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Identifying Policy Levers And Opportunities For Action Across States To Achieve Health Equity

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ABSTRACT In the United States, steps to advance health equity often take place at the state and local levels rather than the national level. Using publicly available data sources, we developed a scorecard for all fifty states and the District of Columbia that measures indicators of the use of five evidence-based policies to address domains related to health equity. The indicators are the cigarette excise tax rate, a state's Medicaid expansion status and the size of its coverage gap, percentage of four-year olds enrolled in state-funded pre-kindergarten, minimum wage level, and the presence of state-funded housing subsidy programs and homelessness prevention and rapid rehousing programs. We found that states varied significantly in their implementation of the selected policies and concluded that a variety of approaches to encourage policy changes at the state level will be needed to create healthier and more equitable communities. We describe promising, feasible state-level approaches for states to “do something, do more, do better” when they take action on the five selected policies that can promote health equity.

US children and adults have dramatically different chances of living a healthy life depending on where they are born and live, and this is especially true for members of low-income populations and racial and ethnic minority groups.^{1,2} In addition to clinical factors and health behaviors, the social determinants of health—the conditions in which people live, learn, work, and play—affect population health and health equity.^{3,4} Interventions and policies that address the social determinants of health, such as early education and income support, can have positive effects on health and reduce health inequities.⁵ There is growing evidence that multiple domains affect health equity and the policies that address it. The widespread awareness of that evidence underscores the need for action at national and local levels.⁶

In the United States, policies that can advance health equity are enacted at the federal, state,

and local levels.⁷ State governments can make changes to economic, education, environmental, and health care policies that play an integral role in achieving healthier and more equitable communities. For instance, Massachusetts's health reform law, which served as a model for the Affordable Care Act (ACA), expanded access to health insurance coverage for many low-income residents.⁸ State policies also can impede progress toward achieving health equity. Recent examples include the decision of nineteen states not to expand eligibility for their Medicaid programs under the ACA, and the fact that thirty-one states provide less state funding per student for elementary and secondary education than they did before the Great Recession.^{9,10}

A first action step for state governments aiming to achieve health equity is to identify the extent to which their existing policies are promoting population health and addressing health inequities. To address this knowledge gap, we

developed a scorecard for the fifty states and the District of Columbia, assessing their policies to achieve health equity. The aim of our scorecard is to highlight evidence-based policy changes that state governments can enact to address the multiple factors that affect population health and health equity.

Our scorecard is based on indicators that capture the enactment of one specific state-level, evidence-based policy in each of five domains that affect health equity: health behaviors, clinical care, social factors, economic factors, and the physical environment. The fifty states and District of Columbia were measured and ranked on five indicators, one related to each domain: the state cigarette excise tax rate, a state's Medicaid expansion status and the size of its coverage gap, the percentage of four-year-olds enrolled in state-funded pre-kindergarten (pre-K), the state minimum wage level, and the presence of state-funded housing subsidy programs and homelessness prevention and rapid rehousing programs.

To create this scorecard, we began by assessing some of the evidence-based policies that states could enact to promote population health and health equity. State rankings on the scorecard are representative only of the indicators we selected and do not definitively indicate the overall performance of states in enacting policies that can yield health improvements. Our scorecard can be used to inform the development of more comprehensive scorecards with multiple indicators within each domain.

Study Data And Methods

CONCEPTUAL FRAMEWORK AND MEASURES Our scorecard of state policies to promote health equity stems from a model of population health¹¹ (for additional information on the model and conceptual framework, see online Appendix Exhibits A1 and A2).¹² A complete list of the policy measures and data sources for each of them can be found in Appendix Exhibit A3, and additional information on the scorecard's measures is in Appendix Exhibit A4.¹² The scorecard ranks the fifty states and the District of Columbia based on their performance in enacting the specific evidence-based policies in the five domains that affect health equity (for additional information on the scorecard's ranking method, see Appendix Exhibit A5).¹²

HEALTH BEHAVIORS: CIGARETTE EXCISE TAX Given that cigarette smoking is the leading cause of preventable death in the United States, tobacco control policies that prevent and reduce cigarette consumption are sensible ways for states to improve population health. Higher cigarette

prices reduce smoking, and while many factors affect the final price of cigarettes, the most important policy-related determinant of cigarette prices is state excise taxes on cigarettes.¹³ Raising the cigarette excise tax is a policy change that state governments can enact to lower smoking rates, and lower rates are associated with reduced incidence of lung and heart disease and mortality.¹⁴⁻¹⁶ Our scorecard uses state cigarette excise tax per pack as an example of a state-level policy that can help close the health equity gap by acting on health behaviors.

