

GLOBAL WELLNESS
SUMMIT

GLOBAL WELLNESS TRENDS REPORT

THE FUTURE OF WELLNESS 2020

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2020 GLOBAL WELLNESS TRENDS REPORT

INTRODUCTION

The Global Wellness Summit (GWS) trends forecasting team predicts new directions in health and wellness—a mission it readily undertook over 15 years ago. No other forecast is based on the perspectives of so many experts worldwide, including economists, academics, futurists and the CEOs of international corporations from all related fields within the \$4.5 trillion wellness economy. This unique input makes for a powerfully informed set of global predictions.

The GWS team executes trends using a methodology that encompasses a profound respect for evidence-based science and a keen eye on the most powerful demographic, cultural and socioeconomic shifts that look to define the future. The result: the GWS being the first to predict the rise of wellness trends that have gone on to become explosive, multibillion-dollar markets, including: wellness tourism; wellness architecture and design; wellness lifestyle real estate; CBD and cannabis; sleep; sexual wellness; “dying well”; and more.

Wellness used to be comprised of more discrete, siloed markets (i.e., the fitness or spa industries) but now everything is converging in, and around, wellness, and the concept is remaking whole industries and categories of living—whether fashion or real estate. Look for this to only heat up as the global wellness economy continues to outpace the world’s GDP growth.

Beth McGroarty

*VP, Research & Forecasting
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BETH MCGROARTY
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Beth McGroarty has been the Global Wellness Summit's director of research for eight years and oversees the Summit's annual Global Wellness Trends Report as its lead author. She is also the editor of the Global Wellness Institute's Global Wellness Brief and the author of the **TRENDIUM**, a compendium of trends impacting the multitrillion-dollar global wellness industry. In addition, Beth edits wellnessevidence.com, the first online resource dedicated to the medical evidence for the top wellness approaches. She has a BA from Barnard College and an MA from Stanford University.



SUSIE ELLIS
Chair & CEO, Global Wellness Summit and Global Wellness Institute

Susie Ellis is the Co-Founder, chair and CEO of the Global Wellness Summit, the foremost gathering of international business, academic and government leaders in the \$4.5 trillion global wellness economy. She is also chair and CEO of the nonprofit Global Wellness Institute, considered the industry's leading global research and educational resource. Recognized as a leading authority on wellness trends and initiatives, Susie initiated spa and wellness forecasting over 15 years ago, when she introduced the industry's first trends report. She sits on numerous academic and industry boards and holds an MBA from the University of California, Los Angeles.

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Judy Chapman is the former editor-in-chief of *Spa Asia* magazine and the author of five books. She creates spas, retreats and retail collections for luxury brands around the world. She is the spa, fitness and sustainability curator for The Karma Group and consultant for Oneworld Ayurveda and Menla Mountain Retreat. She is a qualified yoga teacher with a deep respect for Ayurveda and Traditional Chinese Medicine. Some of the places she has lived include Singapore, Australia, Bali, India, the Middle East—and now New York!



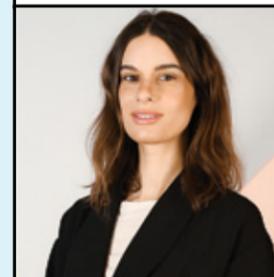
PETER EADON-CLARKE
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Peter Eadon-Clarke is a specialist in J-Wellness, product and technique trends, wellness tourism and the Stress Check Program. Peter has extensive experience managing complex multicultural teams; roles held during the 14 years at Macquarie Capital Securities (Japan) limited included branch manager, global head of economics and Tokyo head of research. Previously, positions included UBS Trust and Banking in Tokyo as chief investment officer, CIO at Sumitomo Life Investment and CIO for the Pacific Basin at GT (now Invesco).



RICHARD PANEK
Author

Richard Panek's most recent book is *The Trouble with Gravity: Solving the Mystery Beneath Our Feet*. He often writes about science for a non-specialist readership, and his books have been translated into 16 languages. He has received a Guggenheim Fellowship, and his book *The Four Percent Universe: Dark Matter, Dark Energy, and the Race to Discover the Rest of Reality* won the American Institute of Physics Communication Award.



RINA RAPHAEL
Journalist

Rina Raphael is a freelance journalist who covers technology, health and wellness. She regularly contributes to publications such as the *New York Times*, *L.A. Times* and *Fast Company* magazine. Her industry newsletter *Well To Do* examines the latest in health and wellness.



FOCUS SHIFTS FROM SLEEP TO

True Circadian Health

By Beth McGroarty

Any solution claiming to reset circadian rhythms must have the TIMING of light at its center. This will become a central pillar of wellness: from circadian lighting to circadian diets to apps that use timed light doses to crush jet lag.

A \$432 BILLION SLEEP MARKET AND WE'RE STILL NOT SLEEPING

We're at the strangest place culturally when it comes to sleep. We've never been so obsessed: We buy smartwatches and Oura rings to track our sleep quality relentlessly every night; we pony up for the latest, greatest, smartest mattress; we gobble sleep tonics, CBD (and yes, Ambien and Xanax) and "sleep ice cream"; we pay to crawl into nap pods; and we travel far just

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to bed down at sleep retreats. The wellness world and Silicon Valley have unleashed every device and solution seemingly imaginable, from sleep robots that cuddle us and control our breathing¹ to pricey sleep supplement subscription plans. We have made complex sleep shrines of our (now often desexualized) bedrooms, banishing our partners through “sleep divorces.” This has created an entire “sleep economy” set to reach \$585 billion by 2024.²

Sleep has suddenly become such an over-the-top wellness trend that the media has begun mocking our agonizing over it, noting the rise of orthosomnia,³ a condition where anxiety over sleep tracking causes sleep problems. When, in human history, have we ached so much for sleep and unconsciousness? Why, with an avalanche of sleep solutions and a newly sleep-obsessed culture, do we remain in a sleepless epidemic, with around one in three of us sleeping badly and one in 10 having regular insomnia?

The reason is that most of these generic sleep solutions, and our modern lives, defy the basic facts of circadian biology. Humans evolved to be highly sensitive to the 24-hour solar cycle and super-regular exposure to natural light and dark. Nearly all organisms, including humans, have internal daily clocks (circadian rhythms) that control almost every biological system in our bodies, from our sleep-wake cycles and mood and performance patterns to our metabolic, immune and reproductive systems. The bedrock of circadian science is that exposure to regular light-dark cycles provides the daily “time cues” needed to reset our circadian clocks every single day, and not only determines how well we sleep but our very cellular health. We need the sun’s bright blue light in the day to be alert and active, and we need dark to kick-start our brain’s sleep mode and recovery.

Humans today, however, have never been exposed to so much disruption to their circadian rhythms, such as the glaring disconnect between natural solar time and our social “clocks.” We’re taking in light and dark in historically whacked-out, unnatural ways. We blast our eyes after dusk with blue-enriched light from ever-brighter, addictive screens, tricking our brains into thinking it’s still daytime: Netflix binging, checking social media until we pass out. Work increasingly doesn’t conform to solar time. While 20 percent of people are night-shift workers, reversing their day-night behavior, gig work is also soaring: Fifty percent of the world’s workforce works remotely at least half the week,⁴ part of the creeping “always-on” work culture that encourages us to further disconnect from natural cycles. We have a shrinking global world: more airline travel so more circadian disruptions such as jet lag and global conference calls at all hours of the night. Ours is a 24/7 culture (from gyms to supermarkets); light pollution increasingly floods our skies at night; and we’re tied to desks, deprived of natural sunlight in the day. Never before have human environments been such a “lightmare.”⁵

As Dr. Steven Lockley, associate professor of medicine at Harvard and one of the world’s top experts on circadian rhythms and sleep, puts it: “The absolute key to healthy sleep and circadian rhythms is stable, regularly-timed daily light and dark exposure—our natural daily time cues. Sleep negates light input to the brain, and so keeping a regular sleep pattern will also help maintain regular

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Mickey Beyer-Clausen, GWS 2019

INSPIRATION FROM THE 2019 GLOBAL WELLNESS SUMMIT

Fighting Jet Lag Actually Is Rocket Science, Mickey Beyer-Clausen, Co-Founder & CEO, Timeshifter Inc., US

light-dark exposure. After dusk, when natural light disappears, we must minimize the negative impact of man-made light. In the day, we have evolved to be in the light, ideally sunlight, but if not, high-quality blue-enriched indoor light. Period. Given that most of our body systems express circadian rhythms, ensuring proper alignment of our internal circadian clocks, starting with the management of lighting, will have major impacts on human health.”

While we’ve been obsessed with sleep, and trying to get more of it with smart pillows and tonics, it’s the timing of sleep that is absolutely key to getting high-quality, restorative sleep. This means sleeping at the right circadian time, and the only solutions that can actually reset circadian rhythms have LIGHT at the center of them.

So, we predict a major shift in wellness: less focus on all the generic sleep solutions and a keen new focus on circadian health optimization for not only sleep but for all the brain and body systems that are controlled by the circadian clock. It means that the TIMING of biology will become something we need to measure and manage, and light will be a central part of any solution.

This trend—from a “sleep” to a “circadian rhythm optimization focus”—takes various forms:

- More people will finally bring circadian rhythm-supporting lighting (and behaviors) into their homes, with an explosion of tunable, biodynamic lighting solutions that sync light with the time of day.
- New technologies such as the Timeshifter app offer personalized jet lag plans with timed light exposure advice as the foundation to help travelers eliminate jet lag, and could have important applications for “timeshifting” shift workers to new work schedules, or even preparing patients for surgeries and treatments to improve efficacy.
- More hotels, wellness resorts and airlines will think beyond generic sleep offerings to offer true circadian solutions for travelers based on their circadian cycle, revolving around the timing of light.
- While intermittent fasting is all the rage, people don’t realize that this is also usually a circadian-based solution: It’s natural for diurnal animals such as humans to eat during daylight when we evolved to digest food. More people will adopt the terminology and practice of “circadian eating”: eating when it’s light, stopping after dark.

Dr. Lockley predicts: “Circadian health optimization—incorporating the type and timing of light—will become more important than ‘sleep’ in health and wellness within the next few years. Medical and technological solutions that will help us realign our internal circadian clocks with each other, and our internal clocks with the outside world, will surge.”

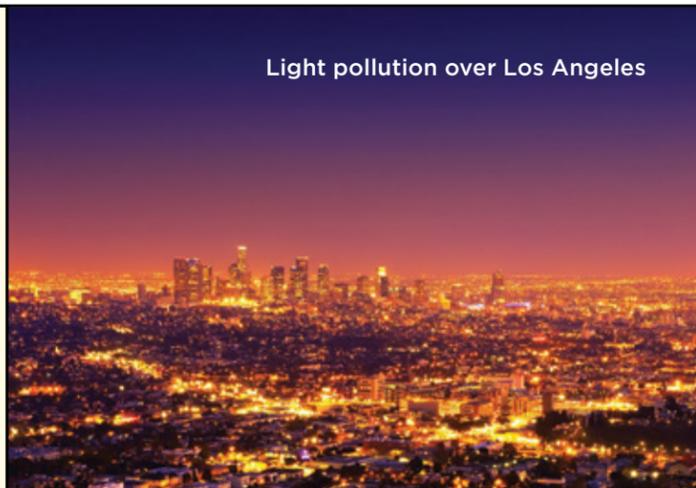
Mickey Beyer-Clausen’s keynote at the Global Wellness Summit (GWS), on how timing light exposure can eliminate jet lag, inspired this wider trend.

CIRCADIAN BIOLOGY

Key Facts

The circadian clock in sophisticated life forms (such as mammals) is one extraordinary system. The body’s master clock-controller lives in nerve cells in the brain’s hypothalamus called the suprachiasmatic nucleus, and it’s tuned to the day-night signal by light coming through the eyes and optic nerve. This timekeeping overlord in the brain then orchestrates a network of peripheral clocks that exist in nearly every organ throughout the body (yes, your liver and ovaries have their own clocks), turning on and off a host of clock genes and a wave of timekeeping proteins that rise and fall in a curve in nearly every cell in your body every 24 hours—just like the sun. It’s a magnificent, light-timed cellular choreography that runs on a tight daily cycle and controls almost every body function.

In 2017, a group of researchers won the Nobel Prize in Medicine⁶ for discovering how clock genes control our daily rhythms. One of the many circadian genes is the period gene that makes a protein called PER that,



Light pollution over Los Angeles

in concert with other proteins, builds up at night and degrades during the day in a continuous feedback loop. This controls not just when we sleep but also our heart rate and blood pressure, the immune system, metabolism, body temperature, hormones and even mood. This breakthrough research showed how fundamental the circadian system is in synchronizing our daily biorhythms with the 24-hour rotation of the planet—and how we’re ruled by an inner clock that adapts our body processes to different times of the day with exquisite precision. These clocks are in our DNA.

Disruptions to our circadian rhythms, from those ever-increasing mismatches between our internal clock and lifestyle, when we override our natural cycles, have significant health consequences, including a higher risk of obesity, diabetes, some cancers, heart disease, depression, gut disorders, allergies, infections, premature aging—and early death. There have been more than 650 studies connecting light to health.

Research also increasingly shows⁷ how people are chronobiologically hardwired with genes that make us night owls or early birds—called our chronotype. Early risers’ daily peak performance occurs early during the day, while natural night owls’

occurs later. Researchers estimate about 40 percent of people are morning or evening types, and 60 percent are in-between. Our chronotype impacts circadian cycles: Early birds have a faster internal clock, for example, as short as a 23.5-hour cycle, whereas night owls have a slower clock, taking up to 25 hours to complete one cycle. These internal clocks need to be reset, just like a watch, exactly 24 hours each and every day, and the light-dark cycle is the synchronizer.

CIRCADIAN & SLEEP MISCONCEPTIONS

Dr. Lockley points out some key misconceptions and misusages of the word/concept “circadian” that can plague sleep and wellness markets—in an era where frustrating “circadian washing” is on the rise.

“Sleep” is not the same as circadian rhythms: Sleep is an output of the circadian clock in combination with another control system, the sleep homeostat, which measures how long we have been awake or asleep. Many other things affect sleep, so measuring sleep is not the same as measuring the clock, and the differences can be enormous. Circadian rhythms are much wider and more complex than sleep, as they impact and orchestrate all of our organs, our brain, and cellular activity.

“New technologies like the Timeshifter app, which revolves around precisely timed light/dark ‘doses,’ will kill jet lag, and could have important applications for ‘timeshifting’ shift workers...”

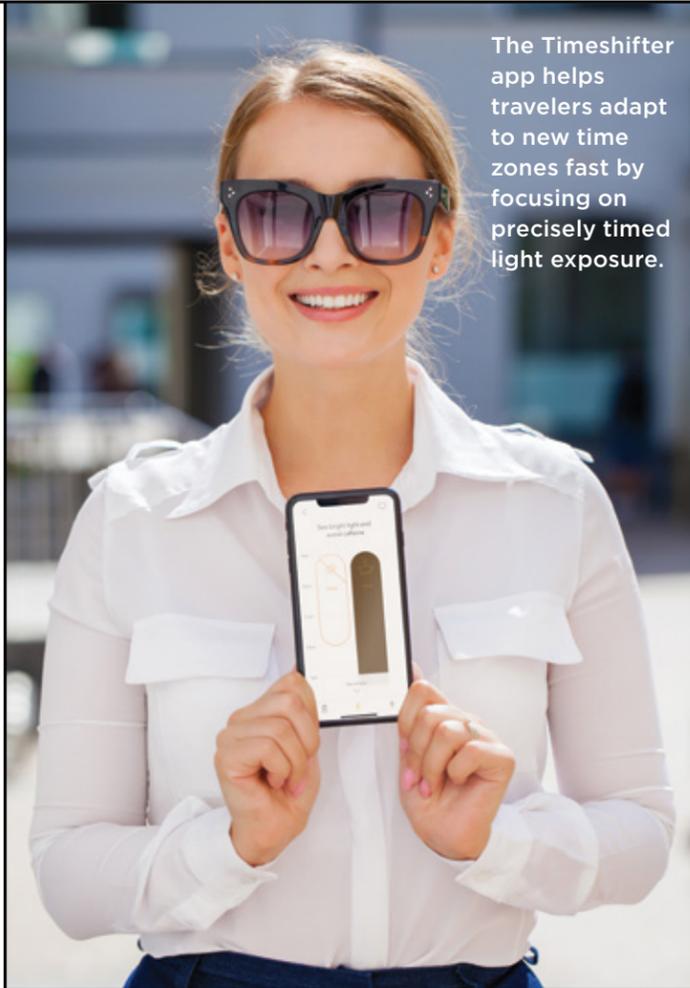
The circadian clock anticipates environmental time—it does not reflect it or have anything to do with the “social” time of day. The clock anticipates the timed physiology that will happen tomorrow, when we wake/sleep, eat, etc., to ensure that we do these things at the right time. To be a real circadian rhythm, it must be generated from within.

Just because something is rhythmic, it’s not necessarily circadian: Rhythms that are not generated from within are, by definition, not circadian rhythms. They may have a rhythm peaking in the day (diurnal) or night (nocturnal) but may be generated by an external influence such as physical activity, eating or sleeping. Growth hormone (GH) is a good example. GH is not a circadian rhythm but is a sleep-dependent one: It’s only released during deep sleep, which usually happens at night, and while it,

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The Timeshifter app helps travelers adapt to new time zones fast by focusing on precisely timed light exposure.

CIRCADIAN TRAVEL

Jet Lag Solved...And Shift from Generic Sleep Solutions in Travel to Those Personalized to Travelers' Circadian Realities

The travel industry—hotels, wellness resorts and airlines—have recently gone all-in on sleep. We have the hotel mattress wars, a profusion of sleep-focused wellness retreats, and sleep scientists designing entire resort sleep programs. Destinations are throwing every kind of amenity and program at their guests' exhaustion: elaborate pillow menus; sleep aromatherapy and massages; guided meditation; oxygen therapy; cryotherapy; special sleep workouts; and minibars and menus filled with sleep tonics, CBD and "sleep bites." Travel companies are increasingly using "circadian" language around this avalanche of sleep products/services, claiming they "reset circadian rhythms," with the media even predicting "circadian travel"⁸ as a 2020 travel trend because of the rise of sleep-focused travel *everything*.

The problem is these generic sleep solutions, and this huge travel industry focus on sleep and fatigue, while supportive of general wellbeing, are not "circadian." They have no impact on our circadian rhythms and are helpless in fighting what ails so many travelers: jet lag.

Jet lag is caused when our 24-hour sleep/wake, light/dark cycle shifts too suddenly

(as we hurtle across time zones) for our circadian rhythms to catch up. It's a massive travel problem, with huge costs to human health and happiness: In 2018, 448 million passengers traveled on long-haul flights. When asked, 93 percent of them said they struggled with jet lag.⁹ Everyone knows the disastrous impact on our mood, sleep and digestion, with frequent travelers suffering the same increase in diseases that shift workers experience: more strokes, diabetes and cancers. The old way people dealt with jet lag was entirely wrong: sleep as much as you can on the flight, take meds such as Ambien (which don't shift circadian rhythms), trust in the airplane's Dreamliner lighting systems, maybe have that on-arrival jet lag massage. Jet lag is so debilitating that we arrive a day early to catch up and opt for business class and five-star hotels in desperation.

The timing of light exposure—not sleep, exercise, food or caffeine—is key to eliminating jet lag and can be the difference between a successful trip or a miserable one. The right light exposure at the right time can significantly accelerate travelers' adaptation to new time zones. Seeing light at the wrong time makes jet lag much worse. Finally, the jet lag nightmare is over thanks to Timeshifter, which helps travelers adapt to new time zones fast by focusing on precisely timed light exposure. It's an app that was literally developed with rocket scientists, as well as with Dr. Lockley, who has worked for more than a decade applying circadian science to NASA astronauts to alleviate their profound jet lag and improve sleep and alertness.

Timeshifter is blissfully simple: You input your sleep pattern (whether you're an early bird, night owl or neither), whether you're open to using a melatonin supplement and/or caffeine and your itinerary. And presto,

you get a crystal-clear schedule of when you need to prioritize bright light and when you need to avoid light, when you should take (small amounts of) melatonin and caffeine and when you should sleep/nap and for how long. It works like magic. It's easy to control exposure to light (by donning sunglasses in the airport), or see as much light as possible during a flight (watching a movie on a brightly lit screen is enough) when everyone else is trying to sleep. Beyer-Clausen notes that while you may get funny looks from people now, in a couple of years, we will see travelers everywhere in the midst of all kinds of "timeshifting."

Other research centers are developing technology to tackle jet lag: Rensselaer Polytechnic Institute just announced¹⁰ it has developed a wearable device that analyzes a person's biometric info and can then recommend the right sleep and light schedule to re-optimize circadian rhythms. The clinical gold standard in measuring a person's circadian rhythm state is blood or saliva tests identifying melatonin and cortisol levels, hardly an instant reading. But the researchers used algorithms that process data such as heart rate and body temperature, collected by the wearable, to convert to a circadian rhythm measurement. They say their bio-sensing tech that can tell you where you are in the circadian phase works in-line with clinical hormone measurements, and it would be a whole new approach to jet lag. (It's being funded by the US Department of Defense.)

Timeshifter is both a shining example and a metaphor for a new trend in travel: more hotels, wellness resorts and airlines expanding beyond generic sleep offerings to offer true circadian, light-centric solutions for individual travelers based on their circadian cycles.

therefore, looks circadian, it isn't, as the rhythm would go away without sleep occurring and is therefore not internally generated.

As an anticipator, the biological clock thrives on stability: stable, day-in-and-day-out light and dark cues; regular sleep-wake times; regular lifestyles (exercise, eating).

Light governs human circadian biology: circadian rhythms cannot be meaningfully reset by exercise, stress-reduction, yoga, massage, food, sound baths, etc.

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Because Timeshifter is the first app to combine rigorous scientific research with an intuitive interface, it makes it a go-to solution for airlines, hotels and resorts; travel agencies; and businesses with traveling employees looking to tackle jet lag. So far, they've announced partnerships with wellness travel leader Six Senses Hotels Resorts Spas, United Airlines, Montblanc, CWT (formerly Carlson Wagonlit Travel) and have signed up several Fortune 500 clients.

We will see more circadian "light moves" at destinations. Germany's Lanserhof Tegernsee has launched a new sleep program that has a medical analysis called Chronotherapie, which works on the sleep-wake rhythm; light therapy and blue-light filter glasses for guests at night; high-tech FreshBeds and smart sleepwear that optimize sleep temperature; and a kill-switch in rooms that shuts off all Wi-Fi, light and electrosmog. New York City's new Equinox Hotel is all about sleep and has sleep coaches who analyze a guest's circadian rhythm state. IHG is piloting circadian lighting in rooms from Healthe by Lighting Science (more below), using its GoodDay and GoodNight spectrum light technologies. Note: For the time zone-jumping traveler, these would need to be paired with an app such as Timeshifter to personalize the right light at the right time.

