THE UPSIDE OF AGING
How Long Life is Changing the World of Health, Work, Innovation, Policy, and Purpose

PAUL IRVING
President, Milken Institute

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THE UPSIDE OF AGING

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Linda P. Fried, MD, MPH, dean, Mailman School of Public Health, Columbia University
The Upside of Aging
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How Long Life Is Changing the World of Health, Work, Innovation, Policy, and Purpose

Edited by
Paul H. Irving
with Rita Beamish

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Foreword

The economic benefits far outweigh the challenges that come with an aging society. The extension of life, and the extension of healthy life, are positive developments to be celebrated, not feared. Their impact will be an economic boon, not a drag.

What does it mean to be old? We each have our own definition, but we probably agree that the chronological ages that used to define “elderly” are increasingly irrelevant. I’ve had many friends and colleagues who did their most important work in their eighties and nineties. Unfortunately, I’ve also lost far too many family members and dear friends to disease before they had a chance to experience full lives.

When my father was diagnosed and treated for melanoma in the mid-1970s, the doctors thought they had caught the cancer before it spread. A few years later, however, the disease recurred, and by the time it was discovered, the prognosis was terminal. I took Dad to cancer centers around the country and consulted with leading physicians and researchers before it became frustratingly clear that medical science didn’t have a solution. So I moved my family from the East Coast back to California to give my kids and their grandfather a chance to know each other. Dad passed away 10 months later.
In 1993, I was diagnosed with advanced prostate cancer and given 12 to 18 months to live. It was devastating to think that the family continuity I sought after my father’s diagnosis now seemed impossible. There probably would be no chance to see my kids get married and start families of their own.

But the science had improved by then, and I drew upon the network of cancer researchers the Milken Family Foundation had assembled throughout the 1980s. In addition to standard therapies, I consulted nutritionists, eliminated meat from my diet, consulted Eastern medicine, and practiced yoga. There were a lot more tools to draw upon than when my father was diagnosed.

If my father’s cancer had occurred in 1993, he may have survived. Had I received my diagnosis in 1974, I may not have. The great news for my generation is that medical science advanced remarkably in the interim, and it’s moving faster today than ever.

We’re transforming what it means to be “old,” in terms not only of how we perceive aging, but also how we experience it. The personal and social benefits of living longer are priceless, and the economic benefits far outweigh the challenges that come with an aging society. The extension of life, and the extension of healthy life, are positive developments to be celebrated, not feared, and their impact will be an economic boon, not a drag.

The Greatest Achievement in Human History

Over the past two centuries—by far the most prosperous 200 years in human history—at least half of all economic growth can be attributed to advances in public health and medicine that led to longer, healthier lives. To understand just how much life improved in the twentieth century alone, consider the life of Jiroemon Kimura, whose name you may recognize from news stories.

Born in a western Japanese fishing village in 1897, Mr. Kimura is among a very small group of people who lived through the entire twentieth century. He witnessed some of the greatest advances and most transformational inventions in human history: horseless carriages, Marconi’s radio blast across the Atlantic, the Wright brothers’ first flights, the
theory of relativity, Fleming’s discovery of penicillin, the exploration of
DNA, Salk’s vaccine, Sputnik, heart transplants, man’s first steps on the
moon, personal computers, MRIs, cell phones, the Internet, and . . . the
list could go on for pages.

Kimura himself accomplished something remarkable: He was recog-
nized by Guinness World Records as the oldest man in recorded history
and was the oldest living person on the planet until he passed away at
age 116. He attributed his longevity to good nutrition—light and healthy
meals—and he stayed active long after his 1962 retirement from the post
office, working on his son’s farm.

But of all the advances during his life, Kimura participated in what
is perhaps the greatest achievement in the history of civilization: the
doubling, in less than one century, of average life spans around the
globe.

When Kimura was born, worldwide life expectancy at birth was
31 years. It’s now 70. The United States went from 47 to 79 years. When
people pine for the “good old days,” they take for granted just how
much things have improved—most notably that we live longer, healthier,
and more productive lives.

