

## LEGAL AID INEQUITIES PREDICT HEALTH DISPARITIES

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<b>I.</b>	<b>INTRODUCTION</b>	329
<b>II.</b>	<b>BACKGROUND</b>	331
	<i>A. US HEALTH DISPARITIES: INTERNATIONAL COMPARISONS</i>	331
	<i>B. DRIVERS OF HEALTH DISPARITIES IN THE US</i>	335
	<i>C. IMPROVING SOCIAL DETERMINANTS OF HEALTH TO IMPROVE POPULATION HEALTH</i>	337
	<i>D. PATIENT PROTECTION AND AFFORDABLE CARE ACT AND HEALTH EQUITY</i>	340
<b>III.</b>	<b>ANALYSIS</b>	341
	<i>A. RESULTS</i>	341
	<i>1. PROPORTION OF LEGAL AID FUNDED ATTORNEYS BY STATE</i>	342
	<i>2. VARIABILITY OF CIVIL LEGAL AID RATIOS BY STATE</i>	343
	<i>3. CIVIL LEGAL AID AVAILABILITY DISPARITIES PREDICT HEALTH ISSUES</i>	349
	<i>A. CORRELATIONS</i>	349
	<i>B. MULTIPLE LINEAR REGRESSION COEFFICIENTS</i>	352
<b>VI.</b>	<b>LEGAL SERVICES IMPACTING HEALTH CARE AND HEALTH OUTCOMES</b>	353
<b>VII.</b>	<b>RECOMMENDATIONS AND CONCLUSIONS</b>	357

### I. INTRODUCTION

Despite spending more money than any other nation on medical services, individuals living in the United States (US) live shorter and sicker lives than those in

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economically comparable countries.<sup>1</sup> It is widely understood that social, economic, environmental, and political factors are strong influences on individual and population health.<sup>2</sup> Furthermore, evidence demonstrates that social and economic inequalities within societies can lead to poor population health outcomes.<sup>3</sup> Civil legal aid attorneys remediate social and economic injustices and harms at individual and community levels by providing low or no cost legal services to people in need who do not have the means to pay for those services.<sup>4</sup> These legal aid services can increase access to justice and contribute to improved health outcomes.<sup>5</sup> Despite this, a civil legal aid “justice gap” exists in the US resulting in over a million economically impoverished individuals who seek legal services from receiving aid each year.<sup>6</sup>

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<sup>1</sup> Karen Davis et al., *Mirror, Mirror on the Wall: How the Performance of the U.S. Health Care System Compares Internationally*, THE COMMONWEALTH FUND 7 (June 2014), [http://www.commonwealthfund.org/~media/files/publications/fund-report/2014/jun/1755\\_davis\\_mirror\\_mirror\\_2014.pdf](http://www.commonwealthfund.org/~media/files/publications/fund-report/2014/jun/1755_davis_mirror_mirror_2014.pdf).

<sup>2</sup> MICHAEL MARMOT, THE STATUS SYNDROME: HOW SOCIAL STANDING AFFECTS OUR HEALTH AND LONGEVITY, 1–12 (Henry Holt and Company 2004).

<sup>3</sup> See generally RICHARD WILKINSON & KATE PICKETT, THE SPIRIT LEVEL: WHY MORE EQUAL SOCIETIES ALMOST ALWAYS DO BETTER (2009). MICHAEL MARMOT, *Introduction*, in SOCIAL DETERMINANTS OF HEALTH, 1–5, (Michael Marmot et al. eds., 2d ed. 2006); RICHARD WILKINSON, *Ourselves and Others-For Better or Worse: Social Vulnerability and Inequality*, SOCIAL DETERMINANTS OF HEALTH, 341–56, (Michael Marmot et al. eds., 2d ed. 2006). BARRY LEVY & VICTOR SIDEL, SOCIAL INJUSTICE AND PUBLIC HEALTH, 5–24, (Barry Levy et al. eds., 2006).

<sup>4</sup> Legal aid attorneys are attorneys who represent people who are poor in civil legal matters. Typically, legal aid attorneys are employed by non-profit legal services organizations, including programs funded by the Legal Services Corporation, state IOLTA programs, federal and state grants, or private foundations. See Legal Servs. Corp., *History: The Founding of LSC*, LSC, <http://www.lsc.gov/about/what-is-lsc/history> (last visited Mar. 20, 2015) (brief history of the Legal Services Corporation (LSC)); *History of Civil Legal Aid*, NLADA, [http://www.nlada.org/About/About\\_HistoryCivil](http://www.nlada.org/About/About_HistoryCivil) (last visited Mar. 20, 2015) (brief history of the legal aid movement in the United States); Transcript of Interview by Victor Geminiani with Alan Houseman (Oct. 21, 1991), available at <https://www.law.georgetown.edu/library/collections/nejl/upload/houseman.pdf>) (a long form oral history of the legal aid movement by Alan Houseman).

<sup>5</sup> See generally, Alan Housman & Elisa Minoff, *The Anti-Poverty Effects of Civil Legal Aid*, PUBLIC WELFARE FOUNDATION 1, 46–47 (2014), <http://legalaidresearch.org/wp-content/uploads/Houseman-Anti-Poverty-Effects-Civil-Legal-Aid.pdf>; *Natural Allies: Philanthropy and Civil Legal Aid*, THE KRESGE FOUND. 1, 4–7, (2013), <http://kresge.org/sites/default/files/Philanthropy-and-civil-legal-aid.pdf>; Kate Marple, *Framing Legal Care as Health Care*, NATIONAL CENTER FOR MEDICAL-LEGAL PARTNERSHIP 1, 3 (2015), <http://medical-legalpartnership.org/wp-content/uploads/2015/01/Framing-Legal-Care-as-Health-Care-Messaging-Guide.pdf>; U.S. DEPT. OF JUSTICE, CIVIL LEGAL AID 101, <http://www.justice.gov/atj/civil-legal-aid-101> (last visited June 23, 2015).

<sup>6</sup> FISCAL YEAR 2016 BUDGET REQUEST, LEGAL SERVICES CORPORATION 2 (2015), available at <http://www.lsc.gov/sites/default/files/LSC/images/fy2016budgetbook/LSC-FY2016-BudgetRequest-sm.pdf>; see also LEGAL SERVICES CORP., DOCUMENTING THE JUSTICE GAP IN AMERICA: THE CURRENT UNMET CIVIL LEGAL NEEDS OF LOW INCOME AMERICANS (2009), available at [http://www.lsc.gov/sites/default/files/LSC/pdfs/documenting\\_the\\_justice\\_gap\\_in\\_america\\_2009.pdf](http://www.lsc.gov/sites/default/files/LSC/pdfs/documenting_the_justice_gap_in_america_2009.pdf). LSC report cites a conservative estimate, as it is based on LSC funded programs only. See also LEGAL SERVICES CORPORATION, DOCUMENTING THE JUSTICE GAP IN AMERICA: THE CURRENT UNMET CIVIL LEGAL NEEDS OF LOW INCOME AMERICANS

A large body of existing literature identifies social factors, such as income, education, food security, security protections, employment, and geography that have a profound impact on health outcomes.<sup>7</sup> There is a smaller but growing body of research on the impact of civil legal aid services on health outcomes. This paper adds to the emerging literature by providing evidence that links access to civil legal aid to state-level disparities in population health outcomes. Section II defines and describes the determinants of health and health disparities in the US. Specifically, it provides: (1) a comparative international context for the US health system's underperformance despite extraordinary expenditures on healthcare and how those expenditures are distributed; (2) a description of health disparities within the US; and (3) opportunities and limitations of the Affordable Care Act and its impact on health equity.<sup>8</sup> Section III provides quantitative analyses and discusses the relationship between income inequity, the legal aid justice gap in the US, and health inequities. Section IV provides recommendations to improve population health in the US by addressing the civil legal aid justice gap.

## II. BACKGROUND

### A. US Health Disparities: International Comparisons

With a gross domestic product (GDP) greater than all of the countries of the European Union combined, the US is the economically richest country in the world but ranks far below other countries when measuring population health outcomes.<sup>9</sup> Two measures often used to assess population health outcomes of societies are life expectancy at birth and infant mortality rate.<sup>10</sup> Compared to all other nations, the US ranks 42nd in life expectancy and ranks below average in life expectancy on the Organisation for Economic Co-Operation and Development's (OECD) rankings of

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(2009), available at [http://www.lsc.gov/sites/default/files/LSC/pdfs/documenting\\_the\\_justice\\_gap\\_in\\_america\\_2009.pdf](http://www.lsc.gov/sites/default/files/LSC/pdfs/documenting_the_justice_gap_in_america_2009.pdf).

WORLD HEALTH ORG. [WHO], CLOSING THE GAP IN A GENERATION: HEALTH EQUITY THROUGH ACTION ON THE SOCIAL DETERMINANTS OF HEALTH 43, 154, 187–88 (2008); Paula Braveman et. al., *The Social Determinants of Health: Coming of Age*, 32 ANNUAL REVIEW OF PUB. HEALTH 381, 381–98 (2011), [http://scholar.harvard.edu/files/davidwilliams/files/2011-the\\_social\\_determinants-williams.pdf](http://scholar.harvard.edu/files/davidwilliams/files/2011-the_social_determinants-williams.pdf); Paula Braveman & Laura Gottlieb, *The Social Determinants of Health: It's Time to Consider the Causes of the Causes* 129(2) PUB. HEALTH REP. 19–31 (2014); Laura K. Brennan Ramirez et al., CTR. FOR DISEASE CONTROL, PROMOTING HEALTH EQUITY: A RESOURCE TO HELP COMMUNITIES ADDRESS SOCIAL DETERMINANTS OF HEALTH 64–74 (2008).

<sup>8</sup> This paper utilizes Braveman and Gruskin's definition of "health equity" which is "the absence of systematic disparities in health (or in the major social determinants of health) between social groups who have different levels of underlying social advantage/disadvantage- that is, wealth, power, or prestige. Inequities in health systematically put groups of people who are already socially disadvantaged (for example, by virtue of being poor, female, and/or members of a disenfranchised racial, ethnic, or religious group) at further disadvantage with respect to their health; health is essential to wellbeing and to overcoming other effects of social disadvantage." Paula Braveman & Sofia Gruskin, *Defining Equity in Health*, 57 J. EPIDEMIOLOGY & COMMUNITY HEALTH 254, 254–58 (2003).

<sup>9</sup> CENTRAL INTELLIGENCE AGENCY, THE WORLD FACTBOOK (2001), <https://www.cia.gov/library/publications/the-world-factbook/rankorder/2001rank.html>.

<sup>10</sup> ASTHO, THE ECONOMIC CASE FOR HEALTH EQUITY 1, available at <http://www.astho.org/Programs/Health-Equity/Economic-Case-Issue-Brief/>.

34 member countries.<sup>11</sup> Beyond being the wealthiest country in the world, the US's total expenditures per capita and funding per GDP allocated to healthcare has been the highest in the world for decades.<sup>12</sup> Despite US healthcare investments, expenditures (which have steadily increased over time) and overall economic wealth, health disparities in the US have actually increased. For example, the gap in life expectancy by gender has grown between the US and top performing countries.<sup>13</sup> The life expectancy of females in the US and Japan showed no difference in 1970, but the US average life expectancy of females is now almost five years shorter than the average life expectancy of a female in Japan. Similarly, the gap for life expectancy between males in Switzerland and the US has grown by approximately one and a half years since 1970.<sup>14</sup> Moreover, overall life expectancy for males in the US has increased since 1970, but its relative rank compared to other countries in the world has decreased.<sup>15</sup>

The US ranks 31st of 34 OECD countries in infant mortality rate, which is well below the average OECD country and significantly below the average comparable rich OECD member country.<sup>16</sup> For example, the infant mortality rate of the United States is two and a half times that of Finland, Japan, Sweden, and Portugal (6.1/1000 to 2.4/1000, respectively).<sup>17</sup> Of the OECD member countries, only Chile, Turkey, and Mexico perform worse than the US in infant mortality rate.<sup>18</sup> In 1950, the US infant mortality rate was significantly lower than other resource rich countries, whereas today the US infant mortality rate is twice as high as the average

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<sup>11</sup> See *supra* note 9; ORG. FOR ECON. CO-OPERATION AND DEVELOPMENT, OECD HEALTH STATISTICS 2014: HOW DOES THE UNITED STATES COMPARE? 2 (2014), available at <http://www.oecd.org/unitedstates/Briefing-Note-UNITED-STATES-2014.pdf> [hereinafter HEALTH STATISTICS 2014]. See also Cathy Schoen et al., *Confronting Costs: Stabilizing U.S. Health Spending While Moving Toward a High Performance Health Care System*, THE COMMONWEALTH FUND (Jan. 10, 2013), <http://www.commonwealthfund.org/publications/fund-reports/2013/jan/confronting-costs>.

