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VOLUME 12 – 2019 EDITION

Special feature: The Netherlands



LEADERS IN LONGEVITY

CHARLIE BAKER

Governor Charlie Baker was inaugurated as the 72nd Governor of Massachusetts on January 8th, 2015. Since taking office, he has been making Massachusetts a great place to live, work and raise a family while delivering a customer-service oriented state government that is as hard working as the people of the Commonwealth.

NATALIE CORRADO

Natalie Corrado is the Business Strategy Manager for Mercer's Individual Wealth client segments. Natalie helps execute the global growth strategy and reports directly to the Global Head of Individual Wealth. Prior to joining the Individual Wealth team, Natalie spent nearly four years as a Fixed Income Manager Researcher where she led Mercer's US research efforts in emerging-markets debt strategies and was the US research liaison for Mercer's endowment and foundation clients, as well as being a member of the Endowments & Foundations Investment Committee.

ANNA DIXON

Anna Dixon is the Centre for Ageing Better's Chief Executive, leading the vision of creating a society where everyone enjoys a good later life. Anna has more than 15 years' experience of working at the interface of research, policy and practice focused on health and care including at The King's Fund, the London School of Economics and Political Science and the European Observatory on Health Systems and Policies.

AMY DOHERTY

Amy Doherty serves as Senior Vice President & Chief Information Officer (CIO) at AARP. Amy started with AARP in December 2011, providing leadership to application portfolio management and Enterprise Resource Planning. Since joining AARP, she has worked in roles of increasing responsibility in Information Technology Services (ITS), most recently as Vice President of Customer Service & Solution Delivery.

STEPHANIE FIRESTONE

Stephanie Firestone, Master of Urban Planning, is a Senior Strategic Policy Advisor, AARP International. Stephanie collaborates with domestic and international colleagues to make communities livable for people of all ages and abilities, engaging city planners and related professionals and building a knowledge base and practice around planning for aging populations.

TEDROS ADHANOM GHEBREYESUS

Dr. Tedros Adhanom Ghebreyesus was elected as WHO Director-General for a five-year term by WHO Member States at the Seventieth World Health Assembly in May 2017.He is the first WHO Director-General to have been elected from multiple candidates by the World Health Assembly, and is the first person from the WHO African Region to serve as WHO's chief technical and administrative officer. Immediately after taking office in July 2017, Dr. Tedros outlined five key priorities for the Organization: universal health coverage; health emergencies; women's, children's and adolescents' health; health impacts of climate and environmental change; and a transformed WHO.

ANGUS GRANT

Angus Grant joined the Dementia Discovery Fund in July 2018 as CEO. Prior to joining the DDF, Angus worked at Celgene for almost 12 years. He started at Celgene as Vice President North American Regulatory Affairs in 2006, in the Summit NJ Headquarters. In 2008, Angus moved to London as Head of Europe RA for 3 years. Angus returned to the Summit NJ Headquarters as VP, Business Development and Global Alliances, in 2011, and most recently as Corporate VP of Business Development, where he completed multiple innovative deals spanning discovery and late stage clinical assets, and in tandem built the Alliance Management function, managing over 60 collaborations and investments with pharmaceutical and biotech partners.

HUGO DE JONGE

Hugo de Jonge was appointed Deputy Prime Minister and Minister of Health, Welfare and Sport in the third Rutte government on 26 October 2017. From 2010 to 2017 he was a member of the Rotterdam municipal executive for the Christian Democratic Alliance (CDA), with responsibility for education, youth programs, and (from 2014 on) healthcare. Before this he was a civil servant at the Ministry of Education, Culture and Science, also serving as political assistant to Maria van der Hoeven and Marja van Bijsterveldt, who were respectively Minister and State Secretary for Education. He began his career as a primary school teacher.

FLORIAN JUERGENS

Florian Juergens is a social protection specialist currently working for HelpAge International as global social protection advisor, providing strategic leadership and technical advice to HelpAge staff and network members around the world. Florian focuses on the design, implementation, financing and evaluation of social protection policies and programmes, with a particular focus on pension systems.

FRANK LEYHAUSEN

Frank Leyhausen is executive partner of MedCom International GmbH, in Bonn, Germany. Prior to joining MedCom in 2000, he worked in financial services for more than 10 years. At MedCom, he is responsible for consulting companies, NGOs, and governmental institutions at the federal and state level in Germany regarding handling the challenges and opportunities of aging.

JANA LYNOTT

Jana Lynott is a senior strategic policy adviser with the AARP Public Policy Institute. She is the author of a series of publications related to the Future of Transportation. As a land use and transportation planner, she brings practical expertise to the research field.

RENÉE MCGOWAN

Renée McGowan leads Mercer's Individual Wealth business globally, based from New York. She is responsible for the services and advice that Mercer provides to a range of institutional and individual investors. Renée is a recognized thought leader and is the Mercer Executive Sponsor on the Retirement & Investments Systems Reform Project in collaboration with the World Economic Forum.

NICOLAS MENET

Nicolas Menet holds a degree in social sciences, management, and public assessment. As a businessman, in 2006 he created Adjuvance, a research and innovation company, and left it in 2017 to take over the leading role at Silver Valley, an innovation cluster dedicated to longevity.

ALEX MIHNOVITS

Alex Mihnovits is Global AgeWatch and Data Manager at HelpAge International. He holds a master's degree in development economics from University of Gothenburg. Alex leads the Global AgeWatch programme; supports development of a broader programme of data work in HelpAge associated with Agenda 2030 and related thematic policy areas; and is working with the HelpAge network to build greater local and regional capacity for data initiatives, and to ensure their learning inform global data processes.

ZARA NANU

Zara Nanu is co-founder and CEO of Gapsquare. With Gapsquare, Zara's vision is to use technology to foster diversity in the workforce and close the gender pay gap. For the past 15 years Zara has been working on the proliferation of women's economic rights, working for Dress for Success Worldwide in New York, Catholic Relief Services in Moldova, and Young Women's Trust in the UK.

ALANA OFFICER

Alana Officer is Senior Health Adviser in the Department of Ageing and Life Course of the World Health Organization. Alana is a global leader in disability, development and ageing having held a number of clinical, technical and managerial positions in West and Central Africa, Europe, South Asia, the Middle East and the Western Pacific. Alana joined the Department of Ageing and Life course in July 2014 to lead the development of the World Report on Ageing and Health, which was published in October 2015. She currently overseas the Organizations work on age-friendly environments including the Global Network on Age-friendly Cities and Communities as well as the Global Campaign to Combat Ageism.

ISABEL ORTIZ

Isabel Ortiz is Director of Social Protection at the United Nations International Labour Organization (ILO). Isabel has worked in more than 50 countries in all world regions, providing advisory services to governments and development institutions. Additionally, she actively supports policy advocacy work of civil society organizations.

JORIS SLAETS

Joris Slaets is Professor of Geriatric Medicine and since January 2015, Director of the Leyden Academy on Vitality and Ageing. Joris is committed to making changes in health care for the vulnerable elderly

JOO YEOUN SUH

Joo Yeoun Suh, joined AARP as Director of Thought Leadership — Longevity Economy in September 2018. Most recently a researcher at the Institute for Women's Policy Research (IWPR) in Washington, DC, her work focused on the measurement and valuation of unpaid family care (child and elder care), and designing potential ways for these valuations to be included national accounting systems.

JONATHAN STEVENS

Jonathan Stevens is the Senior Vice President for Thought Leadership and International at AARP. An epidemiologist by training, he has held leadership roles in the public, private, and philanthropic sectors over his 18-year career.

ERWIN J. TAN

Erwin J. Tan, MD, is a board-certified internist and geriatrician and the AARP Director of Thought Leadership — Health. Erwin previously served as the Director of Senior Corps at the Corporation for National and Community Service.

MILDRED WARNER

Mildred Warner is a Professor of City and Regional Planning at Cornell University where her work focuses on local government service delivery, economic development and planning across generations.

SUSAN WEINSTOCK

Susan Weinstock, vice president of financial resilience, is responsible for the overall strategic direction of AARP programs and education competencies to improve the financial security of persons age 50 and older. Prior to AARP, Susan was the director of the office of consumer policy at the US Treasury Department, focusing on emerging trends and the growing use of technology in consumer financial products and services.

XUE ZHANG

Xue Zhang is a Ph.D. Candidate in Regional Science at the Department of City and Regional Planning, Cornell University. Her research interests include city and regional development and quantitative modeling.

THE JOURNAL

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.



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. **DEPARTMENTS** Pages 8 – 17

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AARP International: The Journal is a publication of AARP. The views expressed herein do not necessarily represent policies of AARP and should not be construed as endorsements. The mention of a product or service herein is solely for information to our readers and may not be used for any commercial purpose. AARP, which was established in 1958, is a nonprofit, nonpartisan organization with tens of millions of members ages 50 and older. State offices are located in all 50 states, the District of Columbia, Puerto Rico, and the Virgin Islands.

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From the Editor

What do you think of when you see or hear the word innovation? The rapid pace of technological change? Creativity?

Innovation, of course, happens all around us, across the globe and throughout all facets and stages of life. With fundamental demographic shifts happening around the world — specifically the aging of the population globally — we are seeing greater innovation, and it is coming from everywhere: government, individuals, communities, and business. Technologies and other solutions of various kinds are already addressing challenges, thereby creating opportunities — both for, say, a company creating a beneficial technology and for the individuals who benefit from such solutions.

As a powerful trend, the rapidly aging population globally gives rise to innovation in so many aspects of life. Fueling that drive toward innovation is the belief that we can create solutions to challenges, creating value for all members of society, and enabling each of us to live healthier, fuller lives.

The Journal seeks to be a catalyst in this exciting, yet sometimes daunting, dynamic. Through *The Journal*, which has come to be known for showcasing thought leadership around the globe concerning all issues related to aging, AARP sparks global conversations on aging, while challenging outdated notions of how we can live our lives. It is here to share promising ideas so that others might by inspired and even build off them. As AARP CEO Jo Ann Jenkins expresses in her article, people share many of the same wants and needs as they grow older, no matter where they live. That is why *The Journal* seeks to spread promising solutions and valuable information from around the globe — so that others can benefit in solving challenges that inevitably are common to many countries and localities.

Within these pages we share stories from around the world on what it means to grow older. We share how people, communities, and nations are tackling the challenges related to an aging population, and how challenges are being turned into opportunities. Here in *The Journal* you will find ideas and solutions from every corner of the globe that may be relevant to any given community, person, or business. We are pleased to take you to the Netherlands for this edition's special feature on global aging. As our Chief Public Policy Officer Debra Whitman describes in her article, a team from AARP traveled to this small but innovative nation to conduct a learning tour, meet with people on the ground, and see their age-friendly approaches and solutions in practice.

We bring you a wealth of stories from our tour: an intergenerational care facility bending the rules to improve lives; a senior apprentice learning new skills in a traditional craft industry; an organization giving older adults access to museums across the country; and a volunteer tour guide redefining her retirement years. These stories, among many more, offer a personal perspective on what it is like to age in the Netherlands — and provide concrete examples of Dutch innovation, specifically in the areas of community and social engagement, health and vitality, technology and science, and the embracing of older workers.

In a prologue, Hugo de Jonge, the Netherlands' Deputy Prime Minister and Minister of Health, Welfare, and Sport, discusses how aging in place, nursing care, and social isolation are all linked, and shares how the government empowers civil society, social enterprise, and companies to work together to improve care and support to seniors.

Beyond the Netherlands, we look at examples from other countries — Australia, France, Germany, Norway, the United Kingdom, and the United States — that highlight innovative collaborations between national and local government and business. Sharing the experience of those countries, we examine such topics as human-centered design, and leveraging innovations and technologies across disciplines. We highlight pioneering public services that span all levels of government: national-level policy in France to transform a society into one more inclusive of older persons, the "Take a Seat" project in the UK cities of Manchester and Nottingham that foster age friendly practices on public transit, and landmark laws in various US states to support proper training for caregivers.

Other countries we highlight, meanwhile, are understanding the "opportunity" piece of the aging trend. Australia has shown an understanding of the value of older workers via strong policy that affirms their rights and fosters their economic contribution. On the

"Fueling that drive toward innovation is the belief that we can create solutions to challenges, creating value for all members of society, and enabling each of us to live healthier, fuller lives."

other side of the equation — that is, older individuals as consumers — in Germany an effort is underway to encourage more start-ups to value this market segment, while the UK Industrial Strategy includes a focus on producing products and services for older individuals. And across the Atlantic in the United States, Governor Charlie Baker of Massachusetts highlights how he wants his state to become an epicenter for companies creating cutting-edge technology and services for older persons. Notably — and appropriately — older persons were involved in developing many of the policy, technology, and service innovations highlighted in this issue.

This year's issue of *The Journal* also delves down to the individual level. We explore the value of play and travel throughout one's life, as well as the cumulative impact of disparities across a lifetime. Regarding such disparities, one article points out how we are well on our way to sending humans to Mars — yet at current rates of improvement, we are still two centuries away from closing the gender pay gap.

We also highlight the power of cross-pollination in innovation and progress. In the area of health and medical advances, the Dementia Discovery Fund is the first ever venture capital fund to focus on the creation of meaningful new medicines for dementia. The fund, in which AARP has invested \$60 million, is showing true innovation by taking lessons from how cancer research has evolved over the years in order to accelerate advances in the study and treatment of dementia. A key lesson learned from cancer: focusing on incremental progress rather than panaceas or breakthroughs, just might be the more effective strategy to achieving true and valuable progress on diseases that result in dementia.

Whatever you think of when you hear the word innovation, you're likely to find it throughout this issue of *The Journal* because it shows up in many forms here. I know you will find this latest issue of *The Journal* to be informative, thought-provoking, and inspiring. In these pages, you can look forward to discovering many compelling ideas, solutions and people-focused stories. With continued international dialogue and by sharing ideas for tackling the challenges of an aging population, we can all drive and accelerate innovation. In doing so, we can create opportunities for all stakeholders — including, most importantly, older individuals. •



Aimee Carter VICE PRESIDENT AARP INTERNATIONAL

Celebrating 60 Years of International Engagement By Jo Ann Jenkins

This year, as we celebrate AARP's 60th anniversary, it seems like a good time to reflect on our history of international engagement on global aging issues. As the world's largest organization dedicated to the interests of older people, AARP is committed to using our experience, knowledge and resources to work with other countries to address the global concerns of older people and their families.

The aging of the world's population is the transformational issue of our time. Today, Japan is the only country in the world where those aged 60 and over represent 30 percent or more of the population. By 2050, 62 countries — including China — will reach that milestone.

We live in a world where people age 60 and over will soon outnumber children ages 5 and under. Demographers predict that in countries that are aging well, more than half the children born today will live to 100 - and some researchers believe that the first person who will live to the age of 150 has already been born.

In 2030 — only 11 years from now — the first Millennials will start turning 50, and the first GenXers will turn 65. At the end of 2030, the first Boomers will begin turning 85, swelling the ranks of what is already the fastest growing age group in the US.

Yet, global aging is about much more than demographics. Advances in research and technology are driving innovation in virtually every field that affects our ability to live well as we age. Science is making longer lives possible — and we are beginning to see the impact of that on societies throughout the world.

As people get older, they share many of the same wants and needs, regardless of where they live. They want good health and financial security. And they want options for living their lives. They want to be included in and contribute to their societies and to be able to enjoy the opportunities that life has to offer. Sharing these common concerns and interests, we believe that we can learn a lot from the experiences of other countries, and they can learn from our experience as well. In fact, AARP has always had an international view. 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. With the founding of AARP's Travel Tours in the late 1950s and the publication of its main member publication, *Modern Maturity*, AARP started out by catering to members' desire to travel abroad and learn more about foreign cultures. Ultimately, Ethel Percy Andrus wanted members to see that the 50+ population around the world had the same concerns as their counterparts in the United States.

By 1963, Dr. Andrus thought the world was ready for an international organization, and AARP launched the *Association for Retired Persons International* (ARPI), an international membership organization, complete with its own magazine. She represented it and AARP at the Congress of the International Association of Gerontology in Copenhagen later that year. ARPI, however, proved to be an idea ahead of its time. It did not attract the international membership expected and was allowed to die quietly later in the decade.

Looking for an alternative productive role AARP could play internationally, Bernard Nash, the executive director of AARP in the early 1970s, sent representatives abroad to meet with heads of non-governmental aging organizations (NGOs) in other countries to identify leadership opportunities. It soon became apparent that NGOs wanted some international representation so they could be heard in international forums, such as the United Nations (UN) and the Council of Europe, which were becoming interested in global population aging. They also wanted to learn more about each other's programs and policies. These goals were fully consistent with Ethel Percy Andrus's original vision.

As a result, *the International Federation on Ageing* (IFA) was born in late 1973. The IFA today is a federation of some 150 member organizations (mainly national NGOs) representing or serving older persons. AARP was one of about a dozen organizations that formed the IFA. AARP agreed to fund the organization and host its secretariat at its headquarters in Washington, DC, for several years in order to give the new organization a strong start. Bernard Nash became IFA's first president.

While AARP continued to maintain its own international activities, its main energies in the 1970s and most of the 1980s were directed to strengthening and working through the IFA. In 1982, IFA was instrumental in convening the first UN World Assembly on Ageing (WAA), which produced the world's first International Plan of Action on Ageing. IFA had started advocating for such a conference within months of its launch in 1973. William Kerrigan, IFA's General Secretary at the time and the head of AARP's International Department became Secretary-General of the World Assembly — the first time in UN history that a representative of an NGO had become the director of a single-focus world conference. Cy Brickfield, AARP's executive director in the early 1980s, served on the US delegation to the World Assembly.

Slowly, AARP began to launch international projects of its own. It provided background information to the 1981 White House Conference on Aging on what the US could learn from other countries with regard to policies for older persons. In 1986, AARP organized the US-Canadian conference on *Income Security and Long-Term Care for Women in the Midlife and Beyond*. In 1987, AARP's Public Policy Institute started conducting research on other countries' aging policies and their implications for the United States, a practice that continues to this day.

The 1980s and 1990s saw a great increase in awareness around the world that populations everywhere were aging. Because of its rich experience and international outreach, AARP saw an opportunity to make a larger international contribution in its own right. Thus, with the break-up of the Soviet Union, AARP sought to harness its expertise in organizing and utilizing older volunteers to offer representatives of Central European countries a series of workshops in Europe on stimulating the voluntary sector in these nations. AARP also utilized its knowledge of older women's issues to collaborate with the Pan American Health Organization to conduct research on this topic in the Americas and produced one of the first international publications on the status and challenges of midlife and older women in the region.

In 1985, AARP joined the United Nations NGO Committee on Aging in New York to promote consideration of aging issues in the UN and appointed its first representative at UN headquarters in New York. Two years later, AARP obtained Consultative Status with the Economic and Social Council of the UN, permitting it to participate more actively in UN affairs related to aging. In 1996, AARP helped found the Geneva International Network on Aging (GINA), a group that represented aging interests with all the international organizations headquartered in Geneva.

AARP has participated in the major world conferences sponsored by the UN which have relevance for aging — i.e., the first World Assembly on Ageing, Vienna (1982); World Conference on the Advancement of Women, Nairobi (1985); the World Summit for Social Development, Copenhagen (1995); the World Conference on Population & Development, Cairo (1995); the World Conference on Women, Beijing (1995); the Conference on Human Settlements, Istanbul (1996); the Millennium Conference (2000); and the second World Assembly on Ageing, Madrid (2002).

In 1999, we celebrated the UN International Year of Older Persons, and AARP served as the NGO focal point for the United States. On the eve of the Madrid World Assembly on Ageing in 2002, AARP co-sponsored a meeting in Malta on *Population Aging and Development* to guide policy recommendations for the World Assembly and, at the Assembly itself, organized a number of workshops on key policy issues it thought should be covered by the delegates.

In 2007, AARP started an annual series of briefings on global aging at the UN focusing on trends and new developments in income security, health, and an enabling environment for aging populations. The Briefing Series on Global Aging takes place at the time that delegates from around the world attend the UN Social Development Commission meetings. AARP also participated in the 5-year review of the Madrid International Plan of Action on Ageing. Throughout the early 2000s, AARP continued to play a leadership role on the NGO Committee on Aging at the UN. And in 2000, AARP began to aggressively expand its international advocacy role on behalf of older persons, as well as the international exchange of policy-relevant information about aging issues. For example:

- AARP hosted five conferences in our "Reinventing Retirement" series in London, UK (2004), Washington, DC (2005), Tokyo, Japan (2007) Dürnstein, Austria (2008), and Singapore (2009). These major international events brought together the world's top thought leaders to focus on changing labor markets, retirement systems, and the role of older people as workers and investors.
- In 2005, during the national debate on partial privatization of Social Security, AARP convened leading stakeholders and voices on pension issues from the United States and United Kingdom to demonstrate the full range of implications brought about by privatization of public pension systems.
- In 2006, members of the Board of Directors traveled to four European capitals as part of a Leadership Study to examine European models of health and long-term care. Many of the better practices they observed were subsequently and continue to be promoted in our domestic policy outreach.
- In January 2008, at "Community 50+ Asia," we brought together more than 120 leaders of NGOs from the Pacific Rim countries in Hawaii to conduct workshops on how to build better and stronger organizations to serve the interests of older persons.
- In April 2008, we organized "Health Care '08: Global Trends and Best Practices," in Washington. More than 200 international experts explored the challenges and opportunities driving the health care policy agenda, highlighting the imperative of fundamental reforms in the US to expand access and increase quality of care.

• AARP Foundation played an instrumental role in helping the European Union and its member states draft and implement anti-age discrimination laws in employment across the continent.

Our international activities continue to focus on key issues pertaining to health and financial security, livable communities and helping people 50+ choose how they live as they age. In 2012, (in affiliation with the World Health Organization) we launched the *AARP Network of Age-Friendly Communities*. The purpose of this network is to educate, encourage, promote and recognize improvements that make cities, towns, and counties more age-friendly for their residents. As of 2018, 305 communities in 40 states have joined the *Network*, and more than 75 million people — that's one of every five people in the United States — now live in an *Age-Friendly Network* community.

AARP continues to have an active program of international conferences that has focused on such topics as the aging workforce, long-term care, health care and health information technology, income security, retirement, livable communities, pharmaceuticals, and community-building. We collaborate with others on international conferences, events and policy discussions to highlight and promote best practices. Partners include the United Nations, World Economic Forum, European Commission, OECD, national governments, and US Department of State. And AARP promotes community building among civil society organizations serving 50+ populations around the world.

In October 2015, to commemorate the 25th anniversary of the United Nations International Day of Older Persons and the 20th anniversary of the UN Fourth World Conference on Women held in Beijing, China, we convened an AARP Symposium on Women and Aging to shed some light on the core issues women face as they age. In 2016, we introduced our new *Disrupt Aging* initiative at the Women in the World Summit in New York, OECD meetings in Paris and at the World Economic Forum in Davos, Switzerland.

In 2015 AARP and a coalition of International NGOs were successful in advocating for the inclusion of older persons into the UN Sustainable Development Goals, also known as agenda 2030. The group was formally recognized as The Stakeholder Group on Ageing (SGA) which is a member of the Major Groups and Other Stakeholders involved in implementing the 2030 Agenda for Sustainable Development adopted by the United Nations General Assembly whose basic principle is to leave no one behind. AARP plays a lead role in the SGA as a co-chair with HelpAge International.

In 2017, we expanded the international reach of *Disrupt Aging*, with additional sessions at the World Economic Forum in Davos and addressing the International Association of Gerontology and Geriatrics World Congress. Also, at the OECD Forum, we presented findings of the *AARP Aging Readiness and Competitive Report* (ARC), a landmark study that analyzed the preparedness of the US and 11 other nations to address the aging of their populations. In 2018, an AARP contingent traveled to Japan and China to meet with leaders of public and private sector organizations in a variety of industries to see how they were disrupting aging and making life better for people as they aged. This coincided with saw the publication of my book, *Disrupt Aging: A Bold New Path to Living Your Best Life at Every Age* in two versions of Chinese and in Korean.

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. If we are to reach our vision of building a society for all ages, where everyone has an opportunity and a right to age with independence, dignity and purpose, we need to reach beyond our borders to engage leaders in other countries — in government, business, and the non-profit sectors — to address policy challenges and to help find solutions. AARP has been doing this for 60 years, and we will continue to do so in the years to come. ◆



Jo Ann Jenkins CEO, AARP

2018 Aging Readiness and Competitiveness Report

By Claire Casey and Jeffrey Gullo

Resource available online at arc.aarpinternational.org



The Aging Readiness and Competitiveness Report (ARC), released in 2017, examined 12 large economies that are geographically, culturally, and socioeconomically diverse and that, together, represent 61 percent of the global GDP and nearly half of the world's population of people ages 65 and older. We studied these economies along four societal pillars: community social infrastructure; technological engagement; productive opportunity; and health care and wellness.

While the inaugural report established a baseline understanding of the state of global aging policies, we shifted course in 2018 to focus on smaller economies around the world that are leaders in responding to demographic change. These included Australia, Chile, Costa Rica, Lebanon, Mauritius, the Netherlands, New Zealand, Norway, Singapore, and Taiwan.

The findings were remarkable. While each of these countries has a popula-

In 2016, AARP and FP Analytics embarked on an ambitious research project to highlight the realities and opportunities of aging and longevity around the world. We did so with an eye toward solutions and innovations aimed at both engaging a healthier, more independent older population and unleashing that population's productive and economic potential. tion of less than 25 million people, many of these nations have proved to be more nimble and willing to innovate and find solutions for the realities of aging than the large countries we studied for our first report.

Across diverse cultural and economic contexts, a consistent set of principles guides the development and deployment of effective aging policies and programs. They are person-oriented, built on the direct engagement of users. While national governments played an important role in setting strategic goals, the most innovative programs are bottom-up, born out of the local agencies, NGOs, and individuals on the front lines of aging. They take a holistic approach, seeking integrative solutions for older adults as a vital and valued part of a community. And finally, they are consistently *interdisciplinary* and *evidence based*, drawing on collaboration across sectors and expertise and a commitment to defining clear metrics of success. Perhaps most surprisingly in a US context, experts surveyed in the 2018 ARC countries see health care and wellness as not only the area of greatest strength but also one that continues to see meaningful improvement. As all these countries, with the exception of Lebanon, boast a universal health care system, they are focusing on improving the quality of care, tailored and integrated to meet the needs of older adults. These countries are also making strides in developing innovative approaches to both rising rates of dementia and growing demand for long-term care that enables individuals to remain in their homes and communities, including dementia-friendly supermarkets in the Netherlands; the Green Care program in Norway, which provides outdoor activity on farms; and Taiwan's Family of Wisdom project, which provides people with dementia and their family members a venue to entertain, socialize, and offer mutual support.

After health care, the greatest momentum has been in building a robust community social infrastructure that provides the accessibility, engagement, and assistance needed to age in place. The World Health Organization's Age-Friendly Cities initiative has proved to be a particularly useful framework, encouraging both national strategic commitments and grassroots action and innovation. Taiwan is a powerful example: starting with just one city in 2010, in only three years, all 22 of Taiwan's cities and counties had committed to the program. In 2017, the country expanded the program to include 99 communities.

Progress in facilitating the interest of older adults in continuing their productive participation in the economy has been uneven, but leading countries are demonstrating what's possible. Norway is arguably best in class, having married pension reform with labor market flexibility. By focusing on building supportive and inclusive workplaces, older workers in Norway report higher levels of enthusiasm than the general working population. Australia also stands out for its efforts to tackle ageism in the workplace systematically, offering a model for others to follow — having both quantified the economic cost of ageism (AUD 10 billion) and, through its 2014 National Prevalence Survey of Age Discrimination in the Workplace, established benchmarks against which to measure future progress.

Being at the leading edge can open up new challenges, as seen in technological engagement. Because ARC 2018 countries all stand out for their world-class ICT infrastructure, their aging populations face a greater risk of digital exclusion as services, both public and private, increasingly move online. Even as countries tackle this challenge with tailored training programs and online accessibility standards, they are also recognizing the market opportunity presented by ICT solutions to enable older adults to more effectively navigate their community and services. The Netherlands, Norway, Singapore, and Taiwan have all included aging-related technology in their national competitiveness strategies.

There is a great deal to learn from these and many more examples found in the 2018 ARC, and we encourage readers to see for themselves at arc.aarpinternational.org. ◆

The findings were remarkable. While each of these countries has a population of less than 25 million people, many of these nations have proved to be more nimble and willing to innovate and find solutions for the realities of aging than the large countries we studied for our first report.



Claire Casey MANAGING DIRECTOR, FP ANALYTICS



Jeffrey Gullo SENIOR ADVISOR

Interview with Anna Dixon

Chief Executive, Centre for Ageing Better, UK

AARP How has the Centre for Ageing Better worked with the UK government to increase work/focus on aging policies and initiatives?

Anna Dixon The Centre for Ageing Better has been engaging with the UK government at senior levels to make the case for why an aging population should be seen as an opportunity.

You can see the impact of this in the way the government's Industrial Strategy identifies aging as one of four "grand challenges" of our time. The Industrial Strategy is a government-wide initiative, being developed in partnership with the private sector, to shape the government's approach to a whole range of issues, with the goal of boosting productivity by backing businesses to create good jobs by investing in skills, industries, and infrastructure.

So there's huge momentum pushing businesses across the United Kingdom to innovate and to develop products and services that serve the needs and aspirations of an aging population globally as well as in the United Kingdom. A large part of the Industrial Strategy focuses on the aging society, so it is a fantastic opportunity to integrate policy in areas such as health care, housing, and employment.

AARP What are some changes that the Centre for Ageing Better recommends the National Health Service (NHS) make to adapt to the United Kingdom's aging population?

AD What's needed is a focus on improving quality of life for longer, not just on increasing how long we live. Crucial to this will be focusing on prevention, delaying the onset and progression of chronic diseases, and slowing the rate at which people develop disabilities.

I think there is a tremendous opportunity for the NHS to engage in prevention activity to extend disabilityfree life years, particularly by targeting people in mid-life. For example, the NHS can play a central role in helping people stop smoking, be more active, reduce their alcohol consumption, and improve their diet. Health policy also needs to continue along its current path toward integration with care, both at a national level and in local authorities that have responsibility for many areas affecting public health, such as sanitation and transport infrastructure.

Prime Minister Theresa May recently announced that the UK government will make it its mission to "ensure that people can enjoy at least five extra healthy, independent years of life by 2035, while narrowing the gap between the experience of the richest and poorest." This could be a great catalyst for change, not just in health but in housing and employment too.

AARP Can you describe some of the insights learned through the developments of the Centre for Ageing Better?

AD In our efforts to understand the things that really matter to people in later life, it's clear that good health, financial

security, a sense of meaning and purpose, and social connections are some of the most important.

Some of our earliest analysis showed just how diverse the aging population in the United Kingdom is. Not everyone experiences a good later life; there are significant social and financial inequalities in peoples' quality of life. When we looked deeper, we found that disadvantage (for example, associated with race, gender, access to education, or opportunities for good-quality work) accumulates over time. Essentially, a lack of opportunity early on in life can have huge repercussions for our well-being as we age.

Another thing that needs to be understood is that many of the diseases and disabilities that people experience in later life are not an inevitable part of aging. Whether it's a loss of mobility or an increase in frailty, there are things we can do to prevent these outcomes and to help people keep doing the things they want to do even when their health does decline. Not only does this benefit the individual, but it reduces pressure on health care budgets.

AARP The Centre for Ageing Better has a focus on taking a local approach to aging. What have been key developments or learnings from this initiative?

AD The strategic partnerships we have in places like Greater Manchester and Leeds, two of the largest urban centers in the United Kingdom, are crucial to our work.

Critical to the success of these partnerships is local leadership.

Partnerships like these are fantastic for helping us understand the systemic, longterm changes that are needed. They also allow us to help those areas to apply the evidence and to drive improvements across sectors from transport and urban planning to housing and health. For example, our partnership with local leadership in Greater Manchester enables us to shape approaches to developing and testing new ways of tackling worklessness and job insecurity among people over the age of 50.

By working with- and in- communities, we can learn from our collective experience

and ensure that we effectively share evidence on what works to benefit people across the country.

AARP How has the growth of the UK Network of Age-friendly Communities increased innovation across your organization and the country?

AD We've worked to strengthen the Network from 12 to nearly 30 members since early 2017, and the list continues to grow. Membership of the Network allows communities to share learning and innovation with one another. It's been hugely

gratifying to see the Network expand to encompass a diverse range of cities and communities.

We've also been capturing case studies and examples, through which we can see the power of imitation as a way of spreading successful innovations. This in turn enables us to support communities to become more age-friendly and to improve the lives of the people living there.

An example of innovation spread is the "Take a Seat project," which came from New York. The project has spread to UK cities including Manchester and Nottingham. It is spreading even further afield and has more than doubled in take-up since we began supporting it last year.

AARP With your new 10-year strategy, what do you foresee as being an important focus of the Centre for Ageing Better in the years to come?

AD This year, we launched "Transforming Later Lives," our strategy to help everyone make the most of the social and economic opportunities presented by living longer and to support those people at risk of missing out on a good later life. Through this, we set out a long-term vision for change by acting on the interconnected and enduring societal issues that will make the most difference. Especially important is the need to intervene earlier, in midlife, rather than waiting until people enter later life.

To achieve our long-term vision by 2040, we have set four priority goals; the aim of our work over the next 10 years is for people approaching later life to do the following: We will measure and track progress on these aims to be sure that our actions are making a real difference in people's lives. The priority goals we have chosen are those where we believe we can make significant and long-lasting changes by sticking with them over time. The key to our success will be an open and collaborative approach, working with organizations and individuals who share our goals.

AARP Can you share any specific success stories or areas of work that are particularly inspiring?

AD For me, the biggest success has been

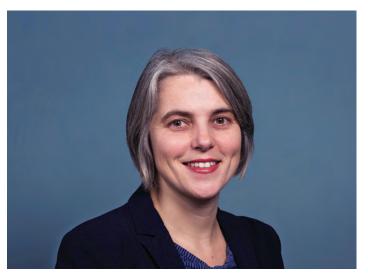
the profound change in the narrative surrounding aging and the prioritization of this issue nationally. More and more communities are understanding the importance of adapting services to meet the needs of an aging population. Large employers are increasingly recognizing the importance of retaining and recruiting older workers. We have shown the life-changing impact that aids and adaptations in the home can have on a person's wellbeing. Perhaps most exciting, the prime minister has made healthy aging a central pillar of

the government's policy agenda. All of this is a step in the right direction, but we must remember that much of our success will not be measured until 10 or 20 years' time, when we have brought about the systemic, long-term change required to achieve these bold goals. •

Anna Dixon has more than 15 years' experience of working at the interface of research, policy, and practice focused on health and care, including at The King's Fund, the London School of Economics and Political Science, and the European Observatory on Health Systems and Policies.

