The Inaugural Olden Distinguished Lecture: Economic Inequality and Health Disparities

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Editor’s note: The following is a transcript of the inaugural Olden Distinguished Lecture: Promoting Diversity, Inclusion, and Scientific Excellence, presented by Kenneth Olden on 21 September 2020 at the National Institute of Environmental Health Sciences. The transcript is presented in its entirety. The annual Olden Distinguished Lecture series was established to recognize and celebrate outstanding scientists in the field of environmental health sciences and environmental justice from underrepresented groups. The videotaped lecture is available at https://www.niehs.nih.gov/news/video/diversity/index.cfm#900897.

Olden is the former Director of the National Center for Environmental Assessment, Environmental Protection Agency (2012–2016), Founding Dean of the School of Public Health of the City University of New York (2008–2012), former Director of the National Institute of Environmental Health Sciences and the National Toxicology Program (1991–2005), and Scientific Director (1979–1985) and Director (1985–1991) of the Howard University Cancer Center.

Introduction

First, I want to thank Dr. Richard Woychik and Dr. Francis Collins for the warm welcome and kind remarks. I also want to thank Dr. Trevor Archer and Dr. Darryl Zeldin for their role in creating this lecture series. I am particularly pleased to be honored by the National Institutes of Health, as it has always been important to me to live my life so I could always come home again. I am a proud product of the NIH, starting back in 1970 as an NIH Postdoctoral Fellow at the Harvard University School of Medicine in Boston. I have been connected to the NIH ever since as a grantee, advisory committee member, or employee. Second, I want to say that I am particularly pleased with the theme you chose to promote this lecture series: “Promoting Diversity, Inclusion, and Scientific Excellence,” issues to which I have devoted my life.

Finally, I want to dedicate my presentation to the memory of my great-grandmother, Mrs. Augusta Foster, a former slave. She was 8 years old when slavery was abolished in 1865, and she died 3 years before I enrolled in college. She lived with us; she helped raise me, and she helped shaped who I am today. My dedicating this presentation to her is intended to be a reminder that slavery and its consequences are not ancient history. There are many young Ken Oldens out there, both Black and White, who are poor and disadvantaged, and are “not looking for a handout, but a hand up.” My parents were sharecroppers in Jim Crow America who never finished high school. Yet, they were determined that their children would get an education even though we had to walk 12 miles every day to attend grade school because bus service was not provided for Black children in our rural community until I was in the sixth grade.

Economic Inequality in America

I suspect that many of you in the viewer audience are wondering why I chose to speak on the topic of “Economic Inequality and Health Disparities” given that my scientific career has been devoted to laboratory research. I chose to speak on this topic because I think that health disparities and the growing income inequality in America, or the unequal distribution of income and opportunity between different groups in society, are the defining challenges of our time. Compared to Caucasians, African Americans have a 1.3-fold higher risk of dying from coronary disease, 1.8-fold higher for diabetes, and 2.9-fold higher for hypertension (Fenelon 2015). Both income inequality and differences in life expectancy, as an indicator of population health, have been increasing in the United States since the 1980s. Here, I argue that the growing gap in distribution of income in the United States is the key driver of the growing disparities in health.

Two landmark studies, one conducted at Berkeley and the other at Harvard, linked income inequality and health. Kaplan et al. (1996) at Berkeley compared the Robin Hood index as the measure of income inequality in the 50 states; the greater the index, the greater the inequality. They observed that for each percentage point increase in the Robin Hood index, there was a corresponding decrease in life expectancy.

Earnings at the bottom of the income scale have stagnated, and income of top earners has risen. Economic inequality has skyrocketed over the past four decades, to the point that we are again approaching the unprecedented levels of inequality not seen in the United States since before the Great Depression of the 1920s and 1930s. According to the Federal Reserve (2020), the wealthiest 1% of Americans have seen their net worth grow by $21 trillion, while the wealth of the bottom 50% declined by $900 billion over the past 30 years. According to The New York Times (Sorkin 2020), the average chief executive officer (CEO) pay in 1973 was $1.2 million, and it was $21.2 million in 2019; the ratio of the average CEO pay to that of a typical worker was 24 to 1 in 1970 and 320 to 1 in 2019; the number of millionaires in the United States in 1970 was 120,000 and 18.6 million in 2019; and the corporate tax rate was 49% in 1970 and 21% in 2020. Since wages and taxes are the primary vehicles used to distribute income in a capitalistic society, the distortion in favor of the top income earners is apparent.

