Aging & Longevity
Challenge or Opportunity?

Ken Dychtwald, PhD
Psychologist/Gerontologist, Author
Founder and CEO, Age Wave
The

LONGEVITY

REVOLUTION
Life Expectancy at Birth

Source: Census Bureau, 2010
U.S. Constitution: 1787
Average Life Expectancy: 37
Median Age: 16
Life Expectancy at Birth

Source: Census Bureau, 2010
Over 100,000 Years

Source: Encyclopedia Britannica, Census Bureau, 2010
OLD AGE ISN’T WHAT OR WHERE IT USED TO BE
Otto Von Bismarck

Created the First Pension Plan in Europe in the 1880’s and Selected 65 as the Marker of Old Age
Last week he began a month of training for his return to space. A gimmick? No, a timely reminder that we can still have heroes.

GLENN'S MISSION
86 year old gymnast
Where to put the LONGEVITY BONUS?
Linear Lifeplan

<table>
<thead>
<tr>
<th>Education</th>
<th>Work and Family</th>
<th>Leisure</th>
</tr>
</thead>
</table>

Age Range: 0 to 85
Linear Lifeplan

Age

- Education
- Work and Family
- Leisure

LONGEVITY BONUS
Linear Lifeplan

- Education
- Work and Family
- Leisure

LONGEVITY BONUS
Cyclic Lifeplan

- **Education**
- **Work and Family**
- **Leisure**

Age

0 10 20 30 40 50 60 70 80 85

LONGEVITY BONUS
Cyclic Lifeplan

- **Education**
- **Work and Family**
- **Leisure**

Age:
- 0 to 20: Education
- 20 to 40: Work and Family
- 40 to 85: Leisure
The BABY BOOM Is Becoming An AGE WAVE
The U.S. Baby Boom: 1946-1964
76 Million

Baby Food Consumption

<table>
<thead>
<tr>
<th>Year</th>
<th>Cans (Millions)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1943</td>
<td>250,000</td>
</tr>
<tr>
<td>1953</td>
<td>1.5 million</td>
</tr>
</tbody>
</table>

Source: Great Expectations: America and the Baby Boom Generation, Landon Jones, 1980
DEMOGRAPHY IS DESTINY
Change in Population Growth

**U.S. 1950-1960**

- Under 15: 37%
- 15-24: 8%
- 25-34: -4%
- 35-44: 12%
- 45-54: 18%
- 55-64: 17%
- 65+: 35%

Source: U.S. Census, 2010
Change in Population Growth

U.S. 1960-1970

- Under 15: 4%
- 15-24: 48%
- 25-34: 9%
- 35-44: -4%
- 45-54: 13%
- 55-64: 19%
- 65+: 21%

Source: U.S. Census, 2010
Change in Population Growth


- Under 15: -11%
- 15-24: 20%
- 25-34: 49%
- 35-44: 11%
- 45-54: -2%
- 55-64: 17%
- 65+: 27%

Source: U.S. Census, 2010
Change in Population Growth


<table>
<thead>
<tr>
<th>Age Group</th>
<th>Percentage Change</th>
</tr>
</thead>
<tbody>
<tr>
<td>Under 15</td>
<td>4%</td>
</tr>
<tr>
<td>15-24</td>
<td>-13%</td>
</tr>
<tr>
<td>25-34</td>
<td>16%</td>
</tr>
<tr>
<td>35-44</td>
<td>47%</td>
</tr>
<tr>
<td>45-54</td>
<td>11%</td>
</tr>
<tr>
<td>55-64</td>
<td>-3%</td>
</tr>
<tr>
<td>65+</td>
<td>22%</td>
</tr>
</tbody>
</table>

Source: U.S. Census, 2010
Change in Population Growth

- Under 15: 12%
- 15-24: 7%
- 25-34: -8%
- 35-44: 20%
- 45-54: 49%
- 55-64: 15%
- 65+: 12%

Source: U.S. Census, 2010
Change in Population Growth

U.S. 2000-2010

Under 15: 3%
15-24: 11%
25-34: 5%
35-44: -9%
45-54: 18%
55-64: 49%
65+: 15%

Source: U.S. Census, 2010
Change in Population Growth

U.S. 2000-2020

- Under 15: 7%
- 15-24: 8%
- 25-34: 7%
- 35-44: -10%
- 45-54: 3%
- 55-64: 73%
- 65+: 54%

Source: U.S. Census, 2010
Change in Population Growth

U.S. 2010-2030

- Under 15: 7%
- 15-24: 1%
- 25-34: 10%
- 35-44: 16%
- 45-54: -6%
- 55-64: 7%
- 65+: 81%