She is a highly respected and well-known figure in health policy and has a successful track record of working at the highest levels of government to bring about positive change. Throughout her career, she has been committed to ensuring the voice and needs of the citizen and patients are at the heart of her work.

Anna joined Ageing Better in September 2015 from the Department of Health where she was Director of Strategy and Chief Analyst.



- Live healthier, more active lives, thereby reducing the risk of poor health and delaying the onset, progression, and impact of disease and disability.
- Remain in good-quality work for longer, boosting savings and delaying drawing pensions.
- Live in safe, accessible, and adaptable homes, and remain independent and active for longer.
- Live in communities where social relationships flourish, making it easier to build and maintain close connections as well as wider everyday contact.

AARP What are key aspects of your bold initiative to transform later lives?

AD By 2040, we want more people in later life to be in good health, be financially secure, have social connections, and feel their lives are meaningful and purposeful.

Behind the Scenes

In the Netherlands

For our continuing in-country coverage, AARP sent a small team to the Netherlands to experience their age-friendly solutions first-hand. This learning tour provided us with opportunities to see best practices in action and forge strong partnerships and new friendships. With the help of Marieke van der Waal and her colleagues at the Leyden Academy for Vitality and Ageing, AARP hosted a salon dinner that brought together leaders across many sectors to discuss innovative ways to tackle the issues and opportunities around an aging population. The team came away feeling informed and inspired by the Dutch approach, with new ideas and lasting connections to take home with us.









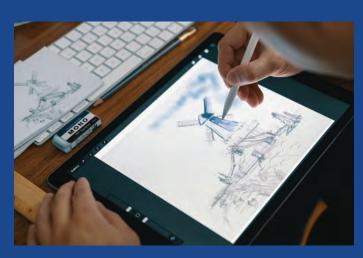


About this Edition

This edition marks our second year of exploring a country indepth to understand its approach to the aging challenge. We spent more than three weeks in the Netherlands over the course of two trips, logging many miles (by foot, car, boat, and train), conducting hours of interviews, and taking hundreds of photos. We entrenched ourselves in Dutch society, learning about the motivations and concerns of the people we encountered, along with the country's rich artistic and cultural history and character. All of this we have tried to faithfully convey through our coverage — from written and photographic stories, to the color palette, typefaces, and design. Our cover illustration was influenced by Dutch modern art in the Stedelijk museum, Dutch cartoons (like the omnipresent Miffy), and zoekbooks, children's picture books that offer scenes brimming with characters and visual detail. We chose to depict a setting in Amsterdam, with its distinctive energy, architecture, myriad forms of transportation, canals, and - of course - cyclists.











Colliding Worlds: An Aging Workforce, Artificial Intelligence, and the Impact on the Future of Work

By Renée McGowan and Natalie Corrado

ust like the world around us, the way we work is changing rapidly. A myriad of changes are impacting the way we live, work, and retire: rapid globalization; the growth of middle-class populations; issues of gender, diversity, and inclusion; aging; technology; and new ways of working in the gig economy. Two trends, however, are unprecedented in their scope: widespread societal aging and the automation of work by intelligent technologies. Increased life expectancies and decreasing birth rates across the world mean working-age populations are shrinking in many major countries. In Japan, the proportion of the working-age population ages 50-64 is expected to reach 38 percent by 2030, while in the United Kingdom, the only growing labor pool is among those over 50. The rate and scale of automation is also increasing, with advances in machine learning impacting the way the world works and the skills required in the workforce. The confluence of these two trends will have a profound impact on the future of work, particularly for older working populations.

As automation increasingly enables unprecedented levels of productivity, the capacity of organizations to invest in new revenue streams and new economies will expand. Investing in younger workers will become increasingly difficult as young populations shrink, but older workers in aging nations are increasingly willing and able to engage in meaningful work. The idea of retiring at 65 and completely exiting the workforce is no longer our reality. Several notable socioeconomic trends are at play making older workers more willing and able to work:

 Financial motivation: Retirement savings gaps are widening dramatically throughout the world due to longer life expectancies and inadequate retirement savings programs. Mercer's analysis of this phenomenon shows this gap is now at more than \$70 trillion globally, and, based on a 5 percent average annual growth rate, is projected to reach \$400 trillion by 2050¹. The average pension gap in Europe for women is about 40 percent², and it is particularly severe for women in Asia due to both the gender wage gap and the fact that, on average, women spend less time in the workforce than men. These wide gaps are a powerful motivation for older workers returning to or remaining in the workforce.

2. Personal motivation: While financial reasons are the most common motivation, older workers also frequently cite numerous nonfinancial reasons for remaining in and returning to the workforce, such as the desire to stay healthy, active, and connected, and finding self-fulfillment in their work³. In their widely acclaimed book, The 100 Year Life, professors Lynda Gratton and Andrew Scott cite survey results showing nearly 60 percent of workers ages 45 and older investing in new skills for work, and the majority of them reporting they were positive and excited about their jobs. Developments in health care and education levels over the past century have clearly increased older workers' propensity for extending their working lives.

"Older workers are indeed becoming more willing and able to engage in meaningful work, and companies would do well to incorporate older workers into their future strategies."

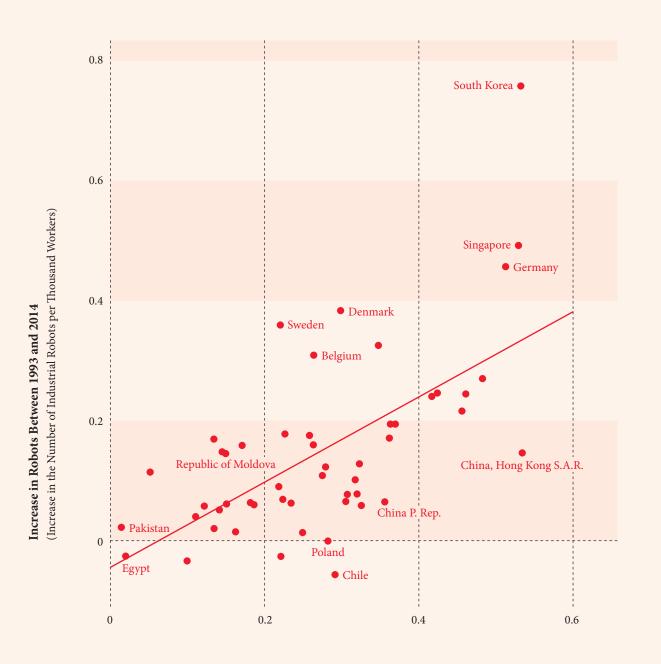
As firms prepare themselves for uncertain times ahead, it is crucial they plan for these demographic changes as well. Older workers are indeed becoming more willing and able to engage in meaningful work, and companies would do well to incorporate older workers into their future strategies.

Mercer's latest report, The Twin Threats of Aging and Automation, assessed the effect increased workplace automation will have on older worker populations, including exploration of the differences in automation across developed countries (see chart). Studies show there is also a high association between higher rates of aging and higher rates of automation, supporting the notion that shrinking prime-age working populations push firms to seek alternative sources of productivity beyond local labor, such as automation⁴. An appreciation of these relationships is crucial to understanding older workers' place in the labor market.

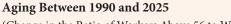
However, as we move toward higher levels of technological achievement, technology will be designed with humans at the center, making it more and more humane. In the future, work will be less about using technology (which implies a technical skill), and more about interacting with technology (which implies interpersonal skills). Put another way, technical skills become the means by which to compete and human skills become a competitive advantage.

The spread of automation will therefore require human beings and human skills to play an even bigger role in reorganizations. What in the past was considered premium will now be considered standard, a phenomenon that will necessarily push human workers out from lower-value labor in to more value-added services. For example, plant and machine operators could become specialty technicians and robotics supervisors. Companies, therefore, have much to benefit from by investing in the productivity gains from automation in their human workers, particularly older ones.

It is also important to note that older workers can be a treasure trove of experience, adaptability, and productivity given the right environment and opportunities. Researchers have found, for example, that older workers tend to outperform younger workers in semantic



Association of Aging and Automation



(Change in the Ratio of Workers Above 56 to Workers Ages 21–55)

memory and language and speech skills. Older workers also provide critical abilities for firm building, knowledge consolidation, and continuity in times of flux. An age-diverse workforce can even reduce costs by increasing organizational commitment and reducing turnover.⁵

While an age-diverse workforce can lower costs, the rise of new technologies means that the human workforce will need to evolve rapidly to keep pace. In fact, the World Economic Forum's Future of Jobs report⁶ warns that only 35 percent of today's skills will be applicable in 2020. Further, today's transition to a workforce of the future will require low- and basic-skilled workers to face a far steeper learning curve to remain productive. This learning curve will be particularly challenging for older workers as strong problem solving skills are needed in the computer and software fields. As a result, an additional societal cost is at play here that will need to be shared by firms and governments: that of education and training that focuses on older workers.

With more and more older people reentering and remaining in the workforce around the world, concerted efforts on the part of companies and governments for encouraging and accommodating the older worker will be crucial in the coming decades. Investing in older workers through firm retaining programs and older worker accommodation strategies would help older workers reskill and be redeployed in the workplace, and provide firms with a fresh source of vitality in a world of shrinking young labor forces. Technology developments and the automation of work offer companies a unique opportunity to evolve and upgrade their suite of offerings. With labor markets around the world aging so rapidly, firms will be

required to use the unique abilities of older workers as part of this evolution. This underscores the need for a widespread change in how we think about the future of work and ensuring older workers have a role in this journey toward building a workforce for the future. ◆

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Renée McGowan CEO, ASIA, MERCER



Natalie Corrado GLOBAL BUSINESS STRATEGY MANAGER FOR INDIVIDUAL WEALTH, MERCER

Pay, Gender, and Pensions: High Time to Retire the Gender Pay Gap

By Zara Nanu

t's been 55 years since the passing of the Equal Pay Act in the United States and 48 years since a similar act was passed in the United Kingdom. Women who were entering the workforce at that time should now be retiring on equal footing as men. But nothing could not be further from the truth, and pay disparities are still very much a part of employment and retirement.

The World Economic Forum estimates the gender pay gap is at 60 percent globally, and it will take 217 years to close it. The World Economic Forum also estimates that, by 2030, most of us will be in self-driving cars, health care will be reshaped by technology and automation, and we will be on our way to the Red Planet. So, in 2030, while we are surrounded by this technological advancement, we will still be two centuries away from closing the gender pay gap. Surely we can leverage this technology to accelerate equality.

Increased access to data as well as various regulatory measures around the world mean that the gender pay gap is becoming an acknowledged fact. Most companies have one, and the reasons behind it are diverse. Moreover, the pay gap does not stop at the place of employment. It follows women into their pension age. This article will outline the current gender pay gap context and its impact on the pensions gap, and explore steps that can help us achieve parity faster.

The UK government recently introduced legislation that makes it mandatory for companies to analyze their gender pay gap and report six key figures to their stakeholders. When 10,736 companies reported their gaps in April 2018, the gender pay gap stopped being a myth and became a reality.

The only myths remaining are those that confuse the gender pay gap with equal pay. Equal pay means that men and women in the same employment performing equal or similar work must be remunerated equally. This is a legal requirement in most Western countries, and the United States is no exception. The Equal Pay Act of 1963 is a US labor law aimed at abolishing wage disparity based on sex. It was signed into law seven years before the UK Equal Pay Act.

The gender pay gap, on the other hand, is more about comparing average employees within a company, or an industry. It highlights discrepancies that are due to occupational segregation (women being largely present in lower-paid occupations and men in higher-paid occupations), lack of women in senior roles, what is known as the *motherhood penalty*, and a lack of flexibility and part-time opportunities in senior roles.

Although statistically we would use different methods to measure and understand these pay gaps, one thing is clear: these two notions are two sides of the same coin and need to be addressed together if we want to achieve earning parity in employment and retirement.

Why would we do that? Besides the ethical and moral implications of equality, the International Monetary Fund estimates that if women had equal access to the economy, Gross Domestic Product would increase by 5 percent in the United States, 9 percent in Japan, and 12 percent in the United Arab Emirates.¹ Research by McKinsey estimates that closing the gender pay gap in the United Kingdom could add £150 billion to GDP by 2025.²

Over the past 3 years at Gapsquare, our software has analyzed data that

"We are starting to see many interesting trends. One such trend that has predominated across industry, company size, and geography is that the gender pay gap starts to accelerate when women reach their 30s and doubles with every decade in the workplace."

cover more than 300,000 employees of different ages, occupations, experience levels, and job types. We are starting to see many interesting trends. One such trend that has predominated across industry, company size, and geography is that the gender pay gap starts to accelerate when women reach their 30s and doubles with every decade in the workplace.

According to our aggregated data (as shown in the chart on the next page), women start with an average gender pay gap of 2 percent when they enter the workforce in their early 20s. It increases to nearly 20 percent by the time they are in their 50s. A recent Equalities and Human Rights Commission study found the same when analyzing data from 1994, 2004, and 2014.³

The gender pay gap increases even more if women stay in the same workplace. After 3 years in a company, the gender pay gap — much like the age gap — begins to double every decade.

Research shows that the reasons behind this increase are similar to those outlined for age: women often take time off to care for young families, which in turn leads to slow (or no) career progression. These factors have an impact on women's earning capacity throughout their working lives, and women subsequently bring these inequalities with them into their pension age.⁴

Equal pay is one obvious answer men and women performing equal or similar work should be remunerated at the same level. But this will provide only half of the solution. The other half is addressing the gender pay gap.

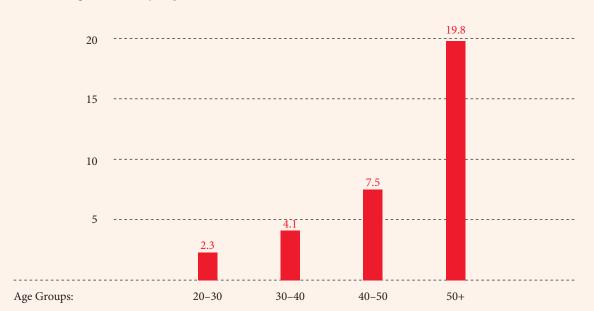
Data indicate three key trending issues that can help narrow the gender pay gap faster: (a) occupational segregation, (b) shared parental leave, and (c) an overhaul of current remuneration and pay structures.

Occupational segregation is the clustering of certain workers with similar demographic characteristics — in this case, gender — in a specific occupation. The current workforce landscape still has jobs that are dominated by male workers and some roles that are dominated by female workers. This is important for this conversation because roles that are dominated by women pay less per hour than roles dominated by men. Nursing roles, for instance, pay less per hour than computer programming roles. Because of this, women's earning capacity is diminished, and their retirement benefits are decreased.⁵ Occupational segregation is not something we can change overnight, but we can bring about a more conscious change when thinking about recruiting people into new roles.

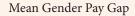
Alongside our stereotypes and biases, the CV is another culprit in why occupational segregation continues to thrive. We live in a world where jobs are changing fast. Some of the jobs advertised on the job market today did not exist 20 years ago. Social media manager, data scientist, app developer, and cloud computing manager are jobs that have appeared in the past 10 years, and yet we still use a CV to recruit for such roles. Removing the CV from recruitment and focusing on a person's capacity to learn and adapt to the new role can help shift our mindset on occupational segregation.

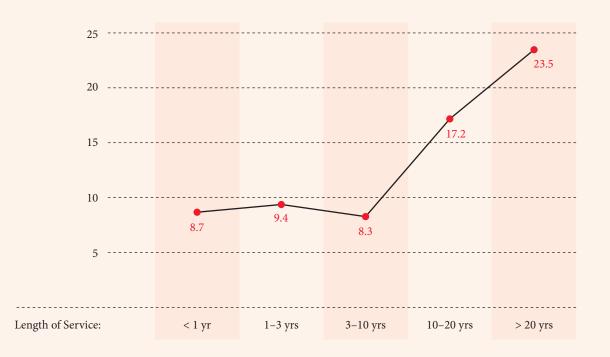
Shared parental leave is instrumental in ensuring career breaks have the same impact on the careers of both men and women. Such career breaks are what cause the gender pay gap to increase after the age of 30. In 2015, the

Gender Pay Gap by Age and Tenure



Mean Average Gender Pay Gap





"If the gender pay gap is to close in the year 2235, per the World Economic Forum's estimate, it will take until at least 2270 to start receiving retirement benefits that would be free of pay disparities."

United Kingdom saw the introduction of new rights allowing UK parents to share leave following the birth or adoption of their child. They allows parents to share up to 50 weeks of leave, 37 of which are paid. Scandinavian countries have such legislation providing even longer leave. As an example, Sweden offers 480 days per child, which parents can share as they wish. They are paid at a rate of about 80 percent of their salary.

The United Kingdom has only recently introduced shared parental leave, and the uptake of such leave among men still falls short of being equal. Encouraging more men to take these breaks can help accelerate equality for women.

Rethink pay structures and remuneration in line with the realities and requirements of the 21st century. We live in a world of the digital workplace. Millennials and generations X and Y make up about 75 percent of the current workforce. They are motivated by fairness in pay, work-life balance, and a reflection of their values in their work. A 9–5 workplace is no longer suitable for these generations, and a remuneration structure that rewards a certain number of worked hours is dated. Instead, changes can be made to remunerate productivity and output, thus increasing uptake of part-time and flexible work. These changes will hit at the root causes of the gender pay gap.

It might seem that the changes outlined above require a momentous shift in working culture and mentality. Luckily, we live in an age in which technology is changing the way we travel, communicate, and learn. It can help us move on these recommendations with equally digital speed.

It's high time to retire the gender pay gap so that both men and women can enjoy their rights equally after they finish their professional careers. \blacklozenge

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Zara Nanu co-founder and ceo gapsquare, uk

Social Protection for Older Women

By Isabel Ortiz and Florian Juergens

Gender equality and women's empowerment are increasingly prominent themes on the international policy agenda. The empowerment of women is essential for realising the Sustainable Development Goals (SDGs) by 2030, agreed by all countries at the United Nations in 2015.

Also at the forefront of the development agenda is social protection, or social security, and its SDG target 1.3, committing countries to implement national social protection systems for all, including floors, to prevent and reduce poverty and inequality.

Without considering older women, the SDGs and other UN commitments risk failure. The number of people aged 60 or over was 962 million in 2017, more than twice as large as in 1980 — of which 54 percent are women. Understanding demographic trends is crucial for implementing the UN 2030 Agenda, and countries must leverage the opportunities to address the needs and rights of older women as well as men, including those related to labour markets, health and care systems, and social protection.

Extending Pension Coverage to All Older Women and Men

Pensions are the most widespread form of social protection. At the global level 68 percent of older people receive a pension, and there is significant progress in recent years. However, there are large regional variations. The Americas, Europe and Central Asia have largely universal coverage, while in Sub-Saharan Africa, Southern Asia and the Arab States less than 30 percent of older persons receive a pension (see figure).

Women are less likely than men to receive a pension, and if they do, they have considerably lower benefit levels. Even in countries where women enjoy widespread pension coverage, their benefit levels are often considerably lower than men's. For example, according to a recent EU Commission report, men on average are entitled to pensions which are greater than those of women by 40 percent, though some European countries manage to reduce the pension gap to below 7 percent, such as in Estonia, Denmark and Norway, as presented below.

Women's Life-course and Pension Coverage

Throughout their lives, women and men are exposed to different vulnerabilities and disadvantages, which are often specific to their gender. For women, inequalities in older age stem from the accumulation of multiple and interconnected discrimination and inequalities, such as education and wage differentials, gendered work norms, productive and reproductive roles, and lack of voice and agency.

Women are more likely than men to live in poverty at all ages, but in older age the difference is more significant. They are less able to rely on savings in older age as they have often worked fewer years and earned less in that time. In many countries, women's jobs tend to be in informal and low-paid employment. Finding well-paid jobs may be difficult due to lesser access to formal education and training, while unpaid family care responsibilities absorb much of their time.

While the better-off may be able to ensure income security in their old-age through savings, assets or the support of their family, the reality faced by most of the world's population is that sources of income are low and unreliable, even during their most productive years. This makes it almost impossible for anyone but the wealthiest to rely on private savings as a main source of support in the final years.

This is particularly true for older women. After a lifetime of disadvantage, discrimination and unpaid work, they arrive at older age with limited economic and social assets to call upon. There is an urgent need for universal and gender-equitable social protection and pension systems to redress this.

Making Social Policies Work for Women

Public policies need to address the root causes of gender inequalities, particularly in education, employment and social protection, including care. To start, greater efforts are necessary to support women's economic empowerment through eliminating discrimination in the labour market and wider society

Pensions: Effective Coverage for Older Persons by World Region

Northern America				1
Northern, Southern, and Western Europe				97.
Europe and Central Asia				95.29
Eastern Europe				93.8%
Americas				86.2%
Central and Western Asia				82.0%
Eastern Asia			7	7.3%
South-Eastern Asia			74.1	%
Oceania			74.1	%
Latin America and the Caribbean			70.8%	
Asia and Pacific		55.2	2%	
Northern Africa		47.0%		
Africa	29.6%			
Arab States	27.4%			
Southern Asia	23.6%			
Sub-Saharan Africa	22.7%			
WORLD			67.9%	

SOURCE ILO World Social Protection Report 2017-19 "While women's disadvantage in older age is mainly a result of discrimination throughout the life-course, the design of gender-sensitive pension systems is essential."

and increasing women's access to decent work.

Unpaid care work is the main barrier preventing women from getting into, remaining and progressing in the labour force. Recent ILO figures show that globally women are performing more than three-quarters of the time spent in unpaid care work, more than three times as much as men. Sweeping changes in social policies should address the rising need for care and tackle the huge disparity between women's and men's unpaid care responsibilities. While women's disadvantage in older age is mainly a result of discrimination throughout the life-course, the design of gender-sensitive pension systems is essential. This is relevant for both social insurance and social assistance.

Social Pensions are Key to Reduce Poverty for Older Women

With regards to the social assistance, the good news is that more and more countries are implementing non-contributory social pensions, often on a universal basis, which provide a basic stipend for all older women and men.

Non-contributory social pensions are becoming an increasingly important element of public pension policy, particularly in the attempts of lower and middle-income countries to achieve universal coverage through a mix of social insurance, financed by contributions, and social assistance, financed from the general budget. Universal pension systems combining social pensions and contributory pensions have been developed in Argentina, Belarus, Bolivia, Botswana, Cabo Verde, China, Georgia, Kenya, Kyrgyzstan, Lesotho, Maldives, Mauritius, Mongolia, Namibia, Seychelles, South Africa, Swaziland, Timor-Leste, Trinidad and Tobago, Ukraine, Uruguay, Uzbekistan and Zanzibar (Tanzania). Other countries made considerable progress in recent years and have near universal pension coverage.

Social pensions are not based on continuous participation in paid formal sector employment and therefore more accurately reflect women's life-courses. To ensure that social pensions effectively reach all older women, especially the marginalized, social pensions should be provided on a universal basis.

Evidence shows they bolster women's economic autonomy, strengthen their voice and agency, and can be an effective way of recognising the value of women's unpaid work.

However, benefit levels are often insufficient to meet the needs of older women and should be increased and appropriately indexed to ensure basic income security.

Improving Social Insurance Pensions – Learning from Norway

Most people aim to receive better benefits than those currently provided by basic social assistance schemes, including social pensions, which is why social insurance is so important and why it is key that women's standing in such schemes is improved.

Fortunately, public social insurance increasingly contains elements to counteract gender inequalities, such as by recognizing maternity and time spent on unpaid care as contributory years, or by introducing a minimum guaranteed pension level. For instance, the redistributive mechanism in the Norwegian pension and tax system reduces the 43 percent income difference between working women and men to only seven per cent in pension income.

This type of gender-sensitive redistributive mechanism is not found in privatized pensions systems. In the 30 countries that privatized pensions over the last three decades, women's inequality has been exacerbated. The redistributive components of public social security systems were eliminated with the introduction of individual accounts that more narrowly reflect a person's lifetime earnings. As a result, those with low incomes or unable to work, even if temporarily, had very small savings and consequently ended up with small pensions.

Public social insurance schemes, based on solidarity and collective financing, are by far the most widespread form of old-age protection globally, and, if we follow the lead from Norway, have the potential to significantly reduce gendered inequalities in older age. Recognizing this, many countries are exploring strategies to expand the coverage of contributory schemes in the informal economy, where women are overrepresented. The Uruguayan Monotax, a simplified scheme for micro and small enterprises to pay taxes and make social security contributions, is a good example of such innovation and 60 percent of its affiliates are women.

To conclude, this article has briefly presented key social protection issues for older women, agreed by all countries in the Sustainable Development Goals and other UN commitments. Such social protection policies can only be part of the solution and lasting transformative change will require concerted efforts to address the root causes of gender inequalities throughout the lifecourse, including public policies to address unpaid care work, women's empowerment, access to decent work and to equitable social security systems, to effectively address the needs and rights of older women.



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Florian Juergens global social protection advisor, helpage international

Age Is Just a Number

By Susan Weinstock

Currently, 10,000 baby boomers turn 65 every day, and this trend will continue until 2030. The US labor market is extremely tight, and labor force demographics are contributing to this squeeze. In fact, employers report that finding talent is currently among their top concerns.

AARP is working with employers to educate them on the value of experienced workers, and part of this effort is our Employer Pledge Program (EPP). The EPP is a nationwide group of employers that stand with AARP in affirming the value of experienced workers and are committed to developing diverse organizations. By signing the pledge, participating employers publicly affirm that they

- Believe in equal opportunity for all workers, regardless of age;
- Believe that workers ages 50 and older should have a level playing field in their ability to compete for and obtain jobs;
- Recognize the value of experienced workers; and

 Recruit across diverse age groups and consider all applicants on an equal basis.

As of this writing, almost 800 employers have signed the pledge, and we continue to seek out additional participants. Experienced workers can be the solution to lessen the impact of today's labor shortages, but unfortunately, persistent myths about this cohort too often become a barrier to retaining and hiring experienced workers. AARP is working with employers to dispel some of these myths so they can see the value in hiring and retaining these employees.

One terrible myth is that older workers are slow and can't keep up with their younger counterparts. In fact, productivity actually *increases* with age. Studies on older assembly line workers in Germany revealed that the ability to anticipate problems and either avoid them altogether or solve them on the fly meant that older workers' productivity, regardless of the physical demands of the job, didn't diminish with age, it increased.

Another myth is that older workers are not skilled in use of the latest technology — they don't use social media or know how to work their mobile devices. This myth overlooks the fact that baby boomers are the generation that invented the Internet, the personal computer, the Intel processor, and more. Everything that has made the current wave of technological innovation possible was invented by the boomers. Studies that have examined the performance of older tech workers have shown consistently that technical skills do not decline with age.

Yet another stubborn myth is that older workers are just coasting toward retirement and not interested in learning new things. AARP's research busts this myth as well: two essential elements of an ideal job for workers ages 45 to 64 include (a) the opportunity to learn something new (more than 80 percent) and (b) on-the-job training (more than 70 percent).

Another element of AARP's focus, besides busting myths about older workers, is to showcase their value. Our research shows that 65 percent of employees ages 55 and older in large companies are engaged, meaning that they speak positively about their "Experienced workers can be the solution to lessen the impact of today's labor shortages, but unfortunately, persistent myths about this cohort too often become a barrier to retaining and hiring experienced workers."

workplace, stay with their employer, and put forth their best effort, compared with 58-60 percent of employees under age 55. Workers ages 55 and older are also the most motivated, in that they exert extra effort and contribute more than is normally required in their job, with 81 percent of workers ages 55 and older deemed motivated compared with 77 percent of workers ages 24-54. And engagement matters. Research shows that business units that score in the top quartile on employee engagement are 21 percent more productive, have 22 percent higher profitability, and experience 37 percent less absenteeism when compared with those in the bottom quartile.

Another great asset older workers bring to the table is applied skills, often called soft or baseline skills. These are skills garnered from years in the workforce, like professionalism, remaining calm under pressure, relationship building, emotional intelligence, and empathy.

Finally, older workers provide stability to the workforce due to their lower levels of unexpected turnover. Almost half of workers under 50 represent risk of unplanned turnover, since 39 percent said they would consider other offers and 10 percent were actively looking whereas only 29 percent of workers ages 50 and older pose the same risk. The costs of turnover are high; employers will need to spend the equivalent of six to nine months of an employee's salary in order to find and train his or her replacement. Having experienced workers in the mix can help reduce turnover costs in addition to keeping valuable institutional knowledge in house.

Age diversity in work teams is a key component of a successful workplace. When an employer develops and supports mixed-age teams, turnover declines, the productivity of both older and younger workers increases, and performance improves when teams are engaged in creative or complex decision-making tasks.

AARP empowers people to choose how they live as they age. Working with employers, we can reject ageist stereotypes and allow people to continue to thrive in the workforce, no matter their age. ◆



Susan Weinstock vice president of financial resilience, aarp

Growing Older in Cities: Addressing the Twin Challenges of Ageing and Urbanization

By Tedros Adhanom Ghebreyesus and Alana Officer

A t a time of unpredictable challenges for health, two trends are certain: populations around the world are ageing rapidly and we are experiencing the largest wave of urban growth in history. Demographic transition and urbanization will affect almost all aspects of society — how we live, work, and play throughout our lives and into older age.

Health is central to our experience of older age. With good health, anything becomes possible. Without it, getting out of bed can be an overwhelming challenge. For the first time in history, most people can expect to live to age 60 or beyond, although major inequalities in life expectancy persist both across and within countries. Globally, the total number of people over age 60 is set to double by 2050, rising from 1 billion to 2 billion, with 80 percent living in low- and middle-income countries.

Unfortunately, having both a long AND a healthy life are far from the reality for most people. There is very little evidence to suggest that these extra years are spent in good health. A current hallmark of older age globally is the enormous diversity of health and functioning that people experience largely a consequence of the cumulative impacts of advantage or disadvantage throughout people's lives. The poorest have the worst health and the least access to the resources they need to age well. Earlier this year, when the World Health Organization analysed data for 29 million people ages 60 and older, we

found that 75 percent were poor and 1 in every 7 were in poor health.

The quest for better health of older people will be won or lost in our cities. Today, over half (57 percent) of all older people live in towns and cities. By 2050, over 1 billion adults ages 60 and older will be living in urban areas. Cities and communities must find solutions to enable people to live long and healthy lives.

Cities and communities directly affect health, through barriers or incentives that affect opportunities, decisions, and behaviour. Cities and communities that are age-friendly foster healthy and active ageing through two key mechanisms:

- Promoting health and building and maintaining physical and mental capacity across the life course (e.g., by reducing air pollution, encouraging physical activity, reducing crime rates and traffic crashes, and providing quality health care); and
- Enabling people who experience a loss of capacity to continue to do the things they value (e.g., by providing appropriate assistive technologies, offering accessible public transport, modifying housing, developing safer neighborhoods, and providing long-term care).

In 2010 the World Health Organization (WHO) set up the WHO Global Network for Age-Friendly Cities and Communities. With support from 14 affiliates, including AARP, over 800 mayors in 40 countries have joined the movement and committed to making their cities and communities more age-friendly. Central to these concrete actions is the involvement of a broad range of sectors and stakeholders, including older people, with a focus on equity, intergenerational relations, and solidarity.

For example, in New York City, continued commitment by successive mayors has been vital in developing measures to improve the safety of older pedestrians in areas of the city where older people had been involved in accidents that resulted in severe injuries or fatalities. Between 2009 and 2014, more than 600 dangerous intersections were redesigned, and pedestrian fatalities among older people decreased by 21 percent. Other more recent improvements include 4,000 new transparent bus shelters that increase visibility and safety, and an additional 1,800 specially designed benches that enable older people, even with reduced mobility, to get out and about. As a result, older people have reported establishing new social ties while sitting on benches.

In Ottawa, neighbourhood walking audits and advocacy led by older citizens resulted in the passage of a new speed reduction policy, lengthened cross times at 5 busy intersections, audible pedestrian signals installed at 75 percent of all intersections, 33 new "The quest for better health of older people will be won or lost in our cities. Today, over half (57 percent) of all older people live in towns and cities. By 2050, over 1 billion adults ages 60 and older will be living in urban areas."

red-light cameras, better signage, and a citywide campaign to promote safe crosswalk usage by all road users of all ages and abilities.

In Barcelona, 200 local councils refurbish 2,000 houses a year, on average, to ensure that the most vulnerable older adults can live in a home that is accessible, safe, hygienic, and energy efficient. Porto City in Portugal is tackling older adults' social isolation and helping students find affordable accommodation by managing a programme that matches older adults willing to share their homes with students seeking accommodation. WHO's database of age-friendly practices provides a wealth of concrete examples of changes that members have made.

Health is a platform for sustainable development, and our cities and communities are vehicles for realizing the right to health. In Goals 3 and 11 of the Sustainable Development Goals¹, the world has committed to "Ensure healthy lives and promote well-being for all, at all ages" and to "Make cities and human settlements inclusive, safe, resilient and sustainable." Cities and communities that foster healthy ageing are essential for people to fulfill their potential throughout their lives, for individuals and families to receive the support they need, for cities and communities to prosper, and for nations to thrive. The WHO Global Network for Age-friendly Cities and Communities is an important initiative to foster healthy ageing by:

- Inspiring change by showing what can be done and how it can be done;
- Connecting cities and communities worldwide to facilitate the exchange of information, knowledge, and experience; and
- Supporting cities and communities to find appropriate, innovative, and evidence-based solutions.

Making tangible improvements in the lives of older people, their families, and their communities is central to the Decade of Healthy Ageing (2021–2030) – the last ten years of action under the WHO Global Strategy on Ageing and Health (2016-2030). Age-friendly cities and communities across the world will be key to achieving a healthier, safer, and fairer world for everyone, everywhere. ◆



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The Sustainable Development Goals are a collection of 17 global goals set by the United Nations General Assembly in 2015, which cover social and economic development issues including poverty, hunger, health, education, global warming, gender equality, water, sanitation, energy, urbanization, environment and social justice.

Tackling Dementia by Investing in Translational Medicine

By Angus J. Grant

The challenge posed by dementia is enormous. The World Health Organization predicts the number of people living with dementia around the world will increase from 50 million in 2018 to 150 million by 2050. In the United States, the number of people with dementia is projected to rise from 5.7 million to 14 million over the same period. These forecasts are alarming and they should be.

