

VIEWPOINT

A Prescription for Longevity in the 21st Century

Renewing Purpose, Building and Sustaining Social Engagement, and Embracing a Positive Lifestyle

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What guidance should clinicians offer parents of a newborn about how to prepare their child for a life that may last to 100 or more years? What should a physician discuss with adolescents who are beginning college, or young adults starting a new career about how to optimize their healthy life? How does this guidance change when individuals reach midlife and later life? Is there a prescription a physician should provide that would allow individuals at all stages of the life cycle to optimally align life span with health span, compressing morbidity and sustaining high functionality through the arc of life?

By 2030 all baby boomers, those born between 1946 and 1964, will have become 65 years of age and comprise approximately 20% of the US population. In many Western European and Asian countries, the percentage of individuals older than 65 years will be closer to 40% of the population, and the average life expectancy of children born in high-income countries over the next decades is projected to increase to nearly 100 years.¹ These substantial demographic changes will require that physicians and other clinicians think differently about how to

Having a purpose, seeking social engagement, and fostering wellness through positive lifestyle choices are important in reducing morbidity and mortality and improving the life journey.

support the longer lives of their patients, focusing on how to make them more meaningful and functional and less attenuated by the morbidities that lead to medical, social, and financial dependency.

The changes in longevity have societal implications as well as individual consequences that affect educational institutions, the workplace, and residential communities, as well as the economic forecasts of individuals, communities, and countries. The Hartford Foundation constructed an Aging Society Index that assesses nations on their well-being (eg, disability-free life expectancy); equity (estimates of food security, risk of poverty, and educational attainment); cohesion (eg, social support, trust, and intergenerational connectivity); productivity and engagement (eg, participation of older adults in the workforce or volunteerism); and security (eg, feeling safe and financially secure) as a way to help nations prepare for the major changes in workforce and dependent populations they will need to balance and support.²

Whether dealing with individuals or communities, a number of factors contribute to successful longevity. While the focus of many medical centers is on precision medicine, genetic predisposition constitutes approximately 30% of the risk for early death, and other determinants of early death include social circumstances, environmental exposure, and behavior and lifestyle. For a number of conditions, ranging from cardiovascular disorders to dementia, it is possible to modify genetic risk factors by lifestyle choices and behavior.³ Attending to these factors and bringing them into the mainstream of individuals and communities can have medical, social, and economic benefits. Physicians should prescribe this as an integral part of their clinical practice.

Looked at from a different perspective, having less than a high school education or experiencing poverty can adversely affect longevity. Case and Deaton⁴ reported that between 1999-2013, middle-aged white non-Hispanic men and women without a college education had among the highest death rates in the United States. The causes of death included drug and alcohol poisoning and suicide. These factors also were associated with self-reported declines in physical and mental health as well as increases in chronic pain and the inability to work.

These observations have been extended by Woolf and Schoemaker⁵ in a comprehensive study of life expectancy across the United States between 1959-2017 that showed an increase in all-cause mortality from 2014-2017 for individuals in midlife (25-64 years) across all racial groups due to substance misuse, suicide, and other social determinants of disease. Chetty et al⁶ also showed that socioeconomic status and geography contributed to life expectancy despite income inequality, including a 15-year life expectancy difference between the poorest and richest individuals in the United States.

In addition to lifestyle choices, measures of wellness also highlight the importance of social connectedness. The Kaiser Family Foundation in collaboration with *The Economist* reported in 2018 that one-fifth of adults in the United States and United Kingdom reported that they feel lonely and lack meaningful connections with others. These findings are supported by the 2019 University of Michigan Poll on Healthy Aging that surveyed 2000 individuals aged 50 through 80 years, which found that one-third of them indicated a lack of companionship. This is particularly true for individuals living alone and is more prevalent in women who are unemployed or are less educated or who have low income.

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Social isolation contributes negatively to life expectancy, whereas community and engagement are positive correlates.

An assessment of an individual's sense of purpose, social engagement, and lifestyle choices constitute a triad associated with longevity and should be part of the health assessment. Furthermore, a plan should be developed between the physician and patient about how purpose, community, and wellness will be fostered and enhanced.

The Importance of Purpose

Damon⁷ observed that among 1200 adolescents and young adults aged 12 to 24 years, 20% expressed a sense of purpose that transcended self-interest. In a study of adults older than 50 years, Colby reported in the Pathways to Encore Purpose Project that 31% of 1198 individuals surveyed had a purpose "beyond the self" that included an interest in improving the lives of others, making the world better, teaching, building community, or pursuing spiritual goals.⁷ Caring for others (including by grandparents) positively affects all-cause mortality. A recent study of 6985 individuals in the Health and Retirement Study of adults older than 50 years demonstrated that a stronger life purpose was associated with decreased mortality, suggesting that purposeful living has positive health benefits.⁸ For example, purpose can be renewed through career counseling in the workplace, as well as through education and retraining opportunities at universities and colleges, or through community and public service or volunteer activities.

The Value of Social Engagement

In addition to having or renewing purpose, avoiding loneliness and promoting social connection correlate with health outcomes. A meta-analysis of 148 studies involving 408 849 participants showed positive social relationships were associated with a 50%

increase in survival, whereas poor social relationships were associated with a 29% increase in cardiovascular disease and a 32% increase in strokes.⁹ Improving engagement can be achieved through friendships, family, and social networks as well as through faith-based or community-focused social and volunteer groups.

The Influence of Lifestyle Choices and Wellness

Lifestyle choices promoting wellness also influence morbidity and mortality. Notably, a favorable lifestyle was associated with a lower risk of dementia among individuals with high genetic risk and is a powerful example of disease mitigation through behavior and social choice.³ This is particularly important as society ages and the risk for dementia increases. The opportunity to modify the risk of dementia as well as obesity, cardiovascular disease, cancer, and other disorders through changes in lifestyle and positive age beliefs is noteworthy. That regular exercise is pursued by 22.9% of the population speaks to the need for community-based fitness groups or mobile devices that engage individuals in health habits.¹⁰

A Prescription for the Future of Individuals and Communities

Having a purpose, seeking social engagement, and fostering wellness through positive lifestyle choices (eg, exercise, nutrition, mindfulness) are important in reducing morbidity and mortality and improving the life journey. These variables are important at all stages of life and particularly for those in midlife and older. These elements should be part of the health assessment and should be prescribed by physicians. While these associations are not new, their benefits for individuals, institutions, and society are important and could foster positive outcomes and better alignment of life span and health span with less financial, medical, and social costs for individuals, communities, and society.

ARTICLE INFORMATION

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Conflict of Interest Disclosures: Dr Pizzo reports being the founding director of the Stanford Distinguished Careers Institute, a program that seeks to help individuals in midlife renew purpose, build community and recalibrate wellness.

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