Income inequality in America is greater than in any other high-income or Organisation for Economic Co-operation and Development (OECD) member nation, other than Mexico, Turkey, and Chile (OECD 2013), and it has skyrocketed over the past four decades. The Gini coefficient, a widely accepted measure of income inequality (zero representing perfect equity), has increased every year since 1980. Our government has allowed corporations to squeeze workers and suppliers and drive local...
businesses into bankruptcy, all in the guise of efficiency and profit for a small number of people. Whereas the first wave of job loss associated with automation and globalization hit the Black community first, it has now swept over the working-class White community with similar devastating consequences (Putnam 2015; Vance 2016). I think it might now be possible to convince working-class Whites that they have more in common with other disadvantaged groups than with corporate executives and global elitists and that lack of opportunity is also holding poor and working-class Whites back, not just racial and ethnic minorities.

This situation is breeding hopelessness among the population of people who feel that there is no longer a path to better themselves. Low-income earners in the United States are living without financial security; it has been reported that 63% of Americans do not have enough savings to deal with a $500 emergency (McGrath 2016), and on any given night more than a half million Americans are homeless (National Alliance of Homelessness 2020). The percentage of people living in poverty (annual income less than the poverty level) has increased from 11.1% in 2016 to 12.7% in 2020 (Schanzenbach et al. 2016). If we go back 40 years, the gap in life expectancy increased by 3.5 years (Whitmore 2020) concluded that American workers are now benefiting far less in the economic growth of the nation than they did a generation ago, and that workers’ income has not kept pace with growth of the gross domestic product (GDP). According to their analysis, a worker now earning $33,000 annually would be earning $61,000 and a worker earning $81,000 would be earning $126,000 if earnings from 1975 to 2018 had expanded roughly in line with growth of the GDP. When tallied up, the bottom 90% of American workers would be bringing home an additional $2.5 trillion in total annual income if growth in the economy was shared as it was in the post-war era. The authors referred to the reverse distribution of income as “the $2.5 trillion theft,” as this money is now going into the pockets of the shareholders.

Prior to the publication of Milton Friedman’s essay in 1970 (Friedman 1970) in which he argued that “the social responsibility of business is to increase profits” for shareholders, businesses used a stakeholder distribution model (Figure 1A) to distribute its annual profits. All stakeholders, including employees, customers, suppliers, government, and shareholders, received a significant portion of the annual profits. However, with the publication of Friedman’s free market manifesto, businesses have abandoned their commitment to the stakeholder profit-sharing model in favor of shareholder capitalism (Figure 1B), based on payment of low wages, tax avoidance, and exploitation of suppliers and customers. Both wages and taxes have plummeted since 1980, as shareholder income has skyrocketed (Stiglitz 2019).

Adoption of Friedman’s ideology has led to terrible economic inequality, growing health disparities, and abandonment of environmental stewardship. Last year, 181 chief executives of Fortune 500 companies, who are members of the Business Roundtable, released a statement taking issue with Friedman’s emphasis on profits for shareholders (Business Roundtable 2019). The new statement issued by the Business Roundtable expressed a fundamental commitment to all of their stakeholders—not just shareholders but employees, suppliers, customers, and the community. While the statement itself is significant, it is unclear if or how it will influence corporate behavior.

The distribution of wealth in the United States has become so unequal that many of the benefactors are now experiencing concern. For example, in an op-ed in the Washington Post, Abigail Disney argued against the “naked indecency” of the CEO of the company that her father founded making 1,424 times the median pay of a Disney worker (Disney 2019). Several other wealthy Americans have made similar public appeals for the government to make the tax code more fair by increasing the tax rate imposed on the rich. In an op-ed in The New York Times, Eli Broad, founder of K.B. Homes and Sun America, concluded that for most people American capitalism “is not working,” and that philanthropy will not compensate for the deep inequities preventing most Americans—factory workers, farmers, teachers, electricians, and small business owners—from achieving the American dream (Broad 2019). Furthermore, he argued that proposals to increase the minimum wage to $15 per hour, reforming the educational system, and building affordable housing will not be adequate to address the problem of economic inequality. He maintains that a more radical solution, such as reforming the tax code by levying a wealth tax, is needed. Warren Buffett, in an op-ed in The New York Times titled “Stop Coddling the Super-Rich,” was among the first to advocate for an increase in the tax rate on the wealthy by pointing out that he is taxed at a rate lower than the people who work in his office (Buffett 2011).

The Growing Life Expectancy Gap between the Rich and Poor

Here, I cite data to demonstrate that our economic policies are not only generating devastating poverty, but also shorter life expectancy for low-income earners. Over the past 20 years, the life expectancy gap between Americans in the bottom 10% and the top 10% of income earners increased by 3.5 years (Whitmire Schanzenbach et al. 2016). If we go back 40 years, the gap in life expectancy gap between the rich and poor.