“What a Drag Thrill It Is Getting Old”

A few years ago, on a sunny Los Angeles morning, I drove up the wind-
ing, tree-shaded driveway of my longtime friend Kirk Kerkorian. We
were scheduled to play doubles tennis, but I was running late. By the
time I arrived, he had found a replacement player to fill my spot. It was
a remarkable scene: four players on the court with a combined age of
358 years! Kirk looked young, especially for a 90-year-old. Over lunch,
we talked about how playing in their eighties and nineties was different
from playing when they were younger. “The guys we play against are
thinner these days,” one of them told me, and the others agreed—most
of their heavier friends had died years ago. I also noticed that all four
men had full, thick heads of hair, but I choose to believe that’s unrelated
to their longevity.

Kirk and his friends are an anomaly for that generation. But they
represent the promise of what many in my generation will realize—a
vibrant, active, and productive life well into their ninth and tenth decades. The late Robert Fogel, a Nobel laureate at the University of Chicago, told me a few years ago that average life span in the developed world will easily exceed 100 within the current century. In fact, it’s probable that the first person who will live to be 150 has already been born. There’s always seemed to be a natural limit to human life, but with advances in genomics, immunology, stem cells, and organ “printing” and transplants, that limit may be much higher than previously thought.

At a recent Milken Institute Global Conference, Dr. Robert Butler of the Alliance for Health and the Future, pointed out that in terms of health, a 60-year-old woman is equivalent to a 40-year-old in 1960. Today’s 80-year-old American man is similar to a 60-year-old as recently as 1975.

To see those numbers come to life, look no further than the Rolling Stones, who recently celebrated their fiftieth anniversary. If you’re able to see them in concert, pay attention to the front rows, with attendees in their sixties and seventies dancing like crazed teenagers. This sight is as inspirational for those of us over 60 as it is unsettling for our grandkids.

Advertisers and the media have taken note and updated how they portray older people. (As well they should: By 2017, nearly half the U.S. population will be over 50 and will control 70 percent of disposable income. This is a population that doesn’t want to be called “old.”) In the late 1980s, LifeCall’s commercials featured a capsized woman, next to her walker, moaning: “I’ve fallen and I can’t get up!” Today, Cialis asks the male segment of her age cohort: “When the moment is right, will you be ready?”

Ron Howard’s 1985 film Cocoon featured Wilford Brimley as the lead actor and part of a group of retirement home residents who were visited by aliens. Brimley was 51 when the movie was released. Imagine a reprise of that role today by Tom Cruise, Jim Carrey, Steve Carell, or Matthew Broderick—all of whom turned 51 in 2013.

At a conference a few years ago, I estimated the median attendee age was about 35. As a speaker, whatever concern I had about the age gap was allayed when I saw the entertainment: Bob Dylan; Rod Stewart; and Crosby, Stills and Nash. I was the youngest person onstage that night.
The Long View: Never Underestimate Human Ingenuity

The Milken Institute has focused on aging for the past several years. One of my favorite panels remains the 2009 discussion called “Life After 80: Always Looking Forward,” featuring five prominent octogenarians. All the panelists were still active in business and philanthropy. Jim Pattison, chairman of the Jim Pattison Group, who was 80 at the time, said, “Retirement is not in the cards.” (True to his word, he remains chairman of his company as I write this.) For most of the panelists, social interaction was important, too—they echoed the finding that people with more friends live longer. Diet and exercise were also common themes.

While the benefits of extended life spans are undeniable, developed nations also need to make economic adjustments. When America’s Social Security system was introduced in 1935, life expectancy was 61.7 years. It made sense for people to start collecting pension checks as early as age 62. As the program was expanding in the early 1950s, there were 17 workers supporting every beneficiary. By 2012, there were fewer than three workers, and that ratio is expected to drop closer to 2:1 by 2035.

