WHAT THE FUTURE: AGING

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Experts from AARP, the National Council on Aging, Coty and Intuition Robotics share insights on aging at home, redefining 'aging gracefully' and care robots



Imagine it's 2032.

You will be 10 years older than you are today. But how much will you have aged?

David Bowie and Queen's Freddie Mercury each left us an album recorded when they knew they were dying but they hadn't told the world. It's easy to hear them in the lyrics. Bowie sings in "Lazarus": "Look up here/ I'm in Heaven ... Everybody knows me now." Mercury delivers Queen's haunting track, "The Show Must Go On," with lines like, "Inside my heart is breaking / My makeup may be flaking / But my smile, still, stays on." Bowie, at 69, had just reached an age most would consider "old."

But will dying at 69 seem young in the future? If it is more and more possible for us to live healthier, longer and independently, will we choose that? Will we choose to "age gracefully," and what will that even mean? Plausibly, we will be able to manage more of the way we age with synthetic biology, Al-assisted companion devices and apps, and customized fitness and nutrition plans based on our metabolism and vitals that we will be able to measure in real time. Our understanding of the mechanics of aging down to the cellular level will increase. Will multigenerational housing become the norm? Will cosmetics help us look as young as we feel? How will we (or will we?) be able to afford to keep living? These are some of the questions we consider as we think through the future of aging.



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1. Territory map

The future of aging will be driven by forces coming from six directions. We map them out.

2. The lay of the land

We talk with experts from AARP, the National Council on Aging, Coty, Intuition Robotics and more, then collect exclusive data to show where we are today and where we're headed tomorrow.

3. Tensions

Independence vs. isolation? Pro-age vs. anti-age? Opinions about these tensions won't be the only thing that impact the future, but they will shape how we respond. What happens if they shift?

4. Plausible ports and Waypoints

Based on our data and interviews with experts, we plot out some potential futures. Thinking again of our tensions, how far do they have to shift before we know which plausible port we're approaching?

5. Appendix

Want more? We show our work, including the full text of our expert interviews, our contributors, links to what we're reading today that has us thinking about tomorrow, and some bonus data.

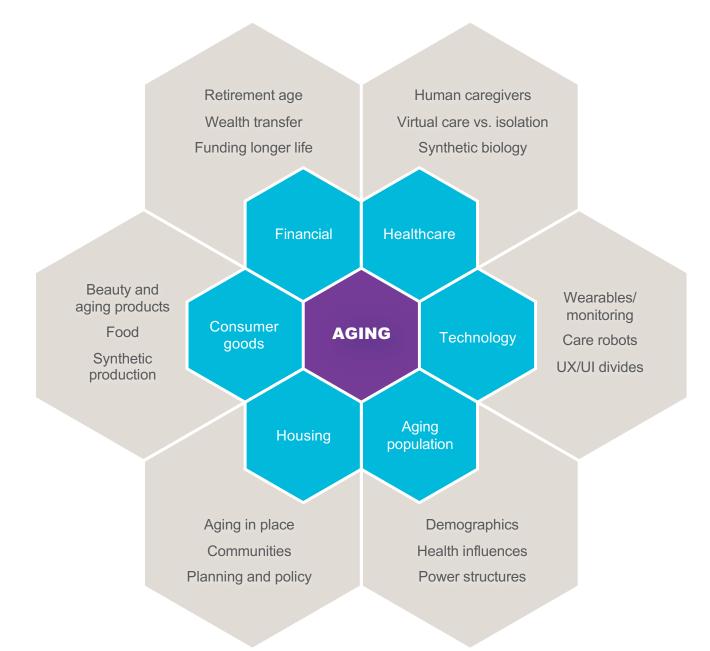
6. Artifact from the future

A look at an item from tomorrow that will eventually seem commonplace, but today seems as if it's on the edge of plausibility.

Territory: What will drive the future of aging?

One thing is certain in the future of aging: We'll all do it, one way or another. The real question is, how will the world change around us to enable these longer lives? It will take changes to everything from personal finance to housing and zoning to public policy, as well as in sectors more directly related, like healthcare, science and technology.

Picking up where we left off in last month's What the Future: Wellness, we'll talk through the implications of how living well can lead to living longer. Read on as we go around the map, collect the data and talk to experts in these fields.



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How will we fill caregiver demand as more people age in place?



Ramsey Alwin

President and CEO, National Council on Aging

America is getting older by the day. In just eight years, all of America's 73 million Baby Boomers will be at least 65 years old. By 2034, older adults will outnumber children under age 18 for the first time. And the labor force will be 12% folks ages 75+ (double what it was in 2000), according to the U.S. Bureau of Labor Statistics. That means the demand for labor and in-home services and supports for elders is only going to soar, says Ramsey Alwin, president and CEO of the National Council on Aging.

89%

of Americans expect to be a caregiver for an elder family member in the future, including 43% who expect to be the primary caregiver.

(Source: Ipsos survey conducted Jan. 28-31, 2021, among 752 U.S. adults who are not or haven't been a caregiver of an elder family member.)



"This idea that it's an individual responsibility, an individual family's responsibility, we've transcended that."

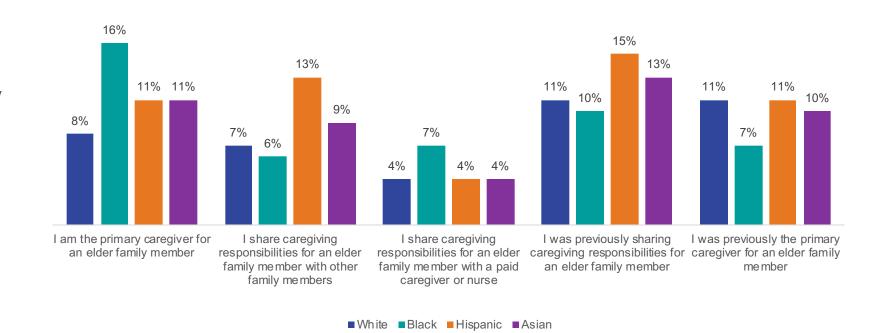
Meanwhile, the NCOA and other aging organizations warn that a caregiver workforce shortage is a growing crisis. There just aren't enough people going into these professions. Without the public policy investments to support people receiving inhome care services, Alwin says, there will be more institutionalized care, more health issues and soaring poverty numbers.

There is hope that a growing number of technologies and artificial intelligence can fill some caregiving gaps, to a point.

"Ultimately, I'm a big believer in the human touch," says Alwin. "That's why we need to make the investments in the workforce to ensure that we have enough supply to meet the demand moving forward." Read the full Q&A on page 30.

Who is responsible for caregiving?

Q. Which of the following situations, if any, apply to you?





How do we support caregivers?

