matter where continuity, recovery, chronic support, ageing, supportive care, and end-of-life become central.
- **Wellness, nutrition, fitness, and mental wellbeing players** are prevalent in prevention and daily engagement, often with high behavioural influence but less clinical depth.
- **Employers, schools, and public sector actors** increasingly shape access, benefits, prevention, and population intervention environments.
- **Caregiver and coordination platforms** support reminders, scheduling, family coordination, communication, and the logistics of health around daily life.
- **Regulators** (FDA, EMA, HIPAA, EU MDR/CRA, AI Act) increasingly shape what each player can do, particularly around data, AI, and devices, making regulatory readiness a strategic capability, not just a compliance function.⁶

No single player owns the journey

As a result, value shifts towards the players that can orchestrate, integrate, and shape the rules of interaction across the journey. In a multi-party ecosystem, what the industry has long called patient-centricity becomes a shared outcome of the system rather than the promise of any one firm.



A3. Role intensity across the journey

The ecosystem should not be viewed as a fixed set of actors. Different players matter with different intensity at different points in the journey.

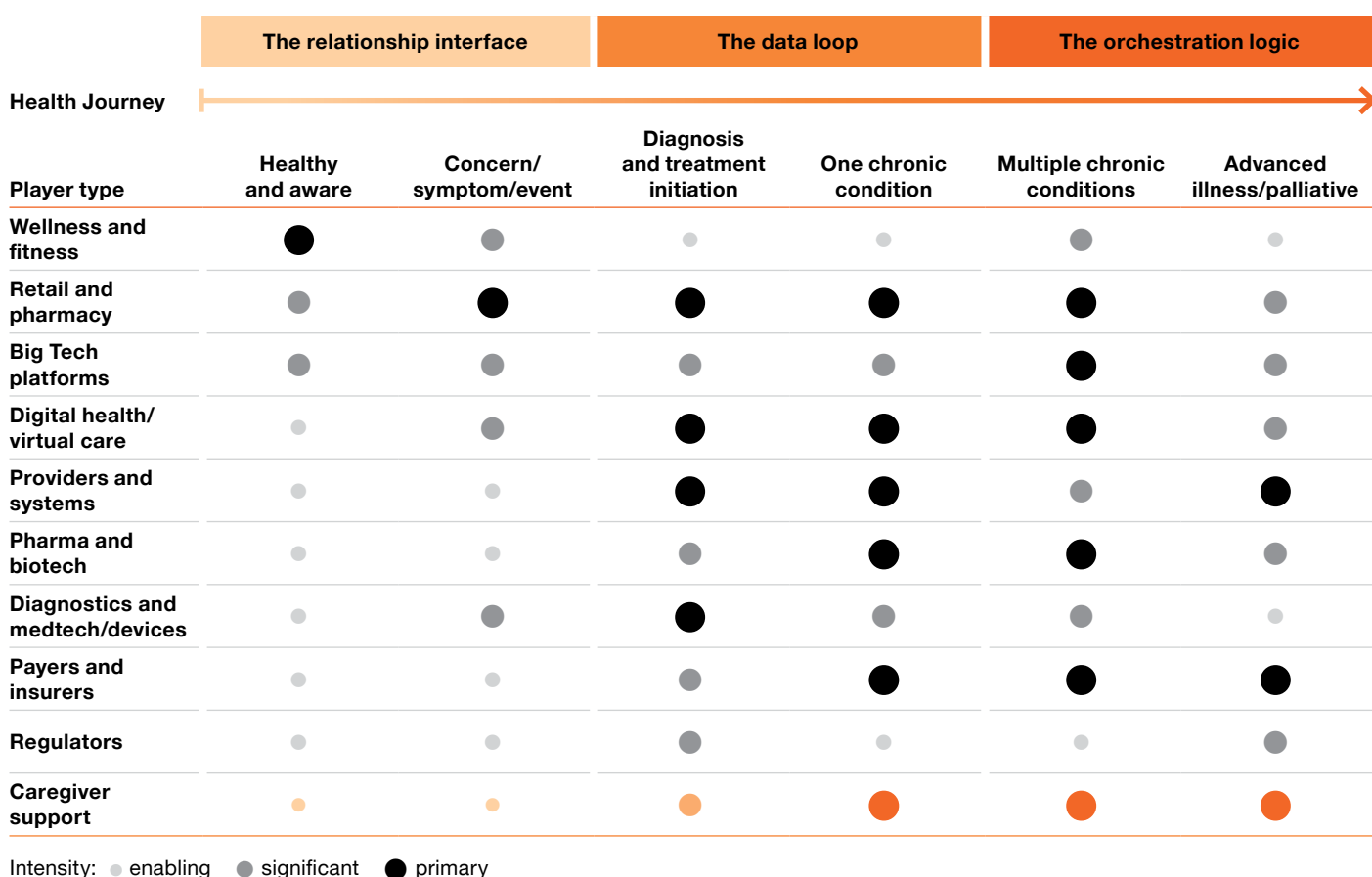
Player type	Healthy and aware	Concern/symptom/ event	Diagnosis and treatment initiation	One chronic condition	Multiple chronic conditions	Advanced illness/palliative	Caregiver support	What they actually do
Providers	E	P	P	P	P	P	S	Diagnose, treat, coordinate care, deliver interventions
Pharma/biotech	E	E	S	P	S	S	E	Therapies, adherence, patient support, outcomes, evidence
Medtech/devices	E	S	S	P	P	S	E	Monitoring, intervention, durable and connected devices
Diagnostics	S	P	P	S	S	E	E	Detect, confirm, stratify, monitor progression
Pharmacies/PBM/dispensing	E	S	P	P	P	S	S	Dispense, counsel, vaccinate, adherence, access
Retail health/consumer retail	P	S	S	S	S	E	S	Front door, convenience care, wellness, navigation, daily-touchpoint engagement
Big Tech platforms	P	S	S	P	P	S	S	Consumer interface, data layer, AI, cloud, devices, workflow enablement
Digital health, virtual care, and condition-support platforms	S	P	S	P	P	S	S	Navigation, coaching, telehealth, remote programmes, condition support
Payers/insurers/health plans	E	S	S	P	P	S	S	Benefits, utilisation management, navigation, care management, financing
Home health/community/ post-acute	E	E	S	S	P	P	S	In-home delivery, rehab, monitoring, palliative support
Wellness/nutrition/fitness/ mental wellbeing	P	S	E	S	S	E	E	Prevention, behaviour change, resilience, daily engagement
Employers/schools/ public sector	S	E	E	S	S	E	E	Access channels, prevention, benefits, population interventions
Care platforms/community/ caregiver tech	E	E	E	S	P	P	P	Scheduling, coordination, reminders, family communication, support
Regulators	E	E	S	E	E	S	E	Set the rules for safety, efficacy, privacy, data use, AI, devices, market access, and permissible engagement across the ecosystem

P = Primary role S = Significant role E = Enabling role

Role intensity reflects a strategic assessment rather than a measure of market share. The categories 'Primary', 'Significant', and 'Enabling' indicate the relative influence of each actor on access, evidence generation, engagement, coordination, and outcomes across different stages of the journey.

Different players show up across a person's health journey – but strategic influence concentrates on interface, data, and orchestration

The human journey is continuous, but influence varies across its different stages.



This shift raises the bar for competitive advantage. Clinical excellence remains essential, but it increasingly needs to be complemented by strong patient experiences, effective use of data, and the ability to coordinate across the broader ecosystem. For life sciences companies, the challenge is to build and govern the foundations that support better patient outcomes while ensuring long-term economic sustainability.

A4. A better taxonomy of industry players

Old industry labels that defined strategies now need to be updated to reflect a more useful classification by role in the health journey and ownership of:

- **Care delivery**
Providers, home health, post-acute care, and virtual care organisations
- **Therapies and interventions**
Pharma, biotech, medtech, and device manufacturers
- **Signals and insights**
Diagnostics, imaging, labs, wearables, and data-rich sensing platforms
- **Access and daily-touchpoints**
Retailers, pharmacies, consumer platforms, employer channels, and convenience-led health interfaces
- **Experiences and orchestration**
Technology platforms, workflow players, navigation platforms, CRM/workflow infrastructures, and coordination systems
- **Risk and financing**
Payers, insurers, and public financing schemes

The taxonomy above is more strategically useful because it goes beyond sector labels to reflect how value is created and defended in consumer health, i.e. through strategic control points, interfaces, data loops, and journey influence.

This is the strategic starting point of the paper. Once health is understood as a continuous journey supported across a widening ecosystem, the question becomes what this new operating reality of consumer health does to the historical life sciences model and why that model on its own now becomes structurally insufficient.



Leadership takeaways

- ✓ Consumer health is the new operating reality of health.
- ✓ Health is now best understood as a continuous human journey across the life-course.
- ✓ No single player owns that journey. Value shifts towards those who can shape interfaces, data loops, and orchestration across it.
- ✓ For strategy, the most useful lens is now the role in the journey and control over the critical points of value creation.

The industry reality

Why the historical life sciences model becomes structurally insufficient

Life sciences has mastered one model brilliantly: invent and commercialise molecules through regulated channels. That model still matters, but the age of the consumer exposes its limits. Science remains crucial, of course, but science alone no longer determines where value is created, defended, or captured.

In the old model, the core strategic question was how to move assets efficiently through R&D, approval, launch, and lifecycle management. In the new reality, that remains necessary but not sufficient. Health is increasingly experienced through continuous journeys, while value accumulates around the strategic control points of those journeys: engagement, access, diagnostics, navigation, evidence, trust, and interoperability.

This creates a structural mismatch between the historical life sciences model and the operating reality now emerging around it. That mismatch is being intensified by five converging forces that are reshaping the industry all at once.

B1. The five forces making the historical model insufficient

Several converging trends are challenging the foundations of the traditional life sciences model. Together, they are accelerating the need for adaptation. More importantly, they are changing the sources of competitive advantage, influencing how outcomes are generated, reshaping consumer engagement, and redefining the capabilities required to create long-term value.

We selected the five forces below because they change not only market conditions, but where and how value is created: who shapes demand, who governs evidence, who earns trust, who shapes access, and who absorbs operating risk.

1. Societal and behavioural pressure

Health optimisation is becoming a mass-market behavioural and economic reality. The wellness economy reached USD 6.3 trillion in 2023, signalling that more health activity is being organised by consumer, not clinical, logic.⁷ At the same time, the health/longevity paradox is becoming more visible: populations are living longer but not necessarily spending more of those additional years in good health.² And multi-morbidity is now common. OECD PaRIS finds that 54% of adults live with two or more chronic conditions, and 29% with three or more². This makes continuous management the default reality of modern health.

2. Scientific pressure

Innovation is increasingly creating value beyond the therapy alone. Categories such as GLP-1s show how biology, prevention, behaviour, and engagement are converging into one economic system. Combination therapies, advanced modalities, companion diagnostics, and therapy-service models increasingly turn the product into a broader health value ecosystem. As more value is created before diagnosis, between interventions, and after launch, the historical model of invent-approve-launch becomes less sufficient on its own.



3. Technological pressure

Digital health is becoming part of the infrastructure through which health is accessed, monitored, and managed⁸. Consumers already live inside always-on ecosystems of devices, apps, platforms, remote monitoring, and digital workflows. AI is also moving from experimentation to regulated capability,⁹ which means competitive advantage now depends not only on invention, but also on governed deployment, compliance, and operational trust. Diagnostics is also moving closer to everyday life, becoming the signal layer through which many health journeys begin.¹⁰

4. Lifestyle, environmental, and social-determinant pressure

Major disease burdens are increasingly shaped by behaviour, environment, adherence, and daily-life conditions. Obesity is now a structural driver of demand across multiple categories, not an isolated issue. Mental health and cognition increasingly shape outcomes across disease areas through resilience, behaviour, engagement, and the ability to stay on therapy and navigate care. This shifts value toward players that can influence daily life, not only clinical events.

5. Geopolitical, regulatory, and economic pressure

Volatility is becoming part of the operating baseline. Cyber regulation, AI regulation, privacy regulation, pharmaceutical reform, supply security, access pressures, and geopolitical fragmentation are increasingly shaping strategic freedom, cost structure, speed, and resilience. The implication is clear: firms are competing on more than solely product quality or scientific strength. They are competing on their ability to operate resilient, trusted, regulation-ready systems under continuous external pressure.