Source: U.S. Census, 2010
Percent of Population 65+
2020

Source: Weldon Cooper Center for Public Service, Demographics Research Group, 2018
Percent of Population 65+ 2030

Source: Weldon Cooper Center for Public Service, Demographics Research Group, 2018
The New Ecosystem of Longevity
Which of the following are the most important to achieving a happy retirement?
Retirees Say Health is the #1 Key to a Happy Retirement

- Having good health: 81%
- Being financially secure: 58%
- Having loving family & friends: 36%
- Having purpose: 20%
- Continually trying new things: 5%

Source: Age Wave “Health and Retirement: Planning for the Great Unknown,” 2014, Retirees, Age 50+ retirees, select two
Impacts of Aging

- Varicose veins
- Orthopedic impairments
- Bones lose mass and density
- Muscle mass diminishes
- Obesity and weight problems
- Metabolism declines
- Cancer (colon, pancreas, breasts, lung, etc.)
- Kidney function declines
- Heart disease
- Emphysema
- Diabetes
- Depression
- Memory functions decline
- Sinusitis
- Teeth discoloration
- Teeth loss
- Loss of taste
- Vocal cords stiffen
- Swallowing difficulties
- Immune system weakens
- Vertebrae compress, reducing height
- Hip replacement
- Skin thins, wrinkles, and discolored
- Arthritis (feet, knees, hips, spine and hands)
- Circulatory problems
- Erectile dysfunction
- Male-pattern baldness
- Prostate enlarges/inflames
- Prostate cancer
- Sex drive diminishes
- Testosterone levels decline
- Testicular cancer
- Bones increasingly brittle
- Breast cancer
- Estrogen levels decline
- Hot flashes
- Menopause
- Osteoporosis
- Uterine cancer

Source: The Aging Body: Physiological Changes and Psychological Consequences, Susan Krauss Whitbourne, 1985
MATCHING HEALTHSPAN TO LIFESPAN
Medical Excellence
Departments of Geriatric Medicine

What is the scariest disabling condition in later life?
Alzheimer’s/Dementia is the Scariest Disease

- 54% Alzheimer’s Disease/Dementia
- 26% Cancer
- 10% Stroke
- 6% Heart Disease
- 3% Diabetes
- 2% Arthritis

Source: Age Wave "Health and Retirement: Planning for the Great Unknown," 2014, Age 25+
Sources: Alzheimer’s Study Group, A National Alzheimer’s Strategic Plan: The Report of the Alzheimer’s Study Group (March 2009); Alzheimer’s Association, Changing the Trajectory of Alzheimer’s Disease: A National Imperative (May 2010); National Institutes of Health Office of the Budget website.
Sources: Alzheimer’s Study Group, A National Alzheimer’s Strategic Plan: The Report of the Alzheimer’s Study Group (March 2009); Alzheimer’s Association, Changing the Trajectory of Alzheimer’s Disease: A National Imperative (May 2010); National Institutes of Health Office of the Budget website.
Cumulative Cost of Alzheimer’s 2020-2050

- 2020: $20 Trillion
- 2030: $15 Trillion
- 2040: $10 Trillion
- 2050: $20 Trillion!

Source: Lewin Trajectory Report, Alzheimer’s Association
When it comes to relationships with healthcare, how are you different than your parents?
Boomers are 4x as likely as their parents to actively research health information.

Source: Age Wave, 2014. “Health and Retirement: Planning for the Great Unknown” Age 50-68
Boomers are more than twice as likely to question their doctor’s orders.

70% of Boomers compare this to 29% of Boomers’ Parents.

Source: Age Wave, 2014. “Health and Retirement: Planning for the Great Unknown” Age 50-68
Video: Purpose

calling

calling

waiting
What will you miss most in retirement?
PRE-RETIREES Think the Biggest Loss in Retirement will be a Reliable Income

<table>
<thead>
<tr>
<th>Loss</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Reliable income</td>
<td>38%</td>
</tr>
<tr>
<td>Social connections</td>
<td>17%</td>
</tr>
<tr>
<td>Employer health insurance</td>
<td>16%</td>
</tr>
<tr>
<td>Having purpose and work goals</td>
<td>16%</td>
</tr>
<tr>
<td>Mental stimulation</td>
<td>12%</td>
</tr>
</tbody>
</table>

Source: Age Wave “Americans’ Perspectives on New Retirement Realities and the Longevity Bonus” Survey 2013, General Population Pre-Retirees
But RETIREES Say They Miss the Social Connections Most