While many aren't or haven't yet been elder caregivers, 89% of Americans *expect* to be. The question then will be how will the Gen Xers and Millennials manage their lives while caring for elders and often their own kids, too? How will they afford that? How will employers support that? The caregiver crisis isn't just about fewer professional caregivers, says Sophie Washington, a consultant in Ipsos' Strategy3 consultancy.

"It's an issue for the entire workforce as our co-workers need the flexibility and financial stability to balance competing demands on their time and finances."

"We also have to consider future aging populations' needs in relation to planetary health, such as changing climate adaptability," she adds. Ultimately, that will impact a recurring What the Future theme: equity.

Who identifies as an elder caregiver?

Q. Which of the following situations, if any, apply to you?



How will technology change how we care for elders?

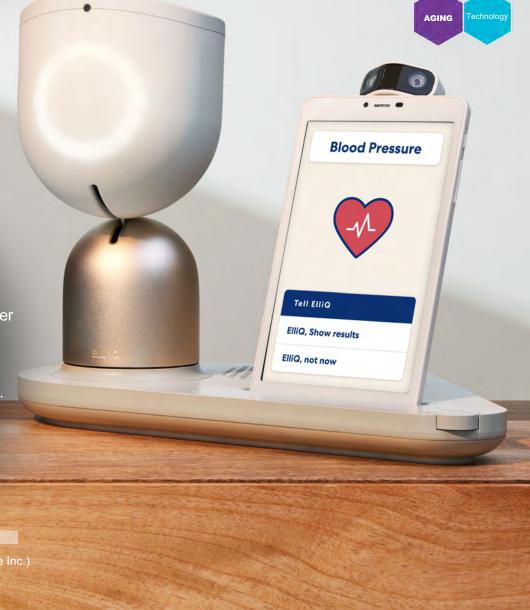


Dor Skuler

CEO, co-founder, Intuition Robotics

How do we enable Americans to age in their own homes, as so many of them wish to do? One answer is technology, which can serve as a bridge, enabling day-to-day tasks, monitoring health and vitals, and offering another type of social contact for a life stage that often is guite isolated. Some of the most advanced work in Al and robotics is happening in the eldercare space, addressing a real and pressing consumer need. Dor Skuler cofounded Intuition Robotics, the maker of ElliQ, a desktop companion robot. We talk about how a little robot could make a big difference for elders.

of employed adults say they have provided unpaid help to a loved one (spouse, partner, adult child, etc.) in the past year.





Many elders wind up alone much of their days. It's easy to forget that aspect of caregiving — addressing the simple need for human contact. But what if that contact didn't always have to be human?

The ElliQ robot — and others. like Amazon's Astro — provides monitoring, and can help remote family, caregivers and doctors stay connected. But it also aims to answer some of those social questions. Using AI, it can check in and prompt elders throughout the day, says Skuler.

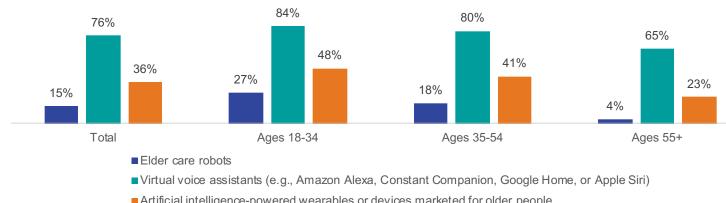
"[ElliQ can] motivate us to get up from the couch and take care of ourselves and go for a walk. We need somebody to make us laugh and we need somebody to just say, 'Good morning' to us and ask us how we're doing."

Read the full Q&A on page 32.

These products are just coming on the market, so awareness is low. But just as voice assistants became prevalent quickly, it's fair to expect interactive robots and devices to also catch on. For one thing, as Americans age and human caregivers get more expensive, in-demand and in short supply (see page 5), this technology is addressing a pressing need. Beyond that, as Skuler says, these products and services are being designed for this audience from the user experience up. Even less digitally inclined elders can set them up on their own, he says, and their testing has found high, sustained engagement. "We're doing that through building a relationship, through projecting empathy and through keeping context of previous discussions, and personalizing the experience," he says.

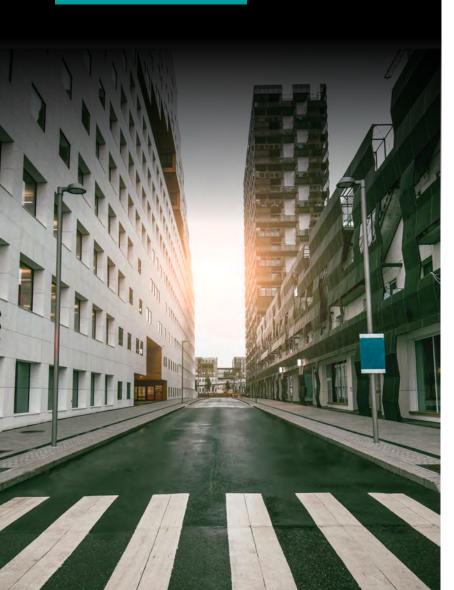
How does age impact awareness of caregiving technologies?

Q. How familiar, if at all, are you with the following technologies? (% Familiar)



■ Artificial intelligence-powered wearables or devices marketed for older people

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The perils of perception about the aging population

Here are one truth and one lie about future demographics: The global population is aging, and the global population is ballooning unsustainably. The first statement is true. The second is a commonly believed myth. The global population will likely lose the equivalent of three countries the size of the U.S. in less than a century.

The problem with knowing the first statement (as many do) but also believing the second is two-fold. First, there is a policy conundrum. We must understand the facts in order to govern for them.

Second, an aging population, coupled with a decline in birth rates, means we need to carefully plan for how our resources will be allocated in the coming decades. The population will also become more female.

Brands that have often disregarded the elder market as less exciting than spendier, younger consumers will also adjust.

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Aging population

"Elder women will be an emerging source of political and financial power," says Darrell Bricker, global CEO of Ipsos Public Affairs and co-author of "Emptier Planet: The Shock of Global Population Decline."

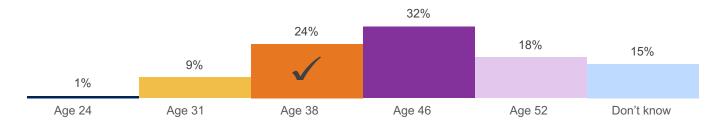
"Elder women will have resources to have a significant impact on the commercial and political marketplace, but they are invisible in most ad campaigns. When was the last time you saw a political campaign focus its strategy on what older women want?"

Do Americans know how old their population is?