The concern is not only because dementia is a cruel disease that robs people of their abilities, personality, and dignity, but also because it creates a significant burden for families and society. Dementia can last for years, and providing the necessary care for those with this condition is difficult and costly.

Contributing to this burden is the lack of effective treatments for people with dementia. Finding ways to prevent, delay, treat, and ultimately cure this condition is critical to prevent a health crisis. However, developing meaningful treatments has proved challenging for the scientific, biotech, and health care communities.

One reason dementia is hard to treat is because it is difficult to define. Dementia is a broad term for abnormal cognitive difficulties and is especially prevalent in people as they age. It does not have a single cause. It can present on its own or in combination with other conditions. It can also result from other diseases and come in multiple different forms.

Because dementia varies so much, scientists are starting to think of it like cancer. Over the past 30 years, a greater understanding of the various forms of cancer, even within a single organ or tissue type, has enabled scientists to develop highly targeted therapies. In dementia, the well-known diseases that can underlie cognitive decline like Alzheimer's and Parkinson's may actually be segmented into different conditions that can be treated with more targeted medicines. To achieve this, the science of dementia needs to mimic the advancements made in oncology and link an understanding of the subsets and unique mechanisms of the disease to patient symptoms.

But the historic difficulty of developing treatments for dementia is not a reason to give up. Scientists at universities and in companies continue to improve their understanding of dementia and its mechanisms. In addition, governments, charities, and some companies invest in this difficult area of research.

However, turning research into treatments requires even more investment and this capital is difficult to find for dementia. Providing the funding needed to turn an idea into a viable therapy will help advancements in the field of dementia parallel the great strides made in cancer treatments and match effective, novel drugs to the patients they can benefit. This is the goal of the Dementia Discovery Fund.

Fund inception

The Dementia Discovery Fund (DDF) was established to diversify the dementia therapeutic landscape by providing the funding needed to bring innovative research from the laboratory into the clinic. It is the first ever venture capital fund to specialize in dementia. Its unique focus stems from its unusual inception following the World Dementia Council meeting in 2014.

David Cameron, prime minster of the United Kingdom in 2013, played a pivotal role in the DDF's formation. By focusing the G8 meeting that year on the global challenges of dementia, he cemented his advocacy for more investment. Following that meeting, the newly formed World Dementia Council worked with the UK's Department of Health and Social Care to devise a framework to tackle dementia more tangibly. The result was a partnership with the charity Alzheimer's Research UK and some of the world's largest pharmaceutical companies. Together, these organizations formed the initial investment in what became the DDF.

Today, SV Health Managers LLP manages the fund — a bid championed by Kate Bingham, a managing partner at the firm. With Bingham and SV at the helm, the fund raised an astonishing £250 million, with investments from an even more diverse group. The new investors include AARP, Quest, United Health, Bill Gates, and the NFL Players Association, among others. The key theme underlying each investment: people care about dementia and are looking for a cure.

To achieve success and help change the face of dementia therapeutics, the DDF requires a unique on-theground team. Made up of world-class neuroscientists and drug developers, the team at SV that staffs the DDF works each day to liaise with researchers, drug companies, and patients. These interactions help the team identify novel mechanisms in dementia and find cutting-edge therapeutic technologies to address them.

The diverse investor base — which contributes scientifically to the fund through regular advisory board meetings — and the expert team are the unique combination that the DDF hopes will deliver on its mission.

Daring to be different

From the start, the DDF took an innovative approach to funding new treatments. It chose to use the lack of clarity about the mechanisms that cause dementia to invest in groundbreaking science that is closely linked to aging and cognition. Many of these hypotheses have never been tested in patients.

Aging is critical because it breaks down our biological systems. Just as knees wear out, blood vessels become clogged, and cancerous cells form, the brain and cognition also change with age.

The DDF team identified four areas of interest that may be critical to brain aging and affect cognitive health:

- (Neuro)immunology (the brain–immune system connection);
- Trafficking of molecules in and around cell membranes (how cells stay healthy);
- Mitochondrial health (the neurons' energy source); and
- Brain synapses (how neurons talk to one another).

The team is also interested in exploring new ideas about how aging can contribute to cognition and dementia and is constantly on the lookout for exciting new science.

The DDF philosophy is that providing previously unavailable investments in these new areas of interest will help link the mechanisms that support brain health to therapies that can prevent or treat dementia.

Putting it into practice

When a scientist identifies a potential new mechanism to treat dementia, the team at the DDF reviews the scientific evidence that supports the theory. The team considers the likelihood that the new idea will work to treat dementia and whether the scientist or the company behind the new mechanism has a good plan to make a potentially safe and effective drug for patients. Asking these questions helps the DDF team determine if an idea can succeed during the process called translational development, in which scientific discoveries move from the laboratory toward manufacturing a drug for human testing.

For a dementia therapy, the path out of translational development into repeated rounds of patient testing and through regulatory approval is long and requires more money and time than developing drugs for other diseases. This lengthy process increases the financial risk of developing a dementia treatment, which is why more investment is needed at this stage for dementia.

Managing risk

Once the DDF has helped a company bring forward a new drug candidate, the group hopes that other investors will join in to help move the drugs to the market.

It takes significant resources for a candidate drug to become a therapy that will reach patients, as it has many hurdles to overcome. However, because the DDF shares the cost of translational development, more companies should continue to invest resources to develop innovative dementia therapies.

The combination of SV's proven biotech investing with the DDF team's unique expertise brings together critical venture experience and scientific rigor. This union enables the team to make the investments others will not. The DDF is committed to making a difference to the patients and families who are so desperately waiting for relief from this cruel disease. ◆

To learn more, please visit the DDF website at http://theddfund.com.

DDF is managed by SV Health Managers LLP, which is authorized and regulated by the Financial Conduct Authority.



Angus Grant CEO DEMENTIA DISCOVERY FUND

Age of Data: Where's Ageing?

By Alex Mihnovits

We are now living in a world where data is produced faster than ever before, in greater quantity, and on a wider range of topics.

Globally the number of household surveys increased six-fold between 1990 and 2010.¹ High demand for timely and regular evidence, including for monitoring of the Sustainable Development Goals, gave rise to production of estimates.² Additionally, new types of data emerged from the use of mobile phones, internet, social media apps, credit and debit cards, GPS, and so on.

In parallel technology, human ingenuity and different ways of looking, analysing and repurposing data have expanded our ability to harness this perpetually-growing asset, and to build a more detailed and varied understanding of the world, for better or for worse.

For example, through linking traditional socio-economic indicators with data on infrastructure (e.g. land use, building diversity, public spaces, etc.) and big data like call detail records (e.g. caller's social network, travel patterns, and number and duration of calls) it is possible to identify crime risk factors and to predict crime rate for an area.³ Information generated through social media and imagery, along with application of artificial intelligence highlight the power of data, its use and misuse as algorithms, can predict an individual's personality and preferences. According to one study, analysis of only 300 Facebook 'likes' can predict a person's personality traits more accurately than a spouse.⁴ Similarly, researchers claim that machines have learned to determine a person's sexuality from photographs.⁵

This all creates an impression that it is now possible to 'piece together' an individual's life and motivations at a specific moment in time, or even map them in detail from early childhood to an older age. The corollary of this is that we can better understand the different barriers and opportunities that individuals face in various contexts.

But is it really so?

The new report by AARP and HelpAge International *Global AgeWatch Insights: the right to health for older people, right to be counted* examines health and care needs of older men and women in low- and middle-income countries (LMICs) and how health systems can respond to ensure the availability, accessibility, acceptability, and quality of health services for older people. The report also explores whether current data is helping us to better understand changing and varying health and care needs of an individual throughout life.

The Insights report finds that there are gaps in relation to evidence on health and ageing of the current cohorts of older men and women.

For example, we don't always know underlying causes of death. Globally only 9 per cent of death are registered in LMICs. More than half (56 per cent) of countries with no death registration are in Africa.⁶

Additionally, data might not always give an accurate picture of the extent of health conditions. Boerma et al. found that data on maternal mortality generated from statistical modelling by the United Nations and the Institute for Health Metrics and Evaluation differed by 35 and 55 per cent respectively from the data collected by Demographic and Health Survey.

While there are examples of modelled data that closely predicts empirical data, the accuracy of predicted estimates depends on the quality "The new report by AARP and HelpAge International examines health and care needs of older men and women in low- and middle-income countries (LMICs) and how health systems can respond to ensure the availability, accessibility, acceptability, and quality of health services for older people."

of underlying data, assumptions and methodological choices of the model.⁷ Researchers note that "[...] statistics for indicators such as mortality associated with non-communicable disease or suicide, or monitoring access and quality of healthcare by estimates based on mortality by case data, should be interpreted with great caution for countries with poor cause of death data."⁸

Censuses, administrative data and household surveys continue to play important role within official statistics as primary sources of data on population. However, they contain limited information about health and care needs of older people, and some surveys have upper age caps that exclude older men and women above a certain age from data collection.

Ageing-specific surveys like the World Health Organization's Study on global AGEing and adult health (SAGE) and Health and Retirement Studies offer more breadth and scope, covering variety of topics.⁹ For example, Longitudinal Ageing Study in India (LASI) the largest study of its kind includes Health, Economic and Social modules covering disease burden and risk factors, functional health, cognition and mental health, health care and financing, housing and environments, work, pension and retirement, family, social network, and social welfare programs, along with collection of biomarkers.¹⁰

Yet these studies are rare. In 25 LMICs in Asia-Pacific less than half (10) countries conducted an ageing-specific survey.¹¹ Even when a specialised survey is administered there is a wide variation in what information is collected. The recent review of 51 longitudinal studies on ageing found that less than half (44 per cent) of studies included questions on cognitive function, and slightly more than half of the studies covered health and physical performance (51 per cent), and socio-economic factors (55 per cent). Information about health costs was collected only by one study.¹²

As for the 'treasure trove' of information from Facebook 'likes' and mobile phones, less than half of older people aged 75 and over own a mobile phone, and only 10 per cent of older men and women use the Internet.¹³

The above are just a few examples of challenges involved in collection and production of high quality data on

Without Good Data, Older People Cannot Realize Their Right to Health

In Africa, 34 of 40 countries that have conducted the WHO STEPS survey on non-communicable diseases have not included anyone over the age of 64. We need good quality, timely data disaggregated by sex, age, disability and other relevant characteristics to measure, understand and respond to the diverse and specific needs of older men and women, and to monitor progress on the right to health for all.

Data collection	 Remove upper-age caps that exclude older people from surveys. Develop a life-course framework for statistics on ageing to guide national data collection. Invest in capacity-building in national statistical offices, especially in low and middle-income countries, to produce quality data on ageing, health and older people. Collect data directly from older people, including through cross-sectional and longitudinal surveys on ageing. 			
Analysis	 Develop guidelines for consistent analysis and reporting of data by age, sex and disability. 			
Reporting	 Promote wider reporting of data collected across different data tools. Remove unnecessary restrictions on access to microdata while respecting privacy and confidentiality of respondents. Strengthen efforts for timely and regular publication of survey results. 			
Use	 Ensure detailed data by sex, age and disability is included in national health plans to inform policy and programme implementation. Improve coverage and quality of data on births and deaths (CRVS) to ensure health policy and practice are well informed. 			
Better Data				

ageing and older people. Inadequate data has implications.

The gaps and issues described earlier results in production of statistics on health and ageing that provide only a narrow and partial understanding of ageing, and cannot therefore, adequately inform policy at national levels. In this instance data itself becomes a further barrier to the inclusion of older men and women in policy and program response.

So what can be done? There are a number of ways to improve collection, analysis, reporting and use of primary and secondary data on ageing and older people at global, national and local levels. (see infographic)

One solution is development of national conceptual and analytical framework for ageing related statistics over the life course. For example, Statistics Canada's ageing framework guides review of data and analysis of ageing produced internally and externally.¹⁴ It help to identify merging ageing issues and future data needs, as well as data gaps, and required improvements in data collection and analysis.

In March 2018 the UN Statistical Commission established the Titchfield Group.¹⁵ A voluntary group of national statistical offices that aims to develop standardised tools and methods for producing statistics on ageing and age-disaggregated data. The Group represents an important step and another concrete solution towards better data on ageing. • pp.607609, DOI:https://doi.org/10.1016/S0140-6736(18)30586-5

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Doctor's Orders: Life's Healthier with Travel and Play Breaks

By Erwin J. Tan

n many industrialized countries, we accept the value of play and travel in youth. We understand that for young people, it promotes physical activity, stress reduction, creativity, social connections, and personal development. The United Nations High Commission for Human Rights has affirmed that every child has a "right to rest and leisure, to engage in play and recreational activities appropriate to the age of the child."¹ faraway places ranging from the opposite coast (San Francisco) to across the ocean (Italy) to join us in Washington, DC, in a space at AARP headquarters called the Hatchery designed for innovation. The unprecedented day, filled with exploration and discussion, ended on a unique note, with some thought leaders hopping into kayaks and others reconnecting with croquet.



Yet, in fact, the benefits of play and travel are relevant across all ages and are important for health as we age. At AARP, we believe that play — in the form of sports, hobbies or daily walks, or travel in the form of vacations and long weekends — has tremendous potential to support a vibrant and healthy life.

In October, thought leaders in the areas of play and travel flew from

Backed by Research

Putting together the event was AARP's Thought Leadership group, which led the exploration of scientific evidence supporting the event's very name, "Health Benefits of Travel and Play for Grownups." Alison Bryant, senior vice president of research at AARP, strengthened the case, sharing new survey research from AARP showing that people report a range of benefits from travel, from feeling more relaxed to experiencing strengthened relationships.

"Play is fundamental," said Bryant. "It is fundamental to life and learning. And we hear this all the time when it comes to kids. Our idea is that we should really be talking about this across the lifespan."

This, of course, all fits seamlessly into AARP's broader work. As a part of AARP's work to disrupt aging by supporting people in living the way they want as they age, we seek to support people of all ages in travel and play.

Play is what psychologists call an intrinsic motivator. It is satisfying and can be especially effective in supporting regular behavior that can otherwise be difficult to sustain, such as physical activity. Play and travel are especially powerful because they are inspirational and offer opportunities to develop cultural awareness and retrain at midlife for a new career rather than retiring. When, at age 36, I returned to Indonesia, my country of birth, for the first time since I was an infant, the travel inspired me to be closer to my parents and more mindful of my life goals to start a family. As people live longer, increasingly to 100,² they are seeking more than just the necessities of life — they aspire to discover, to play, and to connect. In the "blue zones" (regions of the world where people are more likely to live to 100³) it is more common to see people walking and biking to town, and integrating healthy behaviors into their leisure and work.

Does it matter what kind of vacation you take? Participants in the AARP event considered that question. Elissa Epel of the University of California at San Francisco discussed the "vacation effect" shown in a study that randomized participants in either a relaxing poolside resort experience or a mindful meditation retreat.⁴ Which group did better after six days? Both groups showed similar changes in gene expression related to reduced chronic stress. However, those who practiced mindfulness had prolonged benefits, lasting up to 10 months. So, while a mindfulness retreat may provide lasting take-home tools, both forms of getaways are good for you.

AARP Action & Insights

Perhaps the biggest takeaway, then, is simply this: Don't skip the vacation. Sure enough, women who skip vacations feel more stress and tend to develop heart disease sooner.⁵ While further research is needed to determine the health benefits of different play and travel experiences, there is evidence that what is important is getting away. This is the first step.

Opportunities and Disparities

The benefits of play and travel should not be limited to those who can afford a six-day wellness retreat. Participants at the AARP event agreed that people of all ages and backgrounds need access to new travel and play experiences. Fran Mainella, former director of the US National Park Service, discussed how public lands are a gateway to healthy living. Jiminy Wickets founder James Creasey described a resoundingly successful intergenerational croquet program that links high school students and residents of assisted living facilities.

GirlTrek Field Producer Ebony Andrews, meanwhile, described how the organization helps black women take charge of their health by addressing barriers to play for many people, such as the lack of access to our public lands. GirlTrek has taken hundreds of women to the Rockies, allowing them to experience for the first time the immense natural beauty of the mountains. Many women, Andrews noted, may think of a vacation as an indulgence. Given the stresses of life and counteracting benefits of play, that notion must change — among all demographics.

"Combat the notion that self-care is selfish," Andrews urged. "Self-care is not indulgent. It is self-preservation."

Play Powers the Longevity Economy

Debra Whitman, AARP's chief policy officer, summed up the day by pointing out how today's longer lifespans mean that the traditional concept of three life stages—that is, a childhood characterized by play followed by work in adulthood, then play and leisure in retirement—needs to be rendered obsolete. This three-stage life will be replaced by a multistage life during which learning, work, and play are integrated. The multistage life presents an opportunity and challenge for all sectors of our economy. AARP Thought Leadership and AARP Research have been working on better understanding what we call the longevity economy, a concept that includes measurement of the economic contribution of people ages 50 and older. In 2015, the size of the longevity economy was measured at \$5.6 trillion — and it's growing.

Play is a part of that hefty figure. The leisure and hospitality sector accounts for more than 6 percent of consumer expenditure's impact on GDP. We challenge all economic sectors to create programs that increase opportunities for people of all ages to play — and, as for the previously mentioned disparities, we expect businesses and government to deliver those opportunities to all ZIP codes and for all levels of ability. As the Health Benefits of Travel and Play for Grownups gathering revealed, we understand better than ever that play is a health imperative.

"We need to play as we age to remain healthy and avoid burnout," said Whitman, capturing a salient theme of the day. "Carving time out where we take care of ourselves and take care of others is critical. No guilt. Starting now, play is an integral part of life at all ages."

Finally, Whitman succinctly underscored the science-based foundation of the day's message. "The evidence is in," she said. "Play and travel will inspire health benefits for grownups." ◆

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Erwin J. Tan DIRECTOR OF THOUGHT LEADERSHIP-HEALTH, AARP

Guiding Massachusetts Toward an Age-Friendly Future

By Charlie Baker

The United States needs to think differently about aging, and in Massachusetts we are doing just that. We are focused on ensuring that those who raised families here and strengthened our communities continue to contribute their energy, experience, and talents where they live, to make Massachusetts the most age-friendly state.

Ensuring that the commonwealth remains a great place to grow up and grow old has been a priority for my administration. In April 2017, I established the first ever Governor's Council on Aging in Massachusetts to provide advice on how we can promote healthy aging, Like most states, our population is getting older. Today, there are more people over the age of 60 than under the age of 20 living in the Bay State. Older adults are the largest and fastest growing group, and it is estimated that they will make up 23 percent of the Massachusetts population by 2035. I see this demographic shift as an incredible opportunity because as I travel across the commonwealth and visit with older adults. I see them active, engaged, and ramping up - rather than ramping down — their contributions to the community.

That's why I created a council rich with individuals with expertise in not only aging but also business, nonprofits, academia, health care and philanthropy. The council traveled throughout Massachusetts and heard from hundreds of residents. Last April, I announced 10 initial priorities based on the council's work and, half a year later, the council is off to a good start in the right direction:

 Declaring Massachusetts an age-friendly state: Massachusetts is only the second state in the nation to join AARP's network of age-friendly states.

- Including age-friendly best
 practices in the Community
 Compact Program: Community
 Compacts are agreements between
 the state and local municipalities
 to support local projects of shared
 interest using best practices
 developed at the local level.
 Through this program, cities and
 towns can receive state funding to
 support their age-friendly work.
- Promoting the designation of age-friendly employers and practices that support mature workers and workers who are caregivers: This is a competitive opportunity for Massachusetts. Older workers represent the largest pool of available talent in our workforce today. We need to tap that potential and ensure that employers understand the value that mature workers bring to the table.
- Increasing participation in employer-sponsored retirement plans and options for those without access to such plans: Along with helping older workers enter and remain in the workforce, we need to find new ways to help people of all ages save for their later years. The sooner we can help people plan, the better off it will be for them, their families, and our Commonwealth.
- Supporting caregivers through increased information and aware- ness efforts: My administration has begun to make resources and information for family caregivers easier to find and access through our state

website and through MassOptions, a dedicated aging and disability call center that connects people with state, local, and nonprofit agencies that offer services to help them.

- Promoting and updating property tax deferral programs—which can allow older people to stay in their homes and communities longer:
 Helping older residents on fixed incomes tap into the equity of their homes is an option in nearly all of our 351 communities. However, these tax deferral programs are not well understood, nor are they utilized at significant levels. The council is focused on updating and raising awareness about this option.
- Considering options, including new sources of capital, for increasing production of accessible, affordable, service-enriched housing: My administration filed major legislation to create a Housing Choice Initiative to help create 135,000 housing units over the next seven years. We were proud to have AARP Massachusetts' support and look forward to continuing our work on this important issue. Separate from the legislation, my administration has awarded more than \$10 million in recent months to encourage and empower municipalities to plan and build the diverse housing stock that the commonwealth needs to continue to thrive.
- Scaling and replicating successful Age-Friendly pilots, such as ride-sharing transportation options: Becoming age-friendly doesn't mean reinventing the wheel. We can expand successful



pilot projects, like our ride-hailing demonstrations with Uber and Lyft. We can also learn from others deeply engaged in age-friendly work in our local communities, other states, and even other countries.

- Becoming the Silicon Valley for innovative technology, products, and services related to aging: Many companies in Massachusetts are on the cutting edge of creating technologies and services to help people maintain their independence as they age. We are working to leverage the state's research and innovation sectors to help improve quality of life for older people everywhere.
- Starting to change perceptions and addressing ageism: To think differently about aging, we have to do more than think. We have to understand, talk, and act in a way that shows we value people of all ages and, concerning older adults, that we value not only their contributions of yesterday but what they can offer today and tomorrow.

In addition to the important work of the council, my administration has funded Massachusetts' Protective Services Program at the highest level ever, provided the highest level of state funding ever for Councils on Aging throughout our state, and implemented budget increases for Elder Affairs each year since 2015.

I also had the honor of signing a groundbreaking, first-in-the-nation law to improve care and treatment for the more than 130,000 Massachusetts residents living with Alzheimer's disease and other forms of dementia. This new law will enhance efforts to train frontline caregivers and will help families prepare for and manage the effects of Alzheimer's.

Of course, we have not been able to do any of this alone. Working together with strong partners such as AARP Massachusetts, the Tufts Health Plan Foundation, the Massachusetts Healthy Aging Collaborative, and many others, Massachusetts is creating a road map for a future that supports all our residents, both now and as they grow older and continue to thrive. ◆ Governor Charlie Baker and other state and national leaders formally mark Massachusetts' membership in AARP's Network of Age-Friendly States. Pictured from left: Michael Festa, AARP Massachusetts state director; Mass. Health and Human Services Secretary Marylou Sudders; Governor Baker; Eileen Connors, co-chair of the Governor's Council to Address Aging in Massachusetts; Nora Moreno Cargie, President, Tufts Health Plan Foundation; Mass. Secretary of Elder Affairs Alice Bonner; and Eric J. Schneidewind, President, AARP Board of Directors



Charlie Baker governor of massachusetts united states

Planning Age-Friendly Cities across the Globe

By Stephanie Firestone, Mildred Warner, and Xue Zhang

"Urban planning as a field has failed to acknowledge our complicity in creating communities that are exclusionary; unless we acknowledge the problem, we will not be able to rectify it."

Municipal planners are those tasked to envision the physical form and future growth of the communities in which we live. However, increasing longevity makes this task more challenging than ever before, and many communities do not support the changing needs of residents across longer lifespans.

In the United States, this is due in part to a strict separation of land uses, rigid zoning rules, and other policies and practices that have guided the development of cities over a number of decades. As a result, automobile-centric suburbs created after World War II now house many older adults who live alone and are often socially isolated. Some live in large houses they cannot maintain, built with stairs and other design features no longer navigable due to disability or frailty, and located where inadequate public transportation makes it difficult for those who no longer drive to access supermarkets and other essential services and amenities.

Thus, community planners around the world must shift their approach to address the changing demographics in their communities. Yet many planners have not made this connection. According to one US planner, "Urban planning as a field has failed to acknowledge our complicity in creating communities that are exclusionary; unless we acknowledge the problem, we will not be able to rectify it."

Asking Planners Around the World

What can age-friendly community advocates do to foster awareness within the planning community — that is, to engage planners so that they incorporate aging considerations into their ongoing local and regional planning work? With an eye toward equipping advocates with this vital information, AARP teamed up with some other organizations to find out.

In fall 2017, AARP, together with the American Planning Association's International Division, Cornell University, and international consulting firm Arup, conducted a global survey of planners to assess how and why planners are (or are not) integrating the principles of Livable Communities for ALL Ages (LCA)¹ into their planning work. Distributed through partner organizations and professional networks of planners, the survey garnered responses from 567 planners in 33 countries — 72 percent from the United States, 9 percent from Australia and New Zealand, 9 percent from Europe, 6 percent from Canada, and 4 percent from a Global South grouping that comprised Latin America, Asia, Africa, and the Middle East.

What Motivates Municipalities

First, we set out to understand why local governments took the steps necessary to make LCA a part of their practice; in other words, what were each town's or city's motivations (Figure 1)?

Interestingly, while we may presume that a tragic incident such as an older pedestrian fatality at a dangerous crosswalk is what spurs decision makers into action, this was ranked very low on the list of motivators (10 percent).

Notably, two key findings underscore the need for education. The top response was simply the "substantial growth in the aging population and the need to better serve this segment of the population" (72 percent). A number of respondents indicated that city planners and decisionmakers often underestimate the size of the rising older adult population and that they need "reminders of the statistical realities...in order

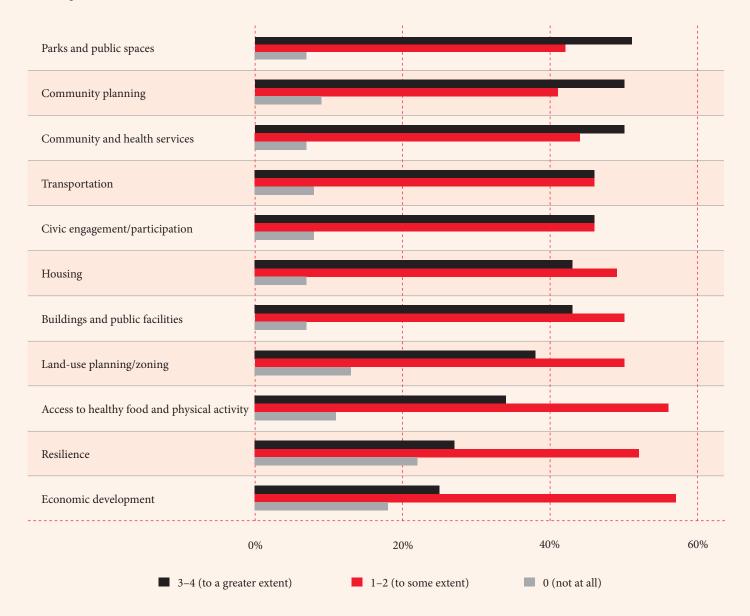
Figure 1: LCA motivations Percentage, n = 335

Substantial growth in aging population and need to better serve this segment of the population				72%	
Priority identified during a community planning process			50%		
A policy window that presented an opportunity			40%		
Local grassroots advocacy related to an issue		35%	,		
Building on interest or expertise of staff		34%			
An opportunity to leverage a project or program already underway		20%			
Policy or policies that mandate this perspective		20%			
A new funding or programmatic opportunity		19%			
Pressure from local officials	17	%			
An incident such as an older pedestrian fatality at a dangerous crosswalk	10%				
Pressure from business leaders	3%				
C	% 20	% 40	% 60	0% 80	1%

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Figure 2: LCA Incorporation in Planning Practices

Percentage, n = 298



"The generally low rating for economic development planning that incorporates aging considerations suggests a significant missed economic opportunity for local communities."

to spur policy directives for LCA-related planning and implementation."

The second most popular local government motivation for engaging in LCA was that it was a "priority identified during a community planning process" (50 percent). These top two findings illustrate the importance of educating local leadership about the facts and the implications of rapid population aging in their communities, as well as the significance of engaging the community in planning discussions to address these challenges.

The greatest regional distinction concerning motivations was that European respondents ranked "policies (i.e., national/regional) that mandate this perspective" second highest, while planners from all other countries ranked them eighth or ninth out of 11 possible motivations. Consistent with this finding is that Europe appears to benefit less from bottom-up approaches, with "local grassroots advocacy" ranking lower than in any other region.

Individual Planner's Motivations

Beyond municipal government engagement, we also asked individual planners what catalyzed their own efforts to incorporate an all-ages approach into their work. Responses proved enlightening. Social responsibility, for example, showed up a number of times. An Australian planner pointed to "a conscience and a value system that supersedes personal comfort at work, and a willingness to confront and be argued with," while a planner from Slovenia found motivation in the value of "intergenerational equity and quality of life for all."

US planners' motivations often reflected a personal vantage point. A number of US planners alluded to the importance of age diversity and personal experience within the planning ranks - for example, "hiring older planners" as well as "planners [who] have aging parents and grandparents." One planner explained that "nothing beats personal experience with inaccessible buildings, poor public transportation, and roads that are hostile to pedestrians." Planners also stressed the need for compelling, real stories, including "narratives on how current land use practices impact real people's lives." Finally, a planner in the United Kingdom was motivated by "the quality of the resulting place." With an LCA approach, this planner said, "places are better for all people."

Where Aging is Showing Up in Planning

We also wanted to know specifically how an LCA approach is reflected in the work of town and city planning — that is, what, specifically, jurisdictions are *doing* to create more livable communities for all. Of the eight actions measured, more than half of planners reported the top two LCA-related actions were "performed a walkability/ accessibility assessment" (59 percent) and "incorporated LCA in major plans" (51 percent), such as a city's comprehensive plan or a pedestrian plan. Interestingly, the third most common action, "adopted an actual policy that directly improves the quality of life for aging residents" (36 percent overall), had a significantly higher percentage among non-US respondents (66 percent). Understanding the root causes of this discrepancy will require further investigation.

The survey then examined the extent to which LCA principles were incorporated in 11 distinct areas of planning practice (Figure 2). The top three areas of LCA incorporation (50–51 percent each) were "parks and public spaces," "community planning," and "community and health services."

The second lowest ranking was for community "resilience" (27 percent) a notable disconnect given that older adults are among the most vulnerable populations in natural disasters.²

Surprisingly, at the very bottom of the rankings of planning practice areas where LCA principles were incorporated was "economic development" (25 percent). European planners, however, ranked this higher than respondents from other countries.

The generally low rating for economic development planning that incorporates aging considerations suggests a significant missed economic opportunity for local communities. In the United States, for example, more than 80 percent of household wealth is held by people over 50, and this age group generates more than half of the country's consumer spending.³ This

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Figure 3: Facilitating Practices

Percentage, n = 296



longevity dividend was apparent to one respondent, who said, "I would love to make LCA seen as more of an opportunity rather than a challenge that we need to find 'solutions' to."

How to Hook Planners

The importance of education and awareness related to workplace practices and strategies that facilitate engagement by individual planners continued to appear prominently in our findings.

The most effective of the eight strategies to encourage more planners to engage in LCA were "engaging elected officials, legislators to talk about LCA" (65 percent) and "hosting training or seminars on planning LCA" (56 percent overall, 75 percent in Canada). These findings again point to the critical need for age-friendly community advocates to educate both planners and elected officials about LCA, and to invite elected officials to participate in relevant public discussions. This will increase their understanding of the issues as they prepare for the event, provide an opportunity to potentially recruit them as allies, and allow for them to be held accountable later, if needed.

The survey asked planners what practices in their workplace facilitate their engaging an LCA approach in their work (figure 3). We found that "support from colleagues" (63% percent) was 20 points higher than any other selection, followed by "workplace policies" (43 percent) and "periodic focus group interactions with aging population" (35 percent). While being given "release time to work on LCA" ranked lowest on the list (at 10 percent), this appeared to be a more common practice among planners in Europe (27 percent). Finally, the existence of "special project funding" for LCA was thought to be a key facilitator

by only 21 percent of respondents a finding that perhaps alludes to the greater need for LCA facilitators that are systemic within the workplace and thus more sustainable over time.

In order to further interpret the survey results, we examined responses from a holistic perspective across the various survey questions.⁴ What emerged is that the two categories of "motivations" and "facilitating practices" in the workplace have the largest impact on the incorporation of LCA in the work of community planning, and that barriers encountered by planners, such as a lack of resources or more traditional planning approaches, do not appear to prevent action.

Advocating in Your Local Community

As community members and advocates seek to make their communities more

"As community members and advocates seek to make their communities more age-friendly, it is important that they understand how to effectively engage local planners and other decisionmakers."



Stephanie Firestone SENIOR STRATEGIC POLICY ADVISOR, AARP

age-friendly, it is important that they understand how to effectively engage local planners and other decisionmakers. These survey results underscore that advocates need to educate these community influencers on the substantial growth in the aging population, and to use stories from actual residents to illustrate that growth's implications for their communities. They need to facilitate the involvement of all community members, including older adults, in community planning processes, and to engage experts on the needs of the aging population. And for the business community and other stakeholders, they should highlight the economic benefits of planning for all ages and encourage appropriate investments. Finally, they should leverage staff support and advocate for municipal policies that mandate an all-ages approach to local planning.

According to one US respondent, some planners realize that incorporating LCA practices "is the right thing to do and the smart thing to do; however, many elected officials and communities haven't caught on quite yet." Advocates can play a significant role in making that happen. \blacklozenge Livable Communities for ALL Ages are communities that are intentional about being great places for people to grow up and grow old, by ensuring appropriate physical infrastructures (e.g., housing, transportation, built environment, access to healthy foods) and social infrastructures (e.g., health care, support services, engagement opportunities) for residents throughout an expanding life course.

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- We ran a correlation analysis on motivations, facilitating practices, strategies of engagement, barriers, LCA actions, and incorporation.



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FlexDanmark Optimizes Scandinavian Software Solution to Deliver Efficient, High Quality Transportation to Its Citizens

By Jana Lynott

In October 2018, AARP's Office of Policy, Research and International Affairs staff Jana Lynott and Kim Sedmak traveled to Denmark for a study tour and video shoot of the successful FlexDanmark transportation system.

When it comes to transportation for older adults, people with disabilities, and rural residents, Denmark is known in transit circles for offering efficient and customer-satisfying service. The AARP Public Policy Institute confirmed this to be true during an eight-day study tour and video shoot of the FlexTrafik system. The entity behind the system, FlexDanmark — a nationwide software company owned by five regional public transport authorities — offers a global model for truly coordinated demand responsive transportation service.