CLINICAL CARE: MEDICAID EXPANSION AND THE COVERAGE GAP The ACA aims to expand health insurance coverage—an important factor in access to affordable health care, which in turn can help achieve good health—by giving states the option to expand Medicaid to people younger than age sixty-five years with incomes of up to 133 percent of the federal poverty level, and by creating health insurance Marketplaces in which individuals and families can purchase affordable health insurance.

In states that did not expand Medicaid, residents with low incomes may fall into a coverage gap—earning too much to qualify for Medicaid but too little to benefit from Marketplace subsidies to make the purchase of insurance coverage and health care affordable.¹⁷ It is estimated that 2.6 million uninsured adults fall into the coverage gap, and a disproportionate share of those adults are low-income and nonwhite people living in states that have not expanded Medicaid.¹⁷

Adopting the Medicaid expansion is a policy change that states can enact to close coverage gaps and improve health equity. State expansions of Medicaid are associated with better access to care, improved physical and mental health outcomes, and decreased mortality—particularly among minority and lower-income populations.^{18,19} Our scorecard uses the Medicaid expansion decision and the size of a state's coverage gap to represent state-level policy that can address health disparities by improving access to clinical care.

SOCIAL FACTORS: ENROLLMENT IN STATE-FUNDED PRE-K Various levels of government fund and administer an array of early childhood education programs (including pre-K) that have been shown to produce lifelong improvements in socioeconomic well-being and health.²⁰ Over the past several decades, states have increased their investments in state-funded pre-K, but most state-funded pre-K programs do not offer universal coverage.²¹

Increasing children's access to pre-K programs is a policy change that promotes health equity. Studies show that enrolling children in pre-K has lasting positive effects on health and socioeco-

conomic well-being.^{22,23} To represent social factors, our scorecard uses the percentage of four-year-olds enrolled in state-funded pre-K to represent a state-level policy that can help reduce health inequalities.

ECONOMIC FACTORS: MINIMUM WAGE Policies with health impacts that also create economic security and expand opportunity include raising the minimum wage, providing the Earned Income Tax Credit, supplementing income during periods of financial hardship or retirement (for example, through the Temporary Assistance for Needy Families and Social Security programs), and legislating paid family leave.²⁴ In particular, minimum wage legislation provides economic security for low-wage workers by establishing a wage floor.

Recently, some states have raised their minimum wage above the federal minimum wage.²⁵ Existing research suggests that raising the minimum wage can help improve health outcomes—for example, by decreasing rates of premature death and improving mental health outcomes among adults; improving infant birthweight; increasing the use of prenatal care; and reducing smoking during pregnancy.^{26–28} In the domain of economic factors influencing population health, our scorecard measures the legislated state minimum wage level as of 2017.

PHYSICAL ENVIRONMENT: HOUSING OR HOMELESSNESS PROGRAMS Although not intended to improve health outcomes, housing policies can help improve access to high-quality and safe housing, which in turn has positive impacts on health—particularly for low-income and otherwise vulnerable populations. People's physical and mental health can benefit from housing subsidy programs that provide continued financial assistance to individuals and families to make housing more affordable.^{29,30} In addition to federal housing assistance under the Housing Choice Voucher Program (Section 8), states fund and administer housing subsidy programs that provide continued rental assistance to meet low-income people's needs for affordable housing. Many of these programs are targeted at people with mental illness and other disabilities.