Figure 1. The corporate profit distribution model changed markedly (A) prior to and (B) after the publication of the 1970 essay “A Friedman Doctrine—The Social Responsibility of Business Is to Increase Its Profits” (Friedman 1970). In the postwar years prior to publication, employees received a larger share of profits, whereas shareholders’ stake increased after publication. Note: R&D, research and development.
expectancy only gets worse. The richest Americans gained 6 years in life expectancy from 1980 to 2010, while the life expectancy for the poorest men remained constant. The richest men in America live 15 years longer than the poorest; for women the gap is 10 years. According to a report by the Health Inequality Project (Chetty et al. 2016), from 2001 to 2014, the richest Americans gained 3 years of life expectancy, while the poorest experienced no gain. The trend favoring the high-income earners is clear, irrespective of the data source.

A large body of literature has examined the relationship between income inequality and health, and most (though not all) concluded that health tends to be worse in societies where the income distribution between the rich and the poor is wider. It is estimated that economic inequality contributes to 884,000 excess deaths per year in the United States (Kondo et al. 2009). The remarkable increase of more than 30 years in life expectancy in the United States between 1900 and 2013 paralleled the deployment of progressive economic policies from 1945 through the 1970s, with respect to distribution of wealth generated from growth in the GDP. Corporations and their rich shareholders were required to pay fair wages and their fair share of taxes. The decline or capping of the increase in life expectancy, seen among low-income earners over the past 7 years, is a delayed response to regressive economic policies of the past 40 years—policies that have devastated the working class or low-income earners.

The most disturbing fact about the recent capping or decline in life expectancy among the working class is that the benefits of the gains in life expectancy between 1900 and 2013 were never fully realized by socioeconomically disadvantaged populations. There remained large disparities in life expectancy between neighborhoods within the same metropolitan area. For example, a difference in life expectancy of 14 years was reported between the Watts neighborhood and the Irvine neighborhood in Los Angeles, California (Los Angeles County Department of Public Health 2010), and a difference in life expectancy of 25 years was reported between the French Quarter and the Lakewood neighborhood (a distance of less than 3 miles) in New Orleans, Louisiana (Robert Wood Johnson Foundation 2013). The two neighborhoods with the longest life expectancy (i.e., Irvine and Lakewood) have a much higher median income, a higher median home value, and a higher concentration of White residents than the two neighborhoods (i.e., Watts and the French Quarter) with the shortest life expectancy. Similar results were obtained when we compared the three neighborhoods in New York City reported to have the worst health outcomes with the three neighborhoods with the best health outcomes (Olden et al. 2015); we discovered that sociodemographic factors, such as poverty and concentration of minorities in the population, were again strongly associated with worst health outcomes. A much larger and more ambitious study to examine the life expectancy gap between the “best off” and the “worst off” was conducted earlier by Chris Murray et al. (2006). They divided the U.S. population into eight groups (the Eight Americas) based on race, geographic region of the country of residence, population density, per capita income, and cumulative homicide rate, and determined the life expectancy differences between the eight groups. The life expectancy gap between the “best off” and the “worst off” was 15.4 years for males and 12.8 years for females. They concluded that the enormous disparities in life expectancy could not be explained by a single cause such as income, race, or access to health care.

**The Way Forward**

Until recently, the United States was considered the model nation for blending the principles of equality and capitalism to strike the most productive balance between promoting the public good and innovation and economic growth in the private sector. But the government-issued guardrails that curbed the excesses of market-driven capitalism have slowly collapsed over the past 40 years under the weight of special interests, and now the dominance of capitalism serves as an engine to redistribute income upward.

The government is the only institution capable of reducing economic inequality and health disparities in America; the various private agencies simply do not have the resources to deal with an economic issue of this magnitude. The economic prosperity that took place from the 1940s through the 1970s could not have happened without a sufficient tax base to support the various government programs developed during this period. To restore prosperity in America, a more fair economic structure will be required; businesses cannot be allowed to continue to extract wealth from investments supported by the American taxpayer without giving back. Corporations have benefited greatly from research, services, and infrastructure provided by the federal government, so the most sustainable way for this to continue would be for them to pay back into the system that helped get them to where they are today. Government investment in education and research to develop new knowledge and technology has been the driver of the U.S. economy. Such investments have been key to the positioning of the United States as a leader in scientific innovation. Industry investment in research and development is mostly a thing of the past; the private sector’s primary focus is on short-term, low-risk investments, such as buying promising technologies from small startups or spin-offs from government-supported university research that has shown potential for commercial success. The government provided not only funding for the high-risk, long-term basic science research but also small business innovation grants to demonstrate the potential utility of promising basic science discoveries.