The simplest solution to this challenge is to increase the age at which individuals become eligible for retirement benefits. Ideally, the retirement age should be indexed to average life expectancy. Such a policy shift is inevitable—not for political reasons, but because of simple math. We should summon the will to make this change now, not leave the problem to our children and grandchildren.

Another frequently cited challenge is the cost of health care. With an older global population, it’s reasonable to expect that the prevalence and cost of many diseases will increase. As one example, the World Health Organization (WHO) predicts that by 2050 more than 115 million people worldwide will suffer from dementia, up from 36 million in 2012. In addition, WHO predicts that the global cost of dementia, currently $604 billion per year, will rise even faster than the prevalence, suggesting that by midcentury, dementia alone will be a $2 trillion challenge.

That outlook may grossly underestimate the potential of medical breakthroughs. In the 1950s, economists predicted that caring for polio patients in “iron lung hotels” would be economically ruinous. But then came the polio vaccine, which has saved the United States an estimated
$800 billion since 1955. More recently, Oprah Winfrey told her talk show audience in 1987 that AIDS was expected to take the lives of up to one in five Americans by the early 1990s. That, of course, never happened, and researchers have since produced therapies that have transformed that disease from a virtual death sentence into a chronic condition for many patients. An AIDS-free generation may well be within sight.

While the challenges we face today may seem more complicated, the tools we’ll use to solve them are also much more powerful and sophisticated. Genomics provides one important example: The original sequencing of the human genome took 13 years and cost $3 billion; today it takes a few hours and the cost is approaching $1,000.

So while it’s possible that dementia will cost $2 trillion per year by 2050, advances in medical research and prevention have the potential to render that prediction wildly overstated. Don’t underestimate the ingenuity of humankind.

More than Just a Number

John Adams took a dim view of aging. In his personal journal, our second president wrote: “The remainder of my days I shall rather decline, in sense, spirit, and activity. My season for acquiring knowledge is past.” He was 36 years old.

Adams had accomplished much as a lawyer by that young age and was well known throughout the colonies. He had already outlived the average global life expectancy, and conventional wisdom told him to retire to his farm for his remaining years. Fortunately, he decided to launch a three-decade encore career in nation building that culminated, at age 61, when he took the presidential oath of office. In fact, he lived to age 90—half a century after signing the Declaration of Independence. Coincidentally, he passed away on July 4, 1826—the same day as Thomas Jefferson, exactly 50 years after they signed the Declaration.

That also happens to be exactly 120 years before the day I was born—July 4, 1946—the first year of the postwar baby boom that lasted until 1964. My generation was the first to be told that one person could change the world, and I’m encouraged by how many of them are doing so.
In fact, many of the contributors to this book are boomers, and their work is influencing policy, creating a better understanding of the social and biological science of aging, and upending outdated stereotypes about what it means to grow older.

As this is written, I’m 67, as active as any time in my life, feeling great, and looking forward to many more years of pursuing my personal and professional goals. But compared with some of my octogenarian and nonagenarian business colleagues, friends, and tennis partners, I’m still just a youngster. Age is more than just a number. It’s also about perception. The baby boomers are discovering the truth of the adage that you’re only as old as you feel.

Michael Milken
Chairman, The Milken Institute
In 2009, I was enjoying what many would consider to be the perfect career—a successful senior leadership position in a large law and consulting firm. For many years I had enjoyed my work—and I valued my practice, my clients, and my colleagues. But after three decades as a corporate lawyer, I began to realize that something significant was missing. Approaching 60, I felt called to a different purpose—to something new.

That year, my life changed. I was given the opportunity to spend a year at Harvard University as a fellow in its Advanced Leadership Initiative, which is dedicated to educating and deploying a group of experienced leaders who are interested in addressing national and global challenges.

Harvard is an impressive place to be sure, but equally impressive was a talented cohort of new friends in their fifties, sixties, and seventies—all
enthusiastic about learning, changing, risk-taking, and giving back after decades of accomplishment in their primary careers. Here was an older group excited about tackling hard problems, expert at navigating complex environments, skilled at relationship development, and highly collaborative, emotionally intelligent, and thoroughly energized. Life had given us a special opportunity—in which our advancing age and years of experience were recognized as assets.

