



AN OUNCE OF PREVENTION: WHAT PUBLIC HEALTH MEANS FOR MICHIGAN

This memo accompanies a longer paper, *An Ounce of Prevention: What Public Health Means for Michigan*. That paper is available at crcmich.org/an-ounce-of-prevention-what-public-health-means-for-michigan/.

In a Nutshell

- Public health is a central and yet broadly misunderstood function of government that focuses on prevention of disease and injury, and management of environmental factors (physical and social) that affect health. Medicine improves the health of one individual at a time; public health improves the health of entire communities.
- In recent years, the state has invested little more than what was needed to draw down federal public health funding. This leaves the state heavily reliant on diminishing federal funds. This disinvestment has affected the ability of state and local health departments to provide essential services and leaves Michigan lagging the nation in both per-capita funding for public health and measures of population health.
- Improvement may be needed for Michigan’s system of public health service delivery that is exceedingly fragmented between multiple state departments. A “Health in All Policies” approach should be adopted statewide so that every government policy (from schools to roads to criminal justice) includes assessment of associated health risks and/or benefits. State and local health departments should endeavor to coordinate public health across sectors and elevate the public’s understanding of public health.

Summary

When someone hears “public health” they are apt to think of Medicare or Medicaid, but these programs are not what is commonly understood to be public health. Medicare and Medicaid are publicly-provided health insurance programs that facilitate an individual’s access to health care. Public health is much broader and refers to a constellation of activities that assess the health status of communities, design policies and interventions to improve health, and assure that health needs are met by monitoring and evaluating health services and programs. In practice, these activities include preventing disease, poisoning, and injury by:

- Controlling the spread of infectious diseases and other factors that cause harm
- Guaranteeing the safety and quality of food and drinking water
- Ensuring safe and clean environments
- Certifying the quality of the health care workforce and facilities

- Addressing the reasons that some people are more likely to suffer poor health than others
- Educating and empowering individuals to improve their health

Stated more succinctly, public health is the science of protecting and improving the health of people and their communities, and a substantial proportion of the health and well-being each individual enjoys is due to public health. Average life expectancy has more than doubled since the mid-1800s. While medical care might look like the obvious hero, more than 80 percent of this improvement is because of advances in public health.

The water emergency in Flint brought international attention to the perverse irony that citizens of the Great Lakes State were unable to secure potable water. Ongoing, contemporaneous threats from a cornucopia of contaminants—PFAS, dioxane, harmful algal blooms—affect water systems

throughout the state, suggesting that lead may be the least of Michigan's water woes. Yet lead remains a longstanding occupant of aging and increasingly unsafe housing found throughout the state from Detroit to Grand Rapids. Moreover, while water seems to have a special importance in Michigan, air and soil contamination are no less cause for concern: every source of pollution compromises and erodes the health of the public.

What we eat affects our health as much as the water we drink and the air we breathe. Older residents of the state might recall the horror caused in the 1970s when millions were exposed to polybrominated biphenyl (PBB) through contaminated meat, dairy, and eggs. Packaged food remains a source of human infection from pathogens like *E. coli* and *Salmonella*. Unsafe food handling and preparation can also lead to food contamination and the spread of disease, playing a factor in Michigan's largest-in-the-nation outbreak of Hepatitis A that began in 2016.

Hepatitis A is highly contagious, and, like many infectious diseases, can spread through a population like wildfire if not contained. Reports of other vaccine-preventable diseases, such as measles, mumps, pertussis, and varicella, continue to occur in Michigan. Influenza is responsible for numerous hospitalizations and deaths each year. Additionally, the ease of global travel means that emerging diseases (like Ebola virus) can find their way to Michigan. Infectious diseases are cause for continued (perhaps heightened) concern.

While events like outbreaks and environmental contaminations create clear and immediate threats, ongoing social and environmental factors in communities can also have a profound, insidious effect on health over time. These factors (such as poverty, stress, lifestyle, education, and environment) account for at least 60 percent of health outcomes and premature death. The importance of these social determinants of health has been understood

for decades, yet they continue to receive inadequate attention from many policymakers and health care professionals. Public health enables this focus on the underlying factors that contribute to poor health.

It is difficult to put a dollar amount on diseases that people didn't catch, on injuries they didn't sustain, or on poisonings that didn't happen. It's also difficult to monetize incremental changes in health quality throughout the course of a person's life. These benefits are invaluable, however, leading to decades of added life and the potential for productivity and prosperity. It is far less expensive to prevent a disease, injury, or poisoning than to medically treat them once they have occurred. Yet, Michigan has disinvested in public health over the past 15 years.