At the GWS, Beyer-Clausen predicted some ways that the travel industry will fight jet lag. He expects that flight-booking sites will add a new "less jet lag" filter in addition to the existing "cheapest" and "fastest" flight searches. In-flight entertainment systems will tell us when to nap, see and avoid light and eat, based on travelers' itineraries. Personalized jet lag-adapted circadian light will rise in airplane seats and in hotel rooms. Airport lounges will have jet lag-reduction areas with light/dark zones/therapy. We

would add that hotels and wellness resorts that partnered with a Timeshifter-ish app could precisely customize lighting in rooms and food schedules for their time zone-crossing guests.

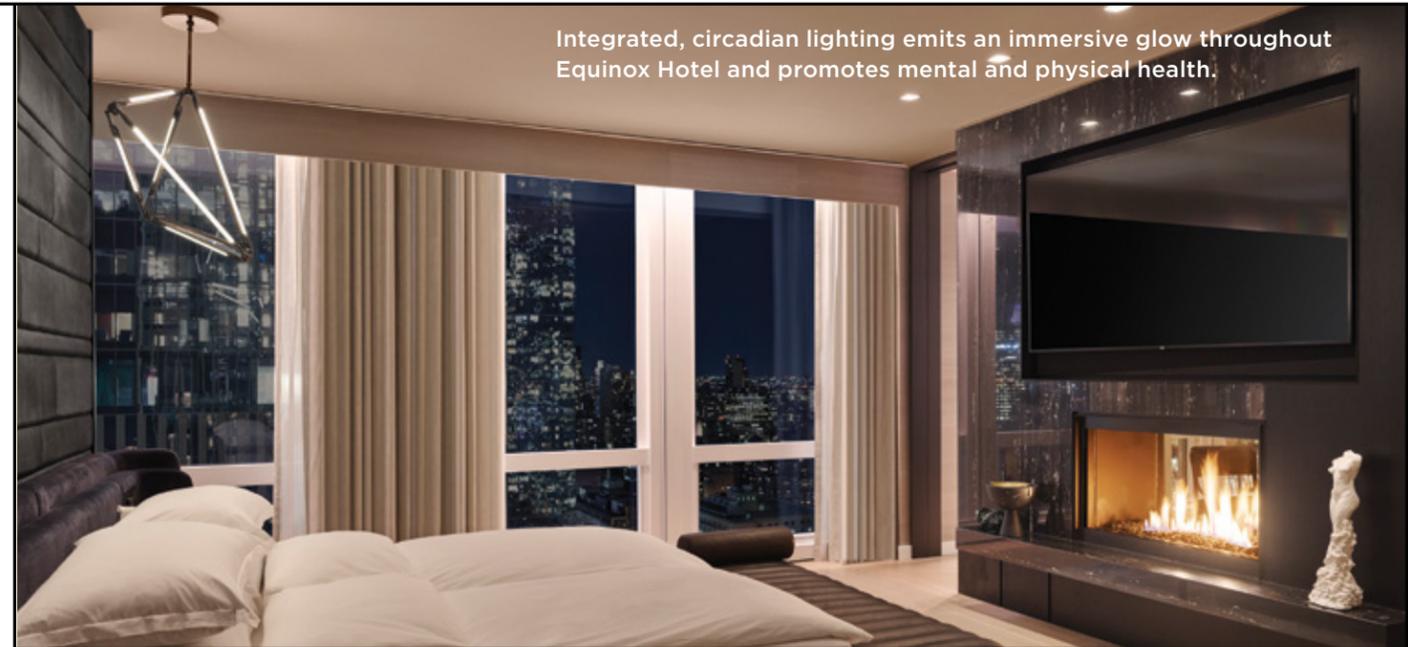
We don't expect the hotel pillow wars or sleep massages to disappear, and they're relaxing and wonderful to have. But we expect that circadian science will inform travel experiences in crucial new ways. There will be new clarity about how some of the things now being done in the name of "sleep health" actually make things worse for travelers, for example, exercise or acupuncture at the wrong time, and new clarity about what actually synchronizes circadian clocks: LIGHT and DARK. (Again, not special "sleep" foods, workouts or massages.)

When you think about it, some of the biggest current travel trends seem to be travelers unconsciously seeking circadian health and getting back to their natural rhythms. Slow travel (walking tours, train travel, etc.) is sustainability focused but also rejects the circadian disruptions of changing time zones fast. The camping/glamping mania, which means rising with the sun and winding down at dark, is a powerful circadian re-calibrator.

CIRCADIAN LIGHTING

Get Your Home Light Right...Finally

Most of us have read about circadian lighting for years: the new lighting technologies that are tunable, biodynamic and sync with the time of day. You would think with all the talk that most of us would have it. We think 2020 will be the year that the light bulb goes off: More people will finally bring circadian lighting and behaviors



Integrated, circadian lighting emits an immersive glow throughout Equinox Hotel and promotes mental and physical health.

into their homes. Some of the change will be no-tech: adopting regimes where you disconnect from devices/TV and dim lights well before bed—banishing iPads/phones from the room. We will naturally learn over time that sleep means avoiding light—and the time to disconnect from our devices well before sleep is NOW.

More people will make a simple switch in their home lighting: using bright, short wavelength, blue-light bulbs in the day and switching to dimmer, warmer, longer wavelength bulbs with red, yellow and orange color spectrums (think: campfire) at dusk—which boosts melatonin. And more people will go highest-tech: with app-, Bluetooth- and Wi-Fi-controlled LED tunable lights in their homes that automatically adjust day and night light color temperature and brightness levels.

Circadian lighting was a \$400 million market in 2017, expected to jump to \$4 billion by 2024,¹¹ because we now have the technology, and more people will use it. People spend so much on their wellness; they need to spend a few more bucks on their bulbs.

There's an explosion of circadian lighting solutions hitting the market. Healthe, developed with NASA scientists, has a wireless control device that uses GPS to track the positions of its "SunTrac" lightbulbs with the aim of simulating the natural arc of the sun throughout the day, transitioning from daytime blue light for productivity to mimicking light that promotes the brain's natural response to sunset. The straightforward Soraa Healthy Lightbulb emits dimmable "Zero Blue" light. Dyson's new Lightcycle lights adapt brightness and color based on time of day, owner's routine and even age. Savant just launched an app-based home lighting system that is all about flexibility: You can set different light schedules for different rooms (i.e., you need a brighter kitchen, and

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Thoughtful design elements that support sleep and natural light cycles abound in wellness real estate developer Troon Pacific's "ultra-performance homes." Photo credit: Jacob Elliot.

the kids are on a different schedule)—or just press the button, and it switches rooms to the natural setting, based on astronomical time and your location.

Sleep masks that bring customized light therapy right to your face, serving up dimmer, red light at night when you're trying to fall asleep and blue light to wake you up, such as Sound Oasis or Illumi, are taking off—with Dreamlight's model also letting you set the mask's temperature. Blue light-blocking glasses are going mainstream: Warby Parker just launched its own line.

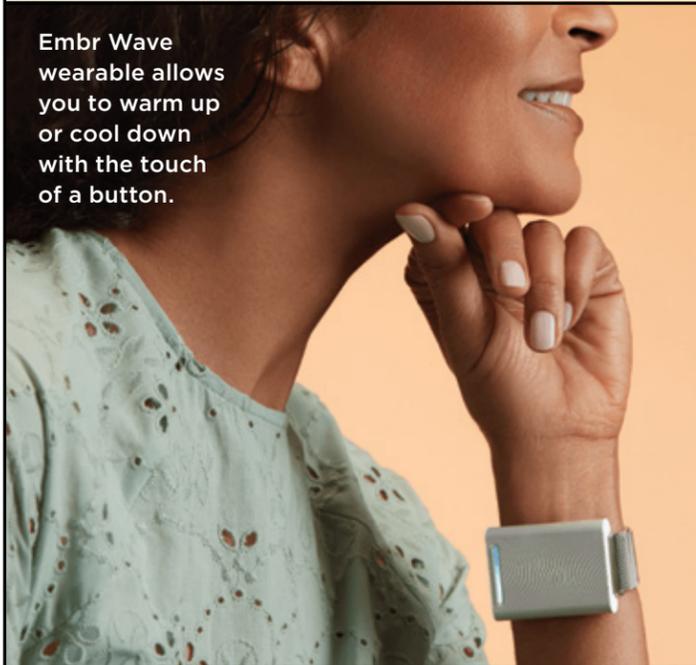
In the wellness home/real estate wars, "lux" (the measurement unit for light) is the new luxe, with circadian lighting (and every possible sleep design solution imaginable) becoming a key selling point. Delos' new "home wellness intelligence system" Darwin features a circadian lighting system that lights up the home with cool tones in the morning and warm ones in the evening—and it's completely automatic. San Francisco-based Troon Pacific's "ultra-performance homes"¹² deploy every design weapon imaginable to support sleep and natural light cycles: from automated motorized shades to advanced day-to-night lighting systems and even no light-reflecting, shiny surfaces anywhere.

In this newly enlightened age, neuroscientists, doctors and architects are all working hard on nailing the science of circadian rhythm-supporting light: what intensity and color, at what time and for how long. And for whom, because circadian systems differ from person to person: by age, where you live, etc. For instance, when kids hit puberty, they have their circadian and sleep cycles pushed about two hours later than a typical adult, and while human evolution began near the equator, where daylight hours are consistent, most of us live with ever-shortening and lengthening days, becoming more extreme as we head up or down toward the poles.

There are debates among scientists, and certainly among lighting companies (seeking market differentiators), about what the right light at the right time truly is. Scientists will argue that we focus so much on over-lighting our eyes (hence brains) at night that we forget how critical the issue of our under-lit, desk-bound day

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lives are for our circadian health—and that any great lighting design needs to tackle both. Many of the new lighting systems aim to replicate natural light as it would subtly shift throughout the day. While this is unlikely to do any harm, Dr. Lockley argues that these subtle changes are not needed and not detected by the brain for control of circadian rhythms and alertness. We need bright blue-enriched days and dark nights, with as dim and red-enriched light as possible from dusk to bedtime. He argues nuanced "dawn to dusk" lighting changes throughout the day are unnecessary. And with the rise of all these light therapies and masks, we need to remember that blasting sunlight-simulating light when we're exhausted to perk up or red "sleep" light when we're desperate for shut-eye, if not timed correctly, could further whack out an already whacked out circadian system. Circadian rhythms, we cannot repeat enough, are internal systems, not external quick fixes like a pill. They thrive with regular light-dark cycles, day after day after day.



Embr Wave wearable allows you to warm up or cool down with the touch of a button.

THERMAL WELLNESS

Not a Circadian Agent, But a Supporter

We all know we should sleep in cool environments, and new solutions to aid us are rising. A key aspect of human circadian rhythms is that after dark, our bodies undergo changes to help transition us into sleep. One big change is that brain and body temperatures drop, and warm bedrooms counteract this. As a recent article in the *Atlantic*¹³ explains, temperature plays a critical role in supporting sleep: We need to be able to lose heat to sleep and being too hot or too cold interferes with this process. Studies show¹⁴ that people with sleep disorders sleep longer—and are more alert in the morning—in 61°F rather than 75°F rooms, and people who sleep in hot environments¹⁵ have elevated stress hormones in the morning. Medical experts agree we should sleep in environments somewhere between 60–67°F.

Climate change makes for more hot nights, air conditioning your bedroom to 60°F can waste energy and regulating your temperature can be difficult to do. New smart mattresses/pads are here to help: For instance, with the Ooler mattress pad, filled with tubes that bring heated or cooled water to the surface, you can set your bed to that optimal temperature, or you can use the app to schedule temperature changes over the night—a cool bed for sleep and a warmer bed to wake up to. Eight Sleep, a new "sleep fitness company," offers a smart mattress that dynamically warms or cools your bed based on your body temperature, while Sleep Number just unveiled its "Climate 360" smart bed, which analyzes the body's sleep cycles and automatically adjusts the bed's temperature.

“Thermal wellness” solutions, all based on impacting body temperature for greater wellbeing, is a rising wellness trend in general. For instance, Embr Wave is a watch-like device that sits on your wrist, a sensitive area packed with thermoreceptors, and with a press of the button, it changes how hot or cold you feel (not your actual body temperature)—and it features a thermo-sleep mode. Sleep temperature technology, from apps to smart mattresses, will continue to rise. But while temperature has a daily rhythm, it’s only circadian when generated internally. As Dr. Lockley notes: “The sidewalk does not have an internal clock but will show a strong 24-hour rhythm in temperature. Obviously, the sidewalk heats up and cools down based on external factors, not, as in humans, due to an internal clock. External temperature therapies do not shift circadian rhythms, but they can support our body’s sleep mode directly.”

THE CIRCADIAN DIET

“Light” Eating

For decades, diets have been all about what we eat (we’ve scurried from the Mediterranean to the keto diet, etc.)—but the science is mounting fast that when we eat has profound metabolic and weight loss consequences. This new evidence is reflected in the rise of intermittent fasting (Google’s most-searched diet of 2019), which typically restricts eating and drinking to an eight-10-hour window a day.

A host of studies now indicate that alternating between periods of daily eating and fasting has eye-opening effects, with researchers hypothesizing that it conforms to the age-old way that humans ate: We experienced periods of food scarcity leading to “metabolic switching.” The evidence for intermittent fasting seems powerful.

A recent Johns Hopkins meta-review of studies¹⁶ found that it lowers blood pressure, lipid levels and heart rate. A new Salk Institute study¹⁷ shows the implications for the diabetes and obesity epidemic: People with metabolic syndrome who limited food/beverage consumption to a 10-hour window for three months saw big improvements in body composition and cholesterol levels. Research from the University of Texas Southwestern Medical Center found that mice that ate a normal amount of calories—but in restricted hours—lived 15 percent longer; if that applies to humans, that would mean increasing longevity from 80 to 92. Intermittent fasting’s association with everything from weight loss to forestalling diabetes is putting chrono-nutrition (timed food intake) front-and-center in wellness.

But is it the “intermittency” of eating or the fact that the fasting is circadian-synced that is the lynchpin? Because light and dark are the twin gods of our circadian clocks, and humans evolved to digest food in the day—what’s the metabolic (and sleep) impact of eating after dark, which jolts the brain into thinking that it’s daytime? How does matching the timing of eating with our circadian rhythms (with light and dark) impact health? More studies suggest that we should be embracing—and adopting the terminology of—a CIRCADIAN diet.

While intermittent fasting can have people taking their first bite (an important cue that impacts other clocks in our organs) way after the light of morning (say, 1–2 p.m.), a body of evidence shows that calories are metabolized better in the morning

than evening: Researchers from Harvard University and the University of Murcia, Spain, found that early eaters¹⁸ lose 25 percent more weight (and faster) than late eaters. Hebrew University studies show that synchronizing mealtimes with our circadian rhythms leads to significantly more weight loss and reduced insulin resistance than if you ate the same food (of any kind) without a schedule, concluding that a larger breakfast, a medium-sized lunch and small dinner drive optimal results.

The way that the timing of our eating communicates timing info to all the cells in our body is an extremely complex science. A 2019 study¹⁹ showed how insulin resets circadian clocks by increasing the synthesis of period proteins (controlled by the “clock genes”) and how the exposure to light (and its cortisol production) needs to precede the insulin/feeding timing to get the highest amplitude in clock gene rhythm—or optimal circadian rhythms. And scientists are discovering how the circadian clock directly affects the microbiome (our gut has its own circadian clock): Washington University researchers just discovered²⁰ an immune cell that sets the clock for the gut, suggesting why circadian rhythm disruptions (those late nights, shift work) are linked to gastrointestinal problems and everything from obesity to colon cancer.

We’re seeing the research on intermittent fasting roll in, but we will see more studies evaluating whether all intermittent fasting is indeed created equal. We need more studies on the impact of timing meals to the light-dark cycle (circadian-synced eating and fasting), and how that impacts insulin levels and fat-burning hormones.

We predict more people will experiment with timing their eating and intermittent fasting differently: eating when it’s light,



Syncing up mealtimes with circadian rhythms may lead to significantly more weight loss and other health advantages.

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stopping when it's dark. The potential of "clock nutrition" on weight loss and metabolic health—and research unriddling the complex interplay of light, our circadian clocks and our microbiota—is an exciting development and just revving up.

THE FUTURE

So much research is underway in the emerging field of circadian medicine. Scientists are developing molecules that target proteins that could repair and supercharge our cells' clock functions, with a new class of circadian drugs that could chemically reset our circadian systems and prevent some of the worst diseases: obesity, diabetes, Alzheimer's—and even slow aging way down. See the excellent overview in *Wired*²¹ of how the new circadian medicines on the horizon could save lives.

Apps such as Timeshifter, which use timed light exposure to help travelers eliminate jet lag, could certainly be extended to help shift workers, who suffer circadian disruptions every time their work schedule changes, as well as help patients get better outcomes from surgery and treatments. Timeshifter describes itself as a "platform for circadian shifting that will solve large, previously unsolved circadian-based problems"—and looks to extend its commercial applications.

As Dr. Lockley notes, a future development that will revolutionize medicine and wellness is the ability to measure people's unique, precise circadian clock state in real-time, maybe even from a single blood, urine, saliva or breath sample at the doctor's office or at home. A single sample will be able to measure dozens (or even hundreds) of biomarkers at once to pinpoint exactly what our internal circadian time is. The possibility of a circadian "fingerprint" measurement

has huge implications for the timing of medicine because when you take different medicines, have surgery or chemo, and what lab tests reveal, depend intensely on where you're at in your circadian clock. University of Pennsylvania researchers are experimenting with pulling data from wearables, phone apps and bio samples to nail each person's chronobiome fast. Given the skyrocketing circadian science research, wearable-driven apps that could tell us exactly when to take in light and dark, when to sleep and rise, when to eat and exercise, and when we're at peak and lowest performance, look to be ahead. Humans are horrible at managing time, light and life: They would be a breakthrough.

Highest-tech circadian solutions are ahead, but this trend is also about changing basic human behavior and the many human clock-destroying social and cultural institutions. Consider the new timekeeping app²² Circa Solar; it has no 12-hour dial or hour or minute hands but instead displays a full day showing the local hours of light and darkness and where you're situated in light and dark. It might get you fired for missing meetings, but it's a fascinating thought-experiment in re-aligning time to conform to nature.

We need to re-think time, light and human life in deep ways. We need to make hard behavior changes and stop lighting up our nights with screens and get out in the natural light of the sun. We need to adapt work and school schedules respecting solar time, seasons and age chronotypes. We need to address the lightmare of hospitals

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where people are supposed to heal; daylight savings; our 24/7 and late-night restaurant and gym culture; the light pollution exploding in our increasingly urban world; and how we light our homes.

Not only if we want to sleep...but because circadian rhythms rule our physical and mental health. We expect some circadian market mayhem ahead (some bright and dim ideas)—but the right timing of light and biology will move closer to the heart of wellness. *Finally.*

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Agging Rebranded: **POSITIVELY COOL**

By Rina Raphael

They're active, vibrant, more engaged than ever (and 60+!). It's a powerful demographic with major marketing potential—and industries across all platforms are noticing.

The 60+ generation is aging radically different than previous generations. Today's retirees start businesses, run marathons and travel widely. With increased longevity and substantial wealth, they put a premium on health, wellness and nutrition. And yet this powerful demographic attracts only 10 percent of marketing budgets and less than one percent of global innovation. That's changing, as multiple industries target seniors with product design, experiences and campaigns that speak to their strengths and sensibility.

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Perceptions have changed since the "I've fallen, and I can't get up!" commercials of the late 1980s. No longer are baby boomers treated like feeble victims by way of fear-based messaging (or worse, simply

ignored). Numerous legacy brands and start-ups realize this is an active, vivacious and connected group deserving of the same empowering, aspirational attention lauded on younger consumers.

It certainly makes financial sense: In countries such as the US and Japan, boomers control the highest percentage of disposable income. The “silver economy” has brands racing to appeal to older demographics—as well as the ones to come. The World Health Organization (WHO) predicts the 60+ population will nearly double by 2050 from 12 percent to 22 percent.

“Four years ago, nobody would take our call. They fled from us,” recalls David Harry Stewart, CEO and founder of Ageist, a Los Angeles-based media company and consulting firm specializing in older markets. “[Our age group] was what they didn’t want. But now, it’s quite the opposite. These

companies are noticing these people are really cool.”

Ageist works with start-ups and multinational conglomerates eager to capitalize on the sunset years. Many incorporate senior feedback to create aesthetically driven products created with thoughtfulness, practicality and, more importantly, respect. This spans multiple categories, including fitness, food, tech, beauty, travel and transportation. Boomers, reports Nielsen,¹ account for approximately \$230 billion in sales in the US consumer-packaged goods category.

In Japan, for example, legacy cosmetics brand Shiseido launched PRIOR, a brand catering solely to mature women. Its campaign stressed the beauty in aging and accommodated its audience with larger fonts and simple instructions. Likewise, Pause Well-Aging is a US beauty line specifically developed for menopausal skin concerns.

The majority of innovations center around health since older populations have a higher percentage of medical concerns. Still, these issues are treated sensitively, free of any condescension or indignity. New York-based Willow sells underwear for the 400 million people worldwide with incontinence. Unlike its bulky diaper-like predecessors, the collection comes in functional, sleek designs that echo the style of trendy fashion labels.

Seattle telemedicine start-up Gennev encompasses an online community for



David Harry Stewart, GWS 2019

INSPIRATION FROM THE 2019 GLOBAL WELLNESS SUMMIT

The New Emerging 50+; Unpacking the Most Powerful, Discerning Consumer in History
David Harry Stewart, CEO, Ageist, US

New Life Builders: Aging Is Better Than You Think!
Dave McCaughan, Founder & Storyteller, Bibliosexual, Thailand

middle-aged women going through menopause. It also sells discreetly labeled products that, as Gennev CEO Jill Angelo explains, adult women would want to display on their bathroom shelf.

“We’re seeing more and more companies go after this audience because they’re underserved,” says Angelo. “They’ve got spending power, but they want products that come from places they can identify with, that are authentic to them.”

The tech industry sees a multitude of products addressing adult health concerns from a meaningful, practical standpoint. Virtual reality games improve seniors’ cognitive function; home diagnostic kits allow for easy health monitoring, while a host of robotic assistants tackle the loneliness epidemic.

ElliQ is an elegant digital companion helping older individuals live independently longer. Created by Israel’s Intuition Robotics, the faceless robot radically differs from overly cutesy devices. It’s not meant to infantilize its user, says Co-Founder Dor Skuler; it’s there to respectfully assist without serving

as an emotional crutch. Such AI-assisted technology will rapidly grow as healthcare further transitions from the hospital to one’s home.

Some entrepreneurs look to wholly reinvent categories. Perennial is a plant-based adult nutrition beverage taking on industry stalwarts such as Ensure and Boost. The product’s promotional campaign features buff senior citizens running on a beach with the tagline, “longevity tastes good.”

Millennials and baby boomers increasingly mirror one another in adopting healthy lifestyle habits, and yet the latter are often left out by the food and beverage sector. A recent study found that boomers are more likely than any other generation to choose nutritious foods.

