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The State of Longevity

An industry in a hurry, and the case for measuring before we sell

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IN BRIEF

Demand for longevity is real and enormous. The industry serving it is selling faster than it can prove. Wearables infer what they cannot measure, supplements routinely miss their own labels, "biological age" changes with the lab, and the loudest voices are often paid ones.

Every number that enters a person's record, a physician's dashboard or a nation's health plan inherits the error of the instrument that produced it. Junk in, junk out is no longer a technical problem. It is the defining risk of the longevity economy.

The answer is not less ambition. It is a standard: measure first, verify independently, claim only what was shown. That is what the FutureWell Verified Longevity Standard, Neovia and WorldHealth.net were built to do.

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01 A Gold Rush With No Assay Office

Longevity is the most important promise health has ever made: not just more years, but more life in them.

The demand behind it is not a fad. The Global Wellness Institute put the global wellness economy at $6.8 trillion in 2024, nearly four times the size of the pharmaceutical industry, and projects close to $9.8 trillion by 2029. Longevity is the fastest-rising word inside it. Wellness real estate alone, homes and developments built around light, air, water and on-site health services, was worth about $548 billion in 2024 and is projected to pass $1.1 trillion by 2029. The money is moving from products into the places people live.

I have watched this movie before. "Wellness" was a word that meant something until it meant everything. "Well-being" followed it into the same marketing department. Now "longevity" is being stamped on supplements, smartwatches, mail-in test kits, clinics, retreats and skin creams, often by the same companies that worked the first two words until they were worthless.

Every gold rush had an assay office: the place where a miner's find was weighed and tested before anyone paid for it. It is what separated gold from pyrite and honest claims from salted mines. **Longevity has no assay office.** Products reach the shelf, the wrist and the bloodstream with marketing in place of measurement, and the people who pay for that gap are the ones who trusted the label.

This paper is a self-examination of the industry I work in, not an attack on the science of aging. That science is real, and it is accelerating. The problem is the distance between what the science can show and what the market is already selling. My argument is simple: **if we cannot measure it, we should not sell it as if we had.**

02 The Industry by the Numbers

Eight figures, each from published research, describe where longevity stands today.

$6.8T

Global wellness economy, 2024, the market longevity is being sold into

Global Wellness Institute, 2025

77×

Spread between the lowest and highest published 2026 "longevity market" estimates

Six market reports, 2026

0 of 7

Wrist devices that estimated calories burned within 20% of a laboratory reference

Shcherbina et al., 2017

≈0

Correlation between smartwatch "stress" scores and the stress wearers reported

Siepe, Fried et al., 2025

88%

Melatonin gummies more than 10% off their own label, up to 347% of the stated dose

Cohen et al., JAMA, 2023

776

Supplement products the FDA found laced with hidden pharmaceutical drugs, 2007–2016

Tucker et al., JAMA Network Open, 2018

6%

Influencer posts on health tests that cited any medical evidence; over two-thirds had a financial stake

Nickel et al., JAMA Network Open, 2025

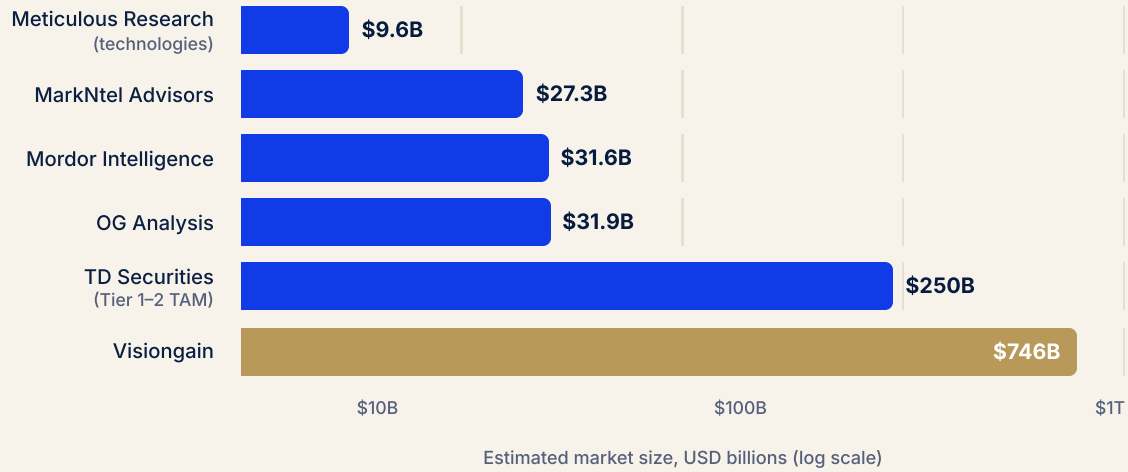
40.1%

U.S. adults reporting a lot of trust in physicians and hospitals, down from 71.5% in 2020

