RAMSEY ALWIN
Director, Financial Resilience, Policy, Research and International Affairs, AARP
Alwin works to position AARP as the global leader in challenging outdated beliefs and sparking new solutions related to financial resilience and longevity. Alwin engages with provocative thinkers to bring the best ideas from a wide range of perspectives to bear on AARP’s programs, policy work, and products. Prior to arriving at AARP, Alwin served as Vice President of Economic Security at the National Council on Aging and Director of National Economic Security Programs at Wider Opportunities for Women.

BRIAN BEACH
Senior Research Fellow, ILC-UK
At ILC-UK, Dr. Beach specializes in employment and housing. He actively engages stakeholders across sectors, including Parliament, civil society, and academia. After three years working in the AARP Office of International Affairs, he completed his doctorate at the University of Oxford.

ANDREW M. CUOMO
Governor of New York State
Throughout his time as the 56th Governor of New York State, Andrew Cuomo has been working to make communities across the state stronger and safer for all New Yorkers. This includes restoring New York’s reputation as the progressive capital of the nation — with groundbreaking accomplishments like passing marriage equality, a $15 statewide minimum wage, and 12 weeks of paid family leave.

JUSTIN DERBYSHIRE
Chief Executive at HelpAge International
Justin Derbyshire joined HelpAge International in 2014 as the Director of Programmes and was responsible for our regional offices in Asia, Africa, Latin America and Caribbean and the Humanitarian team. In his time to date, he has overseen the emergency response in Nepal and Ukraine, driven the regional and country strategic reviews and led the implementation of the organizational wide change process.

JAMES GOODWIN
Chief Scientist, Age UK
As Chief Scientist for Age UK, James Goodwin is responsible for advising the Age UK Board of Trustees, the Group Chief Executive, the Charity Director and the Board of Directors on research trends and current thinking on aging; the state of evidence on aging and older people; knowledge management and translation; research impact; and leading on all research partnerships, internal and external, including international with the World Health Organization, Gerontological Society of America and the International Association of Gerontology and Geriatrics.

ANGEL GURRÍA
Secretary General of the Organisation of Economic Co-operation and Development (OECD)
Prior to becoming Secretary General of the OECD in 2006, Angel Gurría was Mexico’s Minister of Foreign Affairs and Minister of Finance and Public Credit. Mr. Gurría has broadened OECD’s membership with the accession of five countries and strengthened collaboration with the world’s largest emerging economies. Under his watch, the OECD has heralded a new growth narrative that promotes more inclusive and sustainable growth, ensuring access to opportunity for all. He has also scaled up the OECD’s contribution to the global agenda, including through strong links with the G7, G20, and APEC.

NANCY LEAMOND
Executive Vice President and Chief Advocacy & Engagement Officer, AARP
Nancy LeaMond has responsibility for driving AARP’s social mission on behalf of Americans 50+ and their families. She leads government affairs and legislative campaigns for AARP, widely seen as one of the most powerful advocacy organizations. She also manages public education, volunteerism, multicultural outreach and engagement, and she directs major AARP initiatives that include supporting family caregivers through advocacy, education and innovative programs, and expanding AARP’s local footprint in communities across the country.

SARAH LOCK
Senior Vice President for Policy, Policy, Research and International Affairs, AARP
Sarah Lock helps position AARP as a thought leader addressing the major issues facing older Americans. She leads AARP’s policy initiatives on brain health and care for people living with dementia, including serving as the Executive Director of the Global Council on Brain Health, an independent collaborative of scientists, doctors and policy experts convened by AARP to provide trusted information on brain health.

ANDY MILLER
Senior Vice President, Innovation and Product Development, AARP
In his role at AARP, Andy Miller is responsible for driving the development of breakthrough solutions that serve the needs of the 50+. He is working to build a new entrepreneurial culture at AARP through the use of human centered design and lean methods. Mr. Miller manages all physical and virtual assets of innovation at AARP, including The Hatchery, as well as engaging leaders, business units and other key stakeholders to drive alignment and successful execution around AARP priorities.

WILL SANDBROOK
Executive Director, NEST Insight
Will Sandbrook leads the NEST Insight unit, which was set up by NEST Corporation to help understand and address the challenges facing NEST members and the new generation of defined-contribution savers. Sandbrook has over 13 years of experience working in strategy and public policy areas relating to personal finance, including financial capability, savings incentives, and the design and implementation of the government’s auto-enrollment program.

BOB STEPHEN
Vice President, Caregiving and Health Programs, AARP
Bob Stephen serves as AARP’s Lead for Family Caregiving. In these roles, he leads the strategy and execution of AARP’s enterprise-wide efforts to help Americans age 50+ live independently at home, while supporting the family caregivers who so often make this possible. He also manages community program development related to health and caregiving. Prior to joining AARP six years ago, Mr. Stephen spent over two decades working with rural communities and healthcare organizations to develop and implement community health strategies.

MARY ANN TSAO
Chairman and Founding Director, Tsao Foundation
Mary Ann Tsao is the Chairman and Founding Director of the Tsao Foundation, a Singapore-based — but regionally oriented — non-profit operational foundation dedicated to aged care and aging issues. Previously, she was also its CEO and President. Tsao Foundation aims to address issues of population aging, promote successful aging and enhance well-being of older people at policy and practice levels by catalyzing constructive change.
LEADERS IN LONGEVITY
**THE FORMAT**

*The Journal* contains three main sections: Departments, Contributors, and Feature.

Departments provides exclusive articles, insights and interviews from AARP and the International team. The Contributors section contains thoughtful pieces from a wide range of experts, policy-makers, and AARP’s own in-house thought leaders. The Feature explores in depth the aging reality of one country, told through a multitude of stories and visual narratives.

*The Journal* is published once a year and released in late January.

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AARP International engages global stakeholders to spark solutions that strengthen communities, protect the vulnerable and enable people around the world to pursue their goals and dreams. Working with governments, civil society and the private sector, we are focused on enhancing the quality of life for people as they age. We serve as the global voice for AARP, a social change organization with a membership of more than 37 million.
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READ FROM BACK TO FRONT

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Dr. Ethel Percy Andrus, a retired high school principal, founded AARP in 1958 to promote her philosophy of productive aging. In 1963, Dr. Andrus established an international presence for AARP, and though it has taken many different forms since then, AARP International has continued to develop networks and form coalitions within the worldwide aging community, promoting the well-being of older persons through advocacy, education, and service.

Now, as we prepare to celebrate our 60th anniversary, it is fitting that we introduce a re-designed version of AARP’s global thought leadership publication, The Journal. In addition to a broad set of conversations on the opportunities and challenges found in an aging world, we are focusing attention on a set of stories from a single country. As the world’s first “super-aged” nation, Japan is a logical choice for this new feature.

In the following pages, we look beyond the research reports and data tables to instead meet and engage the people of Japan. As demographic trends shift critical elements of Japan’s society, AARP leveraged its relationships in-country to choose sites in Tokyo, Akita City, and Fukuoka that offer compelling stories about people, businesses, and organizations confronting and embracing longevity. We hope you enjoy this nuanced portrait of Japan’s aging challenges and innovations.

In addition to our special feature on Japan, the 2018 edition of The Journal offers insights on wealth, health and your whole self — by looking across towns and around the world for creative responses to current trends in global longevity. AARP CEO Jo Ann Jenkins sets the scene by describing our worldwide efforts to broaden the impact of Disrupt Aging and change the conversation about what it means to grow older. She examines how we will continue to elevate the mission and vision of our founder through international engagement and exchange.

The recently launched Living100 project seeks to spark a conversation and asks some provocative questions. What do longer lifespans mean for us and for future generations? How can we address disparities in race, gender, income, education and geography that are often a matter of life and death? And most importantly, how can we challenge our mindsets and attitudes about aging so that we are not only living longer, but making the most of our extra time?
The Journal takes on these questions and explores the best practices and common challenges that bring us together:

- Angel Gurría, Secretary-General of the Organisation for Economic Co-operation and Development, offers insights on the future of work and policies that promote older worker employment and reduce inequalities in later life.
- As people get older, their care needs will become increasingly complex. Justin Derbyshire, Chief Executive of HelpAge International, examines programs that ensure healthy lives and promote well-being for people of all ages.
- Brain health is a key factor in successful aging. AARP’s Sarah Lock and James Goodwin, Chief Scientist of Age UK from the Global Council on Brain Health, offer insights and recommendations to reduce the risk of cognitive decline.

This edition of The Journal also spotlights how the accelerating combination of aging and urbanization calls for accessible communities that support aging in place. First, New York Governor Andrew Cuomo shares how some of the most evolved age-friendly projects are emerging from state and local stakeholders. Second, we explain how Sharjah in the United Arab Emirates is becoming the first age-friendly city in the Arab world. Finally, “Where We Live” from AARP’s Nancy LeaMond showcases communities where people of all ages can thrive.

Throughout this anniversary edition, we are excited to look ahead at the creative ways we can choose to live and age. From Disrupt Aging to Living100, our goal is to shift hearts, minds, and markets away from the mentality that aging is a burden — and towards a more accurate assessment that an aging world offers new opportunities.

We at The Journal invite you to seize these fortunes with us.
When we think of the big issues facing our world today — climate change is one example — a lot of the energy around the subject is consumed by ongoing debates as to whether the “thing” in question even exists, or about how it’s defined, or on how various people believe it will (or won’t) play out in the real world. But global aging is different: There are no world’s aging population “deniers,” or even skeptics. Look around, you won’t find anyone who says, “Nope, I’m not buying it.”

In a world where consensus is increasingly rare, there is sweeping agreement on a simple but powerful truth: the world is getting older — fast and just about everywhere. But far too often, we only see the challenges of aging and not the opportunities it also offers.

On every continent, leaders speak of being inundated by the effects of aging and its consequences. Who will pay for their pensions? Who will pay their medical bills? Who will care for them? There is no doubt that longer lives create challenges, and we wrestle with those questions every day.

But there is a bigger conversation to be had — focused not just on the historic burdens but on the potential historic benefits of living longer. What if instead of seeing just dependent retirees, we saw a new type of experienced, accomplished work force? What if instead of seeing expensive costs, we saw an exploding consumer market that could grow our economies? What if instead of seeing a growing pool of older people, we saw rich, intergenerational communities with new and different strengths?

The time has come to create a new mindset around aging — a new way of thinking about possible solutions to help us age better. The way people are aging is changing, but many of our attitudes and stereotypes about aging are not. We need to challenge those old stereotypes and attitudes and spark new solutions so more people can choose how they want to live as they age.

At AARP, we’re igniting a worldwide effort to do just that — to Disrupt Aging. We want to change the conversation about what it means to grow older and change the way we think about aging and how we live throughout our lives, not just during our later years. It’s more about how we live than about how long we live. That’s what Disrupt Aging is all about.

We believe there is tremendous value in sharing information among nations, regions, communities and organizations. All of our international efforts are based on the premise that we can learn a lot from the experiences of other countries, and they can learn from our experiences as well. As such, AARP continues to develop and maintain strategic partnerships. We collaborate with others on international conferences, events and policy discussions to highlight and promote best practices. We work with organizations such as the World Economic Forum (which we joined in 2016), the Organization for Economic Cooperation and Development (OECD), the United Nations, national governments, and US Department of State. We also promote community building among civil society organizations serving older populations around the world.

In 2017, we introduced Disrupt Aging to the World Economic Forum in Davos, and this year we look forward to expanding that discussion. My book, Disrupt Aging: A Bold New Path to Living Your Best Life at Every Age, has been translated into Chinese with more international translations under consideration. And we engaged the 6,000 aging professionals (representing more than 70 countries) attending the International Association of Gerontology and Geriatrics World Congress in San Francisco in discussing their important role in disrupting aging.

Also in 2017, we decided to see how well prepared some of the world’s key nations are for the challenges and opportunities their societies face as they age. We looked at the profound challenges their societies and economies face as the number of people aged
60 and over in their populations more than doubles over the next generation. We released the AARP Aging Readiness and Competitiveness Report — or as we call it, the ARC Report — at the OECD Forum in Paris in May.

While these countries face formidable challenges as a result of their aging populations — especially those related to housing, mobility, isolation, finance, and healthcare — they are also coming up with innovative solutions to address many of these issues. I encourage you to review the research and the innovations at AARPinternational.org/arc.

Because of the far-sighted vision of AARP’s founder, Dr. Ethel Percy Andrus, AARP has been involved internationally almost from its start in 1958. This year, as we celebrate our 60th anniversary we continue to be everyday innovators in aging, changing the conversation and sparking new solutions so more people throughout the world can choose how they want to live as they age.

We are refining and expanding our global thought leadership. AARP will lead conversations at the United Nations, the German Marshall Fund, the OECD, the World Health Organization, and the World Economic Forum. I will also make my first visit to Asia as CEO, with planned visits to China, Japan, Korea, and Taiwan.

We also will expand the ARC research to include an additional set of countries that represent smaller economies around the world. And we will join with HelpAge International to launch Global AgeWatch Insights 2018, a research advocacy tool focusing on the health and care needs of older people in low and middle-income countries, particularly as it relates to their access to universal health coverage.

All of these efforts are designed to provide decision makers and civil society advocates around the world with a deeper analysis of aging issues as we all prepare to face the opportunities and challenges of an aging world.

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1 AARP Aging Readiness and Competitiveness (ARC) Report, AARP and FP Analytics, June 2017. The Report examines the preparedness levels of 12 nations — Brazil, Canada, China, Germany, Israel, Japan, Korea, Mexico, South Africa, Turkey, the United Kingdom, and the United States.
Foresight into the pace and shape of this transformation allows for a much needed rethink of the role of adults in our communities and economies, with the recognition that a healthier, more productive and engaged population is essential to building a prosperous and sustainable future.

In 2006, Japan became the first “super-aged” country, when the share of 65+ hit 21 percent of the country’s population. Today, there are four super-aged countries — Japan, Italy, Greece, and Germany, and 35 aged (14 percent of a country’s population) — which are all developed economies. In less than one decade, these numbers will rise rapidly to reach 24 super-aged in 2025, drawing in most of Europe, and 32 aged, including the major developing economies of China and Russia.

This rapid shift in population reflects a dramatic acceleration in the pace of aging. It took France 115 years to transition from “aging” to “aged,” 40 years for the UK, and 25 years for Japan. And, developing countries are moving at an even faster pace — Brazil and China are projected to complete the transition in just over 20 years. In Mexico, which today does not even qualify as an aging society, the share of the population over 65 is expected to grow by more than 250 percent by 2050 — from 6.5 percent today to 19 percent. All this underscores the need to proactively consider and prepare for the impacts these massive shifts will have on our societies and how the public and private sector can anticipate and make the most of this transition.

Countries around the world are experiencing one of the greatest demographic disruptions in history — the rapid aging of their populations. With few exceptions, in large and small, industrialized and developing countries alike, longer lifespans and reduced birthrates will drive an unprecedented growth in the proportion of the population aged 65+. 
WHAT OLD AGE LOOKS LIKE
Countries can't influence their pace of aging in the coming decades, but they can shape what old age looks like in their societies. And by looking across countries and outcomes, one can begin to understand what choices can be made today to shape that future. Is there a supportive infrastructure for active living and social engagement? What factors enable older adults to continue to contribute to economic prosperity? How are countries shifting from a focus on lifespan to extending the span of healthy living? How can technology be employed to facilitate all of this — from social connection, to economic engagement, to the provision of healthcare services?

Take prosperity — today, high rates of employment among older adults mirror poverty rates in a country as low income seniors are forced to continue working. This stands to change, given improvements in healthcare and education and a desire to remain active and productive. In China, volunteerism has proven both appealing and valuable — its Silver Age Action Initiative taps the knowledge and expertise of the country’s older urban middle class to advance social and economic development in rural areas. Five million retired professionals participated in the first decade of the program (ending in 2014), serving more than 300 million people, with contributions valued at USD 1.2 billion. And in the UK, older adults are prolonging or re-entering the formal economy in new fields; there, older adults account for about a quarter of the beneficiaries of the New Enterprise Allowance, a novel program to support entrepreneurship through loans and mentorship. In the US, employers site a “skills gap” as a primary business risk in the coming years and are testing new approaches to allow for a more phased and flexible approach to retirement to retain older workers.

READINESS AND COMPETITIVENESS
While every country faces unique pressures and must operate within (sometimes shifting) cultural norms, the challenge is the same: ensuring that a rapidly aging population remains an engaged and vital part of society. Looking to the future, governments around the world are beginning to experiment with new policies to address the challenges and harness the opportunities associated with these monumental population shifts. But work has just begun. For countries that navigate this transition well, rather than merely viewing aging populations as a fiscal burden, these aging populations can, in fact, help drive greater prosperity and competitiveness.

AARP and FP Analytics partnered in 2016 to conduct an in-depth study of aging policy in 12 countries to produce the Aging Readiness and Competitiveness (ARC) Report. The ARC Report examines the pressures and opportunities each country faces, as well as their policy responses in four pillars: Community Social Infrastructure, Productive Opportunity, Technological Engagement, and Healthcare and Wellness. A particular eye is given to policy innovations aimed at engaging a healthier, more independent older population and unleashing the productive and economic potential resident among them.

The 12 countries selected for the debut report — Brazil, Canada, China, Germany, Israel, Japan, Korea, Mexico, South Africa, Turkey, the United Kingdom, and the United States — are the largest economies by region, with the exception of Africa, where the largest upper middle-income economy was chosen. Together, they represent 61 percent of the global economy and nearly half of people aged 65 or older, and include a diversity of economic, social, and cultural contexts. The report was released on the occasion of the annual OECD Forum in 2017 and can be found online at arc.aarpinternational.org.

AARP and FP agreed in 2017 to extend ARC research to include 10 additional countries — Australia, Chile, Costa Rica, Lebanon, Mauritius, Netherlands, New Zealand, Norway, Singapore, and Taiwan. These countries are smaller — under 25 million people — and have proven to be more nimble and willing to innovate to adjust their economies and societies to find solutions for the realities of aging and the opportunities of longevity. ARC 2.0 will be released in mid 2018.
Yoko Ono

Born
Yoko Ono
February 18, 1933 (age 84)
Tokyo, Japan

Occupation
Artist, peace activist, singer, songwriter
What is your personal motto?
Every moment in our lives is a miracle we should enjoy instead of ignoring.

What are you currently reading or watching?
How Not to Die by Dr. Michael Greger, which is very good and by an intelligent man. Also, The Fall of Berlin 1945, a very important book by Antony Beevor. This book made me realize that we have a very different understanding of World War II because of our American point of view.

What is your favorite hobby?
My hobby is my experiencing life to its fullest.

Who was your biggest inspiration as a child?
As a child, I always found my greatest inspiration from within.

What advice would you give to your teenage self?
Life is not as scary as people would have you believe, because we are in control. We are the ones who can make our lives good. And I know all of us have that ability.

What do you think the biggest misconception is about older adults (especially older women) in this country?
Misconception about WOMEN! I’d like to talk about that first. There’s so much misconception about women in general, not just older women. First of all, I don’t believe in those words, “older” or “younger,” because it’s all up to us if we are going to act old or young. But it’s true that misconception is very strong in our society and it effects our lives. I help people without thinking about their age, in fact I have many very close friends whose age I don’t know because I never asked. Age shows in their faces and body movements and what they do for themselves and for others.

What are some influences in your life that have contributed to your positive outlook/perspective on aging?
What my perspective is, is in result of what I have created. Some very bad and some very good.

What is your best piece of advice for aging well?
Don’t count your age.

Your art has continued to evolve over the years. How has your approach to creativity and your art changed as you have gotten older?
I have lived so many years, and yes, my art has changed in many ways. But it’s the same changes I went through when I was 3 or 9. We tend to become wiser as we accumulate years. Therefore, I hope I can live as long as possible.

From your unique perspective — are there any distinctive cultural attributes the US could learn from Japan and vice versa, particularly when it comes to attitudes toward aging?
I think the world is communicating so quickly and becoming smaller, so there are many similarities between how the Japanese people and American people think about aging. I can see people here who don’t believe in doing anything after retirement, and I see that in Japan too and there are people here who don’t believe in doing anything after retirement, and I see that in Japan too.

“I help people without thinking about their age, in fact I have many very close friends where I don’t know their age because I never asked. Age shows in their faces and body movement and what they do for themselves and for others.”
Tadaaki Masuda

AARP volunteer Tadaaki “Tad” Masuda could have stopped working after successful careers at Reebok and Polaroid. Instead, he chose to reinvent himself as a champion for older people across Japan. Today, he is an invaluable member of the AARP team, advising senior leadership on innovative Japanese models that support aging and longevity.

Tad’s role began in 2004 when AARP was first establishing itself as a thought leadership organization in Japan. He helped focus our efforts and worked tirelessly to develop and execute Reinventing Retirement Asia, a conference AARP co-hosted with Nikkei in 2007. Reinventing Retirement Asia attracted over 500 top businessmen, policymakers, and opinion leaders.

Tad supported many of AARP’s international projects, including AARP Best Employers International, by identifying leading Japanese companies that embraced the value of experienced workers and intergenerational teams. He was influential in getting support from the Japanese Ministry for Health, Labor, and Welfare for these projects as well.