Taken together, these five forces are making both healthcare more complex and the historical life sciences model less complete as it no longer explains to where value is migrating, how advantage compounds, or who will shape the future economics of health. Those pressures affect parts of the model in different ways. They become visible first in growth logic, where the patent cliff, portfolio fragility, and limited post-launch leverage expose how little the old model can do on its own once launch advantage begins to erode.

B2. Structural pressures on growth

The patent cliff has become a defining constraint. More than USD 300 billion in prescription drug revenues are expected to lose exclusivity between 2025 and 2030.³ This shift compresses strategic time horizons and increases pressure to build growth logic beyond launch. Portfolio fragility rises as fewer assets carry greater weight. As development costs increase and markets become more complex, the hit-rate problem becomes a full enterprise risk. Lifecycle management still matters, but increasingly as a way of protecting value. It does not, by itself, create the next platform of value capture.

B3. Experience, access, and trust are being reset outside life sciences

Experience standards are increasingly set from beyond healthcare. People compare their health journeys to the frictionless access, personalisation, transparency, and responsiveness they experience from platforms, retailers, and consumer technology players. Trust is also migrating. In consumer health, it's increasingly earned through interaction design, privacy choices, clarity, continuity, service quality, and daily product behaviour.

The competitive landscape now extends well beyond traditional pharma companies. Increasingly, influence lies with the organisations that shape daily interactions, facilitate access and navigation, capture and manage data, oversee consent and preferences, maintain ongoing engagement, and ultimately control the consumer interface.

B4. Multi-condition reality challenges indication logic

Life sciences strategy has historically been optimised around indications, endpoints, channels, and launch sequences. But real people do not live in indication silos. They live across conditions, behaviours, care settings, constraints, priorities, and support systems. As multi-morbidity becomes normal, the basis of value changes. Rather than asking “can you treat the disease?”, it becomes “can you improve its trajectory?” That's the point at which, for life sciences, consumer health becomes unavoidable as the operating model through which long-term outcomes are increasingly produced.

B5. Disintermediation risk is economic, not theoretical

As journeys become continuous, strategic influence increasingly migrates towards those who shape the front end of health: diagnostics, retail, platforms, devices, navigation layers, payer workflows, and everyday consumer interfaces. If life sciences does not define its role in that architecture, it risks becoming the biology layer inside health value ecosystems that others shape. This matters for more than shareholder returns. Patients lose when the entity with the deepest understanding of biology has the shallowest understanding of how people actually experience care.



Life sciences companies can continue to thrive in their traditional roles. Yet long-term strategic influence increasingly depends on maintaining a meaningful role in the customer relationship, data ecosystem, coordination of services, and value exchange models.

B6. What this means for life sciences' ambition

It would be neither realistic nor credible for every life sciences business to try and own the ecosystem. The real question they need to ask is more disciplined:

Where can life sciences credibly lead a health value ecosystem, where must it integrate into one, and where should it deliberately remain a high-value component?

The answer will vary by disease cluster, control point, asset position, and enterprise capability. In some contexts, life sciences can act as a genuine ecosystem leader, especially where biology, evidence, diagnostics, adherence, and long-term outcomes can be coherently tied together. In others, the realistic winning role will be as a system partner or selective orchestrator inside broader multi-party networks.

In others still, the deliberate role is as a high-value component supplier, contributing leading science, products, or services to ecosystems shaped by others, with disciplined economics and clear strategic boundaries. The major risk facing life sciences businesses is strategic ambiguity.

B7. Continuous value demonstration

Regulators, payers, providers, and increasingly consumers, expect to see evidence of outcomes beyond product launch. So as what they need to prove is changing, how companies must operate is changing too. Evidence becomes a living capability instrumented into products, journeys, services, and operating models¹¹. As such, it becomes part of the product architecture of value itself.



Leadership takeaways

- ✓ The historical pharma model still matters, but it no longer defines where value is most powerfully created, defended, or captured.
- ✓ Life sciences is now competing on more than science; it's competing inside journeys shaped by access, engagement, evidence, trust, and orchestration.
- ✓ The old model is being compressed by multiple forces at once, making adaptation a structural necessity.
- ✓ The real strategic question is not whether to 'own the ecosystem', but where to lead, where to integrate, and where to remain deliberately modular.



From industry reality to leadership reality

The first part of this paper establishes two things.

- First, consumer health is the new operating reality of health: person-centred, continuous, and orchestrated across a widening ecosystem.
- Second, that reality renders the historical life sciences model structurally insufficient on its own.

The remainder of the paper therefore shifts perspective to ask the key question:



What kind of firm must a life sciences company become to remain relevant, credible, and economically powerful in the age of the consumer?





The CEO reality

Life sciences faces a structural role redefinition in a health industry revolving around more than episodic care, institutional channels, or sector boundaries.

A new mental model of the firm

Health is increasingly experienced as a continuous journey, while value is increasingly created across multi-party systems of diagnostics, therapies, devices, services, platforms, financing, and support. In that reality, life sciences companies face three broad strategic roles:

- **ecosystem leader** in selected disease and journey contexts where it can credibly anchor biology, evidence, trust, and long-term outcomes
- **system partner/selective orchestrator** in contexts where leadership must be shared across a broader multi-party network
- **component supplier** in contexts where the company chooses to contribute high-value science inside health value ecosystems shaped by others

The leadership challenge is to decide where the company will (and will not) shape the architecture of value.

C1. Inflection points can become defining points

A real-life warning from outside healthcare

Nokia, once one of the biggest consumer businesses in the world, failed because consumer expectations changed faster than the company's imagination. In healthcare, the 'Nokia moment' occurs when new interfaces – devices, platforms, retail access points, diagnostics, and digital environments – become the primary relationship layer, while incumbents continue optimising the old interface: episodic, channel-bound, institution-led engagement.

The leadership reality

Consumer health is becoming a critical driver of relevance, trust, data advantage, and growth. Increasingly, it is the context in which these sources of competitive advantage are established and sustained.

C2. The new mental model of the firm

Most strategic discussions about life sciences still start from the same implicit question:
How should they organise their functions to win?

Life sciences organisations have traditionally been viewed as a collection of specialised functions, including R&D, medical, market access, commercial, IT, data, cybersecurity, and compliance, all of which need to be managed and coordinated effectively. Increasingly, however, the key drivers of competitive advantage, such as evidence, access, engagement, trust, interoperability, and economics, extend across functional boundaries. They emerge through interactions between teams, technologies, and external partners, rather than within any single department alone.

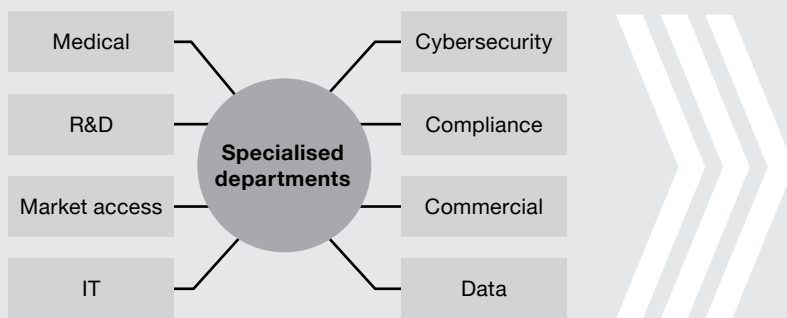
In consumer health, competitive advantage is created by how effectively the enterprise can design and operate end-to-end health value ecosystems that span discovery, evidence, regulation, engagement, delivery, and outcomes, all under permanent scrutiny, real-time feedback, and multi-party coordination.

The modern life sciences company is therefore no longer best understood as a collection of functions.

The value stream, spanning the disease and consumer journey, becomes the focus of strategy. Competitive advantage then depends on the enterprise operating system that make those value streams work at scale.

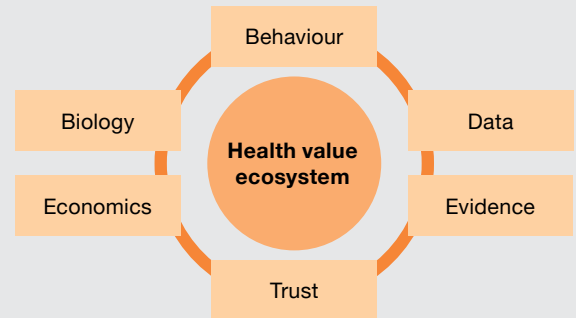
A collection of functions

Functional silos and reporting lines



End-to-end health value ecosystems

Health value ecosystems enabled by value streams across the life-course

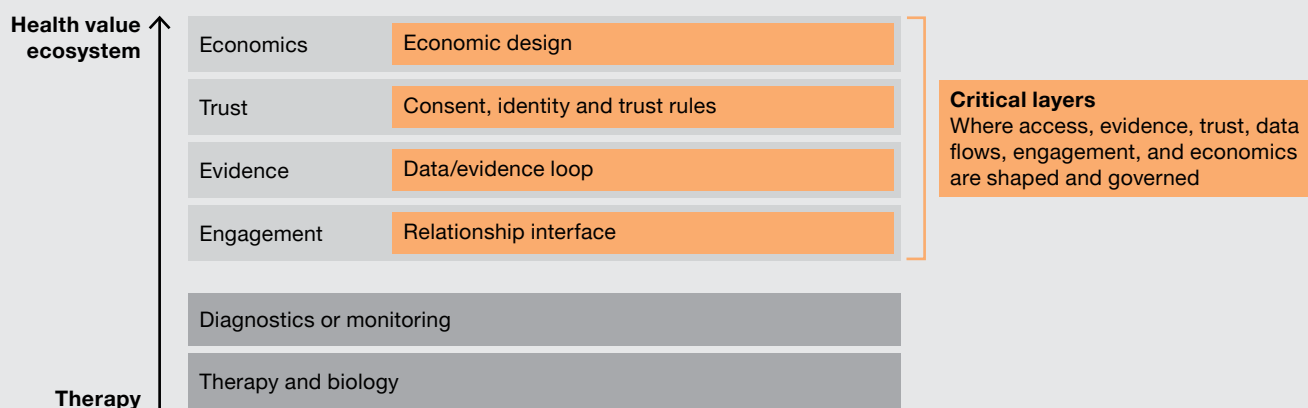


The challenge is not primarily organisational. Consumer health requires a broader rethink of how the firm creates, captures, and sustains value.

A modern life sciences company is increasingly defined by how effectively it manages value streams, builds system-wide capabilities, designs sustainable economic models, and scales growth within regulated environments. Products, functions, pricing, and campaigns remain important, but they are only part of the picture.

Health value ecosystems combine therapy, services, diagnostics or monitoring, engagement, evidence, access, and economics into a sustained model of value creation.

The broader environment in which value is created, captured, and defended over time



Leadership comes from shaping the rules, interfaces, evidence flows, trust mechanisms, and economics of the health value ecosystem.

Together, these answer a more fundamental question:

What is a life sciences company really made of in the consumer health era?

The answer is the ability to orchestrate biology, behaviour, data, evidence, trust, and economics into coherent, regulated systems of value creation across the life-course. Traditional functions such as R&D, medical, regulatory, IT, and commercial remain structurally essential. But leadership cannot manage the enterprise primarily through functional silos and reporting lines. The value stream, spanning the disease and consumer journey, becomes the focus of strategy. Competitive advantage then depends on the enterprise operating system that make those value streams work at scale.

In practice, this means that many familiar functions are already contributing into higher-order system properties:

- Market access defines how the system is accessed, extending well beyond individual negotiation events.
- Pricing shapes the economic model rather than serving only as a list of prices.
- HEOR provides a continuous evidence engine, with post-launch studies forming one part of that work.
- Patient services operate as regulated growth engines, not simply as support programmes.
- Compliance is built into the design from the outset instead of being addressed mainly through inspection readiness.
- Legal helps establish the trust architecture, with risk management embedded within that broader role.
- IT serves as the enterprise operating system, moving beyond project-by-project delivery.

None of this requires abandoning decentralisation or functional excellence. Instead, it calls for a different approach to managing the organisation: one grounded in shared system logic rather than shared organisational structures. In that sense, consumer health is less about restructuring and more about rethinking how the firm creates, coordinates, and captures value.

C3. The ‘seam-based’ operating model

How value streams coexist with functional excellence

Value streams run across functions. In modern life sciences companies, functional excellence remains essential and decentralisation can remain intact. What changes is how the enterprise is governed and optimised: not only within functions, but also at the seams between them where value is created, lost, or amplified across the end-to-end journey.

A seam-based operating model does not require a fundamental change to the organisational structure. Instead, it changes how the organisation works across functions. Individual functions retain accountability for expertise, quality, and compliance, while value streams provide a common framework for delivering outcomes, generating evidence, building trust, enabling interoperability, and creating economic value.