Short-term, targeted assistance can also help improve the health of individuals and families who are homeless or at risk of becoming homeless. For example, Housing First—a program that provides rapid access to housing and support services for homeless people without requiring pretreatment for mental health conditions and substance use disorders—significantly reduces homelessness, advances mental health and well-being, increases treatment rates for substance use and addiction, and reduces hospitalizations and use of the emergency department

among people with persistent mental illness and substance abuse.^{31,32} Several of the homelessness prevention and rapid rehousing programs funded by states provide temporary, targeted assistance to prevent households from becoming homeless or help homeless people rapidly move into housing. In the physical environment domain, our scorecard measures the presence of a state-funded housing subsidy and a homelessness prevention and rapid rehousing program as an indicator of state-level policies that help promote population health and achieve health equity.³³

LIMITATIONS The scorecard has a number of limitations. First, we measured policies that state governments enacted, but local government and private-sector decisions and funding can also affect policies intended to achieve health equity. The scorecard does not capture policy implementation—an important but different process from policy enactment.

Second, the scorecard does not assess barriers or facilitators to enacting evidence-based policies, though policy and governance challenges do confront decision makers.³⁴

Third, the scorecard measures whether states have or have not enacted selected evidence-based policies, but not their cost or profit. State governments often confront tight budgets and need to carefully consider the costs of policy decisions.³⁵

Fourth, the scorecard does not account for behavioral responses to policies. For example, smokers may resort to the black market to purchase cigarettes in the face of cigarette price increases.³⁶

Fifth, it is possible that the selected policies (or other policies concurrently implemented by states) could make health equity worse. State cigarette excise taxes, for example, are regressive because low-income smokers will spend proportionately more of their income on cigarettes and are left with fewer resources to spend on health and other goods that can improve health, such as education.³⁷

Sixth, the scorecard assumes that policies to improve population health will help achieve health equity. However, improving overall health might not improve equity.

Last, the scorecard examines only one policy for each domain and captures only some of the policies that could increase health equity. States are likely enacting other policies and approaches that could promote population health and health equity but are not captured in our scorecard. Our state rankings illustrate performance on the measures we selected and do not identify conclusively the states that are most or least likely to promote equity.

Study Results

We found substantial variation in states' enactment of the policies we selected as examples in the five domains important for achieving health equity. Appendix Exhibit A6 depicts the results for the fifty states and the District of Columbia in each of the five equity domains.¹²

HEALTH BEHAVIORS While all fifty states and the District of Columbia levy an excise tax on cigarettes, we found that the tax per pack ranged from \$0.17 in Missouri (which has not raised its rate since 1993) to \$4.35 in New York. In addition to New York, seven other states that we categorized as top performing (those in the top tertile in Exhibit 1) had cigarette tax rates above \$3.00: Connecticut, Hawaii, Massachusetts, Minnesota, Rhode Island, Vermont, and Washington. We considered taxes that were above \$2.00 to be high. We categorized as mid-performing states those in the second tertile of tax rates.

States in the lowest-performing tertile had cigarette excise tax rates that lagged far behind the national average of \$1.65 per pack. Eight of the sixteen states in this tertile are in the South.