Most recently, he facilitated connections and offered guidance for this edition of The Journal. He also served as de facto cultural attaché and ambassador for AARP leadership as we experienced innovation firsthand throughout metropolitan Tokyo. Tad even led our editorial team outside of Tokyo to cities such as Akita City. This edition of The Journal, which explores and celebrates innovations across Japan, is dedicated to him.
Cover Art

Hundreds of cuts and folds. Thousands of tiny lines and details, impressed onto minute slivers of paper by hand. Multiple weeks and many late nights. Each year we create custom artwork for the cover of *The Journal*, and this year was no exception. We knew without a doubt that for the cover of this edition, featuring Japan, we would use paper art — a quintessential Japanese medium. Our chosen subject matter, a view of the Tokyo skyline looking toward Mt. Fuji, encapsulates the unique character of the city — the orderly chaos of the sprawling metropolis and the density of the most populated urban area in the world. The cover is our homage to the pure craftsmanship we witnessed in Japan, as well as a nod to the striking dualities present in Japanese art and culture: simplicity and intricacy, restraint and obsession, modernity and tradition.
Population aging will be fast, marked, and constant. While there are about 28 people ages 65 and over for every 100 people of working age in OECD countries today, this number is expected to rise to close to 50 within the next 35 years. From labor markets to health systems, the aging demographics will deeply affect the way society works and alter many aspects of our lives. Pensions are among the most directly affected areas. Already today the financial sustainability of retirement systems is a major concern in OECD countries and there is little doubt that the topic will rise further on policy agendas. Many governments have already started to tackle the problem, often by cutting pension benefits or increasing retirement ages, but further policy action will be needed in the future to ensure sustainable pensions in the long run.

In parallel to population aging, inequality is also on the rise. In the United States, like in many other countries, inequality has been growing from one generation to the next and old-age inequality will almost certainly increase among future retirees. This will likely lead to higher old-age poverty. Poverty among older persons in the United States is already a challenge today — more than 20 percent of those over 65 have income under the poverty line, compared with less than 13 percent on average in OECD countries.

The OECD has stepped up its research efforts to identify ways of preventing this unequal aging, recognizing that a lower level of inequality is both an end in itself and a way of increasing countries’ resilience to the consequences of demographic change. As a part of the OECD’s inclusive growth agenda, the report *Preventing Ageing Unequally* and the forthcoming report *Working Better with Age and Fighting Unequal Ageing in the United States* document how disadvantages in education, employment, and health lead to deeply entrenched inequalities. Determined and well-tailored policy action is needed to achieve greater inclusiveness for people in later life while making sure that pension spending does not become an unsustainable financial burden for society.

Unfortunately, there is no simple or universally valid policy tool to ensure adequate and affordable pensions and avoid old-age disparities. Fighting unequal aging requires comprehensive, coherent, and sometimes complicated policy packages based on three main principles: policies must aim to prevent inequalities before they cumulate, mitigate existing inequalities while it is still possible, and cope with inequalities at older ages when it is too late to address their root causes.

Particularly promising are policies that start early in life and prevent inequalities before they build up. Tackling early school drop-out, for instance, especially in the case of disadvantaged children, has proved to generate substantial and long-lasting payoffs. Countries should place early-life interventions at the top of their policy agendas, as childhood circumstances affect numerous aspects of later life, from career progression to pensions. When more children attain a high level of education, more of them end up in high-quality jobs, earn higher wages, contribute more to the retirement system, and have access to adequate pensions in later life.

In addition to preventive measures, governments also need to take policy action to target existing inequalities in order to mitigate them and prepare...
countries for the upcoming demographic challenges. Health inequalities are among the most striking forms of inequality and should be addressed urgently. In the United States, for example, highly educated 25-year-old men can be expected to live more than seven years longer than their lower-educated peers. Lower socioeconomic groups are also much more likely to suffer from a certain number of diseases, develop disabilities, and depend on long-term care at older ages. Lifestyles and access to health care vary largely across population groups both within and across countries. Unhealthy people are less productive at work, face a higher risk of losing their jobs, and tend to retire earlier. Promoting healthy aging in general but especially among vulnerable groups, through multisectoral active-aging strategies and equal access to health care, must be a policy priority. Cost-effective prevention, primary care, and screening, among other services, should be provided at low or no cost to prevent diseases and encourage early detection of severe conditions such as cancer.

Governments must aim to foster broader access to employment opportunities and promote longer working lives. In the United States, employment rates at older ages are relatively high, at 62 percent for 55–64-year-olds versus 59 percent on average in OECD countries in 2016. However, there are large disparities across population groups. Early retirement remains a widespread phenomenon, often as soon as Social Security benefits become available at age 62. Providing equal opportunities for workers to upgrade their skills throughout their working lives is a key prerequisite to fostering employment, especially in times of quick digitalization and automation. In the past, workers could expect to have only a few job changes during their career. In the future, workers will switch jobs more often or at the least carry out frequently changing professional tasks. Upgrading and adapting skills is crucial for employment and earnings prospects, especially among older workers. In addition, starting working life with the right skills is very important and improving vocational training for young adults with poorer skills proficiency is a key challenge. Without action, the prospects of future generations of older workers in the United States will be harmed.
Income Inequality in Old Age
Gini coefficient, 2014 or latest year

SOURCE
OECD, Preventing Ageing Unequally
URL: oe.cd/pau2017
When it is too late to prevent or correct inequalities, a third strand of policies has to step in to prevent old-age poverty. Most important, pensions and social assistance have to be set at sufficient levels to avoid financial and material deprivation of older people, considering that low-income workers are also less likely to have made additional savings throughout their lives or to benefit from employer-provided private pension arrangements. In the United States, Social Security and Supplemental Security Income provisions are relatively low compared with those in other countries. At their current levels, they are unlikely to fully cushion the increasing poverty risks in the future.

Designing successful policy packages requires rethinking the way policy is made. The evidence on how inequalities compound over the life cycle calls for joint action by ministries and agencies responsible for family, education, health and employment policies at different levels of government. Facilitating information and knowledge sharing between administrations and agencies is one important way of reducing the cost burden of delivering support, in the short term and in the long term. Countries will differ in the way such knowledge sharing and joint policy action are best set up, but all will need strong leadership in identifying needs, acting on them with appropriate policies, and coordinating policy responses between the different actors. The OECD is working closely with the United States, our member countries, and key partners in providing support to achieve these goals.◆
LIQUIDITY AND SIDECAR SAVINGS

By Will Sandbrook

People tend to manage their money in distinct “jars” for distinct goals, either literally or metaphorically. It could be a savings jar for a deposit on a house, a jar for monthly bills, or a jar for funding travels we plan to undertake when we finally retire and have enough free time. Whatever our goals, and however separate they may seem, they are in fact highly connected. And the breakdown of one can negatively affect the others. In the United Kingdom many peoples’ pension jars are starting to build, and saving for retirement is rapidly becoming the norm. Thanks to mandatory auto enrollment, over 8 million people are now newly saving or saving more for later life, and opt-out rates remain low across the country. This is a great example of (now Noble Prize winner) Richard Thaler and Cass Sunstein’s nudge theory working in practice.

In contrast, initiatives to encourage greater levels of liquid savings have not had quite the same impact. Incentives such as increasing the tax-free savings allowance and offering a credit match on savings have helped. But the reality is that many peoples’ emergency savings jars are running low, or are completely empty. Money Advice Service research highlights the extent of this situation, revealing that only 42 percent of the UK working population has £500 (around USD 672) or more in liquid savings and 26 percent have nothing.

For those with little or no money put aside for today, the occurrence of a high or unexpected cost can have a severe impact. A car or a household appliance may break down and need replacing — everyday situations we’ve all faced. But, without cash savings, many will have no choice but to use alternative methods to cover the expense. Options may include turning to friends and family, using existing credit cards, or reducing spending wherever possible. But many might have to cancel pension contributions to free up cash or resort to high-cost sources of borrowing that, if not managed carefully, could lead to debt spirals. And in these circumstances, it’s not just the debt itself that’s the issue. Prolonged financial pressure can cause excessive levels of stress, which can have a knock-on effect on people’s health, productivity, and earning capacity.

So what can be done? Products and tools for savers may need to evolve to better reflect both the psychology of mental accounting and the need for flexibility between “jars.”

With many people now building up meaningful retirement savings, it’s been suggested previously that the defined-contribution (DC) pension system should be opened up to some level of early access. The rationale is that if individuals have access to enough liquid savings they’re more likely to avoid damaging financial shocks that can have a long-lasting effect on their financial resilience, including into retirement.

However, although it is intuitively attractive, allowing this type of access creates a number of issues. Evidence from the US 401(k) system confirms that people look to their retirement savings to cope in emergencies, but also that this can create a significant degree of permanent “leakage.” Some estimates suggest that as much as 40 cents of every $1 saved is withdrawn before retirement.

A further concern is that DC pensions simply aren’t designed for bank account-style access. They’re intended for long-term saving and, for most of a working life, should have a relatively high-risk exposure. This makes DC accounts a poor fit to fund emergencies, which may well occur at the “wrong” moment in terms of fund value. In addition, the administration involved to withdraw this money could create a significant cost because the systems aren’t designed for this purpose. All in all, these factors could lead to diminished outcomes for the saver.

However, an innovative new approach may offer a solution. Professor Brigitte Madrian, working with colleagues at Harvard and Yale, and, more recently, David John from AARP and Mark Iwry of the Brookings Institution have proposed an early access model that separates payroll contributions into a liquid savings account, run like a traditional savings account, and the main retirement account. When the balance in the liquid account exceeds a savings cap, all future contributions roll into the retirement account until the liquid account balance is needed, at which point contributions would top it back up to the savings cap. This appears to the saver much like a single product or savings tool, but with distinct underlying jars designed for their specific purposes and time horizons.

This builds on the idea presented by the team at Harvard that there’s a potentially optimal balance between liquid and illiquid savings. In a UK context, the approach would build on the success of auto enrollment by adding a liquid savings component, and creating greater integration between these two savings jars. Importantly, it would do so by creating an additional flow of contributions over and above retirement contributions. This increases the overall amount saved, not only minimizing leakage from retirement savings but potentially creating a pre-commitment mechanism for savers to increase future retirement contributions if they first build up sufficient liquid savings.
“Thanks to mandatory auto enrollment, over 8 million people are now newly saving or saving more for later life, and opt-out rates remain low across the country. This is a great example of (now Noble Prize winner) Richard Thaler and Cass Sunstein’s nudge theory working in practice.”

The sidecar idea fits into the broader category of hybrid financial products, advanced by the Aspen Institute among others. Unlike traditional products that offer one financial function, hybrid products combine two or more, enabling their design to fit more closely with the way people actually manage their money.

Our team at the National Employment Savings Trust (NEST) Insight unit is excited, both by this specific sidecar idea and by the broader concept of what hybrid products can do to enhance financial resilience and retirement outcomes for our target group of low- to moderate-income savers. But a number of questions remain about how it might work in practice. What does an appropriate and affordable contribution level look like, and what should the savings cap be? Would savers limit themselves to emergency use of the sidecar account or would it become another current account? And would the approach result in greater financial well-being, increased retirement savings, and reduced reliance on high-cost debt?

To answer these questions we’re working in partnership with Professor Madrian and her team, along with the United Kingdom’s Money Advice Service, to develop and conduct a research trial. We’re currently planning the research and hope to start the two-year trial in 2018.

Excitingly, this appears to be an idea with genuinely international reach. As part of our work we’re collaborating with organizations planning similar trials in the United States and New Zealand, including AARP among others, to share our ideas about how to structure the sidecar and how to evaluate its impact. We hope the range of programs looking at variations of the sidecar idea will mean that a much stronger body of evidence from its practical application can emerge quickly to bolster the theoretical promise that it holds.

As with all our research, we’ll make our findings widely and freely available to maximize their reach and the potential benefit to savers. And as new research emerges, we look forward to working closely with our counterparts and peers around the globe to tackle the liquid savings challenge and help people create an optimal balance of money in their savings jars.

Will Sandbrook
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Concerning Numbers
The numbers show that we as a nation should be addressing this issue. Across all socio-economic groups, Americans 50+ have not saved enough for the future:

- Approximately 41 percent of US households headed by people ages 55-64 — or over 9 million households — have no retirement assets.
- For US workers ages 45-54 with savings, almost half (48 percent) have less than $50,000 in assets, not including their house or any defined benefit pension plan (which are relatively uncommon these days).

Thus, Americans are worried about, or even overwhelmed by, their inadequate savings and savings rates:

- Not having enough money for retirement surpasses all other financial concerns among Americans 50+, according to a 2017 Gallup poll.
- More than two-thirds (69 percent) of Americans are forced to focus on current financial needs (causing them to put off setting aside funds for future needs), according to an AARP survey. They often find it difficult to save for retirement even though they recognize the importance of financial planning.
- Half of Americans told AARP they don’t have enough money left to save after paying bills.
- Nearly half of American private sector employees (55 million people) do not have access to workplace savings plans.

Building Savings
Every day AARP challenges policymakers and leaders from different sectors to dismantle barriers to financial security and shore up earnings protections. Thanks to the efforts of AARP and other experts and advocates working on the issue, recently implemented state legislation has increased the number of employers that offer retirement savings plans. In addition, given the evidence-based link between a lack of emergency savings and the inability to save for retirement (or even the need to dip into retirement savings), AARP has begun to explore strategies that foster greater short-term emergency savings, connecting it to the long-term retirement savings problem.

On the individual level, Americans can Ace their Retirement, a critical 2017 message built through AARP’s partnership with the Ad Council to move Americans to save more. Inspired by ideas from leading global behavioral economists, AARP designed and tested solutions that nudge the 50+ to build savings, protect it, and plan financially.

Planning for the Future
With institutions promising less with respect to retirement security, millions face an uncertain future that includes potentially outliving their resources. Further, Americans are increasingly entrepreneurs — actors in the gig economy — and they feel primary responsibility for their own financial health. AARP is responding by working with financial incubators, start-ups, and venture capitalists to help people better manage money throughout their lifetime.

Meanwhile, with aging the possibility of dementia increases, which in turn increases the risk of financial exploitation by scammers. AARP recognizes the growing need for supplemental financial management assistance. We partner with financial institutions and arm consumers and corporations with powerful financial protections.

Continuing to Work
Beyond savings and planning, other trends may offer opportunities that can work in older Americans’ financial favor. As indicated through AARP’s Living 100 initiative, which is examining the opportunities and broader implications of ever-increasing life expectancy in many countries, a longer life can mean extended careers. At a recent Living 100 event in Washington DC, demographer James Vaupel, founding Director of the Max Planck Institute for Demographic Research, summed it up: “If people work longer, they don’t have to save as much. If you are healthy enough to work, work is good for you.”
Concerning Numbers
Across all socio-economic groups, Americans 50+ have not saved enough for the future:

- **41%** of US household headed by people ages 55 to 64
- **48%** of US workers ages 45 to 54

**No Retirement Assets**

**Have less than US $50k in Assets**

Most of us will need to reskill to work longer as retirement ages rise. Within five years, 35 percent of the workforce will be 50+. AARP is helping employers support inclusivity, combat ageism and recognize that older workers bring talent, experience, and added value (e.g., being highly engaged) — all of which can outweigh any concerns over labor costs. Knowing that labor shortages drive the greatest opportunities for workers 50+, AARP also guides members on how to market their unique attributes.

The AARP Work & Jobs website’s (www.aarp.org/work) unique resources and personal resilience tools enable members to find appropriate and fulfilling work as they lead longer lives.

Just some of the features include: a list of companies that value experienced workers, research showing that diversity leads to better business outcomes, and tips for job seekers and career changers.

**Our Approach**

AARP’s multi-pronged strategy — comprising policy, programs, products and free educational information — continues to prepare consumers to secure more financial freedom as they get older. With thought leadership and innovation, AARP makes more accessible the wealth that empowers us to be our best selves in good health.

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Ramsey Alwin
DIRECTOR
FINANCIAL RESILIENCE, THOUGHT LEADERSHIP, AARP
Here in New York State, we are proud of our legacy of leadership on civil rights and social issues — from women’s suffrage in the 19th and 20th centuries to marriage equality in the 21st. In August 2017 we added a new accomplishment to our rich history by becoming the first state in the nation enrolled in the World Health Organization’s (WHO’s) Global Network of Age-Friendly Cities and AARP’s Network of Age-Friendly States.

Age-friendly communities, as defined by WHO and AARP, commit to improving their communities by addressing the eight domains of livability. Municipalities throughout the country are network members, including 16 in New York, but New York State is the first and only state accepted into the WHO and AARP age-friendly networks.

Age-friendly is not about old age — it is about the value of all ages. It is about designing communities for everyone that strengthen people’s connections to each other, improve health, increase physical activity and support, and advance the economic environment through proactive design and future-based planning. That is exactly what we have done in New York through our age-friendly agenda — we are helping older adults stay in their neighborhoods by building and preserving more than 8,600 affordable housing units for them since 2011; we are encouraging social participation by using technologies to help older adults navigate their health and health care needs; we are improving the built environment and making our streets safer for people of all ages. From housing to transportation, we have streamlined and improved existing programs to make sure they reach older New Yorkers in a more effective way.

As in the rest of the nation, New York’s population is growing older. For far too long the aging population has been portrayed as one that contributes less and takes more. But here, we know that the social, economic, and intellectual capital that older adults contribute to their communities and to our state is unmistakable. With their years of life, work, and family experience, almost 700,000 older New Yorkers contribute more than 119 million hours of community service at an economic value of more than $3 billion annually. Older New Yorkers and baby boomers make up 63 percent — or $379 billion — of all the household income generated in New York State. They support local businesses and schools through home ownership, contributing significantly to the local and state economy. And our older adults want to stay in New York, their home. According to AARP, 90 percent of New York residents surveyed say they want to retire in New York. And we want them to stay as well.

Since 2011, my administration has been fighting to make New York more equitable for people of all ages. Over the past seven years, New York has become a national leader in creating clean, livable, and sustainable communities by pioneering multifaceted programs that support aging in place, coupled with an unparalleled suite of smart-growth reforms that directly support AARP’s eight domains of livable, age-friendly communities:

- Since signing the Complete Streets Act in 2011, 12 counties and over 100 New York villages, towns, and cities have now adopted Complete Streets policies to consider the safe, convenient access and mobility of all roadway users of all ages and abilities.
“For far too long the aging population has been portrayed as one that contributes less and takes more. But here, we know that the social, economic, and intellectual capital that older adults contribute to their communities and to our state is unmistakable.”

- Through the Livable NY initiative, we have been working collaboratively to provide municipalities with technical assistance as they seek to make planning decisions related to livability.

- We have created 8,659 affordable housing units for seniors, 1,270 of which are part of my House NY 2020 plan, which will ultimately create and preserve over 100,000 units of affordable housing throughout the state by 2021.

- We announced a comprehensive plan to better protect senior citizens from financial exploitation and foreclosure by expanding enhanced multidisciplinary teams statewide to combat elder abuse; by establishing the Elder Abuse Certification Program, which amends the banking law to empower banks to place holds on potentially fraudulent transactions; and by strengthening legislation that will protect senior homeowners with reverse mortgages.

- As part of the 2017 Downtown Revitalization Initiative, the state is awarding $100 million to 10 downtown areas, prioritizing awards to municipalities that have age-friendly policies in place that improve livability, including the presence of mixed-use spaces, modern zoning codes, streets that are both walkable and bikeable, nondiscrimination laws, and other policies that make communities more livable for all ages.

- Earlier this year we created the nation’s first statewide mobile app to connect more than 3.7 million older adults with easily accessible material about benefits, programs, and services, including information regarding health and wellness, housing, and transportation options.

Key to our successes has been a strong partnership with local leaders and local communities across New York. A critical component to improving a community’s health is embedding elements of wellness within economic development strategies to create or renovate built...
environments that will improve population health by increasing physical activity, promoting cleaner air, creating safer streets, and making communities desirable places to live and work. This multifaceted approach makes people healthier, which, in turn, makes communities healthier, which saves money and boosts the economy. These are the underlying strategies called for in my Prevention Agenda, the state health improvement plan, which has helped New York become the 13th healthiest state in the nation, up from the 20th in 2011.

Being designated the first age-friendly state is not the end of our efforts, but the beginning. We will build on our achievements by continuing to work with local governments, residents, and businesses to embed the eight domains of age-friendly policy into all aspects of community development to make positive changes in communities that are attractive to all, regardless of age.

New York State is diverse in many ways — geographically, culturally, ethnically, and in age. Our residents come from all over the world and from all walks of life, helping to make New York the great state that it is. Out of many, we are one. New York’s people are our greatest assets, and it is incumbent on us to be
at the forefront in promoting positive change to make sure New York remains a place where our older adults can continue to live and thrive.◆

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Sharjah: The First Arab Age-Friendly City

This article was contributed by The Executive Office Of Sharjah Age Friendly City Program

Sharjah is one of the seven emirates that make up the United Arab Emirates (UAE). The area covers 2,590 square kilometers (not counting islands). Sharjah dates back to more than 6,000 years and is known for its long history and rich culture. It boasts a diverse economy and, thanks to its strategic location and robust infrastructure, it attracts foreign investments and provides plenty of job opportunities.

Sharjah is ruled by His Highness Sheikh Dr. Sultan bin Mohamed Al Qasimi, who assumed power on January 25, 1972. Sharjah has received several titles, including Cultural Capital of the Arab World 1998, the Middle East’s first World Health Organization (WHO) Healthy City in 2015, Arab Tourism Capital 2015, and Capital of Arab Press 2016, as well as World Book Capital for 2019.