Driving all the transit choreography are the public company's five call centers that are integrated through a central nationwide dispatch system. That system assigns each trip request to a transportation provider that then sends an appropriate vehicle to the customer's door. More than 550 unique private transportation providers are integrated into this single system, which serves both urban and rural customers throughout Denmark. Hospitals, medical offices, and human service agencies easily connect their clients using the FlexDanmark portal. Regular citizens can obtain transportation to a doctor's appointment or other destination at a more affordable price than a taxi, because FlexDanmark can quickly identify another customer to share a ride with. Trips may be booked with lead times ranging from up to two weeks to two hours before.

How FlexDanmark's Services Work

FlexDanmark offers several fully integrated services within its FlexTrafik platform¹:

- A service going by the name Flex-Patient provides free transportation from home to hospital for patients who cannot arrive by regular public transportation because of illness, disability, frailty, or lack of adequate transit service in rural areas. FlexPatient service is guaranteed by federal law.
- FlexHandicap, another service, is for individuals with a severe mobility impairment. Under federal law, Denmark's regional transportation authorities must provide at reduced

cost 104 one-way leisure trips per year to citizens with severely reduced mobility because of disability or frailty, at an out-of-pocket cost no higher than the cost of public transportation.

- Municipalities have the option of subsidizing other services within the FlexTrafik platform:
 - Most municipalities invest in FlexTur, which allows any citizen to arrange demand responsive transportation through FlexTrafik. FlexTur riders share the cost of transportation with their sponsoring municipality.
 - 2. About half of the municipalities invest in FlexMunicipality, subsidized transportation to get residents to non-hospital medical appointments.

What is significant about these services is that they may use the same vehicles to transport different categories of customers. For instance, our study "More than 550 unique private transportation providers are integrated into this single system, which serves both urban and rural customers throughout Denmark."

group followed Gitte, a FlexHandicap passenger, and Susanne, a FlexTur customer, as they shared a vehicle to arrive at their respective destinations. By opening up the service to all citizens, the regional transportation authorities are able to transport more passengers in fewer vehicles, and offer them shared, yet shorter, trips. Because the platform stores rider profiles, the system is smart enough to bill each hospital, municipality, and rider according to clear cost allocation formulas. Rider profiles also indicate whether someone needs a wheelchair accessible vehicle or additional time to board. And hospital staff requesting rides for their patients can indicate if the individual needs a private vehicle without other passengers. The information is exchanged automatically - literally within seconds of the system receiving a trip request. But a dozen call center staff per- sons are available should a problem arise or for cases when a customer prefers to request a trip by phone, rather than computer or smart phone.

Cost Efficiency Mechanisms

FlexDanmark has created economies of scale through several coordinated interventions:

- Single-source contracts with individual providers, e.g., a taxicab company, were replaced by negotiated contracts with numerous providers that could meet the company's standards for driver licensing, training, and cost. When a trip request is received, FlexDanmark can schedule that trip with any number of providers.
- The five regional transportation authorities negotiate contracts with providers in their region on behalf of all municipalities within the region. In that way, they are able to put in place a better price for service.
- The FlexDanmark system views all ride requests as a pool of rides that can be planned together without limitation. The software identifies the optimal shared ride arrangements, placing all categories of customers on the same vehicle

depending on their locations of origin and destinations, as well as time of travel, traffic conditions, and specific traveler needs (e.g., wheelchair accessible vehicle, assistance getting in/out of the vehicle, etc). Furthermore, because each of the regional FlexDanmark operation centers are part of the larger national system, geographic boundaries do not pose a barrier.

 To keep FlexTur trip requests from skyrocketing and competing with regular public transportation service, municipalities and regional transportation authorities often set the FlexTur demand responsive trip price at a level high enough to encourage use of regular buses and trains. Outside urban areas, where fixed route public transportation service is not an option, the out-of pocket costs for FlexTur riders are comparable to that of regular public transportation.

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TOP "Loneliness kills you," says Gitte Aakjaer, a FlexHandicap customer who uses a wheelchair. "Flextrafik is the best way to have a social life. Because they can drive you anywhere."



BOTTOM LEFT Today, Susanne and Gitte share a ride on a FlexTrafik vehicle to their respective appointments.

BOTTOM RIGHT Susanne takes the bus to her fitness class. As a FlexTur customer Suzanne shares the cost of the transportation service with her municipality. She finds FlexTrafik's curb-to-curb service more convenient than the regular bus, but less expensive than a private taxi.

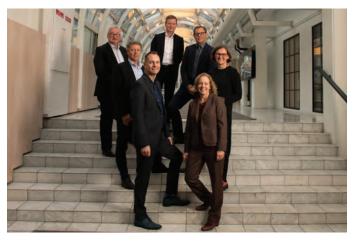
AARP Action & Insights

Photos by Mirjam Evers





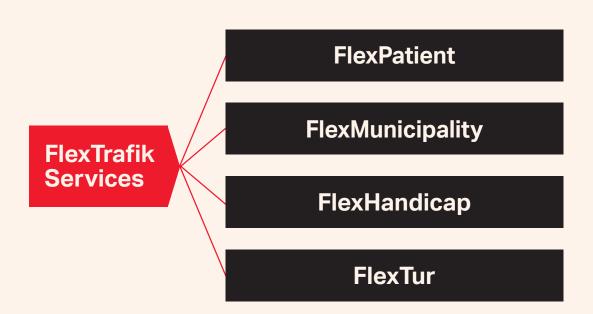
TOP FlexTrafik's technology masterminds converse with staff in the command center. The status of trips is tracked on wall monitors. 115 FlexDanmark employees ensure the buses run smoothly, payors are properly billed, and services are coordinated with larger regional transportation operations.



ABOVE LEFT FlexMedical passengers transferring to the larger regional Medical bus.

ABOVE RIGHT The author poses with FlexDanmark Transportation Authority CEOs.

LIVABLE COMMUNITIES



The result of these measures has been more competition within the system, higher vehicle utilization rates (aka, more ridesharing), lower trips costs, and more timely service.

The sophisticated level of coordination is possible because all providers in the system adopted a common transactional data specification. In other words, they all use a standardized approach to exchange trip data similar to that used by online travel agencies like Expedia. Originally developed in Sweden, the SUTI (Standardiserat Utbyte av Trafik Information) specification standardizes trip request data across multiple providers and platforms. A huge volume of exchangeable data is generated and managed by software applications that are SUTI-compliant, enabling as many as 16,000 trips daily to be booked and completed in Denmark.

The specification has lowered the market-entry costs for new (often small) transportation business owners and has reduced the cost of providing human services transportation on average by 20 percent, and as much as 40 percent for rural trips. This cost savings is beneficial to customers who pay out of pocket for the service, as well as the hospitals and municipalities that subsidize travel.

Denmark's system was not always so efficient. Prior to the establishment of FlexDanmark, transport authorities carried out their federal mandate to provide medical transportation to all qualifying citizens by arranging transportation for clients in private taxis. While the cost of transportation was just a fraction of the total spending on health care and other services, on the aggregate, by itself the transportation subsidy was still huge, motivating regional transportation authorities to discover a more efficient means of delivering the service, thus paving the way for the creation of FlexDanmark.

In many respects, the pre-FlexDanmark medical transportation system resembled that of Medicaid Non-Emergency Medical Transportation (NEMT) in the US today (Note: Medicaid NEMT is the only federally mandated transportation service in the US not limited by geography. It is for very low-income qualifying individuals, and only for medical trip purposes). Only 0.40 percent (4/10ths of 1 percent) of the federal Medicaid budget goes to transportation: however, that translates into \$1.5 billion in annual spending — the largest human services transportation outlay of any federal agency, even that by the Department of Transportation.

"By opening up the service to all citizens, the regional transportation authorities are able to transport more passengers in fewer vehicles, and offer them shared, yet shorter, trips."

As a result, numerous states, which are responsible for cost-sharing, are looking at ways to lower their transportation costs. Some have put in place transportation brokers that tap multiple providers in the community. But none employs the underlying specification that facilitates efficient, automated discovery of available vehicles, trip scheduling, and payment among numerous independent transportation operators.

That could change. This year, the National Academies of Science in the US, developed a common transactional data specification for demand responsive transportation modeled on that in use in Denmark and other Scandinavian countries. AARP will be among those advocating for its widespread adoption.

Accessible Transit = Quality of Life = Better Health

AARP's Public Policy Institute and other research organizations have documented the health and society costs of social isolation. An important theme that kept resurfacing during the study tour was the importance of the FlexDanmark transportation service for health — not only to get patients to health care appointments, but also to allow everyone in the community the opportunity to engage socially. As mentioned above, Danish law guarantees transportation for one leisure outing each week for individuals with a certified disability. Other residents may pay more but also access the service. As FlexTur rider Susanne Riis eloquently stated in her secondlanguage English:

"Flextur is making me healthier because I can get around. I can meet other people. I'm not getting lonesome. I think my health will be [worse] if I was just sitting in the mobile home or in my house all day without coming out. If I have not been using Flextur, I think I would have a very boring life. Especially now when I cannot see. It's important for me to go out and meet other people." •





Jana Lynott senior strategic policy advisor, public policy institute, aarp

Silver Valley, an Innovation Ecosystem Supporting Longevity

By Nicolas Menet

rance is one of the most evolved countries in the world regarding the care of older adults. We enjoy a "network of excellence." also referred to as the Silver Economy, which encourages innovators, prestigious universities, companies, and multinational corporations in France to create groundbreaking innovations to address our needs and create a new economy with a beneficial effect on our competitiveness. In 2016, France also passed specific legislation called Adaptation de la Société au Vieillissement (Adapting Society to Aging), also referred to as the Loi ASV (ASV Law). For the first time, seniors are not the ones who have to adapt to society and try to integrate into it; rather, it is up to society to include them and transform itself to better integrate them. This legal document is built around three pillars: improving the daily lives of older people; improving the working conditions of homecare providers; and preventing the loss of autonomy. Thanks to these measures, as well as businesses' needs, Silver Valley has become, over the course of 10 years, a major player in the aging field in France and in Europe.

Silver Valley is an innovation ecosystem dedicated to supporting longevity in society. It's the only one of its kind in France. Silver Valley's objective is to accelerate the development and launching of innovative solutions designed to improve the well-being of seniors. With more than 300 members, 46 percent of which are startups and 54 percent of which are large international corporations such as Microsoft, Silver Valley has grown exponentially in line with the urgent need to act for older adults, who will soon make up more than 30 percent of Western Europe's overall population.

This cluster and its members strive to better understand the societal changes associated with aging. To do so, in 2018 Silver Valley created the Open Lab, a unique sociological mechanism in France integrating about 10,000 people aged 55 to 92, who share their aging experiences throughout the year and explore with us the associated innovation pockets. This community allows us to test, experiment, and carry out innovation projects, and then collect users' final feedback, which is brought back into the heart of the innovation process. The Open Lab is pursuing the objective of reinforcing the relevance of its products and service offerings. This mechanism has two main components: a user component and a life situation component. Its purpose is to restore the possible aging configurations, at an individual, collective, or even situational level. In most cases, this process starts with the user component, which allows for the correct calibration of needs, such as product and service content, marketing, pricing, or communication. For the Open Lab's innovative candidates, the results are true indicators of their project's acceptability for future clients. The experiment's second phase includes the "life situation" component. Many situations

are available: homes, accessible housing, home adaptations, retirement homes, Etablissements d'Hébergement pour Personnes Agées Dépendantes (Housing Establishments for Dependent Elderly Persons), Unités de Soin Longue Durée (Long-Term Care Units), and even palliative care units. Depending on the innovation project, we choose the most adapted location, as well as the most relevant target, to experiment in real situations with the product or service intended for dependent or autonomous older people, caregivers, or professionals. The experimentation process aims to produce a concrete deliverable with recommendations and actual optimizations, which will be used to enhance the product or service, as well as improve credibility with potential funders or partners. As such, the Open Lab has become a real instrument for improvement in the provision of suggested solutions, as well as an enhancement tool for the business it generates. And it is thanks to such human and technical wealth that Silver Valley can contribute to inventing tomorrow's offers: offers that are really adapted to emerging needs and that can, therefore, find their market. We are combining three positive actions into one: meeting people's needs, improving the lives of senior citizens, and finding clients for our entrepreneurs.

In addition, Silver Valley chose to integrate its service offerings into a concrete program called Être Entrepreneur (Being an Entrepreneur)

"Silver Valley is an innovation ecosystem dedicated to supporting longevity in society. It's the only one of its kind in France."

to benefit from the know-how and ideal conditions of French innovation. Silver Valley now wishes to make its startups real, innovating, perennial, and consolidated companies with the capacity to be established worldwide and answer the industrial demand from large companies. Concretely, this program, dedicated to entrepreneurship, offers individual and collective assistance aimed at allowing innovators to strengthen their management skills and to be in contact with actors capable of helping them create a highly effective, value-based production system. Coaches, investors, and experienced businessmen, and also lawyers, accountants, backers, and managers, are all some of the professions needed to support innovators' management skills as a prerequisite to the creation of a healthy, viable, and perennial economic fabric. Within this program, innovators focus on the business plan, business model, liquidity plan, and legal and administrative issues, as well as the company director's stance.

Finally, large companies, often international in nature, are in urgent need of innovation, particularly with respect to emerging markets such as that of the elderly. Within this cluster, large groups, as well as public administrations and local communities, come to learn more about the new challenges of aging, discover new innovation markets, and incubate their own projects dedicated to better aging. As a result, all the different economic, social, and political players are reunited with the common goal of supporting each other and creating tomorrow's longevity in society.

Combining three programs, namely Open Lab, Être Entrepreneur, and the Programme Grands Groupes (Large Companies Program), allows innovators focusing on aging, including both startups and large companies, to turn the vision of the aging economy into a concrete reality.

The Silver Economy is no longer in its early stages, and it is essential to act efficiently, while preserving the dignity and respecting the wishes of the elderly, as well as any associated economic interests. When the field was created in 2013, the focus was on research and innovation, whereas now the priority is to find the industry's leaders of tomorrow. Such a priority is all the more urgent considering that Asia is following France's measures with immense interest, as it is looking for ways to meet, over a very short span of time, the needs and expectations of more than 500 million of its pensioners by 2030. •



Nicolas Menet GENERAL MANAGER SILVER VALLEY, FRANCE

Germany's SENovation Award — Innovation for the 50-plus

By Frank Leyhausen

Germany is among the "super-aged nations" of the world — in 2017, 21.4 percent of the population was 65 years or older — and the number is rising.

A large part of the population and many decision makers in companies are assessing this situation critically. Unfortunately, stereotypes toward age are being fostered.

The following are common preconceptions: Older people are not open to innovations and, consequently, not digital either; they have a lower income and, consequently, little buying power; they are ill and, consequently, cost drivers in health care. These perceptions are generally held against anyone who has celebrated his or her 50th birthday.

Along with the aging society, the startup community is developing very positively in Germany. Never before have startups received so much attention and support from investors, companies, the media, and politicians. Germany is supporting startups as an engine for growth and competition.

However, similar to established companies, stereotypes about aging are also fostered in the startup community.

Innovators do not focus on the baby boomers or even on the silent generation, but on generations X, Y, and Z. This is despite the proven higher buying power of the older cohorts and, at the same time, the lower number of competing companies. Apparently, the subject of age is interesting only to a few startups.

Due to these misconceptions, startups are missing their access to one of the largest German consumer groups.

People ages 60 and older have the highest buying power of all age groups in Germany, and almost 50 percent in the 65-and-older age group owns residential property. Their average net capital amounts to 55,000 euros.

Against this backdrop, the SIGNAL IDUNA Gruppe, one of the largest German insurance companies, and the Deutsche Seniorenliga e.V., an NGO which represents the 50-plus in Germany, initiated the SENovation Award in 2018 — Germany's first award for startups whose mission focuses on seniors. As the first accelerator program, the award focuses on a customer group and not on a technology or industry.

The objective of the collaboration is carrying the subject of an aging society and, coupled with it, the longevity economy to the startups community throughout Germany in order to do away with the preconceptions toward older consumer groups and motivate startups to develop innovations older people can use. In addition, the intention is to award startups who have already started a company with offerings for seniors, thereby making them visible to the whole community.

The application period for the SENovation Award was January 8 through June 30, 2018. Startups and teams providing a special offer for the elderly, or those considering this age group in particular in their strategy, were able to apply.

During this time, numerous presentations and workshops were offered by the SENovation Award team to challenge preconceptions in direct dialogue with the startups and to show the award's potential. The kickoff took place in the German Haus during the South by Southwest (SXSW) Conference in Austin, Texas, and, subsequently, more than 20 events were held throughout Germany by mid-June.

It was right and necessary to enter into personal dialogue, because this is the only way to change the established preconceptions towards age for the long term. We must carry these discussions into the startup world; the subject of seniors will not take place on its own. There are too many other topics clearly more interesting to the startups at first glance.

Aside from the onsite work, the subject and startup awards were communicated directly to the press with the help of a nationwide press campaign, which led to numerous publications. By the end of the application deadline, 68 applications from all over Germany had been received — significantly more than the initiators had expected. Fifty newly founded companies applied, as well as 18 teams that will start new companies in the coming 12 months. Aside from the applications from Germany, there were also inquiries from startup teams in Austria and Switzerland.

Two awards for 5,000 euros each for further development of the business model and one individual coaching session were offered — one award for the batch of startups and another award for the pre-startups.

The winners were selected in three phases.

- A team of experts compiled a short list based on the submitted pitch decks. Here, the degree of innovation, feasibility, and the presentation of the solution were given priority. Twenty-six teams were selected from 68 applicants for the second round.
- 2. A senior panel consisting of 300 individuals between the ages of 50 and 87 assessed the products and services according to their relevance to the participants themselves or to other individuals in the age group.

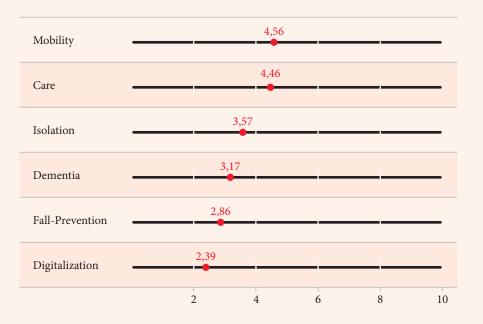
This panel was an important factor in having the applications assessed not only by experts but also by potential users and their family members as "experts on their own behalf."

The assessments of the panel were so close that four teams instead of the planned three per batch were invited to the finals, a pitch event similar to those seen on the television show Shark Tank.

The survey of the senior panel revealed yet another important insight. Before assessing the individual concepts, all participants were asked

Q1: First of all, a more general question: In which area do you see the greatest need for innovation for older people?

(Survey of a senior panel consisting of 300 individuals between the ages of 50 and 87)



which sector most needed innovations for seniors.

Surprisingly, the number one answer was mobility, closely followed by the concerns in the areas of care and social isolation. (see chart above)

3. In August, the eight teams presented their concepts at the corporate headquarters of SIGNAL IDUNA in Dortmund.

The participants could not have been more different. They ranged from a developer who presented an adapter for a smoke detector with his 80-year-old mother to a team of college students who followed an interdisciplinary approach to develop a new, cross-generational mobility solution.

Prizes were awarded to the care platform Pflegix, in the category of startups, and the team ".spur," for its modular sensor set for dementia, was selected from the pre-startups.

The motives of the startups fall into two main groups. The first and much larger group discovered the need for age-related innovation through personal experience. In many cases, children and grandchildren had developed a business model out of their solutions for problems their family members had experienced. The second group recognized the aging marketplace and engaged with the possible needs of the elderly.

If we want startups to proactively recognize needs, we have to continue to increase the focus on the aging of the markets, because the coming developments will comprehensively change demands for some time to come in Germany and across the globe.

Due to its great success, the SENovation Award will also be awarded in 2019. Ulrich Leitermann, CEO of the SIGNAL IDUNA Gruppe, made the following comment on this decision: "With the SENovation Award, there are more than two winners. Increasing awareness for the subject [of] aging and moving it into public focus will help many among the older generation as well as among startups." In the second year SENovation Award will also accept applications from Austria and Switzerland. ◆



Frank Leyhausen executive partner, medcom international gmbh

Longevity Economy: From Perceived Burden to Real Opportunity

By Jonathan Stevens and Joo Yeoun Suh

Vith increases in life expectancy and decreases in fertility rates occurring throughout the world, population aging is a phenomenon with global impact. The number of people ages 50 and older is projected to double to more than 3.2 billion by 2050, with the United States alone accounting for over 128 million. The aging population is also growing at a significantly faster rate than other segments of the total population. The sheer size of the 50+ population warrants attention by researchers and policy makers. Just as important, this demographic phenomenon entails profound shifts in understanding how we as individuals learn, earn, live, and connect with each other as we live longer lives.

Economic Apparatuses

AARP challenges the widely held assumption that aging populations have only detrimental effects on economic growth. We do this by highlighting the broader impact of everyday economic activities undertaken by 50+, accurately depicting the changing face of the workforce, advancing technology and innovations, and disrupting outdated perceptions of what it means to age. We undertake these efforts under the rubric of the Longevity Economy, defined as the sum of all economic activities driven by people ages 50 and over, including both goods and services they purchase directly in the market and the further economic activities this spending generates. By these measures, AARP and

Oxford Economics' *Longevity Economy* report showed that the spending power of those ages 50+ reached \$7.6 trillion in 2015 in the US.

The three channels of economic impact generated by the 50+ cohort are direct, indirect, and induced, encompassing spending on

- health care,
- financial services,
- travel and leisure,
- retail,
- technology,
- utilities,
- motor vehicles and gas,
- clothing, and
- groceries and other household goods.

Direct spending driven by Americans ages 50+ creates important externalities that cannot always be captured in terms of direct transactions. Many businesses and economic actors share in the benefits created when people ages 50+ purchase goods and services, spurring additional economic activity when the money from those transactions ripples through sellers' supply chains. In the *Longevity Economy* report we estimated that the direct spending of the 50+ cohort amounts to \$5.6 trillion in 2015. This supports nearly 90 million jobs—over 60 percent of all jobs held by people in the United States.

In addition to consumer spending, the economic contribution of the 50+ community is embedded in wealth levels. AARP and Oxford Economics' report shows that 83 percent of household wealth in the United States is held by people over age 50.¹ Combined with higher access to credit, this group has greater ability to spend on goods, services, and investments than younger cohorts. As well as its current impact, this economic strength has major implications in terms of wealth transfer over the next 20 years.

The economic contribution of the 50+ population also derives from taxes they pay on consumer goods and services, employment taxes on their salaries, and taxes on the corporate profits of companies that they run. The *Longevity Economy* report shows that the sum of taxes levied on people ages 50 and older is \$1.8 trillion in federal, state, and local taxes, amounting to about 34 percent of federal tax revenue and 41 percent of state and local tax revenue in 2015.

Human Capital Investment

Growing older is not what it used to be. People live not only longer but better. Today's 65-year-olds are in much better shape than their grandparents were at the same age. This is expressed in the labor market status of older people. For instance, AARP's Life Reimagined survey shows that retirement at 65 is increasingly an outdated notion, with growing numbers of Americans ages 50 and older expecting to remain active in the

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labor market past that age. Gray is truly the new black.

AARP challenges the stereotype that long tenures of working lead to diminished productivity and creativity among older workers. Our data suggest that older worker productivity does not decline with age and, in many cases, may even take the opposite trajectory. This likely stems from the fact that those who remain in the workforce after age 65 tend to be better educated and better skilled on average than their younger working counterparts. AARP has shown that a strong foundation of knowledge and experience may also help contribute to workers ages 55 to 64 having the highest rate of entrepreneurial activity, with one in three new businesses in the United States launched by someone age 50+.

Another enduring image that AARP continues to challenge relates to education and learning-namely, that they are the exclusive domains of younger people. Since 1963, AARP has worked to shift the dialogue related these issues, by advancing the concept of lifelong learning that spans infancy to old age. While there is no system of lifelong learning for adults comparable to the K-12 system, thanks to research by AARP (future of work @ 50+)² and targeted initiatives by universities (e.g., Ohio State University's Lifelong Learning Institute, University of Minnesota's Encore Adulthood programs) we not only know more about older learners but can estimate their economic contributions

through investments they themselves make in their human capital.

What to Not Forget

As the world's population ages, recognizing the role and contributions of the Longevity Economy becomes increasingly important. An aging population is creating market demand for new products and services at unprecedented rates, translating into business opportunities arising from the development of aging-friendly markets. AARP recognizes that the need to take a comprehensive approach to engaging with this demographic shift is pressing. By doing so, AARP seeks to expand the economic and educational opportunities available to the 50+ population while maximizing the societal benefits of their contributions. With thought leadership and innovation, AARP incorporates aging in a diverse matrix of possibilities that ensure fiscal and macroeconomic stability and promote the health and well-being of everyone regardless of age. •

 <u>AARP Public Policy Institute, Improving Education and</u> <u>Training for Older Worker</u> (2015).



Jonathan Stevens senior vice president, aarp global thought leadership



Joo Yeoun Suh director of thought leadership-longevity economy, aarp

AARP and Oxford Economics, <u>The Longevity Economy:</u> <u>How people over 50 are driving economic and social</u> <u>value in the U.S.</u> (2016).

The Future of Technology within an Aging Population

By Amy Doherty

The explosion of technological growth is changing the world and challenging everyone to imagine new implications for society. We often look at the smartphone we hold in our hand, with its ecosystem of apps and immediate access to information, as the norm. However, at any given point in time, technology will be exponentially better than it was yesterday. In technology, the only constant is the acceleration of change.

Whatever can be digitized has the opportunity to disrupt. More importantly, how we respond to enabling technologies, or innovations that power radical change, will have great implications for the evolution and sustainability of new markets and economies.

Technology accelerates through bonds with other technologies. For example, technological advances in transistors led to major accelerations in software development. Each technology influences the compounding growth of the other, resulting not in linear improvements but exponential acceleration. Similarly, cloud technologies and big data are bound together, propelling machine learning algorithms with massive data sets to create amazing advancements in how we manage information. With the overlay of technologies such as voice enablement, intelligent agents can enable new human capabilities.

The implications of exponential technology growth are enormous, touching on our health, mobility, work, passions, and even the length of our lives. We see fantastic improvements for a worldwide population that is growing older faster than any time in our history. A single technology advancement does not usually create a breakthrough innovation, but the collision of several technologies, powered by exponential trends, can disrupt global markets. Innovators can now draw from emerging technologies like artificial intelligence, biometric sensors, blockchain, embedded voice, process automation, and virtual reality to solve problems.

Exponential trends reduce costs and create a big shift in the ability to mobilize and scale when needed. Technology is a democratizing force, empowering people with creative ideas to bring their ingenuity to life by conquering production, marketing, and distribution challenges that have traditionally eliminated niche products from the marketplace. Falling prices and increased access to cloud technologies are driving software enablement and artificial intelligence to solve new problems.

While there is an explosion of technology and abundance, not everyone will experience this abundance. Innovators, change agents, and policy makers must identify and reject what I call discrimination-embedded technology. Algorithms created by complex machine-generated code are increasingly powering our information systems, but are they being trained with data sets representative of all generations? Consider advancements in more natural user interfaces like gestures and voice, wherein functionality is greatly influenced by the unintentional biases of the programmers and test groups. Automation to make our decision-making faster and easier can also introduce unintentional bias when it fails to include diverse populations. And it raises what is possibly the greatest question we can ask: are we applying our best analytical thinkers to our most impactful problems in society?

Organizations architecting next-generation technology infrastructures to deliver products and services have the potential to create great value for society by designing with all generations in mind. The customization of products and experiences made possible through leading-edge data analytics and infrastructures is infinite. Personalization is highly preferred by everyone, and for segments that are less familiar with technology, it offers innovators an enormous opportunity to enrich lives and create market share. As data, sensors, processors, and networks are optimized to their full potential by innovative software applications, we are moving toward true personalization, in which technology naturally considers the needs of individuals and how they interact with technology. This can be highly diverse among cultures, ages, perspectives, and experiences, which positions organizations that get it right to have a vast competitive advantage.

In collaboration, innovators and policy makers can explore how emerging technologies will collide to impact

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"Technology advancements will increasingly augment our health and routines, and humans worldwide are on a trajectory to live longer, fuller lives thanks to the application of code-based machines of every size."

aging issues in an increasingly aging world. In many cases, surfacing these issues openly and transparently can fuel inclusive innovation. The future promises a fantastic opportunity of enablement, abundance, and personalization through accelerated technology efforts. As the number of older adults around the globe continues to climb, we owe them a parallel access to the future. Addressing those factors that lead to a "digital divide" of tech haves and havenots, such as cost, complexity, awareness, isolation, dialect, and distrust, can improve health and quality of life, and even save lives.

Technology advancements will increasingly augment our health and routines, and humans worldwide are on a trajectory to live longer, fuller lives thanks to the application of code-based machines of every size. Efforts are underway to ensure that those who do not have ready access to technology will not be disadvantaged.

In line with our social mission, AARP's greatest opportunity is disrupting the conversation related to aging to ensure fairness and bring technology-enabled innovation to market. As CIO, I have the opportunity to meet with innovators and technology leaders from leading organizations and learn how they approach longevity. Everyone I meet has a story about an older family member or friend who is more connected, mobile, or healthy because of some recent tech-related offering. But I also hear concerns that organizations are not doing enough to ensure technology innovation impacts older generations at the same rate as younger generations.

The penetration of low-cost processors, human-centered apps, and low-friction user interfaces is allowing technology to augment our lives in amazing new ways. The best path forward for supplementing older adults with beneficial technology involves solving problems with personalization and humanity. Human-centered design considers the core challenges of how individuals want to interact with technology. Emerging technologies that are human and humane come with the promise to help augment the way we function and make us healthier, faster, sharper, mobile, and empowered to choose how we live as we age. •



Amy Doherty SVP & CIO, AARP Thoughts on the Netherlands By Debra Whitman

There is no substitute for seeing something with one's own eyes. That conviction inspired my recent trip to The Netherlands to explore in person the creative ways the nation is dealing with its rapidly growing population of older adults.



Two older women out for a walk in Leiden.

I had the excitement of firsthand observation in mind as I arrived at our first destination, IZi house. IZi is a living lab and a demonstration site where older adults can try out the latest technology to help make their lives easier. I was expecting something that looked like it came from the old cartoon The Jetsons, but this model apartment looked less space-age than conventional suburban. That was the first sign that I had much to learn from firsthand observation.

The Netherlands has long been a leader in innovative agerelated policies and practices, and I wanted to see for myself what they were up to and what we could learn from them. So, I set out with my AARP International team on a four-day learning tour of The Netherlands, one of the fastest aging countries in Western Europe.

As with most countries, longer life expectancy and low birth rate are the main drivers for The Netherlands' demographic shift, and the speed of aging has accelerated over the past decade with the graying of their baby boom generation.

Our team wanted to observe Dutch innovative solutions up close and in action. We came away a little surprised to see that not all of the most forward-thinking approaches to aging had a high-tech feel, and that sometimes low-tech turns out to be exactly

Thoughts on the Netherlands



LEFT Visiting the IZi House in The Hague. RIGHT Nurse Getty Quarshie leads a tour of the stroke rehabilitation wing at Cordaan's Hof van Sloten location.

what the older adults in the community found most valuable. I was also impressed by the prominent focus placed on human touch and caring, all aimed at preserving individual dignity and independence. Our most successful hosts clearly put the wants and needs of older adults first, and technology was used as an assistant to enhance their quality of life, not as a substitute for human contact. We were also fortunate to see how effective a notech home- and community-based care model can be, the result of housing young people alongside their elders.

Following Consumers' Advice: "Simplify"

IZi House was my first eye-opener. Many of its most innovative features blended into the household surroundings. Nothing looked clinical or mechanical, but all contributed to an easier life for older adults. Like stove burners that turn off automatically if you forget and the food starts smoking or sets off the alarm. A bathroom with a self-wash toilet. Sprinkled about were helpful accessories, like a knife I could grasp securely with my whole hand for strength and stability.

IZi's creators describe it as equal parts regular apartment, demonstration site, and living lab. Older adults and their caregiv-

ers and family members can take a tour and try all its features on for size in a quick visit or a one- or two-day extended test drive.

Every inch of the place benefits from the input of older adults, who were involved from the beginning in developing and testing all the technology. The designers started simply, with guidelines stipulating that alterations to the house must be easy to apply and remove and not involve much rebuilding. That helped to explain why this apartment felt so ordinary – it was designed so that specialized features could be added and subtracted, without disruption to the overall look and feel of the place. We learned that often, the older adults who served as consultants pared back and simplified developers' original ideas, and they knew what they wanted. Their opinions were taken seriously. If they said something didn't work well enough, the developers got rid of it and came up with something better.

When designers created a doorbell/video system, for example, they began by making it the biggest and newest, loaded with fancy functions and buttons. But most people wanted less – a simple touch pad, notification that someone was at the door, and the ability to see who was there. As a result, the designer streamlined the touch pad. A smart watch underwent a transformation when



TOP LEFT A fascinating discussion with Gea Sijpkes of Humanitas Deventer and her staff. BOTTOM LEFT The Cordaan team shows the AARP team around their facility. RIGHT The AARP team (l to r) Aimee Carter, Debra Whitman, and Holly Schulz kicked off the Netherlands learning tour at the Ministry of Health, Welfare, and Sport meeting with Director-General for Long-term care Kees van der Burg (center) and his team.

the focus group complained about the tiny size of the buttons; they were too small for their hands and hard to see.

Experiencing IZi reinforced for me the value of putting the consumer at the center when designing technology meant for their benefit. I walked away convinced that the highest tech is not always the best tech and users generally know better than anyone exactly what they need.

Nothing Replaces Human Interaction

My next site visit, to Cordaan in Amsterdam, fortified that lesson. The largest care organization in The Netherlands, Cordaan is a rehabilitation facility with 120 locations and a reputation for innovation. Its mission is to get people back home after a hospital visit as quickly and safely as possible.

Falls, sickness and stroke all can leave people without their independence. With healthier, more independent older people, the problems of an aging society decrease dramatically, and so rehabilitation is key.

During my visit, Cordaan staff including Ellen Maat, Director of Strategy, Quality of Care & Innovation, Dr. Monique Slee, head of the Center of expertise on geriatric rehabilitation care, and Elie Rusthoven project lead for ehealth talked about their care approach as "empowering patients with better self-management skills, closing the loop around the patient, connecting all the treating professionals, and including the patient" – all aimed at improving patients' health and keeping them out of the hospital.