“People are aging so much better than in prior generations,” notes Perennial Co-Founder Sara Bonham. “We wanted to create a product that empowered them, not just for a need-state, but something that they want.”

The fitness industry is another industry seeing a demographic shift. Boomers



Perennial is crafted to support a new way of aging.

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compete alongside millennials for most active generation, with many retirees opting for at-home fitness equipment models such as Peloton or upscale boutique gyms. According to The International Health, Racquet & Sports Club Association,² those aged 55 and up compose nearly a quarter of all US health club members. They are now the fastest-growing membership group and show the highest rate of frequent attendance.

“The real spend behind all of [fitness club growth] is going to come from the boomer market,” notes health club industry analyst Bryan O’Rourke, founder and CEO of Vedere Ventures. “It’s all based on people getting older and wanting to have a better quality of life.”

Ken Smith, director of the Mobility Division at the Stanford Center on Longevity, predicts more conglomerates such as Procter & Gamble will invest resources

in the senior market, rapidly onboarding consultant firms and partnering with testing groups. In the near future, expect a stronger focus on the personalized wellness space with more prevention and management solutions for chronic illnesses such as diabetes or heart disease.

“There isn’t a good embedded sense of the capability of older people,” says Smith. “Big companies are just starting to figure it out. They are still going to progress a lot over the next few years.”

Brands still struggle with how to appeal to a diverse and often fractured 50+ demographic. Many lump whole age ranges into one uniform monoculture, assuming they all possess identical concerns and desires. But people don’t age equally. “The more people age, the greater the divergence,” says Stewart, noting the breadth of psychographics. “People see this gigantic demographic with these huge numbers and think they can capture this entire market. You need to pick a lane.”

With a 19-year age range, it’s naive to assume boomers constitute a cohesive group. And often, they’re subject to common misconceptions: They do not all fumble with technology, spend their days golfing or desire to retire in Florida. In fact, a recent survey found that boomers spend nearly five hours³ a day on smartphones and spend more⁴ on online shopping than millennials. An increasing number move into hip condos in downtown urban areas, paving the way for new retirement housing projects within walking distance to cultural and foodie destinations.

Some companies and marketers get it right. Covergirl added Maye Musk, 71, as one of its spokesmodels. Cult fashion brand Rachel Comey regularly features silver-haired models in its campaigns. Meanwhile, brands

such as Nike⁵, JCPenney and Williams-Sonoma partner with over-50 social media influencers, who prove more approachable than their jet-setting Kardashian peers.

“More people are living longer and healthier,” says Stewart. “This is where the market is shifting to. You can’t ignore it.”

THOUGHT STARTER

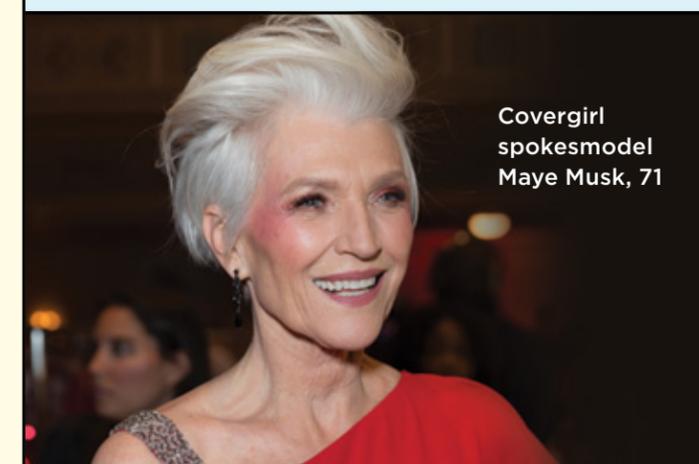
Age-Friendly Cities

Along with the private sector, how can cities, local governments and urban planners better design for seniors’ health needs? Globally, 57 percent of people 60+ reside in towns and cities. From sidewalks to transportation, they depend on an accessible environment to better interact with their neighbors and local services.

In 2010, the WHO launched the Global Network for Age-Friendly Cities to help communities and organizations across the globe share ideas. Some of the ideas are smart, yet remarkably simple, to implement: In the UK, Manchester’s city hall holds “Older People’s Forums” for senior citizens to voice complaints and suggest fixes. And Ottawa, Canada, added hundreds of outdoor benches and modified fitness equipment to encourage their elders to stay active.

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Covergirl spokesmodel Maye Musk, 71

“More people are living longer and healthier. This is where the market is shifting to. You can’t ignore it.”

— David Harry Stewart, CEO, Ageist

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Gennev offers full-circle menopausal care.





Sony's companion robot, aibo, develops its own unique personality through everyday interactions with its owner.

J-Wellness

By Peter Eadon-Clarke

Brilliantly marrying revered traditions with innovative technologies, Japan asserts a comprehensive culture of wellness—and encourages the world to follow suit.

CONNECTING TO THE WORLD

As awareness of the 100-year Life Society spreads globally, it is natural to look to Japan.^{1,2} In 1965, Japan had 153 centenarians, and in 2017, there were 67,824, representing the largest per capita ratio of them in the world. Fifty percent of Japanese citizens born in 2007 are expected to reach 107.³ There are lessons to be learned from Japan's lengthy leadership in longevity. Japan is not standing still, but rather executing exciting innovations on top of its cultural traditions of trust, exacting quality in all matters and a deep reverence for nature.

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Recent years have seen each of these become a global phenomenon: Ikigai, purpose but at a measured pace;⁴ Kintsugi, "art of repairing broken pottery"; Wabi-sabi, embracing imperfection and transience;⁵ Marie Kondo, de-cluttering by auditing the spiritual value of our possessions;⁶ and Shinrin-Yoku, forest bathing.⁷ Japan is also known for its wellness-related products.

Incense is used to purify, cleanse and relax. With a reputation for the highest quality, Japanese incense sticks have long been exported worldwide. Behind this are deep traditions. Seasoned artisans train for years, with 70 percent of all production being centered on Awaji-shima, a small island southwest of Kobe city. When the burning of incense moved beyond temples, incense-listening, or Koudou, emerged in the 13th century and is still practiced today: a ritual-rich game involving the identification of incense aromas.⁸ Japanese incense sticks are being followed globally now by wave upon wave of highly distinctive J-Wellness products and techniques.

Visitors at the Senso-ji temple in the Asakusa district cover their heads with incense smoke.



CONNECTING TO OTHERS

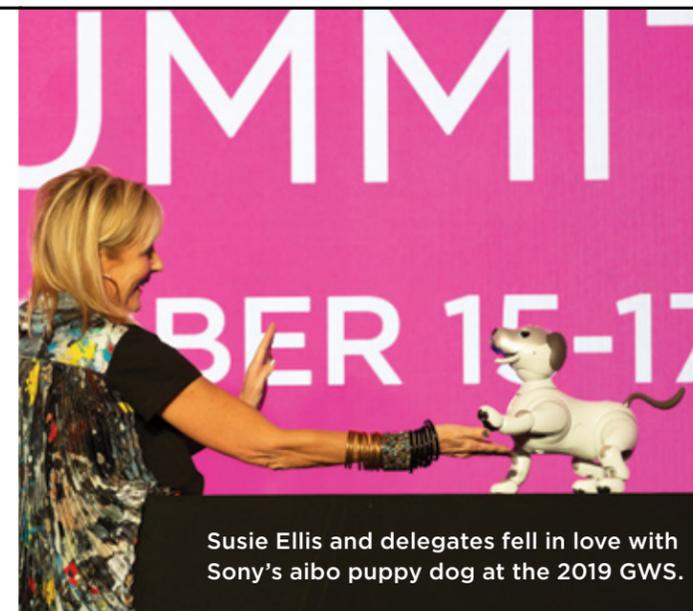
Iki-iki Plazas, the Stress Check Program, Social Robots

Social, community wellness and innovating for aging societies are two global mega trends where Japan's policy is to empower individuals and companies. As a World Health Organization (2012) study demonstrated, better health is associated with high "social capital," such as trust between neighbors, repeat interactions and helpful actions reciprocated.⁹ Japan's Iki-iki Plazas, neighborhood facilities for generational mingling, recreation and learning, are strengthening people's mutual trust. Emerging from Japanese psychological studies, "Iki-iki" captures the subjective aspects of wellbeing deep within the human mind, such as positiveness, stability of mood, self-acceptance, and life satisfaction.¹⁰ With government support, Iki-iki Plazas are spreading locally nationwide.

Japan's Ministry of Health, Labour and Welfare stated in its 2012 policy document that mental health is as important as physical health. Since December 2015, all employees in companies of 50 or more people complete mandatory annual stress assessments. When approving this legislation, the Japanese Diet concluded that the Stress Check Program should focus on the primary prevention of mental disorders, not the screening of mental disorders, and this should be combined

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Susie Ellis and delegates fell in love with Sony's aibo puppy dog at the 2019 GWS.

with improving the psychosocial work environment.¹¹ Corporate support programs include Sumitomo Corporation's Iki-iki Waku-Waku (energy and excitement) Health and Productivity Management program.¹²

The Stress Check Program, and the separate mandatory annual health check for employees, are not expected to stay unique to Japan for long. We expect other countries' national health systems to embrace wellbeing. Japan's corporate leaders are acting as health ambassadors. To quote Miwako Date, president of Mori Trust, at the 2019 Global Wellness Summit (GWS) in Singapore: "Caring for people's comfort and health is essential for enhancing productivity. We have set 'wellness for all' as one of our key visions for real estate development."

Prime Minister Shinzo Abe's Council for Designing the 100-year Life Society concluded in June 2018 with two key recommendations: 1) significant increases in pay for long-term nursing care workers and 2) a "drastic expansion of recurrent education" to enable multistage lives. Japan pursues a philosophy of no one

INSPIRATION FROM THE 2019 GLOBAL WELLNESS SUMMIT

J-Wellness: The Future of Wellness in Japan
Yoriko Soma, CEO, Conceptasia Inc.,
2019 Global Wellness Summit Co-Chair, Japan

Forest Bathing 2.0:
The Art and Science of Shinrin-Yoku
Dr. Qing Li, Author & President, Japanese Society of Forest Medicine; Nippon Medical School, Japan

Robot Assisted Activities: Scientific Evidence of Activating Human Communication by Robots
Masahiro Fujita, VP, Senior Chief Researcher, AI Collaboration Office, Sony Corporation, Japan

The Wellness Investment Climate in Japan
Miwako Date, President & CEO,
Mori Trust Co, Ltd., Japan

being left behind. Long-term care provision is a crucial test of this, especially since Japan's government is predicting 380,000 care staff vacancies by 2025. Robots are spreading through the nursing care industry to improve the productivity of care workers, e.g., physical assistance. Social robots provide psychological support, such as PARO, the AI-driven interactive furry seal from Tsukuba's National Institute of Advanced Industrial Science & Technology. Studies confirm that PARO reduces anxiety and depression, and by calming down dementia patients, incidents of them wandering off have been reduced. Other

social robots include RoBoHon monkey from Sharp and Sony's aibo puppy dog that was demonstrated at the 2019 GWS in Singapore and gave the hundreds of audience members the experience (and surprise for many) of falling in love within about 30 seconds.

CONNECTING TO TECHNOLOGY

J-Beauty, Kao's Future Skin by Fine Fiber Technology and Shiseido's Optune

Reflective of an exacting quality in all matters, J-Beauty is about long-term reliability. This includes an anti-aging focus and a simplified beauty regime backed by science. All of this is the antithesis of "fast fashion." In Japan, purity and deep cleansing are culturally based, with morning and evening bathing rituals having supported the original cleansing oils popularized by Shu Uemura. Today's daily routine is typically double cleansing followed by an essence lotion (a clear liquid that hydrates and preps), a serum (a watery liquid with beneficial, usually

natural ingredients) and a moisturizer. Facial masks are a weekly activity. Since layering is at the core of J-Beauty, most of the products are of a very light texture resulting in super-hydration of the skin. The goal is effervescent skin, "bihaku," a bright skin tone, and the elimination of sun-related skin damage. Products emphasize natural, functional, nontoxic, sustainable ingredients. A leading essence lotion is the SK II facial treatment essence, with the patented key ingredient Pitera (galactomyces ferment filtrate), a blend of 50 micronutrients with anti-aging properties. J-Beauty's technology and innovation leadership are leading to revolutionary products:

Future Skin by Fine Fiber Technology was launched in December 2019 under the Kao brand "est" and the Kanebo brand "SENSAI," combining an essence with an ultrafine membrane, delivered by a diffuser, for a nighttime skin-care routine. In addition to protecting against dryness and maintaining a moisture-rich environment, the membrane activates protein expression in the skin. The translucent membrane stays in place overnight like a second skin, which is then peeled away the following morning. Kao expects to advance Fine Fiber Technology into makeup, through being able to create a natural look by covering pores, blotches and uneven skin color.

Shiseido opened a 76,000-square-foot Global innovation Center in late 2018, committed to cross-discipline research and dedicated to delivering the future. Visitors are encouraged to explore the facilities. The full launch of its new Optune product in July 2019 saw the arrival of data-driven, automated, personalized skin care.¹³ An Internet of Things (IoT) system with a dedicated iPhone app analyzes, prepares and dispenses the optimum serum and moisturizer for the user's skin. The

dispenser has 80,000 possible skin-care combinations. Skin quality analysis from a smartphone photo and sleep data used to detect biological rhythm disruption are combined with locational environmental data (time, temperature, humidity, pollen and PM2.5 air quality). Users are also able to input data on their mood.

CONNECTING TO NATURE

Shinrin-Yoku (Forest Bathing), Therapeutic Onsens and Yummy Shojin Ryori Vegan Temple Food

Japan's deep reverence for nature also acts as preventative healthcare. For example, forest bathing began in 1982 with a Japanese national health program. Coordinated by the Forest Therapy Society, there are now 62 official healing forests and 1,200 certified guides, with over 2.5 million people walking the healing forest trails in 2018.¹⁴ Studies support the breadth of health benefits of connecting all five senses to nature, from reduced blood pressure, lower stress and improved cardiovascular and metabolic health to lower blood-sugar levels and improved concentration, memory and energy.^{15, 16, 17} The phytoncide in cedar and cypress has been shown to have calming effects on people, as well as providing a boost to the immune system, with one study having shown a 53 percent increase in the count of the body's natural killer cells after two days in these forests.

Dr. Qing Li of the Nippon Medical School in Tokyo and president of the Forest Therapy Society, who also spoke at the 2019 GWS, notes that we spend 93 percent of our time indoors, leading to a nature-deficit disorder. As the inbound tourism boom is discovering, Japan has an incredible wealth of natural assets to facilitate recovery: in addition to the 62 healing forests, there are 20,972 onsens (hot springs), two-thirds of the global total, providing a rustic, authentic, and hyper-specific wellness experience. In addition to the medicinal benefits of the various minerals in the water, deep-soaking bathing has thermotherapeutic effects (a higher body temperature stretches capillaries improving circulation, increasing metabolism and reducing fatigue), water pressure effects (improving the flow of your blood and lymph fluid) and buoyancy effects. The latter, by reducing the body's weight to one-tenth of what it normally is,



Optune by Shiseido is a skincare system that analyzes skin condition, environmental and sleep data to detect biological rhythm disruption.

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“Caring for people’s comfort and health is essential for enhancing productivity. We have set ‘wellness for all’ as one of our key visions for real estate development.”

— **Miwako Date**, president & CEO, Mori Trust Co, Ltd.



Buddhist monasteries offer Shojin Ryori which incorporates seasonal vegetables, wild mountain plants and nuts.

CONNECTING THROUGH THE OLYMPICS TO THE WORLD

Move to Be Well, the 2020 Tokyo Olympics, an Irresistible Comprehensive Culture of Wellness

With no gender or age limitations, Japanese martial arts such as judo, karate and aikido remain wildly popular, contributing to Japan's overall strong showing in the physical activity marketplace. The 2019 Global Wellness Institute *Move to be Well* report ranked Japan third in the total physical activity market behind the US and China. Japan has a relatively high recreational physical activity participation rate of 69.6 percent (the US is at 58.8 percent, while China is at 48.6 percent, respectively).

Along with the billions watching through global media, the expected 600,000 overseas visitors to the July-August 2020 Tokyo Olympics will see more than just the sports events. Jon Omori, the Tokyo-based special advisor and coordinator for the US Olympic Committee comments: "Beyond the sports stadiums, visitors will experience Olympic standard focus and dedication in everyday activities in Japan." While highly distinctive J-Wellness products and techniques are gaining wider recognition, we believe the Olympics will reveal the holistically whole of J-Wellness and Japan's irresistible comprehensive culture of wellness. The resulting benefits to global wellness are expected to make the upcoming Olympics the most consequential ever.

allows muscles and joints to rest, enabling tensions in the body to dissipate. Japanese bathing influences are appearing worldwide. The new Shou Sugi Ban House in the Hamptons, US, has a Japanese design, hinoki soaking tubs, tea ceremonies, etc.

The 2018 Monastery Stay & Meditative, Spiritual Cuisine legislation opened Japanese temples to lodging tourists, enabling visitors to access their inner Zen with meditation, silence and the famous vegetarian cuisine that Buddhist monasteries offer known as Shojin Ryori. "Shojin" means a devotion to pursue a perfect state of mind, while "ryori" means food. Dating back to the 6th century, it is prepared around soybean-based foods such as tofu and incorporates seasonal vegetables, wild mountain plants and nuts. Meat, fish or other animal products and pungent flavors such as garlic and onion are excluded. The monks employ two "rules of five": five colors (green, red, yellow, black and white) and five flavors (sweet, sour, salty, umami and bitter). Encouraging contemplation and appreciation, the cuisine leads to balance and alignment of the body, mind and spirit.



Japan's wealth of natural assets provides a rustic, authentic, and hyper-specific wellness experience.

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Mental Wellness and Technology:

RETHINKING THE RELATIONSHIP

By Rina Raphael

Mental tech health, via virtual care, wearables, chatbots and other futuristic innovations, is moving mainstream to support the 450 million individuals currently struggling.

Mental health is moving far beyond the psychiatrist's couch. Technological advancement has pushed digital therapeutics to the forefront of convenience—in people's pockets, on their laptops and even within Facebook messenger. And with that, the category expands to include a suite of wellness products and services.

It's a new ecosystem that sees individuals relying on a wide range of tools—chatbots, apps and digital support groups—to combat modern-day issues such as burnout, loneliness and anxiety. Combined with traditional medical models, it encompasses a holistic approach to psychological wellbeing.

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The World Health Organization¹ estimates that 25 percent of all people will be affected by mental or neurological disorders at some point in their lives, with roughly 450 million individuals currently struggling with a condition. Unfortunately, care is far from the norm: Nearly two-thirds of those living with a mental disorder never seek help from a health professional.

The biggest barriers remain stigma, time, cost and availability. Many people wait weeks for a doctor's appointment, provided they can even afford it. Others fear parking outside a therapist's office, lest their neighbors see them. To that end, Silicon Valley boasts an impressive array of digital solutions to ensure more individuals receive discreet and flexible care. Nearly 10,000 mental health apps currently crowd the market, with meditation tools such as Calm evolving into billion-dollar companies.

And it's not slowing down: The behavioral health software market is projected to reach \$2.31 billion by 2022, growing 14.8 percent annually, according to a MarketsandMarkets research report.²

THE (VIRTUAL) DOCTOR WILL SEE YOU NOW

Tech is first and foremost redesigning traditional care by improving access and customizing the experience. Virtual therapy apps such as TalkSpace, BetterHelp and Amwell give patients the ability to call, text and video teleconference with professional counselors on their schedule and in the comfort of their own home. These frictionless options, often a fraction of the price of clinic appointments, serve individuals with time-constraints or those in rural areas who lack access to care.

Online platforms such as Rethink My Therapy, which offers unlimited therapy for \$60 a month, particularly appeal to millennials who want their medical appointments as easy as ordering in dinner. Millennials are far more likely to address their mental health than generations prior, with seven out of 10³ saying they feel comfortable seeking help.

"They don't want to see anybody, they prefer talking to people, and they need it to be very convenient," says Richard Rosenblum, CEO of Rethink My Therapy. "This is the wave of the future."

Other virtual therapy apps center on counselor matchmaking and addressing specific patient needs. Regain specializes in professional couples therapy, Pride



Mental Wellness Panel discussion, GWS 2019

INSPIRATION FROM THE 2019 GLOBAL WELLNESS SUMMIT

Mental Wellness, from Public Health to Private Lives; Thriving in Life and Work, Panel Discussion
Moderated by **Prof. Gerry Bodeker, PhD**,
Public Health Academic & Clinical Psychologist,
Green Templeton College, University of Oxford,
UK & Malaysia

Mindful Warriors: Conquering the Future with Lessons from the Past
Nash Siamwalla, PhD, Founder & Managing Director, The Zen Solution, Thailand

Counseling serves LGBTQ individuals, while Henry Health targets black men. The newly launched Ayana connects marginalized communities with therapists from their culture, background and race.

BRAVE NEW INNOVATION

Mental wellness wearables such as headsets and bracelets slowly see traction, though many are still in the early stages of clinical trials. Sentio Solutions recently announced Feel, an emotion-sensing wristband with integrated biosensors that monitors a user's physiological signals throughout the day. Paired with an accompanying cognitive behavioral therapy (CBT) app, it aims to help those suffering from anxiety and depression.

"We envision a world where technology understands when someone is going through a depressive phase or panic attack and provides support in their time of need," says Sentio Solutions Founder and CEO George Eleftheriou, noting the Feel might prevent visits to the emergency room.

Tech is also rounding out care, filling in the gaps left by traditional models. These wellness solutions are not replacements for medical professionals but often act as supplemental or preventative care.

Mindfulness and meditation apps such as Headspace, Calm and female-focused Sanity & Self offer audio tracks to relax listeners and strengthen mental resilience. Oftentimes, they're paired with breathing exercises, visual aids and journaling guides. Israeli social network Wisdo connects individuals struggling with mental conditions, as well as those overcoming difficult emotional situations.

Some apps take their cues from entirely different genres, as evidenced by the ever-growing anti-anxiety gaming space. Nearly a million people have played SuperBetter, an app that gamifies mental health upkeep. Players accrue points by persevering through stressful situations, completing breathing exercises and breaking bad habits.



Sentio Solutions wristband with integrated biosensors monitors its user's physiological signals to understand his or her emotional state.

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Chatbots are also on the rise. Woebot is an AI-enabled “robot friend” who looks like Wall-E and engages users through uplifting or sympathetic conversations. The adorable digital therapist is now available in 120 countries, serving more than half a million people.

“We’ve been able to show that people develop an alliance with robots,” explains Athena Robinson, CCO of Woebot Labs, noting its success in conjunction with ongoing therapy.

Other therapies employ more futuristic technology. Mindstrong is an app that analyzes how users interact with their phones—how they type or scroll—to identify mood states. Its machine learning can reportedly detect a range of potential mental health patterns. It is now being tested on California patients⁴ through the

state’s public mental health system.