For example, a company may retain strong functional ownership of medical, regulatory, IT, commercial, and data while still managing an obesity, oncology survivorship, or chronic-disease adherence journey as a shared value stream across those same functions. This demonstrates how the value stream becomes the unit of strategic coordination and the function remains the unit of depth, quality, and capability.

This is how decentralisation survives in the consumer health era: by aligning silos through shared system logic. The leadership challenge is therefore to govern the seams well enough that the enterprise behaves like an integrated system where it matters most.



Leadership takeaways

- ✓ The firm is still run through functions, but advantage is created through health value ecosystems enabled by value streams across the life-course.
- ✓ Modern leadership is system design: outcomes, evidence, trust, engagement, and economics in one operating logic.
- ✓ The CEO question is where the firm can credibly lead the health value ecosystem, where it should partner, and where it should remain modular.
- ✓ Decentralisation survives if the enterprise shares system rules, not organisational charts.



The operating reality

Six disease-cluster stress tests

Why ‘disease clusters’? Consumer health is not uniform, because the human journey isn’t either. Different disease areas produce different engagement logic, evidence needs, access models, margin dynamics, regulatory exposure, ecosystem dependencies, and operational complexity. That’s why an industry-leading life sciences strategy cannot be generic. It must be **cluster-shaped** while remaining **enterprise-connected**.

A second implication follows directly from the age of the consumer: each disease cluster must be understood as a different configuration of actors across the journey. Providers, diagnostics, payers, pharmacies, tech platforms, devices, retail access points, care networks, and caregivers each shape different parts of value creation and control. The strategic challenge extends beyond competing successfully within a disease area. It also requires organisations to consider the role they can credibly play in the wider patient journey and the ecosystem that supports it.

A further structural implication is that consumer health is an operating and business model shift. Across clusters, the dominant growth models will increasingly include B2B2C models (via employers, payers, providers, platforms), selective direct-to-consumer models (in diagnostics, monitoring, prevention, adherence, and chronic disease management), and health value ecosystems that integrate products, services, data, and outcomes into unified propositions. In this context, business model design becomes a key strategic capability. It determines who earns the consumer relationship, who governs data, who sustains long-term value, and who sets the rules of value exchange in multi-party health networks.

Why these six disease clusters?

The six clusters in this chapter are not intended to be an exhaustive disease-area taxonomy. They were selected as strategic stress tests because, together, they expose the main ways consumer health changes the life sciences operating model. Each cluster combines a different configuration of disease burden, journey complexity, consumer involvement, evidence requirements, ecosystem dependency, regulatory exposure, and economic logic.

Cardiometabolic disease tests scale and duration. **Oncology** tests complexity and therapy-diagnostic coupling. **Neurology and mental health** test trust, behaviour, and measurement. **Immune-mediated and chronic inflammatory disease** tests long-term adherence and self-management. **Rare diseases, cell and gene, and radioligand therapies** test system integrity and failure-intolerant delivery. **Infectious diseases and pandemic-type threats** test societal trust, readiness, and public legitimacy.

The purpose is to show how different disease realities reveal the same enterprise question: where can life sciences credibly lead the health value ecosystem, where must it co-shape it, and where should it remain a deliberate component?



Selection logic

The six clusters were selected against five criteria:

1. Burden and urgency: The disease area is large, growing, strategically unavoidable, or societally material.
2. Journey continuity: Value depends on what happens before, between, and after clinical encounters, not only at the treatment moment.
3. Ecosystem dependency: Success depends on multiple actors, including providers, diagnostics, payers, pharmacies, devices, platforms, caregivers, regulators, or public institutions.
4. Evidence and trust intensity: The area requires continuous evidence, sensitive data use, patient confidence, or public legitimacy.
5. Operating-model stress: The cluster exposes where the classic life sciences model breaks and where new capabilities become non-negotiable.

Together, these criteria were used as a strategic screening lens, not as a quantitative ranking model. The purpose is to define a set of stress tests for the future life sciences operating model across distinct disease realities.

The six clusters are then assessed through a consistent functional architecture:

D0. The standard functional architecture (applied across all clusters)

- Research and discovery
- Clinical development
- Medical affairs
- Regulatory and quality
- Manufacturing
- Supply chain
- Customer, marketing and growth
- Commercial (global and affiliates)
- Diagnostics (where applicable)
- Digital and IT
- Data and AI
- Security/privacy/trust
- Partnerships/channel strategy

Each cluster below follows the same template:

1. Why it matters now
2. Strategic shift
3. What breaks under the old model
4. Functional evolution table
5. Leadership imperatives

D1. Cardiometabolic and lifestyle-driven diseases

Obesity, T2D, CVD, hypertension – the proving ground for consumer health

Why this cluster matters now

- WHO (Dec 2025): 2022 had **2.5 billion adults overweight**, 890 million living with obesity, **1 in 8** worldwide living with obesity.¹²
- OECD PaRIS: **54%** with 2+ chronic conditions; **29%** with 3+.²
- Novo Nordisk (Annual Report 2024): obesity-care sales **USD 10.1 billion** (DKK 65,146 million); branded obesity market volume **+119%**; Novo share **70.4%**.⁴

Strategic shift

From treating disease to managing trajectories (biology + behaviour + measurement + engagement + economics).

What breaks under classic pharma

Adherence becomes a key driver of outcomes and growth; access becomes integral to the product experience; demand becomes consumer-paced and volatile; data advantage migrates to the front end; evidence becomes continuous.



D1 Table – Cardiometabolic functional evolution

Function	Today	What breaks	Future role and capabilities	Own vs partner vs buy
R&D	Single-indication assets	Under-addressed multi-condition reality	Platform thinking: therapy + behavioural adjuncts + diagnostics	Own: biology/combination logic Partner: behavioural science
Clinical	Approval-optimised evidence	Longitudinal outcomes matter	Continuous evidence pipeline; pragmatic + digital endpoints	Own: evidence governance Partner: decentralised trial tech/RPM
Medical	KOL + post-launch studies	Outcomes depend on lived experience	Medical as outcome steward; adherence science; PROs	Own: evidence strategy Partner: patient support execution
Reg/quality	Submissions + inspections	Digital/AI adds continuous exposure	Regulation-by-design; model validation; digital quality	Own: QMS/model risk Partner: audit/tooling support
Manufacturing	Efficient scaling	Shortages destroy trust	Elastic capacity; dual sourcing	Own: strategy/quality Partner: selective capacity/packaging
Supply chain	Linear S&OP	Volatility becomes structural	Scenario-driven S&OP; dynamic allocation	Own: control tower Partner: logistics/regional nodes
Customer, marketing and growth	Product awareness and HCP detailing	Consumer-paced demand and behavioural drivers dominate	Regulated growth capability: responsible demand development, personalised engagement, adherence and continuity at scale across B2B2C and selective DTC models	Own: growth architecture, data-driven decisioning, brand trust. Partner: consumer channels, employer platforms, retail ecosystems
Commercial	HCP-led	New channels decide access	B2B2C; employer and payer partnerships; onboarding/retention	Own: journey design/value story. Partner: channels/retail
Diagnostics	Separate function	Measurement becomes entry point	Integrated therapy-monitoring pathways	Own: integration architecture. Partner: devices/home testing
Digital/IT	Projects; custom build	Speed and UX now decisive	Product model; composable architecture; low/no code	Own: architecture/product leadership. Buy: commodity tools. Partner: build capacity
Data/AI	Fragmented	Longitudinal advantage shifts	Patient graph; NBA; regulated AI lifecycle	Own: semantic layer/governance Partner: tools/accelerators
Trust/security/privacy	Compliance	Trust becomes growth	Zero trust; consent and identity; privacy engineering	Own: trust model Partner: SOC/managed services
Partnerships	Opportunistic	Control points shift	Deliberate network strategy; shared economics/data rules	Own: rules/economics Partner: channel owners/operators

Leadership imperatives (cardiometabolic)

1. Treat it as a platform.
2. Longitudinal data and evidence is the compounding asset.
3. Decide what to own vs integrate early – or risk being disintermediated.
4. Resilience is commercial strategy.
5. Build one enterprise model with cluster-specific plays.

D2. Oncology and survivorship

From episodic treatment to lifelong cancer management

Why this cluster matters now

Oncology is where future life sciences first become visible: therapy-diagnostic coupling, advanced modalities (CGT/RLT), and survivorship as a long-term value space.^{13 14 15}

Strategic shift

From 'episodes of treatment' to life-long oncology journeys: risk detection → precision therapy → continuous monitoring → survivorship → recurrence interception.¹⁶

What breaks under classic pharma

Therapy outpaces diagnostic readiness; manufacturing/logistics bottleneck advanced modalities; survivorship is insufficiently reflected in economic models; data advantage migrates to diagnostics/labs/tech; evidence models misalign with real-world complexity.



D2 Table – Oncology functional evolution

Function	Today	What breaks	Future role and capabilities	Own vs partner vs buy
R&D	Single-tumour pipelines	Tumour-agnostic biology + combos	Biomarker-driven platform R&D	Own: biology/biomarker logic Partner: academia/AI discovery
Clinical	Trial-centric	Real-world complexity + combos	Adaptive trials; embedded RWE; digital endpoints	Own: evidence design Partner: trial tech networks
Medical	KOL/post-launch	Survivorship/QoL under-owned	Life-course oncology stewardship	Own: survivorship evidence strategy Partner: survivorship programmes via providers
Reg/quality	Approval-focused	Therapy-diagnostic system evolves	Lifecycle compliance for coupled systems	Own: regulatory strategy Partner: specialised compliance tooling
Manufacturing	Biologics scale	CGT/RLT batch-of-one logic	Personalised manufacturing; digital twins	Own: process IP/quality Partner: specialised capacity where needed
Supply chain	Linear	Time-critical delivery	Orchestration + real-time tracking	Own: orchestration logic Partner: specialised logistics
Customer, marketing and growth	Physician-driven adoption	Survivorship and pathway complexity invisible	Pathway-level growth capability: navigation, education, survivorship support, value-based communication across providers and platforms	Own: journey design, value narrative Partner: provider networks, patient platforms, advocacy channels
Commercial	Hospital channels	Survivorship needs new model	Pathway orchestration; outcome-based models	Own: journey/value model Partner: provider networks
Diagnostics	Companion tests	Diagnostics becomes control point	Integrated diagnostic-therapy platforms	Own: integration strategy Partner: labs/platforms
Digital/IT	Fragmented	Needs unified patient view	Decision support; navigation; care coordination	Own: architecture/product leadership Buy: commodity components
Data/AI	Retrospective	Prediction needed	Longitudinal oncology graph; recurrence risk	Own: semantic layer Partner: model tooling/accelerators
Trust/security/privacy	IT-led	Genomic data sensitivity	Data security; consent and identity; privacy engineering	Own: governance Partner: managed security with strict controls
Partnerships	Opportunistic	No one can do end-to-end	Structured co-development networks	Own: economics/data rules Partner: diagnostics, delivery, platforms

Leadership imperatives (oncology)

1. Oncology is already a platform business; most companies haven't realised it.
2. Survivorship is the next value curve (and legitimacy curve).
3. Diagnostics is the strategic control point.
4. Advanced modalities force operating model reinvention here first.
5. The biggest risk is organisational misalignment, rather than scientific failure.