<sup>12</sup> See HEALTH STATISTICS 2014, *supra* note 11; see also *Health Profile: Compare Your Country*, OECD, <http://www.compareyourcountry.org/health?cr=oecd&cr1=oecd&lg=en&page=2> (last visited Mar. 20, 2015 (interactive data comparing national economies with OECD data)).

<sup>13</sup> NATIONAL RESEARCH COUNCIL AND INSTITUTE OF MEDICINE, U.S. HEALTH IN INTERNATIONAL PERSPECTIVE: SHORTER LIVES, POORER HEALTH. PANEL ON UNDERSTANDING CROSS-NATIONAL HEALTH DIFFERENCES AMONG HIGH-INCOME COUNTRIES 39 (Steven H. Woolf & Laudan Aron eds., 2013), available at [http://books.nap.edu/openbook.php?record\\_id=13497](http://books.nap.edu/openbook.php?record_id=13497); ORGANISATION FOR ECONOMIC CO-OPERATION AND DEVELOPMENT, HEALTH AT A GLANCE 2013: OECD INDICATORS (2013), available at <http://www.oecd.org/els/health-systems/Health-at-a-Glance-2013.pdf>.

<sup>14</sup> Elayne Heisler, *The U.S. Infant Mortality Rate: International Comparisons, Underlying Factors, and Federal Programs*, CONGRESSIONAL RESEARCH SERVICE (2012), available at <http://www.fas.org/sgp/crs/misc/R41378.pdf>.

<sup>15</sup> Woolf and Arons, *supra* note 16 at 35; Jessica Ho, *Mortality Under Age 50 Accounts For Much Of The Fact That US Life Expectancy Lags That Of Other High-Income Countries*, 32 HEALTH AFFAIRS 459 (Mar. 2013); OECD, *supra* note 13.

<sup>16</sup> The infant mortality rate is the number of deaths of infants under one year old in a given year per 1,000 live births in the same year. See Heisler, *supra* note 14.

<sup>17</sup> Marian F. MacDorman et al., *International Comparisons of Infant Mortality and Related Factors: United States and Europe, 2010*, 63 Nat. Vital Stat. Rep. 1, 1–5 (2014).

<sup>18</sup> See OECD, *supra* note 13.

infant mortality rate of 16 comparable resource rich countries.<sup>19</sup> Additionally, a similar trend can be found for low birth weight infants. The US low birth weight rate is two and a half times higher than Iceland, the country that performs best on this public health indicator.<sup>20</sup>

Despite performing poorly on key population health outcome indicators, such as life expectancy and infant mortality, the US spends more on healthcare than any other country in the world and has so for 35 years.<sup>21</sup> The US currently spends approximately 2.5% more on healthcare annually than the OECD country average.<sup>22</sup> Healthcare spending is also differentially distributed compared to other OECD countries.<sup>23</sup> For example, the US spends more per medical provider, for hospital visits, for medical procedures, and on pharmaceuticals than all other OECD countries.<sup>24</sup> The US also has significantly higher administrative costs related to healthcare than other countries. For example, the US spends twice as much as Canada on these administrative costs.<sup>25</sup> Moreover, the US has relatively fewer physicians and medical office visits than most OECD countries but still pays more for healthcare.<sup>26</sup>

Health expenditures and outcomes in the US are disconnected. The US has the highest expenditures yet the worst health outcomes in the developed world. Additionally, neither health behaviors of individuals (i.e., smoking cigarettes, alcohol consumption, physical activity, and fruit and vegetable consumption) nor age of the population alone are able to fully explain the health disparities observed in the US.<sup>27</sup> For example, the US has fewer daily smokers and lower alcohol consumption than countries of comparable wealth and has a younger population on average.<sup>28</sup> Despite having a relatively young population compared to similar countries, the US focuses significant private and public healthcare resources on caring for older adults, especially those with chronic diseases.<sup>29</sup> Approximately 5% of the US population

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<sup>19</sup> *Id.* at 60–69.

<sup>20</sup> See OECD, *supra* note 13.

<sup>21</sup> David A. Squires, *Explaining High Health Care Spending in the United States: An International Comparison of Supply, Utilization, Prices, and Quality*, THE COMMONWEALTH FUND 2 (May 2012), [http://www.commonwealthfund.org/~media/Files/Publications/Issue%20Brief/2012/May/1595\\_Squires\\_explaining\\_high\\_hlt\\_care\\_spending\\_in\\_tl\\_brief.pdf](http://www.commonwealthfund.org/~media/Files/Publications/Issue%20Brief/2012/May/1595_Squires_explaining_high_hlt_care_spending_in_tl_brief.pdf).

<sup>22</sup> See HEALTH STATISTICS 2014, *supra* note 11. OECD health statistic visualizations can be calculated using OECD Health Statistic 2014. See COMPAREYOURCOUNTRY.ORG, <http://www.compareyourcountry.org/health?cr=oeed&cr1=oeed&lg=en&page=3> (last visited Jun. 24, 2015).

<sup>23</sup> See generally Squires, *supra* note 21 (discussing the differences in health care spending between the United States and other developed countries).

<sup>24</sup> *Id.* See also OECD, *supra* note 13, at 161–62.

<sup>25</sup> David U. Himmelstein et al., *A Comparison of Hospital Administrative Costs in Eight Nations: U.S. Costs Exceed All Others by Far*, 33 HEALTH AFFAIRS 1586, 1586–94 (2014).

<sup>26</sup> See *supra* note 23 at 5.

<sup>27</sup> See Squires, *supra* note 21 at 3–4; see also OECD, *supra* note 13, at 46–61 (2013).

<sup>28</sup> See HEALTH STATISTICS 2014, *supra* note 11.

<sup>29</sup> Robin Osborn et al., *International Survey of Older Adults Finds Shortcomings in Access, Coordination, and Patient-Centered Care*, 33 HEALTH AFFAIRS 2247–55 (2014), available at <http://www.commonwealthfund.org/publications/in-the-literature/2014/nov/international-survey-of-older-adults>; Sara R. Collins et al., *Too High a Price: Out-of-Pocket*

accounts for half of the healthcare expenditures (colloquially referred to as the 5-50 population).<sup>30</sup> Six out of ten people in the 5-50 population in the US are 55 years of age or older.<sup>31</sup> The top 1% of people who utilize healthcare in the US account for 22% of all healthcare expenditures.<sup>32</sup> Of this top 1%, two-thirds are 55 years old or older.<sup>33</sup> Whereas the US spends extraordinary amounts of resources on intervening in health conditions of older adults, it invests less on and has poorer outcomes among its younger people compared to other similar countries. Research has found that health investments in the young and policies and environments that prevent years of life lost among people less than 50 years could have a significant impact on life expectancy in the US.<sup>34</sup> The US has not created a public health and a healthcare environment to make these investments. As a result, the US has been losing ground in mortality among younger people since the 1950s.<sup>35</sup>

In the 1950s, the likelihood of a 15 year old living until age 50 was similar for the US in comparison to 16 other high income countries.<sup>36</sup> Today, however, both males and females age 15 are less likely to live until age 50 relative to comparable countries.<sup>37</sup> For example, females age 15 in the US are twice as likely to die before age 50 relative to comparison countries.<sup>38</sup> The overall average mortality rates in the US from birth through age 75 ranks between 15th and 17th (out of a total 17 countries total where a rank of one is given to the country with the lowest mortality rate). The only place the US breaks into the top 12 with average mortality rates is for its population age of 95 and above; for people 95 and older, the US performs in the top three.<sup>39</sup> The US has fallen significantly behind leading and comparable countries for life expectancy among the age group of 15 to 49 since the 1970s, with females falling further behind since the 1970s and males since the 1990s.<sup>40</sup>

The US accumulation of healthcare expenditures has not resulted in advantages in health outcomes. Also, health behavior and population age do not adequately answer questions regarding the disconnect between expenditures and

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*Health Care Costs in the United States*, THE COMMONWEALTH FUND, <http://www.commonwealthfund.org/publications/issue-briefs/2014/nov/out-of-pocket-health-care-costs> (last visited Mar. 17, 2015).

<sup>30</sup> NAT'L INST. FOR HEALTH CARE MGMT, THE CONCENTRATION OF HEALTH CARE SPENDING 1, 2 (2012), available at <http://www.nihcm.org/pdf/DataBrief3%20Final.pdf>.

<sup>31</sup> *Id.* at 4.

<sup>32</sup> *Id.*

<sup>33</sup> *Id.*

<sup>34</sup> See Jessica Ho, *Mortality Under Age 50 Accounts For Much Of The Fact That US Life Expectancy Lags That Of Other High-Income Countries*, 32 HEALTH AFFAIRS 459, 459-67 (2013).

<sup>35</sup> *Id.*; NAT'L RESEARCH COUNCIL AND INST. OF MED., U.S. HEALTH IN INTERNATIONAL PERSPECTIVE: SHORTER LIVES, POORER HEALTH. PANEL ON UNDERSTANDING CROSS-NATIONAL HEALTH DIFFERENCES AMONG HIGH-INCOME COUNTRIES, 2 (Steven H. Woolf and Laudan Aron eds., 2013), available at [http://books.nap.edu/openbook.php?record\\_id=13497](http://books.nap.edu/openbook.php?record_id=13497).

<sup>36</sup> *Id.*

<sup>37</sup> *Id.*

<sup>38</sup> *Id.*

<sup>39</sup> *Id.*

<sup>40</sup> Stéphane Verguet & Dean T. Jamison, *Improving Life Expectancy: How Many Years Behind Has the USA Fallen? A Cross-National Comparison Among High-Income Countries from 1958 to 2007*, BMJ OPEN, <http://bmjopen.bmj.com/content/3/7/e002814.full.pdf+html> (last visited July 2, 2015).

outcomes of the US in international comparisons. An alternative explanation for the US's underperformance in outcomes is that social injustice drives health disparities and healthcare expenditures do not address social injustice. Social injustice includes: (1) the denial of equal socioeconomic, civil, or human rights, or (2) structures and processes of communities or societies inequitably distributing opportunities to gain access to resources or to achieve outcomes.<sup>41</sup> The link between social injustice and population health outcomes has been established in countries around the world.

### ***B. Drivers of Health Disparities in the US***

Beyond international comparisons, disparities in morbidity and mortality are prevalent within the US.<sup>42</sup> States vary greatly in both the quality of their social and physical environments as well as population health outcomes and service quality.<sup>43</sup> Social and physical environments are better predictors of health disparities in the US than clinical services.<sup>44</sup> A six-year life expectancy gap exists between the state with the highest life expectancy (Hawaii) and the state with the lowest life expectancy (Mississippi).<sup>45</sup> At the neighborhood level, disparities in life expectancy are even more pronounced, or as James Marks popularly coined: zip code may be more important to health than genetic code.<sup>46</sup> For example, in Baltimore a gap in life expectancy of over 20 years exists between two neighborhoods separated by less than five miles.<sup>47</sup> Similarly, overall life expectancy can differ by 25 years across a three mile region of New Orleans.<sup>48</sup> There are also life expectancy disparities across different groups in the US. For example, African-Americans have a life expectancy

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<sup>41</sup> BARRY LEVY & VICTOR SIDEL, *The Nature of Social Injustice and Its Impact on Public Health*, SOCIAL INJUSTICE AND PUB. HEALTH, 5–24, (Barry Levy, et al., eds. 2006)

<sup>42</sup> See generally CDC HEALTH DISPARITIES AND INEQUALITIES REPORT—UNITED STATES, 2013 (2013), available at <http://www.cdc.gov/mmwr/pdf/other/su6203.pdf>.

<sup>43</sup> See generally *Rankings Data*, COUNTY HEALTH RANKINGS & ROADMAPS, <http://www.countyhealthrankings.org/rankings/data> (last visited Jun. 24, 2015) (reporting data on rankings of healthcare facilities nationwide); U.S. DEP'T OF HEALTH AND HUMAN SERVS., NATIONAL HEALTHCARE DISPARITIES REPORT 2011 (Mar. 2012), <http://www.ahrq.gov/research/findings/nhqrdr/nhdr11/nhdr11.pdf> (reporting on the disparities in quality of health care delivery for different demographics).

<sup>44</sup> *Our Approach*, | COUNTY HEALTH RANKINGS & ROADMAPS, <http://www.countyhealthrankings.org/our-approach> (last visited Jun. 24, 2015).

<sup>45</sup> *Life Expectancy at Birth (in years)*, KFF.ORG, <http://kff.org/other/state-indicator/life-expectancy/> (last visited July 2, 2015).

<sup>46</sup> James Marks, *Why Your Zip Code May Be More Important to Your Health Than Your Genetic Code*, THE HUFFINGTON POST (May 24, 2009), [http://www.huffingtonpost.com/james-s-marks/why-your-zip-code-may-be\\_b\\_190650.html](http://www.huffingtonpost.com/james-s-marks/why-your-zip-code-may-be_b_190650.html).