Meanwhile, virtual reality is used as an exposure therapy tool for PTSD survivors. This allows an army veteran to visually revisit the battlefield through a headset. A recent study in *Frontiers in Psychology*⁵ found that individuals who participated in virtual reality therapy were more likely to continue and complete treatment than those who participated in traditional programs.

Virtual reality therapy is gaining traction in the US and specifically in China, where an estimated 90 percent of citizens⁶ with mental health disorders do not receive treatment and the number of psychiatrists is four times lower⁷ than the global average.

UK patients with an extreme, debilitating fear of heights (acrophobia) can access immersive virtual therapy through a public

healthcare provider. One such available service is Oxford VR, which takes just two hours per treatment, versus six to eight hours generally required of traditional face-to-face treatment. With such tools, therapists can treat five times the amount of patients.

“We’re using technology to do the repetitive, tedious parts of therapy and enable the therapist to focus on the really important parts—triage diagnosis and care management,” explains Oxford VR CEO Barnaby Perks. The company is pursuing a clinical study exploring the treatment of psychosis and plans more programs as consumers more widely adopt virtual reality headsets such as HTC Vive and Oculus Rift. “The long-term goal is to be able to put this in people’s homes.”

Granted, tech isn’t completely replacing the human model. A slew of new companies reimagine the doctor’s visit by way of technology-aided services.

Octave Health takes a hybrid approach by combining in-person therapy with virtual coaching services. Patients come in for therapy but are also paired with interactive digital programs to learn CBT skills. The digital services, says Founder Sandeep Acharya, help patients progress more quickly and ease practitioner workload. Octave recently became one of the first behavioral health practices to ink a major insurance deal by becoming an in-network provider for Anthem Blue Cross of California.

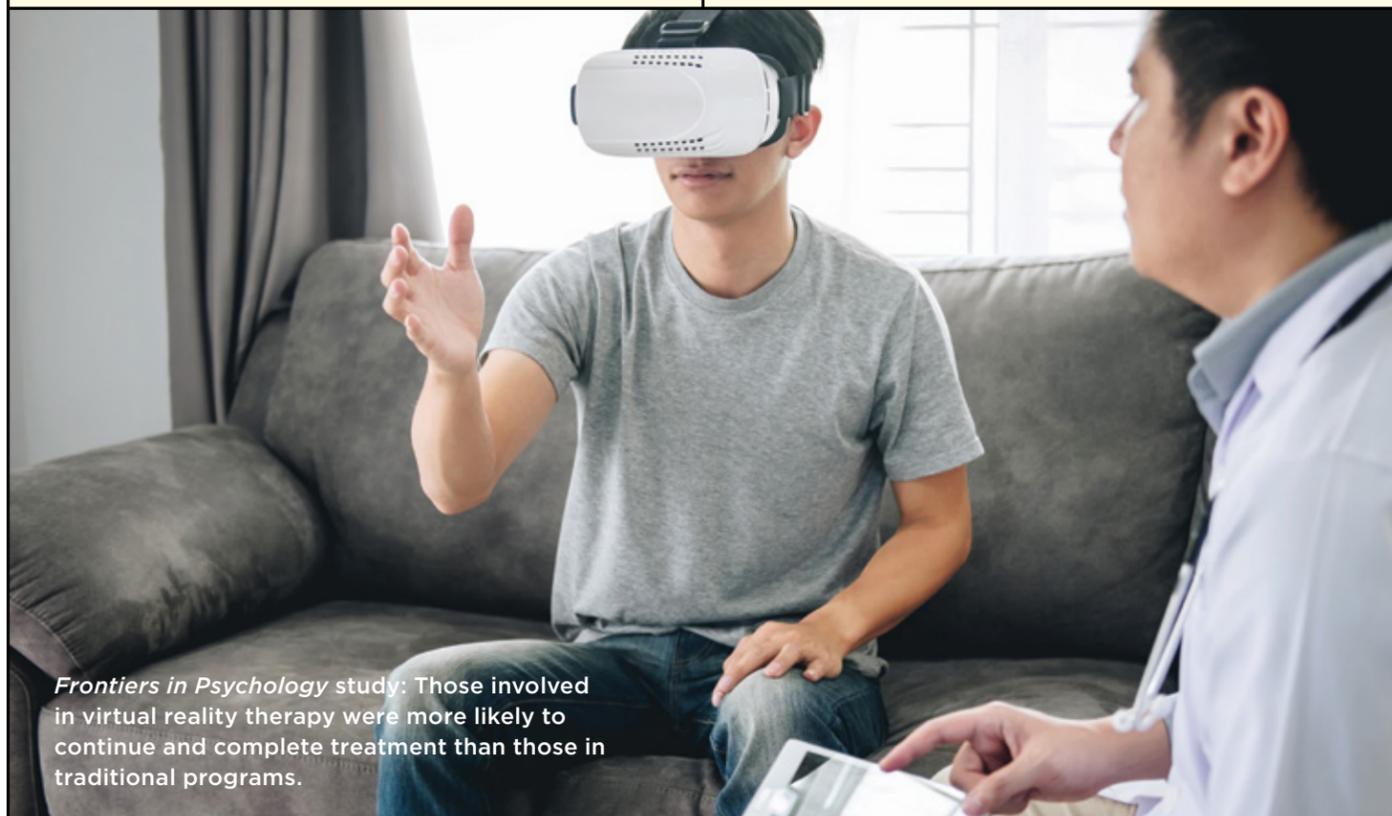
“[Digital mental health] is a \$500 billion category over the next decade,” predicts Acharya. While the industry might look crowded of late, Acharya simply sees it as evidence of growing opportunity. “We’ve seen a huge spike in patient demand... and employers are demanding that their insurance companies cover this category better.”

THE NORM TO COME

Mental health tech will move into the mainstream as cultural norms continue to shift. Millennials’ embrace of convenient treatment, as well as interest in self-care, will transform how employers, universities and local governments offer subsidized care. The ongoing public conversation on toxic workplaces and burnout is already pushing big companies to take action and realize that prevention is more affordable than treatment.

“The behavioral health software market is projected to reach \$2.31 billion by 2022, growing 14.8 percent annually.”

— MarketsandMarkets research report



Frontiers in Psychology study: Those involved in virtual reality therapy were more likely to continue and complete treatment than those in traditional programs.

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On-demand app Ginger.io enables users to chat with a behavioral health coach within 60 seconds of engaging with the platform. Should patients need more care, they are seamlessly escalated to professional therapy or a psychiatrist. The company now works with nearly 100 enterprises, including Sephora, Pinterest and BuzzFeed, supporting more than 400,000 individuals and their dependents.

Most consumers don't rely on virtual care, but that's changing rapidly, says Ginger.io CEO Russ Glass. "The next year will see a big spike in adoption of telehealth, both in the mental healthcare space as

well, as primary care," says Russ. "In this healthcare system, we just don't have a choice. We have to be looking at ways to change the supply-demand curve."

Celebrities are doing their part as well: A-listers ranging from Selena Gomez to Catherine Zeta-Jones have publicly discussed their mental health struggles. Olympian Michael Phelps starred in an ad campaign for online therapy provider Talkspace.

This shift might impact the entertainment industry. Meditation app Calm, which already works with celebrities such as Matthew McConaughey, is branching out into Hollywood. The California-based company plans on producing a number of shows and movies that soothe anxiety and boost morale.

There's far more innovation on the horizon: Scientists are researching how AI can impact psychiatry and other areas of mental health, including patient diagnosis. Big tech is expanding voice tech's role in healthcare, which means Alexa might one day offer a lot more than just the news and weather.

"Approximately 80 percent of care can happen via remote means," stresses Glass, "and that just reduces all kinds of costs in the system."

In the coming years, expect more wellbeing tools that work in conjunction with medical care. The new consumer might find themselves weekly teleconferencing with a

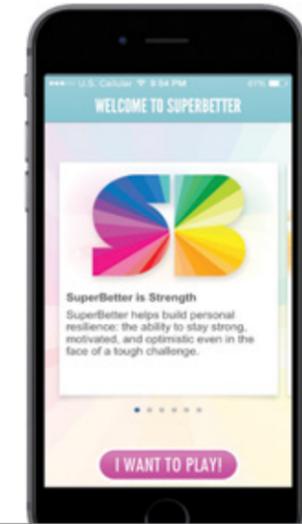
therapist, then relying on a meditation app during moments of stress. Or maybe they'll wear a bracelet that will warn them when a panic attack is forthcoming. The future will be full of both intrusive and feel-better tech readily available at an individual's fingertips.

THOUGHT STARTER

Is big tech ready to take responsibility for its part in contributing to society's mental health woes? Social media giants are taking notice and doing their part—or at the very least, benefiting from the perception they're working toward solutions.

Pinterest launched a search tool that leads users who look for terms such as "work anxiety" or "stress" to mood-boosting interactive activities. Facebook released time-management tools to help users limit excessive social media use, which has been linked to depression and feelings of worthlessness. Instagram is removing the "like" feature in part due to the psychological damage caused by the competitiveness of social media influencers.

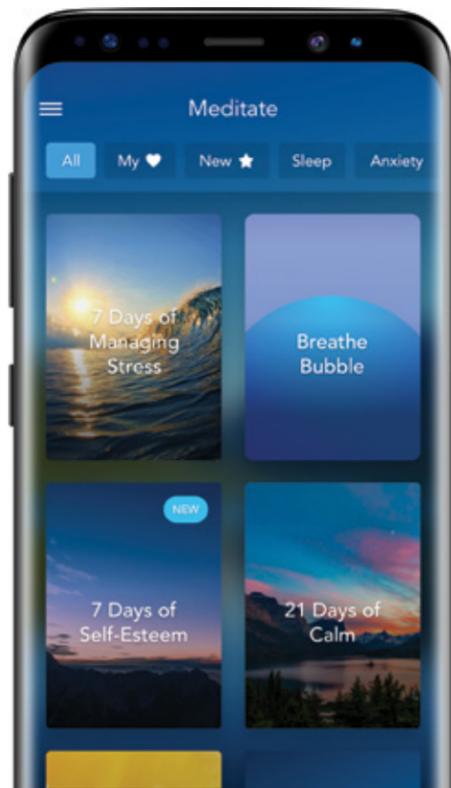
"I struggle with anxiety," Instagram CEO Adam Mosseri told journalist Laurie Siegel.⁸ "There's a question about where and how Instagram can play a role. Are we exacerbating it? If so, then how can we make sure that we don't do that. But can we go further than that? Can we reduce someone's anxiety?"



The SuperBetter app gamifies mental health upkeep.

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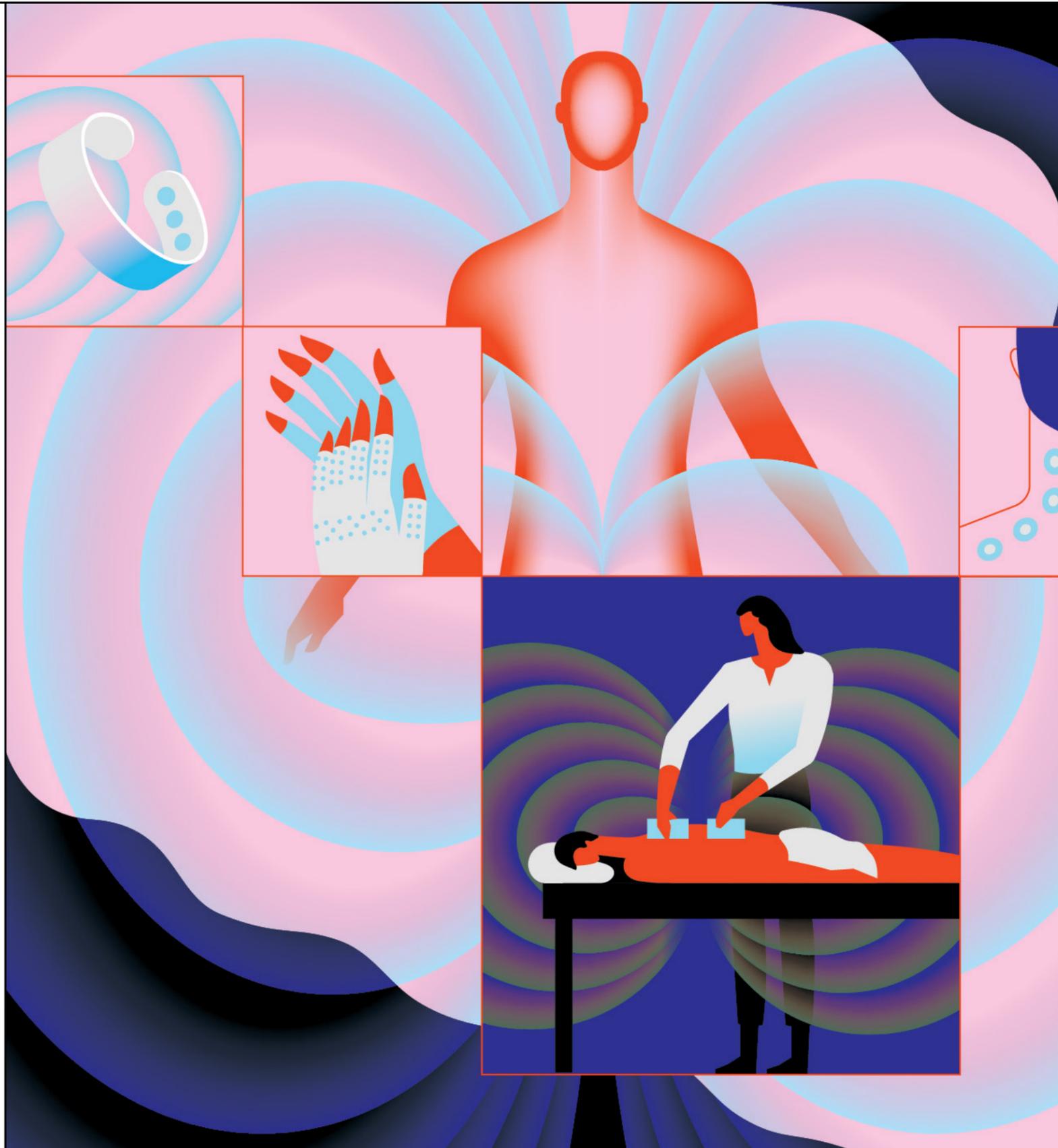
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From a meditation app to the movies: Calm intends to expand its product line to shows/films that soothe anxiety and boost morale.

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Energy Medicine

GETS SERIOUS

*By Beth McGroarty
with Joanne De Luca & Janine Lopiano,
Co-Founders, Sputnik Futures*

Exploring a new force in health and healing, both doctors and wellness practitioners are uncovering the potential of electromagnetic, light and sound interventions to heal your ‘energy body.’

When people think “energy medicine,” they think “the wellness world”: all those practices, whether acupuncture, chakra balancing, reiki, qigong or sound baths, that focus on healing the human “energy body.” It’s a striking fact that Western medicine and ancient medicines, such as Traditional Chinese Medicine (TCM), Ayurveda and shamanic traditions, have revolved around a radically different model of the human body and healing. Western medicine has embraced the anatomical and biochemical model: innovating for that material body of flesh and blood. The major indigenous medical systems—even though they were, quite fascinatingly, separated by thousands of years and miles—independently devised healing approaches squarely based on the body as an energy field. They posit that

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a vital energy (whether “qi” in TCM or the doshas in Ayurveda) controls the processes of our bodies and brains, and that health and healing come from manipulating the flow of energy that courses through our bodies at specific energy points and balances the body’s electromagnetic field (which extends beyond the skin).

In modern Wellness Land, of course, nothing has been trending more furiously than ancient energy medicines, whether Ayurveda or shamanism. The desperation with which people seem to be trying to “fix” their energy is only matched by the skepticism of critics, decrying all this New-Agey, out-there wellness. Better to think like an anthropologist, and ask, *what are people seeking so fervently...and why?*

And whether you’re a believer in acupuncture but laugh at crystal-mania, medicine—which ignored the “energy body” for a century—is now validating that we are very much a complex electromagnetic field, immersed in other complex environmental, electromagnetic fields. A real paradigm shift is underway, with more scientific researchers (whether from Harvard or NASA) rapidly discovering that the body is indeed a complex biofield of electromagnetic frequencies and light waves that serve as “control central” for our physical and mental functioning. It’s shaking up entrenched thinking in biology. Scientists are also uncovering the ways that the entire world is electrodynamic: We’re surrounded by both natural—and increasingly man-made—frequencies that constantly change human cells. We’re at an interesting moment: where the medical world and “ancient wellness” are finding some common (at least in principle) theoretical ground.

The future: the medical, technology and wellness worlds all innovating new tools to optimize the human energy body. Joanne

De Luca and Janine Lopiano, co-founders of future-forecasting consultancy Sputnik, who’ve researched the many new directions in energy medicine for years, note: “The future of medicine is understanding the crucial relationship between the material and ‘field’ aspects of the body, and adjusting human frequencies—and light, sound and electromagnetic interventions are crucial here—to prevent illness and boost health.”

Or, as Anna Bjurstam, wellness pioneer, Six Senses, and a keynote speaker at the 2019 Global Wellness Summit (GWS) on how energy medicine is now moving far beyond “woo woo,” puts it: “Indigenous people have been the knowledge-keepers of energy medicine for centuries, but the scientific community is now taking it seriously, so the world will listen. The invisible will become visible, and energy medicine will become as important as wellness itself.”

This trend takes many directions. Medicine will be disrupted by discoveries about the bioelectric “language” that cells use to coordinate so many of our biophysical processes and will invent new technologies to positively impact/regulate the body’s “command central” electromagnetic fields. Frequency therapies (using sound, light and electromagnetic interventions) will rise in the wellness world. (Note: This year’s “Wellness Music” trend, exploring how music is being reinvented as a precision energy medicine, is very much a chapter of this trend.)

As humans get increasingly bombarded by man-made electromagnetic frequencies in

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INSPIRATION FROM THE 2019 GLOBAL WELLNESS SUMMIT

Energy Medicine...Woo Woo or What??
Anna Bjurstam, VP, Spas & Wellness, Six Senses Hotels Resorts Spas; Partner, Raison d-Etre, Sweden

The Future is Catching Us: Rejuvenation Medicine
Dr. Chris Renna, Founder, Lifespan Medicine, US

our hyper-networked world (Hello, 5G)—anxiety over this potentially dangerous energy will rise, as will new solutions designed to shield us from the biophotonic blitz. And more wellness centers and travel destinations will go “high energy”: serving up even more ancient energy medicines; more high-tech, biohacking technologies to upgrade our energy field; and more blending the best of both ancient and modern solutions. In sum, energy medicine is about to get far more serious.

DISCOVERIES ABOUT THE “ENERGY BODY” WILL DISRUPT MEDICINE

Tapping into our electromagnetic fields has been critical in medicine for years, whether electrocardiograms/EKGs for the heart or MRI scanning. But electrifying new insights

will keep coming around bioelectricity, or the “organized lightning” that our cells use to grow and communicate. Biologist Michael Levin¹ at Harvard’s elite Wyss Institute states: “When cells and tissues are alive, there’s a bioelectric potential between the inside of a cell and the outside...So... bioelectricity is the spark of life. But more importantly, the bioelectric potential is not just a byproduct of living; it is a medium that cells exploit to communicate with each other and to form networks that are much more than the sum of their parts.” The future of medicine is scientists like Levin uncovering the bioelectric “language” that cells use to coordinate everything from their own regeneration to cancer suppression.

There’s a flurry of new directions in energy medicine coming from the scientific world. Just a few examples...

Biophotonics: Light Technologies to Transform Human Health

Decades ago, German physicist Fritz-Albert Popp identified biophotons, which are particles of light that radiate from the cells of all living things and, with laser-like coherence, transmit cell-to-cell information.² Scientists theorize that this biophotonic

“web of light” may be responsible for the overall regulation of our biological systems. The future: using coherent light (lasers or lighted crystals) to positively impact tissues and organs, but also to modulate the body’s energetic system, the bedrock of healing. European physicians, such as Dr. Bodo Kohler, are putting biophotonic findings into clinical practice with bioresonance therapy, whose goal is to harmonize the biophysical fields of the body. The NES miHealth platform’s mission: use bio-electro stimulation and magnetic fields to transmit info to the body at frequencies that match specific parts of the body to activate self-healing.

Pulse Electromagnetic Field Therapy (PEMF)

NASA scientist Dr. Thomas Goodwin found that tissues exposed to the correct pulse electromagnetic field (PEMF) see a 300 percent increase in mitochondria, the energy plants in cells responsible for aerobic capacity and restoring tissues to wellbeing.³ PEMF frequency healing is now being used in more hospitals and wellness destinations, and an explosion of use-at-home technology devices—whether Oska Wellness or Nevro—are using PEMF neurostimulation to try to tackle pain and inflammation.

Optogenetics

Neurobiologists are creating new “optogenetic” tools, which excite neurons using light, to allow them to map the brain’s connections and activate and silence brain circuits. These tools look to one day be used to treat pain, blindness, epilepsy and depression.⁴

Electroceuticals

Big Pharma will take big notice of the big implications of an emerging branch of medicine called electromagnetic pharmacology,⁵ where wirelessly activated

treatments and medication can be switched on/off remotely. Imagine radio waves that activate insulin production, the immune system or gene therapy—or even next-gen drugs that get activated by smartphone apps.

MANAGING NEGATIVE ENERGY

Electromagnetic Pollution Anxiety & Solutions Will Grow

Humans buzz naturally at a 40-hertz frequency but never have our bodies been so bombarded by man-made electromagnetic frequencies—whether from cell phones, base stations, appliances, power lines, Wi-Fi routers or security systems. As Sputnik’s researchers note: “We now live in an intensely wireless, networked world and are immersed in an invisible sea of signals, with our bodies just another conduit. As the Internet of Things (IoT) peaks in the next five years, electromagnetic pollution will become the new public health issue. Both anxiety and solutions will rise.”⁶

Electromagnetic pollution will only surge. The next-gen cell network 5G being rolled out (where basically everything becomes an IP address) requires far more cell towers bunched together, and it will unleash an unprecedented storm of higher-energy photons streaming through our dwellings and bodies. Climate change and extreme weather are disrupting the Earth’s electromagnetic field. And experts argue that proliferating technology is overburdening our aging electrical infrastructure, exposing us to high-frequency electromagnetic frequencies (EMFs) called “dirty” electricity.

When you dive into the science of cellphones’ impact on human health, it’s a contradictory mess. The World Health Organization classifies wireless radiations as a class 2B carcinogen,⁷ while the Centers for Disease Control and Prevention states there’s no definitive scientific evidence. The studies on electromagnetic pollution’s impact on human health overall shrilly disagree, and it could be because they have relied on observational data. But public health experts and watchdogs (Europe is out in front) will increasingly demand careful testing of how all these artificial frequencies impact human cells, and whether electro-pollution is triggering stress and disease.