- Social connections: 34%
- Reliable income: 29%
- Mental stimulation: 19%
- Having purpose and work goals: 12%
- Employer health insurance: 7%

Source: Age Wave “Americans’ Perspectives on New Retirement Realities and the Longevity Bonus” Survey 2013, General Population Retirees
## What People Want in their Retirement “Encore” Careers

<table>
<thead>
<tr>
<th>Career Goal</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Work fewer hours</td>
<td>59%</td>
</tr>
<tr>
<td>Learn new skills</td>
<td>53%</td>
</tr>
<tr>
<td>Teach/mentor younger workers</td>
<td>48%</td>
</tr>
<tr>
<td>New kinds of work</td>
<td>46%</td>
</tr>
</tbody>
</table>

Source: Age Wave/HSBC The Future of Retirement
Toward a Six Generation Society

Bob Butz
Grandson, 73

Kathy Jacoby
Great-granddaughter, 49

Sara Knauss, 118

Kitty Sullivan
Daughter, 95

Bradley Patton
Great-great-great grandson, 3

Kristina Patton
Great-great granddaughter, 27

Life at Age 100 Is Surprisingly Healthy

Aging is Not a Solo Project
The Coming Caregiving Crunch

There are currently 40 Million informal caregivers.

20 Million become caregivers each year.
7 in 10 caregivers are contributing financially for personal, medical and household needs.

Annual avg. of $7,000
65% say caregiving has brought meaning and purpose to their life
91% are grateful to provide care

Qualities of “Age-Friendly” Communities

1. Safety and security
2. Sense of community
3. Learning and enrichment
4. Vibrant affordable economy
5. Work and volunteerism
6. Public transportation
7. Excellent healthcare

Source: Milken Institute “Best Cities for Successful Aging” 2014
## Social Security: Then and Now

<table>
<thead>
<tr>
<th>Metric</th>
<th>Then (1940)</th>
<th>Now (2018)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Life expectancy at birth</td>
<td>63.6</td>
<td>78.7</td>
</tr>
<tr>
<td>Life expectancy at age 65</td>
<td>12.7</td>
<td>19.5</td>
</tr>
<tr>
<td>Average retirement age</td>
<td>70</td>
<td>63</td>
</tr>
<tr>
<td>Population age 65+ (million)</td>
<td>9</td>
<td>52</td>
</tr>
<tr>
<td>Ratio: workers to recipients</td>
<td>159 to 1</td>
<td>2.8 to 1</td>
</tr>
<tr>
<td>Number of Social Security recipients</td>
<td>222,488</td>
<td>62,906,222</td>
</tr>
<tr>
<td>Average annual Social Security payout</td>
<td>$220</td>
<td>$18,130</td>
</tr>
<tr>
<td>Total Social Security payout ($million)</td>
<td>$49</td>
<td>$993,577</td>
</tr>
<tr>
<td>% federal budget for Social Security</td>
<td>0.03%</td>
<td>26%</td>
</tr>
</tbody>
</table>

Source: CDC, Social Security Admin., Center for Retirement Research at Boston College, US Census, Congressional Budget Office, 2018
RETIREMENT SECURITY
EMPLOYER PENSION
SOCIAL SECURITY
PERSONAL SAVINGS
81% of Americans say they don’t know how much money they’ll need to fund their retirement!

Source: Age Wave, “Finances in Retirement: New Challenges, New Solutions,” 2017; Base: Age 25+
Age Wave Research

What are your top financial worries in retirement?
Illness, Inflation and Running Out of Money

1. I or a loved one will have a costly health issue: 49%
2. The rising cost of goods and services (inflation): 46%
3. Not having enough money to do what I’d like: 44%
4. Outliving my retirement savings: 40%
5. Living on a fixed income: 37%
6. Increasing tax rates: 25%

Source: Age Wave, “Finances in Retirement: New Challenges, New Solutions,” 2017; Base: Age 25+; select three
9 in 10 Americans want basic financial management to be a standard part of school curriculum.

Source: Age Wave, “Finances in Retirement: New Challenges, New Solutions,” 2017; Base: Age 25+; T2B
Time Affluence

2.5 TRILLION Hours of Free Time Over the Next Two Decades

Source: BLS American Time Use Survey, 2015
What Do You See?
In Need of Help?
Prepared to Help?
BOTH!
Is it Time for a National Elder Corps?
The New Ecosystem of Longevity
Aging & Longevity
Challenge or Opportunity?

Ken Dychtwald, PhD
Psychologist/Gerontologist, Author
Founder and CEO, Age Wave