They explained how they would assist an 87-year-old with heart failure, as an illustration of Cordaan's methods. Therapists there would train her to use the technology – measuring her own blood pressure, oxygen saturation, and weight – and teach her how to use an iPad so that she could hold a video conference. The therapists would set some thresholds, so if the patient suddenly gained weight (an indication that fluid was building up) for example, she could connect with them virtually and get advice. Most often, I learned, advice or a medication adjustment is all that the patients need. In any case, Cordaan could either provide treatment for her from a distance or send a nurse to pay her a visit in her home. And either way, she would be spared a hospital visit.

I appreciated how Cordaan Director Dr. Slee and her team described their approach to rehabilitation. They call it "nursing with hands in the back," encouraging the patient to take the reins. Instead of saying, "Let me give you a shave today," for example,



The intergenerational model at Humanitas Deventer brings young and old together under the same roof with inspiring results.

the staff would hand someone a razor and say, "Show me how you would shave yourself, and I will guide you through it." This is such a good solution and should be brought to the US where hospitals often discharge people after shorter stays, without fully restored ability to manage on their own. Cordaan's patient-centered approach to rebuild skills and independence is becoming even more important in the chain of care.

Cordaan also offered me another glimpse into the world of unobtrusive technology and how it can help patients with dementia remain in their own homes and communities. Cordaan is one of the first organizations in The Netherlands to experiment with using low-profile technology to collect data via sensors to help people with dementia remain independent longer. With the right algorithm, according to Cordaan staff, there is no need to look at the data all the time. Instead, the computer does the monitoring and can transmit what it finds to a caregiver.

The sensors can track where a patient is going throughout the house. In one case, a patient was getting up to use the bathroom 10 to 20 times a night. The monitors flagged the problem, the caregivers acted, and he was treated for what was a serious bladder infection.

For some patients, there were many types of sensors. They measure walking speed, which can predict falls. They monitor visitors, to gauge social isolation. Bed sensors can check night-wandering and insomnia. All this without imposing upon the patient or appearing clinical.

It's amazing technology, but once again, the doctors, nurses and family members found the less complicated, the better. The system Cordaan is experimenting with now is simpler than others they've tested, uses less data, and can be interpreted by people who have no training. It works with a red-orange-green traffic-light pattern to indicate the level of concern that's warranted by the activities being monitored. Unobtrusive, unintimidating, easy-to-use — all are hallmarks of elder-care innovations in The Netherlands.

Mingling Generations Yields Mutual Benefits

Inspired by the patient-focused culture I'd seen, I headed for a facility that has won awards for an ingenious idea.

The Humanitas reinvention came about because of significant changes in The Netherlands made in 2012 to confront its rapidly aging population. Before 2012, everybody over 80 could get an all-inclusive ticket for elderly care. But the government decided it could no long afford that model, so access moved up to age 85 and narrowed to those with a severe need for care.

I was told that the changes meant that 60 percent of Humanitas residents at the time would no longer have qualified to live there under the new rules, although they were allowed to stay. Going forward they realized that with a smaller eligible popula"I was told that the cozy, jovial atmosphere I saw was much lighterhearted than it was before the students came, with fewer complaints about bad knees and more laughter and gentle gossip about the young folks' love lives."

tion, the facility would face a future of many empty apartments if nothing was done to adapt.

The Humanitas elder-care facility in Deventer had to invent a low-cost, high-impact solution very quickly. A dynamic director, Gea Sijpkes, answered the challenge with a deeply human idea that would live up to her goal of creating the warmest, happiest facility in the country.

The asset she had was their spacious building, so they offered free apartments to local students in exchange for being good neighbors to the residents through 30 hours of volunteer time per month.

I was told that the cozy, jovial atmosphere I saw was much lighter-hearted than it was before the students came, with fewer complaints about bad knees and more laughter and gentle gossip about the young folks' love lives. The benefits went both ways: Students had the ear of older adults who had the patience to listen; the elders had surrogate grandchildren they doted on like their own family, getting free instruction in email and social media in return.

Humanitas has also become a kind of community center for the entire village, where children come to do their homework and teenage mothers bring their babies for a visit.

Director Sijpkes is living her dream of running the warmest, liveliest care community in The Netherlands. She says, "You hear laughter there. You see people smile. It's such a comforting environment." I couldn't agree more.

We left The Netherlands secure in the knowledge that simple solutions are often the best. We had strong evidence that there is value in consulting with the end user from the beginning when you're trying to help solve their problems, a practice we have put in place throughout AARP. We learned that it's important not to become so enchanted with all that we can do that we forget to focus on what we should do. Most significant, it was heartwarming and edifying to be reminded that in all our work to improve the lives of older adults, we must never forget that we're not talking about an abstract "population." These are noble individuals with contributions to make and wishes to be honored, who deserve every ounce of humanity we can inject into their care. The best solutions come from listening to the people we aim to serve, and learning from them what they need, and, even more important, what they want. \blacklozenge



Debra Whitman EXECUTIVE VICE PRESIDENT & CHIEF PUBLIC POLICY OFFICER, AARP

A Vision for the Future: Innovations in Care for Older Adults in the Netherlands By Hugo de Jonge

Today, Dutch people are living longer, healthier lives than ever before. Currently, there are 1.3 million people over 75 years old in the Netherlands, out of a population of more than 17 million.

By 2030, that number will have risen to 2.1 million (see chart on page 74: Senior Population Index: the Netherlands 1970-2018). This growing population of older people has a wide range of needs, and the government's aim is for society to accommodate these needs through innovative and pragmatic solutions that challenge outmoded ideas about the "sunset of life." This vision did not develop overnight; it evolved from a long tradition of care for older adults in the Netherlands. In previous decades, this care was usually standardized in large-scale institutions. The current approach is increasingly personalized. This modernized vision is one of the pillars of the "Growing Old with Dignity" manifesto, to which the current government committed itself in its coalition agreement. The manifesto pledges support to people who are living longer, and calls for helping people live gratifying lives into old age.

Older adults are a vital part of our nation's future and make many valuable contributions to

society. I strongly believe that one is never too old to participate. It is important that society appreciates and recognizes the capacities and contributions of our older citizens and offer them the care and support they deserve. To this end, I formed a Pact on Care for Older Adults in March 2018 with various civil society organizations, social enterprises, companies, and ANBO, the Dutch advocacy group for older people. Together we will work to improve care for and support to older citizens at the regional, local, and neighborhood levels. By now, over 170 organizations have signed the pact, which introduced three interconnected programs: Aging in Place (focused on better-quality care at home and developing new types of housing), Nursing Home Care (focused on improving the quality of nursing home care), and United Against Loneliness (focused on reducing loneliness and social isolation among older adults). These programs are described in detail below.





Familiarizing seniors with E-health.

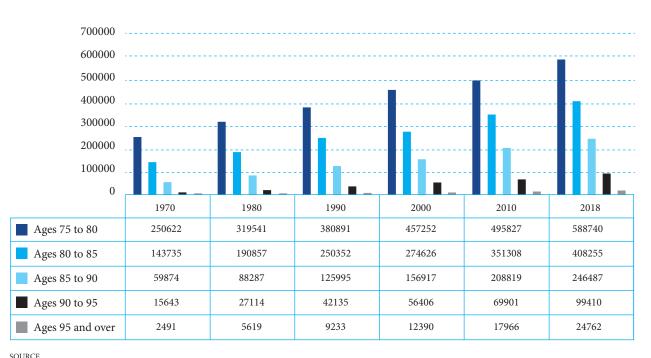
Aging in Place

Aging in place is increasingly common: 92 percent of people ages 75 and older currently live at home, as do 67 percent of people over 90. Often, these are the places where people have spent a large part of their lives, where they raised their children, where they made memories, and where every nook and cranny is familiar. It is only natural that people want to grow old there. One goal of the program is therefore to ensure that older people get the care they need so they can keep living at home. Nearly a quarter of people over 75 need assistance from informal caregivers such as family, friends, or volunteers, and care professionals like GPs, district nurses, and social workers. However, the number of people who can provide this assistance will decline with our aging population. It is therefore important that we develop new forms of respite care and personalized support for informal caregivers.

E-health enables more personalized care and support. Smart sensors, such as medicine dispensers that monitor medicine use, and powerful analytics for remote lifestyle monitoring, such as keyless entry systems and location devices for people with dementia who wander, are valuable tools. They help (informal) caregivers identify changes in older people's daily living patterns, offer detailed insights into their well-being, and facilitate communication among the various carers and the person being cared for. As a result, care provides can offer round-the-clock customized and preventive home care, allowing people (including those with dementia) to age in place with dignity.

In addition to personalized support, home adaptations, or access to suitable amenities, the Aging in Place program focuses on what older adults can do themselves. Establishing what someone wants or needs as they grow older and how to achieve these wishes





SOURCE Ministry of Health, Welfare and Sport, the Netherlands

is a vital component of aging with dignity. The sooner people start the conversation about how they see their future, the more care and support can be tailored to them.

Nursing Home Care

Even with the best possible care arrangements and home adaptations, there comes a point for some people when living at home becomes infeasible. Their environment is no longer suitable for their situation. When a home starts to feel too confining, housing that is intermediate between one's own home and residential care can be a viable alternative. Together with municipalities and housing associations, the government is developing strategies to create small-scale "in-between" housing for older people that offers personalized care and support as well as semi-independent living and self-reliance at the community level.

While e-health solutions offer many benefits, personal contact remains incredibly important, especially for older adults who have become forgetful and socially isolated. With this in mind, a number of intergenerational living facilities have been set up where students and older people live in the same building. The social return on investment in such facilities is that they combat loneliness in both generations. One of the first innovative living models set up exclusively for older adults was Hogeweyk. Established in 2012, Hogeweyk was built as an entirely self-contained neighborhood with shops, restaurants, cafés, and detached homes. Each home accommodates six older adults with advanced dementia. Unlike in many facilities, residents can move about freely in Hogeweyk and live as much of a normal life as possible. In recent years, Hogeweyk has inspired numerous care farms around the country catering to people with dementia. Some farms offer daytime activities to older people living at home, while others offer long-term residential care in small communities.

Studies show that care farms give people with dementia a sense of purpose, help them regain their self-worth, and allow them to practice useful skills. The farms also reduce social isolation, provide respite to informal carers, and offer a safe and stable setting where people can function semi-independently. Ultimately, this type of specialized care lowers the need for medication, slows down the progression of dementia, and enables aging in place. Effective and innovative approaches such as this hold great promise for the future.



Presentation on Nursing Home Care.

"A number of intergenerational living facilities have been set up where students and older people live in the same building. The social return on investment in such facilities is that they combat loneliness in both generations."

The current trend of aging in place and the growing need for "in-between" residences and innovative living models is reflected by the steady decline of permanent nursing home residents: from 16 percent of the population over 75 in 1995 to 8 percent in 2018. In 2015, 32 percent of people ages 90 and older lived in a care home or nursing home. In 2035, this will be less than 20 percent.

Nevertheless, moving to a nursing home sometimes becomes inevitable. For the people in question, it is often a difficult decision that involves a sense of loss and taking leave of loved ones. In order to make this transition easier, the standard of nursing home care should be measurably and tangibly improved. Therefore, the question "Would I or my parents want to grow old here?" should be on the minds of all care providers. The new Quality Framework for Nursing Home Care allows older people and their loved ones to better answer this question and make well-informed choices. It not only monitors quality, but also sets strict standards and facilitates the exchange of knowledge and best practices. As a result, nursing home care is steadily becoming more and more personalized.

Personalized care allows older adults to retain a sense of independence and freedom of choice on matters such as deciding when and what to eat, whether to go out for a walk (with a companion), what TV program to watch, or what activities to engage in. It is also important that people have an established group of caregivers because this provides a sense of continuity and stability and promotes trust. Actively involving family members in care and decision making is also key in achieving custom-made care and enabling older adults to age with dignity.



Socially isolated older adults converse with Secretary de Jonge while attending the theater production of Charley the Musical. The older people are accompanied by their peers and guided by volunteers who initiated the visit under the auspices of the United Against Loneliness program.

"I will initiate a campaign in spring 2019 — in consultation with older adults themselves — that addresses the meaning of aging and its place in today's society."

United Against Loneliness

The third program announced in the Pact on Care for Older Adults focuses on combating social isolation and loneliness. Half of all people over 75 in the Netherlands reported feelings of loneliness. This means there are 700.000 older adults who are socially isolated. Without immediate action, their number will increase to 1 million by 2030. While social isolation may be typical of our times, that does not mean we should accept it. Who wants to live in a society that leaves you to your own devices?

Loneliness is such a large and complex issue that it can have a paralyzing effect. We cannot expect loneliness to be eradicated entirely, but we can ask people to combat social isolation on an individual basis. The Ministry of Health, Welfare and Sport has developed a website that informs people how they can recognize the signs of loneliness, where to report it, and how to help combat it, for instance by joining neighborhood initiatives. Anyone can decide to become a better neighbor today and make someone else feel that the world cares. Taking care of each other should once more be generally expected. This requires a customized approach that is mindful of the differences between urban and rural areas. To this end, a number of cities in the Netherlands have joined the World Health Organization's Global Network for Age-Friendly



Seniors participating in activities of choice.

Cities and Communities. Together with network partners, participating cities encourage active aging in urban environments by promoting security and creating opportunities for healthy activities and social and cultural participation. I am confident that together with the existing nationwide coalition, we can combat loneliness among older people.

Renewed Appreciation of Older Adults

As I mentioned above, more older adults are participating in society, and they are more vital than ever. They have paid jobs, look after their grandchildren, do volunteer work, and perform a range of other tasks. They can also share a lifetime of experience with younger generations. In order to inspire fresh and contemporary perceptions of older people, I will initiate a campaign in spring 2019 — in consultation with older adults themselves — that addresses the meaning of aging and its place in today's society. The campaign is aimed at renewing appreciation of older adults by emphasizing their strength and wisdom.

Finally, in order to fully understand the vision underpinning the Netherlands' current policy on care for older adults, it is vital to consider its historical context, the principles on which it is based, and the social developments that have helped shape this policy. I am pleased that this special feature offers readers insight into the Dutch approach to care for older adults and enables them to examine aging in the Netherlands from a governmental and civil society perspective. \blacklozenge



Hugo de Jonge Deputy prime Minister, Minister of Health, welfare and sport The Netherlands

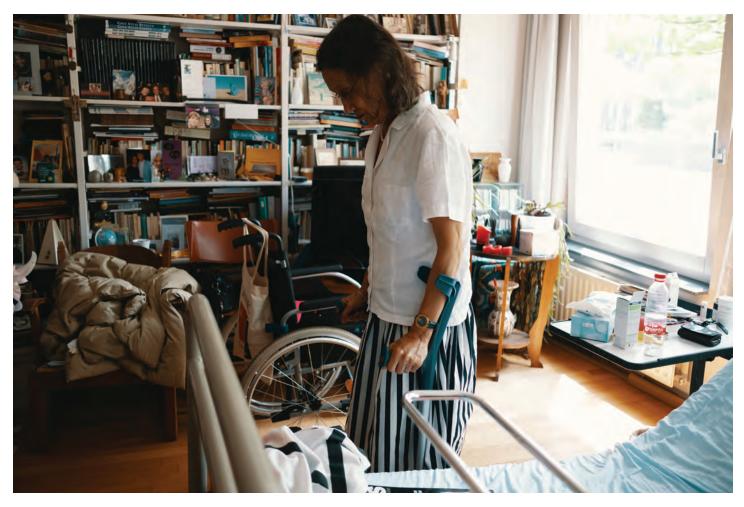




AMSTERDAM – Even a terrible skiing accident couldn't keep Barbara Ederveen-Winkler confined to her apartment for very long. After months of agonizing rehabilitation for her broken leg, she was eager to regain some semblance of independence and mobility. On an uncharacteristically sweltering day in Amsterdam, she headed out for a jaunt around the neighborhood – not on her trusty bicycle, which she has owned for 20 years and which, pre-accident, took her on daily errands across the city, but in a wheelchair pushed by her husband, Walter.







Barbara Ederveen-Winkler in her Amsterdam home.

Her experience at 68 years old has given her a glimpse into the not-so-distant future, in which she will be increasingly reliant on good healthcare providers, a network of friends and family, and easy access to all the necessities of life. In short, she has been forced to come to terms with what it means to grow old in the Netherlands, a tiny country in the midst of large demographic and societal shifts.

On this particular afternoon, Ederveen-Winkler is thrilled to be able to get outside, to eat an ice cream cone in Oosterpark, the sprawling green park just half a mile from her home, and to meander through the crowded outdoor Dappermarkt, where vendors sell everything from fresh cheese to household goods.

Slim and athletic, with salt-and-pepper hair and a ready smile, Ederveen-Winkler has the look of someone not used to sitting still. She has lived in Amsterdam for more than four decades, and in her current apartment since 1991. She chose the neighborhood for its central location and accessibility, even selecting a ground floor location for its long-term practicality — an impressive detail for a 40-year-old to consider.

In a very Dutch way, she applied foresight and a healthy dose of pragmatism to planning for old age. The purchase of her home was part of that planning, and when she retired in 2015 after a lengthy career as a social worker, she made sure her finances were in order to carry her through the next twenty to thirty years.



Her husband of 27 years, Walter Winkler-Ederveen, 56.

A photo of Ederveen-Winkler at 12 years old, in 1962.

In many regards, Ederveen-Winkler embodies the story of aging in the Netherlands. She is a member of the so-called "baby boom" generation, born between 1946 and 1955, that has transformed Dutch society (the post-WWII birthrate in the Netherlands was the highest in Western Europe). She reached retirement age and is growing old at a pivotal moment, as the country tries – through government programs, technological and scientific innovations, new models of care, and community-based efforts to address the long-term sustainability of their welfare state and a ballooning population of seniors.

Like other Western European nations, the Netherlands is aging rapidly. It's a small country, roughly twice the size of New Jersey, but home to 17 million people, making it one of the most densely populated countries in the world. Almost one fifth of the population is age 65 and older, a number that is anticipated to grow to 55 percent by 2050. As is the case in most places, increased life expectancy and low birth rate are at the root of the demographic upheaval. This is compounded by the graying of the country's 2.4 million baby boomers, who are now entering the ranks of the 65-plus.

This age group is, for the most part, wealthy, healthy, and engaged, taking advantage of the robust welfare system that was built during the second half of the last century. The Netherlands is globally one of the most prodigious spenders on healthcare and long-term care, with a pension system ranked first in the world according to the Global Pension Index. The country's economy is consistently listed in the top 20 worldwide, with a great percentage of its money going toward social welfare (health care spending accounted for nearly 13 percent of the GDP in 2016, according to the World Health Organization).

The Netherlands lays claim to a long history, stemming from deeply religious beliefs, of caring for everyone, especially the poor and vulnerable; this attitude remains embedded in the collective psyche. Most Dutch people find it unthinkable that money should be a determining factor in whether someone receives decent healthcare. In addition to their egalitarian nature, the Dutch are known for their open economy (a vestige of their merchant roots), tolerance, and liberal ideals. No topic is too difficult or taboo, including those related to aging, such as assisted suicide for older adults.

But, as is the case in many other countries, the cracks are starting to show. In the wake of the last economic recession, the government has been forced to look more closely at the longterm sustainability of the system. The anticipated glut of seniors who will need care, plus a general sense that the resources are running out, has necessitated reform. The older generation holds much of the country's wealth, leaving the younger generation feeling stuck, sometimes without proper pension savings or comprehensive insurance, or unable to buy homes and start families.

Of course, the Dutch have a plan. A transition has been underway for some years now to veer away from the existing welfare state toward a "participation society," in which individuals rely less on government handouts and more on themselves or family and community support. The 2015 long-term care reform act placed a greater emphasis on homebased care and aging in place, in lieu of more expensive residential nursing home care. This has understandably caused friction, as a generation brought up to believe that the government would care for them indefinitely is now forced to adjust their thinking.

"People, even with certain safety nets, will have to take more care for themselves and make some more decisions," says Joris Slaets, Director of the Leyden Academy on Vitality and Ageing. "Hopefully, we can do that while retaining some of the things that make the Netherlands unique, like its solidarity."

The Dutch character, and by approximation, its approach to its aging population, is inextricably linked to geography. On Google Earth, you can see the advantages of the Netherlands, perched on the upper northwest corner of the European continent — Germany to the east, Belgium to the south, and the North Sea on its northern and western coasts. In the seventeenth century, they ruled the seas from this choice location.

The land is flat and mostly at or below sea level; it's carved and crisscrossed with waterways of both the natural and manmade variety. Massive rivers and their tributaries wend their way in freeform lines across the map. Zooming in, the geometric angles and straight lines of a vast Mondrian-esque lattice of dykes and canals emerge alongside neat patchwork blocks of green farmland. This is a humanmade landscape, a feat of engineering that began hundreds of years ago, when the Dutch conquered the incoming sea - not only protecting themselves from the dangers of flooding, but reclaiming land from the water and making it usable. They are now the second largest exporter of agricultural products in the world, after the US.

Through the process of creating huge plots of land, or polders, the Dutch quickly learned that the easiest path to reaching their common goal (keeping their feet dry) was cooperation. The polder model, or the practice of consensus-building through discussion, is very much in use today — in the way government policies are created, decisions are

AARP INTERNATIONAL: THE JOURNAL, 2019

Visiting their favorite cheesemonger at the Dappermarkt.





NETHERLANDS



ETHNIC GROUPS

Dutch 76.9%, EU 6.4%, Turkish 2.4%, Moroccan 2.3%, Indonesian 2.1%, German 2.1%, Surinamese 2%, Polish 1%, other 4.8% (2018 est.)

NET MIGRATION RATE 1.9 migrant(s)/1,000 population (2017 est.)

RELIGION

None 50.7%, Roman Catholic 23.6%, Protestant 14.9% (includes Dutch Reformed 6.4%, Protestant Church of The Netherlands 5.6%, Calvinist 2.9%), Islam 5.1%, other 5.6% (includes Hindu, Buddhist, Jewish) (2017 est.)

HEALTH EXPENDITURES 10.9% of GDP (2014)

obesity rate 20.4% (2016)

LIFE EXPECTANCY AT BIRTH Total: 81.5 years (27TH) Male: 79.3 years Female: 83.8 years (2018 est.)

BIRTH RATE 10.9 births/1,000 population

MOTHER'S MEAN AGE AT FIRST BIRTH 29.6 years (2015 est.)

POPULATION GROWTH RATE 0.38% (2018 est.)

URBAN POPULATION 91.5% of total population (2018)

AGE STRUCTURE (2017 EST.) 0-14 years: 16.28% 15-24 years: 12.03% 25-54 years: 39.18% 55-64 years: 13.41% 65 years and over: 19.1%

GENDER INEQUALITY INDEX (GII) 2017 Rank: 3rd / low inequality 50 MILES (80.47 KM)

Household net adjusted disposable income (oecd) $USD 28,783 (15^{\mathrm{TH}})$

HOUSEHOLD FINANCIAL WEALTH (OECD) USD 90,002 (6th)

UNEMPLOYMENT RATE 4.9% (2017 est.)

POPULATION BELOW POVERTY LINE 8.8% (2015 est.)

GINI INDEX (INCOME INEQUALITY) 27.1 / low (15th)

HUMAN DEVELOPMENT INDEX (2015) 0.931 / very high (10th)

LABOR FORCE BY OCCUPATION Agriculture: 1.2% Industry: 17.2% Services: 81.6% (2015 est.)

EXPORTS (US DOLLARS) \$839.7 million (2017 est.)

IMPORTS (US DOLLARS) \$453.8 billion (2017 est.)

COUNTRY Netherlands

CAPITAL Amsterdam

total area 41,543 sq km (16,040 sq mi)

POPULATION (WORLD RANK) 17,283,008 (66TH)

DEMONYM Dutch

LARGEST MUNICIPALITIES Amsterdam 855,896 (Population)

 Rotterdam
 638,751

 The Hague
 531,935

 Utrecht
 347,526

 Eindhoven
 229,184

 Tilburg
 215,631

 Almere
 203,997

 Groningen
 202,900

 Breda
 183,749

 Nijmegen
 175,928

BUDGET (US DOLLARS) 2017 EST. Revenues: \$361.4 billion Expenditures: \$352.4 billion

GDP PPP (US DOLLARS) \$924.4 billion (27TH)

MAIN INDUSTRIES Agroindustries, metal and engineering products, electrical machinery and equipment, chemicals, petroleum, construction, microelectronics, fishing

GOVERNMENT TYPE

Parliamentary constitutional monarchy; part of the Kingdom of the Netherlands

LEGAL SYSTEM

Civil law system based on the French system; constitution does not permit judicial review of acts of the States General



made, and even in the way families interact, with children's opinions being given almost equal weight to those of the adults.

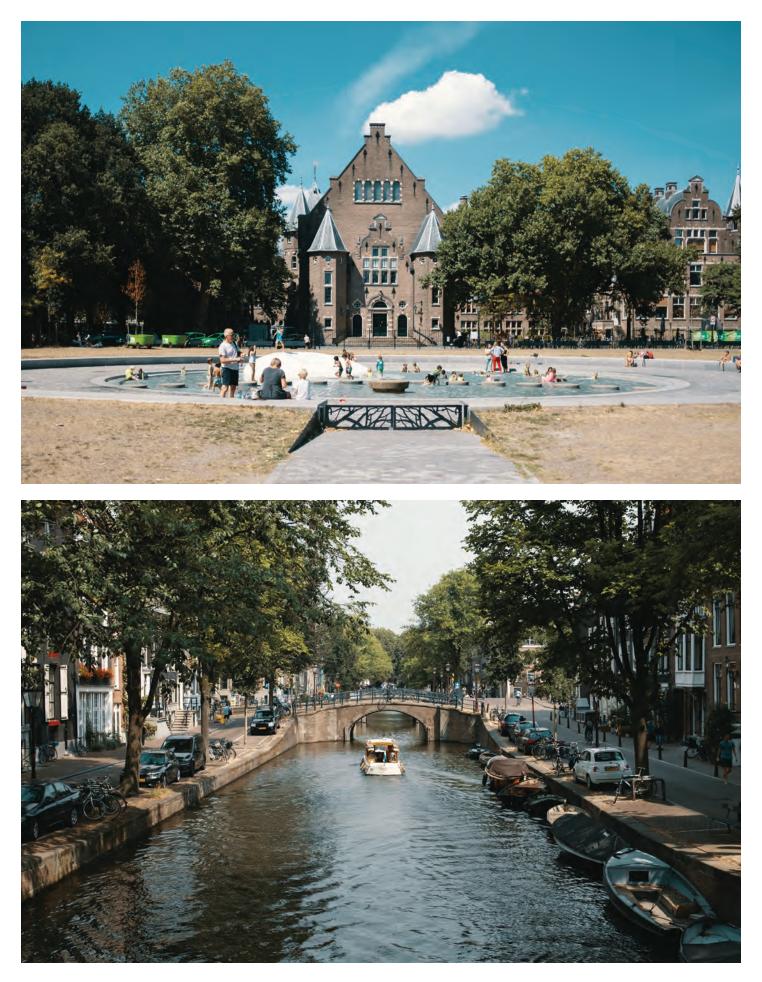
The tradition has imbued the Dutch people with a straightforward propensity for sharing opinions (and willingness to hear everyone else's opinions), along with an ability to reach across sectors. This, along with proven resourcefulness, practicality, and enthusiasm for facing challenges head on, make them well-equipped to find new solutions for the rising tide of seniors.

Japan, explored in depth in last year's edition of *The Journal*, may take credit as the first nation to respond to the new demographic reality, but the Netherlands is working on its own set of answers. Though not yet a super-aged society, and not even the most-aged in Europe, this small, progressive country is already gaining attention for its expansive ideas on improving the aging experience. Only time will indicate whether the Dutch are once again able to control the fate of their nation, creating a working model for other countries facing a similar outcome.

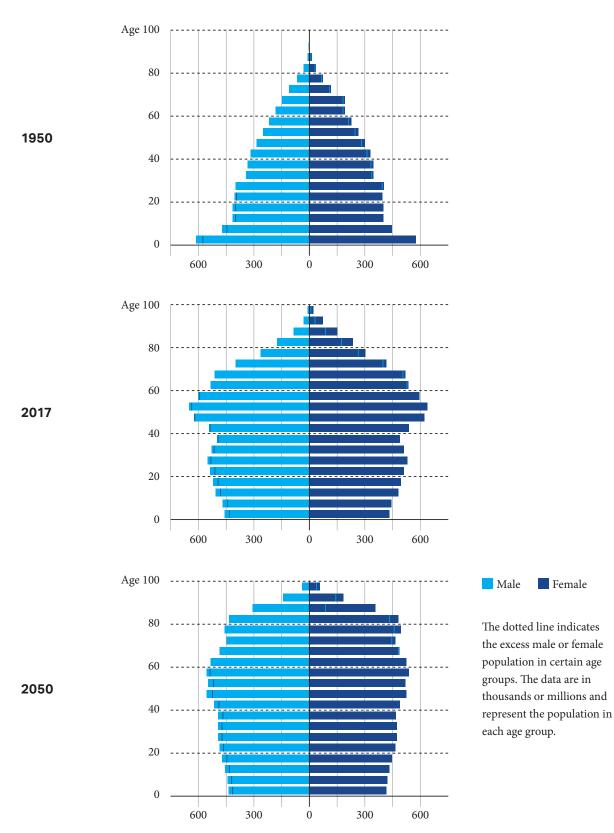


TOP Walter uses a ramp to navigate the four steps leading to the apartment. ABOVE The two cool down with ice cream cones in Oosterpark. OPPOSITE PAGE Scenes from Ederveen-Winkler's home town, Amsterdam, including the fountain at Oosterpark and one of the city's many canals.

CONTINUED ON PAGE 90



Demographic Profile

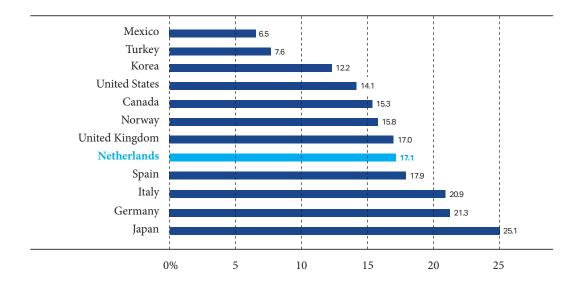




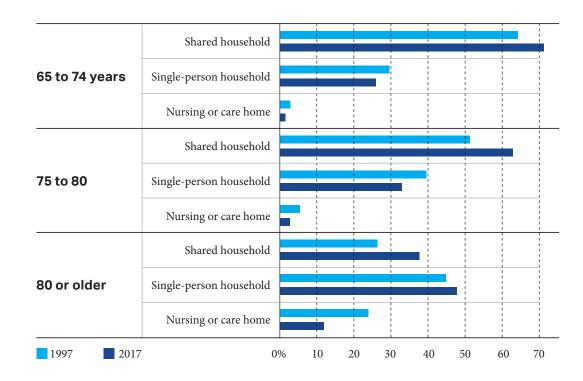
Female

Population Aged 65+

Total % of population, 2013



Living Situation of People Aged 65+



Community Engagement

Seven years ago, Sofie Brouwer had something of an epiphany. Her aging, long-haired dachshund, Buffel, had developed back problems (a common ailment for the breed) and needed extra attention and care. Meanwhile, Brouwer's neighbor Sonja Huisman, 69 years old at the time, had recently lost her own dog and was becoming withdrawn and isolated. Brouwer proposed putting the two together. During the day while Brouwer was at work, Buffel kept Sonja company, going on long walks through the neighborhood and generally having a lot of fun.

"All my neighbors saw Buffel more with Sonja than with me," Brouwer jokes. Still, she was amazed at how well the arrangement worked out for everyone. It was a brilliant solution for Sonja, because it gave her purpose and companionship, as well as a reason to get out of the house. Brouwer gained a loving dog sitter for Buffel, but more importantly, she felt inspired to witness Sonja becoming an active member of the community again. She took the idea and started to expand it, realizing that that there were many more seniors who could benefit from such a setup. In 2011, she founded OOPOEH, a play on a Dutch word for grandma or grandpa. The acronym stands for Opa's en Oma's Passen Opeen Huisdier, or "grandpas and grandmas pet sitting."

OOPOEH is just one example of an organization that is strengthening the bonds of community throughout the Netherlands. With the shift away from a welfare state to a participation society, older adults are growing more reliant on the infrastructure of social networks to provide not only care, but meaningful connections. OOPOEH matches dog owners with dog sitters aged 55 and up, facilitating relationships between neighbors who share a love for pets. For a modest monthly fee, dog owners find reliable care for their dogs. Seniors, or OOPOEHs, are able to spend time with a dog without the responsibility or burden of full-time ownership.

"It's just something that I thought creatively was a really nice way to fight and maybe even prevent loneliness," Brouwer says. So far, the organization counts 3500 seniors and 3800 dog owners, and enrollment continues to grow. The oldest OOPOEH is 102 years old. A social impact study of the project found that 82 percent of the seniors felt happier after participating in OOPOEH, and 72 percent had more interaction with their neighbors.

Although loneliness is a growing issue, seniors 65 and up across the Netherlands are for the most part quite social, maintaining close



FROM THE TOP Sonja Huisman, OOPOEH founder Sofie Brouwer, and Brouwer's dog Buffel; a senior with her canine charge; and an intergenerational friendship courtesy of OOPOEH.

"We have an expression in Dutch," says van de Water. "You better have a good neighbor, rather than a friend who lives far away. So that's what I think is really important."

ties to family members and other contacts and relying on the thriving system of community support apparent in Dutch culture. In 2016, a quarter of this age group report having daily contact with family, and one in five report having daily interactions with neighbors.

In some places, seniors who want more social interaction have taken the matter into their own hands, forming their own grassroots groups. In 2009, seven seniors in South Amsterdam formed what they called a Stadsdorp, or City Village — a group of seniors living in the same neighborhood banding together to create a support network, complete with special interest clubs and workshops on different topics. The success of this model inspired the creation of 24 other City Villages throughout Amsterdam.

Debora van de Water helped start one of those City Villages in 2013 — Stadsdorp Gracht en Straatjes, located in the heart of the city. Each of the group's 170 members pays a yearly fee of €25 to belong. In turn, they are part of a community of neighbors who hang out together and look out for one another. According to van de Water, each of the City Villages are different, a reflection of the unique needs and interests of its residents. Her Stadsdorp has a tasting group for genever (traditional Dutch gin), a choir, a theater club, a coffee club, and a walking club, among many others.