Without the public investments of the past, it is unlikely that we would have many of the technologies that are commonplace today (e.g., the Internet, the cell phone, the Global Positioning System, hydraulic fracturing, robotics, and radio navigation). It has been estimated that 75% of new pharmaceuticals have been made possible by research supported by the National Institutes of Health (Cleary et al. 2018). Yet the top 10 pharmaceutical companies made more money over the past decade than all the other Fortune 500 companies combined (Mazzucato 2011). The case can be made that the government takes the financial risk associated with technology development while the private sector packages it, markets it, and reaps the financial rewards that are disproportionate to their contribution. If the relationship between business and government was less parasitic, the living standards in America would have gone up and the income gap would be less disparate because of the remarkable wealth-generating technologies mentioned above.

Historically, economic inequality in America has never shrunk significantly without a major crisis. The Great Depression of the 1930s acted as a catalyst for the New Deal economic reforms to reduce the income gap by stimulating growth, increasing wages, and promoting more progressive tax policies as vehicles to redistribute the wealth. For example, tariffs on the import/export of luxury goods were increased to get the rich to contribute their fair share to government revenues, and labor unions were given more power to bargain for higher wages and better working conditions. The current coronavirus (COVID-19) pandemic, which exposed the great divide between the “haves and the have nots,” offers an opportunity to reimagining the United States as a nation where again the rich contribute their fair share to government revenue; where the health and safety of the American people is again a top priority; and where social, economic, and environmental justice is a reality for all Americans. Because of the devastating human and economic impact of the pandemic, businesses and policy makers now realize
that the nation is paying a high price for its lack of foresight in anticipating the consequences of our reliance on foreign countries to provide critical supplies necessary for economic viability and health and safety of the American people. The expected retribution in offshoring of manufacturing will bring good paying jobs back to the United States.

Health disparities in the United States have been the subject of intensive investigation since the publication of the Heckler Report on Black and minority health in 1985 (Heckler 1985), showing that there were approximately 60,000 excess deaths among Black Americans every year. More recently, Lynch et al. (1998) reported that the impact of income inequality on mortality in metropolitan areas in the United States was comparable to the combined loss of life from diabetes, lung cancer, motor vehicle accidents, human immunodeficiency virus, suicide, and homicide. There is now a significant body of evidence to support the conclusion that income inequality influences the health of the population. For example, the Whitehall study, conducted in the United Kingdom, showed a steep inverse relation between income and mortality from a variety of diseases. Differences in mortality were evident throughout the economic gradient from top to bottom (Marmot et al. 1991).

However, health is not on the minds of policy makers when setting economic policy. In policy debates about how to improve the health of the American people, typically the focus is on ways to reform and restructure health insurance and health care delivery. They rarely, if ever, mention the redistribution of income through taxes and wages as a tool to improve population health and reduce health disparities, even though there is a substantial body of research showing that the income gap between the rich and poor adversely impacts health and life expectancy. Also, policy makers are insisting on unachievable standards of proof before taking action.

Unfortunately, one can devise self-satisfying (e.g., blaming the victim) but incorrect reasons to discredit the reported effects of the social determinants. So, to make progress, we need a more rigorous, universally accepted tool to quantify the combined effects of the various social determinants. An alternative possibility is to look upstream for a more powerful or robust driver of health disparities, a driver that cannot be blamed on the victim or rationalized away. For example, income inequality is the most inclusive of the various social determinants and can be evaluated using rigorous, widely accepted metrics that are unrelated to the behavior of the affected population. In fact, economic inequality captures all the downstream social determinants (Figure 2) except race. However, this is not an unexpected outcome, since race is an artificial construct created for social convenience. So, it is not surprising that race is an outlier, the one that cannot be addressed as part of the economic inequality aggregate. In fact, some social scientists argue that race and racism are the predominant determinants of health disparities and should be the primary or single focus of our efforts.

The rapid growth in poverty and the growing gap in income and life expectancy in the United States, the richest country in the world, are due to inequality created by our social and economic policies; they are the result of the choices that we have made. If we want a different outcome, it is within our power. Our challenge is to build a coalition of individuals with common interests powerful enough to create a healthier society.

References

Broad E. 2019. I’m in the 1 percent. Please, raise my taxes. *New York Times*, Opinion section, online edition, 25 June 2019. https://www.nytimes.com/2019/06/25/opinion/taxes-debates-el-broad.html [accessed 26 January 2021].