<sup>47</sup> Life expectancy at birth for individuals born in the Greater Roland Park neighborhood is 83.1 years compared to individuals born in the Upton/Druid Heights neighborhood, 62.9 resulting in a 20.2 year life expectancy gap. *Compare* ALISA AMES ET AL., BALTIMORE CITY HEALTH DEPT., BALTIMORE CITY 2011 NEIGHBORHOOD HEALTH PROFILE: UPTON/DRUID HEIGHTS. (2011), <http://health.baltimorecity.gov/sites/default/files/53%20Upton.pdf>, with ALISA AMES ET AL., BALTIMORE CITY HEALTH DEPT., BALTIMORE CITY 2011 NEIGHBORHOOD HEALTH PROFILE: GREATER ROLAND PARK/POPLAR HILL (2011), <http://health.baltimorecity.gov/sites/default/files/22%20Greater%20Roland%20Park.pdf>.

<sup>48</sup> *Metro Map of New Orleans*, RWJF COMM'N TO BUILD A HEALTHIER AMERICA (June 19, 2013), <http://www.rwjf.org/en/about-rwjf/newsroom/infographics/new-orleans-map.html>.

that is four years shorter than Non-Hispanic Caucasian Americans.<sup>49</sup> The largest black-white gap in life expectancy in the US exists in Washington, D.C. at almost 13 years.<sup>50</sup> Significant health disparities also exist along socioeconomic lines in the US. Vulnerable, economically under-resourced, and socially excluded populations tend to have worse health outcomes and patient experiences while being burdened with overwhelming healthcare costs.<sup>51</sup>

Furthermore, compared to other resource-rich nations, the US invests less in prevention and social supports and invests more in interventionist medical care and technology.<sup>52</sup> For example, the proportion of GDP dedicated to health services in the US is higher than any other country.<sup>53</sup> However, the proportion of social service investment relative to health service investments in the US is lower than most other comparable countries.<sup>54</sup> The typical ratio of social service expenditures to health service expenditures in most resource-rich countries is for every \$1.50–\$2.30 spent on social services \$1.00 is spent on health services.<sup>55</sup> The US spends less than one dollar on social services for every \$1.00 spent on health services.<sup>56</sup> This is the lowest ratio of all moderate to high income countries.<sup>57</sup> The next lowest ratio of social service to health service expenditures is Mexico (a significantly lower income country) that has a ratio of \$0.75 to \$1.00.<sup>58</sup> Additionally, of the OECD countries, only the US and Mexico lack a universal healthcare coverage system.<sup>59</sup> Making

<sup>49</sup> *Life Expectancy at Birth*, *supra* note 45.

<sup>50</sup> *Id.*

<sup>51</sup> Devi Sridhar, *Inequality in the United States Healthcare System*, HUMAN DEV. REPORT OFFICE (2005), [http://hdr.undp.org/sites/default/files/hdr2005\\_sridhar\\_devi\\_36.pdf](http://hdr.undp.org/sites/default/files/hdr2005_sridhar_devi_36.pdf); Thomas A. LaVeist et al., *The Economic Burden of Health Inequalities in the United States*, THE JOINT CTR. HEALTH POLICY INST. (Sept. 2009), <https://www.ndh.ealth.gov/heo/publications/The%20Economic%20Burden%20of%20Health%20Inequalities%20in%20the%20United%20States.pdf>; *United States Tackling High Inequalities Creating Opportunities for All*, OECD (June 2014), <http://www.oecd.org/unitedstates/Tackling-high-inequalities.pdf>.

<sup>52</sup> ELIZABETH H. BRADLEY & LAUREN A. TAYLOR, *THE AMERICAN HEALTH CARE PARADOX: WHY SPENDING MORE IS GETTING US LESS* 121 (2013); *See also* Jessica Ho, *Mortality Under Age 50 Accounts For Much Of The Fact That US Life Expectancy Lags That Of Other High-Income Countries*, 32 *HEALTH AFFAIRS* 459, 459–67 (2013); *see generally*, CENTERS FOR DISEASE CONTROL AND PREVENTION, *AN OUNCE OF PREVENTION WHAT ARE THE RETURNS?* (Oct. 1999), *available at* <http://www.cdc.gov/mmwr/PDF/other/ozprev.pdf> (describing various diseases and illustrating how investing in preventative care would save significant investment in later medical care).

<sup>53</sup> Elias Mossialos, et al, *International Profiles Of Health Care Systems, 2014: Australia, Canada, Denmark, England, France, Germany, Italy, Japan, The Netherlands, New Zealand, Norway, Singapore, Sweden, Switzerland, and the United States*, THE COMMONWEALTH FUND 7, (2015), *available at* [http://www.commonwealthfund.org/~media/files/publications/fund-report/2015/jan/1802\\_mossialos\\_intl\\_profiles\\_2014\\_v7.pdf?la=en](http://www.commonwealthfund.org/~media/files/publications/fund-report/2015/jan/1802_mossialos_intl_profiles_2014_v7.pdf?la=en); *see also* U.S. *Health Spending Alone Is Larger Than the GDP of Most Nations*, THE COMMONWEALTH FUND (Apr. 30, 2013), <http://www.commonwealthfund.org/interactives-and-data/infographics/2013/us-health-spending>.

<sup>54</sup> E.H. Bradley, B.R. Elkins, J. Herrin, and B. Elbel, *Health and Social Services Expenditures: Associations with Health Outcomes*. *BMJ QUAL SAFETY*, 20:826–31. (2011).

<sup>55</sup> BRADLEY & TAYLOR, *supra* note 52..

<sup>56</sup> *Id.*

<sup>57</sup> *Id.*

<sup>58</sup> *Id.*

<sup>59</sup> OECD, *supra* note 13, at 138.

matters even worse, the US commodifies healthcare more than any comparable country. Stated another way: individual resources, or lack thereof, impact the capability of Americans to access and pay for healthcare.<sup>60</sup> Therefore, the US explicitly and implicitly rations healthcare by ability to pay.

The limited investment in social services in the US further commodifies individuals' participation in community and society. The US's focus on treatment (healthcare) rather than education and prevention (public health) as a primary value proposition limits its ability to improve population health regardless of the quantity of services provided.<sup>61</sup> For example, of all health service expenditures in the US (over two trillion dollars annually), less than 3% support public health activities such as education and prevention.<sup>62</sup> This is in part due to the lack of alignment of health care expenditures and health care outcomes in the US. 85% of total healthcare expenditures in the United States is directed to personal medical care.<sup>63</sup> However, personal medical care is estimated to only impact 20% of population health.<sup>64</sup> Personal medical expenditures and impacts can be contrasted with public health activities and outcomes. Despite the fact that public health receives such a small portion of the money spent on health service expenditures in the US, public health efforts are linked to 25 of the 30 years of life expectancy gains during the 20<sup>th</sup> century alone.<sup>65</sup>

### C. Improving Social Determinants of Health to Improve Population Health

Socioeconomic status has been strongly linked to health in the US and abroad. Overall health is associated with a relevant social status gradient (i.e., level on the socioeconomic ladder).<sup>66</sup> Those people who are closer to the top of the social gradient have better health outcomes than those closer to the bottom.<sup>67</sup> The structures

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<sup>60</sup> CLARE BAMBRA & JASON BECKFIELD, INSTITUTIONAL ARRANGEMENTS AS CANDIDATE EXPLANATIONS FOR THE U.S. MORTALITY DISADVANTAGE, 1, 20 (2012), available at [http://scholar.harvard.edu/files/jbeckfield/files/bambra\\_and\\_beckfield\\_2012.pdf](http://scholar.harvard.edu/files/jbeckfield/files/bambra_and_beckfield_2012.pdf).

<sup>61</sup> See Dik Habbema et al., *Cervical Cancer Screening in the United States and the Netherlands: A Tale of Two Countries*, 90 MILBANK Q. 5 (2012), available at, <http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3385017/pdf/milq0090-0005.pdf>.

<sup>62</sup> *Health Expenditures: United States*, CDC.GOV, <http://www.cdc.gov/nchs/data/hus/2013/112.pdf> (last visited Mar. 17, 2015).

<sup>63</sup> *Health Expenditures, Average Annual Percent Change, and Percent Distribution, by Type of Expenditure: United States, Selected Years 1960–2011*, CDC.GOV, <http://www.cdc.gov/nchs/healthexpenditures.htm>.

<sup>64</sup> *Our Approach*, COUNTY HEALTH RANKINGS & ROADMAPS, <http://www.countyhealthrankings.org/our-approach> (last visited July 2, 2015) (Accessing clinical medical services accounts for approximately 10% of an individual's health status while the quality of those clinical health services accounts for another approximately 10% of an individual's health status); John P. Bunker et al., *Improving Health: Measuring the Effects of Medical Care*, 72 MILLBANK QUARTERLY 225, 225–58 (1994); J. Michael McGinnis & William H. Foege, *Actual Causes of Death in the United States*, 270 J. OF THE AMERICAN MED. ASSN. 2207-12 (1993).

<sup>65</sup> See *Health Expenditures*, *supra* note 63.

<sup>66</sup> The social gradient of health assumes that one can observe better health as one moves incrementally up the social status ladder. The inverse is also true; i.e., lesser social status is linked to worse health.

<sup>67</sup> MICHAEL MARMOT, THE STATUS SYNDROME: HOW SOCIAL STANDING AFFECTS OUR HEALTH AND LONGEVITY 1 (Henry Holt ed., 2004); Michael Marmot, *Social Determinants*

of communities (class circumstances, living conditions, demographics, and social networks) influence the health of individuals who are nested within those structures; i.e., social inequities produce health inequities.<sup>68</sup> These social causes of disease also impact health outcomes indirectly by influencing individuals' health choices or lifestyles.<sup>69</sup>

For example, in the foundational research of the Whitehall Studies in the United Kingdom, the higher the civil service rank of a worker, the better the health of the worker.<sup>70</sup> The Whitehall Studies dispelled the myth that leaders of organizations were more likely to die of cardiovascular disease than lower classified workers. Evidence supported the opposite; lower classified workers were more likely to die of cardiovascular disease, and several other causes of mortality compared to higher classified workers. Additionally, the influence of class on health followed a gradient that extended beyond the dichotomy of being in poverty or not in poverty.<sup>71</sup> Studies in the US and ongoing public health monitoring systems, such as the Behavioral Risk Factor Surveillance System, have shown similar graded associations between socioeconomic status and health.<sup>72</sup>

Link and Phelan's fundamental cause theory describes how the social gradient of health persists across disease type (i.e., from acute to chronic diseases) and time (i.e., 18<sup>th</sup> Century to the 21<sup>st</sup> Century), and supports that resources (e.g., income, power, and social networks), or lack of resources, initiate and maintain health disparities.<sup>73</sup> Socioeconomic status has continued to act as a robust predictor of health disparities across the health transition from acute diseases (e.g., diseases like tuberculosis and cholera) to chronic diseases (e.g. diseases like Type II diabetes

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*of Health Inequalities*, 365 LANCET 1099, 1099–1104 (2005); MICHAEL MARMOT, ET AL. FAIR SOCIETY, HEALTHY LIVES: THE MARMOT REVIEW 3 (Georgina Kyriacou ed. 2010); World Health Organization, THE SOLID HEALTH FACTS, 10 (2nd edition 2000).

<sup>68</sup> WILLIAM C. COCKERHAM, SOCIAL CAUSES OF HEALTH AND DISEASE 9 (Polity Press ed., 2013); William C. Cockerham, *Health Lifestyle Theory and the Convergence of Agency and Structure*, J. OF HEALTH AND SOC. BEHAV., 46, 51–67 (2005), available at <http://hsb.sagepub.com/content/46/1/51.full.pdf+html>.

<sup>69</sup> *Id.*

<sup>70</sup> Michael Marmot, et al., *Changing Social Class Distribution of Heart Disease*, 2 BRITISH MED. J. 1109–12 (1978);

Michael Marmot, et al., *Health Inequalities Among British Civil Servants: the Whitehall II Study*, 337, THE LANCET, 1387–93 (1991); Van Rossum, et al., *Employment grade differences in cause specific mortality: A 25 year follow up of civil servants from the first Whitehall study*, 54, J. OF EPIDEMIOLOGY AND COMMUNITY HEALTH, 178–84 (2000).

<sup>71</sup> Michael Marmot and Eric Brunner, *Cohort Profile: The Whitehall II Study*, 34 INT'L J. OF EPIDEMIOLOGY 251, 251–56, (2005); MICHAEL MARMOT, THE STATUS SYNDROME: HOW SOCIAL STANDING AFFECTS OUR HEALTH AND LONGEVITY, 65 (2004).

<sup>72</sup> M Maria Glymour et al., *Socioeconomic Status and Health*, in SOCIAL EPIDEMIOLOGY 63, 63 (Lisa F. Berkman et al., eds. Oxford University Press, 2d ed. 2014); *BRFSS Prevalence and Trends Data*, CDC.GOV, <http://apps.nccd.cdc.gov/brfss/> (last visited Mar. 20, 2015).