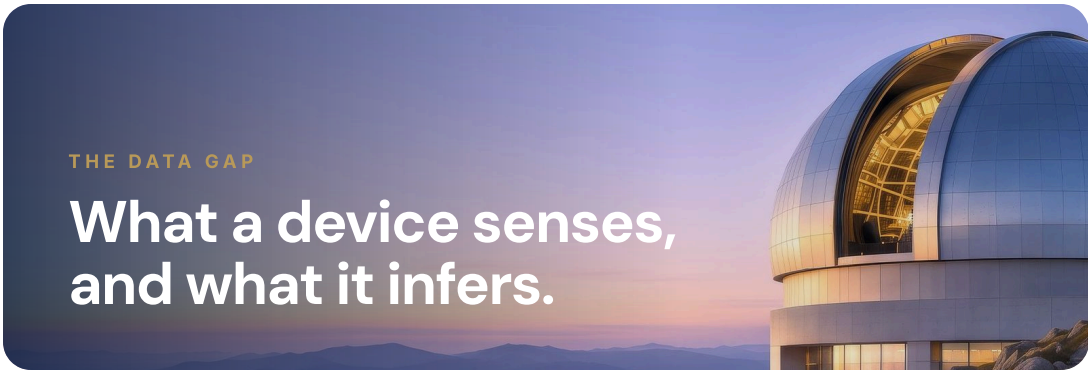
Perlis et al., JAMA Network Open, 2024

Even the size of the market is a guess. Six research firms publishing in 2026 put the "longevity market" anywhere from under $10 billion to $746 billion. They are not measuring the same thing, because nobody has agreed on what longevity is as a product category. An industry that cannot measure itself is in no position to tell consumers what its products measure.

One industry, six answers: 2026 "longevity market" estimates



Sources: Meticulous Research (May 2026); MarkNtel Advisors (Jul 2026); Mordor Intelligence (Jun 2026); OG Analysis (Apr 2026); TD Securities; Visiongain (2026).

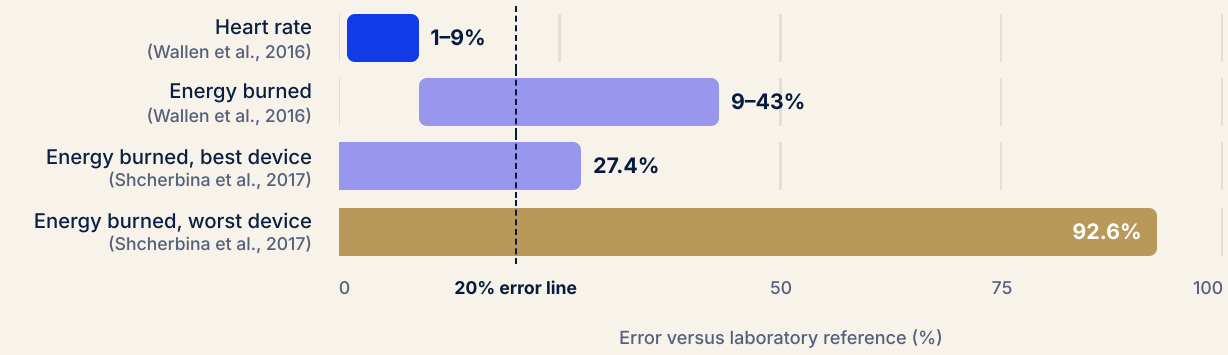


03 Devices That Guess

For most people, the wearable is the front door to longevity data. On what it actually senses, the modern smartwatch is good: optical heart rate during steady activity typically lands within single digits of an electrocardiogram. The trouble starts when a device moves from what it senses to what it infers: calories, stress, "readiness," recovery, sleep stages, hormones, biological age.