Q. By 2030, do you think more Americans will be 15 years old or younger, or will more be 65 or older? (% Total)



Q. Based on what you may know or feel, what age is the average American today? (% Selected)



✓ Correct

(Source: Ipsos survey conducted Jan. 28-31, 2021, among 1,154 U.S. adults. The check mark denotes the median age for Americans, according to the U.S. Census Bureau.)

Aging population

Is it all in the genes? What if it's not?

There is ongoing debate over the role genetics play in people's wellness and, in turn, longevity. The experts we have interviewed express different viewpoints. Gil Blander, co-founder and chief scientific officer of InsideTracker, pointed to genetics when it comes to lifespan, in our recent Wellness issue. "I always look at genetics like the cards when you go to the casino in Las Vegas," he says. "You have the cards that you have that we cannot change, but let's give you ammunition to play the cards the best that you can for you to live a longer, better life."

Naveen Jain, founder and CEO of Viome Life Sciences, doesn't think genes are the be-all-end-all. "Basically, we have been fooled by the world thinking that our genes are our destiny," says Jain. "We have been told that we have bad luck if we happen to have bad genes. What matters is what is expressed and what is not. Human genes are like the alphabet. You can write any story out of it."

Yet, in an earlier What the Future issue, we spoke to Dr. Sandro Galea, dean of the Boston University school of public health. He said that focusing on genes and personal behavior overlooks the impact that public policies and social structures have on everyone's longevity. "We need to collectively create a world where we agree we want to be healthy and we should be healthy, he says.

"We need to govern for health."

What do people think most influences their health?

Q. Please rank the following factors based on how important you think they are to your personal health. (Mean ranking from 1-9 with 1 being most important.)

Ranking

•		
1	What you eat	3.1
2	Your genes	3.5
3	How much you exercise	3.9
4	Your parents' health	5.1
5	Your doctor	5.4
6	Your income/socio-economic status	5.4
7	Where you live	5.5
8	Your health insurance status	5.5
9	National political decisions	7.7

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What will it take to make the dream of aging in place a reality?



Rodney Harrell, Ph.D

AARP's Housing lead; Vice president, AARP Public Policy Institute

Humans or robots as caregivers are only part of the challenge of helping our population age. The house they function in must support aging in place as well. Enter an unexpected and, frankly, seemingly uninteresting player in the future of aging: your local zoning board. Zoning and related building codes have a big say on whether Americans can age in their own homes. It's all about retrofitting existing homes to allow for changes like wider doors and hallways to accommodate mobility devices. It's also about allowing accessory dwelling units (ADUs) like coach houses or tiny homes which have all sorts of benefits. Rodney Harrell lobbies for these changes and more as part of his role at AARP.

66%

of Americans have not moved for age-related reasons.

(Sources: Ipsos surveys conducted Jan. 28-31, 2021, among 1,154 U.S. adults, and Aug. 16-18, 2017, among 2,031 U.S. adults)



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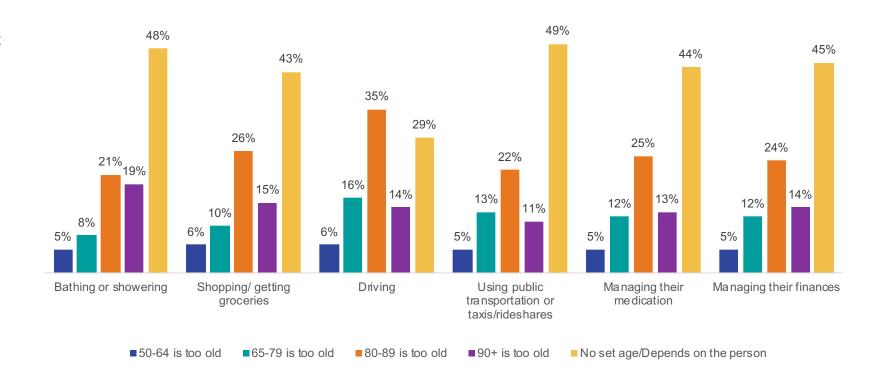
ADUs achieve several goals: They can allow aging elders to be closer to their families without being *too* close; They enable elders to stay independent in their communities; and they can allow for added density in existing communities. As more people find themselves providing care or being cared for, these are all boons. In recent years, more states have allowed these homes to be built, which Harrell sees as a positive:

"It puts power in the hands of homeowners to create options that may work for you or your parents, or loved one, or whoever else might be able to use it."

The other challenge is retrofitting our exist spaces. AARP is working with retailer Lowe's to educate homeowners about what to consider changing to enable them to live comfortably, independently, longer — which many will find easier than relocating altogether.

How old is too old to be independent?

Q. The following are some Activities of Daily Living, or daily tasks that people do to live independently. For each of the following activities, in which age range do you think people are generally too old to do them on their own? (% Selected)

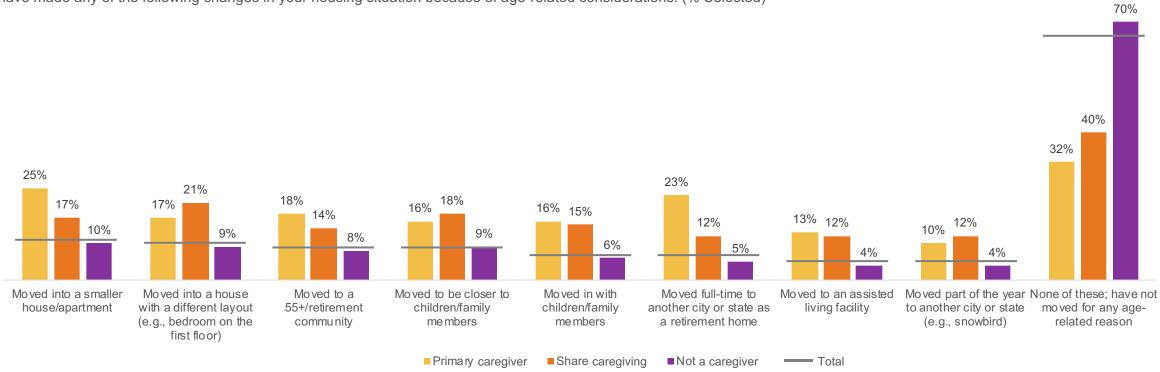


The U.S. is unique in that single-family homes dominate the landscape while multigenerational housing is much more common and done differently in other countries, says Harrell. "We need to figure out how to translate them for the American context." Read the full Q&A on page 34.



How does caregiving status influence where people live?