The future: Experts (such as stress doctor, Wendy Hurwitz) argue that all of our devices will and must become compatible to the human energy field. Architects will build homes, schools, workplaces and smart cities designed to maintain a healthy human energy field, just as they now build for sustainability. Engineers will devise solutions that help shield us from dangerous EMFs. Geo-location-based apps will identify areas of high geopathic and energy stress.

Wellness resorts and real estate developers are already making moves to shield people. At Germany’s Villa Stephanie, a flick of a button copper-lines your room, so all electricity and Wi-Fi signals are blocked;⁸ all rooms at Germany’s Lanserhof Tegernsee also block Wi-Fi and electro-smog with a single switch. San Francisco-based wellness real estate developer Troon Pacific’s luxury homes have shielded cables in all bedroom walls (close to where beds will be placed)

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to block exposure to electromagnetic fields. They also have the Wi-Fi system plugged into Power over Ethernet (PoE) switches, so when you flip off the lights at night, you also turn off all Wi-Fi signals.

MORE “HIGH ENERGY” WELLNESS DESTINATIONS

More Ancient Energy Approaches, More Futuristic Energy Biohacking—And More Combining Both

In the wellness world, programming around ancient energy medicines has risen so powerfully that it sometimes feels there are now as many sound baths and shamans as spas. The hunger and the willingness to travel for that energy upgrade will only intensify.

We’ll see even more ancient energy medicines at the buzziest new wellness destinations. New York City’s newest wellness mecca, The Well, with its East-meets-West team of doctors and healers, not only offers TCM and Ayurvedic programs but also a “vibrational energy

“In every medical tradition before ours, healing was accomplished by moving energy.”

— Albert Szent-Gyorgyi, biochemist and Nobel Prize winner



Design features in Troon Pacific luxury homes include Wi-Fi systems plugged into PoE switches, meaning all Wi-Fi signals turn off with lights at night.

healing” track. New-to-us ancient energy medicines will define new destinations, such as Malabar Lu Jong Retreats (in Africa and Spain), grounded in the Tibetan Buddhist energy practice of Lu Jong.

More wellness centers will go all in on the highest-tech energy medicine, such as Los Angeles’ biohacking centers, Upgrade Labs, where you can experience the latest light, vibrational and electromagnetic interventions, including PEMF therapy, vibrational plates, red and infrared light treatments and electric brain stimulation.

Ahead-of-the-now wellness destinations, which function more like experimental labs than mere “properties,” will increasingly blend ancient energy medicines with cutting-edge energy technologies. 1440 Multiversity, a new, fascinating, part wellness resort, part “wellness university” in the Santa Cruz redwoods near Silicon Valley (think: a neo-Esalen-meets-Stanford for tech professionals seeking a little more meaning in life), has a faculty of 400 experts and a packed lineup of workshops heavy on energy medicine. And whether a shamanism or sound healing workshop, they typically unite doctors, PhDs, top wellness practitioners and ancient + modern energy healing techniques.

Six Senses Resorts has been making eye-opening ancient + modern energy medicine moves. The brand’s recent “Grow a New Body” program—dubbed “neo-shamanism”—brings together the latest thinking/technologies on the energy body from biology and neuroscience with ancient shamanic energy upgrading practices.⁹ Designed by leading doctors and Dr. Alberto Villoldo, a medical anthropologist who has studied shamanic healing practices for 25+ years, the program deploys many approaches to fix your energy body: on the modern side, energy-medicine evaluations with doctors, light therapies, IV infusions, altitude training and ozone and oxygen therapies. Shamanic approaches include a mitochondria-boosting, phytonutrients-rich diet; fasting; plant medicine; and intensive spiritual work to clear negative energy, entities and emotions.

Six Senses NYC (coming early 2020)—part wellness resort, part wellness residences, part membership club concept—will rewrite what an urban wellness community could be. And while it’s hard to grasp all its planned wellness offerings, their energy bio-hacking + ancient energy medicine mix is pretty head-spinning: from PEMF therapy, light therapies, chakra balancing, transcranial direct brain stimulation, vibrational plates and pulse massage, etc. All seamlessly delivered as you hang out: How about a little ITENs electric therapy on your shoulders over dinner, while your grounding-sock-covered feet rest on negative ion plates?

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ENERGY FUTURES

Science is now validating some crucial ancient energy medicine principles. For instance, scientists at Seoul National University have confirmed the existence of the body’s meridians, which they call the “primo-vascular system” and see as a critical part of the cardiovascular system, as well as the physical basis of the Acupuncture Meridian System (these acupoints are, of course, the key to the energetic effects of shiatsu massage, qigong, tai chi, yoga postures, etc.).¹⁰

We’re at a pivotal, powerful moment with energy medicine. In the coming years, there will be a rush by medical and technology companies to further crack the code on how energy networks organize our bodies and brains, and they will use that knowledge to design interventions into our electromagnetic and biophotonic fields to prevent disease and boost physical and mental health. It will create entirely new medical approaches, new products and new business models.

Both “wheat” and “chaff” will appear in consumer markets, as energy healing is particularly susceptible to exploitation and quackery. Hard science will validate some ancient energy approaches and invalidate others. Ancient energy medicines will teach Western medicine a few things, and scientific breakthroughs will point the way to new directions in wellness. New common ground leads to new conversations.

The wellness world focuses more on self-awareness and emotional and spiritual healing and connectedness, but, as physicists, biologists and neuroscientists

uncover the mechanics of human energy fields—how they mesh with other people’s energy fields, and how we all mesh with the energy fields of the universe—the new energy medicine may solve a pesky little mystery that’s been preoccupying humans for millennia...consciousness, itself.

“Energy futures” in health and wellness? A very strong “buy.”

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Organized Religion

JUMPS INTO WELLNESS

By Rina Raphael

More religious organizations and ministry leaders are incorporating a wide range of health and fitness modalities—from Ramadan bootcamps to Catholic Pilates classes.

Millennials often refer to their gym as “church,” and now that could be taken literally. A growing number of religious institutions, nonprofit organizations and ministry leaders are incorporating a wide range of health and fitness modalities. Current wellness offerings include Ramadan bootcamps, Jewish Sabbath service hikes, Christian wellness retreats, Catholic Pilates classes and Muslim fitness YouTube channels.

Many religious communities start with one-off events, such as aerobics classes that integrate sermons or prayer (though some go so far as to build entire fitness equipment rooms). Rabbi Jaymee Alpert of Congregation Beth David in Saratoga, California, developed a practice that blends

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strength training into a traditional Jewish worship service. The lunge-heavy session is now a monthly offering, along with yoga sessions, drawing on themes from the liturgy and forest-bathing prayer programs.

Alpert took inspiration from the growing popularity of running therapy, a physically demanding sport that some counselors say help patients better open up and access their emotions.

“The goal is to help people reconnect the parts of ourselves that we usually think are so separate,” explains Alpert. “Either we’re at the gym being physical, or we’re coming to the synagogue to be spiritual. But there’s a connection there.”

There are also gym concepts entirely devoted to spiritual exercise. SoulCore, a Catholic-based movement program that pairs stretching and functional movement with the prayers of the rosary, now counts more than 100 parishes across the US.

Faithful Workouts is an online Christian ministry of streaming workouts infused with mini-sermons and Christian music. Founder Michelle Spadafora says her clients,

the majority of them women, are tired of separating lifestyle from faith. Consider it a holier take on multitasking.

In the last year, a significant number of churches requested Faithful Workouts’ integrated classes, signifying a shift away from viewing bodywork as vanity.

“There’s been a mind change within the Christian community that we need to take care of our bodies,” says Spadafora. Christians are the largest religious group, making up nearly a third of the Earth’s population.

Other entrepreneurs opt for a faith-centric franchise model, as evidenced by CrossFit F.M.S. (which stands for “For My Savior”) in Midland, Texas, and CrossFit 27:17 (a nod to Proverbs) in Flowood, Mississippi. Females in Action (FIA), a free and peer-led, bootcamp-style workout program for women, finishes each workout with a prayer. In just six years, FIA has grown to more than 6,000 members, encompassing 53 regional groups across the US.

A select portion of boutique fitness studios establish a more comfortable setting for those living within religious constraints: The women-only Nawal Haddad gym in Singapore offers hijab-friendly exercise classes, while Jerusalem’s Kosher Gym caters to observant Jewish men with evening prayers and a strictly kosher café.

Religion and bodywork have long been associated. At the 2019 Global Wellness Summit in Singapore, theologian Martin Palmer stressed the strong relationship



Theologian Martin Palmer, GWS 2019

INSPIRATION FROM THE 2019 GLOBAL WELLNESS SUMMIT

What Does Faith Have to Do with Wellness? Everything!

Prof. Martin Palmer, Secretary General, ARC, UK

between wellness and faith, noting the body-soul connection inherent in religious texts and traditions. This is evidenced by monastic diets, spiritual bouts of fasting, physically demanding pilgrimages and ritual bathing. He quoted the apostle Paul: “Do you not know that your body is a temple of the Holy Spirit, who is in you, whom you have received from God?...Therefore honor God with your body.”

Roughly 84 percent of the world’s population identifies with a religious group, and nearly every faith in some way exalts not only the body’s capabilities but mankind’s duty to maintain good health.

Of course, religious communities are not immune from global epidemics such as obesity, poor diet and chronic conditions. Many institutions see their health initiatives as a crucial part of tending to parishioners’ wellbeing. The annual Congress on Sport and Christianity is one such attempt to address what the ministry sees as a pressing need to introduce more exercise into worshippers’ lives. The conference boasts keynote speakers such as football star Tim Tebow.

Wellness can also prove inspiring in a faith context. Some religious leaders view fitness as the ultimate vehicle to deliver spiritual growth, noting the flush of emotions and

endorphins that accompanies movement.

Faith & Fitness Magazine Founder Brad Bloom says the current church model—dressing up to sit in a pew—doesn’t connect with a growing percentage of worshippers. He started a consulting firm and launched a national conference due to increased interest from American churches looking to add fitness programs.

“[Through exercise], people let their guard down, and they’re much more inclined to absorb the messaging,” says Bloom. “Fitness is a very ideal way to improve one’s life. It’s not just about exercising; it’s also about examining where we are spiritually and how we can make advances and grow stronger.”

A fitness ministry based on physical release might resonate more with an increasingly anxious and overworked population. The lessons of fitness—getting stronger, improvement and self-care—aptly apply to one’s inner spiritual life. Not to mention the intimate camaraderie, accountability and community-building effects of group exercise.

Nutrition is another sector witnessing religious interpretation. In 2011, American megachurch pastor Rick Warren launched a diet plan that saw thousands of followers ditch junk food and soda. Today, more



Faithful Workouts combine mini-sermons and Christian music so participants can integrate both lifestyle and faith.

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health-conscious lifestyles have inspired organic, GMO-free kosher food labels and grass-fed, sustainably raised halal meat. Revelation Wellness—a popular Christian network that encompasses streaming classes, events and a podcast—stresses clean eating and even encourages a 21-day sugar fast. Some coastal US synagogues advocate monthly vegan or meat-free challenges.

Mental health, meanwhile, slowly trickles into religious circles that see value in providing psychological services to congregations. Mosques, synagogues and churches hold communal workshops and offer further training to leaders and volunteers. Organizations such as Urban Adamah organize mindful prayer services in the outdoors to reap the restorative calming effects of nature. Meanwhile, the National Alliance on Mental Illness launched an interfaith resource network to encourage religious leaders and clergy to better address community needs.

This makes sense seeing as how religious structure and rituals have been shown¹ to impact psychological wellbeing. That connection is being further studied at research institutions such as The Muslims and Mental Health Lab at Stanford School of Medicine, which examines the integration of faith concepts with therapy.

Some entrepreneurs look to refashion popular modalities, such as mindfulness, to religious audiences. Soultime is an app providing guided meditation through a Christian lens. The Archbishop of Canterbury not only endorsed the UK-based app but also recorded a meditation for it. Soultime has been downloaded in more than 150 countries.

“One thing the secular apps miss is how people relate to the world in a spiritual



The Catholic-based SoulCore pairs stretching and functional movement with the prayers of the rosary.

way,” says Soultime Founder and CEO Mark Wagner, “and how their spiritual understanding affects their emotional understanding.”

Wellness-focused faith might better appeal to millennials and younger audiences, a sector that has embraced every kind of spirituality and wellness practice that in some way “switches on belief” (whether crystal healing or astrology), but at the same time has seen a formal decline in religious affiliation worldwide. A 2018 Pew Research Center study surveyed 46 countries and found that adults under age 40 are far less likely to believe organized religion is “very important” in their lives than older groups.²

Ironically, millennials fueled the more spiritually fluid gym concepts like SoulCycle, which push a secular, experiential version of communal rituals. Self-care became their gospel, sweat their communion: Their body is quite literally a temple, albeit with personal bodywork in lieu of God. In fact, researchers from Sweden’s Linköping University discovered that many of the facets of modern fitness coincide with the basic characteristics of a religion.³

But as this same demographic struggles for a sense of physical community, religious institutions will attempt to draw them back with activities that speak to their interests.

The Jewish Yoga Network has seen a dramatic increase in both instructors and synagogues looking to adopt the Hindu practice.

While the bulk of this trend depends on independent churches and start-ups, we’ll start to see megachurches, national religious organizations and more influential leaders embrace health and fitness. In addition, budding franchises such as the Lord’s Gym, which now counts over 20 gyms worldwide, will increase their footprint. As technology advances, religious groups might better customize popular trends, such as supplements or wellness travel, and secure larger audiences through digital networks and apps.

THOUGHT STARTER

Pope Francis, 82, made a name for himself with his more progressive, forward-thinking leanings. Will he soon extend the courtesy to health and wellness? The leader of the Catholic church is known for his love of walks and nutritious meals, often composed of simple whole foods such as fish, rice and fruit.⁴ In 2018, the Pope addressed the uptick in chronic diseases by highlighting the dangers of modern vices, such as smoking, alcohol consumption and environmental toxins. Speaking at the Vatican, he advocated for preventative lifestyle changes including physical activity, proper diet, and “respect for the ‘health codes’ practiced by the various religions.”⁵

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Pope Francis advocates for preventative lifestyle changes like physical activity, and “respect for the ‘health codes’ practiced by the various religions.”

“Fitness is an ideal way to improve one’s life. It’s not just about exercising; it’s also about examining where we are spiritually and how we can advance and grow stronger.”

— Brad Bloom, founder, *Faith & Fitness* magazine

The Wellness Sabbatical

By Susie Ellis with Judy Chapman



Kamalaya in Koh Samui, Thailand, appreciates that a clean break from business is not always possible: It's 21-day Wellbeing Sabbatical caters to guests with flexible work and wellness programming.

The need to strike a balance between the pursuit of wellness and the need to work is the central concept of the wellness sabbatical.

You may have heard of the term “wellness sabbatical” but are not quite sure what the fuss is about. Believe me, the concept is groundbreaking!

What is a wellness sabbatical? Think three weeks (or longer) of focusing on your health and wellness—enough time to make lasting lifestyle changes. But (wait for it!), there is one significant differentiator from the usual wellness offerings: You will take along your smartphone or laptop to stay connected with your work—in fact, devices will be welcomed!

At times, people who have taken (or used) their devices on vacation have been shamed, but for many, disconnecting is just not possible—and it would contribute to

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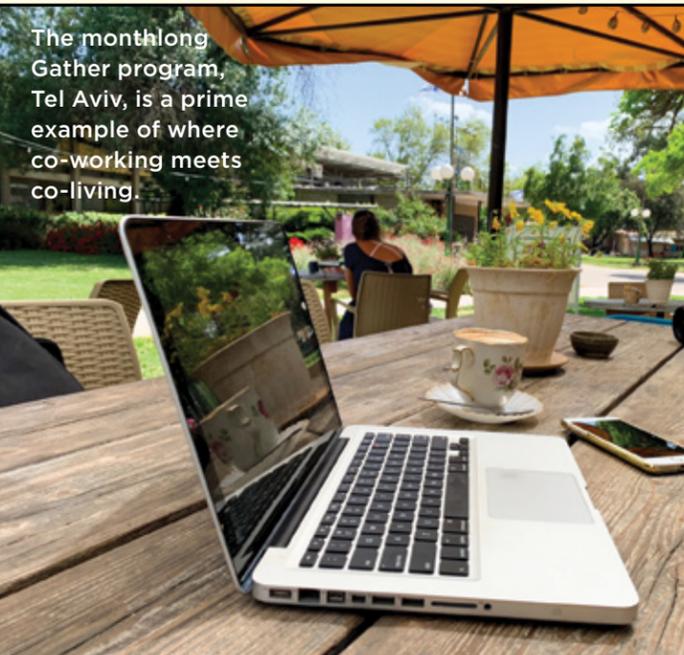
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their already high stress levels. The advice to disconnect from technology has long been trumpeted by doctors, parents and well-meaning people in the wellness space, but the reality is that for many this is no longer viable.

THE WELLNESS SABBATICAL: CONCEPTUAL FRAMEWORK

The need to strike a balance between the pursuit of wellness and the need to work is the central concept of the wellness sabbatical.

The statistics on ill-health are alarming, with preventable physical health issues increasing, obesity rates soaring and poor mental health skyrocketing. There is a general sense that people’s health and



The monthlong Gather program, Tel Aviv, is a prime example of where co-working meets co-living.

happiness are not what they should be. Life expectancy is not always within our control, but we need to hit the pause button to rethink and make the pursuit of wellness part of our lives.

Over the years, the time we have allocated to “recharging” has gotten shorter and shorter. We have gone from the three-week-long “taking a kur” (cure) common in Europe many decades ago, to one-week spa vacations (which are increasingly welcoming guests for much shorter stays). Many resort vacations have morphed into weekend getaways, and the day spa visit that started out being a full- or half-day package is now reduced to a dash in for one or two services—with the “express” version gaining in popularity.

It’s time for the pendulum to swing the other way.

The “Sabbatical” Explained

The term “sabbatical” can be traced back to the biblical term for a day of rest—the Sabbath. In years past, it was often teachers and academics who took a year off to spend time researching, writing or traveling. More recently, the term has been used to describe any time away from the traditional work environment that is used to recharge and to pursue personal passions.

Perfect Match

The term “sabbatical” works well with “wellness”—it communicates enough seriousness to describe the time away from the daily work environment as meaningful and yet includes a sense of freedom and

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Melisse Gelula, GWS 2019

INSPIRATION FROM THE 2019 GLOBAL WELLNESS SUMMIT

Mission Accomplished: Wellness is a Global Force...What’s Next?
Susie Ellis, Chair & CEO, Global Wellness Summit, US

Why Successful Wellness Entrepreneurs Need a Vacation from Wellness: A Surprising and Seriously Vulnerable Account
Melisse Gelula, Co-Founder, Well+Good, US

self-directedness. If sabbaticals are time away to focus on a project, then this time the project is an immersion into our own personal health and wellbeing.

Fueling the Trend

Technology has allowed us to become “digital nomads,” and the more comfortable you are working away from the office, the more successful your wellness sabbatical will be. A study¹ by Switzerland-based serviced office provider IWG found that 70 percent of professionals already work remotely at least one day a week and 53 percent work remotely for at least half of the week.

The ability to work from home and the emergence of digital office rental services such as WeWork are changing how we think about work, travel and wellness.

The travel world has already taken note and is offering up some unique options where co-working meets co-living: Roam, Outside, Behere, The Remote Experience, Unsettled, The Nomad House and CoWoLi are

examples. Gather, a new venture launching from Tel Aviv, is a monthlong program for those who want to work remotely in Israel while experiencing the communal Kibbutz lifestyle.

What You Will Experience on a Wellness Sabbatical

The most successful wellness sabbaticals will be those where the work and wellness programming is flexible but specific to each person’s unique needs.

The design of the programs will be according to the best evidence-based science. Ideally, these programs will be conducted in beautiful natural settings. Movement and exercise options will abound. Healthy food will be the only option on the menu, and stress-reducing treatments, meditation and healthy sleep will be high on the priority list.

Wellness education sessions will be interspersed with work and social interaction. Occasional outings will be on offer and having fun will be encouraged!

At the same time, there will be totally reliable connectivity and access to the latest technology. Working spaces will be set up to facilitate work time. Differentiators could include program flexibility to allow for working in different time zones and the provision of spaces to meet with a co-worker to hold a meeting or conference call if required.

Most importantly, attention will be given to finding the ideal personal balance of work and wellness pursuits. Conventional wisdom points to a minimum of 21 days to make lasting lifestyle changes—exactly what we see as ideal for a wellness sabbatical. Guests need to experience and to internalize how it feels to attain the level of clear thinking and creativity that is present when one is relaxed. This can then be sustained beyond the three-week program.

Overwork Is Becoming Less Applauded

In many societies today, overworking is widespread, but there are some signs that countries, companies and individuals are making an effort to rein this in.

The research shows that working more than 55 hours a week results in an increased risk of stroke, coronary heart disease and premature death². Concern about longevity urgently needs to be translated into action at both a societal and personal level.

A survey by China’s Wuhan University of Science and Technology shows that more than 80 percent of Chinese employees are overworked.³ Incredibly, the billionaire founder of Alibaba, Jack Ma, recently put the spotlight on overworking but not in a good way. He referred to “working 996” (9-9; 6 days a week) as a “huge blessing”!⁴

The Japanese even have a word for death by overworking—karoshi.⁵

The US worker is known for receiving less vacation time than many European counterparts, yet a recent Nielsen poll found that 52 percent⁶ of workers didn’t take all of their paid vacation days.

Research is showing that people who take time off live longer and are happier in both their personal and work lives.

The Workplace and the Wellness Sabbatical

The positive news is that CEOs of workplaces are becoming more cognizant of their workers’ health and wellness. Many companies are starting their own programs—or bringing in the professionals—and others are committing to becoming a company with a wellbeing culture. The wellness sabbatical will become another tool in the company toolkit. It has been reported that 25 percent of *Fortune’s* 100 *Best Companies to Work For* now offer sabbaticals to their employees.⁷ Employers need to look after their employees who make them big bucks!

The Rising Cost of Healthcare

Statistics show that the rising cost of healthcare is unsustainable. Globally, 69 percent of all deaths each year are a result of preventable diseases.⁸ The global cost of largely preventable chronic diseases

(cardiovascular disease, chronic respiratory disease, cancer, diabetes and poor mental health) could reach \$47 trillion by 2030.⁹

The smart attention these days is on the prevention of ill-health, which just happens to be a major goal of wellness sabbaticals!

It’s Easier to Make Healthy Lifestyle Choices When Unhealthy Choices Are Less Available

Credit Dan Buettner, author of the *Blue Zones* books and articles, with identifying one of the most significant findings of achieving longevity.^{10, 11} After 20 years of research and study in places with the highest numbers of centenarians (people who live healthy lives past 100), here is what Dan found:

“Instead of seeing a long, healthy life as a goal that required discipline, effort and a prescribed routine, people in the blue zones found it occurred almost naturally; it flowed from their surroundings. In these places, it seemed, the healthy choice wasn’t the

“It has been reported that 25 percent of *Fortune’s* 100 Best Companies to Work For now offer sabbaticals to their employees.”