D3. Neurology, mental health and cognitive disorders

From episodic symptom treatment to continuous cognitive health

Why this cluster matters now

This is the cluster where consumer health succeeds or fails first: outcomes are behavioural, measurement is often digital, and trust is the adoption engine.¹⁷

Strategic shift

From treating symptoms to managing cognitive trajectories: sensing → early intervention → dynamic therapy optimisation → integrated pharmacological + behavioural support.¹⁸

What breaks under classic pharma

Adherence collapses without engagement; outcomes are invisible without measurement; stigma limits engagement through traditional channels; data advantage shifts to wellness/tech; trust becomes the primary differentiator.¹⁹



D3 Table – Neuro/mental functional evolution

Function	Today	What breaks	Future role and capabilities	Own vs partner vs buy
R&D	Symptom endpoints	Weak signals; behaviour dominates	Hybrid R&D: pharma + behavioural science + digital endpoints	Own: disease models Partner: behavioural research institutions
Clinical	Static scales	Fluctuation undermines evidence	Digital phenotyping; passive data capture	Own: trial logic Partner: sensing tool providers
Medical	KOL-centric	Lived experience dominates	Outcomes stewardship; ethics-by-design guidance	Own: outcomes frameworks Partner: patient advocacy groups
Reg/quality	Approval focus	AI/digital introduces new risk	AI lifecycle governance; continuous validation ¹⁰	Own: regulatory interpretation Partner: compliance tooling
Manufacturing	Standard	Not a constraint	Service integration focus	Partner: non-core operations as needed
Supply chain	Traditional	Digital distribution dominates	Digital-first distribution readiness	Partner: platforms/pharmacies
Customer, marketing and growth	Traditional specialist promotion	Stigma and privacy block traditional channels	Trust-centric engagement capability: discreet, consumer-grade engagement, continuous support, responsible engagement across digital channels	Own: trust framework, growth logic Partner: mental health platforms, NGOs, digital communities
Commercial	Psychiatry detailing	Stigma blocks channels	Consumer-grade engagement; discreet pathways	Own: brand trust model. Partner: channels that patients actually use
Diagnostics	Minimal	Cognitive state is the diagnostic	Digital biomarkers and self-assessment	Own: data logic Partner: validated assessment tools
Digital/IT	Support	Digital is the care channel	Product teams; UX excellence	Own: product architecture Buy: commodity components
Data/AI	Retrospective	Prediction needed	Early risk detection; next-best-action	Own: semantic layer Partner: model accelerators/tools
Trust/security/privacy	Compliance	Extreme sensitivity	Privacy-by-design; consent orchestration	Own: governance/ethics Partner: security operations
Partnerships	Ad hoc	No one can do alone	Co-creation with providers, NGOs, platforms	Own: ethics/economics Partner: delivery and engagement at scale

Leadership imperatives (neuro/mental)

1. Digital is not a channel add-on; it's the care environment.
2. Trust is the economic asset.
3. Behavioural science becomes as material as molecular science.
4. If companies can't run a product model here, they will struggle to run consumer health anywhere.

D4. Immune-mediated and chronic inflammatory diseases

From long-term treatment to long-term health management

Why this cluster matters now

One of pharma's most stable revenue bases, yet many sources of value and outcome erosion occur after prescription: adherence, flare management, device usage, lifestyle drivers.^{19 20 21}

Strategic shift

From controlling disease to enabling self-management: continuous sensing, early flare detection, prevention of deterioration.²²

What breaks under classic pharma

Adherence erosion remains invisible; deterioration is detected too late; device misuse undermines value; lifestyle variables remain unmanaged; value creation shifts towards whoever supports daily life.²³



D4 Table – Immune/inflammatory functional evolution

Function	Today	What breaks	Future role and capabilities	Own vs partner vs buy
R&D	Potent biologics	Outcomes vary in real world	Integrate therapy with behaviour/lifestyle supports	Own: biology. Partner: behavioural/lifestyle programmes
Clinical	Short follow-up	Long-term reality invisible	Longitudinal outcomes; adherence measurement	Own: evidence logic Partner: monitoring networks
Medical	KOL-centric	Flare patterns unseen	Long-term outcome stewardship	Own: monitoring frameworks Partner: care delivery programmes
Reg/quality	Compliance	Digital adjuncts unaccounted	Digital component governance	Own: regulatory strategy Partner: tooling
Manufacturing	Efficient biologics	Not main bottleneck	Stable production	Own: quality Partner: selective capacity
Supply chain	Predictable demand	Seasonality/adherence volatility	Adaptive planning	Own: planning logic Partner: logistics
Customer, marketing and growth	Prescription-focused engagement	Behaviour and daily life drive outcomes	Community-based engagement capability: coaching, self-management, flare prevention, lifestyle engagement	Own: journey design Partner: community platforms, lifestyle ecosystems
Commercial	Specialist promotion	Engagement ends at Rx	Community/coaching models	Own: journey design Partner: community platforms/providers
Diagnostics	Infrequent tests	Delayed insight	Symptom + wearable monitoring	Own: data models Partner: devices/sensors
Digital/IT	Support	Digital is disease interface	Daily disease management products	Own: product leadership Buy: commodity UX/components
Data/AI	Retrospective	Can't predict flares	Predictive flare detection	Own: semantic layer Partner: AI tooling
Trust/security/privacy	Compliance	Lifestyle data sensitive	Data security; privacy engineering	Own: governance Partner: managed security
Partnerships	Provider-based	Daily life outside care	Co-creation with devices/lifestyle platforms	Own: strategic logic Partner: at-scale engagement

Leadership imperatives (immune/inflammatory)

1. This is where value is lost quietly, after the prescription.
2. The biggest value lever is preventing deterioration among existing patients.
3. Best 'starter cluster' for measurable consumer health ROI in 12–24 months.

D5. Rare diseases, cell and gene, and radioligand therapies

From breakthrough science to system-level reliability

Why this cluster matters now

Here, consumer health is not scale. It is legitimacy, coordination, and reliability because the business model works only if the system works.²⁴

Strategic shift

From product excellence to system reliability: end-to-end traceability, patient journey coherence, and operational trust.²⁵

What breaks under classic pharma

Manufacturing becomes a bottleneck; logistics becomes life-critical; patient journey fragments; data fragmentation slows learning; trust is binary.



D5 Table – Rare/CGT/RLT functional evolution

Function	Today	What breaks	Future role and capabilities	Own vs partner vs buy
R&D	Breakthrough science	Delivery reality ignored	Design with delivery constraints	Own: modality design Partner: translational networks
Clinical	Trial success	Ops complexity hidden	Delivery stress-testing; embedded pilots	Own: trial logic Partner: specialty sites
Medical	Scientific engagement	Patient journey unmanaged	Patient-system stewardship	Own: journey design Partner: advocacy and centres of excellence
Reg/quality	Compliance	No stable state	Lifecycle QMS; real-time quality	Own: regulatory governance Partner: compliance tooling
Manufacturing	Specialised facilities	Capacity/skills bottleneck	Personalised production and digital twins	Own: process IP/quality Partner: capacity where strategic
Supply chain	Logistics support	Life-critical orchestration	Real-time tracking; chain-of-identity	Own: orchestration logic Partner: specialised logistics
Customer, marketing and growth	Key account management	Patient journey fragile and fragmented	Legitimacy-driven operating capability: patient coordination, advocacy relationships, payer and system trust	Own: narrative, orchestration logic Partner: centres of excellence, advocacy groups
Commercial	KAM	Not fit for ultra-rare	Care coordination; payer negotiation	Own: economic model Partner: providers/advocacy
Diagnostics	Companion tests	Gateway function	Integrated diagnostic-therapy pathway	Own: integration strategy Partner: labs/testing platforms
Digital/IT	Support	Fragmentation kills reliability	Unified digital thread for patient + product	Own: architecture Buy: commodity tooling
Data/AI	Retrospective	Learning too slow	Real-world learning + failure prediction	Own: data layer Partner: analytics tooling
Trust/security/privacy	Compliance	Ethics ultra-sensitive	Ethics-by-design; transparency	Own: trust model Partner: independent assurance where useful
Partnerships	CRO/CMO	Single-player delivery impossible	Structured multi-party operating model	Own: rules/economics Partner: delivery network

Leadership imperatives (rare/CGT/RLT)

1. This cluster fails first if the operating model is weak.
2. The 'product' is the system, not the therapy.
3. Own orchestration even if you outsource execution.

D6. Infectious diseases and pandemic-type threats

From episodic response to permanent health security

Why this cluster matters now

After COVID, infectious disease has become a geopolitical, economic, and societal trust risk.²⁶

Strategic shift

From emergency response to permanent health security: always-on readiness, surge capacity, and public legitimacy.^{27 28}

What breaks under classic pharma

Innovation exists but readiness doesn't; supply chains collapse under political pressure; trust becomes a bottleneck; data fragments; commercial logic becomes harder to explain socially.



D6 Table – Infectious/Pandemic functional evolution

Function	Today	What breaks	Future role and capabilities	Own vs partner vs buy
R&D	Platform science	Too slow for crises	Permanent rapid-response platforms	Own: core platforms Partner: public R&D coalitions
Clinical	Traditional trials	Too slow	Adaptive emergency protocols	Own: protocol governance Partner: trial networks
Medical	Scientific comms	Public comms becomes central	Medical as public health interface	Own: trust narrative Partner: public institutions
Reg/quality	Standard approvals	Emergency authorisations	Dynamic regulatory engagement	Own: governance Partner: rapid review coordination
Manufacturing	Efficient	Surge needed	Surge-ready capacity	Own: capacity strategy Partner: standby capacity alliances
Supply chain	Lean global	Nationalism disrupts	Geopolitically resilient networks	Own: orchestration Partner: regional nodes
Customer, marketing and growth	Tender-based communication	Trust and misinformation dominate outcomes	Public trust engine: transparent communication, behavioural uptake, legitimacy at population scale	Own: trust narrative Partner: governments, public institutions, media channels
Commercial	Tender-based	Legitimacy replaces sales	Public value articulation; access strategy	Own: access model. Partner: governments/NGOs
Diagnostics	Support	Defines response speed	Population-scale testing	Own: integration Partner: diagnostics networks
Digital/IT	Reporting	Need real-time intelligence	Health intelligence platforms	Own: architecture Partner: analytics stacks
Data/AI	Retrospective	Need prediction	Early warning systems	Own: semantic layer Partner: surveillance partners
Trust/security/privacy	Compliance	Misinformation risk	Trust engineering; transparency	Own: trust model Partner: independent verification
Partnerships	Ad hoc	Coordination essential	Permanent public-private compacts	Own: rules/governance Partner: public health ecosystem

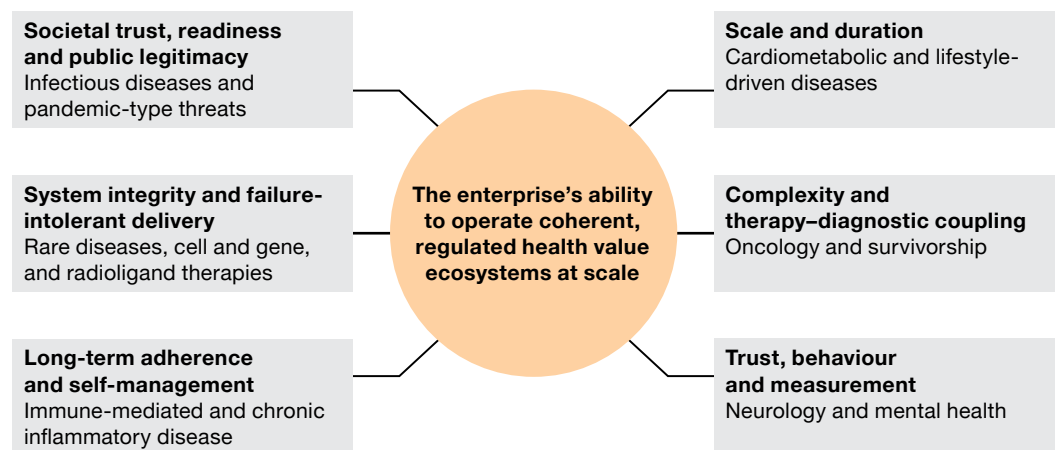
Leadership imperatives (infectious/pandemic)

1. This cluster defines societal licence to operate.
2. Trust is more valuable than patents in crisis response.
3. Readiness economics replaces classic portfolio economics.

D7. The enterprise reality across all six clusters

Across all six disease clusters, one pattern repeats with absolute consistency: the source of competitive advantage shifts away from individual assets and towards the **enterprise's ability to operate coherent, regulated health value ecosystems at scale**.

Six disease-cluster stress tests



Taken together, these clusters represent different expressions of the same underlying enterprise challenge. While their characteristics may differ, each reflects a distinct way in which organisations must adapt to changing sources of value, influence, and growth.

These clusters differ significantly in their scientific foundations, regulatory requirements, economic characteristics, and operational demands. Yet each highlights a different aspect of the same leadership challenge.

- **Cardiometabolic and lifestyle-driven diseases** place a premium on creating value at scale. Success depends on engaging large populations, supporting adherence, and building data assets that strengthen over time alongside commercial growth.
- **Oncology and survivorship** bring complexity to the forefront. Delivering value requires effective coordination across diagnostics, therapies, care pathways, and long-term outcomes, rather than focusing solely on individual treatments.
- **Neurology, mental health and cognition** place trust at the centre of the model. Adoption, data generation, and long-term legitimacy are shaped as much by ethics, privacy, and patient experience as by clinical outcomes.
- **Immune-mediated and chronic inflammatory diseases** highlight the importance of sustained value creation. Long-term growth depends on supporting behaviour change, preventing flare-ups, and managing patient populations over time.
- **Rare diseases, cell and gene therapies, and radioligand therapies** expose the importance of operational excellence. In these settings, failures can affect not only economic performance but also organisational credibility and trust.
- **Infectious diseases and pandemic-type threats** test an organisation's broader societal contribution. Here, success is judged not only through commercial measures, but also through preparedness, public trust, and the ability to strengthen collective resilience.