A Stanford study of seven wrist devices found that none estimated energy expenditure within 20% of a laboratory reference; the best averaged 27% error and the worst 93%. A 2016 study of four devices found heart-rate error of 1–9% but calorie error of 9–43%. The same watch can be trustworthy on one number and fiction on the next, and nothing on the screen tells the wearer which is which.

Wrist wearables: good at pulse, poor at everything they infer



Sources: Wallen et al., PLOS ONE 2016 (4 devices); Shcherbina et al., J Pers Med 2017 (7 devices; no device under 20% energy error).

Stress is worse. In a 2025 study, nearly 800 university students wore a popular stress-tracking watch for three months while reporting how they felt four times a day. The researchers found that the watch's stress readings and the students' own reports barely

overlapped; one author called the correlation "basically zero." The devices mistook exercise and excitement for stress, because a raised heart rate looks the same either way.

Even the wellness trade press has started to say it. Trend forecasters looking ahead to 2027 now describe "orthosomnia": anxiety created by obsessively tracking REM sleep, deep sleep and overnight heart rate on devices that classify sleep stages far less reliably than a sleep laboratory. Their advice is the unglamorous kind: consistent routines, morning light, and real treatment for real sleep disorders.

The cortisol case

Which brings me to the advertisement that prompted this paper. Social media is currently telling consumers that an Apple Watch can show whether their cortisol is high or low. Apple makes no such claim; the source is a third-party subscription app, Cortisol+, whose App Store listing says it "estimates your real-time cortisol levels using biometric data from your Apple Watch."

Cortisol is a hormone. It can be measured only by laboratory assay of blood, saliva, urine or hair. No sensor on any wrist detects it. The app combines heart rate variability, resting heart rate, sleep and activity into a score and puts the word "cortisol" on it.

IN THE DEVELOPER'S OWN WORDS

In a developer-supplied article published in September 2026, the company states: **"Despite its name, Cortisol+ does not measure cortisol."** The same piece concedes the score has never been validated against laboratory cortisol testing.

The marketing says real cortisol. The fine print says no cortisol. And it is entirely legal to sell, because no gatekeeper in the chain checks whether a wellness number is true.

Junk in, junk out

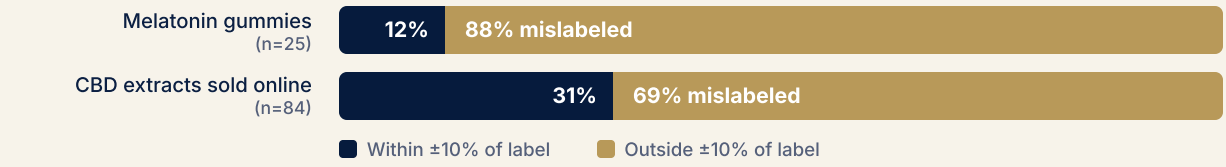
A false number does not stay on the wrist. It flows into apps, artificial intelligence (AI) coaching tools, clinicians' dashboards, employer wellness programs and, increasingly, the population datasets that governments use to plan health spending. Each step treats the number as a measurement because it arrived looking like one. The error does not average out; it compounds. **A guess recorded as a measurement is worse than no data at all**, because it carries false confidence into every decision built on top of it.

04 What We Swallow and Inject

In the United States, dietary supplements reach the market without premarket review of safety or efficacy by the Food and Drug Administration (FDA). The 1994 law that governs them treats them as food. The manufacturer is responsible for what is in the bottle; in practice, the market discovers what is in the bottle after the fact.

When independent researchers tested 25 melatonin gummy products in 2023, only three were within 10% of their labeled dose. The rest ranged from 74% to 347% of what the label stated, and some contained cannabidiol (CBD) the label never mentioned. An earlier study of 84 CBD extracts sold online found only 31% accurately labeled.

What the label says versus what is in the bottle



Sources: Cohen et al., JAMA 2023 (melatonin gummies); Bonn-Miller et al., JAMA 2017 (CBD extracts).

Mislabeling is the mild end. A review of the FDA's own warnings from 2007 to 2016 found 776 products sold as supplements that contained hidden pharmaceutical drugs, implicating 146 companies. Most were sold for sexual enhancement, weight loss or muscle building, and roughly one in five contained more than one undeclared drug. Fewer than half were recalled.