State-supported public health expenditures in Michigan have dropped by 16 percent from an inflation-adjusted high point of \$300 million in FY2004. This is not to say that funding was adequate at this expenditure apex. Compared to other states, Michigan ranks near the bottom for its investment in public health (See **Chart A**, page 3). Taking away federal funding and programs, Michigan's FY2017 state public health investment totaled \$128.3 million (just \$12.92 per capita).

After multiple past executive reorganizations and administrative restructuring, public health responsibilities have been spread across several state departments (rather than remaining the purview of the state health department – presently the Michigan Department of Health and Human Services). The Department of Environmental Quality and Department of Agriculture and Rural Development have assumed important public health roles, and public health functions are also fulfilled by the State Police and the Department of Licensing and Regulatory affairs. This fragmentation might be considered both a symptom and a cause of the marginalization of public health in Michigan.

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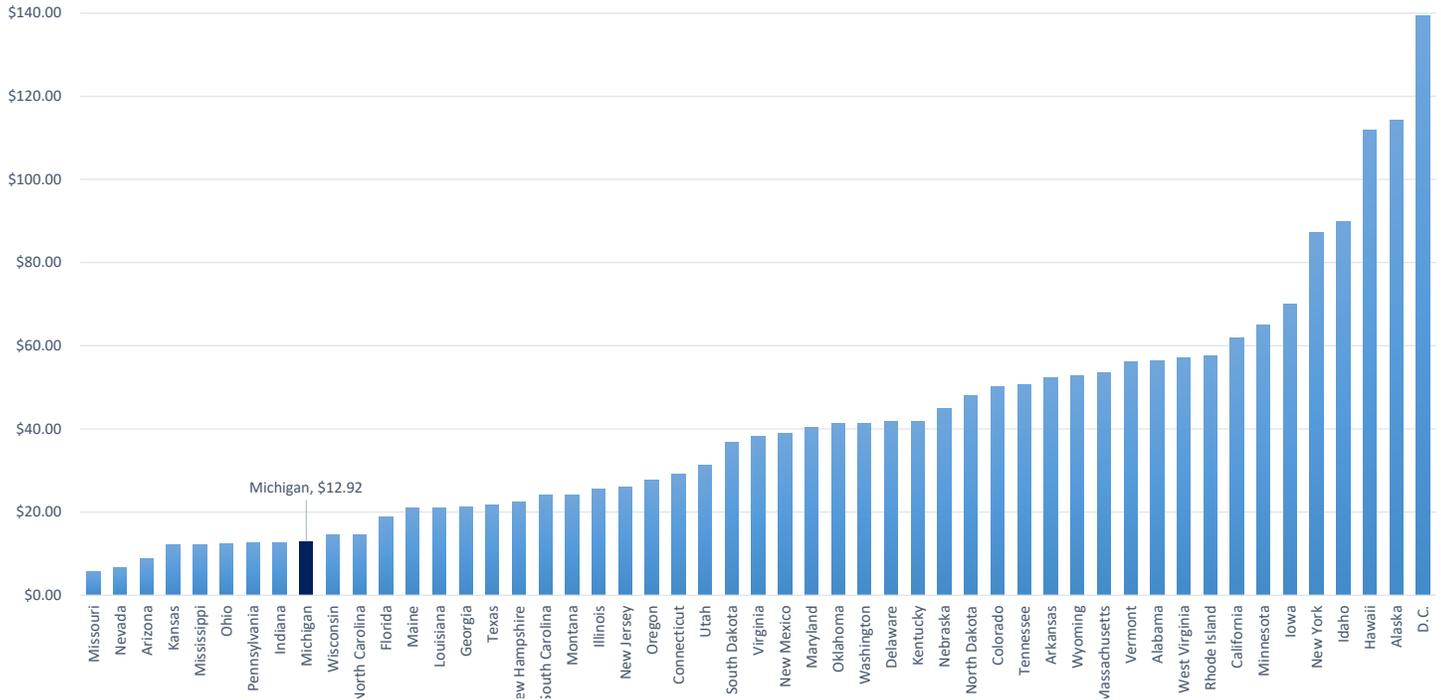
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Chart A

Per-Capita State Funding for Public Health, FY2017



Source: Trust for America’s Health

While the Michigan Department of Health and Human Services has the largest budget of any state department, public health appropriations within this budget have accounted for less than one percent of the total state budget and less than one percent of the state’s general fund. A total of \$1.4 billion was appropriated to all five departments with public health responsibilities in FY2018. This suggests that as much as 2.5 percent of Michigan’s \$55.8 billion state budget is dedicated to public health. (See **Chart B.**) Given the centrality and importance of public health, this proportion may be inadequate.