"We have an expression in Dutch," says van de Water. "You better have a good neighbor, rather than a friend who lives far away. So that's what I think is really important." The idea behind City Villages thrives, in one form or another, all over the Netherlands. In the small towns and villages that dot the countryside, like the one where van de Water grew up, these kinds of social circles have always been the norm-from music and sports clubs, to church groups and neighborhood associations. In the anonymity of the big city, she and her neighbors have simply recreated the camaraderie and safety net of small town life. For seniors, whose social networks have naturally shrunk post-retirement, the City Village is a low-pressure way to stave off loneliness and make new friends.

According to van de Water, referring to the solid fabric of her neighborhood: "The best compliment is that, if the Stadsdorp stops existing — website's down, we don't do anything anymore — these new friendships never go away. They will always exist."

Health and Vitality

Every Monday afternoon, Trees van Houts, 66, hops on a duofiets, an electric bicycle that accommodates two riders side by side. She pedals over to the home of her 93-year-old friend Marry Hagen to pick her up. The two will spend the next few hours biking around the town of Leiden, half an hour southwest of Amsterdam, and the surrounding areas, traveling 12 kilometers to the coast to see the beaches and dunes and breathe the fresh salt air.

Van Houts and Hagen have been "bike buddies" for only a year, but quickly formed a close bond. They met through the foundation Fietsmaatjes, which helps to bring the benefits of cycling to seniors and people with disabilities. Volunteers are paired with "guests" — those with limited mobility, vision, hearing, and cognition (primarily dementia), as well as those suffering from social isolation. With a duo bike outfitted with electric pedal-assistance, the biking pairs can take to the roads and trails, enjoying physical activity as well as social interaction.

It's a testament to this bike-obsessed nation, that a woman well into her ninth decade still makes an effort to get out once a week on a bike, to feel the wind in her hair. And no wonder that the organization is growing so quickly. After just five years, Fietsmaatjes has 635 guests and 486 volunteers in locations across the country.

Throughout the Netherlands, seniors are living independently for a longer period of time, and they like being active. People between the ages of 65 and 75 cycle an average distance of 2.6 kilometers a day. The only group that cycles more on a daily basis are young people in their teens and early twenties. In 2016, nearly 16 percent of Dutch people aged 65 to 75 owned a membership at a fitness center, swimming pool, or other athletic facility, while more than 15 percent were members of a sports club. Those in that same age group are also the most likely to comply (at well over 77 percent) with the government's Standard for Healthy Physical Activity.

It's true that seniors here are afflicted with the same chronic disease as in other countries — heart disease, stroke, dementia, or lung cancer, for example. Obesity exists here, too, although the rate is lower than that in much of Europe,

But the Dutch perspective on active aging is certainly unique. The practical-

Trees van Houts, 66 (right) demonstrates the duofiets with Joke Strijk, 78.



ity that permeates so much of the culture also colors the approach to staying active. Exercise is not so much the act of going to a gym (although seniors do that), but something achieved through the machinations of everyday life. Errands and outings are largely done by bike, a continuation of lifelong habits for most seniors, whether they grew up in large cities or small towns. A glance down any Dutch street tells the story: Bike traffic is more plentiful than car traffic, with riders of all ages flying past on their way to school, work, and other destinations near and far from home.

As most people will tell you, bike riding starts in early childhood and stops only when no longer physically feasible. Van Houts describes how she started biking to school at just four years old. As a young woman, she raced competitively, but now, like many of her generation, cycles for practical reasons (to get from one place to another) and for recreation (to unwind and see the world in an unfiltered way). Volunteering for Fietsmaatjes was a natural step in her retirement to help bring the benefits of cycling to others.

When asked if she plans on biking until the very end of life, Van Houts leans forward, with a smile. "Let me tell you. My mother was 93 when she died," she says, by way of answer. "I think she biked until five years before that." It's clear that she has every intention of doing the same.

Care Facilities and Dementia Care

The happy hour is going strong at 4:30 p.m. The strains of an Elvis song reverberate loudly through the large, high-ceilinged room. People sit at tables scattered throughout the space, some with heads bobbing and toes tapping to the beat, others chatting with friends and sipping glasses of wine or beer. The feeling in the room is upbeat — from the enthusiastic bartender pouring drinks behind the tiki-themed bar, to the animated attendees. It could be a scene at a restaurant or club anywhere — but this happy hour is at a residential nursing home and all of the party-goers have dementia.

Henk Smit is the director of Reigershoeve, a facility on a swath of bucolic land in Heemskerk, roughly half an hour's drive northwest of Amsterdam. He and daughter Dieneke Smit founded Reigershoeve five years ago after watching several family members struggle with dementia. They decided to create a "care farm," so named for its gardens and farm animals,

The organization Fietsmaatjes pairs volunteers with seniors and people with disabilities for weekly bike rides on a two-seat bicycle called a duofiets.





to provide an entirely different experience for people living with the disease.

They, like others in the Netherlands, are rethinking long-term care. With the latest government reform in 2015 came an increased emphasis on keeping seniors independent for as long as possible, and on better tailoring care to meet the specific needs and desires of care recipients. For seniors who qualify for residential facilities, policies promote a greater focus on care that improves their quality of life. A variety of innovative solutions have been implemented nationwide, including an intergenerational model like Humanitas, in Deventer, which has incorporated university students as residents, and Hogeweyk, in Weesp, which built a "village" for seniors with dementia to provide more independence. To improve long-term care, all of these models reflect characteristic Dutch ingenuity and resourcefulness.

At Reigershoeve, touches of home are everywhere in the buildings and grounds. Six to seven residents live in one of four group homes on the property. Inside, each of the homes has a communal living room and kitchen, warmly furnished with antiques and other personal items, as well as private rooms for each of the residents. "We call it smallscale dementia care," says Henk Smit, referring to the Reigershoeve approach. "Our vision is that people should live here as they were used to living before. That is why we don't want to look like a hospital or like an institution. We want the people to feel at home here."

Outside, residents can enjoy all the aspects of a Dutch farm: goats and donkeys roaming through grassy fields,



"Our vision is that people should live here as they were used to living before. That is why we don't want to look like a hospital or like an institution. We want the people to feel at home here."



LEFT During happy hour, residents who have no conflicts with medication are permitted to drink. RIGHT Henk Smit explains the inspiration behind Reigershoeve.

The Reigershoeve

- A The buildings, both residential and administrative
- B Entrance to a resident's apartment
- C Another entrance to one of four group homes

- D Inside a resident's private room E A companion robot cat perches on a radio F A view from the hallway in the main building
- G The main communal kitchen
- H A terrace outside one of the group homes
- I Farm animals for the residents to interact with
- $J_{\rm c}$ The gardens and greenhouse, for flowers and produce $K_{\rm c}$ Group classes are held in the art studio
- L Tools are available in the workshop M — Ceramics projects in the art studio
- N A private bathroom with soaking tub
- O Residents relax outside in the sun















AARP INTERNATIONAL: THE JOURNAL, 2019



















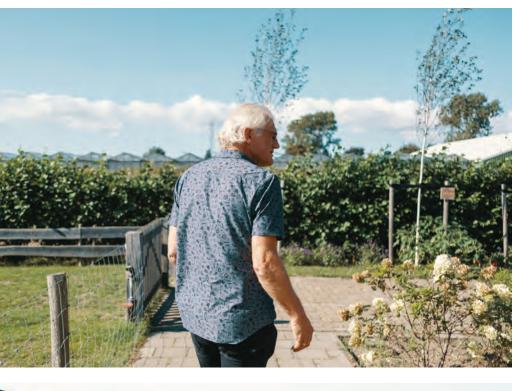
chickens in a coop, raised vegetable garden beds, and a greenhouse with an abundance of plants and flowers. Activities like communal meals, movie nights, art classes, and happy hours also help to create a sense of community and normalcy. Adding to the familial atmosphere, the 45 staff members undertake any number of tasks, from cooking meals to doing laundry to caring for the residents — all of which, says Smit, encourages more interaction. In addition to the 27 residents, a dozen seniors with dementia also come to Reigershoeve for daytime care.

In typical Dutch fashion, Smit is quite direct about the challenges he encountered to fulfill his vision for Reigershoeve. From fighting initial protests of concerned neighbors, to convincing government inspectors to allow knives in the kitchens. He wanted to keep the knives as another aspect of home and normalcy that the residents crave. Smit encourages, as much as possible, independence. The facility has no gates or continuous monitoring. "We say well, when you're at home, you can also walk around. Maybe it's a risk, but we say, no risk, no life."

Science and Innovation

Although just a few hours by car from the cosmopolitan sprawl of Amsterdam, the northern part of the Netherlands feels vastly different, with long stretches of countryside extending as far as the eye can see. It seems an unlikely place for a hub of scientific research on aging, but here, in the northern city of Groningen, one of the largest multi-generational cohort studies of its kind is taking place. The goal for the three-decade study, called Lifelines, is to provide insights into how to grow older in a healthier way.







LEFT Residents stroll through the open gardens. TOP Henk Smit gives a tour of the grounds. ABOVE The facility owns four duofiets, twin bikes with electric pedal assistance, that both staff and residents can use.



Richard Zwarts, a native of the area, is a Lifelines participant and member of the advisory board. He signed up in 2006, when the study was launched, after seeing a newspaper ad. At the time, he was only in his early 30s but was intrigued by the concept. "I am a guy who wants to share," he says. "So, I think the idea is quite novel because when we share a lot, then we can learn, and other people can gain by that." Every five years, he stops by for a checkup, various measurements, and tests of blood and urine.

This scientific approach to the aging challenge speaks to the Dutch embrace of research and innovation. The Netherlands competes in a class far beyond its size in terms of research productivity and scientific impact, with a robust system of world-class universities and research institutions. From 1996 to 2015, twice as many scientific articles were published per capita from the Netherlands as the OECD average.

The Lifelines study, with 167,000 participants across three generations, is ambitious even by Dutch standards. It is one of the largest biobanks in the world, with a -80C storage facility, LifeStore, that bills itself as the coldest place in all of Europe. The data from the study has been used in 250 scientific publications, with several promising discoveries on the horizon. Bart Scheerder, of the Biobank Knowledge and Expertise center (BiKE) at the University Medical Center Groningen, a partner of the study, gives one example: "We have a large number of pre-diabetics in the cohort and we expect that in the future, major impact should be created on early detection and treatment of diabetes, using Lifelines data and samples."

A globally-ranked university, the highest aging population in the country, and pockets of poverty and economic depression make the northern provinces ripe for such an endeavor. In addition, the Netherlands itself is an incubator for innovation, from strong government collaboration, to high education levels, to a cultural willingness to come together. The country now ranks as number two on the Global Innovation Index. "In the Netherlands, we discuss everything," says Scheerder, who refers to that topic of polderen that keeps cropping up. "The



LEFT The landscape along the A7 highway to Groningen.

RIGHT Richard Zwarts, a Lifelines participant and advisory board member, in his office.



nice thing is, we are also able to come to a shared decision. We bring all stakeholders together and come to a consensus."

Nowhere is this consensus building more apparent than in another Groningen-based organization, HANNN, which stands for the Healthy Ageing Network of Northern Netherlands. Though Lifelines has become the flagship scientific aging initiative of the northern provinces, HANNN is doing something equally as innovative on a broader level, with goals that are bold and far-reaching.

HANNN is a coalition of sorts, bringing together key thinkers and decision makers in different sectors to create an ecosystem for healthy aging. In short, the group wants to engineer the ideal environment to grow old — from food and exercise, to healthcare, to housing and city planning. Their programs run the gamut: working with fast food restaurants to introduce healthier menu options, with developers and architects to design age-friendly structures and parks, with schools and businesses to organize exercise programs.

The massive undertaking involves not only changing policies but changing mindsets. Daan Bultje, the director of HANNN, describes how he decided to chase such an ambitious goal, rather than attempting smaller, more incremental steps. "We have generations of people in certain areas of our region that grow up in poverty, but also in poor health," he says. "Instead of saying well, let's try to change a little bit about this, or a little bit about that, we need more fundamental change in how we approach health. That can't be done by small steps. That must be done by big steps."

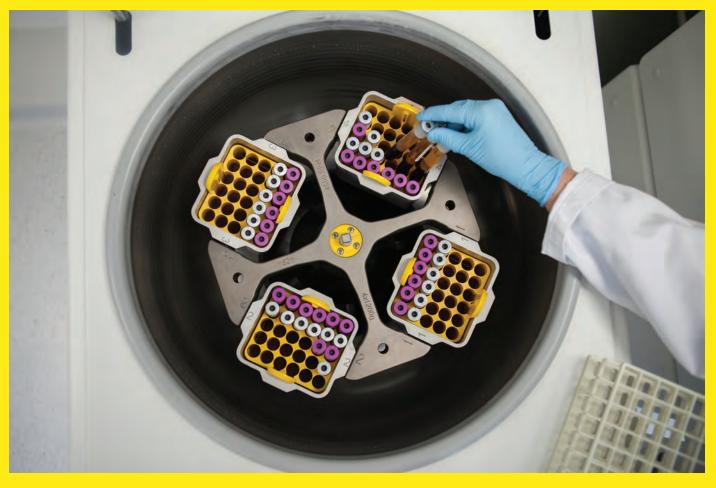
Luckily, in the Netherlands, big steps seem more possible. With minimal rules and legislation and an openness to new methods and approaches, it stands to reason that the Dutch would lend their critical thinking to aging.

"We as a society need to change things, and not only in healthcare but also in prevention, making sure that we grow old as healthy as possible," says Bultje. Both HANNN and the Lifelines study are at ground zero of efforts to conquer the changing demographics of their region. Every five years, measurements and samples are collected from participants in the Lifelines study. Part of the samples are used for direct biomarker analysis and the rest are catalogued and stored at -8oC in the LifeStore, a large freezer facility. The aim of the biobank is to have data and samples ready for scientists from all over the world to use for research into healthy aging.











Healthy Ageing Network Northern Netherlands Photos courtesy of HANNN

The vision of HANNN is to remake the entire ecosystem of the Northern Netherlands, making it more conducive to aging well and helping to add healthy years to people's lives. Through their many initiatives, the organization brings key players together to influence a variety of domains, such as food, housing, infrastructure, exercise, and healthcare organization.







Technology

Elie Rusthoven focuses intently on his laptop screen, where he is monitoring an older man named Hans from miles away. "I have a patient's live data in the system," he explains, indicating the digital interface that describes the current movement and condition of a man who lives alone — not down the hall from a nursing station. "I'm 1,000 percent convinced that, if this person didn't have the system, caregivers would have already admitted this person into a nursing home."

Rusthoven is Senior Project Leader of e-Health and Innovation at Cordaan, the largest care organization in the Netherlands with locations throughout Amsterdam and the surrounding areas. He is demonstrating the group's latest – and from the sound of it, most promising - foray into lifestyle monitoring. The system involves collecting data from smart sensors placed unobtrusively around a person's house, giving caregivers a way to monitor from a distance and allowing seniors to remain independent longer. Cordaan has partnered with Sensara, the Rotterdam-based company behind this sensor technology, to conduct a pilot program with 150 patients.

The Netherlands is a prime location for partnerships like this, and for using technology in new ways to improve the lives of seniors. The country has some of Europe's most digital-savvy seniors, plus highest level of home internet access and high-speed broadband connectivity in the EU. Information and communication technology (ICT) has long been a focus for the government as part of an e-Health initiative that promotes increased health monitoring and better access to online medical data.

The research behind Sensara, begun in 2001, was ahead of its time in recognizing the coming onslaught of seniors and their distinct needs. The company's patented learning technology relies on an algorithm that learns patterns in patients' movements and habits, alerting caregivers when something deviates from the usual. Rusthoven provides an example by referring again to his patient: Hans was getting up 10 to 20 times a night to go to the bathroom. Because of Sensara, caregivers suspected, found, and treated a serious bladder problem. "We really believe this is the future of

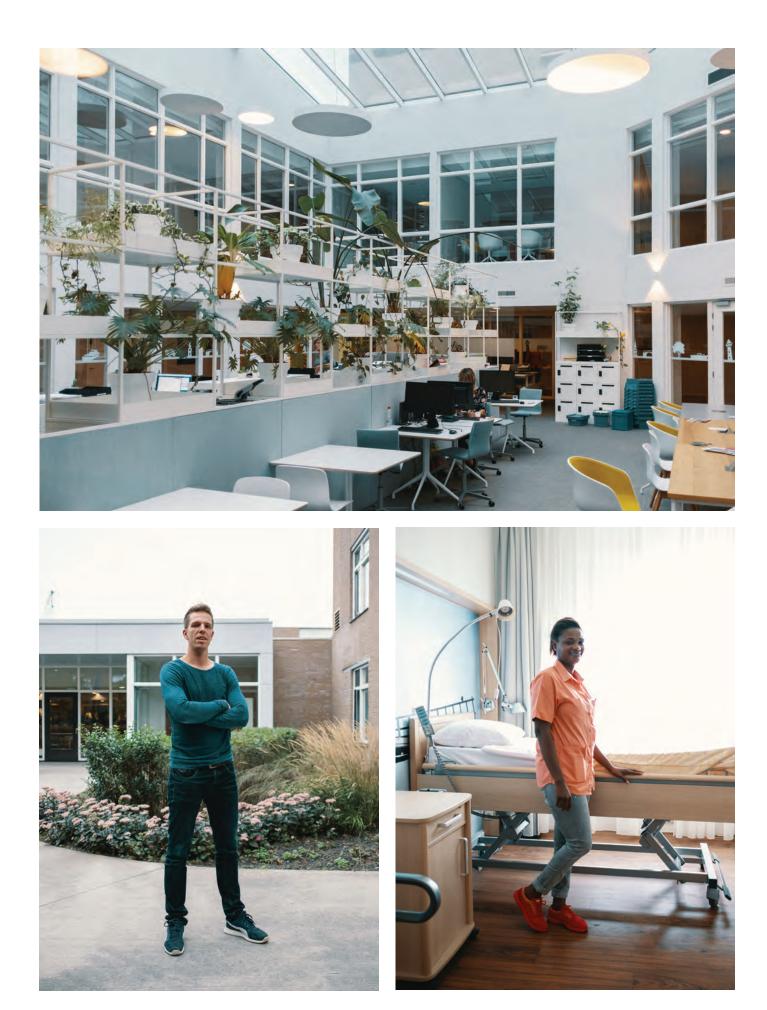


TOP Receiver, motion sensor, door sensor, and mobile app by Sensara. ABOVE A diagram of how the sensors are used in a patient's home. OPPOSITE PAGE, CLOCKWISE Inside the offices at Cordaan's Hof van Sloten nursing home; nurse Getty Quarshie in the stroke rehabilitation unit; and Elie Rusthoven, project lead for Cordaan's eHealth initiatives.

healthcare, incorporating continuous data to care for the elderly," he says.

Though the word technology conjures images of futuristic monitoring devices or flashy robots, this particular tech is quite simple on the caregiver's end. A dashboard signals red, green, or orange — an at-a-glance way to know if the person is all right. There are no cameras, microphones, or wearable devices, which some older people resist using — only simple wireless motion sensors. The entire process is meant to be easy and intuitive for both patient and caregiver.

Paul Ruijgt, business development director for Sensara, relays some feedback from a grateful woman who says Sensara is an "extra caregiver" for her mother. Within that testimonial is the



crux of how the company strives to make itself as effective as possible, by marrying elements seemingly at odds with each other: caregiving (a deeply personal, human act) and machines. "The winning combination is personal attention and technology working together," says Ruijgt.

For Cordaan, that outlook is key to creating a utilitarian tool. The Sensara system is not the first they've tested, but the most streamlined and user-friendly. The result comes from a very Dutch approach — implementing technology in a forward thinking, yet inherently practical way. "Technology is only relevant when adopted by the users," reminds Ruijgt. That means using their inventions not just for the sake of showcasing technological wizardry, but in the smartest ways possible to make the most lasting impact.

Workforce Participation

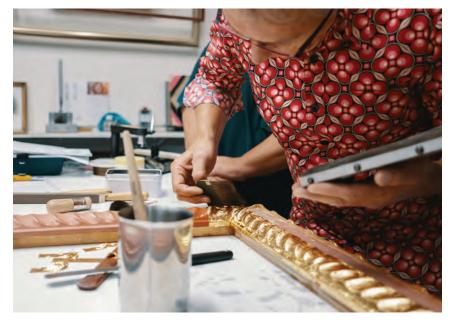
André Weda, 61, lifts the piece of gold leaf with a paint brush and with several precise moves and a flick of the wrist, applies the fluttering, tissue-thin square to the curves of the wooden picture frame. His intern, Claudia Potgieter, 52, looks on in rapt attention. This process of gilding, or applying a high-end golden finish, is one of the most painstaking and difficult of the frame-making craft.

"I have to teach her," Weda says, indicating Potgieter. "With gilding, you can read about it in a book, but by doing it, it's something different."

After 30 years in the business, Weda is an accomplished frame maker, applying his expert touch and artist's eye to all the frames he creates. His shop, which he has run for two decades, and his distinct style is known among people in the surrounding town of Castricum, as well as in Amsterdam and abroad.

Potgieter has been shadowing Weda for six weeks, coming to his store several times a week to learn every aspect of the craft — from assembling and painting, to working with customers and running a business. After losing her long-time job at a garage door manufacturing company, she was eager for the opportunity to start over in a field that interests her. By the time her internship is complete (a year and a half from now), Potgieter will theoretically be able to launch her own venture. "That's the dream!" she declares.

This apprenticeship was made possible through a partnership between the government and AmbachtNederland, an organization that seeks to support small-scale crafts enterprises. "Ambacht" in Dutch means "craft." With a grant of €2 million from the





TOP André Weda demonstrates the gilding process using 24-karat gold leaf. ABOVE Weda in his frame shop, Lijstenatelier André Weda.



"I have to teach her," Weda says, indicating Potgieter. "With gilding, you can read about it in a book, but by doing it, it's something different."



TOP Weda teaches apprentice Claudia Potgieter the painstaking craft of gilding. ABOVE Potgieter at work in the frame shop where she will study for the next year and a half.

government, their program, Ambachtsacademie, was created to connect older jobseekers to job opportunities in various crafts industries. The two-year training programs will eventually help 200 unemployed people aged 50-plus learn and pursue careers in skilled trades such as bicycle repair, ceramics, wood working, cabinetry, and upholstery. Projections indicate that some 450,000 new craftsmen will be needed in the Netherlands through 2025. This solution, pairing senior interns with skilled artisans, is a win for everyone — giving seniors a chance to follow their passions while preserving certain crafts that might otherwise disappear.

"It's for our culture," explains Mascha Scholten, Marketing and Communications Director for AmbachtNederland. "It's so important that [experts] can give their knowledge and their experience to another person. That's why we are doing this."

All this is an offshoot of a greater government effort to strengthen job placement assistance for older jobseekers, particularly those who have been unemployed for more than one year. With a well-funded plan called Action Plan 50+ Works, the government rolled out a number of programs, including Ambachtsacademie, designed to encourage the training, hiring, and retention of older workers.

In recent years, the percentage of Dutch seniors (age 65 and above) active in the labor force has increased, up to 7.7 percent in 2017. This is higher than the levels in most EU coun-



Scenes from Amsterdam during the summer and early fall: boaters, bikers, and café patrons in the city.

tries, in part attributed to the retirement and pension reforms that have been ongoing in the Netherlands since the early 2000s. The latest reform will raise the age for basic state pension eligibility from 65 to 67 starting in 2021, after which it will be linked to life expectancy. The end result is a change in attitudes towards early retirement and greater societal acceptance to working later in life. In a 2016 study by the Netherlands Organization for Applied Scientific Research (TNO), 90 percent of respondents stated their openness to the idea of working beyond the retirement age.

In the back of the frame shop, Weda continues with his gilding lesson. He begins gently painting over the gold leaf with a finishing powder, explaining how to give the gold a perfect aged patina. Potgieter listens carefully.

"It's the only way. It's the only way to learn," says Scholten, as she observes this interaction between teacher and student. "When she is ready, she will have her own style as well. That's what makes it so beautiful."

The picturesque canals of Amsterdam are lined with tall, leafy elms and the occasional weeping willow, with long tendrils trailing lazily into the water like a scene from a luminous, pastoral painting from the Dutch Golden Age. Boats of all sizes drift through the web of waterways, from massive enclosed tourist vessels to tiny motorboats filled with beer-drinking urban dwellers. Cyclists fill the streets and bike lanes, crossing the narrow stone bridges and weaving their way through the semi-circular arcs of the city.

Barbara Ederveen-Winkler's apartment is just steps from a canal, in a quiet, residential neighborhood near the zoo. The inside is bright, with white walls and large, west-facing windows that, as is customary in Dutch culture, are left uncovered most of the time.

She settles into the hospital bed that was temporarily placed in her living room after her skiing accident. Her bed, wheelchair, hospital and home visits, and ongoing physical therapy sessions - even the cleaning woman who comes to her place - were all subsidized by the government. For the most part, Ederveen-Winkler counts herself as extremely lucky to grow old here. Despite the plentiful bureaucracy and paperwork, she now recognizes she can age with independence, dignity, and joy. "We are a healthy, wealthy country. So there is still enough for everybody and there is care — maybe a little difficult to get, but if you need it, you can get it."

She mentions a Dutch proverb, geen zorgen voor de dag van morgen, which essentially translates to, "Don't worry

There's a Dutch proverb that she mentions, geen zorgen voor de dag van morgen, which essentially translates to, "Don't worry for what tomorrow may bring."





for what tomorrow may bring." The meaning, not to be mistaken for resignation, alludes to the pragmatism of people here. No sense in worrying because solutions eventually will come. There's a sense of confidence in the ability of their country to figure out the answers. This is, after all, a nation that wrested its land from the clutches of the sea. With enough ingenuity, resourcefulness, and collaboration, the Dutch will find a way to counter the next incoming flood — the challenges of an aging society — and even turn problems into opportunities.

When asked if she worries about aging, Ederveen-Winkler doesn't hesitate. "No," she says emphatically. "I'm still young." She is already looking toward the day when she can once again hop on her bike and ride wherever she wants. ◆

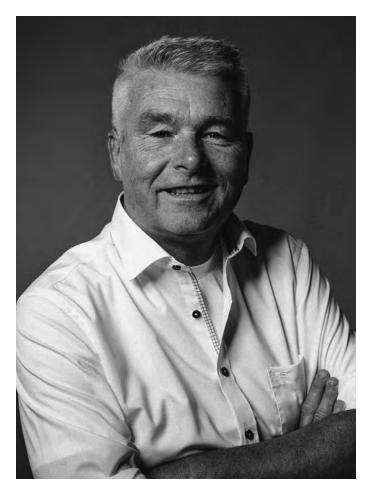




The Netherlands



Being Dutch, Luitzen Dijkstra didn't have to look far to find the activity he needed in retirement. After a heart attack, he especially wanted something to maintain his health and to increase life-giving interaction with others. In fact, Dijkstra, 62, probably could spot his eventual solution by glancing outside any time day or evening, just about anywhere in his country: bikes.



LEFT Retiree and avid cyclist Luitzen Dijkstra. BELOW Dijkstra with his fellow cycling club members.





Cyclists in the streets of Amsterdam, the unofficial bike capital of the world.

Bicycles are indeed everywhere in the Netherlands. The country famously features more bikes than people (23 million, compared to 17 million), with an average bike journey of 1.5 miles per day per person. People of all ages use them for everything from commuting to chores, but bikes have become increasingly popular for older Dutch citizens as a social foundation.

Dijkstra, for instance, is a bike trainer who helps operate a club sponsoring group rides for various ages from "eight to eighty," as he likes to say. "The socializing aspect is the main thing," he explains. "Being away together, visiting surroundings, having coffee. On a bike, we also can talk together as we ride."

In Holland, some cities and towns see fewer gas-spewing vehicles than bikes, which often offer their own, separate lanes, traffic controls, and parking structures. Watching the measured, harmonized, and organized flow of thousands of Dutch riding to and from work is a revelation of how deeply bikes have become embedded into this small, flat nation's psyche.

The benefits to older Dutch are more than you might realize, with physical health only the beginning. Cycling in Holland is studied by psychologists and sociologists as well as doctors. Studies show cycling adds to the lives of those over 60. Because of bikes, deaths from vehicle accidents are lower in the Netherlands, as is the health impact of vehicle pollution. Not only does cycling help Dutch people live an average of six months more than a typical European, but more than half of the total life expectancy increase benefits those over the age of 65. Cycling also contributes to brain health overall because of the multitasking involved in a simple ride to a café, being outdoors with others rather than sitting alone, even the complex level of trust required when you join hundreds of others in long, constantly moving lines of cyclists.

Dijkstra coaches and trains with his bike club in Peize, a smaller town near Groningen, a university city where a parking structure for 10,000 bikes was found to be lacking and where more than 60 percent of all trips occur on bikes.

Groningen was like most cities worldwide in the 1950s and 1960s – cars were increasingly taking over. But local politicians fought to support cycling, and today, bikes are favored over cars. In fact, if you want to visit the inner city,



Double decker bike parking near Leiden Central Station in the city of Leiden. Dutch provinces and municipalities, along with the central government, have pledged a total €345 million investment into improving cycling infrastructure and parking throughout the country.

you must take public transit, walk, or pedal. Cars are increasingly restricted. The historical central marketplace once a massive vehicle parking lot — is now a thriving marketplace again where most customers arrive on twos — feet or spoked wheels.

Another example is Utrecht, a fast-growing city in the center of the Netherlands that is building the world's largest bike garage to match its 250 miles of dedicated bike lanes. Many in the city use a special app to locate the closest bike parking spot. Ruth Oldenziel, an internationally known professor of technology at Eindhoven University of Technology and at the University of Amsterdam, touts Holland's biking benefits to others worldwide. Research from her team and others show several factors merged to support the pervasive Dutch bike culture: The close-knit nation did not develop as many far-out suburbs, the image of cycling has remained positive among all ages and economic groups, mass transit is available to pair with bikes or to replace cars, and the biking infrastructure is strong and growing — all promoted by decades of advocacy for bicycles.

"The cycling culture we have today is the outcome of a long, long, social struggle of fifty years in which the streets were conquered back from cars, inch by inch," says Oldenziel.

This is not to mention that gasoline prices in the Netherlands are among the highest in Europe — from \$6 to even \$7 a gallon. Biking can be a cheaper alternative than cars, especially for seniors on a fixed income. Bike riding becomes more leisure-focused after age 50, especially



"The cycling culture we have today is the outcome of a long, long, social struggle of fifty years in which the streets were conquered back from cars, inch by inch," says Oldenziel.



In Amsterdam, the easiest way to get from point A to point B is by bicycle. On average, an Amsterdammer bikes 900 kilometers (560 miles) a year.

after retirement, Oldenziel says, but bicycles don't drop in popularity among older Dutch residents until age 75.

In Holland, residents from an early age through college see no reason to add those two extra wheels. Bikes are used to get places, and nearly everyone uses them. People live closer together, and trains or other mass transit are usually available for longer trips. Some residents do not even own cars. At age 60, for instance, Professor Oldenziel is a biketrain-bike commuter. She keeps one bicycle at home for the seven-minute ride to her local train station, then another bike in the city. where she pedals a few minutes to her office. She arrives with students, janitors, clerks, and other professors; no real class distinction exists for bikes. Many Dutch riders pride themselves on having cheap or beat-up bikes.

Bikes are ingrained into Dutch culture in the same ways cars are central to the transportation culture of other countries. In the Netherlands, bikes are simply a two-wheel, self-propelled vehicle that you leisurely pedal to almost anywhere, any time of year. Weather? Dutch bike lanes are often heated and plowed in winter. Car-bike wrecks? Not so much in Holland, where cyclists enjoy their own traffic signals that stop gas-spewers to let them pass. Need to take someone somewhere? Have 'em hop on your sturdy luggage rack. And kids? They pile into Mom or Dad's front bike trailer or even perch on the handlebars.

Two types of bikes reflect how seniors help personify Dutch cycling culture. One is the amazingly popular omafiets, or grandma bike. People of all ages embrace this retro-style bike, which looks like something from the 1940s but is popular for its essential Dutch practicality and simplicity. The oma bike is a traditional bike with a low cross bar, sit-upstraight design, and both fenders and chain guards to make riding easy with regular clothing. Yes, you often see grandmas and grandpas on oma bikes.

The other craze is the e-bike, or electric bicycle, where a small electric motor boosts pedal power for longer rides or even the gentle hills sometimes encountered. E-bikes, in fact, have extended the cycling lives of older Dutch residents, according to Oldenziel and Dijkstra, the retiree and bike club enthusiast.

Yet the slightly increased speed and range that comes from electric bikes has, for the first time, revealed a slight warning for older Dutch pedalists: In 2017, the number of Dutch cycling deaths increased slightly, and all of the increase was attributed to men over age 65 on e-bikes, which are heavier and

Average cycling distance per person per day, 2015



SOURCE Statistics Netherlands, The Hague/Heerlen/Bonaire, 2017.

sometimes more difficult to control at higher speeds.

Despite this trend, cycling still is conspicuously safe in Holland on per-mile, per-capita use. Groups and clubs like those Dijkstra helps run are growing nationwide. One is a foundation called Fietsmaatjes that pairs senior riders to those with disabilities. The group focuses on two-person bikes with electric boosters that allow the riders to sit next to each other — not one behind the other like a traditional bicycle built for two. This promotes the interaction that bicycles have come to represent for many Dutch seniors, whether part of a foundation, touring club, or just pedaling to meeting a friend.

"Sometimes I think I cannot exist without my bike," says Dijkstra. "My bike is part of my life." ◆







CLOCKWISE FROM TOP LEFT Commuters in downtown Amsterdam; the city center of Groningen, where no cars are allowed; parking on the sidewalks in Amsterdam; cycling in sandals and a skirt; and cyclists of all ages use their bikes daily.





"We have a lot of clothes that are especially made for biking in the rain. It's nice to be outside. In the morning, you wake up because you are outside."

"I'm still living pretty cheap and as a student, you just buy the cheapest secondhand bike as long as it doesn't fall apart."

Ineke Vlek, 60 City: Leiden

> "I bike for my pleasure. I follow the Amstel River, to see the flowers and so forth. There's not a special goal. When you bike you can see much more than walking."



Paul van de Vyver, 26

City: Leid

bike is important. I'm very practical."



Course Children And

Hugo Sanders, 75 City: Amsterdam "When I first moved here, I had to learn the rules of the road and it was kind of crazy. Now it's just second nature." "I think cycling is in our DNA here. I will continue to cycle as long as I possibly can. It gives me freedom."

Ray Dy-Liacco, 46 City: Amsterdam

> "I have a 14-year-old son and an 11-year-old daughter. I have to buy them new bikes every two years because they outgrow them."