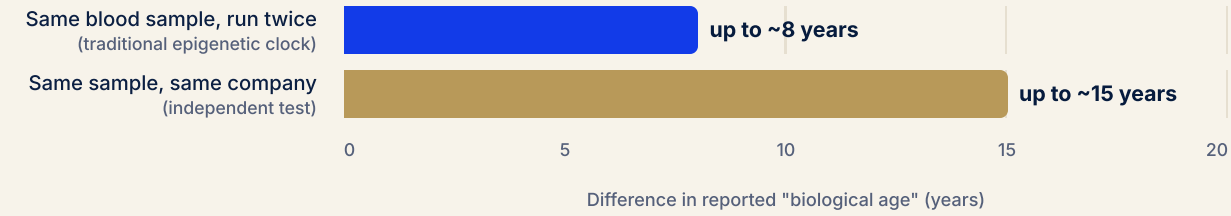
Longevity is the newest and most lucrative label in this aisle. Products promise cellular renewal, mitochondrial youth and "age reversal" on the strength of a mechanism diagram and a blood level. **A higher blood level is not a benefit.** Raising a biomarker is not the same as improving function, and improving function is not the same as living longer. And the market is moving from capsules to injections, where the margin for error is smaller still.

05 The Age You Are Sold

The "biological age" test has become longevity's signature consumer product: send in a sample, receive a number, share how young you really are. The research behind epigenetic clocks is genuinely valuable for studying populations. Applied to one person, sold for a few hundred dollars and bundled with a supplement regimen, it becomes something else.

Researchers have shown that splitting the same blood sample and running it twice on traditional epigenetic clocks can produce results up to eight years apart. One independent test of a single sample sent to the same company produced estimates nearly fifteen years apart, and the gaps between companies were larger still. Different clocks, tissues and algorithms give different answers for the same person.

Same person, same sample, different "biological age"



Sources: Dr. Morgan Levine, FoundMyFitness interview; Lifespan.io, "When Doctors Prescribe Horoscopes" (2025).

A number without an error band is not a measurement. It is a marketing device.

Under the FutureWell Verified Longevity Standard, biological age is never shown as a bare "years younger" figure. It is reported with its band, its named method and its limits, or it is not reported at all.

06 The 2027 Trend Cycle: Ahead of the Evidence Again

Every November the wellness industry publishes its list of what comes next. The 2027 lists are worth reading closely, because for the first time the trend writers themselves are adding the caveats. One widely read forecast of fifteen trends for 2027 describes stem cell therapy and therapeutic plasma exchange as unproven for general longevity, calls many claimed benefits of "frequency" and bioresonance spaces unproven, separates approved prescription peptides from experimental biohacking compounds, and warns women's health programs against simply ordering more tests and selling more supplements.

That is progress, and it is also the problem in one paragraph. **The next wave is already being sold before the evidence exists**, and a caveat in a trend article does not reach the consumer at the point of sale. The industry knows; the label does not say.

2027 TREND	WHAT THE EVIDENCE SUPPORTS	HOW THE STANDARD TREATS IT
Stem cells and plasma exchange	Offered at specialist clinics; general longevity benefit unproven.	Approved, medically indicated uses only, after physician review. No longevity effect claimed unless shown in a compared cohort.
Peptides	Some are approved prescription drugs; many sold online are experimental.	Clinical review required; prescribed by licensed physicians through licensed pharmacies; never sold as a supplement.
Mitochondrial renewal	Exercise is the best-established support; newer clinic therapies are still being explored.	A better blood marker or ATP figure is never accepted as healthspan. Function and outcomes must be shown.
Sleep optimization	Consumer stage tracking is weak and can feed anxiety.	REM and deep-sleep estimates are not primary endpoints. Wearables stay optional.
Frequency and bioresonance spaces	Many proposed benefits unproven.	No health claim without measured evidence for the exact claim.
Wellness real estate	Fast-growing; features such as circadian lighting and filtration are widespread.	Places are scored by measured effect on people, not by the features they install.
Strength training	Muscle is central to metabolic health and to preserving lean mass on GLP-1 (glucagon-like peptide-1) medications.	Strength and body composition are measured against references; one of the few areas where evidence is strong.