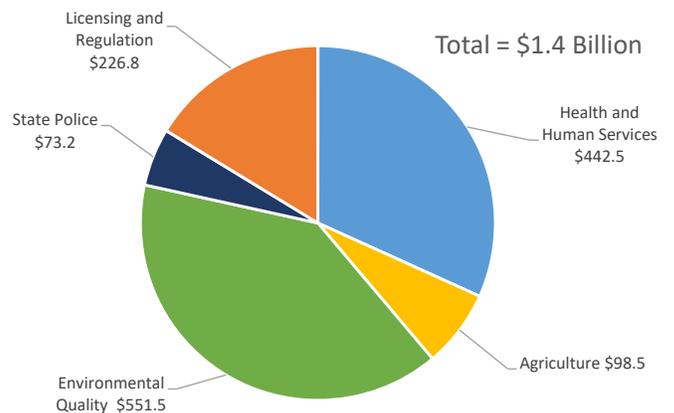
Michigan relies heavily on federal funding to support state and local public health activities, yet federal funding for public health appears increasingly scarce. The combined low levels of funding from both federal and state sources have left Michigan in a state of public health subsistence. Michigan has managed to do what is necessary to generally protect the public’s health, but this minimal funding leaves the state potentially unprepared for future crises. Moreover, without additional funding, the state will be far less able to develop new policies or programs

to address mounting public health concerns and needs in Michigan.

Michigan, largely because of the social, economic, and physical condition of its communities, has higher than average prevalence of many chronic diseases like

Chart B

Public Health Appropriations in Michigan, FY2018 (dollars in millions)



Source: CRC Analysis of State Line Item Appropriations

heart disease and diabetes (See **Table A**). More Michiganders smoke and/or are obese than the national average. Relatedly, Michigan has a higher rate of infant mortality and its residents have a shorter life expectancy at birth than the U.S. average. Viewed collectively, these broad strokes paint one strikingly clear picture: Michigan pays a price for not prioritizing and funding public health.

That price is evident in Flint and other communities that experience health threats from their water, food, and environment. The insidious nature of this price is revealed in Northern Michigan’s “disability belt” and in the communities struggling with opioid addiction. The unfair character of this price is paid especially by low-income communities and communities of color where people live much shorter, sicker lives and watch infants perish at more than twice the rate of other communities. Michigan cannot afford to continue to spend massive amounts on health insurance policies and costly medical interventions while failing to invest in population-level health promotion and disease prevention, or, more generally, in social well-being. Moreover, Michigan cannot afford to be seen as a state that fails to protect the safety and well-being of its people.

The health issues facing Michigan are complex. In contrast, a large part of the solution to these health issues is very simple. Michigan needs greater investment in public health. Investment certainly means greater appropriation of fiscal resources; investment also means greater philosophical buy-in. Each of Michigan’s departments, agencies, and local governments should prioritize safeguarding the public health and adopt a “Health in All Policies” philosophy and approach to governance. The public must develop a deeper understanding of public health, assume greater individual responsibility for personal and community health, and hold public leaders accountable for failures to protect the public’s health.

Table A

Age-Adjusted Mortality Rates* for the Ten Leading Causes of Death in Michigan, 2016

*Rates are per 100,000 persons

	U.S.	Michigan	Detroit
Heart Disease	165.5	200.8	322.9
Cancer	155.8	167.1	192.7
Chronic Lower Respiratory Diseases	40.6	44.7	33.9
Unintentional Injuries	47.4	50.8	71.9
Stroke	37.3	39.1	47.4
Alzheimer’s Disease	30.3	33.8	20.1
Diabetes Mellitus	21	21.5	27.6
Kidney Disease	13.1	14.5	23.5
Pneumonia/Influenza	13.5	13.7	21
Intentional Self-harm	13.5	13.4	8.9
All Causes of Death	728.8	787.8	1,027.4

Source: Detroit Health Department

A Health in All Policies approach can only be realized by forging strategic partnerships across the public and private sectors, and by increasing public understanding of the importance of public health. In particular, it is important for public health leaders to bring together relevant partners and collaborators and work to explicitly address the upstream factors that determine health. While Michigan has a comprehensive public health code, a well-trained public health workforce, and nationally accredited university programs to train the next generation of public health professionals, it will be impossible to improve the future health of the public absent the public’s support, consent, and buy-in. This makes the adoption of well-organized, collaborative, and transparent public health delivery systems essential.

Health underpins every individual’s ability to pursue their own happiness and to make productive contributions to their community. Michigan faces numerous health challenges and large numbers of people continue to experience notable health disparities. Greater attention to public health will work to deconstruct physical and social barriers to healthy, productive lives, and to safeguard the health and well-being of all citizens on this pair of pleasant peninsulas.

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