Can the company identify where it can credibly lead the health value ecosystem, where it must shape it with others, and where it should deliberately remain a specialised contributor?

The companies best positioned for long-term success will be those that understand which control points matter most within their chosen health value ecosystems, where they need to retain ownership, where partnership creates greater value, and how to scale trust, evidence, data, and outcomes without losing strategic influence.

Consumer health provides one of the clearest tests of these capabilities. It requires organisations to demonstrate them continuously, at scale, and under constant scrutiny. As a result, consumer health is likely to play an increasingly important role in determining which companies emerge as leaders in the next phase of the life sciences industry.

Across all six clusters, the same question now becomes unavoidable: where does economic power sit once the product is no longer the whole business?



Leadership takeaways

- ✓ The six clusters are six different stress tests of the same enterprise capability: operating regulated health value ecosystems inside real human journeys.
- ✓ The strongest portfolio will not win without the clearest view of where the firm can lead the health value ecosystem, where it must co-shape it, and where it should deliberately contribute.
- ✓ Consumer health is the selection mechanism of the next life sciences era.

The economic reality

Margin as a system property

The biggest strategic mistake leaders might make is treating consumer health as ‘lower margin OTC.’ That framing is misplaced because consumer health does not simply change margin levels, it changes **where margin comes from**. In the classical life sciences model, margin is primarily shaped by intellectual property, regulatory exclusivity, and launch success. In the consumer health operating reality, margin is increasingly shaped by value stream design, relationship duration, and governance of the data, evidence, trust, and engagement loops around the therapy. In other words, margin is shifting from being primarily a **product outcome** to increasingly a **system outcome**.

Margin is a system property

Classical life sciences model

Intellectual property – regulatory exclusivity – launch success

Intellectual property

Regulatory exclusivity

Launch success

Lifecycle management

From product outcome
to system outcome

Margin is shifting

Consumer health operating reality

Value stream design – duration of relationship – governance of data, evidence, trust, and engagement loops

Value stream
design

Duration of
relationship

Data

Evidence

Trust

Engagement
loops

Consumer Health does not produce one economic model. It produces several recurring margin logics

Precision premium

High-value therapy supported by flawless system delivery



Outcome-linked expansion

Diagnostics, evidence, services and long-term condition management around the therapy



Scale + duration

Duration, adherence, engagement, long-term value, and compounding data advantage



Sustainable margins depend on more than the asset itself. They are also shaped by the surrounding system, including the evidence generated over time, the engagement model, the quality of governed interfaces, and the role the company chooses to play within the broader ecosystem.

The practical question for leadership is: **“Which recurring economic models are we choosing to operate and do we govern the economic system required to sustain them?”**

In this chapter, those recurring economic models are called **economic archetypes**. These are repeatable ways in which value is created, protected, and scaled in consumer health. The three archetypes are not intended to cover every possible commercial model in life sciences. They are recurring economic logics observed across the six disease-cluster stress tests: high-value failure-intolerant delivery, pathway-based expansion around therapy, and scale-duration models built on engagement, adherence, and data compounding.

E1. The three economic archetypes

Consumer health produces several recurring margin logics, each with different drivers of value, risk, and defensibility. Among these, three stand out as particularly important:

1. Precision premium economics (Rare/CGT/RLT)

- **What drives margin:** high-value therapy supported by flawless system delivery.
- **What destroys margin:** operational failure in diagnostics, logistics, manufacturing, reimbursement, or care coordination.
- **What must be governed:** system reliability, trust, and end-to-end orchestration.

This archetype is closest to traditional pharma in gross-margin profile, but very different in operating reality. In this context, value extends beyond the therapy itself. It depends on the broader system that ensures the right treatment reaches the right patient under conditions where failure is not an option. Even a single breakdown can undermine the entire value proposition. Consumer health therefore depends on strong coordination, organisational credibility, and the ability to absorb and manage risk across the system.

2. Outcome-linked expansion economics (oncology/immune)

- **What drives margin:** diagnostics, evidence, services, survivorship, and long-term condition management around the therapy.
- **What destroys margin:** loss of continuity across the relationship, evidence loop, or diagnostic gateway around the product.
- **What must be governed:** the pathway, the evidence engine, and the long-term value story.

This archetype builds on the traditional pharmaceutical model while expanding its focus beyond the therapy itself. Although the molecule remains at the centre of the proposition, value increasingly depends on the ecosystem that surrounds it. Diagnostics can influence access and decision-making, real-world evidence can support growth, and survivorship or chronic disease management can create opportunities for long-term value creation.

In this context, margins are shaped not only by intellectual property, but also by sustained engagement, integrated patient journeys, and relationships that are linked to measurable outcomes.

3. Scale + duration economics (cardiometabolic/neuro and mental)

- **What drives margin:** duration, adherence, engagement, long-term value, and compounding data advantage.
- **What destroys margin:** weak trust, poor retention, shallow engagement, and high churn.
- **What must be governed:** the growth engine, behavioural engagement, and the trusted data loop.

At first glance, this archetype may appear to offer lower margins, but that view overlooks how value is created. Its economics more closely resemble those of a regulated consumer platform, where profitability is driven by the duration of engagement, the efficiency gains that come with digital scale, and the long-term value of customer relationships rather than individual transactions.

Many of the most significant disruptions in consumer health are likely to emerge in this space. It is also an area where traditional pharmaceutical capabilities do not always provide a natural advantage.

Novo Nordisk and the building of a GLP-1 system

Novo Nordisk illustrates how the sources of value in life sciences are evolving. The significance of GLP-1 extends beyond the success of a single therapy class. Greater value can be created when a company plays a meaningful role across the wider obesity ecosystem, including diagnostics, adherence, patient engagement, evidence generation, and payer relationships. (annualreport.novonordisk.com)

The molecule remains essential, but much of the additional value is generated by the ecosystem surrounding it. In practice, this means that margins increasingly depend on how effectively companies participate in and shape the wider value stream.



Although these archetypes are globally relevant, their practical application varies across markets.

The three archetypes above are strategically useful across markets, but they do not express themselves identically across geographies.

The same value stream can generate very different economics depending on the surrounding health system, including its: reimbursement architecture, payer concentration, public versus private financing, employer involvement, pharmacy role, consumer willingness to pay, digital adoption, regulatory pathways, and the relative power of providers, retailers, and government actors.

Consumer health may represent a global strategic direction, but its economic realities vary significantly across markets. In some markets, value will concentrate more heavily in payer and provider relationships. In others, consumer channels, pharmacy, retail, employer platforms, or public institutions will have a greater influence on shaping the economics. In some geographies, selective direct-to-consumer models may become meaningful control points. In others, B2B2C and institution-led models will remain structurally dominant.

For leaders, the key takeaway is that economic archetypes may be globally relevant, but their implementation must reflect local market conditions. The most important consideration is not whether an archetype exists in a particular country, but which control points can realistically be owned, influenced, or delivered through partnerships within that market.

E2. The leadership insights

What CEOs must internalise

1. Portfolio design is a critical determinant of margin

Leaders design value systems that make margins durable. In consumer health, the same molecule can generate radically different economic outcomes depending on how it's embedded. This could be as a reimbursed transaction with limited downstream leverage, or as the anchor of a health value ecosystem whose value stream compounds data, evidence, trust, and engagement over time.

The role of an asset can vary significantly depending on the surrounding ecosystem. In some cases, it functions as part of another organisation's system; in others, it becomes the foundation around which a company builds its own.

Margins are shaped by more than the asset itself. They also depend on the surrounding system, including the evidence loop, the engagement model, the control points within the ecosystem, and the role the company chooses to play.

2. Leaders and non-leaders build value differently

Consumer health economics differ sharply by asset position. But rather than determining ambition, the asset position determines the path.

Leading assets create gravity. They attract partners, channels, data, and services more easily because adoption friction is lower. In those cases, the molecule can often anchor the health value ecosystem.

Non-leading assets create necessity. They require sharper choices about where to differentiate and decide which strategic control point to hold. In those cases, the health value ecosystem is less likely to be anchored by molecule leadership and more likely to be anchored by system.

Consumer health economics vary significantly depending on the position of the asset. The key implication is not the level of ambition a company should pursue, but the route it takes to create value.

Leading assets often have a natural ability to attract partners, channels, data, and complementary services because barriers to adoption are lower. In these circumstances, the molecule can provide the foundation for a broader health value ecosystem.

Where assets are less differentiated, success depends on making more deliberate choices about where to compete and which strategic control points to retain. In these cases, advantage is more likely to come from the surrounding system than from the molecule alone. Examples include stronger diagnostic integration, differentiated evidence generation, privileged channel access, high levels of trust and adherence, or a superior journey design.

Problems arise when organisations fail to align their strategy with the position of the asset. Leading assets can underperform if they are managed purely as stand-alone products without building the broader ecosystem around them. Conversely, organisations with less differentiated assets may struggle if they rely on the molecule alone rather than developing a defensible position within the wider system.

Although the mechanisms differ, both approaches can limit value creation and weaken long-term economic performance.

3. The key cost discipline is reducing the cost of adaptation

In consumer health, the challenge is not simply the level of investment. Equally important is whether the organisation can adapt without incurring significant cost, complexity, or disruption.

Competitive advantage increasingly depends on the ability to learn and respond quickly. As markets, regulations, and consumer expectations evolve, organisations need to adjust journeys, evidence strategies, engagement models, and control mechanisms without excessive effort.

For this reason, adaptability has become an important economic consideration. What matters is not only the cost of operating the system, but also the cost of changing it. This includes the time, investment, and organisational effort required to evolve the proposition as conditions change.

Leading organisations reduce these adaptation costs through product-oriented operating models, reusable components, modular architectures, appropriate automation, and clear governance of critical capabilities. The benefit extends beyond operational efficiency. It preserves strategic flexibility and enables continuous learning in a way that remains economically sustainable over time.

4. The most attractive future value pools are health value ecosystems

Transactional OTC economics can still matter, but they rarely create the deepest long-term defensibility. The more attractive value pools increasingly sit inside health value ecosystems powered by strong value streams that combine diagnostics, evidence, behavioural support, adherence, and long-term engagement into one economic system.

This is how portfolios reposition their economics through deeper influence over the economics around the condition.

5. The real margin risk lies in losing the system around the therapy.

Becoming a component supplier can be rational and profitable if the role is chosen deliberately, bounded clearly, and priced correctly. However, the risk is of drifting into that role by default while others shape the relationship interface, the data loop, the evidence layer, and the rules of value exchange. In that situation, the company still carries high cost, high complexity, and high expectations but no longer shapes the economics that matter most.

In consumer health, margin performance is not determined solely by the strength of a product portfolio. Organisations that struggle often do so because they lack a clear view of the role they want to play and how they intend to create value within the wider ecosystem.

- **Ecosystem leader:** Shape and govern the critical layer around selected journeys through relationship, evidence, trust, data, and long-term value design.
- **System partner/selective orchestrator:** Hold meaningful influence inside a broader system with explicit boundaries and clear economics.
- **Component supplier:** Contribute high-value science or services inside health value ecosystems shaped by others, with disciplined economics and no illusion of control.

All three positions can be viable. The really serious risk arises from a lack of strategic clarity. Winners choose their role deliberately, define where value is created, decide which strategic control points they must hold, and compound advantage accordingly.

Leadership takeaways



- ✓ The system around the product creates margin.
- ✓ Economic archetypes are global in logic, but their expression depends on geography, reimbursement design, and local control points.
- ✓ Leading assets create gravity, but non-leading assets can still build powerful health value ecosystems if they anchor a defensible control point.
- ✓ The most attractive future value pools sit in health value ecosystems powered by strong value streams, not only in transactional models.
- ✓ The real margin risk isn't consumer health itself but rather losing control of the system around the therapy.
- ✓ Becoming a component supplier can be profitable, if chosen deliberately, bounded clearly, and priced with discipline.



The capability reality

The investment discipline that separates winning from expensive disappointment.