Read down the right-hand column and a pattern appears. The Standard is not against any of these ideas. Some, like strength training, have the best evidence in the field. It simply refuses to let a trend skip the step where someone checks whether it works.

07 The Endorsement Economy

The products would not move without the voices that sell them. A 2025 study of 982 Instagram and TikTok posts about medical tests, from influencers with a combined audience of roughly 200 million followers, found that only 6% cited any form of medical evidence, while more than two-thirds of the influencers had a financial interest in what they promoted. Harvard researchers reported in 2024 that the vast majority of sampled TikTok videos on weight-loss, muscle-building and detox supplements offered no scientific support. Fact-checkers have now documented deepfaked doctors selling supplements.

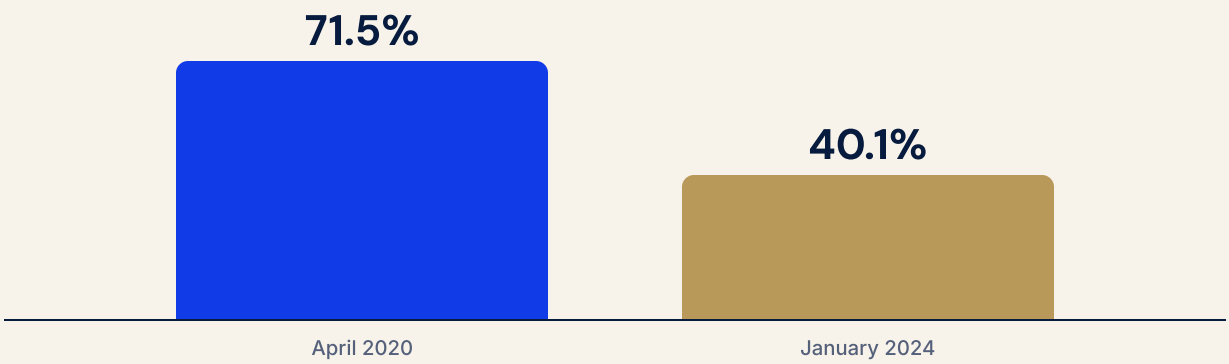
The endorsement economy: 982 health-test posts, ~200 million followers



Source: Nickel et al., JAMA Network Open, 2025.

This is the part of the industry I find hardest to forgive. When a respected name endorses a product for a paycheck without asking whether it works, that is not marketing. **It is an abdication of responsibility**, and it is spending the most valuable asset in medicine: trust. That asset is already depleted. The share of U.S. adults reporting a lot of trust in physicians and hospitals fell from 71.5% in 2020 to 40.1% in 2024.

Trust in physicians and hospitals, United States



Adults reporting "a lot" of trust. Source: Perlis et al., JAMA Network Open 2024 (50-state survey, more than 443,000 adults).

08 Why the Gates Stay Open

None of this is hidden, and most of it is legal. Every gatekeeper in the chain checks something real. None of them checks the science behind a wellness number.

GATEKEEPER	WHAT IT CHECKS	WHAT IT DOES NOT CHECK
Food and Drug Administration (FDA)	Disease and diagnostic claims, manufacturing practice, adulteration after the fact. Its January 2026 General Wellness guidance widened room for wearables marketed for wellness.	Whether a wellness number is accurate, or whether a supplement does what it suggests.
Federal Trade Commission (FTC)	Health claims in advertising must rest on competent and reliable scientific evidence.	Most claims in practice: enforcement is complaint-driven and selective.
App stores and ad platforms	Policy, privacy, payment and ad-format compliance.	Whether the advertised measurement exists.
Influencers and endorsers	Audience reach and engagement.	Evidence, and often their own conflicts of interest.

Every gate checks something. No gate checks the science.