Q. As people get older, one important decision they make is about their housing. From the list below, please indicate if you have made any of the following changes in your housing situation because of age-related considerations. (% Selected)





Kevin Shapiro

Senior vice president, U.S. marketing, consumer beauty, Coty

For centuries, beauty was viewed as something you lost with age. That's begun to change in recent years as new technologies have shifted the focus from masking the exterior to more holistic skincare and self-care. Meanwhile injectables that reshape features have moved into the mainstream and attracted an ever-younger customer. Kevin Shapiro, senior vice president of U.S. marketing for consumer



Shapiro says that in the past, there was a passive nature to the concept of aging gracefully, which suggested that it was merely a mindset. Today, he sees that passive connotation being replaced by physical and mental wellbeing, which reflects making active and conscious choices. That applies to all genders.

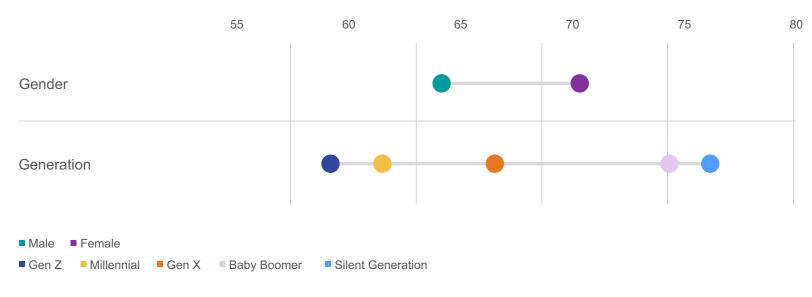
"In terms of beauty, aging gracefully means bringing an increased level of understanding of what biological changes are going on in our body, being at peace with them, but also adapting the products and routines that we use as consumers to better meet the needs of our skin and hair as they change." Shapiro sees the notion of embracing aging in the future being about a better understanding of aging, which will lead to a better self-acceptance which will lead to more of a celebration of longevity, he says.

"We'll see less terminology around anti-aging and products in general, and more shifts toward nomenclature like 'ageless' or 'better, not younger."

Read the full Q&A on page 36.

How does age impact our perception of 'old'?

Q. Thinking about the phrase "old age," at what age do you think people can be considered to be "old"? (Mean age)



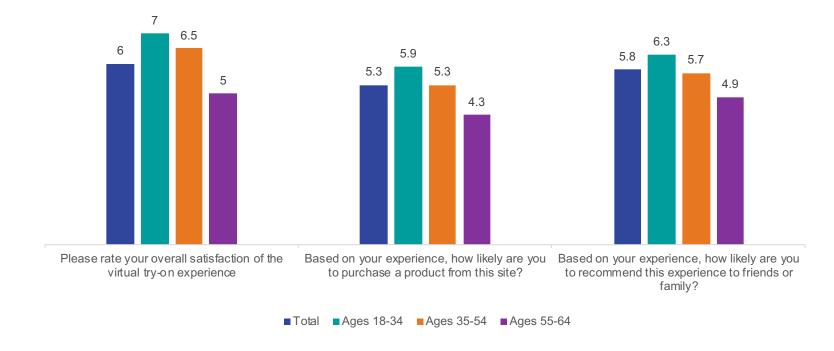
How to design for an aging audience

As we age, our abilities change. As brand marketers design interfaces for their products, they need to take this into account. It's not that elders are necessarily less "savvy." Users will have arthritic hands or diminishing eyesight, or they won't hear their voice assistants as well. Creating interfaces for an aging audience, either through a keyboard or a touchscreen or a voice AI, requires specialized testing.

"In the future, we could see interfaces seamlessly tailored to your age and ability, just as we see them adjust today, depending on the type of device you're using," says Yana Beranek, a senior vice president in Ipsos' User Experience practice. She says testing can include devices for testers that simulate aging motor skills or vision problems.

"When you design for this audience, you often improve the experience for everyone."

How does the online beauty shopping experience vary by age?





Can we afford to live longer?

As we take better care of ourselves, and invest in ourselves, will we have the capital to pay for that investment?

A 2016 report from the U.S. Government Accountability Office found that nearly half of households headed by older Americans had no retirement savings. This isn't a great starting point, as care expenses balloon, the government remains divided on how (if?) to fund Social Security and Medicare, and state and local governments reel under the weight of underfunded pension liabilities.

Something, somewhere will have to give. Say elders want to make changes to their homes or add ADUs. Will they have to drain equity from their homes to finance it? What does that do to generational wealth transfer?

Say more elders living longer, healthier lives stay in the workforce longer. What does that look like for younger workers who might not have room to advance their careers and salaries? How do financial services institutions need to structure loans, mortgages and insurance to account for these demographic shifts?



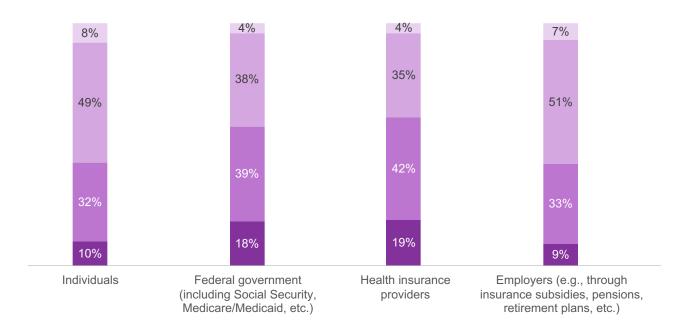


"Banks and regulators will need new flexibility built into some of the standard offerings and products," says Kevin Hung, an Ipsos client partner.

"They'll need to consider the customer experience of an older client, often working with their younger generation of family and caregivers, as they navigate these new waters together."

Who should pay for elder care?

Q. How much of the financial responsibility, if any, should the following people or groups be responsible for when it comes to covering the costs associated with aging and elder care? (% Selected)

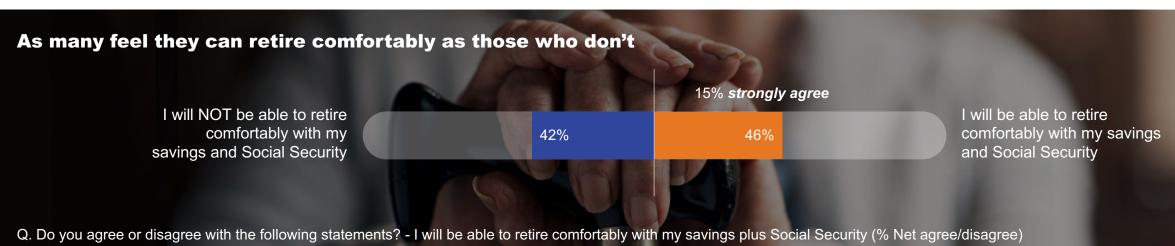


■None ■Some ■Most ■All

1. Those who feel comfortable about retirement and those who don't

The first generation to rely mostly on investment income (rather than a defined pension) is retiring. The younger generations don't number enough to cover current Social Security payments, and only 37% of younger Americans think there will be money left in the system when they retire. They feel the tension between fear of running out of money and fear of losing independence. Today's Americans, 42% of whom don't have any money left after paying bills, are uncertain about their financial tomorrow.