As I finished my year in Cambridge and faced the next stage of my life, I thought about other older people, and how much the United States and other societies around the world would benefit by capturing and utilizing more of the value that longevity confers. My “encore” career as president of the Milken Institute only furthered my belief in the power and potential of our aging population. And so it was that I began to focus on and talk about the upside of aging.

Many years ago, my generation—the baby boom generation—challenged authority and convention and, in doing so, redefined an age. And the baby boomers are at it again, changing expectations and the way we think about aging.

In the past century, discovery and innovation have enabled longevity that would be unimaginable to our forebears. Increased longevity has contributed to unprecedented global economic growth and new opportunities for personal fulfillment that previous generations could only dream of.

A massive demographic shift across America and the world is accelerating and the possibilities are mind-boggling. Innovations in genomics, precision medicine, digital health tools, and prevention present us and our children with the likelihood of even more time to work, play, learn, give back, and enjoy friends and loved ones.

Let’s not kid ourselves. Aging can be really hard. On a personal level, it means aches and pains, memory loss, and a slower step. We’re led to believe that our capacity for productivity, creativity, and leadership is diminished. Too many older individuals suffer loneliness and depression, longing for connection, engagement, and continued meaning in their lives. Many worry about whether longevity means their health—and their money—will run out too soon.

At a broader level, increasing age and declining birth rates reveal growing strains on social and financial safety nets and health care systems.
The effects of inadequate retirement savings and the diseases of aging pose seemingly insoluble political, economic, and social challenges.

We segregate older members of society from their communities, civic institutions, and workplaces. We stereotype, discounting their wisdom, judgment, and experience. We dismiss their aspirations and underestimate their potential as workers, entrepreneurs, and consumers. We encourage their retirement, withdrawal, and disengagement during a lengthening period of life in which so much important contribution is possible.

It’s a paradox. The miracle of longevity provides such incredible opportunity to individuals and the societies in which we live. Yet today, so much of that potential remains unrealized because we haven’t adequately addressed these challenges that hinder older populations from living their later lives in meaningful, productive ways.

While researchers and physicians are successfully extending life, our policies, expectations, and norms reflect a very different set of values. Longevity—possibly the most important development in human history—is considered a burden.

But things are changing, and quickly. Stereotypes and biases are being challenged. Millions of aging individuals across the globe are seeking new ways to remain active, engaged, and contributing members of their societies. Thoughtful leaders are beginning to pay attention, responding to the demographic shift with fresh ideas, practices, and programs. Creative solutions are being discussed. From exciting approaches to disease cure, prevention, wellness and care, to age-friendly housing alternatives and transportation systems, to lifelong learning and encore career opportunities, to travel, entertainment, fashion, and food designed for evolving tastes, to advanced technologies and social networks that engage our aging colleagues, innovations abound.

Knowing that economic growth comes at the intersection of demography and innovation, this older population will move the world forward, driving a new longevity economy as workers, entrepreneurs, and consumers—both through influence and sheer numbers.

We’ll age in place—rejecting the model of an isolated life in a distant retirement community with a recreation center, a shuffleboard court, and a cafeteria. Instead, we’ll continue, and even increase, active involvement in our communities, educational and arts institutions, civic and charitable organizations, businesses, and places of worship.
Many in this new aging generation will need to continue to work to meet financial goals that are not satisfied by savings, retirement, or social security arrangements. Others will want to move to socially focused encore careers that integrate work and purpose. A surprisingly large group of aging entrepreneurs will start and grow new businesses.

We’ll seek products and services that meet our changing needs and, yes, we’ll be as interested in high quality, good style, and imaginative design as we ever were. Experience has refined our intelligence and capabilities, and we’ll use those faculties as long as we can.