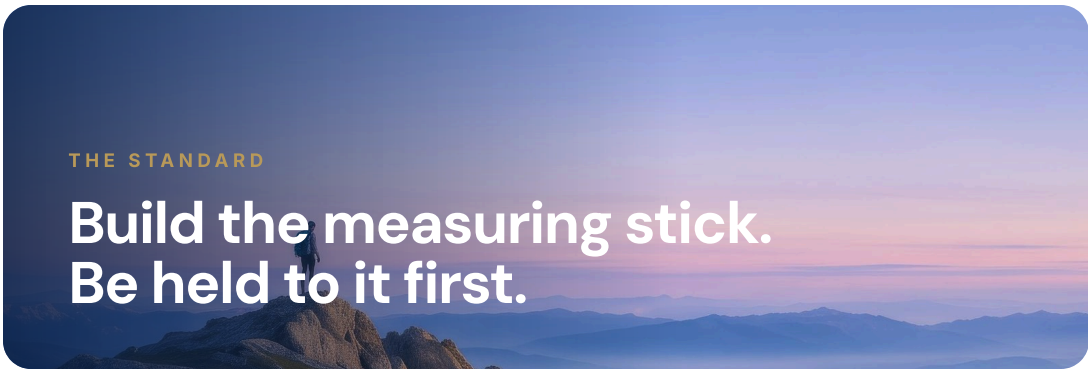
This is not an argument for more government. Regulators move at the speed of rulemaking; the longevity market moves at the speed of a product launch. It is an argument for a standard: one measuring stick, held by people with no stake in the result, that anyone selling a longevity claim can be held against.

09 The Real Cost of Bad Data

Junk in, junk out has a price at every level of the longevity economy.

WHO PAYS	HOW
The individual	Money spent on products that do not work; decisions made on numbers that are not real; doses that are not what the label says; real problems missed behind reassuring scores.
The physician	Patient-supplied data of unknown quality on the dashboard; liability for acting on it; trust spent defending products they never vetted.
The honest company	A validated product competes on the same shelf, at the same volume, against an unvalidated look-alike the consumer cannot tell apart. Rigor becomes a cost, not an advantage.
The sovereign	Longevity is becoming national economic strategy, measured in healthy working years and productivity. A health plan built on unverified data allocates public money to the wrong things, at national scale.

The last row matters most to me. A healthy year of life is worth far more to a nation in productivity than it saves the treasury in medical bills. That makes longevity a GDP question, and it means the quality of the measurement is no longer a scientific nicety. **It is economic infrastructure.**



10 What Responsibility Looks Like

We did not set out to build another longevity brand. We set out to build the measuring stick the industry lacks, and then to build an ecosystem that is held to it first. The structure is deliberate: Neovia at the top as the brand and certifying body, and the FutureWell Verified Longevity Standard underneath everything.

Neovia at the top. The Standard underneath everything.

NEOVIA
The brand and certifying body · exclusive U.S. licensee of the Standard

Advanced Longevity Centers	Corporate Longevity Group	Hospitality Group	WorldHealth.net	Capital Group
physician-led MSO	the workplace	resorts and stays	editorially independent	efficacy research

Protocol data layer · one reporting format: biomarkers, outcomes, air and light, productivity, marketplace

Independent registry and audit · results are verified before they count; no one grades their own outcomes

FutureWell Verified Longevity Standard

Measures	Verifies	Scores	Prices
healthspan per person, cohort and place	outcomes in one protocol, independently audited	a personal health score that travels with the member	Return on Health Invested (ROHI)

The FutureWell Verified Longevity Standard

The Standard is the result of nearly a decade of work. It measures healthspan per person, per cohort and per place; verifies outcomes in one protocol, independently audited; scores progress in a personal health score that travels with the member; and prices the result as Return on Health Invested (ROHI). Its first principle is the one this industry most needs: **the Standard certifies the integrity of evidence and its disclosure, never a favorable health outcome.**

Instruments earn their place. Garbage in, garbage out is prevented by design. A device is never "certified" as a brand. What is certified is one metric, from one device and firmware version, under stated conditions, for a stated population and use. Instruments are graded Verified or Indicative, and only verified measurements count toward outcomes. Calorie estimates are excluded from verified outcomes outright. A proprietary biological-age score is treated as research, not results. A firmware update that changes the algorithm puts the certificate on hold until it is re-verified.

Supplements prove the exact claim. Under the Standard's supplement protocol, three questions are never merged into one badge: Is the product lawful to sell? Is it what the label says, lot by lot? Does the exact claim on the bottle hold up in people? Hard gates come first, and no score can buy back a failure. Each claim receives its own permission, from "identity and purity only" up to a verified named outcome. Failed lots are published, not quietly removed, and negative findings carry the same prominence as positive ones. Words like "anti-aging," "extends lifespan," "clinically proven" and "FDA certified" are prohibited.