Architectural sovereignty

Consumer health transformations fail less from lack of ambition than from undisciplined capability building. Companies invest heavily in capabilities they cannot operate competitively, while outsourcing the very layers they must control. The result is a familiar but damaging paradox: massive investment, growing complexity, and declining strategic power.

Success in consumer health is rarely determined by the number of capabilities an organisation builds. More often, it depends on identifying the few that matter most, executing them exceptionally well, and integrating the rest in a way that preserves strategic control.

This places greater emphasis on understanding which capabilities drive relevance in the market and which are important enough to remain under the company's direct control. The answer will vary by business model and market context, but it increasingly shapes an organisation's ability to influence how value is created across the wider ecosystem. For many organisations, addressing that challenge begins with a new set of market-facing capabilities.

F1. The new market-facing capability imperatives

Across the health ecosystem, competitive relevance increasingly depends on a common set of capabilities. Different players will express them differently, but the direction is consistent across providers, pharma, diagnostics, retail, tech platforms, payers, and care networks.

1. Consumer engagement and experience design

As well as being evaluated through clinical quality, health is also now evaluated through access, navigation, convenience, clarity, responsiveness, and continuity across the journey. This changes the standard of competition, as experience becomes part of the value itself.

2. Digital front door and omnichannel access

In consumer health, the first point of contact increasingly determines downstream economics. Search, app, call centre, pharmacy, virtual visit, provider network, retail location, referral path, and caregiver interface all become part of the access architecture. For that reason, the consumer entry point has become an important strategic control point.

3. Personalisation at scale

Offering a relevant health experience increasingly depends on the ability to tailor journeys, content, interventions, support, and timing to the needs of individuals, segments, and disease trajectories – all under consent and regulatory control. As a result, personalisation is increasingly viewed as an operational capability rather than a standalone marketing activity.

4. AI-driven insight and decision support

AI is becoming essential across engagement, service, operations, evidence generation, risk detection, next-best-action, and workflow optimisation. But in health, AI only creates value when it is governed, explainable where needed, and embedded into real operating decisions. The key capability that AI confers is governed decision advantage.



5. Data integration and interoperability

Fragmented data makes it impossible to compete. Engagement, evidence, navigation, outcomes, and orchestration all depend on the ability to connect information across systems, settings, and partners. Interoperability is therefore the precondition for continuity of value.

6. Ecosystem orchestration

The fragmented nature of the health journey means that competitive advantage is increasingly linked to coordination rather than ownership. Organisations that can align providers, payers, pharmacies, diagnostics, platforms, and support networks are often better positioned to influence outcomes and capture value.

As a result, strategic focus shifts from controlling individual parts of the value chain to shaping the mechanisms through which the wider ecosystem functions.

7. Trust, privacy, and regulatory excellence

Trust in consumer health is earned through sustained performance across a range of day-to-day interactions, from privacy and data transparency to safety, resilience, and regulatory compliance. Its importance therefore extends well beyond risk management. Trust increasingly shapes customer adoption, ongoing engagement, and growth.

Collectively, these seven capabilities define many of the requirements for remaining relevant in the market. The next challenge is deciding how those capabilities should be sourced, developed, and governed, including which should be owned, which can be delivered through partners, and which are best acquired externally.

F2. What must be owned by life sciences companies

The layers that determine whether the company shapes the value stream or serves inside someone else's system

The capability question becomes practical only when leadership distinguishes clearly between three categories:

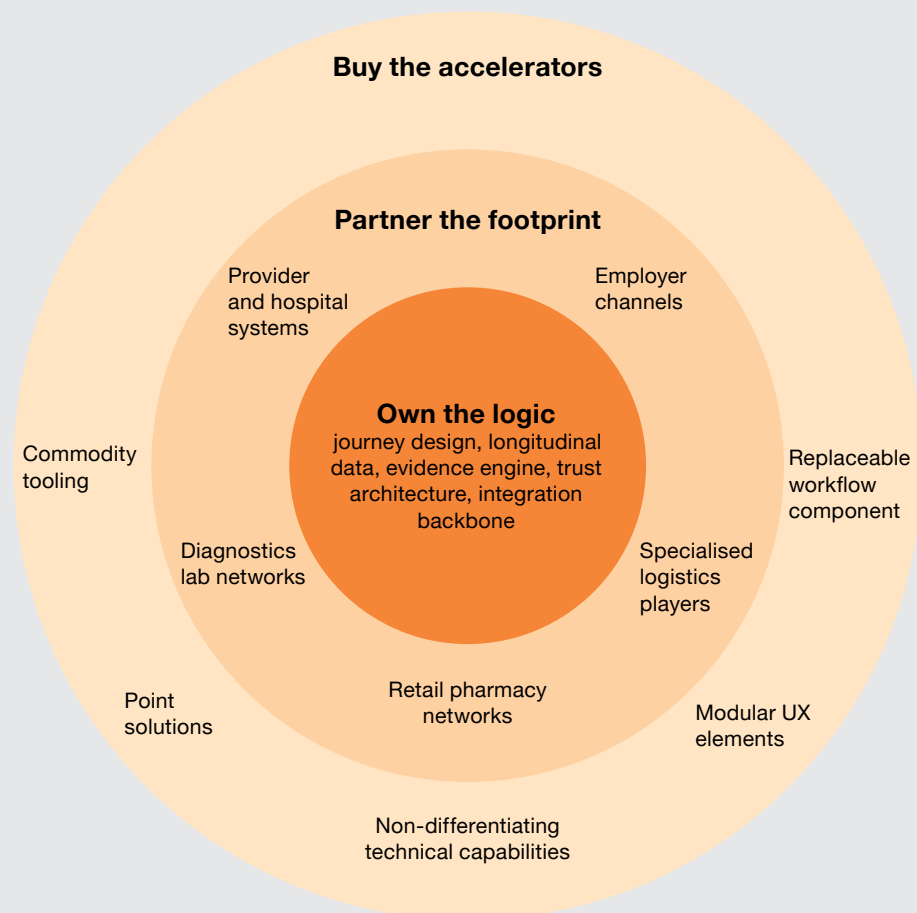
- what must remain under direct control,
- what should be delivered through partners,
- and what should simply be bought as an accelerator.

The core principle is simple:

Own the logic. Partner the footprint. Buy the accelerators.

Architectural sovereignty matters more than ownership

Capabilities should be owned when they define the value stream, compound advantage over time, or preserve architectural sovereignty. Reach, execution capacity, and acceleration can be partnered or bought.



Focus ownership on the capabilities that drive differentiation, use partnerships to extend reach and execution, and acquire external capabilities selectively where they strengthen, rather than weaken, strategic control.

This distinction is based on strategic control rather than operational importance. Capabilities should be owned when they define the value stream, compound advantage over time, or preserve architectural sovereignty. They should be partnered or bought when they provide reach, execution capacity, or acceleration without determining the firm's future control position.

What must be owned are not simply ‘important capabilities’. They are the layers that determine whether the company governs the value stream or becomes dependent on someone else’s architecture.

These ownership priorities can be grouped into three categories.

1. What defines the value stream

These are the capabilities that determine how value is created in the first place.

Disease and consumer journey design

This is the blueprint of value creation. Whoever defines the journey defines the control points, the interfaces, the data flows, and the value logic. Outsourcing the elements that define the journey risks outsourcing future market position.

For example, this may mean designing the obesity-management journey, structuring the oncology survivorship pathway, or defining the long-term adherence model in chronic inflammatory disease.

Consumer engagement and growth model governance

Segmentation, journey logic, personalisation, consent design, content rules, adherence mechanisms, and decisioning across B2B2C and selective DTC models cannot be left to fragmented execution partners. This is the governed engine that creates relevance, continuity, and long-term value.

For example, a company may partner for execution in pharmacy, employer, or retail channels, but it should still own the underlying journey logic, personalisation rules, and consent model.

2. What compounds advantage over time

These are the assets that become stronger as the value stream scales.

Longitudinal data and semantic layer

This is data gravity. Without it, AI cannot learn reliably, evidence cannot compound, personalisation cannot scale, and interoperability remains superficial. It is one of the most defensible assets in consumer health.

For example, this includes linking therapy, monitoring, adherence, service, and outcomes data into a unified patient or population view across the journey.

Continuous evidence engine

Real-world evidence (RWE), Health economics and outcome research (HEOR), digital endpoints, and longitudinal outcomes are now product feature, payer interface, regulatory capability, and commercial infrastructure. If evidence remains episodic, so does value.

For example, this may include embedding real-world outcomes into oncology survivorship, using digital endpoints in neurology, or continuously demonstrating adherence and long-term impact in cardiometabolic care.

Trust architecture

Privacy, identity, consent, cyber governance, model oversight, and the rules for responsible data use form the trust layer of the value stream. In consumer health, trust architecture is adoption and resilience infrastructure.

For example, this includes owning consent logic, identity confidence, privacy-by-design, and model-governance rules across connected patient journeys.

3. What preserves strategic control

These are the layers that keep the company from becoming operationally active but strategically dependent.

Enterprise architecture and integration backbone

This is the nervous system of the firm. It determines whether new journeys, partners, services, and channels can be integrated quickly, safely, and repeatedly. Lose control here, and the enterprise becomes dependent on vendor logic rather than strategic logic.

For example, this includes the integration layer that connects diagnostics, CRM, patient support, evidence systems, and partner interfaces without forcing the company to rebuild the whole stack each time.

Orchestration logic and partnership economics

Many firms will partner broadly. Few will govern partnerships well. The ability to define shared rules, data standards, incentives, escalation paths, economics, and accountability across multi-party networks is itself a source of strategic power. Partnerships can be distributed across the organisation, but the underlying partnership strategy needs clear ownership and direction.

For example, a company may work through pharmacy networks, diagnostics labs, employer channels, or home-care providers. But it should still define the commercial rules, data-sharing terms, outcome measures, and decision rights that govern the value stream.

F3. What must be partnered

The areas where reach, scale, and local execution matter more than direct ownership

Channels, devices, care delivery, diagnostics networks, logistics, employer channels, retail access, public institutions, and community infrastructure are too distributed, too local, and too context-specific for any one company to own comprehensively at scale.



In these areas, the goal should be orchestrated, rather than vertical, integration.

That means the company should shape:

- clear economic rules;
- shared data standards;
- aligned incentives;
- explicit role clarity;
- and governance across the journey.

The distinction matters. Where ownership is required, companies need to control the logic that shapes the value stream. Where partnership is appropriate, they may not need to own the footprint, but they still need to influence the interfaces, standards, and economic relationships through which it operates. This is particularly important where market access, local presence, infrastructure, or delivery scale matter more than ownership itself.

For example, a company may partner with:

- retail pharmacy networks for last-mile access and adherence support;
- diagnostics lab networks for testing reach and regional scale;
- provider and hospital systems for delivery and pathway execution;
- employer channels for B2B2C distribution;
- or specialised logistics players for time-critical and temperature-sensitive delivery.

Ownership is not the prerequisite for leadership. While companies may rely on partners across the operating footprint, they still need to shape the standards, incentives, and interfaces that determine how value is created. Without that influence, partnerships risk becoming a source of dependency rather than strategic advantage.

F4. What should be bought

Accelerators only – never the layers that define future control

Some capabilities are best acquired rather than built or deeply integrated through partnerships. Their value lies in increasing speed, efficiency, or execution capacity, rather than creating a lasting source of competitive advantage.

They include:

- commodity tooling
- replaceable workflow components
- point solutions
- modular UX elements
- and non-differentiating technical capabilities

The goal is to build only what compounds strategic power. For example, a company may choose to buy:

- standard workflow or case-management tooling for internal operations
- modular reminder, scheduling, or messaging components for patient-facing journeys
- or cloud, analytics, and model-operations tooling that accelerates deployment without defining the strategic data layer

The principle is straightforward: **Companies should buy what helps them move faster, but never buy what defines their position.**

Buying is valuable when it accelerates speed, learning, and execution without creating dependence in the layers that determine control, differentiation, or future negotiating power. In consumer health, buying is the right choice when it shortens time-to-value without eroding architectural control. It becomes dangerous when a purchased capability starts to define the firm's data logic, trust model, integration layer, evidence engine, or partnership economics.

F5. The pattern to avoid, and what comes in its place

IT empire building

One of the most expensive mistakes in consumer health is to replicate legacy technology logic: large custom-build programmes, offshore delivery factories, fragmented ownership, and systems that are technically impressive but strategically inert.

This model produces:

- permanent technical debt;
- low innovation velocity;
- high marginal cost of change;
- and structural dependence on complexity.