<sup>73</sup> Bruce G. Link & Jo Phelan, *Social Conditions as Fundamental Causes of Disease*, 35 J. OF HEALTH AND SOCIAL BEHAVIOR, 80, 85 (1995); Jo C. Phelan, Bruce G. Link & Parisa Tehranifar, *Social Conditions as Fundamental Causes of Health Inequalities: Theory, Evidence, and Policy Implications*, 51 J. OF HEALTH AND SOC. BEHAV., S29, S29–S40 (2010) [hereinafter *Social Conditions 2010*].

and heart disease).<sup>74</sup> Simply eliminating infectious diseases such as malaria, polio, and smallpox did not eliminate health disparities, as similar social gradients are currently identified with preventable chronic diseases.<sup>75</sup>

The fundamental causes of health are found in people's social resources. Social resources for health include income, wealth, education, employment, financial assistance, food security, housing, transportation, social inclusion, and access to care.<sup>76</sup> The social determinants of health framework also recognize that resources vary at micro, meso, and macro levels.<sup>77</sup> The fundamental cause theory of health assumes that resources can be a direct means to health (e.g., paying for a medical procedure), an indirect spillover to health (e.g., living in a high resourced neighborhood decreases exposure to environmental hazards), a facilitator of group norms (e.g., engaging in some behaviors creates group cohesion and some of those behavioral patterns vary by social class, which in turn translates into long-term health advantages or disadvantages), and become institutionalized (e.g., medical providers may treat patients differently based on their actual or perceived ability to pay for services).<sup>78</sup> Social inequities and the associated health inequities caused by them are reinforced through structures, policies, opportunities, and behavioral patterns that initiate and maintain inequities.<sup>79</sup> Addressing equity in resources and opportunity is a recommended approach to reducing health inequities.

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<sup>74</sup> Rebekah J. Walker et al., *Relationship Between Social Determinants of Health and Processes and Outcomes in Adults With Type 2 Diabetes: Validation of a Conceptual Framework*, 14 BMC EPIDEMIOLOGY OF ENDOCRINE DISORDERS 4 (2014), available at [http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4203970/pdf/12902\\_2014\\_Article\\_286.pdf](http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4203970/pdf/12902_2014_Article_286.pdf).

<sup>75</sup> BRUCE LINK & JO PHELAN, *Fundamental Cause Theory*, in MEDICAL SOCIOLOGY ON THE MOVE: NEW DIRECTIONS IN THEORY 105, 111–13 (William C. Cockerham ed., 2014).

<sup>76</sup> Clare Bambra et al., *Tackling the Wider Social Determinants of Health and Health Inequalities: Evidence from Systematic Reviews*, 64 J. OF EPIDEMIOLOGY COMMUNITY HEALTH 284, 285 (2010), available at <http://jech.bmj.com/content/64/4/284.full.pdf>; Thierry Lang et al., *Social Determinants of Cardiovascular Diseases*, 33 PUB. HEALTH REVIEW 601, 604 (2012), available at [http://www.publichealthreviews.eu/upload/pdf\\_files/10/00\\_Lang.pdf](http://www.publichealthreviews.eu/upload/pdf_files/10/00_Lang.pdf); Braveman, *supra* note 7 at 386; David Satcher, *Include a Social Determination of Health Approach to Reduce Health Inequities*, 125 PUB. HEALTH REPORTS 6, 6 (2010), available at <http://www.publichealthreports.org/issueopen.cfm?articleID=2476>; Clare Bambra et al., *Tackling the Wider Social Determinants of Health and Health Inequalities: Evidence from Systematic Reviews*, 64 J. OF EPIDEMIOLOGY COMMUNITY HEALTH 284, 284–291 (2010), available at, <http://jech.bmj.com/content/64/4/284.full.pdf>.

<sup>77</sup> MICHAEL P. KELLY ET AL., THE DEVELOPMENT OF THE EVIDENCE BASE ABOUT THE SOCIAL DETERMINANTS OF HEALTH, THE WORLD HEALTH ORGANIZATION, 4 (2006), available at [http://www.who.int/social\\_determinants/resources/mekn\\_paper.pdf](http://www.who.int/social_determinants/resources/mekn_paper.pdf).

<sup>78</sup> *Social Conditions 2010*, *supra* note 73.

<sup>79</sup> See generally Vicente Navarro, *What We Mean by Social Determinants of Health*, 39 INT'L J. OF HEALTH SERVICES 423 (2009), available at <http://baywood.com/hs/ijhs393A.pdf>; see Laura K. Brennan Ramirez et al., *Promoting Health Equity: A Resource to Help Communities Address Social Determinants of Health*, CENTERS FOR DISEASE CONTROL AND PREVENTION at 4 (2008), available at <http://www.cdc.gov/nccdphp/dch/programs/healthycommunitiesprogram/tools/pdf/SDOH-workbook.pdf>.

#### ***D. Patient Protection and Affordable Care Act and Health Equity***

The enactment of the Affordable Care Act (ACA) in 2010 marks the most significant healthcare law in the US since Medicaid and Medicare in 1965.<sup>80</sup> The ACA represents, in part, the product of one hundred years of political advocacy to establish comprehensive health reform in the US.<sup>81</sup> Through a package of reforms phased in over a ten-year period, the ACA sets out to achieve the “triple aim” of lowered health care costs, improved health care quality and patient experience, and improved health outcomes.<sup>82</sup> The ACA’s major components include changes to payor coverage, health information technology, and healthcare quality reform efforts.<sup>83</sup> Among the ACA’s numerous provisions are those that overtly address issues of health equity (e.g. establishing Office of Minority Health, expanding Medicaid eligibility), and those that will indirectly impact it (the individual mandate to obtain insurance coverage, the establishment of Health Insurance Marketplaces).<sup>84</sup> The vast majority (>90%) of ACA expenditures support financing medical care, either by expanding public insurance coverage or subsidizing private insurance plans.<sup>85</sup> However, without shifting the type and quality of services paid for through medical payors, it is likely that limited progress will be made in improving population health, as clinical medical care impacts only 10% to 20% of overall population health.<sup>86</sup> While the ACA provides an opportunity to improve population health (e.g. the establishment of the Prevention and Public Health Fund and the Center for Medicare and Medicaid Innovation), the law alone will not be sufficient to significantly reduce health disparities due to its limited focus on the social and economic determinants of health and its over focus on medical services and insurance reforms. Undoubtedly, the law is a step in the right direction toward health equity, however, greater attention to root causes of poor health must be addressed beyond the provision of accessing medical services.

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<sup>80</sup> Patient Protection and Affordable Care Act, Pub. L. No. 111-148, 124 Stat. 119 (2010) (codified as amended in scattered sections of 42 U.S.C., 29 U.S.C., 26 U.S.C., 25 U.S.C., 21 U.S.C.).

<sup>81</sup> See generally Beatrix Hoffman, *Health Care Reform and Social Movements in the United States*, 93 AM. J. PUBLIC HEALTH 75 (2003).

<sup>82</sup> See generally Donald M. Berwick et al., *The Triple Aim: Care, Health, And Cost*, 27 Health Affairs 759 (2008), available at <http://content.healthaffairs.org/content/27/3/759.full.pdf> (explaining the triple-aim of the ACA).

<sup>83</sup> Patient Protection and Affordable Care Act, Pub. L. No. 111-148, 124 Stat. 119 (2010) (codified as amended in scattered sections of 42 U.S.C., 29 U.S.C., 26 U.S.C., 25 U.S.C., 21 U.S.C.); see also John E. McDonough, *INSIDE NATIONAL HEALTH REFORM* 106 (University of California Press 2011).

<sup>84</sup> See generally Patient Protection and Affordable Care Act, Pub. L. No. 111-148, 124 Stat. 119 (2010) (codified as amended in scattered sections of 42 U.S.C., 29 U.S.C., 26 U.S.C., 25 U.S.C., 21 U.S.C.) (referencing provisions applicable to the issue of health equity).

<sup>85</sup> See McDonough, *supra* note 83 at 106.

<sup>86</sup> Bridget C. Booske et al., *County Health Rankings Working Paper: Different Perspectives for Assigning Weights to Determinants of Health*, U. OF WIS. POPULATION HEALTH INST. 1-7 (Feb. 2010), available at <https://uwphi.pophealth.wisc.edu/publications/other/different-perspectives-for-assigning-weights-to-determinants-of-health.pdf>.

### III. ANALYSIS

#### A. Results

Inequity in resource distribution at the population level has been associated with health disparities at the population level.<sup>87</sup> This is consistent with the fundamental cause theory, which posits that income inequality is linked to health inequity.<sup>88</sup> The most common measure of income inequality is the Gini income coefficient.<sup>89</sup> The Gini income coefficient estimates the income inequality within a locality (e.g., state or country) using a Lorenz curve.<sup>90</sup> A score of zero indicates that every person within the locality has the same income.<sup>91</sup> A score of one indicates that one person within a locality has all of the income and everyone else has no income.<sup>92</sup> Localities fall between zero and one on the income Gini coefficient index.<sup>93</sup> The closer the Gini coefficient is to one, the greater income inequality within a locality. The Gini income inequality coefficient has been associated with health and social problems in the US and abroad.<sup>94</sup> Gini income inequality can be correlated with child well-being, violence, life expectancy, incarceration, mental health, teen birth rate, and obesity.<sup>95</sup>

Given the use of Gini income inequality in prior research, in this research it will be used as a comparison for a newer predictive measure of inequality based on civil legal aid availability known as the Civil Legal Aid Availability Ratio (CLAAR 100). The CLAAR 100 represents the number of people below 100% Federal Poverty Level in a state per every one civil legal aid attorney in a state. For example, the CLAAR 100 measure ranges from 2125:1 in New York to 17106:1 in Texas meaning that for every one civil legal aid attorney in New York there are 2,125 people below the 100% Federal Poverty Level, whereas in Texas there are 17,106 people below the 100% Federal Poverty Level for every one civil legal aid attorney. All other states fall somewhere between New York and Texas on the CLAAR 100 measure. The CLAAR 100, as a measure of inequality at the state level, will be statistically tested for association with state-level health and social variables as were used in previous research on income inequality and the healthcare paradox. The assumption being that the greater the number of people in poverty relative to legal aid attorneys in a state (i.e., the higher the CLAAR 100), the greater civil legal aid availability inequality in a state. Higher civil legal aid inequality at the level of the

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<sup>87</sup> RICHARD WILKINSON & KATE PICKETT, *THE SPIRIT LEVEL: WHY MORE EQUAL SOCIETIES ALMOST ALWAYS DO BETTER* 73-87 (Penguin Group 2009); ELIZABETH H. BRADLEY & LAUREN A. TAYLOR, *THE AMERICAN HEALTH CARE PARADOX: WHY SPENDING MORE IS GETTING US LESS* 18-19 (PublicAffairs 2013).

<sup>88</sup> See Richard G. Wilkinson & Kate E. Pickett, *Income Inequality and Social Dysfunction*, 35 ANN. REV. OF SOCIOLOGY 493-511 (2009).

<sup>89</sup> See Wilkinson, *supra* note 3, at 18.

<sup>90</sup> *Id.* at 17-18.

<sup>91</sup> *Id.* at 18.

<sup>92</sup> *Id.*

<sup>93</sup> *Id.*

<sup>94</sup> See generally Wilkinson *supra* note 3 (discussing GINI income inequality coefficient as associated with health and social problems).

<sup>95</sup> THE EQUALITY TRUST, <http://www.equalitytrust.org.uk/resources/spirit-level> (last visited Mar. 20, 2015); Brian Burgoon *et al.*, GINI STATE OF THE ART REVIEW 9 (Salverda W., ed. 2011).

state is expected to be linked to more health and social problems at the level of the state.