Sharjah’s population reached 1,405,843 people in 2015. The number of people age 60+ stood at 34,503, representing 2.5 percent of the overall population. Based on its age structure, Sharjah is a young emirate; 24.2 percent of the population is children and teenagers (0-19 years) and 73.2 percent are youth and adults (20-59 years). However the number of older citizens of the emirate is expected to double over the next 17 years.

His Highness affirmed that Sharjah attaches the highest importance to human development and sustainable growth. He added that Sharjah has instituted plans that focus on the individual throughout the life stages, as individuals represent the society’s real wealth and its most important investment.

His Highness has emphasized that over the past 30 years, Sharjah has adopted the “Serving the Human” plan, which takes care of social well-being. He points out that countries that endeavor to achieve a comprehensive, just, and sustainable development must pay sufficient attention to their citizens, encourage social partnerships by all means, and take care of older people who have dedicated their precious years to society. Underlining the need to care for seniors, His Highness emphasized Sharjah’s attention to senior citizens and their health by providing everyone above 60 years of age with free medical and social services.

Sheikh Salem bin Abdul Rahman Al Qasimi, Chairman of the Sharjah Ruler’s Office and Head of the High Committee for Follow-up of Sharjah’s Membership in the World Health Organization’s Global Network of Age-Friendly Cities and Communities (the Network), said Sharjah’s joining the Network in September 2016 is yet another distinction in the emirate’s record of global achievements.

He noted that practices and services included in the program have already been implemented by Sharjah as part of its general policy for decades. He stressed that the emirate still leads the way in introducing innovative initiatives, suitable alternatives, and successful solutions to provide a decent life for all its residents.

Sharjah’s membership in the Network aims to evaluate services, programs, and infrastructure of the emirate against the eight criteria mandated by the WHO. It confirms the emirate’s commitment to the continuous improvement of its services to the community, particularly the older population, as well as to sustainable development.

It also aims to explore outstanding experiences and best practices of other member cities, given that it is the first Arab city to join the Network and therefore is an example for other cities in the Middle East.

As part of Sharjah’s commitment to its membership, a decision was issued in February 2017 by the highest authority in the emirate, represented by His Highness the Ruler of Sharjah, to provide a comprehensive sustainable environment for residents in Sharjah, especially the older adults, enabling them to easily access the emirate’s resources.

Sharjah’s vision of being an age-friendly emirate and an ideal environment for people of all ages requires continuously launching relevant programs and activities and working with older people based on the principles of equality, justice, and advocacy. A high committee was set up, composed of Sharjah government decision-makers, that seeks to achieve the above-mentioned vision through the following objectives:

- Developing services for older persons across all sectors and ensuring their sustainability
- Spreading community awareness to prepare for the demographic transformation of a rapidly aging population
- Enabling older people to engage in society and exchange experiences

Over the past few years, Sharjah has taken a series of measures to promote the community awareness objective. Furthermore, in preparation for the emirate’s accession into the Network, several forums and meetings were held, such as the third Elderly Services Forum, in 2014, in preparation for implementing the criteria of age-friendly cities in Sharjah.

At a forum held in 2015, WHO introduced the Network, together with a number of the Network’s member cities, such as Tokyo, Japan, and Bilbao, Spain. The 2016 forum sought to present best practices adopted by institutions in the emirate in the care and service of the older residents, according to the WHO’s eight age-friendly domains.

The 2017 forum was organized in partnership with WHO in Geneva and included heads and representatives of
government entities in Sharjah and the UAE, as well as other stakeholders in the society. More than 400 people attended, and the main objective of the forum was to review experiences, best initiatives, programs, and methods of development, and to learn more about international standards and ways of meeting them.

The two-day event saw the participation of representatives from France, China, the United States, Brazil, the United Kingdom, Australia, and Canada. The first day discussed the establishment of age-friendly environments and provided tools for creating better access to physical environments. It was divided into three sessions that outlined experiences related to external spaces, buildings, transportation, and housing.

The second day reviewed lessons that can be used in creating comprehensive social environments. Topics included health programs, long-term care, communication, information, and tools for social engagement of older persons, in addition to civil participation, employment, social integration programs, and eliminating discrimination based on age. The forum produced several recommendations, including the following priorities:

- Relying on field research and studies to observe views and needs of older persons
- Configuring cities in a manner that would make all ages feel welcome, allow participation opportunities for all, and encourage understanding and solidarity between generations
- Employing technology and innovation to develop practices that serve certain segments of society, particularly the older population
- Configuring cities in a manner that would make all ages feel welcome, allow participation opportunities for all, and encourage understanding and solidarity between generations
- Offering services to seniors through the combined efforts of government, private, and public benefit sectors, in addition to the older adults themselves, who are the real stakeholders

The many services provided by the government of Sharjah for senior care include a toll-free number for offering health and social counseling to older persons and receiving requests for home care services. Also available are workshops for qualifying caregivers of older individuals by equipping them with the necessary skills. In 2017, three such workshops were held, qualifying 90 caregivers.

Home care services are also provided at the social, psychological, lifestyle, self-care, and health levels. Covering medication, nursing, physiotherapy, and medical tests, these services have benefited 2,979 individuals.

As part of the endeavors to meet the requirements of age-friendly cities, a strategic plan has been drawn up listing 40 strategic initiatives focused on the provision of age-friendly places, health programs for older persons, and laws that guarantee their rights, as well as day centers that provide health, recreation, sports, and social facilities for the older people in residential areas, ensuring their social integration.

Many of those initiatives have already been implemented, including the Mobile Clinic launched on April 26, 2017.

Equipped with an array of diagnostic aids, including X-ray, ultrasound, and laboratory devices, the clinic seeks to offer early diagnosis of chronic diseases and awareness to the public, together with the Mobile Dental Clinic. The Mobile Clinic made 14 rounds in nine areas of Sharjah through August 2017, extending its services to 71 older persons.

Additionally, the home nursing initiative was launched in July 2017, making it possible for older patients to be cared for at home free of charge. The initiative is aimed at enhancing patients’ health and supporting their integration into their families, as well as sparing them the trouble of visiting health institutions. The service was provided for 11 older people as of August 2017.

A sports initiative for older persons was also introduced to encourage them to exercise and be part of society through various activities, such as chess and shooting competitions and marathons. Another initiative was launched to activate daily participation through (Al Asalah Clubs and physiotherapy centers) for seniors. As part of this initiative, 313 programs were implemented, benefiting 572 older individuals.

His Highness has emphasized that over the past 30 years, Sharjah has adopted the “Serving the Human” plan, which takes care of social well-being.
While many may associate Japan with more stereotypically ‘youthful’ trends like new technology, video games, or anime, those of us working in the field of population aging have long recognized the country’s importance as it faces the reality of shifting demographics. We often discuss the value in looking at Japan for innovative solutions to some of the challenges arising from an aging population, given how being somewhat ‘ahead of the curve’ in this respect has compelled it to explore such opportunities.

In May 2017, colleagues and I from the International Longevity Centre – UK (ILC-UK) took advantage of the link with our sister organization, ILC-Japan, to conduct a study mission on aging in Japan. Through the financial support of the Daiwa Anglo-Japanese Foundation and the Great Britain Sasakawa Foundation, we explored Japanese approaches to tackle the challenges of demographic change and take advantage of the opportunities afforded by longer lives. The study trip included seven site visits in three areas in and around Tokyo, two of which were local government offices that have taken important steps to promote activity in support of older people.

Before embarking on our site visits, our trip began with a knowledge exchange session, with each ILC team describing the approaches to long-term care in our respective countries. ILC-Japan also gave an overview of aging trends in Japan for context. By 2025, population aging in Japan will become an urban phenomenon rather than a rural one, due to historical internal migration to cities. Also — in contrast to an often-heard assumption that Asian societies feature high levels of social solidarity and engagement — we heard that social connections are becoming weaker as the baby boomer generation and urban residents tend to hold great value in their privacy and independence. Alongside cuts to services from local and national governments in recent years, this has placed greater responsibility for care onto families and communities, who are already experiencing exhaustion from the pressures; in some areas, aging has led to a situation where only one person is in the position to look after an entire community.

New Realities, New Ideas
In response to these sometimes stark realities, concerted efforts have investigated new ideas and programs along four main themes:

• Creating a change in mindset: With a shift from mutual help to loose ties, some approaches have looked to encourage ‘self-help’, while also recognizing that helping others can itself have personal benefits.

• Getting people involved before they need help: Preventive action and early identification of issues generate better outcomes across a range of health and well-being outcomes; engaging people through examples like community centers can also combat isolation.

• New partnerships between local government and local organizations: Organizations rely on logistic support from municipalities, but they remain independent and work collaboratively rather than operating as subcontractors for government services.

• Creating places for everyone to play a role: Important in the context of dementia, some programs are designed to engage participants in the greatest extent possible, e.g. by organizing small work opportunities in the community as a group.

In Japan, there is a strong emphasis on the notion of productive aging, fostered through integration and development of community links. Indeed, long-term care reforms in the past decade have promoted the establishment of the Integrated Community-based Care approach, where medical facilities, nursing care, and social activity groups can all be accessed within 30 minutes from one’s residence. Such an approach has two main objectives: to enhance coordination between medical and long-term care services and to promote active and healthy living through social participation, including the necessary support services to achieve this, e.g. for those who have minor issues that impact their ability to go out safely.

Government and Local Organization Partnership: Genki Stations in Yokohama
Our site visits in Yokohama, south of Tokyo, illustrate some of the points above related to prevention, government engagement, and community-based approaches. We visited a Genki-zukuri Station, a unique program supported by the Yokohama city government. Genki-zukuri translates to something like
‘health generation’, and these stations play significant roles in promoting health and various activities to mitigate against the development of care needs across the 18 wards of Yokohama. The activities vary but include exercise classes and workshops on preventing dementia. When we visited, there were 253 active groups across the city, but the aspiration is to develop stations close enough for all older people to reach by walking: in other words, over 350.

Genki Stations are run independently by neighborhood groups with support from the ward office. Indeed, constraints on resources mean it is necessary for such activities to be led by older people themselves. The ward office provides intensive support for around three months to help prepare the activity and get it started. An important element of this is involvement by the district nurse in the ward office, whose role focuses on promoting public health in general. The ward does not offer cash support but does provide various supplies in kind along with covering some other costs associated with startup.

In addition to improving health, an important goal of Genki Stations is to develop social capital. Genki Stations are required to submit data on participation twice a year and conduct annual surveys among participants to examine their effectiveness (and evaluations are a crucial part of any intervention). An ILC-Japan colleague presented analysis from two surveys at one station covering the period 2013-2015. The results support the idea that the station had a positive effect on health and participation in community activities, as well as access to and understanding of new health information. However, there was no impact on social capital (as measured by general trust). This may reflect some of the underlying challenges for Genki Stations in terms of recruiting new members and countering decreasing membership rates.

A Final Reflection

Our fact-finding mission offered many more lessons and examples than can adequately be described here, but the Genki Station demonstrates how coordinated effort and support from government can address some of the concerns around an aging population, even when there is substantial pressure on public budgets. Providing essential support to get projects like Genki Stations off the ground can be instrumental for their establishment, but ongoing involvement — not necessarily financial — is vital for the continuation of such projects.

While cultural and institutional differences moderate the direct transfer of certain programs to countries like the UK, the examples from Japan should encourage us all to consider how new thinking, innovative strategies, and engagement with older people themselves — as actors, not just beneficiaries — can help our societies flourish as we adapt to the realities of aging in the 21st century.

A full report on ILC-UK’s trip to Japan, as well as similar trip by ILC-Japan to London, will be available in 2018 at www.ilcuk.org.uk.◆
In his address at Harvard University’s 2017 commencement ceremony, Facebook CEO Mark Zuckerberg said, “Change starts local. Even global changes start small — with people like us.” This concept neatly encapsulates the work that AARP is doing to make the places where we live great for people of all ages. Local communities are on the front lines addressing the needs of an aging population. Today, there are approximately 46 million people in the United States over age 65, and that number will grow over the next 15 years to 73 million. That’s one out of every five people nationwide. People are living longer and managing chronic conditions over an extended period of time. And, more and more, people want to stay in their communities as they age.

Rising to the challenge of this “demography-is-destiny” future requires change. The good news is that the things making it easier for older adults to stay in their homes and communities also support the population at large. As it turns out, whatever our age, we ALL want the same things: safe, affordable housing and transportation options; good health for ourselves, our loved ones and our environment; opportunities to learn, support our families and enjoy our lives; a connection with our neighbors and a government that is responsive to our needs.

For nearly a decade, AARP has promoted local change to build communities where people of all ages can thrive. We work in partnership with residents, community leaders and public officials of all stripes in close to 300 towns and cities across the United States. Much of this work is done through the AARP Network of Age-Friendly Communities, which today comprises 200 communities representing nearly 67 million people.

Another valuable role that AARP plays is to shine a spotlight on local efforts, dig deeper into how ideas are being turned into action and make it a little easier for community leaders to learn from one another. One of my favorite sayings among America’s mayors is that they “love being the first to be second.” They learn from their peers and copy what works.

That’s the premise behind our *Where We Live* books, which are free compilations that serve as a reference point for what others are doing so good ideas can be copied or adapted to other communities.

The first edition of *Where We Live* focused on policies and projects promoted by mayors. More than any other type of elected official I can think of, mayors get things done. But they aren’t the only ones working hard to improve communities. City and town council members, county commissioners, leaders of nonprofit and social service organizations, business executives and just regular folks are all doing their part. So, the latest edition of *Where We Live* takes a broader look at what’s happening on the ground, recognizing that good ideas and the energy to push them forward can come from any number of sources.

And, in 2017, AARP launched a Community Challenge Grant program to help communities take quick action on short-term projects. Sometimes the first step toward making a difference in a community can be the most difficult. Having success with something modest can build momentum for bigger things to come. In total, AARP is providing $785,000 to the winning 91 projects. The average grant is around $8,500, and...
there are a lot of really interesting projects that requested less than $5,000.

Moving forward, AARP is committed to helping community leaders drive even more local change. We’re gearing up for another round of Community Challenge grants in 2018 and will be deploying teams of AARP staff and experts to help communities overcome obstacles and implement creative solutions.

We’re also creating tools to help individual citizens take action in their communities. Our new Roadmap to Livability is a “do it yourself” guide to help residents get started on the path to improving their communities.

Most important, AARP is listening — to our members, volunteers, and local leaders in communities across the United States. We want to hear from the folks on the ground to learn how AARP can support their efforts and be responsive to their needs as we work in partnership to make a difference in communities across America.◆

“Our new Roadmap to Livability is a ‘do it yourself’ guide to help residents get started on the path to improving their communities.”

AARP’s Where We Live features inspiring ideas from some of America’s community leaders

Nancy LeaMond
EXECUTIVE VICE PRESIDENT
AND CHIEF ADVOCACY & ENGAGEMENT OFFICER,
AARP
HEALTH SECURITY

Aging and the Sustainable Development Goals — SDG3 Universal Health Coverage and Human Resources for Health

By Justin Derbyshire

By 2030, there will be more people over age 60 worldwide than there will be children under age 10. Population aging is — in one respect — a triumph of development insofar as this advancement has been made possible by tremendous coordinated action on global health issues. But as people get older, their health and care needs are likely to become increasingly complex. These complications, in turn, can create new challenges for health systems, leaving millions of older people across the world still facing unacceptable barriers to health care.

In September 2015, world leaders adopted the 2030 Agenda for Sustainable Development, which included 17 Sustainable Development Goals (SDGs) to end poverty, fight inequality and injustice, and tackle climate change by 2030. The third SDG is to ensure healthy lives and promote well-being for people of all ages. In the context of rapid population aging, the focus on all ages is significant, as it is a welcome lever with which to focus policy makers’ attention on the need to adapt health systems to meet the needs of older constituents now and in the future.

Underpinning the goal are two targets for governments:

- Achieve universal health coverage (UHC), including financial risk protection; access to quality essential health care services; and access to safe, effective, quality, and affordable essential medicines and vaccines for all.
- Substantially increase health financing and the recruitment, development, training, and retention of the health workforce in developing countries, especially in lesser-developed countries and small-island developing states.

Existing health and social care systems have responded inadequately to changing demographics and shifting disease patterns. We see insufficient or entirely absent health and social care services in many countries, which means that older people are, in many cases, forced to be entirely self-reliant in terms of their own health and social care needs.

The global commitment to implementing UHC marks real progress and provides a banner under which to strengthen health systems so that they can respond to the needs of growing numbers of older people.

As people age, their need for both health and social care is likely to become increasingly multifaceted. Aging is associated with an increased risk of experiencing more than one condition at the same time and a need for greater support with daily tasks.

HelpAge International and our network members regularly see older people facing daily barriers in accessing health and social care services. We see poor physical access to clinics and hospitals, the prohibitive cost of services, a lack of awareness of age-related health conditions, an absence of available health and social care services, discrimination, and a lack of trained health and care workers. It is difficult to overestimate the extent of the problem.

Health systems in lower- and middle-income countries (LMICs) have largely evolved in response to acute, time-bound conditions that are primarily driven by the burden of communicable diseases. While the focus on diagnosis, treatment, and curative services has resulted in major strides to reduce child and maternal mortality rates, among other areas of progress, these health systems are not as equipped to address the longer-term, chronic health issues that are more commonly experienced in old age.

One of the most important areas to address in recalibrating health systems to better serve an older population is health workers.

In 2015, the World Health Organization estimated there to be just over 43 million health workers worldwide. However, they estimated that a further 17.4 million health workers are needed to meet the needs of health systems globally. These figures have not improved sufficiently since that time, and we at HelpAge International regularly witness insufficient numbers of new workers entering the system to meet the demands or replace those workers who are retiring. In the majority of LMICs, formal social care systems do not exist, and skilled professional social care workers are rare.

These challenges mean that there is a huge gap in both the health and social care workforces, resulting in a greater reliance on unpaid, untrained, unrecognized, and unsupported caregivers at home and within the community. These caregivers are often older women. As people have fewer children and live longer, and as women enter or reenter the paid workforce at increasing rates, this reliance on unpaid informal caregivers will become increasingly unsustainable.

Beyond gaps in the workforce, the lack of training for health workers on older people’s health issues is another critical challenge. At HelpAge International, we see that many training curricula lack any focus on geriatrics, gerontology, and the types of health issues faced in old age.

In particular, a survey carried out by WHO in 2002 found that in 36 countries, 27 percent of medical schools did not conduct any training in geriatric medi-
“In 2015, the World Health Organization estimated there to be just over 43 million health workers worldwide. However, they estimated that a further 17.4 million health workers are needed to meet the needs of health systems globally.”

cine, with 19 percent of those schools in high-income countries and 43 percent in economies in transition. Similarly, a 2012 study found that of 40 countries in Africa, 35 had no formal undergraduate training for medical students in geriatrics and 33 reported no national postgraduate training scheme for geriatrics.

To meet these challenges, we see four priorities that policy makers must address if we are to achieve the SDG on health and well-being:

- Ensure older people’s inclusion in UHC by working to tackle and eliminate the barriers older people face in accessing services and support and by ensuring the inclusion of appropriate, targeted services and support, including long-term care.

- Increase competency across the health workforce in a number of areas: (a) performing basic screening to assess functioning, including vision, hearing, cognition, nutritional status, and oral health; (b) managing health conditions that are common in older people, such as frailty, osteoporosis, and arthritis; (c) understanding depression, dementia, and harmful alcohol use in older people; and (d) identifying neglect or abuse.

- Develop systems that include the training, supervision, and remuneration of paid social care providers and caregivers, and offer targeted support for family members, friends, and neighbors providing care, including through increased access to appropriate social protection mechanisms.

1 http://www.who.int/gho/health_workforce/en/
Worldwide, the number of people with dementia increased from 25 million to nearly 35 million between 2005 and 2010, and this figure is projected to increase to more than 75 million by 2030 and 135 million by 2050. Most people with dementia live in low- and middle-income countries, and the proportion is projected to rise from 62 percent in 2013 to 71 percent by 2050. Increases will therefore be even sharper in developing countries, and the growth of dementia cases in Latin America is predicted to exceed that in any other region of the world.1

The estimated annual cost worldwide of dementia is USD 604 billion, or 1 percent of global gross domestic product (GDP).2 In high-income countries, informal care (i.e., unpaid care provided by the family; 45 percent) and formal social care (40 percent) account for most of the costs, while the proportionate contribution of direct medical costs (15 percent) is much lower. In low- and middle-income countries, direct social care costs are small, and informal care costs predominate; however, in the coming decades, changing demography in many low- and middle-income countries may lead to a decline in the availability of extended family members to provide care.

Yet dementia is just the tip of the iceberg. Though a recent analysis by Alzheimer’s Society3 suggests that 7.1 percent of people ages 65 and over have dementia in the United Kingdom, it is estimated that, at any one time, between 15 percent and 20 percent of people 65 and older people have some form of mild cognitive impairment.4 It is estimated that before the onset of dementia, between 20 to 30 years of neurodegeneration in the brain has already occurred. Many older adults also worry about normal age-related changes to the brain that result in declines to mental functioning such as attention, thinking, memory, and decision making. AARP surveys have consistently showed that staying mentally sharp is a top concern of 87 percent of aging adults in the United States.