Buffett W. 2011. Stop coddling the super-rich. *New York Times*, Opinion section, online edition, 14 August 2011. https://www.nytimes.com/2011/08/15/opinion/ stop-coddling-the-super-rich.html [accessed 26 January 2021].

Business Roundtable. 2019. Our Commitment. 19 August 2019. https://opportunity.businessroundtable.org/ourcommitment/ [accessed 26 January 2021].

Chetty R, Stepanean M, Abraham S, Lin S, Scuderi B, Turner N, et al. 2016. The association between income and life expectancy in the United States, 2001–2014. *JAMA* 315(16):1750–1766, PMID: 27093977, https://doi.org/10.1001/jama.2016.4226.

Chetty R, Saeian J, Beach J, Grootendorst K, Kline JF, Liebman J, et al. 2019. Economic inequality in 1% income and mortality among Black Americans every year. *New York Times*, Opinion section, online edition, 23 April 2019. https://www.nytimes.com/2019/04/23/opinion/its-time-to-call-out-my-families-company-and-anyone-else-rich-off-their-workers-backs.html [accessed 26 January 2021].

Marmot MG, Smith GD, Stansfeld S, Patel C, North F, Head J, et al. 1991. Health inequalities among British civil servants: the Whitehall II study. *Lancet* 337(8754):1387–1393, PMID: 1674771, https://doi.org/10.1016/0140-6736(91)90368-K.

Mazzucato M. 2011. *The Entrepreneurial State: Debunking Public vs. Private Sector Myths*. New York, NY: Hachette Book Group, Public Affairs.

McGrath M. 2016. 63% of Americans don’t have enough savings to cover a $500 emergency. *Forbes Magazine*, online edition, 8 January 2016. https://www.forbes.com/
Murray CJL, Kulkarni SC, Michaud C, Tomijima N, Bultacchelli MT, Landiorio TJ, et al. 2006. Eight Americas: investigating mortality disparities across races, counties, and race-counties in the United States. PLoS Med 3(9):e260, PMID: 16968116, https://doi.org/10.1371/journal.pmed.0030260.

National Alliance to End Homelessness. 2020. State of Homelessness: 2020 Edition [Website]. Washington, DC: National Alliance to End Homelessness. https://endhomelessness.org/homelessness-in-america/homelessness-statistics/state-of-homelessness-2020/ [accessed 26 January 2021].

OECD (Organisation for Economic Co-operation and Development). 2011. An overview of growing income inequality in OECD countries: main findings. In: Divided We Stand: Why Inequality Keeps Rising. Paris, France: OECD Publishing; 21–45. http://www.oecd.org/els/soc/49499779.pdf [accessed 31 March 2021].

OECD. 2013. OECD Income Distribution Database (IDD): Gini, poverty, income, methods and concepts. http://www.oecd.org/social/income-distribution-database.htm [accessed 26 January 2021].

Olden K, Olden HA, Lin YS. 2015. The role of the epigenome in translating neighborhood disadvantage into health disparities. Curr Environ Health Rep 2(2):163–170, PMID: 26231365, https://doi.org/10.1007/s40572-015-0048-x.

Putnam RD. 2015. Our Kids: The American Dream in Crisis. New York, NY: Simon & Schuster.

Robert Wood Johnson Foundation. 2013. Metro Map: New Orleans, Louisiana—infographic. https://www.rwjf.org/en/library/infographics/new-orleans-map.html [accessed 26 January 2021].

Sorkin AR. 2020. A free market manifesto that changed the world. New York Times, online edition, Dealbook section, 14 September 2020. https://www.nytimes.com/2020/09/11/business/dealbook/milton-friedman-doctrine-social-responsibility-of-business.html [accessed 26 January 2021].

Stiglitz JE. 2019. People, Power and Profits: Progressive Capitalism for an Age of Discontent. New York, NY: W.W. Norton Company.

Vance JD. 2016. Hillbilly Elegy: A Memoir of a Family and Culture in Crisis. New York, NY: Harper Collins.

Wartzman R. 2020. ‘We were shocked’: RAND study uncovers massive income shift to the top 1%. Fast Company, 14 September 2020. https://www.fastcompany.com/90550015/we-were-shocked-rand-study-uncovers-massive-income-shift-to-the-top-1 [accessed 26 January 2020].

Whitmore Schanzenbach D, Nunn R, Bauer L. 2016. The Changing Landscape of American Life Expectancy. Framing Paper, The Hamilton Project. 29 June 2016. https://www.hamiltonproject.org/assets/files/changing_landscape_american_life_expectancy.pdf [accessed 26 January 2021].