### ***1. Proportion of legal aid funded attorneys by state***

Using data from the Justice Index, a gold standard estimate of legal aid availability in the US, analyses indicate that there is significant variability at the state level in the proportion of full-time equivalent (FTE) civil legal aid attorneys funded by the Legal Services Corporation (LSC) relative to total civil legal aid FTE.<sup>96</sup> Figure 1 shows how states vary in the proportion of legal aid attorney time funded by LSC. State-level reports of civil legal aid funded by LSC range from ten to 100 percent, meaning that some states' legal aid efforts are estimated to be completely funded by LSC, whereas other states have more diversified funding for legal aid efforts.<sup>97</sup> Some states' civil legal aid efforts are solely funded at the federal level through LSC, whereas most states have some civil legal aid funding diversification beyond federal funding.<sup>98</sup> However, all states include at least some federal funding of their civil legal aid efforts.<sup>99</sup>

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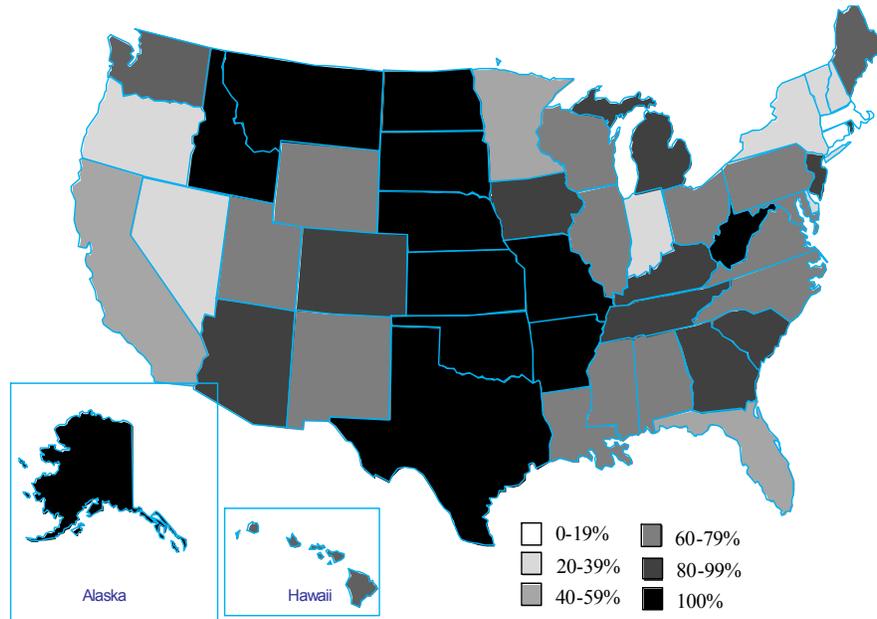
<sup>96</sup> *The Justice Index, Findings*, NAT'L CTR FOR ACCESS TO JUSTICE, <http://www.justiceindex.org/> (last visited Mar. 17, 2015) (Note that the Justice Index data used in this manuscript were updated estimates as of November 2014. The Justice Index updates its estimates on an ongoing basis as part of quality control and accuracy assurance. It is likely that civil legal aid attorney FTE by state could be underestimated. However, biases in estimates are not known at the level of states.); LEGAL SERVS. CORP., <http://www.lsc.gov/about/what-is-lsc> (last accessed Mar. 17, 2015) (legal aid can be funded by Legal Services Corporation at a national level or at the level of the state or local area through other funding mechanisms, such as grants and IOLTA).

<sup>97</sup> *See supra* Figure 1.

<sup>98</sup> *Id.*

<sup>99</sup> *Id.*

**Figure 1. Proportion of Legal Aid Funded FTE by LSC Relative to all Legal Aid Funded FTE.**



## 2. Variability of civil legal aid ratios by state

Beyond funding source variability, states also vary in the number of legal aid attorney full-time equivalent (FTE) as well as number of people in or near poverty.<sup>100</sup> The Justice Index has calculated rates of legal aid attorneys relative to people at or below federal poverty level (100% FPL). The Justice Index estimates the number of legal aid attorney FTE to every 10,000 people in poverty. The analyses depicted in Figures 3 and 4 as well as Table 1 convert the Justice Index estimates to the ratio of number of economically impoverished people per one legal aid attorney. Figure 2 depicts the number of people below 100% federal poverty level (FPL)<sup>101</sup> per legal aid attorney FTE by state. The ratio of number of people below 100% FPL per legal aid attorney varies greatly by state, ranging from 2125:1 in New York to 17106:1 in Texas (Figure 2 and Table 1). This ratio is referred to in this manuscript as the civil legal aid availability ratio <100 FPL (CLAAR 100). The number of civil legal aid attorneys is based on the most up-to-date estimates, quality controlled as of November 2014, from the Justice Index, a project of the National

<sup>100</sup> *Attorney Access: Number of Attorneys for People In Poverty*, NAT'L CTR FOR ACCESS TO JUSTICE, <http://www.justiceindex.org/findings/attorney-access/> (last visited Mar. 17, 2015); *Poverty*, UNITED STATES CENSUS BUREAU, <http://www.census.gov/hhes/www/poverty/> (last visited Mar. 17, 2015); *Distribution of Total Population by Federal Poverty Level*, KAISER FAMILY FOUND., <http://kff.org/other/state-indicator/distribution-by-fpl/> (last visited Mar. 17, 2015).

<sup>101</sup> As estimated by the Kaiser Family Foundation State Health Facts system. KAISER FAMILY FOUND., <http://kff.org/state-category/demographics-and-the-economy/people-in-poverty/> (last visited June 30, 2015).

Center for Access to Justice at Cardozo Law School.<sup>102</sup> The number of people in poverty was collected from the Kaiser Family Foundation State Health Facts, which is based on US Census Bureau estimates as of March 2014. The CLAAR 100 is the legal aid measure of civil justice disparity used as the predictor of interest in the inferential analyses in this manuscript. Additionally, extending the work of the Justice Index, civil legal aid availability ratios were also estimated for people below 200% FPL per legal aid attorney for each state (Table 1 and Figure 3). The civil legal aid attorney ratios beyond 100% FPL broaden the scope of the civil legal aid availability estimates. Depending on the source of funding for civil legal aid services and the criteria for client inclusion, the CLAAR could fluctuate with regard to eligible population, and FPL is a key determinant of legal aid service eligibility. For example, some funders expand eligibility of up to 200% FPL, whereas LSC funded program eligibility is 125% FPL.<sup>103</sup>

Assuming accurate legal aid FTE estimates, broadening the range of FPL creates an interval in which the likely potential maximum client caseload would fall depending on FPL eligibility fluctuations. The civil legal aid availability ratio (CLAAR 100) of Texas is 18 times that of New York, or, said another way, civil legal aid availability is 18 times greater in New York than Texas. Table 1 also adds ratios by state for all people below 400% FPL per civil legal aid attorney FTE. Figure 5 summarizes the CLAAR by FPL income. Figure 5 depicts the range of civil legal aid availability ratios as well as the 95% confidence interval in which there is 95% certainty that the population average ratio would fall. This is a hypothetical civil legal aid access ratio. Although it is uncommon for people above 200% FPL to qualify for legal aid services, the CLAAR 400 positions a hypothetical situation in which the bar of eligibility was raised to 399% FPL. People between 200% and 400% FPL tend to lack civil legal aid supports, due to exceeding LSC income limits, and, often, when seeking services, rely on pro bono, contingency fee, or pro se methods for accessing civil legal aid.<sup>104</sup> Figure 5 summarizes the CLAAR ranges and confidence intervals by FPL. As a comparison, Table 1 also lists the ratio of total

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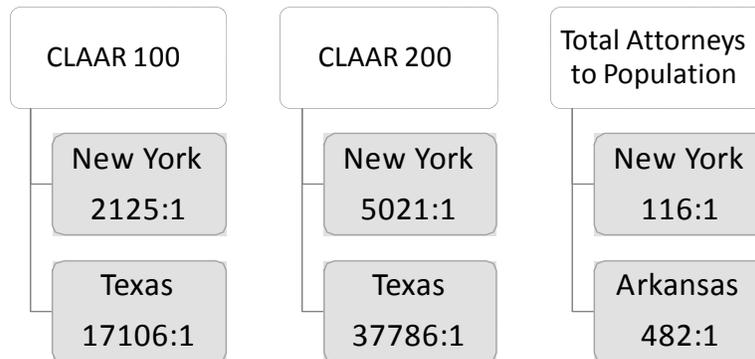
<sup>102</sup> NAT'L CTR. FOR ACCESS TO JUSTICE, <http://ncforaj.org/> (last visited Jun. 24, 2015)

<sup>103</sup> *Client Income Eligibility Standards updated for 2013*, LSC.GOV, <http://www.lsc.gov/media/news-items/2013/client-income-eligibility-standards-updated-2013> (last visited Jun. 24, 2015); Dion Chu, et al., *Measuring the Justice Gap Flaws in the Interstate Allocation of Civil Legal Services Funding and a Proposed Remedy*, 33 PACE L. REV. 965 (2013), available at, <http://digitalcommons.pace.edu/cgi/viewcontent.cgi?article=1839&context=plr>.

<sup>104</sup> See Dan Gustafson, Karla Gluek, Joe Bourne, *Pro Se Litigation and the Costs of Access to Justice*, 39 WM. MITCHELL L. REV. 32, 33, 36, 39 (2012); Alan Houseman, *Civil Legal Aid in the United States An Update for 2013*, CENTER FOR LAW AND SOCIAL POLICY 6 (2013), <http://www.clasp.org/resources-and-publications/publication-1/CIVIL-LEGAL-AID-IN-THE-UNITED-STATES-3.pdf>

number of people in a state population<sup>105</sup> (regardless of income) to total attorneys in a state (regardless of attorney type).<sup>106</sup>

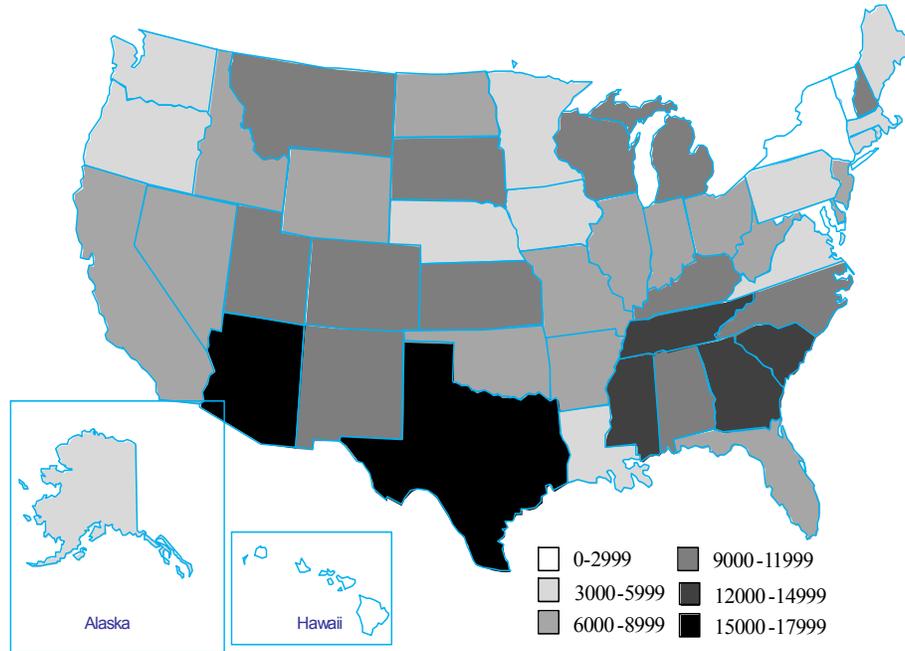
**Figure 2. High and Low Ratios for Civil Legal Aid Attorneys Relative to People in Poverty by State as Well as Total Number of Attorneys of Any Type and Number of People in the Population by State.**



<sup>105</sup> UNITED STATES CENSUS BUREAU, STATE AND COUNTY QUICKFACTS, <http://quickfacts.census.gov/qfd/index.html#>. (last visited Mar. 17, 2015); see also UNITED STATES CENSUS BUREAU, STATE TOTALS VINTAGE 2013, <http://www.census.gov/popest/data/state/totals/2013/>. (last visited Mar. 17, 2015).

<sup>106</sup> *National Lawyer Population by State*, ABA 2 (2013), [http://www.americanbar.org/content/dam/aba/migrated/marketresearch/PublicDocuments/2013\\_natl\\_lawyer\\_by\\_state.authcheckdam.pdf](http://www.americanbar.org/content/dam/aba/migrated/marketresearch/PublicDocuments/2013_natl_lawyer_by_state.authcheckdam.pdf).