Or worse yet, they are certain about a hopeless outcome. What happens if more people think the safety net will be pulled out from under them? Or what happens if confidence grows?



(Source: Ipsos Coronavirus Consumer Tracker, Wave 42, conducted Nov. 22-23, 2021, among 1,162 U.S. adults.)

2. Aging naturally vs. keeping others guessing

Cosmetics have been used by humans for millennia for a wide variety of reasons, including to disguise aging or smooth wrinkles. More recently, surgery and injectables have taken the degree to which we can control our appearance even further. What's on the horizon, and how does that change as life expectancy changes? "The positive sign that we see overall is that the self-perception will be more positive and allow an openness for consumers to adapt and follow what's a very normal, human biological process," says Coty's Kevin Shapiro.



3. Living independently vs. assisted living

One thing you hear a lot in discussions of aging is the idea of being a burden on younger generations. The way to avoid that, most feel, is to live independently, although that can present practical challenges as well. Part of the challenge is that aging in place often requires care, even if it's just help with chores and fixing the Wi-Fi. That care takes time and money for families, too. "That often means trade-offs for those individuals to give their loved one the quality of support," says Ramsey Alwin from the National Council on Aging. "They are often taking time off work, maybe leaving work earlier than expected in order to provide care."



Q. For each pair of statements below, please select which statement you feel best completes the following sentence, even if neither is exactly right. (% Selected)

4. Aging in place vs. aging in an institution

Americans vastly prefer to stay in their homes as they age. But it's not easy for older people who must maintain that home and drive for errands and appointments. Meanwhile, their home itself might be working against them, with too many stairs and narrow doors, as well as light switches and thermostats that are hard to reach from a wheelchair. Changing these things takes money, but so does caregiving. AARP's Rodney Harrell thinks that new tools can help us achieve our goal. "Technology is one of those areas in which we have potential to do more and more things that are helpful for us, but we've just got to get it right," he says. Part of "right" means making sure the technology is working and affordable for everyone. What happens if it's not?



As I age, I would rather live at home as long as possible

81%

As I age, I would rather live in a facility or community with other people in similar life stages

Q. For each pair of statements, please select which statement you agree with more, even if neither is exactly right.

(Source: Ipsos survey conducted Jan. 28-31, 2021, among 1,154 U.S. adults.)

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5. Trusting care to machines, or not?

A majority of people don't trust Al-driven technology to assist with their caregiving. With most tech, trust grows — until it doesn't. As more of these products come to market and mature, this 60/40 tension could easily dissipate. One might think that would certainly be the case as currently tech-savvy younger generations age. Dor Skuler of Intuition Robotics sees one potential counterpoint: You can learn anything at any age, he says. It just takes longer when you're older. But he notes, "The rate of change around us is not slowing down. It's accelerating like no point before in human history. The amount of stuff you need to keep up with is not static." As tech advances continue in coming decades, will today's techsters be able to keep up any better than today's elders have?

A majority wouldn't trust machines to care for them. But will they have a choice?

I would not trust eldercare robots, virtual voice assistants, or artificial intelligence (AI) to care for me as I age

<mark>8% 42</mark>%

I would trust eldercare robots, virtual voice assistants, or artificial intelligence (AI) to care for me as I age

Q. For each pair of statements, please select which statement you agree with more, even if neither is exactly right.

Taking the fun out of funding

In 2022, as early retirees fuel the "Great Resignation" and uncertainty abounds, people are worried about their financial future. People overwhelmingly want to age at home, and remain independent, but can they? More technology is coming to market each day that should assist them to do so, yet they mostly don't trust that it will help.

Imagine it's 2032. While technology advances, systemic policy reform fails to keep up. Families who had learned how to spend way too much time, in way too little space, while cooped up during the pandemics of the early part of the previous decade, now find themselves pushed to the brink, as their aging parents move in. With parents unable to afford to continue to live independently, multigenerational living is the only way to balance all the multigenerational caregiving needs.

Newly flexible housing formats help those with the means to take advantage of relaxed zoning. But those needs are balanced by an increasingly hybrid workplace. Do we use the space above the garage for an office, or for your Mom to live in?

Elders could easily live longer, healthier lives through advances in monitoring, synthetic biology, tailored health plans and telehealth. But do they want to? They are faced with real tensions between wanting to be independent and facing dwindling 401k balances. While the Boomers hold the largest pile of money in any generation ever, it's unevenly distributed. As their wealth passes to the next generation that uneven spread doesn't help the entire generation catch up. What are elders to do? How dark is a future where much of a generation outlives its cash?

Waypoints

If financial policies changed how might that impact people's outlooks?

Suppose we find a new way to fund retirement? Perhaps it's a renewed commitment to the social safety net? Perhaps it's some sort of deferred compensation system throughout one's career? Perhaps it's a move toward a universal basic income, affording more people the ability to save along the way? How would shifting this tension by having more people be certain in their retirement funding change the marketplace? We think of potential shifts in our tension lines as waypoints showing which plausible port we might be headed toward.





Policy shifts to a comfortable and equitable retirement

Now, imagine 2032 again, from the lens of that changing waypoint in which our acceptance of technology grows in relation to our food and by extension other areas in aging. What changes? In 2022, the federal government was led, in both parties, by people in their 70s. For decades, this generation held power in an increasingly broken system. Despite the fact that their peers were facing an increasingly untenable retirement and caregiving situation, they accomplished little to fix it. After years of mismanagement by the Boomer generation, the first Gen X president helped fix the broken safety net in late 2028, building on the Affordable Care Act from Gen X cusper President Obama. After a tumultuous first half of the decade, democracy hit a tipping point and decided to tip back toward functioning. The new president was able to usher in reforms to Social Security, Medicare and paid family leave for eldercare as well as parenting. That, coupled with changes to education funding, allowed the middle class to regain some of its footing.

Older Americans benefited from the changes immediately (they were grandparented in) and enjoyed firmer financial footing, zoning changes that meant they could move into a new apartment above their kids' garage, where their ElliQ kept them company and focused, while the grandkids were at school. But they had to find new ways to entertain themselves as fishing and golfing became increasingly difficult for vulnerable populations due to an increasingly prohibitive climate.



How will we fill caregiver demand as more people age in place?



President and CEO, National Council on Aging

By 2034, older adults will outnumber children under age 18 for the first time. That means the demand for labor and in-home services and supports for elders is only going to soar, says Ramsey Alwin, president and CEO of the National Council on Aging.