No one grades their own homework. Four responsibilities are held by four different parties. FutureWell owns and develops the method but does not test, certify or audit. An independent Foundation certifies, holds the public registry and can revoke. Neovia certifies programs and places but **cannot declare that its own programs produced verified gains.** NEO supplies clinical infrastructure but does not practice medicine. And a party paid on an outcome never computes that outcome.

Sovereign scale. The Standard is built to be adopted by nations, beginning with Abu Dhabi as the first sovereign partner, followed by the Dubai International Financial Centre (DIFC), the Kingdom of Morocco and the wider Gulf region. Each adoption makes the measuring stick more global.

Neovia Advanced Longevity Centers

The clinics are where measurement meets care. Neovia Advanced Longevity Centers operate as a management services organization (MSO): Neovia provides the clinic space, diagnostics, equipment and staff; licensed physicians keep every clinical decision. **The patient never leaves their own doctor's care**, and every result goes back to that doctor. The physician who treats you when you are sick also guides your longevity.

Participating practitioners complete Neovia certification before they practice inside the model. Protocols are pre-approved by the physician for each patient. Every result is reported in the Standard's format, so outcomes can be compared and audited rather than asserted. A center reports protocol adherence and measurement completeness; outcome claims wait for independent verification. The first centers are in development in Las Vegas and Palm Beach.

WorldHealth.net: the voice of the consumer

WorldHealth.net, online since 1991 and now part of our ecosystem, relaunches as the place where the public can finally get a straight answer. It is a media platform first, editorially independent, and a peer-reviewed marketplace second.

- **Physician peer review.** Supplements, nutraceuticals, devices and treatments are reviewed by credentialed physicians, under an ethics committee and governance designed so that **advertiser money cannot buy an opinion.**
- **Doctor-to-doctor forums**, where clinicians compare what actually works in practice.
- **Doctor-to-consumer forums**, where patients and the public report results, good and bad, unfiltered.
- **The verified shelf.** A product carries the Standard's mark only for the exact claim its live certificate names. Listing is not verification, and every listing says so.

Members whose measured health improves earn deeper discounts across the ecosystem: health becomes a currency, and honest measurement is how it is minted.

11 The Guardrails We Hold Ourselves To

A standard is only as credible as the behavior of the people who wrote it. These are the commitments our own ecosystem operates under, and the ones we invite the industry to adopt.

01 **No claim without evidence of the same strength.** A product may say only what its evidence permits, for the population and dose that were tested.

02 **No measurement without a reference.** A number counts only if the instrument that produced it has been checked against a laboratory standard, and it carries its error band.

03 **No referee on the field.** No entity that sells a product or service certifies its own results.

04 **No endorsement without disclosure.** Every financial relationship behind a recommendation is visible to the person receiving it.

05 **Publish the negatives.** Failed lots, failed claims and inconclusive studies are published with the same prominence as successes.

06 **The physician decides.** Technology, trainers and marketplaces inform care; licensed physicians make the clinical decisions.

07 **Outcomes over promises.** We measure healthy years gained, not products sold.

12 More Years. More Life.

I am an optimist about longevity. I believe the next two decades will add healthy years to hundreds of millions of lives, and that nations which measure health as an economic asset will outperform those that only pay for sickness. That future is worth building. It will not be built on gummies that miss their label, watches that invent hormones and influencers paid to forget to ask.

The wellness industry was allowed to become a word that meant nothing. Longevity does not have to follow it. The tools to prevent that exist: laboratory references, independent certification, published registries, physicians in charge of care and consumers with a voice. What has been missing is the will to put them in one place and hold everyone to them, ourselves first.

> **If your product works, you have nothing to fear from a measuring stick.**

To every company, clinic, device maker and voice in this industry: submit your claims to be measured. To every consumer: ask for the evidence, the error band and the conflict. And to every government building a longevity strategy: insist that the data you plan on is data you can defend. **Measure first. Verify independently. Claim only what was shown.** That is the state longevity deserves.

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THE NEXT HORIZON

Measure first.
Verify independently.
Claim only what was shown.

WorldHealth.net relaunches in February 2027 as the global longevity platform connecting people with expert knowledge, informed choices and opportunities to live longer, healthier lives.