**Figure 3. Civil Legal Aid Availability Ratio (CLAAR 100) by state**

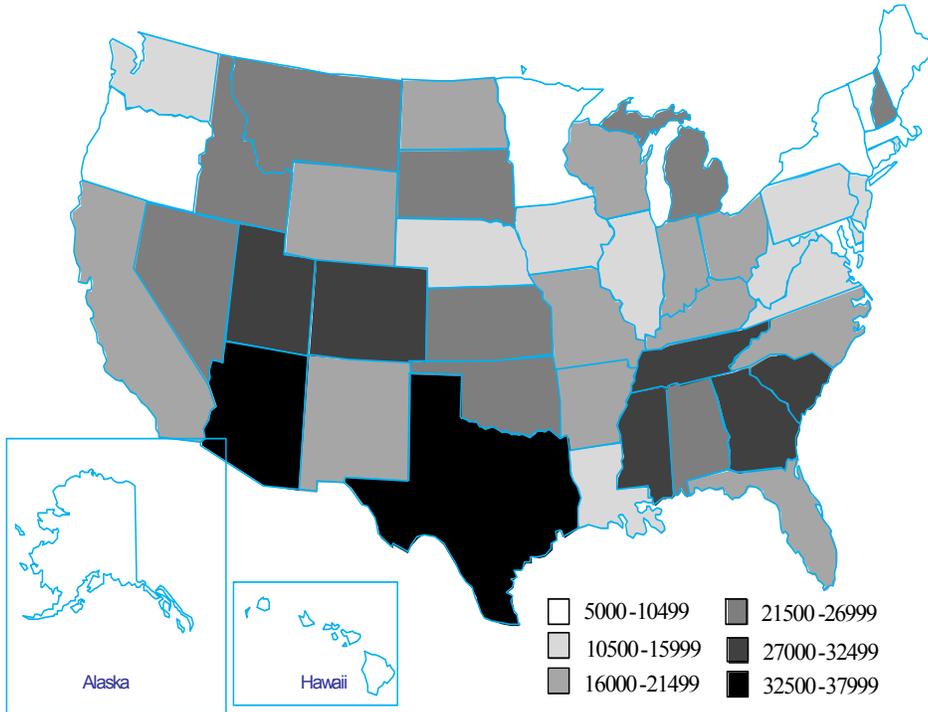


**Table 1. Attorney Availability Ratios**

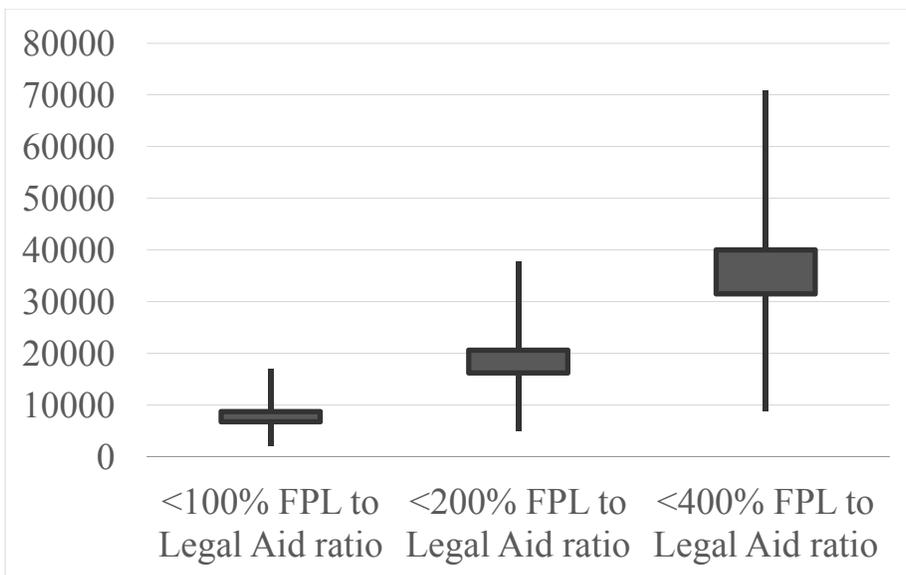
State	CLAAR 100	CLAAR 200	CLAAR 400	Number of People in State per Attorney of Any Type
Alabama	10954.79	25417.81	46705.48	331.56
Alaska	3204.00	7764.00	15816.00	292.31
Arizona	15219.10	32715.73	51312.36	437.83
Arkansas	8708.62	21846.55	38420.69	481.93
California	7357.11	17735.76	31464.85	231.16
Colorado	11088.24	28352.94	58517.65	240.85
Connecticut	4421.66	9501.60	19640.53	166.58
Delaware	6080.95	14061.90	27566.67	309.31
Florida	7859.43	18515.33	35536.23	280.27
Georgia	12062.88	27359.85	50974.24	334.90
Hawaii	2794.55	6816.36	15438.18	325.95
Idaho	8558.33	24862.50	47216.67	427.35
Illinois	6785.43	15323.83	30984.16	209.21
Indiana	6194.21	18335.54	34641.32	407.33
Iowa	5575.00	14966.67	32648.33	405.52
Kansas	10945.71	25928.57	53302.86	341.65
Kentucky	10260.47	21476.74	36632.56	328.73
Louisiana	5566.88	11933.76	20379.62	242.54
Maine	3781.40	9858.14	19288.37	334.22
Maryland	2750.11	6884.77	14108.61	252.97
Massachusetts	3520.43	7682.17	14554.78	149.88
Michigan	9672.05	21955.56	41686.20	286.62

Minnesota	4426.35	9493.24	19817.57	219.68
Mississippi	14651.11	27882.22	46860.00	414.77
Missouri	7850.94	17206.60	35237.74	240.21
Montana	10463.16	23712.28	48315.79	323.83
Nebraska	5794.44	14316.67	32738.89	359.07
Nevada	8747.27	21658.18	35512.73	391.85
New Hampshire	9169.23	22730.77	51984.62	370.92
New Jersey	6654.36	15658.39	32238.93	210.93
New Mexico	9116.00	17680.00	29322.00	370.51
New York	2124.70	5020.61	8809.90	115.71
North Carolina	9798.92	20909.73	37696.76	442.09
North Dakota	7900.00	21255.56	47188.89	427.17
Ohio	7383.64	18597.20	36361.21	297.62
Oklahoma	8734.43	23381.97	42036.07	283.45
Oregon	3683.44	8277.30	15778.53	309.12
Pennsylvania	5170.23	12312.30	24841.42	251.89
Rhode Island	5668.00	14004.00	24296.00	248.76
South Carolina	13163.16	28528.07	57343.86	475.96
South Dakota	9766.67	25633.33	58155.56	426.26
Tennessee	13960.71	29308.33	55171.43	368.60
Texas	17105.75	37786.21	69322.61	310.85
Utah	9250.00	31576.92	70892.31	379.22
Vermont	2745.00	8730.00	18475.00	264.83
Virginia	5627.45	13629.41	27650.33	326.05
Washington	5018.18	12774.55	24533.94	281.69
West Virginia	6246.15	14140.38	25700.00	371.33
Wisconsin	7618.29	18257.32	39637.80	361.53
Wyoming	6960.00	17550.00	35550.00	332.34

**Figure 4. Civil Legal Aid Availability Ratio (CLAAR 200) by State**



**Figure 5. Range of Civil Legal aid Availability Ratios and 95% Confidence Interval for Population Means of Ratios**



### 3. *Civil Legal Aid Availability Disparities Predict Health Issues*

#### a. *Correlations*

Zero order correlations statistically tested the linear relationship between civil legal aid availability ratios and important health issues. In other words, as scores on one variable increase or decrease (i.e., civil legal inequity), scores on the other variable comparatively increase or decrease (e.g., health). Zero order correlations indicate a larger effect as the correlation coefficient ( $r$ ) approaches one or negative one: the closer to zero, the lower the effect size.<sup>107</sup> Zero order correlations include a primary assumption that larger effects are found when the linear rise or fall of one variable is associated with another variables proportional rise or fall.<sup>108</sup> In the case of civil legal aid availability ratios, as the ratios increase, it is expected that measures of health problems would also increase. Building off of prior research on Gini income coefficients and social service to health service investment ratios, it is hypothesized that greater state civil legal aid availability disparities will be associated with lower state life expectancies. Similarly, it is expected that there will be negative correlations between civil legal aid availability inequality (CLAAR 100) and American Health Rankings state overall score<sup>109</sup> as well as civil legal aid availability inequality and decisions to approve Medicaid Expansion<sup>110</sup> (the greater civil legal aid inequality, the lower the likelihood of expanding Medicaid).<sup>111</sup> Note that this is the first time that the CLAAR 100 has been inferentially tested against these health variables.

Results support that greater CLAAR 100 inequity is associated with lower life expectancy, lower overall state America's Health Ranks Score,<sup>112</sup> and increased refusal to expand Medicaid eligibility. CLAAR 100 (i.e., greater civil legal aid inequality) was also associated with more Health-Related Quality of Life mentally or physically unhealthy days,<sup>113</sup> higher percentages of overweight or obesity,<sup>114</sup> higher percentages of hypertension,<sup>115</sup> higher percentages of diabetes,<sup>116</sup> higher rates of low

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<sup>107</sup> JACOB COHEN, STATISTICAL POWER ANALYSIS FOR THE BEHAVIORAL SCIENCES 75, 80 (2nd ed. 1988); see also, Robert Rosenthal, *Parametric Measures of Effect Size*, in THE HANDBOOK OF RESEARCH SYNTHESIS 231 (Harris Cooper & Larry V. Hedges eds., 1994).

<sup>108</sup> *Id.*

<sup>109</sup> 2014 Annual Report, AMERICA'S HEALTH RANKINGS, <http://www.americashealthrankings.org/reports/Annual> (last visited Mar. 17, 2015)

<sup>110</sup> *Where the States Stand on Medicaid Expansion*, THE ADVISORY BD. CO. (Feb. 11, 2015), [http://www.advisory.com/\\_apps/dailybriefingprint?i={B7B2E546-2F42-4D6D-AD06-59E7C6F45C83}](http://www.advisory.com/_apps/dailybriefingprint?i={B7B2E546-2F42-4D6D-AD06-59E7C6F45C83})

<sup>111</sup> *Id.*; see also, *Status of State Action on the Medicaid Expansion Decision*, KAISER FAMILY FOUND. (Mar. 6, 2015), <http://kff.org/health-reform/state-indicator/state-activity-around-expanding-medicaid-under-the-affordable-care-act/>.

<sup>112</sup> *Overall United States*, AMERICA'S HEALTH RANKINGS, <http://www.americashealthrankings.org/ALL/Overall>. (last visited Mar. 17, 2015).

<sup>113</sup> *Health-Related Quality of Life: BRFSS Trend Data*, CTRS FOR DISEASE CONTROL AND PREVENTION, <http://apps.nccd.cdc.gov/HRQOL/>. (last visited Mar. 17, 2015).

<sup>114</sup> *Prevalence and Trends Data*, CTRS. FOR DISEASE CONTROL AND PREVENTION, <http://apps.nccd.cdc.gov/brfss/>. (last visited Mar. 17, 2015).

<sup>115</sup> *Id.*

<sup>116</sup> *Id.*

birth weight infants,<sup>117</sup> higher rates of preterm births,<sup>118</sup> higher food insecurity,<sup>119</sup> percent of 16 to 19 year olds not working nor in school,<sup>120</sup> and higher rate of uninsured.<sup>121</sup> Note that the Gini income inequity measure did not significantly predict life expectancy, Medicaid expansion, percent overweight or obese, or percent uninsured.<sup>122</sup> Unlike the Gini income coefficient, CLAAR 100 is not correlated with the number of people in poverty in a state and percentage of people living in non-metropolitan areas, and the CLAAR 100 is less correlated with percentage of people who are black in a state.<sup>123</sup> The Gini income coefficient has been criticized for its confounding with these variables. As would be expected both CLAAR 100 and the Gini income coefficient are positively correlated with percent of people living in poverty. Both CLAAR 100 and the Gini income coefficient are correlated with the overall general population ratio of attorneys. Higher CLAAR 100 inequities are associated with higher ratios of people in the general population to an attorney of any type, whereas the Gini income inequity predicts that higher income inequity is associated with lower ratios of people in the general population to an attorney of any type.<sup>124</sup>

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<sup>117</sup> *Women's Health*, KAISER FAMILY FOUND., <http://kff.org/state-category/womens-health/> (last visited Mar. 20, 2015). *Women's Health*, KAISER FAMILY FOUND., <http://kff.org/state-category/womens-health/>.

<sup>118</sup> *Women's Health*, *supra* note 117.

<sup>119</sup> Alisha Coleman-Jensen et al., *Household Food Security in the United States in 2013*, DEP'T of AGRICULTURE, (Sept. 2014), <http://www.ers.usda.gov/publications/err-economic-research-report/err173.aspx>; *see also Food Insecurity: Indicators on Children and Youth*, <http://www.ers.usda.gov/publications/err-economic-research-report/err173.aspx>. CHILD TRENDS (Dec. 2014), <http://www.childtrends.org/?indicators=food-insecurity>. <http://www.childtrends.org/?indicators=food-insecurity>.

<sup>120</sup> *Youth Neither Enrolled in School Nor Working: Indicators on Children and Youth*, CHILD TRENDS, (Jan. 2015), <http://www.childtrends.org/?indicators=youth-neither-enrolled-in-school-nor-working>. <http://www.childtrends.org/?indicators=youth-neither-enrolled-in-school-nor-working>.

<sup>121</sup> *KFF Health Coverage & Uninsured*, KAISER FAMILY FOUNDATION, *available at* <http://kff.org/state-category/health-coverage-uninsured/> (last visited Mar. 20, 2015).

<sup>122</sup> *See infra* Table 2.