In spite of the many thousands of research papers, publications, books, and media reports about dementia and cognitive decline, there is still wide misunderstanding among the general public about brain health and aging. Age-related decline is greatly feared, largely because many regard age-related losses as inevitable — and because these individuals are concerned that any change in brain function means they are likely to have dementia. Advancing age increases the risk for other health conditions, such as heart disease and diabetes. For these diseases, the communication of scientific and medical advances has been much more successful — heart disease, diabetes, and even cancer are now considered manageable conditions that people can live with; dementia is often thought of as an immediate death sentence.

In the wake of the G8 Dementia Summit in London in 2013, the world has focused its attention on dementia — its diagnosis, cure, and long-term care. There has been comparatively little attention paid to dementia’s invisible onset and how to reduce risks factors or cognitive decline. Even though it has been well known for some time that there are 20 to 30 years of change in the brain across the life course — some of which is normal cognitive aging and some of which precedes a diagnosis of dementia — only recently have we begun to examine the public health aspects of reducing...
“Though the numbers of adults with dementia are high, they are exceeded by those who are incapacitated by mild cognitive impairment or cognitive aging, and dwarfed by those individuals who are worried they soon may be facing such conditions.”

James Goodwin, PhD
CHIEF SCIENTIST
AGE UK

Sarah Lock, JD
SENIOR VICE PRESIDENT
POLICY, AARP

Those risks. Though the numbers of adults with dementia are high, they are exceeded by those who are incapacitated by mild cognitive impairment or cognitive aging, and dwarfed by those individuals who are worried they soon may be facing such conditions.

It is not surprising that, along with the rise in the age of our world’s population, interest and concern about keeping all those aging brains functioning as well as they can across growing lifespans has likewise been on the rise. Two years ago, to address these vital concerns, AARP and Age UK launched the Global Council on Brain Health (GCBH), an international collaboration among scientists, health professionals, scholars, and policy experts, to address how to help people maintain their abilities to think and reason as they age, and the developing science in this area.

To date, GCBH has convened five meetings of expert panels, which have considered important risk factors for brain health. These areas are physical activity, sleep, social engagement, brain-stimulating activity, and nutrition. These panels have been convened in Toronto; Washington, DC; Vancouver; London; and Baltimore. To make them truly representative of cultures worldwide, GCBH has a “four continents rule” so that each expert panel consists of issue specialists from around the world. Nineteen countries involved so far have included Australia, South Africa, Argentina, Israel, China, Japan, Singapore, Brazil, many in Europe, Canada, and the United States. These expert, international panels review the evidence and produce, first, a “consensus statement” that summarizes what can be said about the current state of science about each factor and, second, provides guidelines or recommendations for public consumption. The reports of these panels, have all been published widely and infographics created from the GCBH’s recommendations have been translated into several languages, including Spanish, Chinese, Arabic, and French.

The reports have attracted immense interest globally from the media and from consumers. For example, after a sleep report was published, Age UK was interviewed on BBC national radio and 31 local radio stations, on BBC television, on Sky News, and in the major printed media in London. The
### Debunking Myths About the Aging Brain

#### 7 Facts About Your Brain

<table>
<thead>
<tr>
<th>MYTH</th>
<th>FACT</th>
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<tbody>
<tr>
<td>1. You are born with all the neurons that your brain will ever have.</td>
<td>Neurons are continually created throughout your life in areas of the brain through a process called neurogenesis.</td>
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<tr>
<td>2. You can’t learn new things when you are old.</td>
<td>Learning can happen at any age when you get involved with cognitively stimulating activities like meeting new people or trying new hobbies.</td>
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<tr>
<td>3. We don’t really know how the brain works.</td>
<td>Researchers have made great strides in understanding the brain in recent years. The field of neuroscience is at the cusp of new and exciting breakthroughs.</td>
</tr>
<tr>
<td>4. Dementia is an inevitable consequence of old age.</td>
<td>Dementia is not a normal part of aging. There is a big difference between typical age-related changes in the brain and those that are caused by disease.</td>
</tr>
<tr>
<td>5. Only young people can learn a new language.</td>
<td>While it may seem simpler for kids — with simpler sentence structures and a lack of self-consciousness — your age isn’t a limitation in learning a new language.</td>
</tr>
<tr>
<td>6. Older people are doomed to forget things.</td>
<td>Remembering details is easier for some people than others, but this is true of all ages. There are strategies to help remember names, facts, etc. and paying closer attention can often help you remember better.</td>
</tr>
<tr>
<td>7. A person who has memory training never forgets.</td>
<td>Keep practicing your memory skills. “Use it or lose it” applies to memory training in the same way it applies to maintaining your physical health.</td>
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SOURCE
Global Council on Brain Health / GlobalCouncilonBrainHealth.org
most recent press release on cognitively stimulating activities garnered more than 34 million media impressions in the United States and international coverage in India, Argentina, Australia, and Great Britain. Recently in San Francisco, GCBH delivered a symposium on its work to a packed meeting of the International Association of Gerontology and Geriatrics (IAGG) 2017 World Congress.

GCBH’s latest report, *Engage Your Brain: GCBH Recommendations on Cognitively Stimulating Activities*, available at www.GlobalCouncilonBrainHealth.org, challenges two widely held outdated beliefs about aging and the brain — first, that cognitive decline is inevitable as you age, and second, that brain games are the best way to keep your brain sharp as you age. In fact, the report convincingly shows that people can help keep their brain sharp and that they should not let age limit them.

By continually finding new ways to challenge the way you think, and by choosing to combine mentally engaging activities along with physical exercise, it is indeed possible to change your brain at any age. As to the second common misconception — that brain games are the best way to keep your brain agile over time — the GCBH found that the evidence for the long-term brain health benefits of what most people consider “brain games” is weak to nonexistent. Cognitive training is a global multibillion-dollar industry and has recently been getting a great deal of attention in the print and electronic media. It’s no wonder. The appeal of having fun while playing games and doing something good for your brain may be more attractive to the couch-potato instincts in all of us. Yet, there are many mentally engaging activities that can help your brain stay sharp over your lifespan and you don’t have to pay for expensive brain-training games in order to reduce your risk for cognitive decline. GCBH says that some of the best ways to support and maintain your memory, reasoning skills, and ability to focus are to engage in formal or informal educational activities, learn a new language, engage in work or leisure activities that are mentally challenging, and connect socially with others. As for physical exercise, while it takes work to keep up physical activity, and sometimes engaging with other people can be exhausting, it is worth the sustained attention and effort because, as GCBH points out, scientific evidence confirms that these efforts can pay off in maintaining brain health.

GCBH recognizes that much is yet to be done, and there are many more areas to explore. The GCBH’s nutrition report on how diet can impact brain health is expected to be released in early 2018. Future topics will include mental well-being, dietary supplements, and sensory health (e.g., age-related hearing and sight impairments). But our vision and hope is that — similar to our knowledge about cardiovascular health — there will eventually be widespread and sound public understanding that we ourselves can do much to maintain our brain health regardless of culture, country, or community.

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AARP recently sat down with Mary Ann Tsao, Chairman and Founding Director of the Tsao Foundation, a Singapore-based non-profit foundation dedicated to aged care and aging issues. Dr. Tsao carries out the goals and mission of her grandmother, Mrs. Tsao Ng Yu Shun, who founded the Tsao Foundation in 1993. The Tsao Foundation aims to “disrupt aging” and seek “mindset and systemic change by implementing innovation in community-based eldercare, training and education, policy relevant research, collaboration and advocacy.”

Why is the Tsao Foundation focusing on community-based approaches to care? What are the benefits of this approach?

**MAT:** One of the key missions of the foundation is to enable older people to age in place — to live in their own homes and the community - so in this regard, services need to be delivered where the seniors are.

Access is also a major issue. There are many barriers to care — whether it’s the lack of information, difficulty navigating the health system or inaccessible transportation. Being part of the community allows us to have a deeper understanding of the issues and allow us to design more effective programs.

Another issue is that older people in Singapore frequently do not seek care, and may not accept care even when offered. Being part of the community and having social capital in the neighborhood helps reluctant elders accept services more easily.

Community-based services can also more easily mobilize resources such as volunteer manpower.

**In 2015 you opened the ComSa Whampoa center, a community-wide approach to integrated care that enables residents to age in place. What makes this center unique? What insights has the Tsao Foundation gleaned from this approach?**

**MAT:** This center is unique because it provides a range of fully integrated health and social services that promote health, enable self-efficacy as well as meet a continuum of needs for older people from the well, to the frail and the dying. Core services include self-care coaching, primary care, care management, center based care, care giver support as well as home and end of life care.

This is the first such center in Singapore and functions as a service hub, providing care in the community for older adults with complex needs, and acting as a bridge between the hospital and the community. A center piece is the Person Centered Medical Home (PCMH — primary care plus care management), which provides geriatric care in the community.

The center also functions in the context of the ComSA health system (launched in 2013) within the community of Whampoa, which aims to catalyze a whole community approach to aging well and adopts a proactive, preventive, population health approach to health and longevity through several key components:

A. Population health approach through community health survey — this is to identify population health issues (such as social isolation and dementia) so comprehensive and specific community-wide intervention strategies can be devised

B. Identification of at risk individuals with bio-psycho-social health issues through a validated risk screener developed in association with the population survey. Depending on their risk score and profile, individuals identified are referred to appropriate services; those who are previously without health consistent care are referred to ComSA PCMH

C. Health service system through the Whampoa community service network — this aims to rationalize how the currently fragmented service provision can be improved by creating a care delivery system

D. Community engagement and development programs - building platforms such as Rumah Whampoa and SCOPe (Self Care for Older People), which support the development of self-care capability, strengthen the collective voice of older people, promote greater participation and contribution to community life, as well as strengthen inter-generational relationships.

The key takeaways from the ComSA experience so far are:

1) the importance of having a systems approach to care delivery, especially for older people with complex needs. Otherwise, people fall through the crack or care is not optimally effective, as not all necessary services are delivered in a timely and organized manner and

2) the importance of taking a population approach to community service planning. Without the survey, we were blind to the extent of serious issues in the community, such as the 50+ percent of older residents who are socially isolated with significant health risks.

**Earlier this year you launched Rumah Whampoa, a traveling exhibition from the elders of Whampoa Centre, what were the reactions to the exhibition? What was a favorite exhibit of yours?**

**MAT:** As mentioned earlier, Rumah Whampoa (which means my home, Whampoa) is a community platform for residents of Whampoa to connect with, and learn more about, their older members. The first two projects are PhotoVoice, where seniors created narratives based on their lives and times in Whampoa through photographs they took, and Intangible Stories, where seniors created stories around old objects that were precious to them and which they have held onto through their lives.

I loved the story about the old Singer sewing machine that seemed so useless, but
had provided the family clothing made from fabric scraps and helped the family survive during tough times because of the extra sewing that grandma did, or the neatly curated stacks of old movie magazines whose stories of romance and glamour at a time of poverty and struggle gave hope and cause for a young lady to dream.

By bringing forth these stories and exhibiting them around different parts of the community, it benefited both the story “tellers” and the “listeners” as the former reveal and the latter learn about the rich legacy of the community held by the elders. This helps to connect the generations and generate healthy appreciation by the younger generations of the older people for themselves.

All this helps as well to reset the mindset of older people in a positive way of how they think of themselves, as well as to combat ageist views among the young.

What current belief is the biggest impediment to an age-friendly society? How do you want to change that with your work?

**MAT:** The biggest impediment I believe is ageism: society’s ignorance in assuming all older people are frail, dependent and need care, ”non-productive,” and that successive generation of older people will be the same. With the nuclear family an increasing Asian phenomenon as well, decreasing contact between grandparents and grandchildren and the lack of familiarity with older people also contribute to this continuing myth.

We have been effective to some degree in changing perception through providing evidence to specific policy makers, influencers and decision makers. Our Expert Series program brings critical thinkers and scholars to discuss and debate priority issues of interest to the government; experts range from World Bank economists, to government officials from other countries, as well as leading academics and practitioners from around the world. Commissioning local research and disseminating the data to relevant bodies, including the media, is also effective in getting issues onto the policy agenda as well as increasing the awareness of the broader public.

Programs that provide platforms for the voices of older people and which embolden them to advocate for themselves are also effective.

Nonetheless, much more need to be done. To combat ageism, there needs to be broad collaboration across stakeholders and a strategy for tackling ageism in different sectors, such as business. We hope to catalyze such an initiative moving forward.

Recently the Singapore government announced the Action Plan on Aging, 10 point action plan that aims to engage Singapore’s aging population in volunteering, employment, and aging-in-place initiatives. What will the Tsao Foundation’s role be in this initiative?

**MAT:** The Foundation championed aging in place since our inception in 1993 and has been creating and advocating for the mainstreaming of community care service models - where there had almost been none - to enable aging in place.

Likewise we have numerous initiatives for mature volunteers which approach as a learning and development program for our senior volunteers. The community development initiative in ComSA Whampoa also actively promotes senior volunteerism through various programs. Our Big Swing program aims to work with older residents not only to encourage volunteerism, but also support their leadership development to identify and act on community issues which they can actively address on their own.

Moving forward, we will be focusing on the notion of retirement and work - be it paid or unpaid, employment or enterprise - and stimulate discussion, research and innovation around this issue.◆

Mary Ann Tsao
CHAIRMAN AND
FOUNDING DIRECTOR OF
THE TSAO FOUNDATION
One of AARP’s top priorities is supporting family caregivers — those providing unpaid short-term or long-term care to a parent, spouse, friend or other adult loved one. They help with everyday activities and personal tasks such as transportation, managing finances, scheduling appointments, shopping, bathing, dressing, preparing meals, wound care and/or medication management.

You could say that supporting family caregivers is in our DNA. AARP’s founder, Dr. Ethel Percy Andrus, left her high school principal job in 1944 to care for her ailing mother. Then and now, family caregivers have been the backbone of the long-term care system in this country. Of course, much has changed in the last seventy-plus years, thanks to such trends as demographic changes and advances in care. Today there are more than forty million family caregivers in the United States. AARP’s Public Policy Institute estimates that the value of the mostly unpaid care provided by family caregivers is over $470 billion per year. That’s more than total Medicaid spending.

As with previous generations, Baby Boomers will depend on their friends and family to help them stay in their homes and communities as they age (nine in 10 want to do this). Yet demographic shifts mean challenges lie ahead. Based on analysis by AARP’s Public Policy Institute, the number of potential family caregivers available for older Americans will drop dramatically in the coming years. From 1990 to 2010, there were just over seven potential caregivers ages 45-64 for every person aged 80+. Over the next 20 years, the number of potential caregivers ages 45-64 will drop to about four for every person aged 80+. And between 2030 and 2050, the number will drop to only about three potential caregivers for every 80+ person.

So the need to better support family caregivers will only increase with time, spurring AARP to bring the full scope of our enterprise to the issue. This involves our advocacy, wealth of information in all related fields, local resources, and market changing products and services. AARP’s policy and advocacy work in this important area has been highly visible in the last few years. Building off of the AARP Public Policy Institute’s Home Alone report, which highlighted how over half of all family caregivers perform complex medical tasks, AARP developed The CARE Act. The model legislation for states basically requires hospitals to record the family caregiver when a patient is admitted, gives the family caregiver notice before discharge, and provide training for any complex medical tasks required. This legislation is now law in 39 states and territories across the country.

Further AARP research shows that, on average, family caregivers spend almost $7,000 out of pocket to care for their loved ones. This important finding has led to the introduction of state and federal legislation to provide a tax credit to family caregivers.

Advocacy also serves as a catalyst for greater change beyond policy. The relationships forged in moving legislation — whether with other non-profits, healthcare providers, business and employers, and faith organizations — also lead to direct impact on the ground, such as equipping family caregivers with the help and resources they need.

There is no silver bullet available to directly support all family caregivers. Regarding the 40 million+ family caregivers, we often say there are 40 million unique individuals caring for a loved one. Each individual and situation is different given the condition of their loved one, their location, living arrangement, income, age, culture — the list goes on.

Our goal at AARP is to increase the number of family caregivers who receive help when they need it. Today, only about 30 percent of family caregivers access some sort of help. Clearly, there is much work to do.

To craft a strategy to equip family caregivers (and increase that percentage served), we put the family caregiver front and center and listen to them. We have learned that while everyone is unique, there are some common experiences — particularly when caregiving demands first intensify. Caregivers expect AARP to be there for them with specific information in a way that does not add to complexity or fragmentation. Through quantitative research along
“From 1990 to 2010, there were just over seven potential caregivers ages 45-64 for every person aged 80+. Over the next 20 years, the number of potential caregivers ages 45-64 will drop to about four for every person aged 80+. And between 2030 and 2050, the number will drop to only about three potential caregivers for every 80+ person.”
Three Strategies for Establishing AARP as Innovation Leader

By Andy Miller

When you think of organizations that are innovation leaders, what names come to mind? Apple, Facebook, Google and Amazon perhaps? My goal as senior vice president of innovation and product development is to add AARP to this list.

At AARP we know innovative solutions are needed. Right now, 10,000 people turn 65 every single day; by 2035, one in five people in America will be 65 or older, and one in three households will be headed by someone 65 or older. The Longevity Economy is real, and it’s massive, with people over the age of 50 in the US generating $7.6 trillion annually in economic activity. It’s clear that this demographic, which is often ignored, is a key driver of economic growth.

AARP is challenging outdated beliefs about what it means to age and developing new solutions so we can all choose how we live as we age. Here are three key things AARP is doing now to put us on the innovation map.

Those key areas comprise our roadmap for making AARP an innovation leader. Together, these strategies will help us fulfill our role of being everyday innovators in aging as we connect entrepreneurs with the growing and vibrant market of 50+ consumers.

Developing New Products
At AARP we embrace ageless design principles and seek to provide intergenerational solutions that will work for all consumers across generations. We have exciting products that we are pilot testing for launch in 2018. These offerings address our social mission of health, wealth and self.

Collaborating with Industry Leaders
We are collaborating with foremost industry leaders to drive market solutions. We know that to be the most effective in meeting the needs of people age 50+ we need the assistance of top external players.

Earlier this year AARP’s Hatchery — our own innovation lab — hosted a qualitative session together with IBM Watson and Local Motors to explore desired features and benefits of an accessible self-driving vehicle (Olli) for 50+ consumers. This is just one example of the way AARP includes consumer feedback into the innovation process, from the initial brainstorm, to in-person prototyping sessions, to testing of new potential products.
“Right now, 10,000 people turn 65 every single day; by 2035, one in five people in America will be 65 or older, and one in three households will be headed by someone 65 or older. The Longevity Economy is real, and it’s massive, with people over the age of 50 in the US generate $7.6 trillion annually in economic activity.”

Another example is AARP’s collaboration with Campbell Soup and Pulse@MassChallenge. The purpose of this collaboration is to find startup companies that are integrating technology with nutrition to develop a more personalized health experience with a focus on the 50+. We’re currently judging applicants with new solutions for healthy living. Selected companies will spend time in the AARP Hatchery and at Campbell’s headquarters in Camden, New Jersey, working alongside innovation teams from both organizations.

Accelerating Startups
Through events like TechWeekDC and LivePitch, AARP will continue to engage with companies and entrepreneurs to help them connect to 50+ consumers and learn what it is that this audience needs. We also co-create with startups, via collaborations like the one with Pulse@MassChallenge as well as through active engagement with companies like VRHealth, Rendever, and SingFit.
Reflections from Japan
By Debra Whitman

It is a beautiful morning at Kotoen. Dozens of four and five-year-olds bow and septuagenarians, octogenarians, and even some centenarians return the courtesy. Together they begin to stretch and sing to an exercise program called “Rajio Taisou,” introduced in Japan in 1928. When the music stops, the youngsters run into the welcoming arms of the “grandpas” and “grandmas.” Young and old walk away hand in hand ready to face the day.

I think to myself: This is why I came to Japan.
As a researcher and a former policymaker, I have long studied from afar how the oldest country in the world has innovated and adapted. But I wanted to personally see models of caregiving, commerce, and technology so that I could truly understand their benefits and limitations. So in the Fall of 2017, I traveled with Bradley Schurman, Director of Global Partner Engagement at AARP International, on a learning tour to seven different locations in four days. I left Japan both exhausted and inspired.

My favorite stop was Kotoen. Located on the outskirts of metropolitan Tokyo, Kotoen is both a long-term care community and a day care center and is a perfect example of the advantages of linking the generations. As we walked through the facility, we saw children interacting with wheelchair-bound elders and grandpas reading to their boys and girls. Importantly, we learned about the key role played by a trained and supported staff that worked seamlessly with them all.

We knew Japan was an innovator in the use of caregiving robots, so we wanted to see what high tech could do to help a high-touch industry. We spent an afternoon at Motherth, a continuing care community, owned by Toyota, which provides services ranging from intensive nursing care to independent living to adult daycare. We saw how cameras and sensors were used...
to monitor residents in their rooms and apartments. Staff members were busy responding to these alerts, which gave residents confidence that they would be found in an emergency.

Motherth also used robots as caregivers and entertainers. The Smile Baby robot was developed for people with dementia. Her soft body and unfinished face allows users to imagine the features of a baby they may have known in the past. The doll is also interactive. Hold the baby correctly and she coos and laughs and her cheeks get red. But hold the baby incorrectly and she lets out a lifelike cry — with lighted tears running down her face. Monami, another robot, is used to entertain the residents and does a passable Flamenco.