CLINICAL CARE Thirty-one states and the Dis-

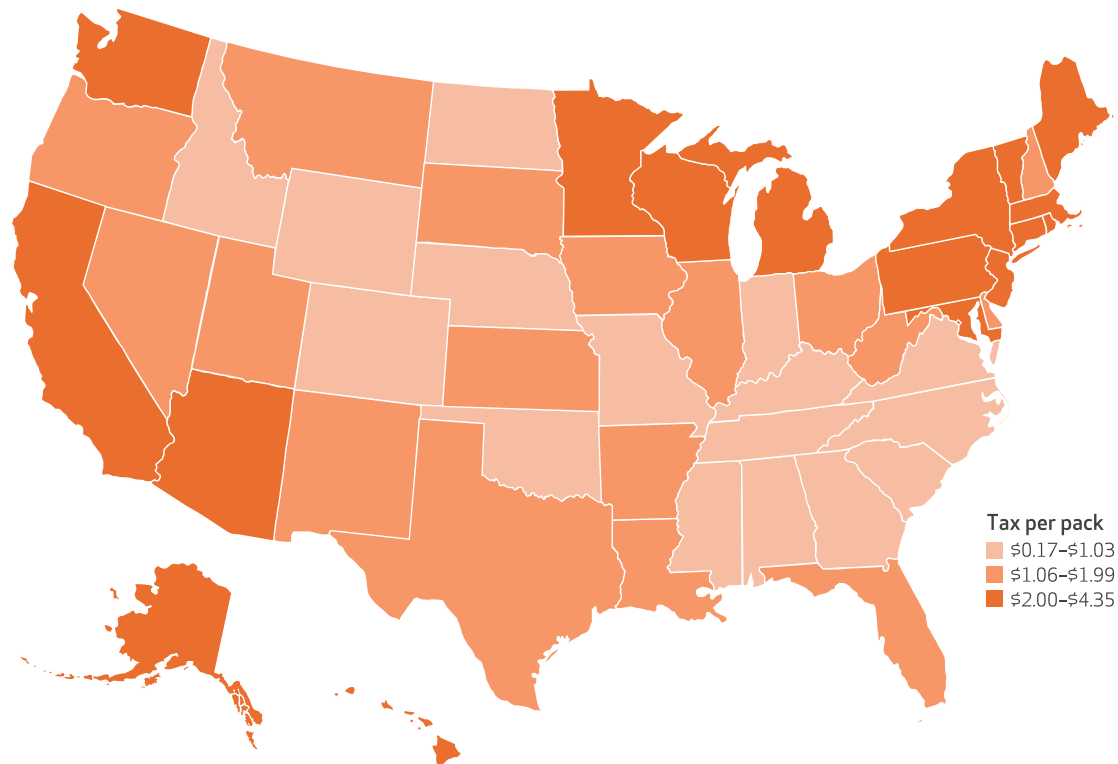
trict of Columbia have adopted the ACA Medicaid expansion. In those states, no one falls into the coverage gap because no one has an income that is too high to qualify for Medicaid but too low to qualify for premium tax credits through the health insurance Marketplaces. In contrast, on average in the nineteen nonexpansion states, 19 percent of uninsured adults fell into the coverage gap (data not shown). We categorized the thirty-two jurisdictions that expanded Medicaid as high performers whether they expanded immediately after the ACA Medicaid expansion became effective on January 1, 2014, or submitted section 1115 waivers at a later point.

We categorized the eight states that have not adopted the Medicaid expansion and had a coverage gap of medium severity as mid-performing (Exhibit 2). The share of these states' populations experiencing a coverage gap ranged from 0 percent to 17 percent.

The eleven states that we described as low performing have not expanded Medicaid and had a coverage gap of high severity. Low-performing states had a spread in the shares of populations in the coverage gap ranging from 19 percent to

EXHIBIT 1

Cigarette excise tax per pack per US state, 2017



SOURCE Authors' analysis of data from Campaign for Tobacco-Free Kids. State excise and sales taxes per pack of cigarettes: total amounts and state rankings [Internet]. Washington (DC): The Campaign; 2017 Jan 3 [cited 2017 Apr 21]. Available from: <https://www.tobaccofreekids.org/research/factsheets/pdf/0202.pdf>.

EXHIBIT 2

Percentages of populations in a Medicaid coverage gap who lived in states that did not expand eligibility for Medicaid, 2016

	Percent of state population
MEDIUM-SEVERITY COVERAGE GAP	
Wisconsin	0% ^a
Utah	11
Nebraska	13
Tennessee	14
Wyoming	16
Oklahoma	17
Texas	17
Maine	— ^b
HIGH-SEVERITY COVERAGE GAP	
Florida	19%
Idaho	19
Missouri	19
South Dakota	19
Virginia	19
Kansas	21
North Carolina	21
Georgia	23
Alabama	25
South Carolina	28
Mississippi	29

SOURCE Authors' analysis of data from Garfield R, Damico A, Cox C, Claxton G, Levitt L. Estimates of eligibility for ACA coverage among the uninsured in 2016 [Internet]. Menlo Park (CA): Henry J. Kaiser Family Foundation; 2016 Oct 18 [cited 2017 Apr 21]. Available from: <http://kff.org/uninsured/issue-brief/estimates-of-eligibility-for-aca-coverage-among-the-uninsured-in-2016/>. **NOTES** The average Medicaid coverage gap in nonexpansion states is 19 percent. States with a gap of medium severity are those with a gap lower than the average in nonexpansion states. States with a gap of high severity are those with a gap equal to or greater than the average in nonexpansion states. ^aWisconsin has not expanded Medicaid, but it provides Medicaid eligibility to adults with incomes up to the federal poverty level under a Medicaid waiver. There are no uninsured adults in the coverage gap in Wisconsin. ^bPoint estimates do not meet minimum standards for statistical reliability.