The modern alternative

The better model is a small, elite internal core that retains control over the layers that define the future:

- product and journey leaders
- enterprise architects
- data and semantic owners
- evidence leaders
- and trust and governance owners

Everything else should be modular, replaceable, and governed by architecture. For example, a company might buy commodity workflow tooling, partner for delivery capacity, and use external build support, while still retaining internal control over journey design, data logic, evidence architecture, integration standards, and trust rules. The goal is to build only what compounds strategic power.



Leadership takeaways



- ✓ In consumer health, competitive relevance is defined by engagement, access, personalisation, interoperability, orchestration, AI-enabled decisioning, and trust.
- ✓ Not all important capabilities should be owned – but the critical layer must be governed.
- ✓ Own the logic. Partner the footprint. Buy the accelerators.
- ✓ Outsourcing execution is often smart; outsourcing system logic is fatal.
- ✓ The goal isn't to build more. It's to build only what compounds strategic power.



The eligibility reality

What Chief Digital and Information Officers (CDIOs) must build, govern, and measure.

The non-negotiables to be fit for consumer health

Market-facing capabilities such as engagement, omnichannel access, personalisation, decision support, interoperability, orchestration, and trust require more than ambition. They depend on enterprise systems that make them scalable, repeatable, compliant, resilient, and economically sustainable.

These capabilities are not simply supported by the organisation. Their effectiveness depends on the underlying systems and operating foundations that enable them.

For CDIOs, they define the enterprise backbone that must be built, governed, and measured if consumer health is to become operational reality rather than strategic aspiration.

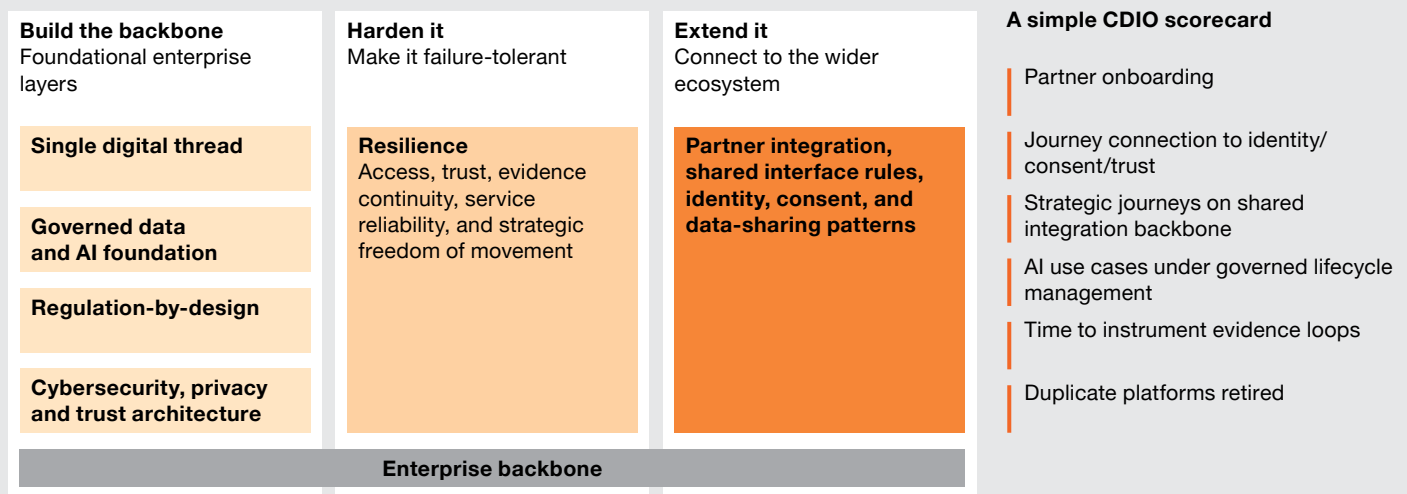
Rather than simply launching more digital initiatives, the practical challenge is to establish the small number of shared enterprise systems that allow health value ecosystems to scale without fragmentation, duplication, or loss of control.

These non-negotiables can be understood through three CDIO priorities:

- 1. Build the enterprise backbone.**
- 2. Harden it under real-world pressure.**
- 3. Extend it across the network.**

The enterprise backbone that makes consumer health operational reality

What CDIOs must build, govern, and measure



What matters is lower integration costs, faster evidence compounding, stronger trust, and greater reuse across health value ecosystems.

The non-negotiables in this chapter are derived from the critical layers identified earlier in the paper: identity and consent, integration, data and AI, evidence, regulation-by-design, cybersecurity, resilience, and partner connectivity.

G1. Build the enterprise backbone

Enterprise connectivity: the single digital thread

Without end-to-end connectivity from R&D to patient outcomes, evidence cannot compound, AI cannot learn across contexts, journeys cannot adapt in real time, and growth engines remain blind. The single digital thread is what connects product, service, engagement, evidence, and outcome into one learning system. This is what turns a portfolio into a platform. For CDIOs, the real test is not whether systems are connected somewhere within the enterprise, but how easily new journeys, partners, channels, or evidence loops can be added without extensive re-engineering. Achieving this requires a reusable integration backbone, consistent identity and consent frameworks, shared interface standards, and the ability to connect products, engagement, evidence, and outcomes without rebuilding core components each time.



G2. Build the enterprise backbone

Data and AI foundation

Data lineage, quality, governance, identity resolution, semantic consistency, data management, and responsible AI controls have become essential foundations of consumer health. Weak data practices can undermine decision-making, limit the quality of evidence, erode trust, and ultimately constrain growth. The challenge is not simply collecting more data, but establishing a governed data and AI foundation that supports decision-making, personalisation, interoperability, and evidence generation at scale. For CDIOs, this involves creating a shared semantic layer, governed identity resolution, reusable data products, and robust model lifecycle management that can be applied consistently across journeys rather than within isolated functions or geographies.²⁹ Without these foundations, organisations risk creating fragmented data models across functions and markets, making it difficult to generate cumulative advantage at enterprise scale.

G3. Build the enterprise backbone

Regulation by design

In consumer health, firms increasingly build under simultaneous pressure from privacy regulation, AI regulation, cybersecurity obligations, sector-specific health regulation, and changing access and reimbursement expectations. Companies that design for regulation upfront gain speed, credibility, and optionality. Companies that retrofit regulation into already-built systems lose all three. For CDIOs, this means privacy, auditability, access control, model governance, consent, and traceability must be built into shared enterprise capabilities from the outset. Regulation should not appear as a late checkpoint, but be part of the design standard for every reusable capability.



G4. Build the enterprise backbone

Cybersecurity, privacy, and trust architecture

Trust is the invisible currency of consumer health. Every digital front door, connected device, data-sharing relationship, caregiver interface, and AI-enabled workflow increases the importance of cyber resilience, consent discipline, access controls, identity confidence, and privacy-by-design. One serious breach can destroy years of trust building and adoption. For CDIOs, the implication is practical: the trust layer must be built as shared enterprise infrastructure, not as policy paperwork or fragmented local controls. Identity, consent, access control, auditability, and resilience should be designed once, governed centrally, and deployed repeatedly across health value ecosystems.

G5. Harden the backbone under real-world pressure

Resilience in the face of volatility

Consumer health operates under structurally unstable conditions. Supply chains, regulation, demand patterns, channel dynamics, geopolitics, cyber threats, and social trust can all shift quickly. Resilience therefore moves from a matter of operational hygiene to become a commercial survival strategy. Resilience is no longer defined solely by continuity planning. Increasingly, it is measured by how effectively an organisation can withstand disruption without compromising access, trust, operational reliability, evidence continuity, or strategic flexibility. For CDIOs, resilience is also an architecture question: modularity, failover capability, observability, cyber recovery, vendor redundancy, and the ability to reroute services without redesigning the enterprise under stress.

G6. Extend the backbone across the network

Multi-party health value networks

Consumer health increasingly depends on ecosystems that span providers, payers, pharmacies, diagnostics organisations, technology platforms, public institutions, employers, caregiver systems, and delivery partners. Success within these ecosystems rarely depends on ownership alone. More often, it reflects an organisation's ability to influence the most important control points and coordinate activity across multiple participants. For CDIOs, the priority is to build integration capabilities that make new partnerships easier to establish and manage. This includes shared standards for onboarding, interfaces, identity, consent, and data exchange, together with architectures that reduce the effort required to add new ecosystem participants.

G7. Extend the backbone into system advantage

From capability to system advantage

Consumer health increasingly favours organisations that can combine strong engagement, seamless access, personalisation, interoperability, effective orchestration, and trusted experiences at scale. Delivering these outcomes requires more than individual initiatives. It depends on enterprise foundations that are connected, governed, resilient, and compliant by design. Success does not require ownership of every ecosystem. It does, however, require sufficient system capability to influence how value is created and to avoid becoming dependent on another organisation's platform. For CDIOs, the priority is to create reusable enterprise assets that make integration, evidence generation, partner onboarding, and ecosystem expansion more scalable and repeatable.

What CDIOs should do now

1. Turn the core non-negotiables into shared enterprise platforms, not local projects.

Identity, consent, integration, evidence, data, AI governance, and trust should be built once and reused repeatedly.

2. Eliminate fragmentation that prevents compounding.

Reduce duplicate stacks, local logic, and isolated data models that stop evidence, learning, and trust from scaling.

3. Build one reusable trust and control layer.

Privacy, security, consent, model governance, and traceability should be enterprise infrastructure, not use-case-specific add-ons.

4. Reduce the cost of adding the next journey, partner, or evidence loop.

The backbone is working only when the next health value ecosystem is faster and cheaper to stand up than the last one.

5. Measure enterprise readiness, not just delivery activity.

Success should be measured through reuse, integration speed, governed AI deployment, evidence compounding, and reduction in platform duplication.

A practical scorecard for CDIOs

- Time to onboard a new partner into the governed network
- Time to connect a new journey to the shared identity/consent/trust layer
- Percentage of strategic journeys running on the shared integration backbone
- Percentage of AI use cases under governed lifecycle management
- Time to instrument a new evidence loop
- Number of duplicate platforms, models, or data stacks retired



Leadership takeaways



- ✓ These are not support functions. They are the enterprise systems that make consumer health real..
- ✓ CDIOs must build the enterprise backbone first: integration, data and AI, trust, and regulation-by-design as reusable infrastructure.
- ✓ The real objective is not more digital activity. It is lower cost of integration, faster evidence compounding, stronger trust, and greater reuse across health value ecosystems.
- ✓ Life sciences does not need to own the ecosystem to matter – but it does need enough system strength to shape the health value ecosystems in which it chooses to compete.
- ✓ In consumer health, system weakness eventually becomes market weakness.



The strategic reality

Consumer health is not a trend, channel or even a market. It's the moment when health becomes a continuous economic system, rather than a sequence of clinical events.

Ecosystem leader, system partner, or component supplier

For much of the past half-century, success in life sciences was closely linked to the ability to discover, develop, and commercialise superior therapies. Whilst that capability remains fundamental, it is no longer the sole determinant of leadership. Increasingly, success depends on an organisation's ability to design, govern, and scale systems that support health outcomes over time, whilst operating within complex regulatory environments, uncertain conditions, and growing public scrutiny.

The shift that changes everything

The transformation underway in life sciences extends beyond digital technology. At its core, it reflects a shift towards consumer health and a broader reconsideration of what the organisation exists to do and how it creates value.

Whilst products, functions, and channels remain essential, leading organisations are increasingly distinguished by their ability to participate in health value ecosystems, operate complex regulated systems, and support better outcomes over time.

This represents a fundamental shift in the role of life sciences companies: from intervening in disease to supporting health across the course of people's lives.

Why most strategies will fail

Most consumer health strategies that fail will do so because they try to graft new capabilities onto an old mental model of the firm.

They assume:

- marketing is a department;
- digital is an enabler;
- data is a function;
- and partnerships are transactional.

But in consumer health:

- marketing becomes **governed engagement infrastructure**;
- digital becomes the **care environment**;
- data becomes **strategic gravity**;
- and partnerships become **value co-creation systems**.

In this environment, success depends as much on organisational design and operating assumptions as it does on execution. Companies that continue to optimise yesterday's structures may find themselves poorly equipped for tomorrow's opportunities.

The real strategic choice CEOs face

Debates about size, centralisation, or whether organisations should be technology-led or science-led are often secondary to a more important strategic decision: the role a company intends to play within its chosen health value ecosystems.

Whether acting as an ecosystem leader, system partner, or component supplier, success depends on the level

of influence the organisation maintains over key control points, including journey design, evidence generation, trust, interfaces, and economics.