"I was 10 or 11 when I started biking to school on my own, but 9 when I would bike to field hockey practice. My parents were not over protective."

Marijke Elshof, 85 City: Oegstgeest





86 Years Young, in a Special Place Marjan Berk and the Occo Hofje



On the outside, the brick façade of the Occo Hofje looks like other stately buildings that line Amsterdam's many canals. Yet stepping through the wooden doors reveals a surprisingly large grassy courtyard filled with flowers and trees — an oasis in a busy neighborhood. The buildings that surround the courtyard contain several dozen apartments for older women, including Marjan Berk — prolific author, awardwinning screenwriter, outspoken feminist and larger than life personality.







PREVIOUS PAGES Marjan Berk at her desk (left) and the entrance to the Occo Hofje. The inscription over the door reads, "The Building of Mercy." OPPOSITE PAGE The entrance to the courtyard, lined with greenery. ABOVE The stylish Berk in her apartment.

A tage 86, Berk represents how determined seniors can live independently in close-knit Dutch society. Her distinctive apartment complex also is an example of the varied ways senior housing is arranged in the Netherlands, although Occo Hofje would be unusual in any nation.

Even approaching her ninth decade, Berk is still working (she writes a weekly column for *Algemeen Dagblad*, one of the largest newspapers in the Netherlands) and voraciously curious. Her current project is a book on the history of her living quarters, which was founded in 1774 by Cornelia Elisabeth Occo, an unmarried businesswoman descended from wealthy Dutch merchants. Occo decreed in her will that the building should be used in perpetuity as a free home for those in need, especially widows and older women. This was a common occurrence in Amsterdam, where about 30 of these historic *hofjes*, or courtyards, remain. Between the twelfth and eighteenth centuries, wealthy Amsterdammers gave generously to charitable organizations and many founded these almshouses as a sanctuary for poor, elderly women. It was a precursor to the modern Dutch social welfare system, protecting older, vulnerable citizens from poverty.

Marjan Berk's apartment, which overlooks the courtyard, is small but cozy. Over the course of a two-hour conversation, Berk frenetically pinballs between the fascinating history of the Occo Hofje and dozens of other topics: her memories of World War II (she was just seven years old when she lived through the bombing of Rotterdam), her own #MeToo moments (she once survived an attempted kidnapping and









IN MEMORIAM NOBILIS AC GENEROSI VIRI DRNELII VAN DER HOOCH PR. FECTURA RHENOLANDICA AGGERUM ASSESSORIS QUI OBHT XXI JANUARH, CIDIDCLXIV. ET EJUS CONJUGIS NOBILIS MATRONA, LISABETHE VAN DER HORST QUA. OBILT XVIII JULII ,CIDIOCXXXXI C MONUMENTUM VETUSTATE COLLAPS RESTITUIT HORUM ABNEPT S MARIA VAN DER HOOCH PHILIPPI JOANNIS GILLES UXOR ANNO CIDIDCCXXXIX

CLOCKWISE The Occo Hofje clock tower; well-tended communal space; Joop carefully pruning the garden; artwork on the walls in Berk's apartment; and the Occo family coat of arms displayed in the entryway.

OPPOSITE PAGE, FROM TOP Resident-led yoga class in the garden; a view of the courtyard and buildings from above; and Berk, at home surrounded by books and art.

F

K.



assault), and the risqué artwork on her walls (nude paintings, a gift from her exhusband).

In a remarkable life that exemplifies how people, even in their later years, can remain engaged, Berk has reinvented herself many times. First a nursing school student, then actress and cabaret performer, then screenwriter turned author and columnist. In the meantime, she married twice and had five children and eight grandchildren. She is known for writing *Vrouwenvleugel*, a TV series about life in the women's ward of a Dutch prison. Some 20 years before Orange is the New Black (Netflix's hit show set in a US women's minimum security prison), Berk's show confronted all sorts of controversial topics and was even the first Dutch television series with a lesbian character. She has more than 40 books to her credit, all authored after the age of 50.

Age hasn't dulled her sharp mind and she still has much to say. "I have the remembrance of an elephant," she says, laughing gleefully. "I can find my way through the past very well because that's what writers do — that's the work, eh? You can't stop being aware."

At Occo Hofje, Berk has the best of both worlds: the security of knowing there's care if she needs it, and the freedom to work, create, and live her life. She was thrilled to be admitted after spending half a year on the waiting list. Residents pay a modest rent for the privilege to live in this building, which was fully restored in the early 1990s and is still under the control of the original foundation. Berk is one of eight residents over the age of 80. The caretaker, a shy, unassuming man named Joop, does everything from tending the garden to looking after the residents. The vision of Cornelia Elisabeth Occo lives on through this unique place, and its equally unique inhabitant.

"What's so fantastic is that it's nonfiction," Berk says, her face lighting up when talking about the Occo story. "It's all true! It's funny that what she invented at that time was the most modern way to care for our older people." ◆ By David Everett and Lauren Hassani Photographs by Marco Javier

The Human Touch at Humanitas



A Rule-Bending Dutch Nursing Home Brings College Students and Seniors Together





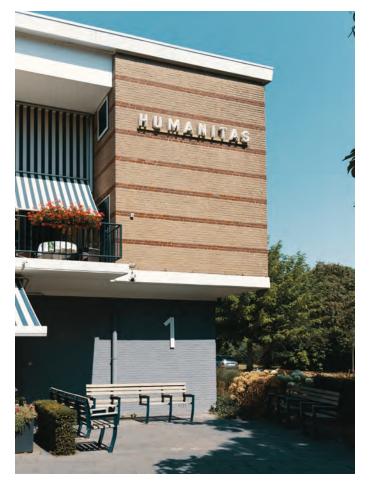
DEVENTER, The Netherlands — Whenever Gea Sijpkes wonders whether her innovations are succeeding at the elder care facility she runs, she strolls to the heart of the place, opens her eyes, and listens.

"If you are standing still in the middle of the building, you hear laughter there; you see people smile," Sijpkes explains. "It's such a comforting environment."

This laughter test exemplifies the tradition-trampling, headlinespawning ideas that drive the Humanitas Deventer nursing facility in this riverside city about an hour's drive from Amsterdam. Sijpkes' pioneering version of a nursing home relies on a simple but ever-morphing community of love, togetherness, and positivity, plus a sense that the senior residents must help run the facility where they live. So far, the just-try-it attitude has resulted in free apartments for college students who live among the seniors, a thriving arts and performance series that connects seniors with locals, and an adjacent residence for mentally disabled citizens who also interact with the elderly residents. But this living experiment in nursing homes isn't stopping with those novelties: Sijpke's latest ideas include what she calls "Alzheimer's whispering" to provide physical connections for dementia patients and the nurturing of real-life surprises to break seniors' routines. She is even trying a sort of visit-a-granny program to mentor rudderless children out of cyclical poverty. How's that for ambition?

For Sijpkes, it all comes back to happiness — that laughter, those smiles. She preaches those goals throughout the Humanitas Deventer facility. "I tell everybody, from the holiday worker and the people who clean the toilets, to the nurses — we are all here for the same purpose, and that is to make people happy, to give them their smile a day."

PREVIOUS PAGES Sores Duman (left), one of the student residents at Humanitas and his close friend Marty Weulink (right), who has lived at the facility for 11 years. ABOVE Gea Sijpkes, the fearless leader of Humanitas Deventer, outlines her vision for intergenerational living; and the exterior of the facility, which houses 160 senior residents and 6 university students.



When the Dutch government decided in 2012 that it no longer had enough money to provide elder care for everyone over age 80, nursing homes like the Humanitas Deventer facility were facing upheaval. (The age changed to 85, narrowing options for seniors.) Then the strong-willed, rulebending Sijpkes arrived.

The student residents have earned international attention. As an example of Sijpkes' innovations, the idea is both bold and pragmatic. When the Dutch government decided in 2012 that it no longer had enough money to provide elder care for everyone over age 80, nursing homes like the Humanitas Deventer facility were facing upheaval. (The age requirement changed to 85, narrowing options for seniors.) Then the strongwilled, rule-bending Sijpkes arrived.

She first thought she could fill the rooms left open by the change with student interns from the local university. But she ran into red tape and too many meetings. Did we mention she doesn't like rules? So Sijpkes posted a note on the nearest campus wall: Did any students need a free apartment in exchange for 30 hours of volunteer work each month?

The Deventer board didn't like the idea at first; she had to contend with rules, regulations, and fear of lost insurance coverage. But the first students soon moved in, with six now in residence. They teach everything from typing and social media to graffiti art; they also just become neighbors, like any apartment community. Then real life happens.

Once a night nurse snippily reported that one of the more spirited students had staggered home at four a.m. with two friends, leaving an elevator smelling of alcohol. Such typical young person behavior was atypical for a retirement home. Sijpkes's reaction to the nurse: "I asked her, 'Did he bother anybody? No? Okay."

"In the beginning, I think always people are a bit afraid of new things and not knowing how to react," Sijpkes observes. "The thing we have done is making things normal again, because it's normal that students are coming home in the middle of the night."

Another time, one of the student residents tried to sneak a date into his apartment by a back stairway. Sijpkes loved it, because she knew the senior residents on that floor would soon be gossiping about the stairway scandal instead of their latest pains. This is the reality she wants — the surprises and challenges of normalcy. The goal is to provoke curiosity, conversation, and memories, not mind-mucking routine.

Sijpkes doesn't forget the important rules. Fire codes are essential for safety; medical care must be proper. "But if it's not useful, if it doesn't contribute to the happiness in the house, to the smile a day, I won't obey," she observed. For instance, rules like the annual filing of a government report drive her wacky. Instead of submitting the required paperwork, she got some student interns from the university to prepare a glossy magazine filled with Humanitas stories and photos. Now the Dutch Care Authority cites their report as an example to follow – another indication that the Gospel of Gea is working.

The experiments all focus on people — a fact that seems evident when Sores Duman, a student who has lived at Deventer for more than two years, proudly



Sores, 28, and Marty, 93, enjoy spending time together; he helps her with her iPad and goes grocery shopping with her. Marty has no grandchildren of her own and considers Sores her adopted grandson.

introduces his friend, Marty Weulink. Marty, who has lived at Deventer for 11 of her past 93 years, laughs and jokes with her neighbor, the older playfully punching the younger in the arm. It's clear that what makes the Deventer model successful is that the young and old don't see themselves as fulfilling those adjectives.

Sijpkes knows the students receive far more than free rent. Not only must the younger residents slow down and listen, but they learn how death is part of life as older residents pass on. The same "aging and engaging" motto permeates the daily interaction with autistic residents from next door.

Sijpkes cuts an impressive figure in person, wearing a dark teal jumpsuit and heels that nudge her over the sixfoot mark. A loose bun of strawberry blonde hair on top of her head adds to the height. As she moves throughout the facility, distributing jokes and smiles and orchestrating the many moving pieces of a huge nursing home, it's clear she is adored by residents and coworkers alike. Sijpkes simultaneously exudes a genuine, nurturing disposition and an air of brisk authority. Beneath that warm façade lies an unyielding core.

Her life seems a perfect preparation for Humanitas Deventer. Always strong natured, she grew up in a loving, supportive family that not coincidentally included a social worker father. Sijpkes knew she wanted to add value to peoples' lives, so she eventually tried nursing. She soon realized that her determination to put patient care above all was going to clash with rules and traditions. She once stood in a doorway to physically block a doctor from entering a sick child's room because the sleeping child needed rest more than to be awakened by a doctor with a schedule to keep.

The astounded doctor complained to Sijpkes's boss, but Sijpkes didn't back down. She also concluded she wasn't happy in such a controlled environment. She tried business school, earning an MBA while studying government systems, working along the way with the permanently mentally disabled. Her work with that community made her yearn to continuing working with people who need her exact blend of know-how and compassion. Enter the Deventer retirement home, which is part of the nationwide Humanitas network of social service programs in the Netherlands.

Sijpkes's student resident idea has expanded elsewhere in Holland and Europe, but the concept of joining atypical



A glimpse inside Sores' and Marty's respective bedrooms. "There aren't any rules," says Sores. "You can just go to someone whenever you feel like it. Sometimes they knock on my door. Sometimes I knock on their doors. Sometimes I just walk in."

unique to Deventer. One elder care facility in Cleveland, Ohio, has housed local art and music students since 2010, and many nursing homes in the US and elsewhere integrate interaction with everything from children to pets. These examples would make perfect sense to Sijpkes, who doesn't want her ever-innovating Deventer programs simply to be replicated. She plans to create a workbook that preaches a process of determining how senior care communities can be built uniquely and locally, rather than trying to follow a single template.

Sijpkes's goal is no less than to change the face of senior care. What works with college students in Holland and Cleveland might succeed elsewhere with refugees or unwed mothers. The goal, she believes, should always be happiness and engagement, rather than routine and, well, boredom.

residents with nursing home residents isn't "It's kind of a movement, a direction in which you can go to reconnect and to make things better for everyone," Sijpkes says. "You can't solve it with only the elderly. You have to find new connections in which you can grow together as a heterogeneous community toward new answers and new values, to be happy again."

"It's kind of a movement, a direction in which you can go to reconnect and to make things better for everyone," Sijpkes says. "You can't solve it with only the elderly. You have to find new connections in which you can grow together as a heterogeneous community toward new answers and new values, to be happy again."

She is increasingly taking her ideas worldwide, from Hong Kong to the U.K. to Michigan, where she visited the university in Ann Arbor and immediately noticed the stressful lives of American college students. That fast pace triggered memories of how her seniors back home in Holland were forced to live slower lives. Her rule-bending suggestion reversed the Deventer student resident concept — Michigan, she thought, should move seniors onto each floor of its dorms. That idea isn't yet in practice, of course, but it demonstrates the nimble mind of this elder care pioneer — a rebel as much as a disruptor.

"We are a living lab," Sijpkes reflected recently from near the laughing heart of her Deventer operation. "We are alive. Our breath is to keep on developing, keep on moving ... Every day is a new day with new chances." ◆

> FROM TOP Susan Rijks, part of the Humanitas management team; and a staff member taking a break in one of the building's many gathering areas.

OPPOSITE PAGE, CLOCKWISE Meals being served in the cafeteria; Gea Sijpkes chatting with a resident; getting a trim at the on-site hair salon; a communal garden that is open to residents and people in the community; Sores' tour through the living quarters; the work of local artists displayed on the walls; a shop where residents can buy necessities; and some of the amenities at the facility, including a physical therapist's office and a laundry service.





















GIVE AND AND TAKE

Dutch Seniors Find Fulfillment Through Volunteering





Mieke Lunenberg leads a tour through her neighborhood. She has lived in the Jordaan since 1993 and has seen many changes in the character of the neighborhood over the years. AMSTERDAM — After 25 years as a resident of the Jordaan neighborhood of Amsterdam, Mieke Lunenberg knows nearly every corner and crevice of its narrow streets. On a recent tour, she takes a meandering path, pointing out the obvious tourist spots (the Westerkerk church, where Rembrandt is thought to be buried) and the places that have meaning to her (the pub she frequents with her friends). Her commentary — a history lesson punctuated by personal anecdotes — paints a nuanced picture of the sliver of neighborhood running through central Amsterdam, just to the west of the Prisengracht canal.



The Dutch volunteer at a far higher rate than any other country in the EU. More than one in five Dutch seniors (age 65-plus) volunteer in community and social services at least once a month. CLOCKWISE THIS PAGE The tower of the Westerkerk, built in the early 1600s and the largest Protestant church in the city at the time; Lunenberg mapping the route; and pointing out interesting architectural features on buildings. OPPOSITE PAGE A map showing the location of the Jordaan, a neighborhood originally built to house the city's immigrant and working-class population; and Lunenberg crosses one of the many canals.





Lunenberg, 69, is a volunteer tour guide and the definition of an active retired Amsterdammer. She is a member of Gilde Amsterdam, a volunteer-based organization that offers a variety of programs and resources for the community, including a unique guide program that enlists the expertise of local seniors. Twice a month Lunenburg puts her 30year career as an educator to good use, offering groups of tourists an insider's glimpse into the city she knows so well. Like many Dutch seniors, she has embraced volunteerism as a path to personal fulfillment in her later years.

The Dutch volunteer at a far higher rate than any other country in the EU. More than one in five Dutch seniors (age 65-plus) volunteer in community and social services at least once a month. Some of this trend can be attributed to the country's deep Christian roots; religious groups, as was common throughout the Middle Ages, cared for the poor and sick. Other elements of Dutch volunteerism are tied to the concept of polder, the extraordinary display of cooperation also tracing to the Middle Ages in which entire provinces worked together to build an elaborate system of dams and dykes to keep out the water. Looking out for fellow citizens has been infused into the Dutch psyche over many generations.

Nowadays, religious affiliation is dwindling in the Netherlands, which actually has one of the least religious populations in all of Europe. Yet volunteerism and philanthropy are going strong among all age groups, including older adults. Seniors are for the most part wealthy and well-educated, with extra time and a willingness to lend their skills. Especially as the country continues its transition away from a welfare state, the need for volunteerism is that

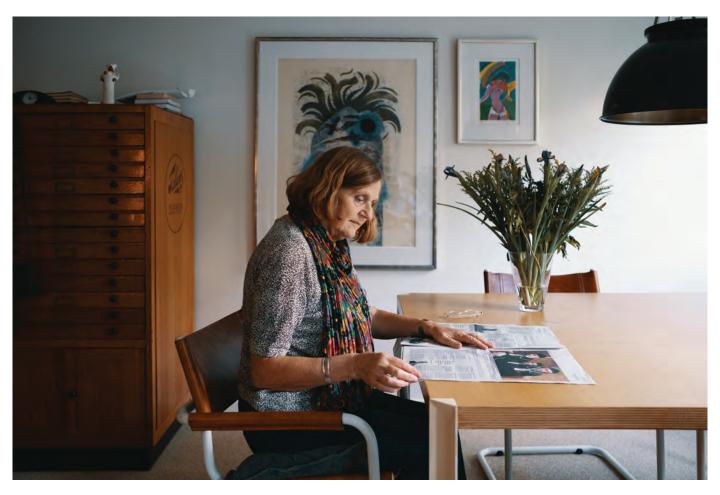








CLOCKWISE FROM TOP Anne-Marie Bevers, director of Gilde Amsterdam, which runs a variety of volunteer-based initiatives such as career counseling, language tutoring, and buddy programs to prevent obesity; Jan Brockhuisen, 76, who has been giving walking tours with Gilde Amsterdam for 15 years; and Karel Philippens, 71, a volunteer team leader for the Gilde literacy initiative.



Lunenberg in her ground-floor apartment. In addition to volunteering for Gilde Amsterdam, she is a volunteer English teacher and chair of her building's communal garden.

much greater. As the government calls for more personal responsibility on the part of citizens, volunteers have become an important part of the answer, not only assisting in care and welfare organizations, but also informally by looking after friends, neighbors and family members.

Of course, the benefits of volunteer work aren't one-sided. "One of the pillars of the healthy-aging cities is volunteer work," explains Anne-Marie Bevers, the director of Gilde Amsterdam. "Why volunteer work? Because it keeps you healthy. You're busy with other things, and you don't have time to think about dying or sitting in your chair at home."

Gilde Amsterdam began in 1994 with 50 retired volunteers who wanted to make use of their professional and life skills. After long careers and much accumulated life experience, they had a lot to share. Today, they number some 850 volunteers throughout Amsterdam. The Mee in Mokum (walking tour) program is the flagship offering, with tour guides from 61 years old all the way up to 90.

Mieke Lunenberg has spent the past decade serving as a tour guide and training new guides for Gilde Amsterdam. In her spare time, she also teaches English to immigrants at the local community center. She finds two reasons to stay involved: "One, it gives structure to your day. Secondly, I like the intellectual challenge. Of course, you want to do something with your knowledge and experience."

As Lunenberg continues with her neighborhood tour, she takes a series of turns that end in a narrow corridor behind a house. She points out a smaller structure that was built as an add-on to the original, part of the labyrinth of slums in this former working-class neighborhood. Her face lights up as she describes the complex history of the place she has grown to love. After this, the tour makes a quick stop in one of the oldest pubs in the city, before departing ways with full stomachs and the satisfaction of a day spent in good company.

The tour was enriching to those who learned about Amsterdam — and to the guide who taught them. Bevers sums up the benefits of volunteerism to seniors like Lunenberg: "They have a purpose in life, meaning in life. They have someone to help, and helping another person is good for you." •

Located on the banks of the North Sea, The Hague is the seat of government of the Netherlands and known as an international city of peace and justice. The city is also working toward becoming an age-friendly leader, creating an environment that fosters independence and vitality.



Meeting of the Herensoos, with Fred Kooijman, left, and Peter Smulders, second from left.

THE HAGUE — On his 75th birthday, Peter Smulders received a call from a local social welfare counselor asking what in other cultures might seem to be nosy questions: What were his activities, and whom did he associate with?

Far from being nosy, though, the birthday call was all part of this city's plan to engage with the aging population and, more broadly, to shift support for seniors from a welfare model to what the Dutch call a Participation Society.

"In my case," Smulders recalled about the phone conversation, "there were some weak points, so the counselor recommended I join a discussion group and not be alone." Smulders was referred to the Herensoos group of retired gentlemen. Since that day, he and 11 of his peers have gathered every Tuesday morning to drink coffee, discuss the topic du jour, and check in on the needs and concerns of its members.

Social Connection

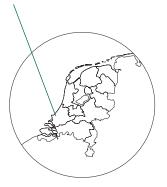
At a recent Herensoos meeting, Smulders and the rest of the group have started proposing topics for their weekly discussions. Members write down ideas on a note card and then the group leader makes a selection. "This morning we started with 'what is the soul of the human being?'" says Fred Kooijman. In the past, the group has discussed migration, integration, organ donation, US President Donald Trump, fake news, and Indonesia after World War II, to name a few topics. Oh, and French wine. The topics are not always heavy.

Of course, life has a way of inserting itself into the life of the group. One club member recently suffered a stroke; according to Smulders, this made a big impression on the group. For several days, the Herensoos lost touch with him. They were finally reconnected, but the experience spurred them to update their contact list. For several members, the Herensoos has become their main support system.

Kooijman, who has taken the lead as chair of the men's group (and fondly referred to as "The President") sets the record straight: "We are not caretakers. We are not, say, cleaning or changing nappies and that sort, but if there is a problem, [a group member] can put it on the table, and we start the discussion: how can we assist him to solve his problem?"

In this way, the Herensoos is much more than a weekly men's group. It is a very Dutch, practical response to the aging challenge — an opportunity for older adults to participate in

THE HAGUE / DEN HAAG





PROVINCE South Holland

POPULATION Total: 533,026 (2018) Men: 264,240 (49.6%) Women: 268,786 (50.4%)

total area 98.12 km² (37.88 sq mi)

AGE DISTRIBUTION 0-19: 122,537 (23%) 20-64: 334,024 (62.7%) 65 or older: 76,465 (14.3%)

AVERAGE AGE OF THE POPULATION: 38.5



LEFT TO RIGHT Sewcharan Kisoensingh, 68, is an active member of the Surinamese and Indian communities in The Hague; two friends and members of YaYa Dande, a Surinamese community association, dress in festive traditional creole clothing called "kotomisi"; and seniors dance at the YaYa Dande 2018 annual gathering.



the community, form a network, and in turn, help others. This human-centered approach is the underpinning of The Hague's age-friendly city programme.

Age-Friendly Programme

In 2015, The Hague became the first Dutch city to join the World Health Organization (WHO) Global Network for Age-friendly Cities and Communities. The city's plan focused on helping seniors engage among themselves to improve their vitality, reduce loneliness, and encourage participation.

It is not surprising that implementation of these priorities is where Dutch pragmatism shines. Instead of top-down approaches, the municipality of The Hague serves as facilitator to motivate organizations and seniors themselves to take responsibility for their lives. This sustainable model reflects the nation's steady shift away from government financial support to deal with the aging of the Netherlands, where, as of 2018, 19 percent of the population is already age 65 and older, and this percentage is expected to grow to nearly 28 percent by 2050.

The shift in the government's role in aging formally began on Prince's Day, "Prinsjesdag," in 2013. The ceremonial opening of the Parliamentary year began, as always, with a speech the Dutch king delivers on the third Tuesday in September to discuss the government's plans for the year. The nationally televised address that year from King Willem-Alexander delivered a stark, historic message that the welfare state of the 20th century was being replaced.

For those who live in this historic city, the trend toward helping seniors help themselves accelerated in 2015, when the municipality of The Hague began implementing its Action Programme within the WHO's eight domains of city life.

With regard to the support for older citizens, the traditional focus within the

municipal leadership was on care and loneliness - and carried a rather sad, negative view of aging. But through The Hague's age-friendly program, the focus has shifted to respect and vitality a much more positive mindset and approach. Policy Advisor for Elderly Issues Elizabeth de Vries explains the important theory of vitality: "Most of the time, as you age, you become more vulnerable. That just happens and there are services for that...But it is much more important to look at how to become vital and not become dull and decline...So our approach within the Action Programme, we ask 'How can we help you stay vital and have a meaningful life?"

The Hague has become a model for other Dutch cities looking to become more age-friendly. For instance, officials from the Dutch capital city of Amsterdam and Roosendaal, a municipality to the south, have visited The Hague to learn about their program and the variety of age-friendly initiatives.



Super Diversity

With 14.3 percent of its population age 65-plus, The Hague does not qualify as "super-aged" but is instead "super-diverse": 50.8 percent of the population have a non-Dutch origin and an impressive 180 nationalities call The Hague "home." With such diversity, The Hague takes the lead in multicultural inclusion and programming.

A wealth of community associations and clubs cater to the city's multicultural senior population. Sewcharan Kisoensingh, 68, who immigrated to The Hague 48 years ago from Suriname, is active in the Surinamese and Indian communities. He is a member of various community groups for seniors, participates in celebratory events like Diwali and Holi, and attends activities like yoga classes and Bollywood movie screenings. "These events reinforce how important it is to understand your culture and to meet people through a social activity," he explains. "While being integrated into Dutch society, you can still keep those ties to your cultural heritage." The Hague does not qualify as "super-aged" but is instead "super-diverse": 50.8 percent of the population have a non-Dutch origin and an impressive 180 nationalities call The Hague "home." With such diversity, The Hague takes the lead in multicultural inclusion and programming.

Age-Friendly Initiatives

One of the best-known age-friendly projects in The Hague are the Vitality Awards, developed by Roy Wesenhagen, the founder of D'article Enterprise BV, and his team. This competition invites older citizens to share their ideas on how to improve the city. The winners have come in all shapes and sizes, from a Hip Hop Granny Crew—a group of ladies aged 60-plus who gather weekly to learn hip-hop dance moves—to the 'Beweegtuin' exercise garden at the Bronovo Royal Medical Centre.

The HMC Bronovo Beweegtuin, led by Rik van Hooff, opened in April 2016 to help older people remain physically and mentally healthy in an innovative way. With special attention to design (from color scheme to layout), van Hooff developed this "playground for seniors," featuring exercise apparatus for training muscle strength and endurance and intentionally set in a socially conducive manner.

"We are getting older," said van Hooff, "and if you sit and stay, eventually you cannot get up from the chair...and at a given moment you'll have to go to a nursing home. So it is in everyone's interest to keep moving." The Beweegtuin project, supported by the municipality and partly financed by the Friends of Bronovo Foundation, is intended for both hospital patients and local residents.

The Hague's leadership on the age-friendly front continues after the March 2018 election of a new city council and the appointment of a new city executive focusing on age-friendly initiatives. That executive, Kavita Parbhudayal, has since focused on digital innovation, including a program called iZi Geond Lang Thuis (Living a Long and Healthy Life at Home) that tests all sorts of technologies to help seniors thrive in their own homes rather than look toward nursing homes or other off-site models. iZi was named the winner of a World Smart City Award at the Smart City Expo World Congress in Barcelona in November 2018.

Queen Máxima herself visited the iZi experience house, a living lab which features over 90 different social and technological innovations. For instance, low-lying sensors in the walls of the home detect residents who fall. High-tech walkers "dance" with residents to maintain their flexibility. And video screens are used to communicate beyond a phone. The guiding principle of iZi is to allow a community of residents to test technology, share experiences, and identify which solutions should be implemented on a larger scale. Seniors who want to consider joining the program even can spend the night in the experience house to see how it might work in their own homes.

Bea Oedai, 66, lives in an apartment within the same community as the iZi experience house and serves as an iZi ambassador, conducting tours and personally testing the technology. Her favorite feature in the iZi house is a gas range that utilizes sensors to shutoff off the gas flow if left unattended for too long, sounds an alarm if necessary, and can be set-up to alert others via smartphone app. Recently Oedai provided feedback on a robot vacuum cleaner, stating, "I sometimes find it hard to vacuum when I have a stiff back or painful legs. It works much better than I expected and it can get into difficult corners. You have to watch it though and sometimes send it in the right direction!"







FROM TOP Bea Oedai, iZi experience house ambassador, demonstrates the gas range which features a cooking sensor that prevents pans from boiling dry or boiling over; the AARP team visits the HMC Bronovo Beweegtuin with its creator, Rik van Hooff; and signage with instructions for the exercise garden's usage.



Back at the Herensoos meeting, Smulders and the rest of the group are making plans for the next gathering. Their enjoyment of being in one another's presence is obvious. In fact, the Herensoos members gave their group a tag line: "Herensoos — Where you're never too old to meet new friends."

Kooijman explains that they were all "perfect strangers" before the Welziin Scheveningen social welfare group brought them together in 2016. With financial support from The Hague, Welzijn Scheveningen is comprised of 540 volunteer and 45 professional counselors and social workers who work with individual residents in its district. Mechteld van Roosmalen, a policy officer with Welzijn Scheveningen explains that the organization offers services ranging with from transportation for wheelchair-bound residents and handyman repairs, to an Alzheimer café and support for informal caregivers. Their motto is "Know each other, help each other."

Jessy-June van den Breul, a senior counselor at Welzijn Scheveningen who encouraged a number of the latest Herensoos members to join, recognizes that the group, with a dozen members, is at capacity. More such groups are needed.

As the clock strikes 2 pm, Kooijman "The President" reminds Smulders and his friends that they will postpone their scheduled philosophical discussion on life the following Tuesday. Other plans will take priority, for Tuesday is Prince's Day.

"We have a tv screen here, so we are going to watch the ceremony and the speech of our monarch, our king," Kooijman explains.

Just another sign of active engagement for the city's active older citizens. And a sign of collective steps forward, representative of the Dutch approach to aging. •

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ABOVE CLOCKWISE The Vitality Awards have encouraged innovative ideas for keeping seniors involved and active; the Peace Palace in The Hague, Netherlands, which is the seat of the International Court of Justice; and the interior of City Hall, the home of age-friendly The Hague programming and initiatives.

Special thanks to Roy Wesenhagen of D'article Enterprise BV for coordinating our age-friendly The Hague study tour in September 2018.

The Hague and the Netherlands: A Portrait in Diversity

The Hague, the third largest city in the Netherlands, is also among its most diverse. As a seat of government and home to more than 200 international organizations, the International Court of Justice, and the International Criminal Court, the city is filled with people from all around the world. its 530,000 inhabitants represent an astounding 180 different nationalities.

Over the past five years, the city's population has grown steadily, attributable mainly to foreign immigration. According to Statistics Netherlands, the percentage of the city's inhabitants with an immigrant background in 2017 was 53 percent; by 2023, that number will rise to 57 percent.

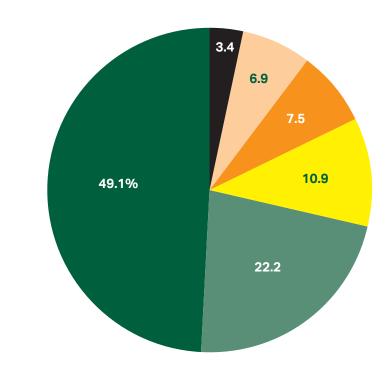
The aging population, in particular, is quite diverse, with 30.4 percent of the over-65s in The Hague identifying as ethnic minorities. One of the largest of these groups is from Suriname, a former Dutch colony in South America, followed by groups that immigrated from Morocco and Turkey.

Like The Hague, the Netherlands as a whole has long had a reputation for tolerance and multiculturalism. Over the centuries, this tiny country has served as a haven for many groups, from those fleeing religious persecution to those in search of economic freedom and new opportunities. Following World War II, as the country rebuilt itself, the Dutch government recruited workers from southern Europe, and then later from Turkey and Morocco in the 1960s and early 1970s. Other groups migrated from the territories in the Dutch colonial empire, including the Indonesians in the 1940s and 50s, the Surinamese during the process of decolonialization around 1975, and the Antilleans (from the Netherlands Antilles) in the 1990s and after. Today, net migration in the Netherlands has reached record levels. This is partly due to increased immigration from other EU member states and a rise in asylum seekers from places like Syria and Eritrea.

As the country becomes older across the board, first generation immigrant

A "Super-Diverse" Aging Population

Distribution of Immigrants Aged 65+ in The Hague by Group of Origin



- Western Ethnic Minorities
- Surinamese
- Other Non-Western Minorities
- Moroccan
- Turkish
- Antilleans

According to Statistics Netherlands, 30.4 percent of the over-65s in The Hague are ethnic minorities. The largest group of immigrants aged 65-plus is the group of Western ethnic minorities at 49.1 percent, followed by the Surinamese community at 22.2 percent.

groups are aging as well; Statistics Netherlands reports that in 2017, people with a migration background accounted for 14 percent of the Dutch senior population and by 2060, they will account for 28 percent. According to recent studies, older immigrants generally have a lower educational level and a lower socio-economic status than seniors of native Dutch ancestry, making them more vulnerable to certain health problems and less able to access the proper services and assistance. The challenge in the coming years will be meeting the needs of this population and addressing growing disparities to help them to age with the same high level of care and quality of life that all Dutch citizens have come to expect. \blacklozenge

Diverse Perspectives

These residents of The Hague are also first-generation immigrants, representing some of the many older voices from this multicultural city.





Gerda de Bruin, 71

Country of Origin: Suriname Immigrated in: 1987

"It's important that the city takes a proactive role informing not only seniors of Surinamese descent, but of all backgrounds, as to what kinds of activities and information are available and how to get in touch with the city. Because of various lags in digital education, people aren't always capable of accessing the right communication tools. The computer literacy rate among seniors is not as high as among younger people."