But as we continued our tour we found that sometimes the simplest technology could have the greatest impact on a resident’s daily life. For example, bathing can be stressful both for a resident who is wheelchair bound and for the staff member who needs to safely maneuver the elder into a bathtub or shower. At Motherth, an aide wheeled a resident into a tiled room, easily transferring them to another chair and into a spaceship-like tub where the water enveloped the seated bather. In this space, bathing goes from being a difficult chore to a comfortable and refreshing experience.

While advances such as the bathing tub and a variety of robots that interact with patients may well become more commonplace in the future, we came away from our visits to several nursing homes continuing to believe that technology cannot take the place of intensive human touch. When people need a lot of care, sensors and entertainment simply are not enough. In Japan and the rest of the world, a highly trained and engaged staff turns out to be the key ingredient of any quality care environment.
We saw other examples of how Japanese companies have stepped up to the challenge of meeting the needs of an older population that lives independently in the community.

An aging population is transforming both the corner store and the large shopping mall. At Lawson’s eight Care Lawson stores, you can buy the traditional fare available at any convenience store — milk, bread, beer, and chips. But these corner stores have been specifically adapted to meet the needs of their older clientele. They’ve widened the aisles and added a variety of products geared to older consumers — such as adult diapers and cane tips. Lawson’s also packages ready-to-heat single serve meals and added labels that provide information about how easy or difficult the food will be to chew. These may seem like small things — but they mean a lot to older adults who normally must hunt for the products they need on a daily basis.

We found similar thought had gone into the Aeon shopping mall we toured. Like Lawson, Aeon is a full-service store with products that appeal to young and old. Aeon has adapted several of its malls specifically for Japan’s aging population. We were pleased to see that specific personalized products and services were front and center — not hidden away in a corner.

As we walked on the fourth floor we came across probably the largest display of canes I’d certainly ever seen. Some were colorful, some had patterns, some were simple. But instead of hiding them away, the canes were displayed more like fashion accessories, not medical devices.

The Aeon developers also offer a range of programs that enable older adults to be part of the community and to have a warm, safe place to gather with their friends and make new ones.

The top floor, which originally housed a roller rink, includes a bookstore, café, activity rooms, and a health center. It features exercise classes that cater to young and old and a walking track where people can earn points and discounts for completing a lap.

I left Japan knowing that I had only seen a fraction of the innovation and adaptation that is happening across the country. At AARP, we strive to import innovation and share ideas with the global community so we can all learn from best practices. Our trip, this Journal, and our global research agenda are all ways that together we can benefit from and build on Japan’s groundbreaking example.
As the world watches, Japan faces its super-aging future with innovation and uncertainty, technology and humanity.
TOKYO — Akinori Itoh stands beside his taxi, a black Prius buffed to a gloss, dignified with his silver hair and pressed uniform. Black suit and shoes, crisp white shirt, grey striped tie, and on his hands, snow white gloves — the signature flourish of an elite Nihon Kotsu driver.

He is 61 years old, a former bond trader and fund manager caught in the social, economic, and cultural transformations of an ancient country that is growing older along with him. It’s late afternoon and he’s eight hours into a 20-hour shift, yet gives no indication of weariness. He thoughtfully opens the back door, and after ensuring that his passengers are safely stowed inside, slides behind the wheel onto a seat covered from the headrest down in intricate lace. Then he pulls into traffic to navigate this city’s complex rush hour, driving head-on into the challenges, innovations, and uncertainties of the world’s fastest aging society.
Itoh began driving taxis in 2014, following a thirty-year career in finance that spanned stints as a bond trader (in Tokyo and New York City), chief fund manager in an asset management company, and senior financial analyst. Following the global financial crisis a decade ago, he struggled to find suitable jobs in the industry, eventually settling on driving as a second career. With his English language skills and polished demeanor, he easily became one of Nihon Kotsu’s expert drivers — an honor that places him in the top one percent of the roughly 8,000 people behind the wheel and navigating the streets for the largest, most recognizable taxi company in Japan.

“Realistically speaking, given my age and skill set, the only choice I had was to be a taxi driver,” he explains with a sudden tinge of melancholy. It’s a long way, he reflects, from his heyday of riding in the backseat of chauffeured cars, to his current position in the front seat, ferrying passengers to all corners of the city.

His age is not uncommon for a taxi driver in Japan’s capital city. In fact, according to the Ministry of Health, Labor and Welfare, more than half of Japanese taxi drivers are over 60, with the average age at 58 and climbing. Many of these men (there are very few women in the field) started driving as a second career. It’s a physically demanding job — but one that Itoh cannot afford to give up. In addition to worrying about his own retirement, he is thinking of his parents who, at 82 and 88, have health problems and increasingly need financial support and care.

In many ways, Itoh’s situation is emblematic of stories throughout Japan — of people, businesses, and organizations adapting in different ways, and out of necessity, to their country’s unprecedented demographic changes.

By now, the narrative is well documented. More than a decade ago in 2006, Japan became the first “super-aged” society, defined as a place where more than one in five people is 65 or older. Today, a quarter of the population is 65 or older, and by 2050, that number is estimated to grow to 36 percent. In contrast, the 65-plus population in the US is projected to grow to 21 percent by 2050, from its current 14.5 percent. People in Japan live longer; the average life expectancy is 83.7 years, in comparison to the global average of 71.4. Longer lives, compounded by a declining birthrate (experts believe the population will shrink to 97 million by 2050 from its current 126 million) and almost no immigration, mean that the Japanese are staring face to face with a challenge the likes of
**COUNTRY**
Japan / 二手日本

**CAPITAL**
Tokyo

**TOTAL AREA**
377,915 sq km (145,936 sq mi)
(Slightly smaller than California)

**POPULATION (WORLD RANK)**
126,672,000 (10th)

**DEMONYM**
Japanese

**TOP 10 MOST POPULATED CITIES**

- Tokyo: 9.3 million
- Yokohama: 3.7
- Osaka: 2.7
- Nagoya: 2.3
- Sapporo: 1.9
- Fukuoka: 1.5
- Kobe: 1.5
- Kawasaki: 1.5
- Kyoto: 1.5
- Saitama: 1.3

**BUDGET (US DOLLARS)**
- Revenues: $1.684 trillion
- Expenditures: $1.909 trillion

**GDP PPP (US DOLLARS)**
$5.420 trillion (4th)

**MAIN INDUSTRIES**
Motor vehicles, electronic equipment, machine tools, steel, non-ferrous metals, ships, chemicals, textiles, processed foods

**GOVERNMENT TYPE**
Parliamentary constitutional monarchy

**LEGAL SYSTEM**
Civil law system based on German model; system also reflects Anglo-American influence and Japanese traditions; judicial review of legislative acts in the Supreme Court
which the majority of the world has yet to confront. And because they are essentially facing the aging dilemma a generation before anyone else, all eyes are on Japan to assess its innovations — or stumbles — as its citizens and leaders address what Prime Minister Shinzo Abe recently called “a national crisis.”

Takeo Ogawa, a gerontology expert and president of the nonprofit Asian Aging Business Center, likens the Japanese response to aging to the famous fable of Urashima Taro, often called the Rip Van Winkle of Japan. Like Urashima Taro, who found himself lost in a world that he no longer recognized, the Japanese people today are reeling from sudden and drastic change, sometimes struggling to reconcile themselves with the hard truths of rapid population aging.

Still, all is not lost. If anyone is uniquely positioned to lead the world in this matter, it is the Japanese, who have found ways to not only counteract the numbers, but embrace the potential of an aging society. Throughout Japan, there are encouraging successes: a corporation building a retail experience for the senior market; a nursing home organization pioneering a new model of caregiving; a robotics company using technology to improve the human condition; and a woman finding fulfillment in her “second life.” Japan presents no neat, all-encompassing solution to the matter of aging for the rest of the world. Instead, the famous island nation offers smaller, more incremental ways in which all parties — the government, the private sector, nonprofits, individuals — continue to adapt to, and find opportunities in, the new reality.

Though not all of Japan’s ideas will apply across other countries or cultures (the nation’s approaches are an outgrowth of — and ideally suited to — a unique culture and set of values), lessons can be drawn from Japan’s experiments. In many ways, the challenges Japan faces are common to us all.

TO UNDERSTAND THE JAPANESE approach to aging, it’s helpful to understand the forces shaping its outlook. Japan is no stranger to massive change. Profound cultural, economic and political shifts after World War II launched its people into the modern world at a dizzying pace. But in more recent years, as Baby Boomers entered retirement and the average age has crept upward, these shifts are more rapid and pronounced, upending entire communities, institutions, and ways of life. The traditional family system, based on the Confucian code of filial piety, is fracturing; seniors no longer reside with their children, but by themselves or in nursing homes. En masse, the younger generations are abandoning rural areas for large cities, leaving behind graying districts and towns. These younger people are increasingly uneasy, worried about job security, supporting children and aging parents, and paying money into an overburdened support system that may not be there for them in the future. Businesses are bracing for huge gaps in their workforce as aging employees retire. Isolation and loneliness are a growing issue, as the number of older adults living alone has increased by a staggering rate of more than 60 percent over the last decade. And though people are living longer lives, the quality of those later years are declining. The gap between life expectancy and healthy life expectancy has increased by 14.5 percent since 1990. Even two decades ago, the impending demographic challenges were top of mind for
the Japanese government. Since 1996, the Cabinet Office has submitted an annual “white paper of the aged society” to the National Assembly to report on the state of aging and implementation of countermeasures for an aging society. Key measures outlined in the 2017 white paper include assistance and promotion of re-employment of older people; promoting healthy aging; providing housing and barrier-free transportation; and a special focus on increasing participation of women in the workforce. Prime Minister Abe’s administration has long expressed its concern

ABOVE
Heading back to his taxi to finish the night shift.

OPPOSITE PAGE
Itoh during his dinner break at a local steak restaurant.
State of Aging

Children 12.7%
65-74 years old 13.8%
75 years old and over 12.9%
65-74 years old 13.8%

Total Population
Over 127 million

Productive population 60.6%

SOURCE

State of Aging in Japan

Age Until When They Wish to Work
Subjects are males and females aged 60 and over across Japan

Until about 65 years old 16.6%
Until about 70 years old 16.6
Until about 75 years old 7.1
Until about 80 years old 2.7
So far as I can work 28.9
I do not wish to work 10.6
Others 3.2
I couldn’t say 7.9
No reply 6.4

SOURCE
Cabinet Office (Japan) "Attitude Survey on the Lifestyle of the Elderly" (2014)
Trends in Aging and Estimation for the Future

In the future, as total population decreases, the percentage of those 65 and over will continue to increase.

Trends and Future Projections of Life Expectancy at Birth

Life expectancy at birth in the future will be 84.19 years for males and 90.93 years for females.

SOURCE


SOURCE

for the effects of the shrinking workforce on the national economy. His so-called Abenomics reform plan takes a three-part approach to addressing the country’s tepid economic growth and labor shortages, by simultaneously focusing on monetary easing, fiscal stimulus, and structural reforms. In the past, Mr. Abe has called Japan’s aging population not a burden, but an incentive to grow productivity, particularly in the realms of robotics and artificial intelligence. He has expressed his commitment to raise participation in the workforce, by mobilizing women and seniors, as well as raising the retirement age. He has also sought to reform certain aspects of workplace culture, such as excessive hours, and has worked to provide more care facilities for both children and seniors. Though the government, as it continues to grapple with these complex challenges, has shown it recognizes the severity of the situation, the long-term effects of its policies on the demographic trajectory remain to be seen.

In Japan, the concept of omoiyari, or awareness for others, reigns supreme. From orderly lines that form on packed subway platforms, to children carefully sweeping their school’s playground, people here learn from an early age that they are members of the group or community and are expected to act accordingly. It’s not surprising that this sense of community extends to the private sector. Businesses throughout Japan have found new ways to adapt to the senior market, driven not only by the bottom line, but by their desire to help solve a pressing social issue. Even some of the largest corporations approach the challenge from a community perspective, with ideas to implement at a local, rather than national, level.

Such efforts are on full display in Nakano, a densely populated ward in western Tokyo, where a group of 16 seniors gather at a community center for an exercise class. Music fitness trainer Mayu Fujii, an energetic woman in her 50s wearing a red polo shirt, leads the group through song and movement with the help of her co-instructor, a Daiichi Kosho DK Elder System karaoke machine specially loaded with content for older people. The programming includes low impact exercise routines in addition to an array of music that appeals to the older generation. As a familiar folk ballad flows from the speakers, the group sings in unison while one man in his mid-80s gleefully exclaims, “I feel like I’m back in kindergarten!” Daiichi Kosho, Japan’s leading producer of karaoke machinery and equipment,
ABOVE
Music fitness trainer Mayu Fujii and a DK Elder System karaoke machine.

OPPOSITE PAGE
Participants in Fujii’s “TV exercise” class at a senior center in Nakano Ward, Tokyo.
Origami crafts created by a class at the senior center.
Masako Nakajima, Center Admin

Keiko Satani, Chairman

Hitomi Yamazaki, Center Staff

Keichi Uemura, Nakano Ward

LAND OF THE AGING SUN
trains instructors like Fujii to operate the machines, which are then rented out to senior facilities. In partnerships with municipal governments, machines have been placed in 20 locations throughout Nakano Ward and in roughly 3,000 locations across Japan. The company began to focus on the senior market in response to the earthquake and tsunami that devastated northeastern Japan in 2011; the firm wanted a way to contribute to society, strengthen communities, and provide stress relief, particularly for seniors who were affected. Daiichi Kosho also saw the long-term value in appealing to older adults. The company estimates it has since captured roughly 80 percent of the senior market share in Japan. With an old tradition like karaoke, Daiichi Kosho has written a new theme song for businesses facing a super-aging society.

Invented in Japan in the early 1970s, the karaoke machine became a lasting part of Japanese social life in the following 40 years. Watching a group of seniors heartily singing classics from the Shōwa era, it’s obvious that karaoke is more than a frivolous pastime. It’s also a perfect vehicle for senior engagement. The physical benefits are plentiful — karaoke encourages overall activity and brain health, and strengthens the mouth and jaw muscles to help ward off eating problems. Even more striking are the social benefits. “They make friends through the songs. They all grew up in the same era,” Fujii says, gesturing toward her band of students. “You can feel a partnership and bonding taking place among friends.”

Other companies, including retail giant Aeon, Japan’s largest shopping mall developer and operator, have strategies centered on social interaction. In the far eastern suburbs of Tokyo in a neighborhood called Kasai, Aeon has turned an existing store into a prototype for its new shopping concept. The entire multi-level building is devoted to providing products and services for people age 65 and over — the first such venture in Japan when it opened in 2013.

The company’s goal from the outset was to instill itself into the local community, to create a place where seniors can enjoy the latter half of their lives. Seniors can shop for clothes and canes and dietary supplements here, but they also find opportunities for companionship. The store offers crafting and cooking clubs, music lessons and exercise classes. There’s a 180-meter, carpeted walking course on the fourth floor, a café, a gym, a game room, and even an arcade, all meant to encourage engagement (which translates to more time in the store).

“Our biggest concern is for the seniors,” says Tetsuo Sawai, Aeon Division Manager for Senior Products. “Loneliness is a big fear. We saw an opportunity to address these issues. Selling merchandise is our last priority.” Despite this unusual ranking of concerns, the strategy is working on a business level; annual sales for the Kasai location are up 10 percent since the program’s inception, and the store has added additional classes to accommodate growing demand from customers. Clearly, making a profit and improving the aging experience are not mutually exclusive.

The older adult market in Japan is estimated to be worth a yearly JPY 100 trillion,
Convenience stores, or CVSs, have become a mainstay in the Japanese landscape over the past 40 years. From 7-Eleven, to Lawson, to FamilyMart, stores have sprouted up on streets throughout the country, providing consumers with a place to buy groceries, withdraw cash from ATMs, and even print official government documents. The nine major CVS chains serve roughly 1.4 billion customers each month. And increasingly, these customers are skewing older; more than half are age 40 or over, and of those, three-fifths are over age 50.

Naturally, CVS companies have been looking for new ways to adapt to and serve the senior market. One example is Lawson, one of Japan’s largest CVS chains. In 2015, the company launched its first Care Lawson, a store that provides senior health care support services in addition to its regular offerings.

At a Care Lawson location in the city of Saitama, shoppers can receive advice and screenings from a nursing care specialist every day between 9am and 5pm. Regular health-related events and seminars are also scheduled in the space.

Older shoppers come for the checkups or to socialize, and stay to shop. The company stocks products specific for seniors at their Care Lawson locations—everything from easy-to-chew meals to cleaning products designed for seniors and caregivers.

Ventures like Care Lawson allow the company to tap into the senior market—but the greatest benefit is for people in the community, who use the store as a hangout spot, clinic, and grocery store, all in one.

Report: Convenience Stores
The exterior of the Care Lawson in Saitama.
or approximately USD 1.27 trillion. Despite general economic stagnation, consumption by seniors has grown steadily by an average 3.1 percent annually since 2003. The members of Japan’s older generation typically are viewed as frugal. In fact, they have emerged as serious spenders across many industries, from retail to travel. As more and more businesses capitalize on the opportunities in the market, they will increasingly benefit themselves and the economy as a whole, as well as the seniors and communities they serve.

THE LOBBY at Crossheart Saiwai Kawasaki is straight out of an architectural magazine — a modern, open space with blonde wood floors and a solid wall of glass doors across the back with direct views of a neighboring schoolyard. It’s hard to believe that this building, once an aging elementary school in Kawasaki City, Kanagawa Prefecture, has been transformed into what looks like a chic hotel. What’s even more surprising is that it is now a senior care facility, housing some 140 full-time residents with high-care needs. The multi-storied structure holds a café space, library and meeting rooms available to the community, as well as bright and cheerful living areas for residents. The design is meant to give seniors access to the world without them leaving the building. The facility represents a new breed of homes built to overcome the hurdles of an aging society.

Crossheart is one of 39 elder care and 10 childcare facilities operated by Shinko Fukushikai, a Social Welfare Corporation — a special legal entity regulated and supported by the Japanese government to extend welfare services to lower-income people. The original company was founded in the late 1980s by Masue Katayama, who began renovating abandoned corporate dorms into attractive, affordable, user-oriented living environments for middle-class families. Katayama also certified her organization under strict ISO-9001 standards, the first in the Japanese senior caregiving business to do so. With this prestigious certification, she eased some of the stigma of senior nursing homes and boosted the credibility of caregivers. Today, Seiko Adachi, Crossheart’s CEO and Katayama’s daughter, builds on her mother’s legacy, continuing to push for the same high standards and innovative approaches that the Japanese caregiving industry so desperately needs.

In an island nation shaped by geographic isolation, dense population, and scarce natural resources, the Japanese people have always found a way to overcome shortages. In recent years, their greatest shortage, according to one nursing home director, is “human capital” — specifically, caregivers. A shrinking workforce, particularly in the caregiving industry, means that nursing homes are struggling to fill vacant positions. For every job applicant, there are three or four open positions, according to the government.

A key cause of this dilemma is that Japan does not take full advantage of a typical source of senior-facility labor — immigrant labor. Although the nation’s island mentality led to an intrinsic resourcefulness, it also produced a fierce, nationalist pride resistant to foreigners. In the US, immigration accounts for roughly 13 per-
cent of the population, with that population often filling the low-wage, blue collar positions that many Americans no longer want. In Japan, the immigrant population is less than 2 percent. Add to that a dearth of women in the workforce, with only 66 percent of working age women holding jobs (many of which are only part-time or contract positions). As the number of seniors needing care increases, facilities like Adachi’s must adapt their workforce and approach to offer the best care they can to those who need it most.

First, Adachi has embraced new sources of labor, including nearly 50 foreign employees who hail from 15 countries. Many are refugee applicants who can legally work but have limited opportunities in Japan. She also is hiring more women, particularly housewives who are finished raising their children and are a natural fit for nursing and caregiving jobs. And older employees are an asset at Shinko Fukushikai; 40 percent of the workers are over the age of 50, and the company retirement age was raised to 70, with some working even to age 80.

Adachi explains that the inspiration for this approach originated in her mother’s era, at the inception of the organization, and was rooted in their local community. Her mother worked hard to understand the community’s needs, and how to bring neighborhood people onto the payroll — including local housewives, seniors and refugees looking for work. That spirit of acceptance and understanding plays out in each of their facilities, which boast a combined 1,500-person wait list.

“With this mixture of different types of people, with this scale, and being able to grow as we did, and then working together with a common goal — it’s something I can be proud of,” she says, then quickly adds, “But I still have a ways to go.”

A SHOPPING MALL is the last place you might expect to test a robotic exoskeleton, but that’s exactly where technology company Cyberdyne decided to make its invention available to the general public. On the fourth floor of a mall in Tsukuba, a city about an hour northeast of Tokyo, a Cyberdyne facility offers physical therapy sessions utilizing the state-of-the-art exoskeleton, HAL. The Hybrid Assistive Limb is billed as “the world’s first cyborg-type robot,” essentially a robot suit that can support and enhance bodily functions. The product features several versions, including a model that wraps around the lower back and hips and is used when lifting heavy loads. An astounding 70 percent of these devices are used by caregivers in nursing homes or hospitals. The primary HAL model, however, is a lower limb device worn around the legs to help people walk or move after they suffer strokes, spinal cord injuries, or muscular-skeletal disease.