<sup>123</sup> *Id.*

<sup>124</sup> *Id.*

**Table 2. Zero Order Correlations Of Civil Legal Aid Availability Ratios and Gini Income Coefficients**

Variable <sup>126</sup>	CLAAR 100 (2013–2014)		Income Gini Coefficient (2013) <sup>125</sup>	
	<i>r</i>	<i>p</i>	<i>r</i>	<i>P</i>
Life Expectancy <sup>127</sup>	-.442*	.001	-.170	.118
AHR Overall Score <sup>128</sup>	-.496*	<.001	-.352*	.006
Expanded Medicaid	-.386*	.003	.166	.125
HRQOL Unhealthy Days	.279*	.025	.402*	.002
% Overweight or Obese	.331*	.009	.044	.380
% Hypertension	.253*	.038	.397*	.002
% Diabetes	.406*	.002	.508*	<.001
Low Birth Weight Infants Rate	.382*	.003	.496*	<.001
Pre-term Birth Rate	.473*	<.001	.359*	.005
% Food Insecurity	.484*	<.001	.286*	.022
% Childhood Food Insecurity	.466*	<.001	.361*	.005
% Not in School of Work (16–19)	.412*	.001	.315*	.013
% Uninsured Rate Overall	.607*	<.001	.108	.227
% Uninsured 100%	.505*	<.001	-.040	.392

<sup>125</sup> Amanda Noss, *Household Income: 2013 American Community Survey*, UNITED STATES CENSUS BUREAU 1, 3 (2014), <http://www.census.gov/content/dam/Census/library/publications/2014/acs/acsbr13-02.pdf>.)<http://www.census.gov/content/dam/Census/library/publications/2014/acs/acsbr13-02.pdf>

<sup>126</sup> Note that variable data at the state level was primarily collected for the year of 2013. However, life expectancy, low birth weight rate, and preterm birth rate data at the state level was only available for 2010 as the best state estimate.

<sup>127</sup> *State Health Facts, Life Expectancy at Birth (in years)*, KAISER FAMILY FOUND., <http://kff.org/other/state-indicator/life-expectancy/> (last visited Mar. 17, 2015).

<sup>128</sup> The American Health Ranking score is a composite of 20 health determinant or health outcome indicators. *Overall United States*, AMERICA'S HEALTH RANKINGS (2014), <http://www.americashealthrankings.org/ALLS/Overall> (last visited Mar. 17, 2015).

Below Poverty				
% Black	.248*	.041	.505*	<.001
% Nonmetropolitan	.107	.230	-.481*	<.001
Overall Attorney Ratio	.510*	<.001	-.394*	.002
% Poverty	.535*	<.001	.507*	<.001
Number of People in <100% FPL	.206	.076	.723*	<.001

Notes: \* $p < .05$

*b. Multiple Linear Regression Coefficients*

Multiple linear regression analyses were conducted on each of the criterion variables. The CLAAR 100 and Gini income were simultaneously entered into the model to test each variable's unique prediction of each criterion variable. While controlling for Gini income inequity, all CLAAR 100 associations remained statistically significant except the association between CLAAR 100 and the percentage of people in the population with hypertension.<sup>129</sup> Please note that the Medicaid expansion criterion was a dichotomous variable (a given state either expanded or has not expanded Medicaid); therefore, logistic regression was used in this case. Table 3 summarizes the results of multiple linear regression analyses for each criterion variable. CLAAR 100 remained a significant ( $Wald=6.22$ ,  $p < .05$ ) predictor of Medicaid expansion decisions, whereas Gini income remained not statistically significant.

**Table 3. Simultaneous Multiple Linear Regression Standardized Regression Coefficients**

Variable	CLAAR 100 (2013–2014)		Income Gini Coefficient (2013)	
	<i>B</i>	<i>t</i>	<i>B</i>	<i>t</i>
Life Expectancy	-.426*	-3.23	-.103	-0.79
HRQOL Unhealthy Days	.221*	1.68	.367*	2.79
AHR Overall Score	-.452*	-3.71	-.281*	-2.31
% Overweight or Obese	.332*	2.38	-.008	-0.06
%Hypertension	.195	1.47	.366*	2.76
% Diabetes	.334*	2.84	.455*	3.87

<sup>129</sup> See supra Table 2.

Low Birth Weight Infant Rate	.312*	2.60	.447*	3.73
Pre-term Birth Rate	.427*	3.48	.291*	2.37
% Food Insecurity	.450*	3.59	.215*	1.72
% Childhood Food Insecurity	.420*	3.40	.294*	2.39
% Not in School of Work (16-19)	.372*	2.88	.257*	1.99
% Uninsured Rate Overall	.605*	5.16	.013	0.11
% Uninsured 100% Below Poverty	.524*	4.15	-.123	-0.97

Notes: \* $p < .05$

## VI. LEGAL SERVICES IMPACTING HEALTH CARE AND HEALTH OUTCOMES

Results of this study support an association at the state-level between civil legal aid availability and state-level health and social indicators. Moreover, the link between civil legal aid inequality and health was as strong, if not stronger, than the link between income inequality and health. Both income inequality and civil legal aid inequality are correlated but independent predictors of health indicators. Income inequality and civil legal aid inequality are unique population level measures of not only injustice but also predictors of population health. Future studies of policies and environments linked to civil legal aid inequalities would inform the pathways to civil legal inequality and the associated consequences of civil legal aid inequality. The ecological association found in this study is further supported by the limited research that has tested links between civil legal aid and health at the individual level. Civil legal aid availability and access predict health outcomes at the level of the individual and population. Additionally, innovative civil legal aid models, such as Medical-Legal Partnerships, aim to provide legal aid services to individuals while also advocating for increased access to civil legal aid services for populations. The potential connections between civil legal aid and health are discussed below.

Civil legal aid attorneys improve health through multiple pathways. Because civil legal aid attorneys mitigate the consequences of poverty and other injustices, they directly and indirectly reduce harmful determinants of

health.<sup>130</sup> Reflecting on the determinants of health framework supports the plausibility that civil legal aid attorneys are impacting health across a broad spectrum at the individual and systemic levels.<sup>131</sup> Civil legal aid attorneys are well positioned to improve population health due to their ability to remediate acute crises as well as their ability to achieve broader policy agendas focused on equity in society. For example, strategic collaborations known as Medical-Legal Partnerships (MLP), integrate poverty lawyers as part of the health care team to better address the underlying social, legal and economic challenges faced by low-income patients. The MLP model provides a mechanism for health care professionals and attorneys to work together to deliver care in a more holistic manner. Additionally, these collaborations strengthen systemic policy advocacy efforts by coalescing the expertise of multiple disciplines. MLPs improve population health by identifying root causes of poor health, strengthening the relationship between lawyers and health care providers, increasing access to legal care, and disrupting harmful systemic policies.<sup>132</sup>

Much of the work of civil legal aid attorneys and other poverty lawyers centers on obtaining access to basic needs including income, housing, utilities, food, and medical care. These same needs are also strong determinants of health. The unequal distribution of these determinants is rooted in societal inequities and leads to inequities in health outcomes. Researchers have estimated the contribution of determinants on health status (morbidity and mortality) of populations (Figure 6).<sup>133</sup> Civil legal aid attorneys protect health and reduce risks for individuals and populations in each of the four categories of health determinants (i.e., social and economic factors, health behaviors, clinical care, and the physical environment), especially the most impactful determinant, socioeconomic factors.

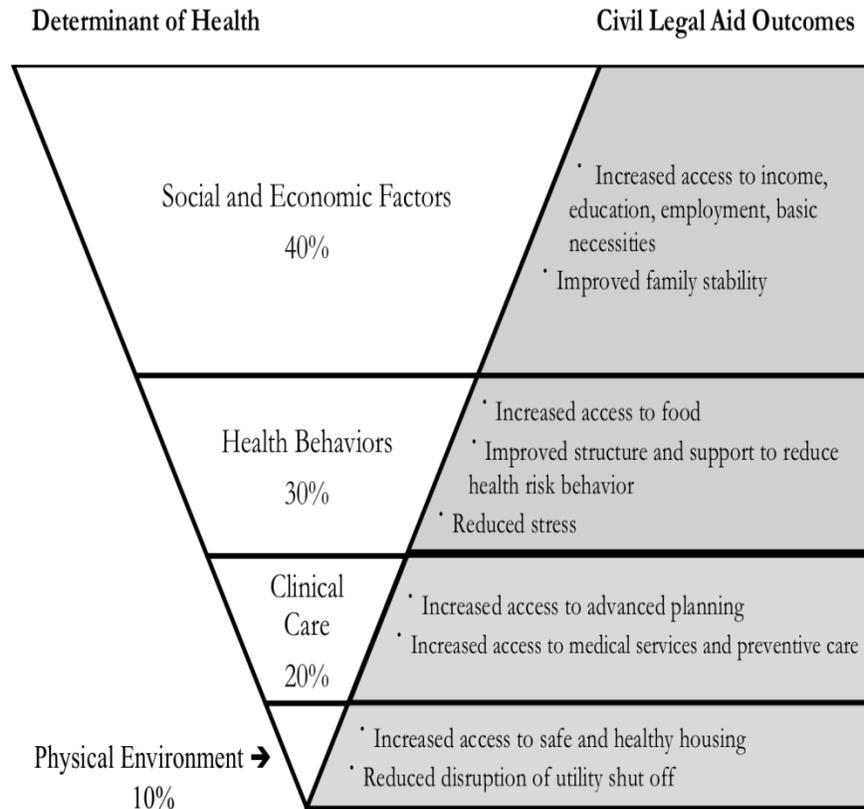
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<sup>130</sup> See Ellen M. Lawton & Megan Sandel, *Investing in Legal Prevention: Connecting Access to Civil Justice and Healthcare Through Medical-Legal Partnership*, 35 J. OF LEGAL MEDICINE 29 (2014).

<sup>131</sup> See *supra* Figure 6.

<sup>132</sup> See Ellen M. Lawton and Megan Sandel, *Investing in Legal Prevention: Connecting Access to Civil Justice and Healthcare Through Medical-Legal Partnership*, 35 J. OF LEGAL MEDICINE 29 (2014).

<sup>133</sup> See *Our Approach*, County Health Rankings, <http://www.countyhealthrankings.org/our-approach>.

**Figure 6. Determinants of Health and Civil Legal Aid Interventions<sup>134</sup>**

A growing body of evidence supports that legal representation results in improved health outcomes.<sup>135</sup> In 2012, a pilot study measuring the impact of legal services on stress and well-being showed a reduction in patient stress and improvement in well-being among low-income adults in Arizona.<sup>136</sup> Similarly, a study conducted by the Health, Education, and Legal Assistance Project: A Medical-Legal Partnership at Widener University found a reduction in self-reported stress among Healthy Start clients receiving legal services in Pennsylvania.<sup>137</sup> A similar study measuring

<sup>134</sup> See Robert Wood Johnson Found. & Univ. of Wis. Population Health Inst., COUNTY HEALTH RANKINGS & ROADMAPS: OUR APPROACH (2014), available at <http://www.countyhealthrankings.org/our-approach>.

<sup>135</sup> Anne M. Ryan et al., *Pilot Study of Impact of Medical-Legal Partnership Services on Patients' Perceived Stress and Wellbeing*, 23 J. OF HEALTH CARE FOR THE POOR AND UNDERSERVED, 1526, 1536 (2012).

<sup>136</sup> *Id.*

<sup>137</sup> Daniel Atkins et al., *Medical-Legal Partnership and Healthy Start: Integrating Civil Legal Aid Services into Public Health Advocacy*, 35 J. OF LEGAL MEDICINE 195–209 (2014).

changes in quality of life and stress among low-income pregnant clients in Delaware found that clients experienced a reduction in stress upon receiving legal services.<sup>138</sup>

Civil legal aid organizations also advocate for systemic change, which can improve community health.<sup>139</sup> For example, a pediatric-based MLP identified a cluster of poor housing units in which a disproportionate number of children with asthma and other substandard-housing related conditions (developmental delay, elevated blood lead levels) lived.<sup>140</sup> In this case attorneys successfully advocated for the enforcement of existing ordinances to force improvements, and resulted in better living conditions for children and their families.<sup>141</sup> Similarly, an analysis of housing code violation density in the Greater Cincinnati area found that increased density in violations was associated with 22% of variation in rates of emergency department visits for asthma.<sup>142</sup> This study supports the need for greater integration between legal aid services and health care in order to address social determinants and population health.

In addition to demonstrating positive impacts on health, civil legal aid interventions improve financial well-being of clients and health care partners. The Health Law Partnership (HeLP) in Atlanta, Georgia demonstrated a positive financial impact for a population of clients with asthma over a seven-year period.<sup>143</sup> Furthermore, a three-year study conducted at a Medical-Legal Partnership in Southern Illinois demonstrated a 319% financial return on investment to health care partners, which facilitated the scaling of civil legal aid services in the region.<sup>144</sup>

The integration of legal care as part of health care is becoming implemented at the local, state, and federal levels. Currently, there are MLP collaborations in over 36 states and with over 260 health care institutions.<sup>145</sup> In the state of New York organizations can register as Health-Related Legal

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<sup>138</sup> See generally *Final Report to Delaware Division of Public Health, MEDICAL-LEGAL PARTNERSHIP PILOT PROJECT*, <http://www.declasi.org/wp-content/uploads/2015/04/2013-MLP-Pilot-Study-Final-Report.pdf> (last visited Jul. 2, 2015).