All three positions can be viable when pursued deliberately. Difficulties arise when organisations find themselves in a role they never consciously chose.

The real strategic choice CEOs face

In each chosen health value ecosystem, will your company act as ecosystem leader, system partner, or component supplier

Ecosystem leader

- Shapes the journey architecture in selected contexts.
- Governs the critical data and evidence loops.
- Influences the rules of value exchange.
- Anchors long-term outcomes in chosen control points.

System partner/selective orchestrator

- Plays a powerful but shared role inside a broader multi-party network.
- Co-designs interfaces, economics, and operating rules.
- Protects influence without assuming universal control.

Component supplier

- Provides high-value biology, technology, or services inside ecosystems led by others.
- Competes on excellence and efficiency.
- May still be highly profitable.

Each of these positions can be effective. Difficulties tend to emerge when a company drifts into a role by circumstance rather than strategic choice.

The CEO path to action

1. Choose ambition by health value ecosystem, not by asset.

Decide where to lead, where to co-shape, and where to deliberately integrate.

2. Define the strategic control points you must hold.

Not every layer matters equally. Relationship interfaces, evidence systems, diagnostics linkages, data architecture, trust rules, and economic design should be treated as explicit strategic choices.

3. Build the longitudinal data and evidence engine.

This remains the most important compounding asset in modern health.

4. Re-platform technology with architectural sovereignty.

Do not outsource the system logic that defines the company's future position in the network.

5. Design for regulation and trust from day one.

AI, cybersecurity, privacy, consent, and resilience are no longer constraints around growth. They are conditions for growth.

6. Build partnership logic as a strategic capability.

In the age of the consumer, the ability to work across providers, diagnostics, retail, platforms, payers, and care networks becomes part of competitive design.

7. Be explicit about what you will not do

Strategic power increasingly comes from disciplined choice, not institutional sprawl.

UnitedHealth and how Optum evolved from component supplier to ecosystem leader

UnitedHealth and Optum illustrate one version of the strategic logic that emerges when a company seeks to coordinate critical layers across a health value ecosystem: data, care delivery, analytics, reimbursement, and trust operating as one economic system. It reflects a deliberate effort to build strategic influence across the health value ecosystem itself. This is one expression of the future logic of consumer health – whether life sciences chooses to occupy it or not.

The closing reality

In the previous era, companies competed on **what they discovered**. In the next, they will compete on **what they can responsibly manage**:

- life-course health trajectories;
- regulated trust;
- and systems that scale care over time.

Future leaders in life sciences will be recognised not only for the strength of their products, but also for their ability to redefine how value is created, delivered, and sustained across the broader health ecosystem. And consumer health is where that future becomes visible first, because it is where science, behaviour, regulation, technology, and economics finally converge into one reality. This is a **new definition of leadership in health**.



Leadership takeaways



- ✓ The next era rewards firms that can deliberately choose where to lead the health value ecosystem, where to co-shape it, and where to contribute.
- ✓ Consumer health does not require life sciences to own the whole ecosystem – but it does require clarity on where it will hold the critical layer within the health value ecosystems it chooses to shape.
- ✓ The strategic risk is no longer only scientific failure. It is drifting into a structurally weak role inside someone else's system.
- ✓ Consumer health is where science, behaviour, regulation, technology, and economics now converge into one leadership reality.

15 leadership truths of consumer health

A central theme of this paper is that consumer health extends beyond a distinct market category. It is increasingly becoming the environment in which health is managed and, consequently, the context in which life sciences organisations operate. From that reality, fifteen leadership truths follow and these are the new structural rules of the game. But the economic unit increasingly includes diagnostics, evidence, access, engagement, service, logistics, and trust. Every interface has accountable owners.

1. Consumer health is the operating context.

Consumer health is increasingly shaping how health is delivered, experienced, and managed. Companies do not so much enter consumer health as operate within an environment that is already being reshaped by it.

2. Health is experienced over time.

The relevant unit of value is no longer a single interaction, but the broader journey spanning prevention, symptoms, diagnosis, treatment, ongoing management, caregiving, ageing, and end-of-life care.

3. People move through multiple health states.

Individuals engage with healthcare continuously throughout their lives, with changing needs, circumstances, and support requirements over time.

4. No single player owns the journey.

Value therefore shifts towards those who can shape interfaces, data loops, trust, and orchestration across that journey.

5. Functions organise work, ecosystems create value.

Functional structures remain important, but value is increasingly generated through health value ecosystems that connect capabilities, partners, and services around shared outcomes.

6. The value proposition extends beyond the therapy.

The molecule remains essential. But the economic unit increasingly includes diagnostics, evidence, access, engagement, service, logistics, and trust.

7. Competitive advantage extends beyond clinical excellence.

Success increasingly depends on combining scientific innovation with strong experiences, effective use of data, and the ability to coordinate activity across the wider ecosystem.

8. Margin is shaped by the system around the product.

Sustainable margins depend not only on the asset itself, but also on the evidence generated, the engagement model, access pathways, and the broader ecosystem in which value is created.

9. Data underpins long-term value creation.

Whoever governs the longitudinal data loop shapes learning, continuity of engagement, and future value creation.

10. Evidence is a permanent capability.

Evidence does not end at launch. Ongoing evidence generation increasingly influences access, trust, outcomes, and long-term value creation.

11. Trust enables growth.

Privacy, transparency, consent, resilience, and responsible design no longer merely protect value. They enable it.

12. Growth comes from engagement designed and governed end to end.

Engagement, personalisation, adherence, and continuity increasingly become regulated enterprise capabilities.

13. Ecosystems require governance as well as collaboration.

Networks are shaped by interfaces, decision rights, data flows, and accountability. Managing these effectively is as important as building the partnerships themselves.

14. Success does not require ownership of the entire ecosystem.

What matters is making deliberate choices about where to lead, where to collaborate, and how to contribute within a broader health value ecosystem.

15. Future leaders will combine innovation with strategic influence.

Scientific excellence remains essential, but long-term success will also depend on maintaining influence over the capabilities, relationships, and control points that shape value creation across the ecosystem.



Final reflection



The central leadership challenge in consumer health is determining where and how an organisation intends to create value within a health value ecosystem. This includes deciding which journeys to influence, which capabilities to control, and what role to play within the broader system.

That choice shapes many of the strategic decisions that follow.



Appendix A

A translation layer between legacy language and the operating reality described in this paper.

Glossary: the new mental model of the firm

Architectural sovereignty

The discipline of outsourcing execution where appropriate without outsourcing control: the enterprise retains authority over system design, data standards, trust rules, evidence logic, and integration architecture.

Capability layers

The enterprise building blocks required to make value streams work (e.g. evidence, trust, data/AI, regulation-by-design, growth engines, partnerships). ‘Layers’ signals these are not department boundaries, but system elements.

Component supplier

A deliberate role in which a company contributes high-quality science, products, or services inside another party’s health value ecosystem, with clear economics and boundaries, without owning the control layer.

Health value ecosystem

A multi-party value environment organised around a health need, condition, or disease cluster that combines therapy, services, diagnostics or monitoring, engagement, evidence, access, and economics into a sustained model of value creation. In this paper, health value ecosystem is the primary business term for the broader environment in which value is created, captured, and defended over time.

Consumer health

The lived, continuous experience of health management across a person’s life, spanning prevention, symptoms, diagnosis, treatment, ongoing condition management, caregiving, ageing, and end-of-life – enabled by an expanding ecosystem of clinical, therapeutic, diagnostic, retail, technology, and support players.

Consumer health journey

The dynamic life-course journey through which individuals move across health states such as prevention, episodic need, chronic management, multi-morbidity, advanced illness, and caregiving. The term emphasises continuity rather than isolated episodes.

Continuous evidence engine

A permanent capability to generate, govern, and operationalise evidence over time (RWE, digital endpoints, post-launch outcomes), embedded into products, journeys, and operations – not a phase after launch.

Control points

The points in a value stream where power accumulates: relationship interface, data loop, diagnostic gateway, evidence logic, consent/trust rules, economic contracting, and distribution access.

Data gravity (semantic layer)

The enterprise’s ability to unify longitudinal data across sources through shared meaning (semantics), governance, and lineage – so evidence compounds and AI can learn safely at scale.

Economic archetype

A structurally distinct profitability system (e.g. precision premium, outcome-linked expansion, scale and duration) with different drivers of margin, risk, capital intensity, and defensibility.

Economic system

The end-to-end mechanism by which value is created, captured, and defended over time (data loops, evidence loops, engagement, trust, and contracting), beyond a product transaction.

Enterprise operating system

The integrated set of architectures, governance, standards, and capabilities that makes value streams operate reliably at scale across functions and geographies.

Experience and orchestration owners

Players that shape how people access, navigate, coordinate, and experience health across the journey – including technology platforms, workflow players, navigation systems, and coordination infrastructures.

Lifetime relationship economics

A profitability logic where value is generated over time through engagement, retention, adherence, services, monitoring, and evidence rather than primarily through one-time transactions.

Multi-party health network

A governed network of providers, payers, platforms, employers, devices, diagnostics, retailers, and manufacturers through which value is co-created. Power depends on who defines the interfaces, standards, incentives, and data flows.

Regulated growth engine

Responsible demand development, engagement, personalisation, adherence, and continuity operated as governed infrastructure under consent, medical/legal constraints, and evidence requirements rather than campaigns.

Regulation-by-design

Designing products, data flows, AI, security, and operating processes to comply from inception (not retrofitted), so speed and compliance reinforce rather than trade off.

Role intensity

A way of describing ecosystem participation across the journey using differentiated levels of involvement rather than binary inclusion, typically expressed as primary, significant, or enabling role.

Seam-based operating model

A governance model that preserves functional excellence and decentralisation while optimising the 'seams' between functions, i.e. where value is created, lost, or amplified across the end-to-end journey.

Selective orchestrator / system partner

A strategic role in which a company meaningfully shapes parts of a value stream, including interfaces, economics, governance, and standards, without owning the entire architecture end to end.

Single digital thread

End-to-end traceability linking R&D → clinical → supply → access → engagement → outcomes, enabling compounding evidence, faster learning, and reliable governance.

System property

A performance outcome that emerges from the whole system (e.g. margin, resilience, trust, learning speed). It cannot be sustainably achieved by optimising one function alone.

Value stream

The end-to-end operating logic that makes a health value ecosystem work: the governed system through which biology, behaviour, data, evidence, regulation, and economics are orchestrated around a condition or population and converted into continuous value creation.

Ecosystem leader

The organisation that shapes and governs the critical layer of a chosen health value ecosystem: it controls the most important control points such as evidence, trust, data, journey logic, diagnostics linkage, or economic design, even when execution is distributed across partners.

Appendix B

An executive orientation map for what health value ecosystems look like in practice

Illustrative health value ecosystems in consumer health

Each health value ecosystem below should be understood not only as a product-and-service combination, but as a multi-party journey architecture. Different players perform different roles with different intensity across the journey. The strategic question for life sciences is therefore not whether it can own the whole system, but where it can credibly anchor, shape, and govern the most important control points within it.

1. Obesity and metabolic health

Converts episodic prescribing into longitudinal management across prevention, diagnosis, adherence, monitoring, payer pathways, continuous evidence, and behaviour support. Typical critical players include pharma, providers, diagnostics, pharmacies, payers, retail access points, digital platforms, and wellness ecosystems.

2. Oncology survivorship and recurrence interception

Extends beyond treatment episodes into precision diagnosis, therapy selection, monitoring, survivorship, quality-of-life tracking, recurrence risk management, and evidence generation. Diagnostics, providers, life sciences, specialty delivery networks, and data platforms all become central control points.

3. Cognitive health and mental resilience

Built on trust, privacy, discreet access, continuous engagement, behavioural support, and selective therapy integration. Outcomes often depend as much on digital environment and lived experience as on formal intervention alone.

4. Autoimmune self-management and flare prevention

Shifts value post-prescription into coaching, device support, symptom monitoring, flare prediction, adherence, and long-term outcome improvement for existing patients. Daily life becomes the real operating environment of value creation.

5. Rare disease orchestration

The economic unit is system reliability: eligibility and diagnostics, care coordination, logistics, chain-of-identity, payer alignment, specialist delivery, and trust-by-design. The therapy is inseparable from the operating model around it.

6. Pandemic readiness and population response

Always-on readiness across surveillance, early warning, public legitimacy, rapid-response science, manufacturing surge, distribution resilience, transparent communication, and cross-sector coordination. Societal trust becomes part of the value architecture itself.

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