We’ll stay connected to families and friends, and we’ll be active participants playing visible roles in the fabric of our diverse communities. We’ll have examples to set and opportunities to contribute to the lives of younger people—as educators, mentors, advisors, and coaches. Importantly, the upside of aging must not just be for us—the benefits are inter-generational and must be shared.

Increasing longevity is a remarkable accomplishment and a continuing goal. But there’s an even more important objective. To capture the full benefits of longer life—to realize the upside of aging—we must rethink the value of longevity, understanding that it’s not just about the time we’re given, but about the quality and purpose of that time.

Successful aging must become a priority for ourselves, our families, and the communities and societies in which we live. Old and young, rich and poor, of every color and from every community and corner of the globe—if we learn to harness the benefits of longevity, the upside of aging will be realized and the world will be much better for it.

Aging leads to an inevitable end, but older age is not the end. Older age is just another part of life’s path—a part of the path with great potential that is just beginning to be understood.

The chapters that follow are the work of prominent experts—dedicated thought leaders in the field—each, in his or her own way, leading the reinvention and reimagining of aging. With very different personal stories, writing styles, areas of specialty and perspectives, they share a strong commitment to improving longevity, each believing that the upside of aging is significant and well within our grasp.

Read, think, enjoy, and join a very big conversation that has critical implications for our future.
The Upside of Aging demonstrates the potential for collective action—the notion that people working together for a higher purpose actually can get things done. There are many who play a part in moving mountains. I want to thank some of those movers here.

First, thanks to our chapter authors: Laura Carstensen, Henry Cisneros, Hasy Cohen, Joe Coughlin, Ken Dychtwald, Marc Freedman, Sally Greengross, Freda Lewis-Hall, Jody Heymann, Mike Hodin, Dan Houston, Steve Knapp, Phil Pizzo, Barry Rand, Susan Raymond, and Fernando Torres-Gil. Their thought leadership and commitment to progress gives me great confidence that a new day is coming for our aging population.

I want to express my gratitude to our project editor, Rita Beamish, for her skill, discipline, enthusiasm, and passion for the book’s subject matter.

Thanks to the staff at the Milken Institute, who serve our nonprofit mission, and work energetically every day to change lives, hearts, and minds. Special thanks to our chairman, Mike Milken, for his many philanthropic achievements; to my research colleague, Anu Chatterjee; and to the members of our team who made such a difference to this project—and to our work on successful aging leading to this project.
To those who’ve played a part in my own aging journey—the faculty, fellows, and students in Harvard’s Advanced Leadership Initiative, my long-time colleagues at the Manatt law firm, and my friends of all ages—my appreciation.

Most importantly, I want to thank my mom, Florence Irving, whose lessons and values motivate me every day; my late dad, Jack Irving, whose passion for scientific discovery and work continued until the very end; my son, Ben, whom I watch with pride and joy as I age; and my wife, Susie Irving—we began as kids, we’ve been through it all, and there’s no one in the world with whom I’d rather be aging.

Paul Irving
Los Angeles, California
Introduction

The Rise of a Mature World: By the Numbers

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Before our authors discuss the upside of aging, let’s review some data underscoring key challenges and opportunities presented by the massive demographic shift. Is demography destiny? The numbers begin the story—about the rise of a mature world that will change lives in ways we’re just beginning to appreciate.

The Longevity Century

To understand the demographic realities of the twenty-first century’s aging population, we must first acknowledge the breathtaking advances of the previous century, namely the scientific and medical innovations
that changed human existence. Among the twentieth century’s most important contributions was the gift of longevity. In 50 years (1980–2030), global life expectancy is expected to increase by more than 10 years, thanks to new medicines, advanced technologies, and progressive social policies, enabling individual and societal accomplishments unimaginable in earlier generations.

Global Life Expectancy
*Projected.

**Sources:** United Nations; Milken Institute.

U.S. life expectancy is projected to reach 82 by 2030. Remarkably, it was just 47 years in 1900.

U.S. Life Expectancy at Birth
*Projected.

**Sources:** United Nations; Milken Institute.