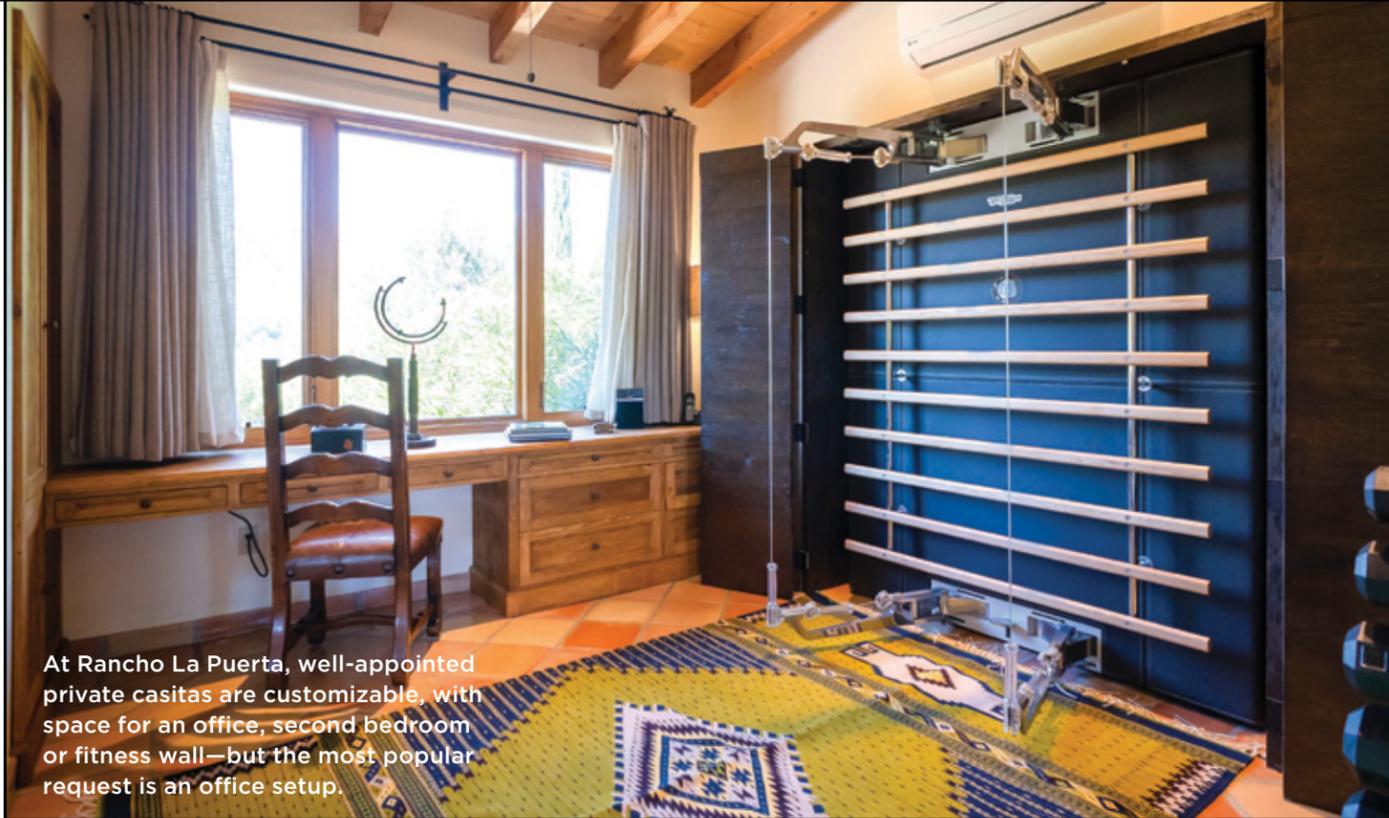


Kamalaya’s Wellbeing Sabbatical includes personal mentoring sessions but provides a less-structured feel to allow guests flexibility between work and wellness.

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At Rancho La Puerta, well-appointed private casitas are customizable, with space for an office, second bedroom or fitness wall—but the most popular request is an office setup.

deliberate choice; it was the unavoidable choice.”

Dan discovered that when you try to pursue health, happiness or longevity, it almost never works. The secret is that longevity results from being immersed in the right environment.

A wellness sabbatical is a 21-day experience (a rehearsal if you like) at this “right environment.”

Can I Do a Wellness Sabbatical Now?

Happily, there are several places where the wellness sabbatical has already taken hold. Most are places where the environment was such that guests themselves began crafting their own long-stay programs, which made it easy for them to engage in wellness pursuits while working remotely.

Take Kamalaya’s Wellbeing Sabbatical,¹² which has a minimum stay of 21 days. Located in Koh Samui, Thailand, this program is designed to go deeper than just relaxing or recharging. The staff recognizes that, for many, a clean break from work and business is impossible. Their program is, therefore, less structured, with emphasis on giving guests flexibility in scheduling treatments, healing and personal growth therapies. During Kamalaya’s Wellbeing Sabbatical, personal mentoring sessions are included. These are conducted to support guests in breaking through self-imposed restrictions, thereby gaining insights and

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perspectives that can lead them to truly thrive.

Another place that is already ideally set up for a wellness sabbatical is Vana in India.¹³ Vana, which means “forest” in Sanskrit, was designed with the idea of personal transformation in mind. This relative newcomer to the immersive wellbeing scene was built incorporating the latest technology, making it all highly reliable. Its well-designed guest rooms—all with forest views—offer spacious areas to accomplish work without seeming the least bit office-like. Its program offerings and thoughtful approach to an individual’s personal health and wellness quite naturally fold in a person’s working life.

After seeing a significant rise in bookings for three-12-month multi-destination trips, UK creative travel company, Original Travel, launched an entire section dedicated to sabbaticals.¹⁴ These include *Family Sabbaticals*, *Back to Nature*, *Cultural Immersions*, *Learn a New Skill*, *Give Something Back*—and *Wellness Sabbaticals!*

One of its signature wellness sabbatical itineraries, for instance, is three months in Asia, which takes you from the Himalayas to Japan, with yoga, hiking, tai chi and meditation included. Based on its own research into why clients take sabbaticals, Original Travel reported the motivations as self-improvement/taking time out to reassess (43.6 percent); to see the world while they can (46.2 percent); and to combat burnout/exhaustion (33 percent).

Original Travel also “walks the talk” by awarding its own employees three-month sabbaticals every five years.

Rancho La Puerta, located in Tecate, Mexico, added a trio of private casitas a few years ago.¹⁵ Each includes a wood-burning fireplace and secluded garden patio with a saltwater dipping pool. In-room treatments are possible and in-room Wi-Fi is assured. These accommodations are also customizable: You can request that your second room is set up as an office space, an additional bedroom, or a fitness wall. The most popular request? The office setup. Rancho La Puerta reports that top executives find the Cielo casitas an ideal way to interweave several hours of work each day whilst making progress in achieving needed lifestyle changes.

Finding Wellness Sabbatical Places in the Future

A sprinkling of places with 21-day programs already exists. While most are currently not oriented to encourage and incorporate a few hours of work daily, that adjustment could easily be made—and indeed, we are seeing that start to happen. These are most common at Ayurvedic retreats, various thermal/mineral spring experiences and some medical programs. Examples include Ananda in the Himalayas in India, Danubius Health Spa Resorts in Europe, Pritikin and Canyon Ranch in the US, Grayshott Hall in the UK, Kurotel in Brazil, and VivaMayr and Lanserhof in Austria and Germany.

There are also some excellent programs encouraging seven- or 14-day stays, which could easily be extended into 21-day wellness sabbaticals. Examples include SHA Wellness in Spain, Chiva Som in Thailand, The Ranch at Live Oak in Malibu and Longevity Wellness Resort in Portugal. Currently, however, these retreats don’t include specific programs or time to



At Vana, guests have access to the latest technology and well-designed accommodations with roomy work space—sans the office-like feel.

accommodate a person’s need to continue to work while engaging in their life-enhancing experiences. But that also is likely to change.

Affordable Wellness Sabbaticals

We are seeing increased offerings for affordable wellness getaways, often driven by millennials, the digital nomads. We expect some smart wellness destinations to use their off-seasons to make wellness sabbaticals truly cost-effective—not everyone can afford three weeks or longer in a luxury wellness resort.

That boom in co-living previously mentioned could easily morph into an extended and affordable wellness sabbatical.

Have a look at Amble, a crowd-funded

start-up offering one-month destination sabbaticals tailored for skilled creative professionals and conducted in national parks across the US.¹⁶ At the cost of \$1400 a month, the sabbatical includes lodging and some meals. Guests are required to devote 18 hours a week to various projects, as well as take part in guided and unguided hikes for personal regeneration. They describe it as “taking time away with purpose.”

We even envision the possibility of people creating their own wellness sabbaticals—in places where they can stay for six months to a year. And with some expert coaching and smart planning, staying at home on a wellness sabbatical is also a possibility.

A FINAL WORD OR THREE...

It is incumbent upon each of us to ensure we have a work and wellness balance that allows us to be well and to thrive.

Going forward, we see the wellness sabbatical being incorporated into literally hundreds of locations—from five-star destination spas to yoga retreats to one-star campsites.

The game-changing work + wellness concept embraced during wellness sabbaticals is rewriting the future of travel, wellness and work.

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A new generation of start-ups tout wearables, apps, modernized clinics and digital platforms like the meditative Expectful app to address fertility issues. Photo credit: Kelly McKnight

The Fertility Boom

By Rina Raphael

As both women and men take ownership of their reproductive health, reproductive assistance, once deemed a luxury, is becoming a crucial part of healthcare.

In the past few years, what was once hushed about in doctors' offices is now openly discussed. Fertility has entered the mainstream conversation as numerous celebrities—Chrissy Teigen, Kim Kardashian, even Mark Zuckerberg—publicly share their struggles. And it's grown into a formidable femtech sector, empowering individuals to take charge of their reproductive health.

It's part of a bigger trend: Women, long underrepresented in medical research and excluded from clinical trials, are increasingly taking ownership of their bodies. They demand more information, more studies and, therefore, more innovation. At its current 8.5 percent annual growth, the global fertility services market is expected to grow to \$36 billion by 2023, according to a Market Research Future report.

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Fertility is of utmost importance in light of sobering stats. Highly industrialized countries, such as England, Japan and the US, continue to see record-low fertility rates.¹ This stems from a number of reasons, including women of childbearing age delaying having children (or not at all), as well as the continual deterioration of male sperm quality.²

Plenty of countries also inadvertently incentivize delaying motherhood; In the US, for example, women who reproduce before age 35 never see their pay recover relative to that of their partners. As such, the majority of new moms in the US are over 30, inevitably increasing the need for medical intervention. The Centers for Disease Control and Prevention found that 12 percent of American women of reproductive age now seek fertility treatments.

Society is rethinking reproductive assistance: It's no longer considered a luxury but a crucial part of healthcare.



Mira's AI-enabled device, when paired with a smartphone app, provides more accurate at-home fertility testing.

LEVERAGING TECH

Silicon Valley is at the center of this trend: A new generation of start-ups tout digital platforms, wearables, apps and modernized clinics to address fertility issues. This spans community support networks such as Peanut Trying to Conceive and the Tinder-like sperm donor matching app Just A Baby. There are even meditation platforms such as Expectful to regulate women's anxiety and stress, which studies show can affect the ability to conceive.

It began in 2013 when PayPal Co-Founder Max Levchin founded Glow, a female fertility tracking app dubbed "Fitbit for your period." The high-profile launch paved the way for companies such as Ava, OvaCue and Clue to sell ovulation trackers and ovarian reserve tests. Period trackers are now one of the most popular health categories in the App Store.

These palm-size monitors and bracelets measure different physiological signals to predict ovulation windows. (On average, they can detect fertile days at 89 percent accuracy.) Trackers will become more popular as big wearable companies offer such features. More recently, Fitbit introduced fertility tracking on its newest device.

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Trends Panel Discussion, GWS 2019

GLOBAL WELLNESS SUMMIT 2019
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INSPIRATION FROM THE 2019 GLOBAL WELLNESS SUMMIT

Predictions & Punditry:
Trends in Health & Wellness, Panel Discussion,
Moderated by **Beth McGroarty**, VP, Research & Forecasting, Global Wellness Summit, US

Mira is one company bringing affordable, laboratory-grade testing into people's homes. It sells an AI-enabled device that pairs with a smartphone app to measure levels of Luteinizing hormone in urine for a more accurate insight into one's fertility.

"The consumer is looking for something really easy," says Mira CEO and Co-Founder Sylvia Kang, a former biomedical engineer. "No one wants to take so much time to learn about a product they hopefully only use for a few months."

Education, comfort and simplicity lie at the heart of many products. Natalist is a monthly delivery box filled with sleek conception essentials for those just starting to consider pregnancy. New Hope Fertility released an at-home IVF kit, which allows women to privately prepare for the egg-retrieval process.

Modern Fertility sells finger-prick tests that gauge reproductive hormones. The female-led start-up also hosts educational seminars called "hormone lunches" at a number of high-profile companies such as Reddit and Slack. It's reframing fertility as a marker of general health: In the past, women often only examined their fertility when trying to have a family or dealing with a reproductive issue. Modern Fertility encourages consumers to be as proactive about reproductive health as other

areas of their wellbeing. That means starting the conversation at a younger age.

"The way that we can make the largest impact is by giving women resources and tools earlier," stresses Modern Fertility Co-Founder and CEO Afton Vechery.

It's not just women pushed to take action; men are also encouraged to improve their reproductive health. The last year saw an influx of products that measure, track and store male sperm in an effort to curb failing sperm health. A recent Hebrew University of Jerusalem study³ found that sperm counts among Western men declined by 52 percent in the past 40 years. One-third of all infertility cases are caused by male reproductive issues.

Companies such as YO, SpermCheck and Trak sell discreet at-home sperm health tests. Trak also includes an educational platform to give men actionable ways to improve their sperm quality. Other start-ups, such as Dadi, offer a sperm storage kit for individuals who want to put off having a family. Their tagline reads: "Men have a biological clock too. It's time to freeze that seed."

THE EXPERIENCE MARKET

An emphasis on experience sees the growth of new medical clinics specifically tending to infertility. Unlike their predecessors, these newcomers attempt to bring a sense of humanity, community and design to a highly sensitive journey. Patients might receive a bouquet of flowers and handwritten cards following egg retrieval. They can virtually access nurses and “fertility coaches” 24/7, texting or video-calling whenever need be.

These clinics are also highly ‘grammable: Chicago’s egg-freezing studio Ova boasts a glamorous, boutique-like esthetic with

pastel pink furniture, chic rugs and fuzzy white pillows. A dramatic lobby chandelier provides soft ambience, a far departure from hospitals’ harsh fluorescent lighting. Potential clients can learn more about the process during champagne-fueled happy hours or sponsored Q&A sessions held after free group workouts. These new formats feel far more approachable than traditional medical seminars of the past.

Ova joins trendy bicoastal US clinic Kindbody in rebranding egg-freezing as a liberating feminist act, thereby allowing women to plan their future on their terms. To spread the word, Kindbody launched a roaming bus to conduct fertility tests and encourage young women to take family planning more seriously. In December,

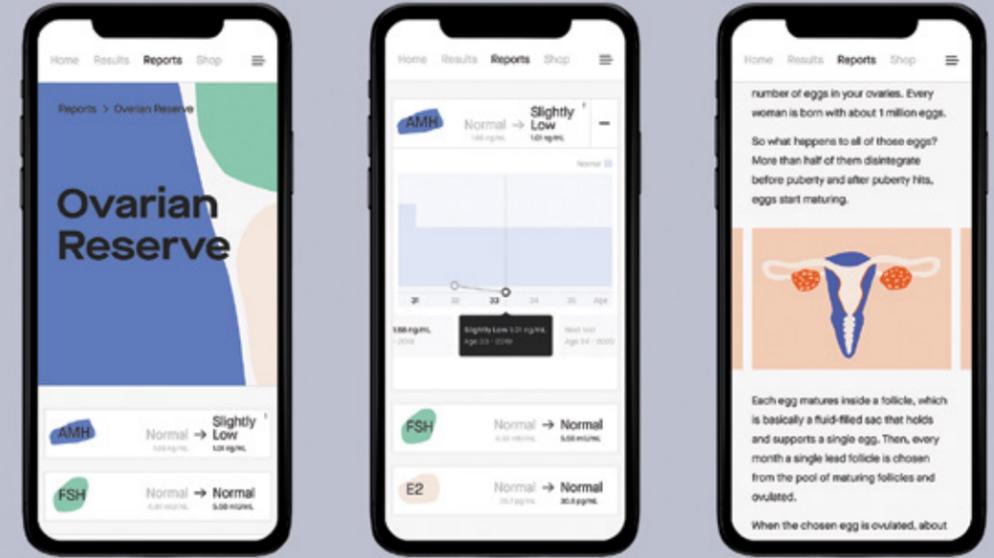
“In a relatively short period of time, fertility health has become one of the top benefits that employers are looking at to be competitive in the market with top talent, but also to drive down the overall cost of medical spend.”

— Tammy Sun, CEO and founder, Carrot Fertility



Subscribers to Natalist’s monthly delivery box receive fertility products and other essentials necessary to increase chances of conceiving.

Modern Fertility’s finger-prick tests gauge reproductive hormones; the female-led start-up also hosts “hormone lunches” at high-profile companies.



Kindbody announced it had a total funding of \$32 million after an infusion led by Alphabet Inc.’s GV (formerly Google Ventures).

The emphasis on experience also extends to finances in an attempt to democratize and simplify access to care. Countries such as Israel provide state-paid fertility treatments, while Denmark leads the way in affordable and widely available assisted reproductive technology. But most, including the US, struggle to address the financial burden.

The average price for a round of IVF in the US is approximately \$12,000, but individuals often go through several rounds, hiking the total cost up to \$60,000. It’s one of the largest out-of-pocket health expenses millennials face.

This pain point sparked the idea for Future Family, a flexible financing service that

includes fertility testing, medical expertise and a concierge service to handle medical appointments. It offers a monthly payment subscription for clients, as well as a “Grandbaby Plan” that permits parents or in-laws to take out a loan on behalf of their son or daughter. It is, of course, meant to appeal to baby boomers eager for a grandchild.

Carrot Fertility offers employers customized benefit plans and a first-of-its-kind flexible fertility debit card. It joins fertility benefits provider Progyny, which works with companies such as Facebook and Microsoft and has raised more than \$99 million to date.

“In a relatively short period of time, fertility health has become one of the top benefits that employers are looking at to be competitive in the market with top talent, but also to drive down the overall cost of medical spend,” says Carrot Fertility Founder and CEO Tammy Sun.

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Femtech start-ups are believed to have secured over \$1 billion in investment to date, and of that, 60 percent focus on fertility or pregnancy. Photo credit: Expectful/Jessica Towery



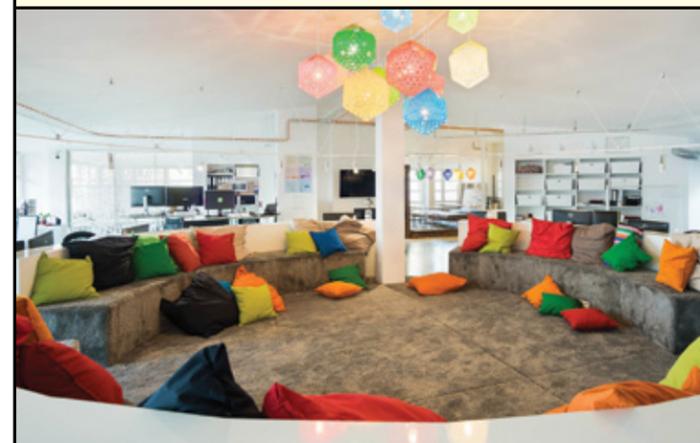
co-founder and CEO of Zurich-based Ava. “We need to work closely with medical providers for solutions that really work for women. We have a huge potential with technology.”

Medical research proves expensive, though Silicon Valley seems more keen to bankroll such initiatives. Modern Fertility is backed by Forerunner Ventures, the fund behind mega-successful brands such as Hims and Glossier. Prelude Fertility, a US-based network of fertility clinics, raised \$200 million to target millennials with simplified egg-freezing packages. The newly funded start-up Mojo plans to ensure women receive more precise, less error-prone IVF treatments via AI and robotics technology.

Collectively, femtech start-ups are believed⁵ to have secured over \$1 billion in investment to date, and of that, 60 percent focus on fertility or pregnancy.

Modern Fertility’s Afton Vechery recalls her experience trying to raise money just two years ago. She struggled to connect with investors, many of whom doubted consumer interest or first needed to “check with” their wives. Today, it’s a far different scenario.

“Now we have investors e-mailing us every week trying to find time to get on the bus,” says Vechery. “It’s really night and day.”



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THE NEXT STEP

An entire cottage industry helps consumers navigate all the products and services crowding the market. This influx inherently leads to a fragmented market in which consumers often depend on several different companies to achieve an end goal.

FertilityIQ, hailed as the “Yelp for fertility,” serves as a community-powered resource for treatments, products and clinics. Today, 80 percent of all US fertility patients visit FertilityIQ to read and share reviews, as well as watch video lessons on topics such as surrogacy basics. Site traffic has tripled year over year, with nearly a million unique visitors in 2019.

“It’s an indisputable fact that there is more interest for women to freeze their eggs today than there was even two years ago,” says Jake Anderson-Bialis, co-founder of FertilityIQ. “At the same time, the need

for education has never been more acute because there’s a fair amount of confusion as to what [services like] egg-freezing actually accomplishes.”

The egg freezing market is expected to grow 25 percent⁴ annually over the next two years but not without criticism. Medical experts stress that such procedures, which see wildly varying success rates, in no way guarantee results.

Doctors and experts, as well as start-up founders, attest to the need for further clinical research. Both Modern Fertility and Ava are taking the lead by pursuing studies to develop better predictors of fertility.

“There are a lot of old claims without much scientific backing,” stresses Lea von Bidder,

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Left: Clue’s office setting in Berlin. Right: More than 10 million active users worldwide currently depend upon Clue’s period and ovulation tracking app.





Music created (and listened to) as intentional medicine will be a big trend in 2020 and beyond.

Wellness Music

By Beth McGroarty

From the music industry pivoting to “wellness” music to new technologies that capture our biometric data to create personalized, healing soundscapes—music is undergoing a sudden wellness transformation.

We all self-medicate through music: We’ve all got our “I’m stressed” or “I need energy” playlists. But most people don’t fully grasp just how much they depend on music to manage their emotions or just how powerful the medical evidence for music therapy is. Studies reveal¹ that not only are humans hardwired for music, but they also agree that no other stimulus positively activates so many regions of the human brain (from the amygdala to the hippocampus)—with unique powers to boost mood and memory. But when you think of formal “music therapy,” it conjures up dowdy, dusty greige offices in some school or medical outbuilding, with patients wearing Soviet-era headphones.