Japan is the world’s leading manufacturer and consumer of robots, so it’s only natural the country would turn to robotics to help solve the challenges associated with aging. In 2015, the government developed a five-year plan, the “New Robot Strategy,” to spur innovation and establish Japan as a robotics superpower. Previously, the emphasis was on developing robots to boost productivity and supplement a dwindling work-
force, but in recent years, the focus shifted to robots to help with long-term care. One-third of the five-year plan budget (JPY 5.3 billion or USD 47 million) was dedicated to research and development in nursing and medical use. Japanese companies have since engineered solutions to a variety of mental and physical challenges experienced by seniors — from carebots like Honda’s Asimo, to a robotic baby harp seal named PARO designed to reduce anxiety and depression among dementia patients.

The affinity for robots runs deep in Japan, where they serve as everything from personal companions to security guards. Experts suggest the connection to robots is rooted in Shintoism, the religion that preceded Buddhism in Japan and still holds sway over the culture. A main tenet is animism, the idea that all objects have a spirit even if they’re human-made. Whatever the reason, people in Japan are much more accepting of robots in all facets of their lives, unlike in the West, where people tend to view them with suspicion or even fear. According to one Japanese survey, about 80 percent of respondents were open to the idea of being cared for by robots, and would even prefer them to human caregivers.

HAL is the invention of Dr. Yoshiyuki Sankai of the University of Tsukuba, who wanted to create a robot that could support humans and improve quality of life. Dr. Sankai argues that cybernetic technology — a new field that fuses humans, robotics and information systems — will bring about drastic social and industrial transformations. Cyberdyne, he explains in an interview published in his company’s 2016 annual report, develops technologies that solve the great social problems of our time. “The energy and environment issue is a good example of a social problem that we humans must face, but another crucial issue is the super-aging society,” he states. “Whether we can solve this issue will directly affect the way society continues to exist.”

IN AKITA CITY, Natsuko Saga, 81, has more extracurricular activities than the average high school student: choir, ballroom dancing, Latin music and dance, and fukiyay (a traditional hunting sport involving a blowgun and darts). On top of that, she balances a full social calendar that involves getting together with many friends and participating in various committees at city hall.

Individuals like Saga are disrupting aging across Japan, fashioning their happiness and fulfillment as the foundation of traditional society crumbles beneath them. This trend is in part attributable to a uniquely Japanese mindset that keeps seniors like her going, even when confronting immense and confounding demographic changes.

This outlook on life is summed up in the word *ikigai*, which, loosely translated means “reason for being.” It is composed of two words: *iki*, which means life and *gai*, which means value or worth. The concept is engrained in the Japanese mentality, pushing people to find meaning by determining the intersection of their passions and the value they can bring to society. Especially for seniors who face decades of life after careers, ikigai can provide a framework for satisfaction and happiness. Ikigai also
is a fundamentally altruistic philosophy that considers not only personal needs and desires but also the impact of one’s choices on others.

Years ago, widowed abruptly at the age of 53, Saga felt lost with no plans for the future. Like many women her age, Saga had been a housewife her entire adult life. Slowly, she began finding her way — first with a part-time job at city hall, then as a sales associate in a clothing store, which helped her regain her confidence and independence. Now finally retired, she finds joy in staying busy. She makes a point to get out of the house every day, even if just to the grocery store.

Inside the sitting room of the house where she has lived by herself for the past three decades, she carefully begins removing the curlers from her hair in preparation for dance class. Every night she puts in her curlers while indulging in a single can of beer, and every morning she removes them and teases her hair into a luxurious bouffant.

Saga has one daughter who is 59 years old and lives about half an hour away. She explains that her daughter is busy caring for her 90-year-old father-in-law. “I feel glad to be fine and healthy,” says Saga. “It’s better for my daughter that way, because she is so busy.”

This desire to not be a burden is a consistent refrain throughout Japan. People work into their 80s here; it’s common to see older workers in convenience stores, cleaning the streets, driving taxis, or waving batons at construction sites. Most Japanese companies previously required full-time employees to retire at 60, with the option to work an additional five years on reduced pay and terms. But the government decided to raise the official retirement age to 65 by 2025, and many firms are considering raising the cap further to counter a shrinking workforce.

Even beyond age 65, many people choose to continue working in part-time or lower-paying jobs, citing financial needs and a desire to stay busy.

Retired seniors who don’t work keep busy in other ways. Over seven million people across Japan are members of local senior citizens’ clubs, pursuing a range of activities including sports, performing arts, and travel. A remnant of the post-World War II era, the clubs have become increasingly important in recent years as the number of Japanese older adults living alone surged. Local governments in particular are promoting community involvement, working with neighborhood associations to subsidize gatherings for seniors to counter the nation’s eroding social structure.

Interactions like these are what give Saga fulfillment and happiness, keep her engaged with others, ensure her independence, and help sustain her health so that she might watch her great-granddaughter grow up. She is almost defiantly energetic, rushing about town in the afternoon at top speed to run errands. On one recent day, she visited the supermarket for the day’s groceries and the local cake shop to place an order for an upcoming high school reunion. In her ballroom dancing class, she moves with the grace and flexibility of a dancer thirty years her junior. This is a woman who refused to be called grandma by her grandkids — instead of the Japanese word for grandmother, oba-jan, they called her “nat-jan,” a nod to her name, Natsuko.
Her daughter tears up a little when discussing the way her mother has reinvented and thrown herself full force into life. “I’m proud of my mom,” she says. “We don’t say it directly to each other, but it’s true.”

AT NIGHTTIME IN TOKYO, the neon lights flicker on, blanketing the city from east to west in a vast and luminous glow. Akinori Itoh pulls off onto a quiet side street and parks his taxi. It’s time for a dinner break at one of his favorite restaurants — a steak joint that serves different cuts of sizzling beef on an iron skillet with a side of rice. He is now thirteen hours into his day. Sometimes, if he’s really tired, he takes a nap in the taxi. The hardest hours are from 3 pm to midnight.

Itoh leans forward in his chair, his angular face highlighting his exhaustion. “My family would probably think I’ve fallen off the ladder,” he admits ruefully. His salary as a taxi driver is only a third of what it used to be, and even after a three-decade-long career in finance, he still does not have enough money to fully retire. Finance jobs in Japan are nowhere near as lucrative as those in the US. Nevertheless, he offers an optimistic insight — almost by way of apology, as though he does not want to appear ungrateful for his current situation. The best part of his work, he says, is getting to meet many people, and that keeps him mentally engaged.

In a mere seven hours, Itoh will finish his shift. He’ll go home, sleep for a day, then repeat the grueling schedule all over again. He’ll do this willingly and without complaint because that is his job, his duty, his role to play. He might retire in ten years if he’s lucky, but that’s okay because “you need to work a job for a few years anyway, to really learn it.”

The Japanese people are nothing if not pragmatic, staring down life’s challenges with a sense of resigned acceptance. Maybe it’s a vestige of their Buddhist roots, a belief that human life is but a fleeting moment in the grand continuum. Lives are short, so we must make the most of them in the time allotted. Aging and death are natural, not something to fight or fear.

And so the seniors of Japan face their futures with practicality. After all, aging is unavoidable, a visible part of daily life. Unlike other countries, where the so-called Silver Tsunami has yet to break on the shores, the Japanese are already wading in the waters. They have found some success in addressing the challenges of aging, but they also recognize there is still much room for improvement. No one knows for certain if what they’re doing will be enough. All they do is move forward, striving to improve the aging experience in ways both large and small, searching for opportunities and lessons along the way. The Japanese view aging as a mission, not a battle — they’re leading this grand expedition into the unknown while the rest of the world watches.

Itoh strides briskly down the street to his taxi; he’ll once again don the white gloves and drive off into the night. “I always wanted to become a global player,” he says, explaining that as a boy growing up in Nagoya, he dreamt of one day making his fortune in Tokyo. “When you’re older, your hopes and goals change — you still have them, but they’re different now.”

—

LAND OF THE AGING SUN
PARO

The Furry Phenomenon

Dr. Takanori Shibata’s famous robotic seal provides sophisticated interaction for seniors worldwide.
NANTO, Japan — At Nanto Citizens Hospital, 84-year-old Ayako Minami was again feeling anxious about her recovery from a stroke, but her occupational therapist knew just what Minami needed — a baby harp seal.

A robotic baby harp seal.
A white, fur-covered, robotic baby harp seal that is sophisticated enough to match the very human benefits of most live therapy animals.

The therapist placed PARO in his patient’s arms. The response came in minutes: “He is cute,” Minami observed. “I was frustrated, but PARO could understand how I feel. When I pet him, I feel relaxed.” In fact, Minami added, PARO’s weight reminded her of holding her grandchildren.
Ayako Minami, 84, cuddles with PARO during a group therapy session at Nanto Citizens Hospital.
Welcome to the soft, furry face of the high-tech future of aging, to an invention whose life stretches from the snowy tips of Mt. Hakusan in Japan’s Toyama Prefecture to what someday could be the red dust of Mars. The interactive robot is perhaps the best-known example of Japan’s national quest to use technology to help address its rapidly aging society, one furry armful at a time.

As Minami and a small group of seniors at the hospital sat around a table for their daily PARO therapy session, a man with graying hair and a still-boyish face watched nearby — PARO’s father and inventor, Dr. Takanori Shibata. The field observations help Shibata understand how users benefit from his cuddly creation and how this sophisticated piece of technology can continue to expand to the rest of Japan and the world.

PARO, for Personal Robot, is not just another stuffed animal. In fact, comparing PARO to a stuffy is like comparing a starship to a tricycle. The device and its sensitive whiskers respond to light, sound, touch, temperature, even how it’s held. It remembers your voice and responds to its name by turning its head. PARO remembers how you like to touch it, closing its eyes and moving its tail when you pet it. It can be taught to sleep at night and to wake at a certain time. And yes, PARO’s earnest, playful squeals match the recordings of a real baby harp seal that Shibata found on sea ice in Canada.

As with live therapy animals, studies show PARO reduces stress, increases relaxation, and promotes interaction, including for dementia patients. For a lonely senior living in a country where caregivers are becoming scarce, PARO is a $6,000 miracle that, as Shibata emphasizes, doesn’t need to be fed and never dies.

As Chief Senior Research Scientist at the Human Informatics Research Institute of the National Institute of Advanced Industrial Science and Technology (AIST), Shibata has dedicated over 25 years to the development, refinement, and nurturing of what the Guinness Book of World Records called the world’s most therapeutic robot.

Japan’s Health, Labor and Welfare Ministry estimates the nursing care industry will face a shortage of about 300,000 caregivers by 2025. In response, Japanese companies are developing “carebots” — robots designed specifically to assist older people. The resulting industry in gerontechnology is huge. According to Merrill Lynch, the global personal robot market, which includes carebots, could reach $17.4 billion by 2020. The Japanese government is banking on robotics as a key part of the solution to the
PARO, for Personal Robot, is not just another stuffed animal. In fact, comparing PARO to a stuffy is like comparing a starship to a tricycle. The device and its sensitive whiskers respond to light, sound, touch, temperature, even how it’s held. It remembers your voice, and responds to its name by turning its head. PARO remembers how you like to touch it, closing its eyes and moving its tail when you pet it. It can be taught to sleep at night and to wake at a certain time. And yes, PARO’s earnest, playful squeals match the recordings of a real baby harp seal that Shibata found on sea ice in Canada.
serious national challenges of aging, with the goal of establishing and maintaining the country’s position as an international robotics superpower. But Shibata had his hand on the pulse well before the government’s plan was rolled out. The artificial intelligence buried under PARO’s beautiful anti-bacterial fur is the perfect blend of art and technology — all inspired by Japan’s history and Shibata’s upbringing.

**TRAVELING BY CAR** through the Toyama countryside, about 200 miles to the west of Tokyo, Shibata describes the unique culture and customs of his childhood home. In one small town called Inami, he points out many studios belonging to local artisans. Some of the men are visible through shop windows, hunched over their work. They produce a style of intricate, decorative wood carving that is renowned throughout Japan. Shibata also talks at length about the Johana Hikiyama festival, an annual festival in Toyama during which massive, beautiful wooden floats are paraded throughout town. It’s a 300-year old tradition that has earned a place on UNESCO’s list of Intangible Cultural Heritage. The intricately carved and lacquered floats typically carry human musicians, in addition to carved *karakuri ningyō*, or mechanized puppets, that date back to the Edo period. These are in many ways, Shibata explains, the precursors to Japan’s modern day robots. It’s clear from the way he talks about these proud traditions that he has been profoundly influenced by where he grew up — an area home to a long line of artisans and innovators, including one robotics expert who still practices his scientific craft.

After a series of turns down country roads, Shibata pulls up to a nondescript, boxy building: the PARO factory. Inside, the factory
floor is pristine and brightly lit, with rows of whirring equipment and uniform-clad technicians moving about in focused silence. It is no surprise that PARO shares factory space with production of electronic components for a luxury automobile. Shibata does not cut any corners; his baby seal is built to last for decades, or the duration of someone’s life.

Though PARO’s components come from 80 different companies, the Toyama factory is the final stop, where circuit boards are assembled and the robots are born. True to Shibata’s vision, the process is a combination of high-end technical precision and hand-hewn craftsmanship.

For instance, Hitomi Kaihotsu, who has been with the company for 13 years, painstakingly trims the fur on each robot’s face with tiny scissors. Every day, she dons blue scrubs, surgical gloves and face mask to maintain PARO’s anti-bacterial integrity — a critical feature of the current iteration: the ninth generation of PARO. As Kaihotsu combs PARO’s thick, lustrous white fur, the quality of care and artistry shines through.

Shibata explains that each PARO unit has five types of sensors: tactile, light, audition, temperature, and posture with which it can perceive people and its environment. Beneath its antibiotic fur, PAROs hard inner skeleton contains dual processors that control the proprietary software for behavior generation and voice recognition.

With a glint of pride, Shibata shares that this basic control of PARO was developed for his PhD thesis in robotics at Nagoya University. Upon completion of his doctorate in 1989, Shibata had to choose how to apply his new expertise. “I could have gone with industrial robots,” he remembers, “but I always wanted to develop a robot to help people.” By 1993, when Shibata began to develop his Personal Robot, he faced another decision: What form would it take?
After years of studying animal therapy, Shibata wanted the same positive effects while minimizing the risks associated with caring for a live pet. A robotic dog or cat would be obvious choices, but Shibata found that people have preconceived ideas about these animals and how they should behave. He wanted a more uncommon, unfamiliar animal so users could form their own, unbiased impressions.

Shibata thought of the baby harp seal — cute, furry, the right size. He traveled to Canada to observe the seal in its natural habitat. Convinced the white-furred seal was the best candidate, Shibata conducted more research and even recorded the sounds of a real baby seal he discovered floating on sea ice near Quebec’s Magdalen Island. PARO prototypes were developed and tested at MIT’s Artificial Intelligence Laboratory in Boston, Massachusetts, and then returned to AIST for fabrication and further improvements.

By 2005, when the 8th generation PARO was launched for sale, nearly 70 percent of the units had been purchased as companion pets by individuals in Japan. Outside Japan, PARO was not as readily accepted by individuals but instead was introduced to medical care facilities as a therapeutic tool.

The Japanese response to PARO compared to elsewhere is probably based on differences in cultural attitudes toward robots. Japanese enthusiasm for robots is deeply rooted in religion and history. The main Japanese religion, Shintoism, has the worldview of animism, where plants, animals, rocks and even artificial devices possess a spiritual essence. Robots, especially social, animal, or human-like robots, can easily be imagined to have a soul. Embedded in Japanese popular culture, robots become manga, anime, and action figures that usually serve a benevolent hero...
saving the universe. On the flip side, the Western view of robotics is more Terminator-like, or “robots will take over the world” types. Whatever influences are at play, Shibata designed PARO with the individual in mind. He wanted each user, patient, or resident to have a personal connection to his robot.

Over the years, Shibata has conducted clinical trials worldwide to discover and document improvements that led to the sophisticated PARO of today. The furry, brilliant robot not only reduces patient and caregiver stress, but it also stimulates interaction between patients and caregivers and improves socialization. In some cases, PARO even reduces the need for medication.

From the factory in Toyama, PARO units are shipped worldwide in carefully packaged containers complete with instruction manual, brush, and pacifier (which functions as a charger).
Over 5,000 PAROs are in use in more than 30 countries. Denmark, especially, has adopted PARO — accounting for the highest ratio of the robots outside of Japan. In 2008, a dementia care center in Copenhagen conducted research on robot therapy as part of the national “Be-Safe” project — placing PAROs at 10 different facilities for a seven-month clinical trial. The positive effects on patients prompted the Danish government to purchase 1,000 PAROs to spread to nearly every senior living facility in the country.

In the end, the secret to PARO’s success is Shibata’s unwavering commitment to his original mission. From autistic children to patients undergoing chemotherapy, from stroke victims to combat veterans with post-traumatic stress syndrome, PARO provides the therapy, joy, and sense of calm that translates to improved quality of life.

Shibata is constantly on the move, juggling speaking engagements, working as a visiting fellow of MIT’s Age Lab, introducing PARO to new facilities, and, most recently, launching PARO-Certification Classes at the University of Texas at Tyler. In October 2017, Medicare started accepting Current Procedural Terminology (CPT) codes to reimburse the cost for therapy with PARO, Shibata reveals excitedly. He knows the insurance code could result in greater acceptance and increased use of PARO across the United States.

Meanwhile, Shibata continues to explore new applications for PARO, including one involving space. “On a mission to Mars, astronauts are in isolated space — four astronauts confined together for a long time,” he observes. “They could need PARO.” In December 2017, Shibata shared his idea with NASA representatives at the Space Com Conference. The prospect is clear: Someday, a
lonely, isolated astronaut on her long journey to Mars may tire of interacting with her fellow travelers and reach into a locker. Inside will be a baby harp seal — a soft, furry, robotic baby harp seal. Hearing its name, the seal will turn toward the astronaut, blink a few times, and wait to be petted. ♦

PHOTOS
A view of the rugged Toyama landscape where Dr. Shibata grew up; an Inami artisan works on the decorative wood carvings for which the town is known; a carved wooden hikiyama float at the Johana Hikiyama Museum; and scenes from Nanto Citizens Hospital, where seniors interact with PARO as part of their daily therapy.
“Why a seal? I knew I wanted an animal. Most people think of dogs and cats. People already have experience with them and can compare and be critical of a dog or cat robot — but not with baby seals.”

— Dr. Takanori Shibata
**TECHNICAL DATA**

**PARO**

“Personal Robot”
Therapeutic robot

**ORIGIN**
Toyama, Japan

**ANIMAL TYPE**
Baby Harp Seal

**FIRST VERSION IN THE MARKET**
2004

**CURRENT MODEL VERSION**
MCR-900

**MADE IN**
Japan

**DIMENSIONS**
Height: 23cm (9.1 in)
Length: 57cm (22.4 in)
Width: 30cm (11.8 in)

**WEIGHT**
2.5 kg (5.6 lb)

**UNIQUE MATERIALS**
Body shell and head parts made of polycarbonate; fur made of acrylic fiber blended with silver-ion (Ag+) to kill bacteria and viruses

**UNIQUE TECHNOLOGY**
10 CPUs for distributed computing and artificial intelligence; 2 kinds of learning functions — new name and behaviors (characters) to be liked by owner based on reinforced learning algorithm

**SENSORS**
Whiskers as tactile sensors; 12 ubiquitous tactile sensors covering whole body (except bottom); 3 microphones for speech recognition and sound localization; 2 light sensors to recognize brightness of environment; posture sensor (3D); temperature sensor to control PARO’s body temperature; other classified sensors

**MOTORS**
8 motors with 7 degrees of freedom.

**HEATING**
Heating from activities of PARO’s electronic and mechanical parts; capability to change activities to control temperature, which is about 24-30°C (80-90°F)

**BATTERY AND CHARGING**
Lithium ion battery with about 8 hours of working time once fully charged, which takes 2 hours; pacifier-type battery charger connecting through PARO’s mouth

**EXPECTED LIFESPAN**
More than 10 years with maintenance

**NUMBER**
Around 5,000 in use in more than 30 countries.

**COST**
USD 6,000+ with one year warranty

**COLORS**
4 colors of fur: white, gold, charcoal grey, and light pink

**PRODUCTION NOTES**
Hand-done grooming for each PARO to create a more natural face; hand-done sewing of fur to body to hide stitching and provide better texture; balanced weight for good stimulation while holding

**BATTERY AND CHARGING**
Lithium ion battery with about 8 hours of working time once fully charged, which takes 2 hours; pacifier-type battery charger connecting through PARO’s mouth

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Caring, the Kotoen Way

A renowned center focuses on helping the oldest with the youngest.
CARING, THE KOTOEN WAY
At 9:30 on a Thursday morning, the stillness of the large central hall at Kotoen is interrupted by the shrieks and giggles of dozens of children. They scamper barefoot into the wide open space, the older ones (4 or 5 years old) running and skipping, and the littlest ones tottering along on wobbly legs, straight into the outstretched arms of their surrogate grandmas and grandpas.
Children in Kotoen’s Edogawa Nursery rush to greet the seniors.