Meanwhile, aging organizations warn that a caregiver workforce shortage is growing. Alwin explains how the gap will affect families and how technology could and should help.

Kate MacArthur: Is there really a crisis in home caregiving?

Ramsey Alwin: There's absolutely a crisis. Everyone, increasingly in light of the pandemic, wants to age at home in the comfort of all that they have enjoyed their entire life and in their community and with loved ones. The fact of the matter is, though, there is not enough labor force to support it, not enough public policy in place to truly support it at the rates in which older adults of today and into the future will desire and demand.

MacArthur: What happens if we don't fix this?

Alwin: The pandemic, in particular, has demonstrated without care work, there is, is no other work. And for us as workers, if we don't have that care, if we don't have that additional help, if we don't have that bandwidth to provide them the assistance they need to age well, then it has an impact on us.

We've really seen that care work is so essential. And ensuring there's access to care work in home services and supports is a middle-class issue. It's an employer issue.

MacArthur: What are the options for families?

Alwin: That often means trade-offs for those individuals in order to give their loved one the quality of support. They are often taking time off work, maybe leaving work earlier than expected in order to provide care.

The demand for labor and in-home services and supports is only going to soar. So, this idea that it's an individual responsibility, an individual family's responsibility, we've transcended that. If we don't make the investments in providing the right supports for individuals to receive the in-home services and supports, ultimately there will be a cost to the system that's even greater. Greater health issues will become problematic; additional poverty numbers will soar.

MacArthur: We're seeing all kinds of artificial intelligence from monitors and sensors that you can put into the home, to care robots. What do you think the most promising options are in the next three to five to 10 years?

Alwin: I would hope in the next three, five, 10 years, we're really making use of geosensors and monitors in a way that we can be able to catch some of the preventative signs in order to stave off some of the significant health issues that can ultimately take a turn for the worst. My hope would be we make the right investments so that telemedicine is equitably accessible and available to all.

MacArthur: How realistic is it to think that people will let robots do some caregiving, and what kinds of care do you see them realistically providing in the near- to midterm future?

Alwin: I'm watching closely and with a little bit of skepticism. We want to make sure that we're testing them appropriately with different types of demographic groups, with different types of cognitive and physical impairments to make sure we're running the traps of all the risks that may be associated with automating some of these incredibly important tasks. However, there are simple ways that we can use technology, as simple as iPhones, sensors, monitors, to be able to automate just the reminders

necessary, the checking in on different vitals, so that we're ensuring that we are providing older adults incredibly important checkpoints to flag when something takes a dip or looks like it's out of the norm.

But ultimately, I'm a big believer in the human touch. When we look at what it means to age well, it's of course the physical elements and the vital elements, but it's also having that deep connection, that companionship, that person to listen and to hear what's going on with the individual that's so important. That's why we need to make the investments in the workforce to ensure that we have enough supply to meet the demand moving forward.

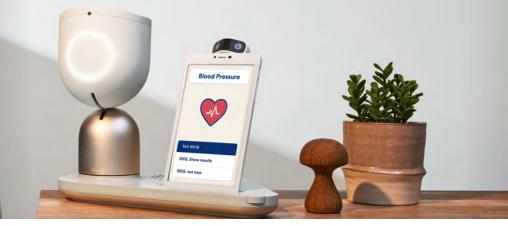
MacArthur: What happens if public policies and financial coverage and support for home care aren't expanded?

Alwin: It would be a significant setback in terms of preparing for the inevitable demographics of Baby Boomers, aging, and ultimately in the future, as we look to Millennials and the 90 million Millennials that are likely to live at least 100.

Kate MacArthur is deputy editor of What the Future and associate director of the Ipsos Future and Foresight Lab.

"I would hope in the next three, five, 10 years, we're really making use of geosensors and monitors in a way that we can be able to catch some of the preventative signs in order to stave off some of the significant health issues that can ultimately take a turn for the worst."

How will technology change how we care for elders?





Dor Skuler

CEO, co-founder, Intuition Robotics

As the elder population grows, so will their care needs. Humans—either professionals or family—won't necessarily be able to meet all the demand. But technology is evolving to help fill some gaps.

Intuition Robotics, co-founded by Dor Skuler, hopes its new Al-assisted companion, ElliQ, can help with some of the dayto-day tasks and reminders, but also the social aspects.

He hopes that by letting tech handle some of the little things, it will allow us to spend time with our elders on things that really matter. Matt Carmichael: What can robots and artificial intelligence do for us today in enabling elders to manage their own homes?

Dor Skuler: We are on the cusp of new AI technologies entering the homes of older adults. Actually, it's some of the most advanced AI that's going into any demographic. When ElliQ enters someone's home, it builds a relationship with them. They converse, they talk about the day, they talk about experiences. She initiates the interaction. This combination of character-based AI that are proactive, that are cognitive, that are built to deepen our relationship over time, is new to the world. And the first place we're going to see it deployed is in the aging population.

Carmichael: Why is that?

Skuler: Because older adults have unique needs. First of all, most of the technology surrounding us, if not all the technology surrounding us, is not built

for this demographic. But also, about 50% of our elders are really alone. We need a mitigator to help connect us to our kids and to our grandkids and to the ecosystem around us and to our doctors, but also to motivate us to get up from the couch and take care of ourselves and go for a walk. We need somebody to make us laugh and to just say, "Good morning" to us and ask us how we're doing.

Carmichael: Beyond connecting with family as a communication device, how can something like ElliQ help with remote caregiving?

Skuler: When ElliQ notices that you're not feeling well, or that you haven't picked up your meds or that you are you're suffering from anxiety or showing signs of depression or your blood pressure is consistently going up, it will ask your permission to share that with the primary caregiver. ElliQ will update. She'll say, "Hey, listen, I just wanted you to know Mom's not feeling well for the last two days. Maybe you want to give her a call."

Carmichael: How is ElliQ monitoring those things?

Skuler: When you are an empathetic companion, you don't need to rely on pure biometrics that might have rules that will set off alarms. We ask, "Hey, good morning, Mary, how did you sleep last night? The night before we didn't sleep well at all. And then we did relaxation exercises before bed. Did they help?" And guess what? People tell us the truth.

Carmichael: A lot went into designing this and related products and services for an older, less teched-out generation. How do you think the dynamic will change as tech-savvy, younger generations become the older populations?

Skuler: I think it's going to get worse and not better. It's not binary: the analog generation or the digital generation. When we're old, we can learn anything new. Anything. It just takes us a lot more time and more effort than when we're young. The rate of change around us is not slowing down. It's accelerating like no point before in human history. What you're going to see is the amount of change, the amount of stuff you need to keep up, which is not static. Our ability to cope with that change decreases as we age.

Carmichael: How so?