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Suddenly, something big is happening. Music as an intentional therapy is being radically reinvented. Music is emerging as one of the hottest trends in wellness, and wellness concepts are shaking up the massive music industry. “Wellness music” is being born, and the trend takes so many forms. Funding for medical studies on music’s impact on the brain is really heating up, with researchers using biofeedback, AI and machine learning to identify how music’s structural properties (such as beat, key, chord progression and timbre) specifically impact biometrics like heart rate, brain waves and sleep patterns—so they can develop music as precision medicine for everything from pain to PTSD.

The mainstream music industry is going through a wellness transformation: from an explosion of healing playlists on the big streaming sites such as Spotify to new artists and audiences for ambient and “New New Age” music to musicians incorporating all kinds of wellness experiences into their concerts. The newest and biggest meditation apps are fast morphing into wellness music apps, with goliaths such as Calm even planning to become a whole “new kind of label” for artists to launch music for wellbeing.

One of the most provocative developments: the rise of “generative,” AI-powered music apps and technology platforms that pull your biological, psychological and situational data to create an utterly unique, custom-made-for-you, always-changing soundscape—to improve your mental and physical health any time you want to tune in.

And while the megatrend of ancient sound therapies (from gong baths to Tibetan singing bowls) will only rise at wellness studios and travel destinations, we’ll see more experimentation with music and

acoustic experiences at both mainstream and wellness travel destinations. How about a “deep listening” excursion in the deepest rainforest with an acoustic ecologist?

Given music’s powerful impact on our brains and bodies, it’s extraordinary how little innovation there has been around intentionally designing music and sound experiences that could actively, positively change our mood, health and performance.

Change is here. Music created (and listened to) as intentional medicine will be a big trend in 2020 and beyond. It’s not about giving up your Beatles or Beyoncé fixes solely for biofeedback-based soundscapes—it’s about seeing music’s health and wellness potential anew, with far more “wellness music” options: new technologies, new experiments and new experiences.

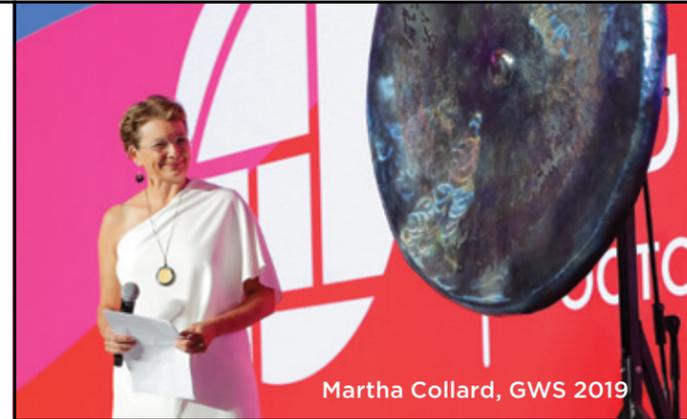
FUELING THE TREND

Evidence that music is strong medicine—with more studies un-riddling its unique brain mechanisms ahead

Stringent meta-reviews show music’s eye-opening impact on depression², anxiety and pain³—and everything from its power to improve social skills in kids with autism⁴ to being a stronghold against Alzheimer’s, as memories of music don’t get lost to the disease.⁵ A key, recent focus has been more hospitals around the world using music therapy before surgery, as new studies⁶ like one from the University of Pennsylvania

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Martha Collard, GWS 2019

INSPIRATION FROM THE 2019 GLOBAL WELLNESS SUMMIT

Keynote and Gong Performance:
Sound Dimension: Finding Clarity in the Midst of Chaos

Martha Collard, Founder, Red Doors Studio, Hong Kong

reveal that music is as powerful as a sedative in reducing patients’ anxiety.

More research is now untangling the brain mechanisms involved in listening to music and investigating the right dosages: The British Academy of Sound Therapy just found that 78 minutes daily is optimal for improving mental health. And there’s more research into evidence-based acoustic sound design: what frequencies (measured in hertz), decibels, beats, tones, etc. have the most powerful impact, and for what outcomes.

The potential of music therapy is so immense and untapped that the National Institutes of Health (NIH) just awarded \$20 million⁷ to fund a Sound Health Initiative that will undertake studies to uncover music’s mechanisms of action in the brain, as well as to identify a host of new interventions, from treating symptoms of pain, PTSD, Parkinson’s disease, stroke, autism and dementia to music’s impact on childhood development. This is a huge step: serious money for serious science to understand music’s serious potential for improving human wellbeing.

Culture shift: Exhausted by screens, we’re taking sanctuary in sound

With the average person now spending 6.5 hours+ a day in front of screens⁸ — bombarded by bad news, endless work, and

social media strutting—there’s a distinct shift underway: a retreat from visual/digital culture into music and sound. This flight into music is being led by millennials/Gen Z: A recent global Spotify survey⁹ of 15- to 37-year-olds found that one of the five defining traits of this young demographic is that they (56 percent reporting) “use audio as an escape from their screens,” and audio is a “huge part of their everyday lives.” It’s not just the kids: A recent Sonos global survey¹⁰ showed the many ways all people use music to boost their wellbeing: Roughly 75 percent report they listen to music to reduce stress, and that listening to music is key to producing their best work.

You see the flight from visual to audio culture—from our exhausted eyes to our newly open ears—in the skyrocketing adoption of podcast-listening: Thirty-six percent of the world’s population has listened to podcasts in the last month.¹¹ You see it in new music listening centers, like the rise of cool, new “listening bars” that mix community and cocktails with big vinyl listening libraries, so huge in Toyko at places such as Baobob or Paper Moon, and spreading around the world to places such as Bar Shiru in Oakland, California, or Tokyo Record Bar in New York City. You see it in hot real estate trends, including the rise in “listening rooms,” a home space

where meditation can be taken with music, and with predictions¹² that these wellness rooms loaded with state-of-the-art audio/AV equipment are “the new home theaters.”

ASPECTS OF THE TREND

Stream your wellbeing: The music industry pivots to wellness

From an explosion of healing wellbeing playlists on the big streaming sites to new, big audiences for ambient and “New New Age” music to musical artists incorporating all kinds of wellness into their concerts, the mainstream music industry is experiencing a serious wellness transformation. “Wellness” is becoming a new mode of listening—beyond the artist or genre.

Spotify, Apple Music, YouTube and other streaming sites are increasingly serving up playlists that focus on mood-changing, stress-reducing, help-people-sleep, focus-enhancing, meditative, improve-your-workout music and soundscapes—making wellness music a core homepage channel. There are now endless loops of trance-y and tranquilizing music or channels for specific wellbeing intentions, and they boast millions of subscribers. Spotify is spawning “chill playlists” such as “Deep Focus,” “Peaceful Piano” and “Ambient Chill.”

Brand-new apps such as myndstream (from the founders of the entertainment group that made emotional music for shows such as *Game of Thrones* and *House of Cards*) create music to specifically drive daily wellbeing goals, with tracks for focus, meditation, movement, relaxation and sleep, that can be accessed on Spotify and Apple Music.

Both ambient and New Age music are finding big new audiences, as more people seek immersion in blissed-out sonic spaces and sound healing rather than power anthems or raps. NPR recently explored¹³ how ‘60s/70s New Age music (once cringe-inducing for many, with its sounds of birdsong and ethereal synthesizers) is seeing a cool new wave of artists and approaches, such as Los Angeles’ Matthew David and Kaitlyn Aurelia Smith.

More artists are incorporating experiences that you would find at a wellness resort into their performances: artists such as Erykah Badu and bands such as Sigur Rós are having mass sound baths at their concerts, while Jhene Aiko’s recent concerts included guided meditations, sound baths, mantra-chanting and aromatherapy. The music + wellness festival just continues to surge. The behemoth music fests such as Latitude or Glastonbury keep adding more wellness areas/experiences, the latter recently featuring everything from indigenous spiritual elders to workshops on ayahuasca. In the future, we will see more live music meditation and full-blown “audio-wellness” festivals, such as Soft Landings planned by Morning Gloryville Founder, Samantha Moyo.

WellMusicTech: A new era of personalized music as precision medicine

New technologies and apps are radically reimagining how music can become a deeply personalized precision medicine. A pioneer, geared toward the healthcare space, has been Project Sync,¹⁴ which worked with top neuroscientists and musicians to develop personalized musical therapeutics for everything from pain management (given the deadly opioid crisis) to improving sleep. A spinoff from MIT’s Media Lab, Project Sync performed trials on how things such as tone, beat

and rhythm exactly impact the brain and body. Purchased by Bose in 2018, a company then making moves in the acoustic healthcare space, it’s unclear for now what Project Sync’s future is. But it’s also clear that companies will step in and solve personalized musical interventions for traditional healthcare.

Your biological & psychological data generates an adaptive wellness soundscape to improve your wellbeing...all day

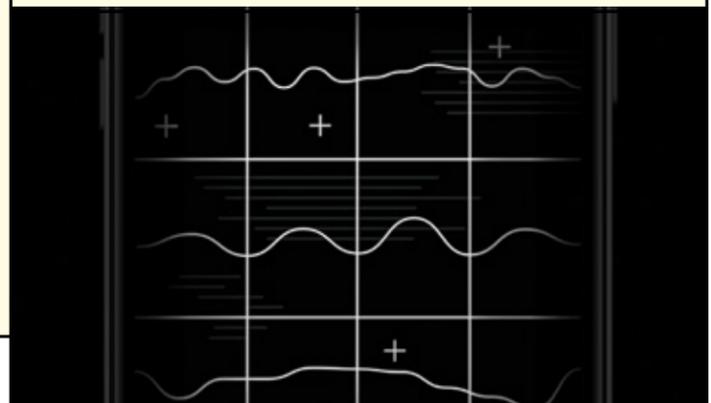
“Generative music” is music that largely nixes the composer and “song” from the process, to create compositions that endlessly evolve according to a pre-programmed set of rules—a concept pioneered by John Cage in the ‘50s and Brian Eno in the ‘60s/70s (whose music calmed David Bowie). It’s taking on new meaning and applications in our digital age.

One of the most fascinating examples of the new “wellness music” is the rising wave of generative music apps and streaming services that create tailor-made, always-adapting soundscapes, using algorithms and your own biofeedback, to improve your wellbeing. Their thesis: You’ve got the healing music in you, and when combined with smart algorithms and AI, these custom sound frequencies can function like an always-there playlist you can turn to if you need to de-stress, focus or sleep.

Berlin-based Endel is the headline-grabbing leader. The app pulls data from your phone (such as weather, time of day and your location) while pulling

biometric and psychometric data (from your heart rate to step data, etc.) from your smartwatch to create an endless sonic wellness composition. The Endel algorithm is based on pentatonic scales (to riff off simple sounds), people’s biological clocks and sound masking (to blanket distracting sounds)—and is informed by the psychological theory of “Flow”¹⁵ (that state of optimal “being in the zone”) developed by psychologist Mihaly Csikszentmihalyi (with whom Endel collaborated). So whether you’re deadlocked in traffic after an awful workday or heading out to run, Endel kicks off an ambient soundscape that just keeps blossoming as your bio and environmental input provides more data, evolving to help enhance your body and mind. It’s an endless wellness tune that’s never the same twice.

In 2019, Warner Music famously signed Endel-algorithm-generated songs to the first nonhuman record deal. Singer/producer Chaz Bear, known as Toro Y Moi, collaborated with Endel and Smartwater to create music with Endel’s algorithm and noted: “This is going to be an interesting platform to bring artists into the realm of wellness and bring wellness to the public.”¹⁶ The company (who has attracted big investors such as Amazon’s Alexa Fund



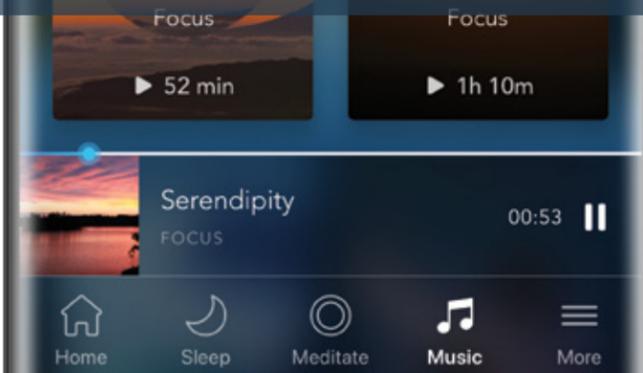
The new “wellness music”: Generative music apps like Endel and streaming services that create forever-adapting soundscapes using algorithms and your own biofeedback.

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Mega-meditation app Calm’s wellness music tracks have already been streamed 200 million times.



audio playing through your headphones and converts it into vibrations that stimulate the nerve receptors in your feet. These are, essentially, “wellness remix” technologies, as moving in sync with music/beats is associated with boosted endorphins and decreased fatigue and pain.

Meditation apps? They’re morphing into wellness music apps

There are thousands of meditation apps, and the market is growing like mad: The top-10 apps saw 40 percent growth year-over-year,¹⁷ and millions more new users tuned in for some mindfulness, stress-relief and help sleeping within the last year. A clear trend: The newest and most successful meditation apps are fast becoming wellness music apps.

One of the new apps, Wave, foregoes the old whispery, guided meditations for an all-wellness-music platform. The Wave kit combines headphones and a pulse-vibrating foam bolster for a multifrequency meditative experience. Users tune into the music library and, because it’s Bluetooth-enabled, they breathe to the beat of each track. It was specifically targeted at younger demos, and they surveyed consumers on what activities they most turned to for empowerment. Music ranked #1.

Mega-meditation app Calm (60 million downloads!), which hit \$1 billion unicorn status in part because it expanded its focus from meditation to sleep (with its famed celebrity-read “sleep stories”), is evolving into a “wellness music” platform. Calm’s incredibly popular “Sleep” channel

and Japan’s Avex Ventures) has ambitious plans to bring Endel soundscapes to all the everyday spaces: your home, hotels (certainly perfect for wellness destinations), retail spaces, galleries, workplaces, etc.—and are already in talks with automakers and airlines.

There’s so much interesting activity on the adaptive, generative “wellness music” front. Generative musician Holly Herndon’s album *Platform* created songs designed to trigger (that hot wellness trend) autonomous sensory meridian response—while her new album PROTO involved creating duets with a generative AI neural network that she taught to sing named SPAWN. Mubert, the first generative streaming service, lets listeners choose from intentions such as “Study,” “Dream,” “Relax” or “High” to unleash an always-unique sequence of electronic healing sounds.

Music start-up Weav retains the artist/song but seamlessly adapts the tempo (between 100–240 beats-per-minute) to sync the music to anything, as it says, “from running to skiing and—yes—sex!” Its first app, Weav Run, reengineers songs so when your foot hits the ground, the beat matches up: speed up, so does the song. DropLabs recently released EP 01, a sneaker that takes the

features exclusive compositions by alt-rock stars such as Moby, Icelandic band Sigur Rós, Sam Smith and Sabrina Carpenter designed to work as adult lullabies and musical sedatives. In 2020, Calm’s working with artists such as country music star Keith Urban—and with artists across musical genres, from pop to hip-hop—to create creative, long-form “Calm” music of all kinds. It’s wellness music tracks have already been streamed 200 million times.

In an eye-opening piece¹⁸ in the *Los Angeles Times*, Global Wellness Summit trend-spotter Rina Raphael, explains how intensely Calm is focused on music and the music industry. It plans to go beyond meditative versions of pre-existing music to become a whole “new kind of label” for artists to launch creative, long-form music for wellbeing—and it’s investing in a music-as-brain enhancement audio library that meets people’s everyday needs: music to de-stress from work or music to boost productivity and focus. And it’s not just music: Calm is “coming for Hollywood,” planning wellness-focused and relaxation-inducing original TV programming (and even films), and is already in talks with production and streaming companies. The music industry. The film and TV industry. Hollywood. Wellness. You knew it was coming...

So many start-ups are engineering such wildly different things in the “wellness music” space.

Paris-based Mila (a 2019 star in Techstars’ Music Accelerator program) is gamifying and digitizing music therapy for children with neurodevelopmental disorders to make it far more engaging. Doctor-created Neuvana is launching Xen, earbuds that gently tone the vagus nerve (that activates the body’s resting and digestive functions) while listening to music. The new Plantwave

device transforms the electrical conductivity of plants (whether your beloved houseplants or those you find in nature) into music, so you can hear them “sing.” Little sensors sit on the plant’s leaf and connect to your phone/laptop via Bluetooth. And while no research supports the idea that plants compose songs, the idea is to deepen the connection—to listen anew—to nature (more on that trend below).

More all-wellness-music centers

Sound baths and all kinds of aural healing ceremonies—using ancient instruments/practices such as gongs, Tibetan singing bowls, drums, bells, chimes, harps, Aboriginal didgeridoos—have, of course, been an ongoing wellness über-trend, with these vibrating, meditative sonic journeys taking place at so many more spas, fitness/yoga studios, wellness resorts and even mainstream hotels. Wellness destinations have become one blissful “gong show,” and the trend isn’t going anywhere. And we’ll continue to see more wellness destinations use more modern acoustic therapies such as binaural beats, where listening to different frequency tones in the left and right ears leads to a meditative brain state. More will offer biosonic repatterning, using tuning forks at the sonic ratios inherent in nature with the goal of realigning your nervous system’s frequencies. And more wellness centers/practitioners such as Michelle Cade of London’s Mind Like Water will put so many sound healing approaches under one roof, whether Ayurvedic sound therapy massage, soma board sound therapy, or CBD sound journeys...

More wellness music centers will take dramatically new approaches. Wavepaths, now in beta and at London popup Sound Space, brings an Endel-like experience to a physical place of community and sanctuary.

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Gordon Hempton, aka, The Sound Tracker, leads travelers on “interactive sound journeys” in the Ecuadorean rainforest.

Neuroscientist Dr. Mendel Kaelen, formerly a lead researcher in the role of music in psilocybin therapy at Imperial College, has created AI-driven, adapted-to-you sound experiences: You nest in a padded egg chair, sensors gauge your biological and emotional states, and AI translates that data into a healing composition that courses through you by way of 21 surrounding speakers. Over time, it creates a profile of what you best respond to, and the company has hired a team of neuroscientists who will deploy fMRI brain scanning to measure the precise changes in the brain to boost their impact. The company has a vision to build big, communal spaces for its high-tech sound journeys all over the world.

New sound experiences will hit travel—from music-synched massage to “deep nature listening” with acoustic ecologists

We will see more experimentation with music and acoustic experiences at both mainstream and wellness travel destinations. If travel is all about “sights,” it will increasingly also be about music and “listening” experiences.

Way out in front in understanding the connection between music and wellness is famed, century-old Schloss Elmau, a wellness resort in a castle in the Bavarian Alps that merges so many wellness experiences with almost-nightly concerts from top musicians (whether classical or jazz) in its 300-seat concert hall. And the musicians “play to stay,” performing so they and their families can take a wellness break. (A model more wellness resorts should formally adopt.) How about a hot springs concert? At Australia’s redesigned Peninsula Hot Springs’ Bath House Amphitheatre, you can take in musical acts while floating in healing waters (and even when you dip under you don’t miss a sound: There are underwater speakers).

Mainstream hotel brands chasing music-mad millennials are going more in on music and wellness + music. Hip boutique brand Aloft is strengthening its relation to music and the music industry: All hotels have equipment for spur-of-the-moment concerts; they offer touring musicians discounts, and they recently hosted “Homecoming” concerts, where musicians such as BANKS and Troye Sivan played the Aloft in their hometowns.

You expect music from Hard Rock Hotels, but now they’re putting a musical spin on their wellness offerings: At their Rock Spas, you can now experience everything from a “Face the Music” sound vibration facial or a pulsating “Synchronicity” massage, where the soundtrack syncs up with the pressure and rhythms of the therapist’s hands.

Sanctuaries from noise pollution & forest “listening” will rise in wellness travel

Modern people, most living in loud, concrete cities, may not grasp the profound impact that noise pollution has on their health, and how noise from human encroachment on nature decimates wildlife and ecological systems. A powerful article¹⁹ in the *New Yorker* explained why noise pollution is poised to be the next public health issue, citing the studies showing that living in loud environments lead to more heart disease; high blood pressure; obesity; low birth weight, sleep, mood and focus issues; and cognitive impairment in children. Bruitparif, which monitors noise levels in Paris (in combination with World Health Organization data), published a report²⁰ that the average resident of Paris loses “more than three healthy life-years” from ailments caused by noise pollution. Western Europe loses at least “one million healthy years of life.”

And man-made noise, as we invade ever more natural spaces, is a wildlife and ecosystem killer. As Les Blomberg, founder of the Noise Pollution Clearinghouse, put it: “What we’re doing to our soundscape is littering it. It’s...acoustical litter—and, if you could see what you hear, it would look like

piles of McDonald’s wrappers, just thrown out the window as we go driving down the road.”

As awareness about the disastrous impact of noise pollution on human health and the environment grows, we expect that the protection of natural spaces from noise will need to be put on any sustainability checklist—and that noise-pollution-free natural sanctuaries will become a new integer in wellness travel.

“Deep listening” in noise-protected nature looks to be a fascinating trend percolating in wellness travel. A striking example: Amazon Awakenings’ “Let it Happen” trip from Explorer X led by Gordon Hempton, an acoustic ecologist known as The Sound Tracker, who has spent 35 years seeking out the Earth’s rarest nature sounds. Hempton,

“What we’re doing to our soundscape is littering it. It’s...acoustical litter—and, if you could see what you hear, it would look like piles of McDonald’s wrappers, just thrown out the window as we go driving down the road...”

— Les Blomberg, founder, Noise Pollution Clearinghouse

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along with the indigenous Cofab tribe, lead travelers on an “interactive sound journey” in the sonically beautiful, pristine Ecuadorean rainforest Zabalo River. It’s the first place on Earth designated as a “Wilderness Quiet Park” and completely off-limits to noise pollution. Travelers are led in “deep listening exercises” in the rainforest, learn how to recover their lost animal-alert, 360-degree hearing and listen intently to the natural “drumbeats, violins, raindrops and choruses” that fill the air around them.

You just hear more “hearing” in wellness travel programming. The new Azura Benguerra Island²¹ and Azura Quilalea Private Island²² in Mozambique revolve around a “Sounds of Africa wellness program” to help guests cultivate an acoustic hyper-consciousness of the place, with tribal drumming sessions, walking meditation to birdsong and silent beach breakfasts meditating to crashing waves.

THE FUTURE

If with some wellness approaches we can wonder if it’s just our desperate belief that’s the magic ingredient, with music, we personally experience the evidence: the deep impact it has on our mood. Music’s impact seems mysterious; it seems to go straight to our soul: In Sonos’ recent survey, 40 percent of people report that music makes them cry unexpectedly.

Given music’s incredible potential as a health intervention, and especially as a way to shift our emotions, it’s extraordinary how little innovation there has been around intentionally designing music and sound experiences that could actively and positively change our brains, bodies and

performance. Change is here. Music created (and listened to) as intentional medicine will be a big trend in 2020 and beyond.