<sup>139</sup> *The MLP Response*, NATIONAL CENTER FOR MEDICAL-LEGAL PARTNERSHIP, <http://medical-legalpartnership.org/mlp-response/> (last visited Mar. 17, 2015).

<sup>140</sup> Andrew F. Beck et al., *Identifying and Treating a Substandard Housing Cluster Using a Medical-Legal Partnership*, 130 PEDIATRICS 831, 832 (2012).

<sup>141</sup> *Id.*

<sup>142</sup> Andrew F. Beck et al., *Housing Code Violation Density Associated with Emergency Department and Hospital Use by Children with Asthma*, 33 HEALTH AFFAIRS 1993, 1996 (2014).

<sup>143</sup> Robert Pettignano et al., *Can Access to a Medical-Legal Partnership Benefit Patients with Asthma Who Live in an Urban Community?*, 24 J. HEALTH CARE FOR THE POOR & UNDERSERVED 706, 712 (May 2013).

<sup>144</sup> James A. Teufel et al., *Rural Medical-Legal Partnership and Advocacy: A Three-Year Follow-up Study*, 23 J. HEALTH CARE FOR THE POOR & UNDERSERVED 704, 705, 709 (2012).

<sup>145</sup> NAT'L CTR FOR MEDICAL-LEGAL P'SHIP, <http://medical-legalpartnership.org/> (last visited Mar. 21, 2015).<http://medical-legalpartnership.org/>.

Services Programs.<sup>146</sup> Furthermore, in 2014 the federal Health Resources and Services Administration (HRSA) designated legal services an “enabling service” providing that Federally Qualified Health Centers can allocate funding within their budget to support legal services.<sup>147</sup>

## VII. RECOMMENDATIONS AND CONCLUSIONS

Decreasing the civil legal aid availability gap brings the US closer to the aim of justice for all.<sup>148</sup> Beyond directly addressing justice in isolation, impacting civil legal aid inequities could decrease health inequities in the US. Fundamental cause theory positions social resources as the primary driver of health inequities in the US. In order to compete with comparable countries in health outcomes, an area for improvement for the US is social justice. Income inequities have been the primary focus around the world, in part due to income being a common metric across most countries and value placed on gross domestic product.<sup>149</sup> However, associations of health and income-based and non-income-based inequality should be studied further.<sup>150</sup> In the current study, civil legal inequities predicted health inequities, as well as, if not better than income inequities at the level of states.

Additionally, not only do civil legal inequalities act as significant predictors at the population level, civil legal services plausibly improve health and well-being of individuals.<sup>151</sup> Unlike other population metrics of inequity, testing changes in civil legal aid requires less social change than other metrics. Reducing inequality in the US requires substantial income redistribution, typically from those with the highest incomes.<sup>152</sup> Health

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<sup>146</sup> *Standards for Health-Related Legal Services Programs that Serve Income Eligible Individuals and Families Pursuant to PHL Section 22*, NEW YORK STATE DEP’T. OF HEALTH, [http://www.health.ny.gov/diseases/aids/providers/regulations/standards\\_for\\_health\\_related\\_legal\\_services\\_prog.htm](http://www.health.ny.gov/diseases/aids/providers/regulations/standards_for_health_related_legal_services_prog.htm) (last visited July 2, 2015).

<sup>147</sup> *HRSA’s Form 5A Services Provided*, HEALTH RESOURCES AND SERVS. ADMIN., <http://bphc.hrsa.gov/about/requirements/scope/form5aservicedescriptors.pdf> (last visited June 30, 2015); 42 U.S.C. § 254b (2014).

<sup>148</sup> See ALAN W. HOUSEMAN & LINDA E. PERLE, *SECURING EQUAL JUSTICE FOR ALL: A BRIEF HISTORY OF CIVIL LEGAL ASSISTANCE IN THE UNITED STATES*, 1 (2007), available at <http://www.clasp.org/resources-and-publications/files/0158.pdf>.

<sup>149</sup> Almas Heshmati, *Inequalities and Their Measurement*, DISCUSSION PAPER SERIES, IZA DP NO. 1219, 1 (July 2004), available at <http://ftp.iza.org/dp1219.pdf>.

<sup>150</sup> See generally *id.*

<sup>151</sup> See Robert Pettignano et al., *Medical-Legal Partnership: Impact on Patients with Sickle Cell Disease*, 128 *PEDIATRICS* 1482–88 (2011) (noting the positive effect on the health of patients with sickle cell disease when a multitude of socioeconomic factors, including legal issues, were addressed); see also Anne M. Ryan et al., *Pilot Study of Impact of Medical-Legal Partnership Services on Patients’ Perceived Stress and Wellbeing*, 23 *J. OF HEALTHCARE FOR THE POOR AND UNDERSERVED* 1542 (2012) (noting the positive benefits of legal intervention on participants’ well-being and stress test scores).

<sup>152</sup> *Focus on Top Incomes and Taxation in OECD Countries: Was the Crisis a Game Changer?* OECD, <http://www.oecd.org/social/OECD2014-FocusOnTopIncomes.pdf> (last visited June 24, 2015)

service and social service ratios require substantial changes in public and private investments in health and social services, which would require a cascade of societal changes. Civil legal aid availability inequities could be addressed and change tested by either decreasing the number of people in poverty, or increasing the number of civil legal aid attorneys within a state; with the latter being a less costly investment that could also reduce the prevalence or impact of the former. Previous research supports that civil legal aid access for low income individuals improves health outcomes of people living in poverty.<sup>153</sup> This is especially important since the typical low-income household has between one to three, potentially health harming, legal needs, but half of those who seek services are unable to be served due to lack of civil legal aid attorney supply. It is estimated that 80% of legal needs among the poor go unmet.<sup>154</sup> The impact of injustice is not simply based on the psychological experience of individuals but also the resources of those individuals and how society structures the accessibility of those resources.<sup>155</sup>

Additional study of the promising health impact of civil legal aid at the population and individual level on health is recommended. According to fundamental cause theory, until social inequities are addressed health inequities will continue. Simply curing or treating diseases will not resolve health inequity. Broadening the discussion of health care to include legal care could benefit individuals and populations. Health care extends well beyond medical care. Social care and legal care are plausible, impactful approaches to health care. However, most health care funding in the US supports medical services. The continued implementation of the ACA should

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<sup>153</sup> Klein, M., et al., *Doctors and Lawyers Collaborating to Help Children—Outcomes from a Successful Partnership Between Professions*, 24 J. OF HEALTH CARE FOR THE POOR AND UNDERSERVED 1063,1063–73 (2013); Ryan, A., et. al., *Pilot Study of Impact of Medical-legal Partnership Services on Patients' Perceived Stress and Wellbeing*, 23(4) J. OF HEALTH CARE FOR THE POOR AND UNDERSERVED 1526, 1526–46 (2012); Beck, A., et. al., *Identifying and Treating a Substandard Housing Cluster Using a Medical-Legal Partnership* 130(5) PEDIATRICS. 831, 831–38 (2012); PASCOE PLEASANCE, ET AL., *Mounting Problems: Further Evidence on the Social, Economic and Health Consequences of Civil Justice Problems*, in TRANSFORMING LIVES: LAW AND SOCIAL PROCESS 72–76 (Pleasance, Buck, and Balmer eds 2007); Martin, J., et al. *Embedding Civil Legal Aid Services in Care for High-Utilizing Patients Using Medical-Legal Partnership* HEALTH AFFAIRS BLOG (Jun. 24, 2015, 10:41 AM), <http://healthaffairs.org/blog/2015/04/22/embedding-civil-legal-aid-services-in-care-for-high-utilizing-patients-using-medical-legal-partnership/>.

<sup>154</sup> DOCUMENTING THE JUSTICE GAP IN AMERICA: THE CURRENT UNMET CIVIL LEGAL NEEDS OF LOW-INCOME AMERICANS, LEGAL SERV. CORP 1, 3, 13, 18–19 (2009), available at [http://www.lsc.gov/sites/default/files/LSC/pdfs/documenting\\_the\\_justice\\_gap\\_in\\_america\\_2009.pdf](http://www.lsc.gov/sites/default/files/LSC/pdfs/documenting_the_justice_gap_in_america_2009.pdf); see also Rebecca L. Sandefur, *Accessing Justice in the Contemporary USA: Findings From the Community Needs and Services Study*, ABA 9 (2014), available at, [http://www.americanbar.org/content/dam/aba/administrative/delivery\\_legal\\_services/ls\\_del\\_sandefur\\_justice\\_in\\_the\\_contemporary\\_usa\\_final.authcheckdam.pdf](http://www.americanbar.org/content/dam/aba/administrative/delivery_legal_services/ls_del_sandefur_justice_in_the_contemporary_usa_final.authcheckdam.pdf).

<sup>155</sup> See John Lynch, et al., *Income Inequality and Mortality: Importance to Health of Individual Income, Psychosocial Environment, or Material Conditions*, 320 BRIT. MED. J., 1200, 1202. (2000); see also Patrick Prag, et al., *Income and Inequality as Social Determinants of Health: Do Social Comparisons Play a Role?* 30 EUR. SOC. REV. 218 (2014).

promote a better understanding of the underlying determinants of health due to the ACA's financial incentives rewarding improved population health.

Beyond innovative methods to address civil legal aid availability through medical-legal partnership and the association of legal aid availability and health, there are also broader values questions regarding justice that should be discussed in the United States. As supported in this manuscript, there is great variability in civil legal aid availability across states and some states are wholly reliant on federal funding to support civil legal aid efforts. A critical analysis of the methods and sources of civil legal aid funding within and among states should be completed.

Moreover, the value that is placed on civil legal aid in the United States overall needs to be critically analyzed. As federal funding of healthcare and civil legal aid is common to all states, a comparison of federal funds dedicated to legal services (Legal Services Corporation [LSC] funding) and healthcare is useful to contextualize the federal valuation of civil legal aid relative to healthcare. Federal healthcare funding through the Centers for Medicare and Medicaid Services (CMS) totaled at least \$831 billion in 2014,<sup>156</sup> whereas federal funding of civil legal aid through LSC was \$365 million in 2014.<sup>157</sup> In the United States, almost 2300 times more federal funding is dedicated to healthcare, despite questionable returns on current healthcare expenditures, than civil legal care. Is healthcare, in how it is currently being delivered, 2300 times more valuable than civil legal aid?

It is widely understood among public health professionals that social determinants impact health. A host of legal problems—related to Medicaid, income assistance, food stamps, utilities, housing, special education, domestic violence, and disability discrimination, among others—share a strong link to key social determinants of health.<sup>158</sup> It follows that unmet need for support services necessitates investment in innovative healthcare delivery models that address social determinants of health.<sup>159</sup> However, current health care delivery systems are ill-equipped to address these needs.

There is a troubling disconnect between healthcare investments and outcomes of high risk and vulnerable populations in the US. The US underinvests in intervention and prevention strategies that influence the social problems impacting patients. Furthermore, healthcare providers who experience social/legal care services training report higher confidence and

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<sup>156</sup> CONGRESSIONAL BUDGET OFFICE, THE BUDGET AND ECONOMIC OUTLOOK: 2015–2025 11 (2015), available at <https://www.cbo.gov/sites/default/files/cbofiles/attachments/49892-Outlook2015.pdf>.

<sup>157</sup> *Annual LSC Appropriations 1976–2013 in Constant 2013 Dollars* (2013), <http://www.lsc.gov/congress/funding/funding-history>.

<sup>158</sup> See *Social Determinants of Health*, HEALTHYPEOPLE.GOV, <http://www.healthypeople.gov/2020/topics-objectives/topic/social-determinants-health> (last visited June 30, 2015).

<sup>159</sup> Williams, D., Costa, et al., *Moving Upstream: How Interventions that Address the Social Determinants of Health can Improve Health and Reduce Disparities* 14 J. PUB. HEALTH MGMT. PRACT. S8, S8–9 (2008) (citations omitted).

satisfaction in addressing social determinants of health.<sup>160</sup> The US also underinvests in civil legal services for people who are poor, undervaluing the harmful impact that has on the health of low-income communities. The legal profession and funders of civil legal services fail to appreciate how much their resources can improve the health of communities. The health care spending paradox screams for attention and a strategic reallocation of resources. Interdisciplinary and intersectional approaches to address the social determinants are needed to reduce the impact of inequality, injustice, and poor health outcomes in the US.

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<sup>160</sup> Robert Pettignano, Sylvia B. Caley, & Susan McLaren, *The Health Law Partnership: Adding a Lawyers to the Health Care Team Reduces System Costs and Improves Provider Satisfaction*, 18 J. PUB. HEALTH MGMT. & PRAC. E1 (2012); Emily A. Benfer et al. *Advancing Health Law & Social Justice in the Clinic, the Classroom and the Community*, 21 ANNALS OF HEALTH LAW 238, 238–41(2012); O'Toole JK et al., *Resident Confidence Addressing Social History: Is it Influenced by Availability of Social and Legal Resources?* 51 CLINICAL PEDIATRICS 625, 625–31 (2012).