PREVIOUS PAGE
Keiko Sugi, CEO, Kotoen, in the courtyard during morning games.
The group of seniors — about twenty men and women, mostly in their 70s and 80s — sit on folding chairs in a semi-circle. They look amused, some even delighted, by the wriggling mass of preschoolers before them; the more outgoing older folks dole out high fives and hugs and even welcome the kids to sit on their laps.

This is the scene each morning at Kotoen, a facility on the easternmost outskirts of Tokyo in Edogawa Ward, known for its innovative approach to improving senior care. It is a yoro shisetsu, or combined child care center and long-term care community, the first in Japan at the time of its inception in 1976. With two facilities under one roof, the 173 seniors who receive full or part-time care have the opportunity to interact daily with the 138 pre-primary school children enrolled in the program.

The Kotoen intergenerational model, a pioneering solution to the predicament of a rapidly aging society, has been replicated across Japan and the world. Kotoen's renown has only grown from publicity over the decades, including by AARP in past issues of The Journal. Even as the government and private sector increasingly turn to technology and automation to deal with Japan’s aging challenges, there is still a pressing need for places like Kotoen that address the issues on a human level — creating a life of meaning and fulfillment for those who need it most. It’s not surprising that Kotoen’s effectiveness arises not only from knowledge, expertise, or progressive ideas, but also from the passion and commitment of those who run the organization.

Keiko Sugi, Kotoen’s CEO, is a self-assured woman with closely-cropped, salt-and-pepper hair and a ready laugh. She is a vortex of energy, pairing running shoes with her flower print dress so that she can easily make the rounds throughout this and two other Kotoen facilities in Edogawa. Sugi has been instrumental in the evolution of the organization. She married into the business. Her husband’s family started the original nursing home in 1962, and over the years, she has watched (and helped guide) Kotoen as it expanded from a home for seniors with no families, to a larger organization offering social welfare services for the elderly and disabled, along with child care. She and her husband and twin 42-year-old sons manage the operations.

The mission of Kotoen is to create an inclusive society, one in which people of all ages and abilities can find happiness.
The mission of Kotoen is to create an inclusive society, one in which people of all ages and abilities can find happiness together. That quest is obvious in the daily interactions, all designed to remove misconceptions between people and encourage communication. In the mornings, the children gather in the main hall for morning exercises with the seniors. They dance and stretch in unison, exchange greetings, and bow to each other before continuing with the day. Later, they play games indoors and out, tell stories, and join events that bring the generations together. For seniors, being around children broadens their world and makes them feel like part of society. For children, exposure to seniors with dementia and to people with disabilities teaches tolerance and respect — valuable life lessons. According to Sugi, these are especially important lessons in Japanese society, which she feels is particularly rife with discrimination against people with mental and physical disabilities.

An event early in Sugi’s life planted the seed that would eventually grow into her lifelong desire to right social injustice. She recalls that anti-Korean sentiment, which began in the 1920s in Japan and continues to this day, was prevalent at her elementary school. One day, a Japanese classmate spit over the edge of the railing onto the forehead of a Korean classmate at the bottom of the stairs. Sugi, normally a reserved girl, marched upstairs and slapped the boy across the face. “I hated discrimination, deep inside of me, in my core. I always have had this mission to help the ones who have been picked on. That’s where it got started.” Sugi is a born social worker. Though the job of CEO requires office work, she is more likely to be found walking through Kotoen, talking to staff and residents. On this particular morning, she’s checking in on the day care and gathering toddlers together.
around her like a mother hen; in the afternoon, she’s coordinating an Exercise Day event at the Care Center Tsubaki facility for seniors receiving day care services and disabled young people. She works tirelessly on Kotoen, her life’s mission, almost to a fault — her sons are always telling her to take some time off. Just this past fall, Sugi was honored by Japan’s Ministry of Internal Affairs and Communications for her work, an acknowledgment of her dedication. She, and really the entire Sugi clan, are the driving force behind the facility. Her son Daiichi heads up the day care program, while other son Yuichi, who recently received his social work license, will one day take over the organization. Her husband, Euchi Sugi, shares directorial duties with her and is Chairman of the Board of Directors.

Like most long-term care facilities throughout Japan, Kotoen is short-staffed. A growing population of older people, coupled with a shrinking workforce and little immigration, have made caregivers and other workers scarce. This hardship is acutely felt at Kotoen, where the staff are such an integral part of the mission. They are trained in how to execute the intergen-

“I hated discrimination, deep inside of me, in my core. I always have had this mission to help the ones who have been picked on. That’s where it got started.”
erational system, no small feat given all of the moving parts that require attention. Sugi, for instance, requires that her staff work together to ensure the safety of everyone involved, plan and execute multigenerational activities and events, and understand the long-term needs of very different age groups. And they must do all of the above, which typically involves long hours and some physical labor, for modest wages. Money is often tight at organizations like Kotoen, social welfare corporations whose enrollees are heavily subsidized by the government. In addition to the challenging work, Sugi requires that her team be educated on softer skills, with an emphasis on empathy and anti-discrimination. Cultivating the staff has admittedly taken longer than she expected, but is critical to the success of the model. She insists that the Kotoen method is replicable in other sites and countries, as long as the employees share the same level of passion and commitment. After all, social work, especially with the complexity of an intergenerational environment, is not for the apathetic.

Sugi has found creative ways to solve the workforce shortage, such as employing seniors. Currently, 39 out of Kotoen’s 250 employees are over the age of 70, working as caregivers, drivers, and cooks. She has also harnessed local resources, utilizing some 3000 volunteers per year — a strategy that strengthens ties with the neighborhood and reinforces the center’s concept of community and inclusivity.

It’s a testament to both Sugi’s leadership and her program’s success that some of the staff also include former day care alumni. They grew up and came back to work here, “like salmon coming back to the river,” she says. “The fact that they choose to enter the welfare business is so rewarding for me.”

At 42, Yuichi Sugi is one of those salmon, returning to his childhood home after 14 years in America. He navigates the four stories of winding hallways at Kotoen with ease, stopping to point out the different living quarters and features on each floor. Like his mom, he knows all the ins and outs of the sprawling complex. The building is worn around the edges (some of the rooms are overdue for renovations), but it is a warm and lively place. On one floor, a dozen day care children arrive to play instruments with the dementia patients. On another floor, a group of seniors are fed a homemade meal of fish and rice from the

Sumiko Shimizu, 80, Kotoen resident for 5 years. “The kids are very cute. It’s really fun for me. I help to change the little ones’ diapers. We throw balls together. I didn’t have my own children, so I’m probably not very good with them, but they still play with me.”

Jinichi Yamasaki, 83, Kotoen resident for 8 years. “I think the kids here, they do learn an important lesson on how to be a member of society. Even after they graduate, if I see them on the street, they always come up and see how I’m doing. You can tell a difference between the kids that went here and other kids.”

OPPOSITE PAGE
The Kotoen facilities, where residents live. Double and single rooms; machine-assisted bathing; rehabilitation and therapy equipment; mealtime, served by caregivers.
Kotoen kitchen. Children’s artwork dots the walls — pictures with messages written in shaky children’s handwriting that read, “We appreciate you,” and “Please live a long time.” Yuichi greets one older woman, who laughingly tells him about her denture woes (they keep falling out) and he chuckles with her, half in amusement, half in sympathy.

Yuichi may be more surprised than anyone that he ended up back in Edogawa to eventually take over the family business, but no one is better poised to continue the legacy. Having Keiko Sugi for a mother was a unique education on becoming a better person. “She didn’t say, you have to do this, you have to do that,” he says, describing her parenting style and influence on him. “Just seeing her was enough.”

He grew up walking these hallways, talking to the residents and children, and living the values that his mother passed down to him. “Respect their potential. Respect them as human beings, even if they’re young or old. Everybody’s the same to me. That’s what being here taught me.”

"Respect their potential. Respect them as human beings, even if they’re young or old. Everybody’s the same to me. That’s what being here taught me.”
The innovative Yamano school teaches the young that beauty applies to any age.
Their hair runs the spectrum between platinum and black, with a few daring shades of magenta and purple thrown into the mix. Some brush their locks forward into shaggy mops that angle over the eyes; some have long curls or wavy hair tied back into ponytails; others sport blunt cuts with thick, severe bangs. Despite their identical black and white uniforms, they couldn’t be more different.
Like most students enrolled in beauty school, these kids, mainly in their late teens and early 20s, are creative, expressive, and experimental. They came to the renowned Yamano Beauty College in the cultural nexus of Tokyo’s Shinjuku neighborhood to become beauticians. But they're also learning something very different at this school — how to apply their craft to service Japanese seniors.

Nearly 20 years ago, Dr. Masayoshi “Mike” Yamano, whose mother Aiko Yamano founded the original school back in 1934, decided to do something no other beauty school in Japan (or possibly the world) had done. He and his daughter Jane Aiko Yamano, now the president of the school, started a new department at the junior college focusing on what they called bi to fukushi, or Beauty and Welfare. The idea came about from the family’s experiences with the aging matriarch, Aiko Yamano. They needed to learn how to care for her, to dress her in a kimono, to handle her hair and makeup, all while she was in a wheelchair or a hospital bed. They saw value in a program to train students how to help older customers.

To take his idea even further, Mike Yamano contacted the University of Southern California Leonard Davis School of Gerontology, a pioneer in gerontology research and education. After obtaining a gerontology certificate through the USC online program, he forged a partnership with the school to bring the prestigious curriculum to the Yamano college. He believes strongly in the concept of “beauty power,” the idea of incredible health and longevity benefits through looking good. “It’s not enough to study old age from a medical point of view,” he points out. “We need to study quality of life. And the beauty part is very important for elderly people to experience quality of life.”

So far, roughly 2,600 students have completed the 60-course, Yamano-USC self-paced, online program. In addition, the college offers a 28-hour Health and Welfare course that teaches students an array of practical skills — how to wash and cut the hair of bed-bound clients, for example, or how to modify a kimono for someone in a wheelchair. About 6,300 students have completed this course.

During one recent class at the college, located in a sleek high rise building just a short walk from the bustling Shinjuku railway station, students get a lesson in empathy.
ABOVE
Students give hand and arm massages to seniors; and
Yamano instructor Miho Funamizu helps students practice
techniques for assisting people with visual impairments.

OPPOSITE PAGE
Students dress Ms. Shindo, 85, in a kimono using an altered
technique for people in wheelchairs. Ms. Shindo, whom
the students call Shindo sensei, was one of the first kitsuke,
or kimono, instructors at the school. “Wearing kimono
enriches my soul,” she says. Yudai Nagashimada, 21, wearing
gear meant to simulate the hardships of old age; and Sachiko
Yamada and Yoshimi Muraki, teachers at the beauty school.

First year students Daiyu Okamura, 18,
Rina Makagawa, 18, Nao Muramatsu,
19, and Riho Akita, 19. Nao Muramatsu
came to Yamano specifically for the
beauty welfare program, inspired by fond
childhood memories of the many older
residents in her tiny hometown. “The
people who took care of me when I was
growing up are getting old, including my
grandmother,” she shyly explains. “I want
to give back to society, and to them.”
They take turns trying on blindfolds that simulate the difficulties of vision impairment, to better understand the plight of seniors and others with disabilities. Pairs of students walk a short gauntlet set up across the classroom, helping each other navigate stairs, chairs, and other obstacles. At other times, students might wear gear that simulates the hardships of old age: weights for the ankles and wrists, knee braces that inhibit full mobility, and ear plugs to replicate reduced hearing. As the training continues, there are some initial giggles among the group, but overall, the students display a remarkable level of maturity. Before coming to Yamano, they may not have been aware of the challenges faced by seniors, but they certainly are now.

Yudai Nagashimada, 21, shares his thoughts during the class: “It’s nice to be able to put myself in their shoes. And apply what I’m learning to the real world.”

That is, of course, the Yamano family’s ultimate goal — to prepare students for life after school. The college has a 100 percent job placement rate, and skills like these give its graduates an advantage in a rapidly aging Japan. The family has shown remarkable foresight in adapting the school to changing times, turning out classes of beauticians who are not only well equipped for the job market but who also have more empathy for others.

“Beauty has power,” Jane Yamano says. “It can make a lot of people happy. And that’s what we try to tell our students. It does not matter whether you’re old or young, or have special needs. People like to be beautiful.” She adds, “And if our students can learn how to take care of any type of customer, that’s all the power to them.”

By Lauren Hassani
Photographs by Marco Javier
The students are young, in their late teens and early twenties, with surprisingly almost as many men as there are women in the group. They are fiercely creative, obvious in the clothes that peek out beneath the hems of their standard issue school uniform jackets, and in their daring hair, makeup, and nails. They came here, not only for the prestige of the Yamano program, but for the opportunity to study in what is arguably the leading-edge style capital of the world.
This tenacious city confronts its destiny on the leading edge of Japan’s super-aging society.
AGE-FRIENDLY AKITA CITY

This tenacious city confronts its destiny on the leading edge of Japan’s super-aging society.
On the upper northwest corner of Honshū, Japan’s largest island, along the coast of the Sea of Japan, lies Akita City. It’s a smaller city of just 320,000 people, located in the Tōhoku region, a northern land known for its wild and scenic landscape and harsh, snowy winters.
A senior with binoculars scanning the horizon from a vantage point 143 meters high, in Port Tower Selion.

PREVIOUS PAGE
A sweeping view of Akita City from the top of Mt. Kanpu. The city is bordered by the Sea of Japan and surrounded by abundant rice fields.
In Japan, the percentage of seniors, or people aged 65 and over, is 27.7 percent — the highest in the world. Akita City tops that at 29.4 percent, and the greater prefecture tops that at an astounding 34.7 percent. The changes have happened rapidly, practically over the course of a generation. You young people have migrated in droves to Tokyo and other large cities, no longer looking for jobs in the traditional industries of agriculture, forestry and fishing that once dominated in Akita. They leave behind a rapidly graying population and local economies straining to adapt to a diminished workforce.

For those on the lookout, the signs of aging are evident everywhere — in a city bus filled with gray-haired elders; in a nearby field, where a lone older farmer labors over his crop; at the community center, where groups of seniors meet to practice traditional arts. The city may be a mere 4-hour bullet train ride from the frenetic energy and youth of Tokyo, but it feels like another world.

What Akita City does have is tenacity. The people here — those who have remained, and those rare ones who return — are fully invested in the fate of their town. Many of them have been working for years to right the course, refusing to succumb to their demographic fate.

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What Akita City does have is tenacity. The people here — those who have remained, and those rare ones who return — are fully invested in the fate of their town. Many of them have been working for years to right the course, refusing to succumb to their demographic fate. Driven by a progressive mayor, with input from his brother, a leader in the aging world, the city has made age-friendly policies a priority. Signs of progress are visible throughout town — like the beautiful new City Hall, an impressive monument to accessibility and community-centered revitalization. The age-friendly programs originate here, with the four-person team dedicated to pursuing a better, more livable place for seniors and people of all ages. They envision a city in which they, too, will be proud to live for many years to come.
“Through my work in Akita City, I hope to continue contributing to older people. As a physician, I have a great interest in older peoples’ health. But my interest is not only health-related. I have an interest in everything that makes older people happy.”

— Dr. Hisashi Hozumi
AGE-FRIENDLY
AKITA CITY
IN ACTION

A weekly delivery is usually the only outside contact for 85-year-old Keiko Komatsu, so she’s excited when Shiho Funaga brings her milk and asks about her health. What Komatsu may not realize is that Funaga’s gentle inquiry is all part of her company’s contributions to a city that clamors to become an international model for age-friendliness.
Funaga works for Minamiyama Daily Service Company, which has joined Akita City’s Age-Friendly Partner Program for private companies that support the elderly. Some partner firms actually employ aging Japanese; others such as Minamiyama add additional purpose to their work. The result is that Komatsu knows her milkwoman will call for help if needed, and Funaga finds more meaning in her job.

In 2011, Akita City became the first in Japan to join the WHO’s Global Network of Age-friendly Cities and Communities. Mayor Motomo Hozumi, together with his brother Hisashi Hozumi, the president of Friends of the International Federation on Ageing (FOIFA) Japan, set out to shift older citizens from dependency to contribution — to lead active lives even after they are old enough to need help themselves. “We would like to take initiatives and launch policies that would support a bright outlook for our future, instead of believing that this is something entirely negative,” said Mayor Hozumi. “Because we now live a longer life, we would like to make Akita City an example of what is possible for the rest of the world.”
Akita City Changes in Aging Rate

Age Distribution

Total Population 312,944 (2017)

- 0-14 years old 11.2%
- 15-64 years old 59.4%
- 65 years old and over 29.4%
Akita City’s Age-Friendly City Plan features action by both government and citizens themselves. The “active aging” citizen plan promotes age-friendliness at stores and other facilities, in part to fight isolation of the elderly, and offers public awareness campaigns to dispel the negative image of aging. Even the process of creating a symbol for Age-Friendly Akita City included submissions from residents as old as 80 and as young as 13.

Akita City’s efforts are based on unquestionable trends: Nearly 30 percent of its 320,000 residents are 65 or older, with the surrounding Akita Prefecture even higher. Younger adults often can’t find work in the isolated rural prefecture, so they migrate to larger cities and spur even higher rates of aging. But Akita City faces this trend with an ambitious commitment. The city’s new multi-generational city hall opened in 2016 with a goal to support all citizens, including the elderly: Hearing assistance devices are available at the front desk; signs are easy to read, and routes are clearly marked; a map shows every restroom in the building; handicapped parking and the ramp from the bus stop are both covered; wheelchairs and carts are available to borrow, and wheelchair paths are heated to avoid slippery snow or ice. Citywide, more than 60 roads are heated to melt snow.

Aside from these physical improvements, most of Akita City’s age-friendly work is guided by what it calls a “soft” approach, based on community-building and strengthening the social fabric of the city. One member of the city’s four-person Age-Friendly division indicated that while most work in the municipality is bound by laws and regulations, the staff enjoys freedom in the difficult task of finding a “correct” solution to age-friendly challenges. Emiko Saito, the director of the group, said the job changed her outlook: “If we do not start thinking about creating a community for our second life,” she said, “I believe that we may end up isolated and lonely after retirement. So what I am thinking about the most these days is to figure out a way to create a bridge between the former and the latter.”

Unlike physical change in buildings or roads, which take time to conceive, plan and execute, some social efforts can create quick results. One example is the popular one-coin bus service, which is designed to encourage older adults to be socially active
“Right now, the younger generation and birth rate is declining...In our role as the government, we would like to take initiatives and launch policies that would support a bright outlook for our future, instead of believing that this is something entirely negative. We would like to make Akita an example of what is possible for the rest of the world.”

— Mayor Motomu Hozumi

Akita City has other plans, including a "second life" guidebook for older entrepreneurs who start a business in a new field or otherwise cultivate their life after retirement. Another project called "Living Lab" will help design products and services that reflect the need of the aging population. Meanwhile, Mayor Hozumi hopes future technological innovations will help people continue to age well in his city. In ten years, he predicted, artificial intelligence could replace half of future jobs. "In spite of that," he said, "many seniors possess certain skills that might allow them to be able to live and work for a very long time, without retiring."

That sentiment was echoed by Akita resident Shigeru Takahashi, who proclaimed: "I think I’m too young to imagine my old days." Takahashi is 64 years old.

Mayor Motomu Hozumi of Akita City discusses the city’s age-friendly commitment.

The offices at City Hall, which employs 2,547 people; the situation room, where the mayor can monitor natural disasters; the Age-Friendly City team, Yoko Kodama, Emiko Saito, Naoki Kaga, and Ken Sasaki; covered walkways and ramps to the bus stop outside City Hall; and employees in the building’s child care room.
A DAY IN THE LIFE
NATSUKO SAGA, 81
Natsuko Saga, 81, has lived alone for the past 28 years. After her husband died suddenly of a heart attack, she was forced to step outside of the only role she had known — housewife — and reinvent herself. She found work at City Hall, and later, at a boutique clothing store. Now retired, Saga spends her days pursuing many hobbies and planning outings with friends. On one recent day, she prepares for a ballroom dancing class, going through her morning rituals: removing her curlers and teasing her hair; praying at the small shrine in the living room, beneath the image of her beloved husband; and preparing a quick lunch of stir-fried vegetables and pork.
Saga makes an effort to do her hair every day. Likewise, she makes an effort to go out every day, even if just to the grocery store. She often feels lonely at home, so she tries to keep as busy as possible. In the afternoon, she meets some friends for her weekly two-hour ballroom dance lesson. She is an avid dancer who owns six pairs of dance shoes in a variety of colors.
Later in the afternoon, Saga does errands around town. She runs into a friend in the parking lot at the supermarket. Inside the store, she purchases a small quantity of food, just enough for the next day — including a single can of beer that she likes to drink at night while putting in her curlers. The store is only a seven minute walk from her house. Her daughter, 59 years old, has often tried to get her mother to move in with her. But Saga has continually declined; she likes the accessibility of her location, as well as her creature comforts, from an extensive karaoke collection, to a carefully tended collection of potted plants. •
With innovation and courage, residents of all ages embrace new ideas for a livable city.
FUKUOKA — Far from the intensity of Tokyo, this relaxed, compact city rests beachside along Japan’s coast, on the island of Kyushu. Its young mayor envisions the accessible city as the heart of Japan’s Silicon Valley, but a closer exploration reveals other innovations as Japan faces the challenges of the world’s most aging society. In Fukuoka, the young and old mingle like the glitzy shops and ancient temples the city proudly displays.