Sewcharan Kisoensingh, 68

Country of Origin: Suriname Immigrated in: 1970

"I'm very active and I don't feel old. I'm active as a volunteer and participate in community-based activities to help people of any background. I've been volunteering for the Red Cross for 28 years. I also volunteer at one of the elderly care homes and for the Zonnebloem Foundation. I really like the Hague because I've found my way around here."



Paulette Grenet, 67

Country of Origin: Vietnam Immigrated in: 1979

"I am a part of lots of communities and go to all sorts of events. I like people of all nationalities and backgrounds. I'm with the French people sometimes, with the Indonesian people, with the Surinamese people, with the Americans because I speak English. I don't prefer any one group. I found that's nice and it brings me lots of riches in this life — and I don't mean riches with money. It makes me happy and makes me stay alive and feel young."



Ifna Blijd, 60

Country of Origin: Suriname Immigrated in: 1974

"AFIMO has a weekly gathering here in the Hague. We have 100 members. I take part in some trips and events through that organization. We travel to locations throughout the country. We have a campfire day and a biking day, things like that. That helps to bring people together."

DAG IN HET LEVEN

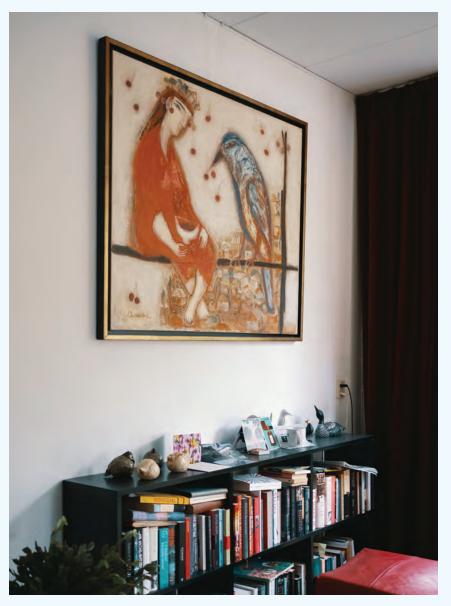


HANS ULRICH, 79

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On a typical day, Hans Ulrich, 79, keeps himself occupied with his many hobbies: reading, writing, exercising, volunteering, and spending time with family and friends, to name a few.

He resides in Oegstgeest, a town half an hour southwest of Amsterdam, in a house he has lived in since 1975. He and his first wife raised their four sons in this house, and the walls are filled with art he has collected over many years. Ulrich retired in 2002 after a long career as a history teacher and journalist for NRC Handelsblad, considered the Netherlands' newspaper of record. Since then, he has focused on writing, authoring 10 books (everything from memoir to history to children's stories). He works in his upstairs study at all times of the day and night, whenever inspiration hits – sometimes at two a.m. after a bottle of wine. In the morning, he reads the newspaper, drinks coffee, and smokes a pipe.





PREVIOUS PAGE Detail of a painting purchased by Hans, by local artist Johannes Cornelis Roelandse; and a portrait of Hans in his garden.

THIS PAGE Art by Anwar Abdoullaev in the living room; and one of the many pipes lying around the house. OPPOSITE PAGE Hans in his study, on the second floor; and spending time catching up with family and friends in the garden.



Ulrich enjoys spending time with his girlfriend of nine years, Ingrid. The two live just 200 meters apart from each other in the same neighborhood. Although they are engaged, they both like having their own space too much to give up their separate homes. He has 11 grandchildren and is particularly close to grandson Tom, 19, who frequently drops by to hang out. The two enjoy watching the AFC Ajax (their favorite Dutch professional football team), either on tv or sometimes in person at the stadium in Amsterdam.

On Wednesday afternoons, Hans often goes out with the Kunstclub (Art Club) to cultural events and museums. Many of the club members have autism and Hans is a "buddy" to two of them. Also during the afternoon, Hans usually heads to the nearby Lange Voorst shopping center, a mere five-minute walk from his house. Occasionally he'll stop by the bookstore to catch a glimpse of his own book on the shelves and see if sales are holding steady. And if he's feeling hungry, he'll drop by the local fishmonger for a snack of pickled herring, a Dutch specialty, gulped down in two seconds flat. "It keeps me young!" he declares. ◆



TOP RIGHT With fiancée, Ingrid; a walk to the local shopping center with grandson Tom; and getting ready to bike to downtown Leiden.

OPPOSITE PAGE (CLOCKWISE) A visit to the local bookstore where his book is sold; meeting up with the Kunstclub (Art Club) at the Museum Volkenkunde (National Museum of Ethnology) in Leiden; traveling by bicycle through the streets of Leiden; getting his daily dose of pickled herring; and taking a break with friend Niels Bartels for a healthy yogurt drink at Lebkov & Sons.

> By Lauren Hassani Photos by Marco Javier









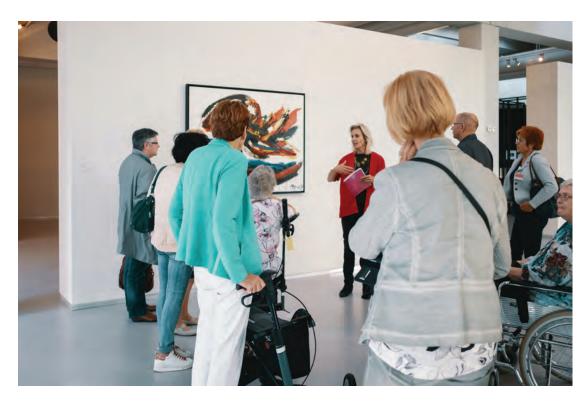


By Lauren Hassani Photographs by Marco Javier

Adding Meaning to Seniors' Lives Through Art and Culture

AARP INTERNATIONAL: THE JOURNAL, 2019

An undercurrent of anticipation surges among the crowd at the Cobra Museum of Modern Art café. Women and men sit at tables in the well-lit, white walled room, sipping cups of coffee and chatting. A smattering of them are in wheelchairs, and many have walkers and canes. The group, all over the age of 65, has traveled for more than two hours by bus to Amstelveen, a southern suburb of Amsterdam, to do what many of them haven't done in years (and some of them have never done): visit a museum.



Seniors from the Museum Plus Bus group gather around a painting at the Cobra Museum in Amstelveen. Their excursion is proof of a growing nationwide acknowledgment that cultural pursuits like fine art, theater, music, and dance are more than just pleasant distractions for an elite slice of the population. They are a powerful means of engaging older adults from all parts of society and enhancing their quality of life.

The few dozen seniors at the Cobra Museum on this day are here with Museum Plus Bus, an Amsterdam-based organization that arranges free tours for older adults at 14 museums across the Netherlands — from wellknown institutions like the Rijksmuseum and the Van Gogh Museum, to lesser-known gems like Kröller-Müller and Cobra. For the past decade, Museum Plus Bus has managed to give thousands of Dutch seniors access to art and culture. With their two massive tour buses, they ferry groups to and from museums about 300 times per year.

A wealth of programs and initiatives like Plus Bus are devising innovative ways to extend the benefits of the arts to the Netherlands' rapidly graying population. It's not surprising, given that this is a country with a rich artistic legacy (including Rembrandt, Vermeer, and Van Gogh, to name just a few Dutch icons) and an impressive network of arts organizations. The Netherlands has the fourth highest level of cultural participation in Europe, with 58 percent of citizens actively engaging in cultural activities. Museum Plus Bus is entirely funded by BankGiro Loterij, a national lottery dedicated to supporting causes in the arts. If there's any indication of the deep appreciation for arts and culture in this country, it's this; imagine buying a lottery ticket and having fully half of the proceeds go toward funding cultural appreciation efforts. And this being the Netherlands, of course it's all backed up by research. Ample studies by thorough Dutch academics affirm the theory that cultural participation has a positive effect on the well-being of people of all ages.

In 2013, the national initiative Long Live Arts (Lang Leve Kunst) launched with the specific aim of giving older adults increased access to cultural activities. Leveraging various public-private partnerships, Long Live Arts was able, over three years, to pour about 10 million euros into 950 cultural projects that reached some 400,000 seniors.

One of those projects that received funding was a program at the Van Gogh Museum called "Art Makes Man: Older People Meet Van Gogh." The museum ran a series of popular workshops focusing on the life and art of Vincent Van Gogh that were targeted toward











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OPPOSITE PAGE, FROM TOP Bus Driver Dick Ruessink, 65, operates the wheelchair lift; unloading the walkers from the bus storage area in preparation for the tour; and tour goers head to the museum entrance. This Plus Bus group traveled from Son en Breugel, in the southern part of the Netherlands. ABOVE Seniors have a chance to drink coffee and chat before the tour begins. LEFT Martin Maasland became a Museum Plus Bus tour guide three years ago, after retiring from his career in the publishing industry.





"And it's not only his art," she interjects. "It's also his life that's really appealing to people and the issues he is struggling with, which you read in his letters and see in his art about. 'Who am I?' 'What is my meaning to the world around me?,' and how to deal with illness. loneliness and death."

more vulnerable or isolated groups of people age 70 and up. In conjunction with learning about the artist, participants were asked to create their own art, learning how to express themselves and explore a new form of communication.

Since that successful pilot program, the museum has continued its efforts to reach older adults through a more comprehensive age-friendly program. This includes ongoing workshops, as well as visiting days at the museum allotted specifically for older adults and a more accessible, age-friendly building design and visitor experience. To fully understand visits from the seniors' point of view, staff members were required to undergo a simulation. By wearing restrictive body weights, goggles, and ear plugs, they could detect (and eventually remedy) weaknesses in the design and experience that affected older people, from confusing signage and instructions, to poor lighting, to inadequate elevators. This was all done with the goal of creating a space in which, according to Marthe de Vet,

Head of Education and Interpretation at the Van Gogh Museum, "people feel safe enough and free enough to experience the art."

As for that art. de Vet believes there's something special about Van Gogh that is relevant to everyone, but particularly to seniors. Not only is he extremely well known among people of all backgrounds ("He's like Elvis Presley," she says, laughing), Van Gogh's accessible subject matter and his deeply emotional approach to art resonate with them. There's something so essential and expressive about the thick swirls of yellow and orange paint depicting a simple vase of sunflowers on a table. "And it's not only his art," she interjects. "It's also his life that's really appealing to people and the issues he is struggling with, which you read in his letters and see in his art about, 'Who am I?' 'What is my meaning to the world around me?,' and how to deal with illness, loneliness and death."

As the most visited museum in the Netherlands (and the most appreciated museum in Europe, according







PREVIOUS PAGE Marthe de Vet, of the Van Gogh Museum, says introducing more seniors to the work of Van Gogh is now a part of the museum's strategic plan; and the exterior of the Van Gogh Museum, which received 2.26 million visitors in 2017. ABOVE Seniors in a workshop discuss Van Gogh's style and learn how to express themselves through art; and older visitors learn about Van Gogh's iconic work, "Almond Blossom," painted in 1890. to a 2017 Erasmus University study), the Van Gogh Museum might be in the best position to inspire other cultural institutions to create a model age-friendly curriculum and approach. Their team, under de Vet's direction, is also angling to build an Age-friendly Museum Network similar to one in the U.K. to promote even more collaboration among museums.

One of de Vet's biggest takeaways from the experience has been the realization that the over-70 crowd is open to learning new things and sitting on a trove of untapped skills and talent. "A lot of elderly people have way more potential than we give them in society. It's really great to help them to discover what their potential is, who they still are and what they're still capable of."

Of course, not all of the benefits are quite so profound. One of the main upsides for the seniors is simply getting out of the house and being around people. Project Coordinator Deuwertje Tromp relays some funny feedback from her Museum Plus Bus participants. "We receive many cards and reactions from the seniors and some of them said, 'Well, being in that bus was amazing.' That was the highlight."

Elise van Schaik, also of Museum Plus Bus, says seniors restore old friendships and make new ones during the trips. The excursions always begin with coffee and conversation, which adds to the sense of conviviality and community. Many of the seniors are from small towns and rarely have the chance to venture out. "One of the conclusions was that after these visits, people really say that they have a bigger interest in culture and art," says van Schaik. "But one of the other finds was that they say they're less lonely because they're part of the group."







FROM TOP Fanny Laurey, 86, who last visited the Cobra Museum 30 years ago; Gerda Jagers, 75, has mobility issues and uses a walker; and the Museum Plus Bus team of Elisa van Schaik and Deuwertje Tromp in the Jewish Historical Museum in Amsterdam.





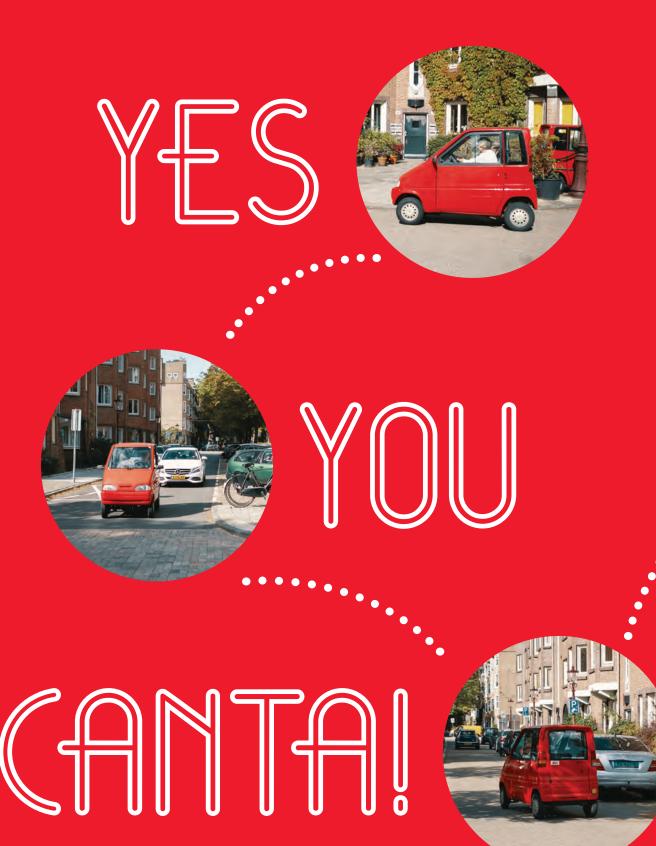
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LEFT Scenes from the Museum Plus Bus tour. Many of the seniors from this group have never been to a museum before. They are all members of the Zonnebloem (Sunflower) association, a volunteer-run organization that arranges activities for people with physical disabilities.

At the Cobra Museum on this particular day, the Plus Bus group is getting antsy and eager to take their first peek at the work of Karel Appel, Corneille, Ejler Bille, and Else Alfelt — some of the artists in the avant-garde art movement from which the museum takes its name. CoBrA, derived from COpenhagen, BRussels and Amsterdam, was the first post-WWII collaboration of European artists.

Gerda Jagers, 75, wearing comfortable sneakers and accompanied by her walker, confides that this is the first time she has been to a museum since her husband passed away 18 years ago. Fanny Laurey, 86, with white hair and a bright coral sweater, says that she doesn't normally get out of the house ("at 86, it's hard to do much"), and is very glad to be on the tour. "But," she says, leaning in with a conspiratorial whisper, "I don't prefer modern art."

Their tour guide (or host, as Plus Bus refers to them), Martin Maasland, 69, has been giving Plus Bus tours for three years now. He wears a brown pinstripe suit jacket and a name tag that indicates he is the one to follow. Maasland says sometimes modern art is tougher to sell to seniors than the work of the old masters, but he encourages them to keep an open mind. "So then they have another look at the object. I think it's important for them to understand that there are people with another view on the world." He adds, "You're never too old to learn." •





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Hetty Winkler-Ekel turns off a quiet residential side street onto a busy avenue in her south Amsterdam neighborhood and floors it. Well, as much as possible in a car that maxes out at 28 miles per hour. It's a noisy ride, with a roar that belies the tiny, .16 liter, onecylinder engine. She deftly maneuvers on both bike lanes and traffic lanes during the course of her short journey, finally pulling into a prime parking spot on the sidewalk, to the left of a park bench — a perfect anchor for chaining her cherry-red Canta LX. This is no ordinary driver, and no ordinary vehicle: Winkler-Ekel is 91 years old and she is driving a microcar.



Hetty Winkler-Ekel's Canta, parked near her home. She started chaining her vehicle to a bench after her neighbor's Canta was stolen.

Microcars like the Dutch Canta provide seniors and those with physical disabilities with an alternative form of transportation. This is particularly useful on city streets, like those in Amsterdam which are frequently only navigable by bicycle or on foot. At 44 inches wide by 91 inches long and 62 inches tall, the Canta makes a Smart Car look like an SUV. These dimensions qualify it as a "mobility aid," because unlike other micro cars, the Canta can be driven in bike lanes and parked directly on sidewalks and does not require a driver's license to operate.

The first Canta was produced in 1995, the creation of Dick Waaijenberg, a former race car driver and mechanic, in partnership with Delft University of Technology. For years, Waaijenberg had fiddled around with designing a car specifically for the disabled and, inspired by the French microcar Arola, decided to produce a Dutch version. To save on costs, the car was cobbled together with parts from other car manufacturers, which sometimes resulted in funny discrepancies in scale in such a tiny car. Now, 24 years later, the car has reached something of an iconic status in the Netherlands, though certainly not prolific. The company only produces a few hundred per year.

Winkler-Ekel has been driving her Canta for six years now, ever since she was forced to give up bike riding at the tender age of 85. She bought a used vehicle for \in 5,000 using subsidies from the Amsterdam government. New models start somewhere around \in 14,000. Another version, called the "Ride-in," or Inrij (\in 18,000) is designed to be wheelchair accessible, with rear door access. RIGHT, FROM TOP Winkler-Ekel walking down one flight of stairs to exit her apartment building; a photo taken by her son Walter, displayed on her bookshelf; and locking up her car

BELOW Dick Waaijenberg, former race car driver and inventor of the Canta.









Little Details









10-inch wheels, racing inspired steering wheel, 160cc 5 hp 2 -stroke Honda engine, and little pedals.



She jokingly calls it a *koekblik*, or a cookie jar, referring to its diminutive size and truncated shape. Her beloved Canta even holds a position of honor as her Facebook profile picture.



Health issues, including neuropathy, have limited Winkler-Ekel's mobility in recent years. Yet she insists on not remaining house-bound. She lives on the first floor of an apartment building in Willemspark, where her Canta is parked about 20 steps from the front door.

"Every year I can do less," she says. "I am very glad for the Canta. I could do all the things I've wanted to these past years."

Although Winkler-Ekler was initially anxious about getting behind the wheel, a few lessons from her son Walter gave her confidence. Now, she goes out every other day to the grocery store, to piano lessons, and to the senior center. She jokingly calls it a *koekblik*, or a cookie jar, referring to its diminutive size and truncated shape. Her beloved Canta even holds a position of honor as her Facebook profile picture.

Her son is appreciative of the quality of life this tiny car has allowed her to have. "I can't worry about her too much," he says. "She's 91. She's not going to live forever. But the Canta gives her a lot of freedom and lets her live her life. She's self-supporting and I can't ask for anything more." ◆

LEFT Winkler-Ekel in the living room of her apartment, where she has lived for decades; and a Canta, creatively parked, spotted in the wilds of Amsterdam. ABOVE Winkler-Ekel and her son outside her building.

Surprisingly Spacious



For some perspective on size, a demonstration by Walter Winkler-Ederveen, a six-foot tall man, on the versatility and practicality of the Canta LX's roomy interior.

Beelden uit

The following are snapshots from our time in the Netherlands — a few of the interesting people we met and things we saw. It's just a glimpse into the Dutch experience and into the character of this tiny country that made such an outsized impression on us.

By Lauren Hassani Photographs by Marco Javier With an Introduction by Joris Slaets

Nederland

Images from the Netherlands

Please allow me to introduce you to Wim and Ineke, a typical couple from The Netherlands, a densely populated, prosperous little country in Northern Europe. Wim is now 71; he worked as a teacher until he retired at 64. His wife was also a teacher but she stopped her career after the birth of her second child. Their son lives in Brussels and their daughter lives nearby with her husband and their one child. Like her husband, the daughter has a full-time job, so one day a week Wim and Ineke look after their granddaughter. Wim and Ineke bought their house forty years ago and more than half of the mortgage has been payed off. Wim has a good, pension and both he and Ineke receive a fixed pension from the Dutch government. Overall, the couple is pretty healthy, although Wim is a little overweight and takes pills for his high blood pressure and cholesterol. They like to go for long cycling rides and Ineke practices yoga twice a week.



Wim and Ineke are enjoying their lives, like so many of their fellow countrymen. Life satisfaction in The Netherlands is at a very stable average of around 7.8 out of 10. People over 65 years old score even higher: 8 out of 10. On the whole, people in The Netherlands are satisfied with their country and the direction of socio-economic changes. In this respect, there is no difference between seniors and other adults. Issues that do concern people include social cohesion, immigration and integration, and the economy. Yet nevertheless, when people are asked about the strengths of the country, social cohesion is often mentioned, as well as freedom, democracy, health care and education.

Wim and Ineke are baby boomers, and like in many other countries, the demography is changing now that the 2.4 million Dutch men and women born between 1946 and 1955 are reaching retirement ages. We are also living longer, men even more than women: life expectancy at birth is now 80 years for men and 83.4 years for women. As a result, the number of children (ages 0-14) compared to the adult population (ages 15-64) is 25 percent and decreasing, and the number of people aged 65-plus compared to the adult population is 28.4 percent and increasing. Almost one in five Dutch inhabitants is now over 65 years old.

In recent years, we have seen a sharp increase in the labor force participation rate of older adults; a key reason is that the government is gradually raising the pension age. The next generation will be in a different situation compared to Wim and Ineke. Retirement age is now set at 67 and in most families both partners have a substantial paid job. The pension systems in the Netherlands are also becoming increasingly strained at a rapid rate. Wim and Ineke spend a day a week babysitting their granddaughter and many hours doing volunteer work for their local community. Wim works at the village theatre, Ineke helps out at the nursing home where her own mother lives. Volunteer work is very common in the Netherlands: 9 out of 10 are active incidentally and about 30 per cent are active on a regular basis.

When reading all this, you could say we can't complain. But it is in the Dutch nature to be critical and always look for better and smarter ways. And I believe there actually is room for improvement.

Let's take health care, for example. The foundation of the current Dutch health care system was established around 1900 and expanded between 1950 and 1970. At that time, the Netherlands was very wealthy thanks to the discovery and exploitation of natural gas. An elaborate system of long-term care and welfare was developed by the government and paid for by public funding. This included older adult homes with independent apartments and the availability of nursing care, home care with housekeeping, and nursing homes. These nursing homes were rather medically oriented, with a doctor who had a nursing home specialty heading the facility. During



"When reading all this, you could say we can't complain. But it is in the Dutch nature to be critical and always look for better and smarter ways. And I believe there actually is room for improvement."

the last decade this system became unsustainable and required fundamental reforms for two main reasons.

First of all, the natural gas supply has now dried up, while our health care costs came to be one of the highest in Europe. The Netherlands is currently spending over 13 percent of the total GDP on health care compared to, for instance, 9.4 percent in Finland. About half of the total health care budget is used for people older than 65. For this reason, all home arrangements for older people paid by public funding were stopped, the legislation governing home care changed and the entry criteria for nursing homes became more strict. We now see a shift from institutional care to home care. Meanwhile, home care has shifted from being a right provided by the government to a provision provided by local authorities.

The reform also has to do with expectations about quality of life. Because health care was organized from a neo-liberal perspective and centrally managed, we have a very normative system in place comprising regulations and control mechanisms. It is a very interesting time in long-term care, where the personal narrative values are emerging more and more and compete with normative frames in legislations, financial systems and control mechanisms which are not easy to dismiss. From the perspective of seniors, there is a clear demand for more individually tailored and person-centered care. Assertive baby boomers like Wim and Ineke will expect and accept nothing less.

Next to governmental changes in long-term care, there are many civilian initiatives across the country to develop new forms of cooperative housing combined with formal and informal care. Older people are building new networks: horizontally with friends and peers, and vertically with family members who are living nearby. People like Wim and Ineke are not going to wait and see what the government is organizing for them: they are actively shaping their own arrangements for when they become more frail and dependent.

Another important shift in health care is from curing to preventing ailments. Wim and Ineke cycle a lot, but Wim has spent his life sitting in classrooms most of the day. Unfortunately, most Dutch older adults do not reach the recommended level of 150 minutes of physical activity per week. There is growing attention being given to lifestyles related to healthy ageing. Many initiatives are emerging such as 'lifestyle medicine', governmental programs and local initiatives related to 'blue zones'. In 2018, a covenant with all relevant stakeholders was signed to combat three particularly unhealthy lifestyles: smoking, high alcohol consumption and obesity. With a more active lifestyle, Wim may be able to cut down on his blood pressure and cholesterol pills.

Another area for improvement is housing. Many arrangements in the Netherlands are based on the principle that the family is the cornerstone of society, as it was fifty years ago. The social infrastructure, for instance related to housing, has not yet accommodated to the current situation. Also, there is a serious lack of housing with features adapted to the needs of older adults, often living alone; this is an issue that has only just started to draw political attention.

I have used Wim and Ineke as a fictional illustration for the Dutch elderly, but I can't stress enough that the Dutch older couple or person does not exist. There are major differences among this group of individuals, and age really is but a number. For instance, there is a difference of 8 years in healthy life expectancy between high and low socio-economic status. About 22 percent of the current population has a non-Dutch background. What are the desires and ambitions of these demographic groups, as they grow older?

In a country with so much opportunity to live well and become very old gracefully with a good and accessible health care system, one of the major challenges is disparity between groups. On average we are doing very well but the differences in life expectancy and well-being are increasing between the poor and rich, the high and low educated, and immigrants and native citizens. I hope the caring democracy and solidarity in the Netherlands will be strong enough to overcome those challenges. •



Joris Slaets Professor of Geriatric Medicine Director of Leyden Academy on Vitality and Ageing













"No, planning for retirement is not a worry. But in a sense, I'm not really interested in worrying; I live in the here and now. If I do worry, then I try to make a plan...We have this saying, 'Who lives in the future worries in the future.' So, what happens then, we'll see it then."

Clockwise from top left: Nighttime in Nieuwmarkt Square, central Amsterdam; Hugo Sanders, 75, places his bike in the parking area beneath his apartment building; a room in the Mauritshuis in The Hague, home to some of the finest examples of Dutch Golden Age painting, and Rob Vernooij, 42, lifelong Amsterdam resident, life coach, and owner of Eerlijk, a café and coffeehouse on Weesperstraat.







"I go out every day. I attend whatever there is to do. I have friends I visit. We go to museums and we go to the theater, and we attend concerts."

Despite experiencing her share of hardships over the years, Vellah Colcher, 87, has persevered in creating a rich and fulfilling life. Enjoying the company of others is key. At age 70, she told friends and families who gathered for her birthday that their gifts could only be poems or other inspiration they could share. In the years before and since, Vellah herself has become a model to inspire many more birthdays.

"It is a sort of energy I have," says Vellah. "You hear so often that people complain, that they get lonely, especially elderly people... You have to feel a connection with people to think that life is worthwhile."





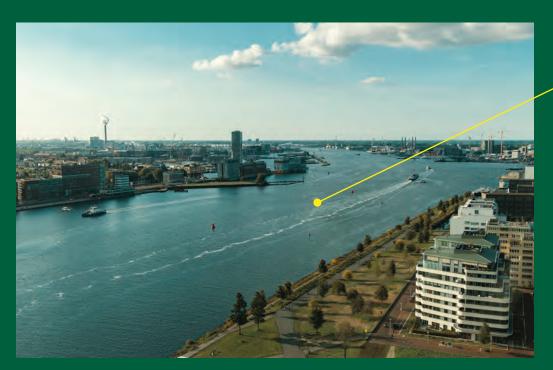
Opposite page: Vellah in her bedroom, surrounded by art and pictures collected over a lifetime.

This page (clockwise): Vellah has a conversation with her neice, Caroline van Dulleman; a picture of Vellah as a young ballet dancer; her apartment building on the far western side of Amsterdam; and drinking a little white wine with friends.



POLDER

The Netherlands has some 3,000 polders, or tracts of land reclaimed from the sea or lakes. About 17 percent of their land is manmade. For hundreds of years, the Dutch have been battling the water, banding together to build dikes and engineer their waterways as a matter of survival. Above: Flevopolder, a polder just to the northeast of Amsterdam, is the largest artificial island in the world. This massive tract of reclaimed land of about 370 square miles was created during the 1950s and 60s. **Below:** The IJ (pronounced "eye") River, which divides the northern and southern parts of Amsterdam, connects the Port of Amsterdam, via the North Sea Canal, with the North Sea to the west. **Opposite page:** The Nasa Earth Observatory offers a satellite view of the Netherlands that shows the country's intricate waterways and overwhelming density. Only Bangladesh, South Korea, and Taiwan have a higher population size and density.









Opposite page: The Dutch countryside near Heemskerk, a town in the province of North Holland; and people hanging out on Museumplein, a public space in Amsterdam where the Rijksmuseum, Stedelijk Museum, and Van Gogh Museum are located.

Left: Boaters out for a cruise in the city of Leiden.

Below: A group of senior women row on the canals in Amsterdam.











Clockwise from top left:

Lieke 't Hart of HANNN in Groningen; Barbara Ederveen-Winkler's bike of 20 years; Walter Winkler-Ederveen and Barbara at home in Amsterdam; Mieke Lunenberg walking into her apartment building in the Jordaan neighborhood of Amsterdam; and Roy Wesenhagen of D'article Entrerprise BV in The Hague.





Above: The team at Leyden Academy on Vitality and Ageing in Leiden. From left to right, Niels Bartels, Joris Slaets, Marieke van der Waal, and Josefien de Bruin.

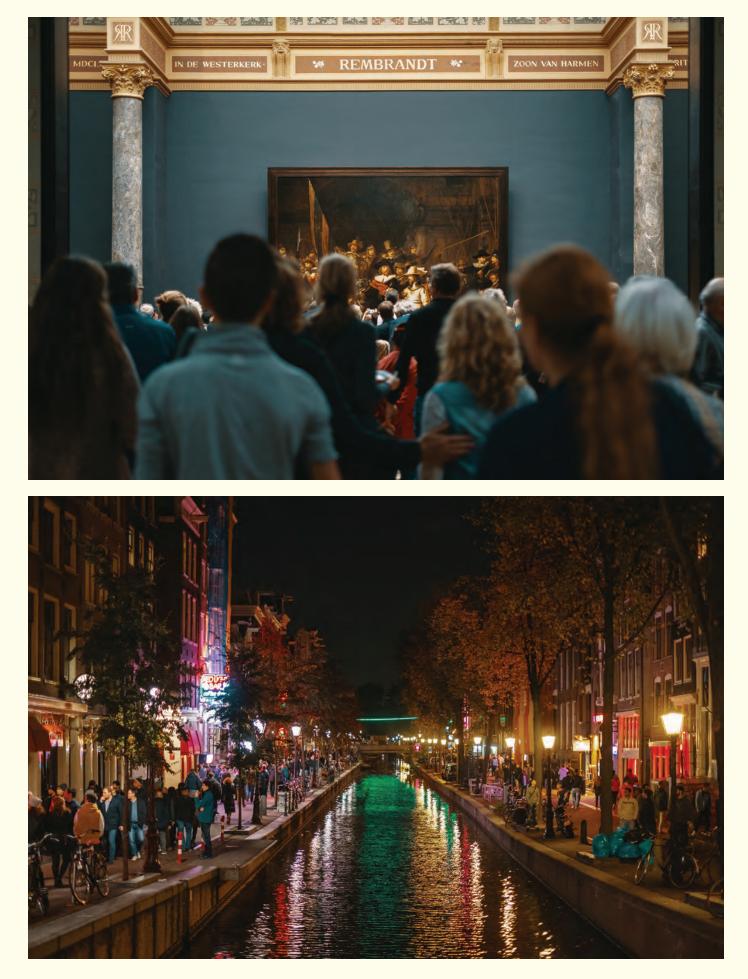
Below: An older gentleman on a scooter in Amsterdam; and a performance artist outside the Rijksmuseum imitates a bronze statue of a cyclist.

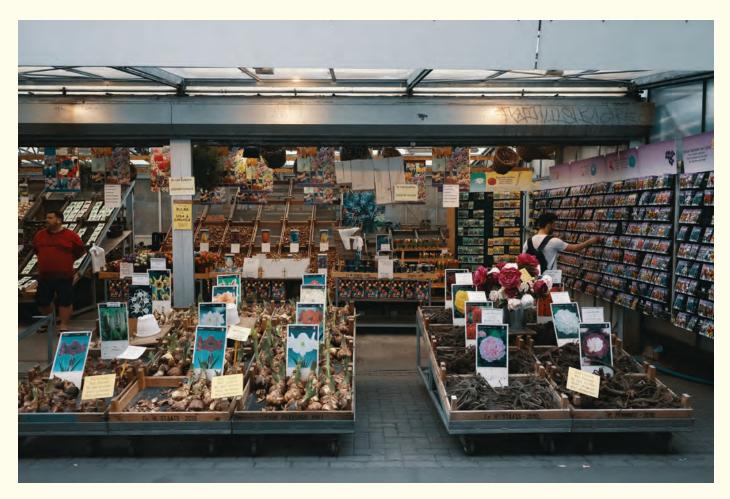
"We balance quite easily in trying to find our way... and determining what is possible and what is not possible. We're quite a realistic country in a lot of ways. I think that's the basic nature of the Dutch."

-Marieke van der Waal











Above: One of the many shops selling flower bulbs at the floating flower market in Amsterdam.

Left: The iconic "Girl with a Pearl Earring" by Johannes Vermeer c. 1665, at the Mauritshuis museum in The Hague.

Opposite page: Crowds flock to see "The Night Watch," the masterpiece painted in 1642 by Rembrandt van Rijn; and a scene from the red light district at night.











The fonts used throughout the Netherlands feature section of this edition, the serif Capitoleum and san-serif Praxis, were carefully chosen for their readability, aesthetic, and relevance to the topic. They're the work of **Gerard Unger**, a Dutch typographer and graphic designer who designed a number of iconic typefaces used around the world in newspapers, books and transportation systems. If you're in the Netherlands, you can see his work on the road and on the train — he designed typefaces for the signage systems for both the Dutch highways and the Amsterdam metro. His best known font, Swift, was used to typeset the Shorter Oxford English Dictionary. It's only appropriate that we acknowledge a Dutch designer in this Netherlands-focused issue; the Netherlands is renowned for its type design and for such a small country, boasts an unusually high ratio of people in this line of work. Gerard Unger was one of the best, with a deep commitment to his craft. He passed away in November 2018 at the age of 76.





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