29 percent.

SOCIAL FACTORS The percentages of four-year-olds enrolled in state-funded pre-K varied widely across states. The District of Columbia led, with 86.3 percent of four-year-olds. Vermont was close behind, at 83.9 percent. Among the next fifteen states in the top tertile, enrollment levels ranged from 76.5 percent in Florida to 30.5 percent in Nebraska (Appendix Exhibit A3).¹¹

There was also variation among mid-performing states, ranging from just above 7.2 percent in Massachusetts to 30.0 percent in New Mexico. The seventeen low-performing states had no more than 5.5 percent of four-year-olds enrolled in state-funded pre-K. Notably, eight states had less than 1 percent enrolled: Idaho, Indiana, Montana, New Hampshire, North Dakota, South Dakota, Utah, and Wyoming.

ECONOMIC FACTORS Across the country, we found a range of state minimum wage levels. Twenty-nine states and the District of Columbia had minimum wages above the federal minimum wage of \$7.25 (Exhibit 3). Seven states and the

District of Columbia had minimum wage levels of \$10.00 and above, and we categorized them as high performers. Of these, the District of Columbia had the highest minimum wage: \$11.50.

Twenty-two mid-performing states had minimum wage levels ranging from just above the federal minimum wage to below \$10.00. There were twenty-one low-performing states with minimum wages at or below the federal level. Fourteen of those states met the federal level. Five of the twenty-one low-performing states had not adopted a state minimum wage. Georgia and Wyoming had minimum wages of \$5.15, below the federal level.

PHYSICAL ENVIRONMENT Thirteen states and the District of Columbia met our criteria for high performance in terms of the physical environment: having both a state-funded subsidy program and a state-funded homelessness prevention and rapid rehousing program (Exhibit 4). Most of these states are in the Northwest, Southwest, and Northeast, with a few in the Midwest and South.

The twenty mid-performing states had either a state-funded subsidy program or a state-funded homelessness prevention and rapid rehousing program. The seventeen low-performing states had neither type of state-funded program.

Discussion

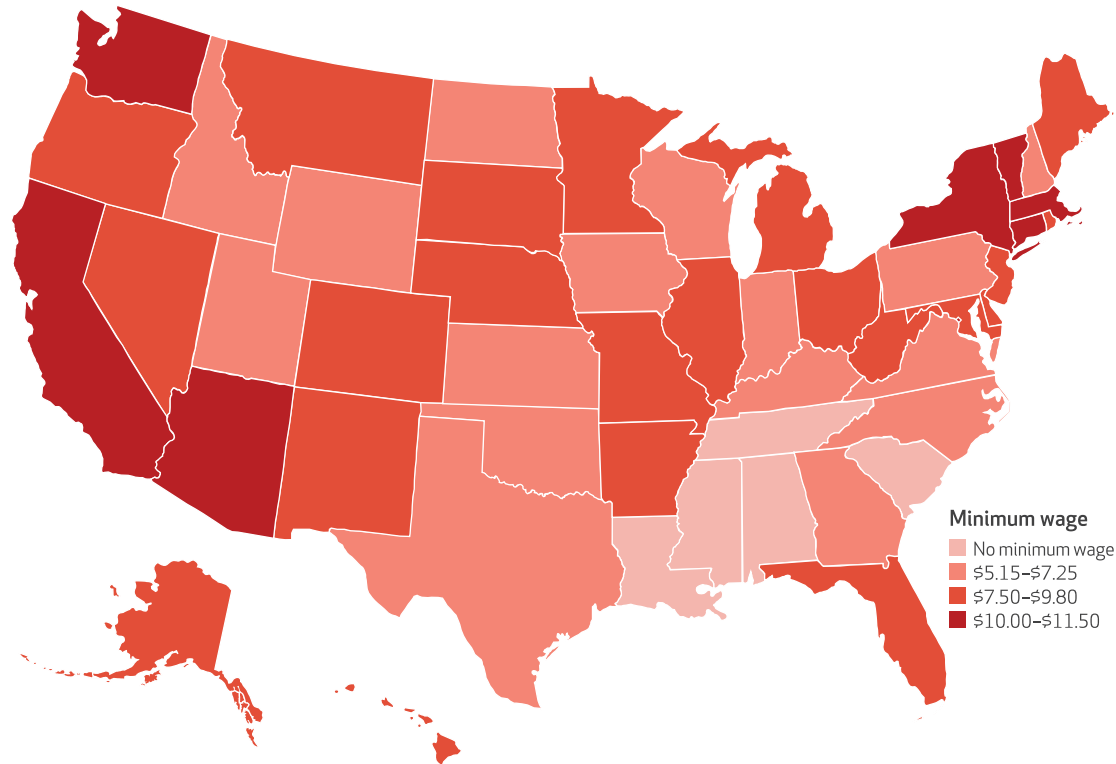
The findings from our scorecard reveal substantial variation in the extent to which states are enacting five evidence-based policies that are likely to improve the health of their populations and achieve health equity. Across the United States, differences in health outcomes are not simply a matter of poverty or health behaviors alone, but instead are a result of the interplay of many factors—some of which are affected by state-level policies.³⁸ State leaders who pay attention to the clinical, behavioral, social, economic, and physical environmental determinants of health can enact policies that not only address health equity gaps in their state but may also affect health outcomes.