If you visited Fukuoka, you might meet Mari Mitsuoka, the entrepreneur behind a company that produces a brain health training curriculum for seniors. Mitsuoka’s company, Samuraito, demonstrates the ingenuity of this seaside city: She had no IT or education background, yet her tablet-based product already is popular enough to be featured in 70 classes across Japan.

You also might run into 73-year-old Shiomi Araki, a degree-laden example of how Japanese citizens are embracing the later stages of their lives. Araki is pursuing his master of law degree — his third graduate credential — following retirement from a management career at large corporations. In fact, he chose Fukuoka for the next stage of his life, after living in Tokyo and other cities worldwide.

And if you are lucky, you might get time with Sōichirō Takashima, 43, the youngest mayor ever of this bold metropolis and the man who believes Fukuoka must be attractive and supportive for all ages, including seniors. "Personally, I believe that each generation group sees a different view, even with living in and looking at the same city," said Takashima, who became mayor at age 36. He insists his city can help end the questions about how to promote growth while facing the demographic shifts enveloping Japan: "It may very well be that not only the rest of Japan, but the entire planet is waiting for that answer." ♦

By David Everett
Photographs by Marco Javier

PHOTOS
Scenes from the city, from high-end shopping in Tenjin, to the quiet of Kushida shrine, show a unique blend of modernity and tradition. In a 50-year-old ramen shop, a few of the regulars gather to eat and peruse Facebook together. Fukuoka is a hub for startups, including that of Mari Mitsuoka, whose company Samuraito has developed an innovative, tablet-based curriculum for seniors that helps stave off dementia and loneliness. The course is immensely popular at Kasuya Town community center. Mitsuoka built on her experience teaching computer skills to seniors at a local community college, turning her fledgling idea into a 20-person company with more than 70 contracts with municipal governments all over Japan.
What motivations or other influences have led you to promote innovative policies for a sustainable, livable society?

ST Here’s one specific example. When I went overseas 6 years ago to Hong Kong, I was able to use Wi-Fi for free at the airport. I believed that these technological advances would become the global standard. Hence, we were the first city in Japan that started providing free Wi-Fi in the subway and at all of our tourist destinations in Fukuoka. We have also been able to launch various efforts based on numbers and data, including the application of big data. These are the technologies that will allow us to create a sustainable society that can handle the aging population efficiently. And if we can combine that with cooperation and relationship-building in the community, we can efficiently maximize the level of happiness in our city. Fukuoka citizens desire innovation. This led them to choose me as their mayor. And our current initiatives are considered more or less a leap forward, rather than an extension of the past.

We’ve heard about an initiative called the “Living Lab.” Can you elaborate on this?

ST The initiative entails creating a new product through the collaboration of the citizens, businesses, NGOs and government. Fukuoka is not a mega city like Tokyo or Shanghai. A city like ours with 1.5 million citizens can be overseen by the government more effectively. Fukuoka has many advantageous characteristics, including a fast rate of start-ups, active community involvement, and governmental willingness and ability to adapt as a city. We asked ourselves, what is the most effective and efficient way to create and maintain our city? Through this new, raw model, the aim is to create a better society while having fun collaborating with different players to solve problems and take on new challenges.

Fukuoka is aiming to become a city of social experimentation. I think we are garnering attention because our initiatives are what other regions need right now. We’re prompted by the new demographics — fewer tax payers and more welfare beneficiaries due to an aging society — which we have never experienced before. The main question is, how can a city leap forward while applying these solutions at a rapid rate? It may very well be that not only the rest of Japan, but the entire planet is waiting for that answer.

We hear that more and more young people and families are flocking to Fukuoka right now. How is this impacting not only the younger generation, but also the city’s older citizens?

ST Fukuoka cherishes what is called a kyoso (co-creation). Until now kyosos have been grass root initiatives led by the seniors, but now, its members also consist of university students as well as regional workers, solving new challenges together. They demonstrate the spirit of collaboration.

For example, there are a high number of start-ups in Fukuoka. They find a particular problem in the community, and strive to solve it using a new business model. We’ve been seeing such movements here. Example businesses include a matchmaking service that pairs consumers with a clean-up crew who might visit once a week to clean your house.

Fukuoka is also using Artificial Intelligence (AI) and Big Data analysis to identify certain characteristics in the city to figure out the most efficient solution to a particular problem. With the proliferation of an aging society, we will start seeing higher numbers of dementia patients. Families experience significant challenges when a family member has dementia, such as the patient’s tendency to wander. The city has implemented what is called the roller band, which can receive IoT signals. If you simply implant a GPS tracking chip to something the patients can wear on their bodies, you will be able to use this technology to locate them wherever they are in the city. These are some of the ideas that we have been playing around with.

What is an example of a challenge you have faced thus far in implementing your policies, and how did you overcome it?

ST Normally, the mayor of Fukuoka City has authority over the city’s regulations. But when dealing with national laws or prefectural ordinances, we are not able to do anything except to obey them. However, Fu-
kuoka City has developed a way to combat this in the past several years, by implementing the "special national strategy zone." By attaining the status of this special zone, Fukuoka City can now deregulate such law or ordinance that restricts the development of new business models or products and propose alternative regulations.

What types of innovations or solutions are necessary for Japan and Fukuoka to meet the needs of an aging society?

ST I can talk endlessly about the aging society, so let me narrow it down for you. Take the issue of increasing welfare beneficiaries. When a government tries to create a sustainable model in response to a growing aging population by cutting back on the benefits, the aging cohorts will of course respond negatively. At the same time, if we maintain the same amount of senior benefits, including pensions, this will put a tremendous burden on the younger generation. And this is not even sustainable. So the question is whether to increase the burden on seniors or the youngsters. Either way, you will be met with opposition. In other words, there is no way to make it work by using conventional methods that have existed. The solution entails innovation. I personally see the importance of such innovation. And the second solution is proactively using technology, such as IoT, ICT, and Big Data, as well as using evidence-based methods.

The third solution is the unity in the community, including kyoso and collaboration. This concept of watching your neighbor's back isn't about simply watching your neighbors, but also helping them in time of need. By having the citizens help and support each other, we can set up numerous "safety nets" that will allow us to create a sustainable society, even as the number of tax payers decrease, and the number of beneficiaries increase.

To implement these solutions in the era of which people are expected to live to 100 years old, Fukuoka City has launched a program called "Fukuoka 100," a collection of 100 projects that will be undertaken by the collaboration of the citizens, businesses, academia and Fukuoka City. It is a leading-edge, comprehensive and innovative program that has not been seen elsewhere in the world. By having 100 ideas to implement, our goal is to take strong steps forward to becoming a new city model for the world.

We understand that Fukuoka's unique characteristics, such as having a network of community collaborators, have contributed to its success. Do you think these same initiatives or approaches will work elsewhere in the world?

ST Each region in the world has its own characteristics. Therefore, it is not that you can apply the Fukuoka model to each and every location. However, you can select some from our 100 projects to implement in your city, and by combining them with initiatives that already exist, I'm sure that it will serve as a valuable resource for cities trying to figure something out on their own. I believe that certain initiatives and qualities of Fukuoka can be exported elsewhere.

Would you categorize yourself as a risk taker? Or is this just part of the job description?

ST The best way for a mayor to avoid risk is to not do anything. It’s safer to simply visit and show your face at a public forum or at a local festival, but that poses a risk to the city itself. The best value you can give to the city is the speed with which you can get things done. The biggest risk to our community is to not do anything. ◆
A DAY IN THE LIFE
SHIOMI “STEVE” ARAKI, 73
Despite already possessing two graduate degrees, Steve Araki wanted to pursue his dream of obtaining a masters-level law degree. At age 73, he is now a student at the prestigious Kyushu University Faculty of Law, in the first year of a two-year program. Araki spent the majority of his career working for large corporations and living abroad in the US and Brussels, as well as Tokyo, before returning to his hometown of Fukuoka to retire. He and his wife Michiko, 74, live on a quiet, well-manicured street in the outlying Fukuoka suburbs. They spend their days pursuing their passions: his, studying and attending classes at the university; hers, perfecting her calligraphy skills. “I think it’s good for him,” she says, referring to his devotion to education. “Many other senior people have nothing to do, staying at home all day. Besides, while he’s away, I get my quiet time!”
Three days a week, Araki travels to Kyushu University for class. He often takes the bus for the half-hour journey across town. On the weekends, he goes to the library to study. For him, getting this third degree is an intellectual pursuit, and a way of staying mentally engaged in his retirement. He never questions its value. “If you think about it, I still have 15 to 20 years left in my life,” he says. “This masters degree is a very short period of time.” Walking around the campus, college-age kids amble by without even glancing his way. Araki heads to a class on corporate law that is attended by just four other students. He is the oldest person by at least a quarter century, but this doesn’t faze him in the slightest. He lays his text books and pens out neatly on the desk and waits for the lesson to begin.
Transforming Traditions
Even culinary customs can’t escape the realities of an aging society.

Japan is known around the world for its vast and varied culinary traditions. Towns, cities, and regions all have their own distinct specialties. A particular variety of dumpling, perhaps, or noodle, or dessert are often made with techniques passed down through the generations. But what happens when the older generation — the knowledge keepers — retire? When there aren’t always younger people willing and eager to pick up the mantle, learning the intricacies of sake brewing or tofu making? Traditional industries and businesses across Japan — not only in food, but in the arts and crafts as well — are facing this dilemma as the country grows older at a staggering rate, the workforce shrinks, and the cultural landscape continues to shift.

The demographic shift is clear in places like Akita City, at a small sake brewery called Takashimizu, where the workforce is steadily aging. More than half of the highly experienced brewery employees
Scenes from Takashimizu sake brewery. The brewery was established in the 1940s, but the original company has been around since the Edo period. Kento Uemura, 23, works side by side with his great uncle, Shigeru Takahashi, 64. Kento is one of the youngest workers, and although he enjoys the work, he worries about job security and does not necessarily see a future for himself in the sake business. The seasonal employees are all male, with the exception of Tomioka Hiroko, 31, who recently became the first woman to be certified as a brewmaster in Akita Prefecture. Her take on the brewery’s aging workforce: “Traditionally, the sake industry has been very closed, so maybe if it’s more open to women and younger people, that will help solve the problem.”
are over age 60. The company faces a two-pronged concern: not enough younger workers to take over the complex production process, and a decline in national sake sales as the younger generation gravitates to beer and other alcoholic beverages. Making the job more appealing, with better hours and better pay, and finding a more diverse workforce (hiring more women, for example) would be one place to start. But, as in most traditional industries, change comes slowly and with reluctance.

In Tokyo, at the renowned Tsukiji fish market, fishmongers have plied their craft for more than 80 years. Like elsewhere in Japan, the workforce is noticeably graying — in the market, seniors in their 80s and even 90s are still manning the stalls they have run for decades. As Tokyo prepares to relocate the aging market to a new site outside the city center, some of the businesses have chosen to close rather than move. As the old market closes, so will a chapter in the city’s rich history.
And in Fukuoka City, a place famous for exporting ramen to the world, a tiny neighborhood ramen shop is one of the last of its kind remaining. Fifty years ago, Nagotei opened its doors, serving a traditional pork and chicken broth version of the dish and offering customers a comforting place to while away the hours.

The owner, now 83, and her daughter, 59, don’t expect to pass the business on to the next generation. Though the mom and pop shops like Nagotei are dying out and taking their unique recipes with them, ramen itself has not disappeared. Trendy chains like Ippudo and Ichiran have become increasingly popular, proving that even as the face of the city changes, traditions still carry on, albeit in a slightly different form.

Sumiko Kawano, 83, opened her ramen shop in 1968. She still serves food during the lunch hour, while her daughter Kazuko Furukawa, 59, handles the night shift. The eatery might not be trendy, but it is a neighborhood institution with a devoted clientele. This includes 59-year-old Motoaki Nishida, an office worker who travels across town to eat here twice a week. His traditional clothing and shamisen (a stringed instrument), coupled with the homey, decades-old interior of the restaurant makes Nagotei feel like a snapshot of another era.
Thoughts and Images from Japan

This section contains photos from Japan and an introduction by a leading Japanese expert in aging. Like many publications in Japan, the content is read from back to front.
A vintage beer poster on the wall at **Nagotei**, a 50-year-old ramen shop in Fukuoka. Scenes inside the shop, where the regulars come for the ramen and stay for the company.
A night in Tokyo. A narrow alley in Shinjuku with even narrower yakitori bars. Bright lights and a never-ending flow of people, and taxi drivers stopping for a bite to eat.
Professor Takeo Ogawa, an expert in gerontology and President of the nonprofit Asian Aging Business Center.

Opposite page: Women attending a traditional dance class with their teacher (center front) at Kasuya Town community center in Fukuoka Prefecture.

Bottom: On the left, the serene view from Kasuya, outside of Fukuoka, of mist-shrouded Mt. Wakasugi. On the right, a northern landscape, with the golden fields and wide open spaces of Akita.
Pausing for a moment during her busy day, Natsuko Saga, 81, looks out the window of her home in Akita City.
“I want to continue to provide support for women so that they are more empowered in Japanese society. The key phrase is equal opportunity between men and women. Japanese society is still a man’s world. But this is a moment when we are shifting from a more traditional outlook to a more modern outlook.”
9:00 PM, Tokyo. Walking the endless warren of backstreets in Shinjuku.

Previous page: The insanity of Shibuya Crossing, said to be the busiest intersection in the world. It is here that the density of Tokyo is on full display.
The skyline of Tokyo, the largest metropolitan area in the world, viewed from 634 m (2,080 ft).
JAPAN
This is a fable that perfectly symbolizes the aging Japanese population. The Urashima Tarō of today, who fully believe that they are able to enjoy economic affluence continuously, are bewildered about the changing state of their homeland Japan, in which the birthrate is decreasing, the population is aging, and the total population is decreasing. Therefore, the Japanese are astonished to see themselves suddenly turned into something else. Let's look at the changing Japanese lifestyle in four aspects: family, community, work, and philosophy.

Even if there are exceptions, the traditional Japanese family is characterized as a patrilineal system based on ancestor worship, in which there is a hierarchy based on the rank order of one’s siblings. Therefore, those who wish to be free from the family hierarchy can be successful only through education and marriage. Older persons who have successfully taken care of their families and continued their family lines are supposed to live their later years in comfortable retirement supported by the filial piety of their offspring.

Traditional communities in Japan are made up of federations of families: the rank order of patrilineal family system and/or the cooperative organization of neighborhoods not only for collaborative work but also for mutual livelihood support. And older persons are supposed to be celebrated as survivors in the community when they reach the ages of 60 (Kanreki), 70 (Koki), 77 (Kiju), 80 (Sanju), 88 (Beiju), 90 (Sotuju), 99 (Hakuju).
The traditional work ethic is like a “divine call” in Japanese society. It is very important for males especially. If he is successful, he will be esteemed socially. But, if he cannot accomplish it, he will consider even suicide. Older persons who have retired are also supposed to be able to continue to work to be self-sufficient and to do something good for the society.

The word “Ikigai” (a worthy life to live) is often used to prove the existence of Japanese people. It is a concept regarding the motivations for life: love, doing good, being needed, and being rewarded. For older persons, “Ikigai” means to be happy to live with their loved ones, to do well, to respond to the world’s needs and to be respected for their achievements.

Although the traditional lifestyle contributed toward establishing a new social system to cope with rapid economic growth in Japan after World War II, it also caused unexpected results, paradoxically. Although parents gave birth to fewer children and raised them carefully in hopes of a successful life, this caused low fertility and an aging society. Although citizens reorganized many pseudo-communities and social institutions for mutual livelihood support, it has created an expensive local governmental system. Although workers are highly-educated, employed until retirement, and enjoy universal health coverage and pensions, the sustainability of the social security and tax system is in serious doubt. Although people are enjoying a well-off society, the problems of pluralistic ignorance and bystander apathy has arisen in Japanese society.

Now that Japan, the Urashima Tarô of today, has already opened the casket of Tamatebako, it should consider its way of life in as it ages: Should it reminisce about the lost paradise of Ryugu-jo, or fall into amnesia, or pass on the lessons learned through its own experience to the next generation? The last choice is known as “Nitten Suishu” which is symbolized in a Zen Buddhist lecture called “Ten Images of Ox-Herding”, which depicts Zen meditation as showing the path leading to enlightenment. An aging Japan is stepping forward and transitioning to a sustainable lifestyle beyond the way of life during the postwar economic boom: Reconstructing family-life without filial piety, stakeholders collaborating in a community, ensuring a place where one can be oneself and a chance which one can use to do one’s utmost for everyone, and disseminating “Ikigai” not only for self-identity but also for next generations and foreigners. These changes of mindset are ongoing now. In adapting with the “demographic onus” era, all generations in Japan have to take into consideration new intimate relationships, “aging in place”, labor productivity utilizing high-end technologies, work/life balance, inter-generational partnerships, and the integrity of one’s own life.

Takeo Ogawa, PhD  
President, (NPO) Asian Aging Business Center  
Emeritus Professor, Kyushu University and Yamaguchi University
日本では、「浦島太郎」という昔話がよく知られている。浜辺で悪童たちにいじめられている海亀を助けた浦島太郎は、海亀に連れて、楽園の竜宮城を訪れる。乙姫という女主人に歓待されて、浦島太郎は月日が経つも忘れず過ごしていた。しかし、ふと故郷のことを思い出し、彼は帰ることを決意する。乙姫は浦島太郎に土産として玉手箱を贈る。故郷に戻った浦島太郎は、知った者がいないことを怪しんだ。そこで、出会う人ごとに浦島太郎という名を知らないかと聞いて回った。ある人が、浦島太郎という男はいたけれども何年も前に姿を消したと言う。浦島太郎は、竜宮城での1日がこの世では幾数年にもなっていたことに気づく。世を儚んだ浦島太郎が、乙姫から贈られた玉手箱を開けると、たちまち彼は白髪の老人に変貌した。これほどの変化は日本の超高齢化が進むことを象徴する寓話である。経済的な豊かさを謳歌し続けられていた現代の浦島太郎は、少子高齢化が進んで、総人口が減少している故郷日本に戸惑っている。日本人は突然変貌した自分の姿に驚くのであろう。変貌した日本人の生活様式を、家族、地域、仕事、人生観という4つの面からみてみよう。

例外はあるにしても、多々の父系の祖先崇拝に基づく日本の家族では、男性が優位であり、兄弟姉妹には出自の序列があり、学歴・婚姻を経由した社会移動が、唯一その出自を超えた成功への道であった。家族を守り、継承に成功した高齢者は楽隠居し、子供たちから親孝行されるはずであった。

日本の伝統的な地域社会は、家族の結合体であった：産業の協働だけでなく生活支援の共同としての父系制家族の同族的結合あるいは近隣相談の構成的結合として地域社会における高齢者は、還暦、古希、喜寿、傘寿、米寿、卒寿などという記念の年を祝われるはずであった。

仕事の倫理は、日本ではいわば「召命」である。特に男性にとってこれは必要である。もし彼が成功すれば社会的に評価されるだろう。しかし彼が成し遂げられなかったら、自分さえ考えられるよう。隠居した高齢者さえも、自給のために、また世の中にいよいよことをするために働くことができるはずであった。

日本人が自らの存在を証明するためには、「生きがい」という言葉をよく使う。それは、生きる動機付けに関する概念、愛、善、要、反応である。高齢者にとっての生きがいは、愛するものがあり、良いことができて、世間から必要とされ、成し遂げたことにつき敬意が払われることである。

だが、こうした伝統的な日本の生活様式は、戦後の高度経済成長に即した新しい社会体系を構築することに貢献したが、逆説的に思わざる結果をもたらしている。両親たちは、成功した人生を目指して、子供は少なく生んで大事に育てたのであるが、それが少子高齢化社会を生み出している。市民たちは、相互の生活支援のために、さまざまな包括コミュニティや社会制度を再構築したが、金のかかる自治体の原因となっている。働く人々は高学歴をつけて雇用され、定年まで勤めて国民皆保険やいい年金生活を送るようになったが、社会保障と税の持続可能性が大きく疑われるようになっている。人々は幸せな社会を謳歌しているが、多様の無知や偏見の無関心が日本社会に起きている。

現代の浦島太郎である日本が、玉手箱を開け後、取るべき生き方は何か：竜宮城への追憶か、すべての忘却か、それとも次世代に自分の経験に基づく教訓を伝える「入郷垂手（にってんすいしゅ）」（禅の十牛図で示されているもので、悟りを開いた後は人々に道を指示する活動をする意）か。高齢化している日本の高度経済成長期の生活様式から、持続可能な生活様式へ転換し始めている：親孝行を頼らない家族の再構築、コミュニティ中の利害関係者との協働、各々の居場所と出番の確保、生きがいという自己存在証明を自分たちだけでなく、多世代や外国の人々に対する普及、かけがえのない私という生きがいを次世代や諸外国に伝える道を切り始めたのである。これは今やこの変化が中である。人口オーナス時代に適応するために、日本のすべての世代が、新しい親密な関係、「住み慣れた所で暮らし続ける」、ハイテクを利用した労働生産性向上、ワークライフバランス、世代間連携、立派な人生について考える必要があるのである。

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