Skuler: I assume when I get older, I'll be more comfortable with my touch phone. And my grandkids will laugh at

me for not having implanted, I don't know, a VR chip in my brain or something like that.

Carmichael: How does this look in five or 10 years?

Skuler: You're going to see people relying on their AI to help them in day-to-day tasks, but also for their social needs. Hopefully, that will allow more human interaction. You won't need to waste your 15-minute call with your mom with asking, "Did you get groceries? Do you need help getting to the doctor's office?" You can spend your time on more important things: "What are you planning to do tomorrow? Did you catch the Super Bowl?"

Carmichael: And as the robotics mature, I assume they'll be able to help with more of the day-to-day of the caregiving itself, right?

Skuler: I think we're going to see a lot more tech that enables people to do things and a lot less being so caught up with monitoring people falling. Let's keep them healthy. Let's keep them functioning. Let's keep them independent. Let's keep them contributing. I hope we'll have a chance to help older adults engage more in society.

Matt Carmichael is editor of What the Future and head of the Ipsos Future and Foresight Lab. "You're going to see people relying on their AI to help them in day-to-day tasks, but also for their social needs. **Hopefully, that will** allow more human interaction. You won't need to waste your 15-minute call with your mom with asking, 'Did you get groceries?"

What will it take to make the dream of aging in place a reality?





Rodney Harrell, Ph.D.

AARP's Housing lead; Vice president, AARP Public Policy Institute

How does where you live allow you to live how you want to live? This is a question whose answer changes over time. As we age, our needs change, but our homes often don't change with us. To talk about this, we circled back with AARP's Rodney Harrell, Ph.D, whom we interviewed in the inaugural issue of What the Future.

AARP continues to grow its **Livable Communities initiative** and recently announced a new relationship with Lowe's to educate homeowners on how to make changes to their homes as they age.

Matt Carmichael: It's been almost five years since we spoke in our inaugural What the Future. What has gotten better about our nation's response to an aging population?

Rodney Harrell: The first thing that comes to mind is the understanding of the fact that we are a nation that's diversifying in many ways and especially age. My job has gotten a little bit easier in that way, in that there's wider recognition amongst policy leaders and in the business sector and some of the population as well. In the last two years, the fact that folks have been dealing with this horrible specter of COVID-19 has really drawn attention to making sure that we have housing that meets our needs as we age.

Carmichael: What still needs to be done?

Harrell: We certainly don't have enough communities and housing options that meet our needs over the lifetime. We're still hearing from folks that are

compromised in their housing situations because they don't have a choice but to stay in the home that may have worked for them decades ago but becomes a nightmare when you can no longer get up the stairs or you can no longer easily drive to the store or you're isolated. What we need to do as a nation is transform that knowledge and understanding of the aging population into action and build some of these housing options and communities and shape them in ways that meet the needs of people of all ages.

Carmichael: What are some other ways that policy can help?

Harrell: Anything that we can do to create more options is a good thing. The more options you have, the better chance people have to meet their needs. Changes to zoning would enable different kinds of options being built, like duplexes and triplexes. Our livability index shows that 80%+ of the nation's neighborhoods have only single-family housing.

Carmichael: One idea proposed for helping both with the aging population and the kind of caregiving roles related to that, is coach houses, tiny homes, basement apartments and other "accessory dwelling units" or ADUs. Do you see that as a solution?

Harrell: I'm a big fan of accessory dwelling units as not the solution but a solution. If you don't have friendly legislation in your town, that's one thing. Even if you do, there are financing and design challenges. But it's the best way that I've found of getting more choice into existing neighborhoods. We can insert basically new housing options where other ones didn't exist other than a single-family home. It puts the power in the hands of homeowners. It's not just left open to developers or others to figure this out. It gives power to you as a homeowner to create options that may work for you or your parents or loved ones.

Carmichael: A lot of energy is focused on building new solutions and new housing, but retrofitting is really the bigger issue, right?

Harrell: One of the reasons I'm excited by things like the interest in ADUs and expanding zoning, is because it's starting to crack that nut of how we make change in existing communities. There are 100 million-plus homes in the country. We could talk about legislation for the new homes that we're building or new communities that we're creating, and that's great. But we also have to roll up our sleeves

and think creatively about the ways that we can also make changes in existing housing. There's some low hanging fruit out there, but I think we also need to take on the higher fruit as well.

Carmichael: Is that part of what you're also hoping to do with the new relationship with Lowe's?

Harrell: Absolutely. It's helping us to empower homeowners to make changes to their home that can help those homes to better meet their needs. We're providing educational resources to help you think ahead about needs.

Carmichael: What can we learn from other countries that are facing similar demographic changes?

Harrell: There are many countries that look at multigenerational housing in different ways than we do, and it's much more common. We've been used to a single-family house in this country for a long time. But there are many places where multigenerational housing has been a construction technique and approach in the way that they're located and situated. We need to figure out how to translate them for the American context.

Matt Carmichael is editor of What the Future and head of the Ipsos Future and Foresight Lab. "I'm a big fan of accessory dwelling units as not the solution but a solution."

How will people define beauty as they age?





Kevin Shapiro

Senior vice president, U.S. marketing, consumer beauty, Coty

For centuries, beauty was viewed as something you lost with age. That's begun to change in recent years as new technologies have shifted the focus from masking the exterior to more holistic and technical skincare and self-care.

Kevin Shapiro is senior vice president of U.S. marketing for consumer beauty at Coty, where he manages a large stable of consumer brands, including CoverGirl, which recently repositioned its Simply Ageless line. He explains how the notion of "aging gracefully" is taking on a whole new meaning.

Kate MacArthur: What does "aging gracefully" mean today versus what it could mean tomorrow?

Kevin Shapiro: I believe the term, and the future we're in already, is representing increasingly active lifestyles and a focus on longevity through a wellness lens. In terms of beauty, aging gracefully means bringing an increased level of understanding of the biological changes going on in our body, being at peace with them, but also adapting our products and routines that we use as consumers to better meet the needs of our body, skin and hair as they change. I think we'll also see less terminology around anti-aging and products in general, and more shifts toward nomenclature like "ageless" or "better, not younger."

MacArthur: There's been a shift from avoiding age to embracing age. Where does it go from here?

Shapiro: Consumers are really thinking of pro-aging as being proactive about skin renewal, even starting at a

younger age. With CoverGirl's Simply Ageless, we have a renewed focus on the health of skin. All the products in the Simply Ageless line have hyaluronic acid and that does a variety of things. One is it accelerates cell renewal and not at levels high enough that are going to cause irritation for most consumers. Now we're seeing even Gen Z consumers discovering products from Simply Ageless because of these skin benefits.

MacArthur: What does age and being male mean in the beauty world now and in the future?