Although there is evidence that adopting each of the policies included in our scorecard would improve health equity, we found variation in state performance across the five policies. Some states with a high cigarette excise tax (Hawaii, Minnesota, and Rhode Island) had low percentages of four-year-olds enrolled in state funded pre-K and low minimum wages. In contrast, some states that had low cigarette taxes (Georgia, Nebraska, and Oklahoma) earned high scores for state-funded pre-K.

There was no clear overall regional trend of strong performance across all policy areas. The

EXHIBIT 3

Minimum wage per US state, 2017



SOURCE Authors' analysis of data from the following items: (1) Department of Labor. Minimum wage laws in the states—January 1, 2017 [Internet]. Washington (DC): DOL; [last revised 2017 Jan 1; cited 2017 Apr 21]. Available from: <https://www.dol.gov/whd/minwage/america.htm>. (2) National Conference of State Legislatures. State minimum wages: 2017 minimum wage by state [Internet]. Denver (CO): NCSL; 2017 Jan 5 [cited 2017 Apr 21]. Available from: <http://www.ncsl.org/research/labor-and-employment/state-minimum-wage-chart.aspx>.

Northeast, upper Midwest, and West tended to have higher cigarette taxes, but several states in those regions had low minimum wages and low enrollment in state-funded pre-K. Conversely,

several Southern states had a high share of children enrolled in state-funded pre-K but have not expanded Medicaid coverage and had many uninsured adults experiencing coverage gaps.

EXHIBIT 4

State-funded housing subsidy programs and homelessness prevention and rapid rehousing programs in US states, 2014

Program type	States
Neither type of program	Alabama, Colorado, Florida, Indiana, Kansas, Kentucky, Louisiana, Maryland, Michigan, Mississippi, Montana, Oklahoma, South Carolina, South Dakota, Utah, West Virginia, Wyoming
Housing subsidy program only	Alaska, Arizona, California, Georgia, Hawaii, Idaho, Iowa, Maine, Missouri, Nebraska, Nevada, New York, North Carolina, North Dakota, Ohio, Rhode Island
Homelessness prevention and rapid rehousing program only	Arkansas, New Hampshire, Tennessee, Wisconsin
Both types of programs	Connecticut, District of Columbia, Delaware, Illinois, Massachusetts, Minnesota, New Jersey, New Mexico, Oregon, Pennsylvania, Texas, Vermont, Virginia, Washington

SOURCE Authors' analysis of data from Bergquist R, Cooper E, Martone K, Mondello M. State funded housing assistance programs [Internet]. Boston (MA): Technical Assistance Collaborative; 2014 Apr [cited 2017 Apr 21]. Available from: <http://www.tacinc.org/media/43566/State%20Funded%20Housing%20Assistance%20Report.pdf>.

While some states achieved high performance across multiple policy areas, many more states were underperforming in several key areas. Twenty-one states had minimum wage levels at or below the federal level of \$7.25. The disparity between low- and high-performing states was notable for state-funded pre-K: There was at least a 25-percentage-point difference between leading states and lagging states in the percentages of four-year-olds enrolled in pre-K. Adults and children living in states that perform poorly in these two policy areas may have limited access to a living wage and early education, which are social policies that can ameliorate economic and social disadvantage that has significant health consequences over the life course.