People will, of course, pit artist-created and song-focused music against new concepts such as biofeedback-based and neuroscientist-designed functional soundscapes. But this trend is not about giving up your Bob Dylan, Beatles or Beyoncé—and long live the power and profits of true artists and composers increasingly threatened in the current music industry. This trend is about seeing music’s health and wellness potential anew, with far more “wellness music” options: new technologies, new experiments and new experiences.

We need more high-quality research into the impact of specific music/sound experiences on specific issues/goals to make sure all these new wellness music applications actually work—and with grants such as the NIH’s, important research is ahead. And with so many new mental wellbeing tracking apps and solutions powered by emotion-tracking technology exploding the wellness world, we need to regulate who has access to this sensitive data.

With 5G hitting the tipping point in 2020, with its insanely fast wireless speeds and network power, it will make possible the rise of what you could call “wellness sensoriums”: intensely immersive environments (some using 3D and virtual reality) that will mash up evidence- and biofeedback-based music, sound, light

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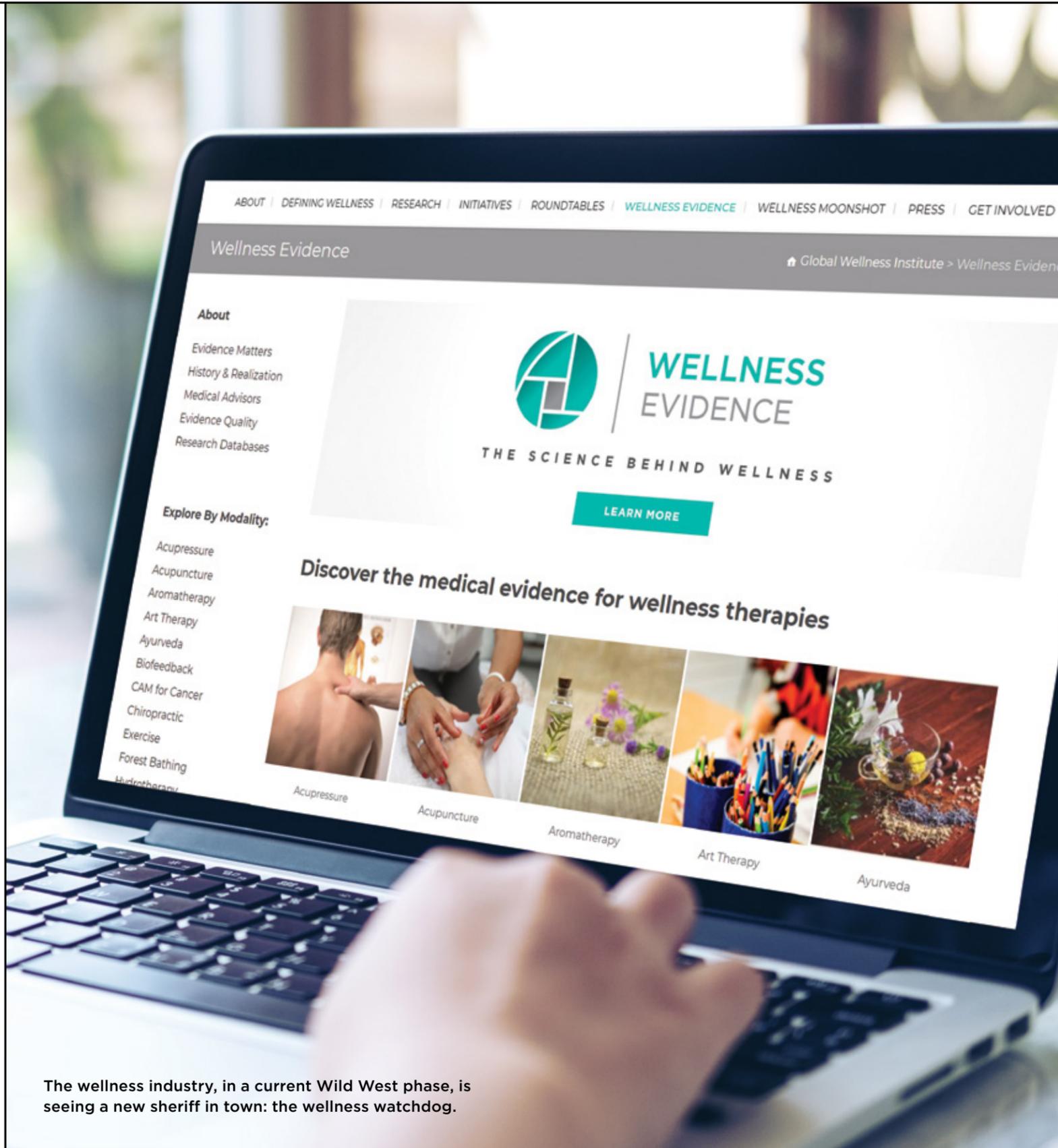
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and vibrational experiences—whether in our homes or at wellness destinations. At the same time, 5G’s unprecedented ability to suck people into multidimensional multimedia environments will lead to even worse screen addiction and exhaustion. More will flee into sound and music... and they will have so many more healing experiences to flee to.

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The wellness industry, in a current Wild West phase, is seeing a new sheriff in town: the wellness watchdog.

In Wellness We Trust:

THE SCIENCE BEHIND THE INDUSTRY

By Richard Panek

People increasingly want to separate the wellness wheat from the chaff, and more resources and platforms will help them do it.

“Nonsense.”¹ “A false antidote.”² “Snake oil.”³

Google “wellness” and these pejoratives might be among the first adjectives you’ll find. And not without reason. Years of baseless claims about pseudo-scientific products have blurred the distinctions between legitimate wellness practitioners and the charlatans who threaten to give wellness a bad name.

Semantics, in fact, is part of the problem. Anybody can package a vaginal egg and call it “wellness,” just as anybody could peddle a miracle elixir as part of a “medicine show.” And in many ways, wellness is in its own Wild West phase. The industry has been ripe for a reckoning—a rigorous

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accounting, whether through intense media criticism, internal vetting, or outside regulation, all based on empirical supporting evidence. And now it's come.

There's a new sheriff in town: the wellness watchdog.

People increasingly want to separate the wellness wheat from the chaff, and more resources and platforms will help them do it.

MEDIA AS WELLNESS WATCHDOG

Nothing says "Wellness" Like Goop, Literally

Goop—Gwyneth Paltrow's lifestyle website and product line that reportedly is worth \$250 million—has become "the epicenter of the wellness industry," according to *Bloomberg News*.⁴ By attracting a disproportionate share of media coverage (due in part to the celebrity of its founder), goop has become nearly synonymous with the market identity it's appropriated: a "wellness" brand.

"The beauty of the term 'wellness' is that it encompasses almost everything and can cost almost anything," writes Eva Wiseman, life and style columnist for the *Guardian*, in an article highly critical of goop in particular and—as if the leap were natural—the wellness industry in general.⁵ Jennifer Gunter, the OB-GYN who has made a second career out of wellness skepticism, first came to prominence in 2017 as a goop critic ("Dr. Jen Gunter Wants to Protect Your Vagina from Gwyneth Paltrow," read the headline on a profile of her in *Mother Jones*⁶). But Gunter, too, has broadened her attacks, in best-selling books and as

a columnist at the *New York Times*, to encompass what she calls Big Natural (as opposed to Big Pharma).⁷

The leap is somewhat understandable. With its high prices, its sometimes questionable (and in at least one case, actionable) claims, and its cult of personality, goop gives the Jen Gunters of the world plenty of valid ammunition.

But what are they at war with?

Exercise? Healthy food? A good night's sleep? A sense of community? Stress reduction?

Presumably not. These five cornerstones of wellness have plenty of proof as contributing to a healthy lifestyle. Studies abound for the wide-ranging health benefits of each of these bedrock principles of wellness, from studies agreeing that sleep deprivation affects productivity, concentration and mood to those proving a healthy diet leads to greater longevity. Nothing—no pill or Big Pharma solution—has more evidence for its impact on health than these five pillars.

Call-out websites have begun to add nuance to the criticisms. Estée Laundry, which Refinery29 named the 2019 "Influencer of the Year,"⁸ is an anonymous Instagram collective that regularly takes on the misleading or outright false claims of influencers, brands and publications in the beauty industry. "Our goal is to inform and empower our followers," someone(s) from the website told *Glamour* in a rare interview.⁹ "Our fans have shown that they

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Naveen Jain, GWS 2019

INSPIRATION FROM THE 2019 GLOBAL WELLNESS SUMMIT

Why Healthcare Is Ripe for Disruption
Naveen Jain, Founder & CEO, Viome, US

are not afraid to stand up to brands and vocalize their concerns."

That kind of proactive fandom is what rocketed *The Dream* to the top spot on Apple Podcasts charts; in its first season, where it took on multilevel marketing schemes, it recorded 10 million downloads¹⁰. The target of the podcast, in its second season, is wellness: What is it? Who sells it? What's actually based on truth? Episodes explore its more "bombastic" and "unfathomable" promises.

So, it's not wellness itself that today's call-out culture is calling out. Instead, it's the sense that, whatever the merits of wellness in principle or in fact, the industry hasn't been policing itself.

Who's minding the (\$4.5 trillion) store?

INDUSTRY AS WELLNESS WATCHDOG

We know what the free market can do if left to its own devices—and as the wellness market has boomed in the last few years, those devices have tended to

involve screens: evidence-free apps and websites, dark-money "likes" and "five-star" ratings, YouTube and Instagram "wellness influencers"-for-hire.

Many unscrupulous wellness providers don't even pretend to offer scientific support for their claims. A 2019 paper in the peer-reviewed *Current Addiction Reports* surveyed 700 smoking-cessation apps and found only 30 that provided some form of evidence—and of those 30, only four provided evidence that was actually scientifically useful¹¹. (Finding the one study that relies on a small sample size to reach a conclusion favorable to your product's promises is a minor art.) Other studies have found that out of 20,000 mental health apps, only three or four percent cite actual medical evidence. Researchers at the University of Glasgow examined the UK's top nine weight-management influencers—those who had at least 80,000 followers on at least one social media site—and found that just one provided credible information.¹²

Such fly-by-nightness, of course, is hardly peculiar to the wellness industry. The history of commerce has shown that the free market lacks the financial incentive for self-accountability. But that same history also offers a corollary: The free market lacks the financial incentive for self-accountability... until it doesn't.

In May 2019, CVS Pharmacy, the retail division of CVS Health, announced that it had completed third-party testing of all vitamins and supplements it sells online and in stores—more than 1,400 products from 152 manufacturers across 11 categories.¹³ The purpose of the “Tested to Be Trusted” initiative is to let customers know that what they see on the labels is what they get, and what they get is free of certain additives and ingredients.

Will the “Tested to Be Trusted” program prove to be a harbinger of greater accountability or an anomaly in an era of little accountability? Hard to say. But if nothing else, it shows that of all the product categories in the pharmacy at this particular historical juncture, the bottom line of one category in particular—wellness—now depends on earning the public’s “trust.”

Even goop, in an attempt to shore up trust, has made some moves to align itself with more medical professionals and evidence: Integrative physicians such as Dr. Steven Gundry (who heads up the International Heart and Lung Institute) and Dr. Aviva Romm (an integrative women’s and children’s physician) are contributing doctors; goop’s installed a director of science and research who is a former Stanford professor and hired a lawyer to vet all claims on the site and a full-time fact-checker. Its website now features more evidence-backed, thoughtful discussions about health topics, conditions and disease treatment: For example, “Understanding Multiple Sclerosis”¹⁴ or “The Power of the Mind and Other Cutting-Edge Research on the Placebo Effect.”¹⁵ goop notes that in its new Netflix show *The Goop Lab* (launched 1/24/20), “Many of the experts interviewed... are doctors and research scientists from leading medical institutions.” Critics will continue to attack the philosophies of goop’s medical advisors, while goop will

continue to argue that it’s committed to “physicians who are interested in both Western and Eastern modalities” with “an open mind.” But the goop watchdogs (and there is a not-so-mini-industry now that analyzes every company move and claim) have led to some company self-policing and more attention to the evidence behind its claims and endorsements. Wellness watchdogs have a loud microphone now, and it works.

“The moment you step into the health and wellness arena,” says Sarah Greenidge, the founder of WellSpoken, a UK-based website, “you become a health information provider, whether you like it or not.” As the name WellSpoken suggests, Greenidge’s site addresses accuracy in communicating wellness to the public. A former health consultant herself, she says she was “pretty shocked” when she went freelance and first entered the wellness arena. What she discovered was “the absolute chasm” between the strict quality standards in medicine and pharmaceuticals and the lax or nonexistent restraints in wellness.

In an attempt to (in its words) “counter the pseudoscience that has become commonplace in the wellness industry,” WellSpoken offers certification for brands, as well as training and accreditation for communicators.

Questionable claims about wellness also motivated the founders of WellSet, a new company that is attempting to create a marketplace where potential clients can find reputable specialists in their communities. “That is literally why we started this company,” says Tegan Bukowski, co-founder and CEO, to counteract “a conflation of the spiritual and health, where you feel like you can’t address your nutrition without being this person who also believes in the power of healing crystals.”

GOVERNMENT AS WELLNESS WATCHDOG

In June 2019, US Senator Richard Blumenthal of Connecticut sent a letter to the Federal Trade Commission (FTC).¹⁶ The subject was a new fad in the wellness marketplace, one that had grown into a \$62 million industry in virtually no time at all: teatox. The product—teas loaded with caffeine and laxatives—would supposedly help customers achieve the goals implicit in the names of some of the products that Blumenthal cited in his letter: “Flat Tummy Co.,” “Boo Tea,” “MateFit.”

“These teas,” Blumenthal’s letter said, “do not have any clinically demonstrated benefit, and some components of the tea can be downright dangerous.”¹⁷

What was remarkable about Senator Blumenthal’s response wasn’t that a government official was exercising the right to oversight. It was that the oversight emerged so quickly and with such precision.

Teatox is symptomatic of a couple of the major challenges that wellness regulators face. One is that new subcategories keep popping up—subcategories in which a lack of “clinically demonstrated” benefits is almost to be expected. Prescribed medicines, of course, are subject to strict government oversight. But US authorities

have usually taken a hands-off approach to dietary supplements—the category to which detox teas belong. The FDA doesn’t require that manufacturers prove that they work—or even that they’re safe.¹⁸ Yet here was a US senator not only identifying a new subcategory of wellness but exercising a new urgency in monitoring its claims.

Even so, government oversight of wellness products is not always welcome by the public. For some consumers, a lack of verifiable information might even be a benefit; they can fill in the blanks on the label with the cure for whatever ails them. In the early 2000s, more than a million Europeans signed a petition opposing the EU’s effort to impose uniform standards on food supplements.¹⁹ Such products are “a salesman’s dream,” wrote Amanda Mull on the *Atlantic* website in January 2020.²⁰ “When little is known, virtually anything can

“The challenge today for advocates of legitimate wellness is to distinguish between wellness that is legitimate and wellness that is highly suspect. And one way to do that is to make sure scientific evidence is not just available but part of the conversation.”

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Wellness industry regulations may move to a more formalized model; case in point: the US Department of Agriculture's recent "interim final rules" for domestic production of hemp and CBD.

be passed off as possible." The directive, nonetheless, went into effect.

The second way that the teatox phenomenon has been symptomatic of the challenges that wellness regulators face is the promotion of wellness products. The concept of "influencers" in a pre-Internet age would have been meaningless. Yet watchdogs are now getting paid to think about what the Kardashians are getting paid to think about—or at least what the Kardashians are getting paid to promote.

But which watchdogs? Government regulators, yes: In 2017, the FTC, for the first time, sent Reminder Letters to prominent social media influencers and marketers about the legal requirement of adhering to the facts.²¹ But the responsibility for monitoring influencers also extends to trade organizations. The Advertising Standards Authority of Ireland, for instance, reminds opinionators that their online advocacy must match the language requirements on the EU register of nutrition and health claims.²² The website for the US consumer advocacy group Truth in Advertising lists three thousand examples of dubious marketing of supplements and other wellness products.

The response of these oversight agencies might reflect a turning point in the regulation of the wellness industry toward a more formalized—and, therefore, a more consistent and reliable and empirical—model. One possible portent: In October 2019, the US Department of Agriculture published "interim final rules"²³ for domestic production of hemp, including the hemp by-product cannabidiol, or CBD—the explosively popular ingredient in gummies and juices in marijuana-friendly states... and in oils that might help you sleep and in wipes that might calm your nerves.

"How big a deal could this be?" wrote *Forbes* columnist Louis Biscotti. "Think about the end of Prohibition. The federal government is finally creating standards that could help create a national marketplace. That could help move CBD from the margins to the mainstream, adding security, safety and consistency to manufacturing."²⁴

EMPIRICAL EVIDENCE AS WELLNESS WATCHDOG

In one of her *New York Times* columns, Jen Gunter characterized the wellness industry as being awash in "useless products and scientifically unsupported tests."²

Fair enough. But what if the products

(and practices) were useful, and what if the science behind them was solid? The challenge today for advocates of legitimate wellness is to distinguish between wellness that is legitimate and wellness that is highly suspect. And one way to do that is to make sure scientific evidence is not just available but part of the conversation.

In anticipation of that demand, and to facilitate that process, the Wellness Evidence website, wellnessevidence.com, a part of the Global Wellness Institute platform, has undergone an upgrade.

"The wellness world was developed out of hotels and spas and resorts," says Dr. Marc Cohen, one of the founders of the Wellness Evidence website. "I came out of the medical and the research world." He has spent his career trying to reconcile traditional modes of research with mindfulness. One result was *Herbs and Natural Supplements: An Evidence-Based Guide*, a standard textbook now in its fourth edition. Another was a website. "Wellnessevidence.com," Dr. Cohen says, "was to bridge those two worlds."

The site dates to the more innocent era of 2011. Back then, says Dr. Kenneth R. Pelletier, a clinical professor of medicine and psychiatry at the University of California School of Medicine in San Francisco and another founder of wellnessevidence.com, "the spa world was beginning to realize that people demand evidence. It's their health, it's their wellbeing that's at stake, and they want to know, 'Am I paying all this money, taking all of this time and really deriving benefit for my health, my happiness, my heart, my cancer?'—whatever it is."

Now the website's mission has expanded beyond spas to involve every facet of the wellness industry, and its mandate has broadened from providing information to

providing context. As Dr. Daniel Friedland, another co-founder of wellnessevidence.com, as well as the author of the 1998 seminal textbook *Evidence-Based Medicine*, says, "It clarifies the degree of certainty or uncertainty that supports decision-making moving forward"—for instance, where to devote wellness' limited resources for research.

In terms of establishing its empirical, scientific credentials, wellness has always operated at a disadvantage. The wellness industry, at least for now, lacks the kinds of resources that allow Big Pharma to conduct clinical trials both among large populations and over long periods of time.

Which is not to suggest that mainstream medical research is impeccable or comprehensive. "Many people have assumed that the practice of medicine is always evidence-based," says Dr. Friedland. But a study in *Medical Care Research and Review* in 2012, for instance, concluded that out of the three thousand medical treatments it investigated, only about a third indicated a net benefit, while the effectiveness of 50 percent—half the standard treatments in medicine—was unknown.²⁵

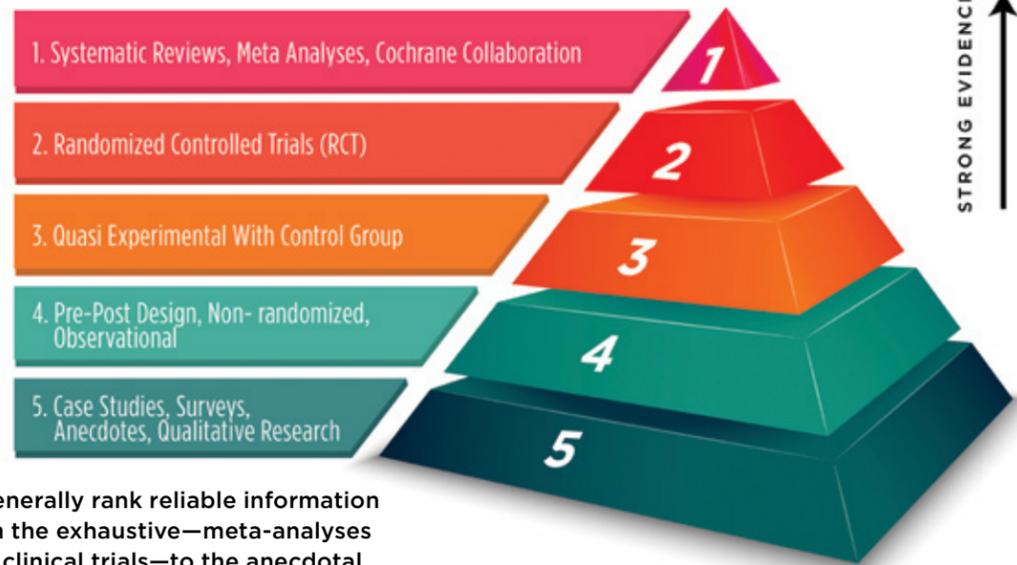
Nor is it to suggest that wellness research needs to rely on only gold-standard studies. Researchers, in general, rank reliable information on a scale from the exhaustive—meta-analyses of randomized clinical trials—to the anecdotal.

Nor is it to suggest that researchers within the wellness industry itself haven't used clinical trials, longitudinal studies and other standard methods of evaluating medicine on an empirical basis.

But contrary to Jen Gunter's skepticism, useful products and practices do exist, and so does the science to support them.

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Researchers generally rank reliable information on a scale from the exhaustive—meta-analyses of randomized clinical trials—to the anecdotal.

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Wellnessevidence.com now offers 28 modalities—“alternative, integrative interventions,” says Dr. Pelletier—ranging from foundational topics such as exercise and weight loss through traditional alternative approaches such as acupuncture and meditation to more cutting-edge methods such as forest bathing and manual lymph drainage. Visitors to the website choose a topic from the modality menu and then explore it through four impeccable resources.

Three of those resources are ones that doctors often consult:

- **The Cochrane Library**, a collection of medical databases that contain, at its core, the Cochrane Reviews, which are extremely stringent systematic reviews and meta-analyses summarizing and interpreting the results of controlled trials;
- **PubMed**, a service of the US National Library of Medicine that offers a free digital archive of references and

abstracts on life sciences and biomedical topics;

- **The Trip Database**, a metasearch engine that allows users to simultaneously search thousands of medical databases, medical publications and resources.

The fourth resource is **Natural Standard**, an international research collaboration that systematically reviews (and limits its focus to) scientific evidence on complementary and alternative medicine.

In effect, wellnessevidence.com offers direct access to the many thousands of studies (whether pro or con) for wellness approaches at the top databases, without filtering or editorializing. This portal is a way to enter the current wilderness of uncertainty and even scorn, stake a claim in the name of science and tame the frontier. Settlers welcome: wellness consumers, wellness manufacturers, wellness practitioners.

And, now more than ever, wellness watchdogs.

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