Shapiro: Most of our portfolio is catering to women, but when we look at men, aging has been traditionally more holistic, tying back to wellness. We've seen this with the launch of products around men's sexual health and virility; those are all things that tie into how someone feels and therefore how they look. More recently, we've seen growth in new brands emerging in men's grooming and hair color and, very importantly, an emergence of gender-free beauty products that suit anyone.

MacArthur: What is most influential now for how beauty and aging are defined, and will that shift going forward?

Shapiro: We're starting to see some positivity around aging, because it's less of a mystery, right? The positive sign that we see overall is that the self-perception will be more positive and allow an openness for consumers to adapt and follow what's a very normal human biological process.

MacArthur: What about social media filters and how they affect the way people think and feel about themselves?

Shapiro: Whether it's filters, lenses or avatars, consumers are already choosing avatars that present either an aspirational representation of themselves or enhance aspects of them in a way that makes them be seen how they want to be perceived by others. That's true even for younger consumers. It becomes a norm that you can use virtual makeup, virtual fragrances, virtual looks to enhance something that you that feels close to your heart and that you want to represent to the public.

MacArthur: We're seeing more injectables and beauty devices being marketed. How do those fit?

Shapiro: We're not in the injectables business. But as a consumer and a trendwatcher myself, I'm seeing injectables rapidly becoming the new norm. We see them living in

harmony because injectables are really about shaping, so there are still skin needs. That's where our products come into play. Even with something like our CoverGirl Clean Fresh Skin Milk, niacinamide is part of the ingredients because it's known for hydrating skin and promoting skin elasticity. I don't think that the benefits of cosmetics products are replaced with injectables. It's all really under the umbrella of "skinification." We've launched formulas that have good-for-skin ingredients, blend some of the great ingredients from what you would traditionally have seen in skincare serums into foundations or other tinted formulas, and even products for lip, like our lip balm on CoverGirl Clean Fresh.

MacArthur: Is there something that, that I haven't brought up that you think is important to talk about?

Shapiro: For me, the main theme is really that people are becoming more educated and comfortable with aging. Therefore, I think it really enhances self-acceptance. That awareness of what's happening and being connected to our biology in that way is more dominant than specific age markers or single-event things, which is how I think aging was experienced in the past.

Kate MacArthur is deputy editor of What the Future and associate director of the Ipsos Future and Foresight Lab.

"The positive sign that we see overall is that the self-perception will be more positive and allow an openness for consumers to adapt and follow what's a very normal human biological process."

Signals

What we're reading today that has us thinking about tomorrow

Meet the typical Gen Xer, America's 'forgotten middle child' who earns more than everyone else but has the most debt at \$136,000 via Business Insider. Considered the "forgotten generation," Gen Xers in midlife earn more money but have more debt than other generations and are juggling working and caregiving.

Paulina Porizkova: the supermodel who dared to look her age via <u>The Times</u>. Once the world's highest-paid model, Paulina Porizkova became invisible when she hit her 50s. She's leading the march of aging women who are embracing and flaunting their age.

A Regenerative Reset for Aging via <u>Technology Networks</u>. A Mayo Clinic study finds that regenerative medicine could slow the clock on degenerative diseases that can cut short both life span and health span. Researchers contend that increasing health span includes solutions that merge regenerative medicine research, antisenescent investigation, clinical care and societal supports.

Technologies for Older Adults from CES 2022 via Aging and Health Technology Watch. Roundup of highlights from the Consumer Electronics Show.

Caregiving benefits seen as valuable benefit by many via <u>lpsos</u>. Three in four employed adults say they have provided unpaid help to a loved one in the past year, in this 2021 lpsos survey conducted on behalf of Grayce Inc. Many respondents have not told their employers about their caretaking responsibilities, and a quarter have left a job or asked to reduce working hours.

Emptier Planet via <u>lpsos</u>. The great defining moment of the 21st century will occur in three decades or so when the global population starts to decline. Many people are surprised to hear this. But the truth is that the earth's population is not growing out of control. Instead, we are heading for a population bust.

Ipsos What the Future Wealth via <u>Ipsos</u>. America's aging population, growing diversity among the rich and the digital era are changing wealth and luxury in America. Ipsos imagines how these shifts will impact wealth transfer, fiscal policy, retail and luxury through crypto and the metaverse.

Scanning for signals is a type of research that is foundational to foresight work. These signals were collected by the staff of What the Future and the Ipsos Trend Advisory Board, including Heather Rosoff, Taylor Santos and Lisa Yu.

Contributors



Yana Beranek is a senior vice president at Ipsos. She leads a team of user experience researchers and designers, helping clients design and execute research to bring the user to the center of product and service design and development. With more than 15 years of experience in UX, she's worked in a variety of industries including financial services, e-commerce, smart home technologies and health care. yana.beranek@ipsos.com



Kevin Hung is a client officer at Ipsos, where he helps financial services companies answer business questions through an understanding of people, markets and society. Prior to joining Ipsos, he worked at Citi Cards in various payment innovation and new product development roles and was named an inventor on three patents. kevin.hung@ipsos.com



Darrell Bricker is global CEO of Ipsos Public Affairs. Prior to joining Ipsos, he was director of public opinion research in the office of the prime minister of Canada. He holds a Ph.D in political science from Carleton University. He is the author or co-author of several books including "Empty Planet: The Shock of Global Population Decline" and "The Big Shift: The Seismic Change In Canadian Politics, Business, and Culture and What It Means for Our Future."



Sophie Washington is a consultant at Ipsos Strategy3 where she looks for creative solutions to innovate brands from an evolving human perspective. She is passionate about exploring alternative futures, considering how visionary and interdisciplinary thinking spur change and lead to real societal impact across sectors. Sophie recently completed The Futures School's six-month Activations in Natural Foresight program. sophie.washington@ipsos.com

What the Future

EditorMatt Carmichael

Deputy editor Kate MacArthur

Art director Stephen Geary

GraphicsAvalon Leonetti, Kahren Kim

Newsletter Ben Meyerson

Copy editing
Zoe Galland, Betsy Edgerton

Web
James Des Los Santos,
Matthew Alward

Survey design Mallory Newall

Survey execution Marissa Kins, Melissa Kordik

Artifact from the future

A holovite appears on your smartband and it takes your breath away.

Your dear friend Mirai is having a milestone birthday. You knew she was getting up there in age, but you had no idea how old she was. There are other people you know who have reached 165, even 170.

But 150 is something and Mirai never looked older than 100. She is always ageless, timeless and priceless, as her daughter likes to say.

This is going to be one helluva bash.



For full results and methodology, visit <u>future.ipsos.com</u> and subscribe to our newsletter to receive our next issue, What the Future: Identity

What the Future is produced by the Ipsos Future and Foresight Lab