Many states have enacted some of the selected policies but could do more. For example, twenty states do not have policies in place to address both permanent and temporary housing needs. Also, while many states have raised their minimum wage above the federal level, twenty-two states still have minimum wages just above the federal level but below the rate for a full-time worker earning the minimum wage to have an annual income above the federal poverty level.³⁹ Even for the states that achieved accomplishments in one domain, findings from the scorecard highlight additional opportunities for them to make policy changes that could improve health equity.

Policy Implications

The World Health Organization's *Review of Social Determinants and the Health Divide in the WHO European Region* introduced a simple mnemonic for how member states could act on social determinants to improve health equity: "Do something, do more, do better."⁴⁰ This formula recognized that economic capacities and political cultures differ across countries. As a result, the most appropriate actions for governments to take to improve health equity might range from taking the first steps to ensure safe streets for children ("do something") to creating an array of new home-, school-, and community-based interventions for at-risk children ("do more") or fine-tuning the way that comprehensive social welfare systems support children and their parents ("do better").

US states also vary significantly in availability of resources and approaches to acting on the social determinants of health. A variety of approaches to encourage policy changes at the state level will be needed to create healthier and more equitable communities. Ultimately, optimal health outcomes could be achieved if other states followed California's lead and

adopted a "health in all policies" approach that incorporates health considerations into decision making across multiple sectors and policy areas.⁴¹ Even without such an approach, state-level policy makers could begin by focusing on a manageable number of evidence-based policies that are likely to yield improvements in health, such as those in our scorecard. Recent policy changes demonstrate that it is possible for governments of poorly performing states to begin by doing something. In addition, states that already doing some of the things on our scorecard will can strive to do more, and leading states can find ways to do better in terms of enacting the selected five policies that can create healthier and more equitable communities.

In November 2016, California voters passed Proposition 56, which raised the state cigarette excise tax for the first time in eighteen years—from \$0.87 to \$2.87 per pack.⁴³ Also in November 2016, Arizona voters approved Proposition 206 (the Fair Wages and Healthy Families Initiative), which will increase the state minimum wage by annual increments until it reaches \$12.00 in 2020.⁴⁴ The minimum wage hike changed Arizona from a mid- to a high-performing state in the social factors domain, which proves that states already doing something can do more.

Although last of the thirty-one states to adopt the Medicaid expansion, Louisiana is the only state in the Deep South to expand Medicaid. To address state budgetary concerns about the expansion, Louisiana used existing programs that were already working with low-income adults to enroll eligible people in Medicaid.⁴² Louisiana can serve as an example for states with similar budgetary concerns that have not expanded Medicaid.

Several states that adopted the Medicaid expansion have found ways to do better by trying to improve on current policies. Massachusetts, New York, and Vermont applied for and were awarded grant funding from the Center for Medicare and Medicaid Innovation's State Innovation Models initiative to develop and test new payment and service delivery models to improve health care access and quality.⁴⁵

It is important to recognize that states that performed poorly on the five policies measured by our scorecard might be using alternative policies and approaches to improve health equity. For instance, Louisiana performed poorly on housing policies in our scorecard. However, the state has been innovative in using demonstration waivers for supportive housing and has awarded points to developers that set aside a percentage of units for the state's Medicaid-supported Permanent Supportive Housing pro-

gram. In future scorecards, we aim to include additional policies and approaches that could affect health equity.

Conclusion

Our equity scorecard reveals that there are opportunities for states to make policy changes that can create healthier and more equitable communities. We recognize that we have studied only some of the policies that can increase health equity, and that five measures constitute a short list on which to rank states. While additional measures exist, this first scorecard aims to start

a dialogue about what states can feasibly do to reduce health inequities. A long list of measures likely would overwhelm anyone at the state level attempting to improve population health and reduce inequities, especially in states with few resources to address these challenges. More comprehensive scorecards can be designed based on the process outlined here. Our future research will be focused on carefully expanding the number of indicators within each of the five domains, so that states could have a choice of policy levers to use for achieving health equity and could select those most appropriate for them. ■

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