

To Bring Food Into Health, We Must Bring Health To The Food System

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Two of the oldest maxims in health care are “[do no harm](#)” and “[let food be thy medicine and medicine be thy food](#).” However, these two maxims may no longer be compatible. In the current push to prescribe food as a medicine, the health care system may be harming those working in the food system who need that medicine the most. Fortunately, a systemic analysis of both food and health can help to align incentives to achieve the best outcomes for all involved.

There Is Increased Momentum In Paying For Food To Improve Health

Food insecurity is associated with poorer health, and so it has been the target of recent health reform. Food insecure individuals are more likely to have [multiple chronic diseases](#), from diabetes to [depression](#). Although food insecurity and diet have a [complex relationship](#), incentive programs have been shown to [increase consumption](#) of fruits and vegetables. When modeled out, an increased consumption of healthier food can lead to [cost-effective health improvements](#) for society. More recently, interventions that include food for specific populations and conditions have shown promising results. The home delivery of medically tailored meals to at-risk older adults is associated with [decreases in hospitalization](#), and trials are beginning to test the utility of fruits and vegetables as an intensive intervention to [reduce kidney injury](#) and slow the progression of chronic kidney disease.

The health system is paying attention to these results. The [North Carolina](#) Medicaid program has added food as a reimbursable expense. In [Massachusetts](#), the Blue Cross Blue Shield of Massachusetts Foundation supports a “food is medicine” coalition to assess opportunities to invest in nutrition for health across the state. Through [Medicare Advantage](#), an estimated 46 percent of plans offered a meal benefit in 2020, an increase from 20 percent in 2018 according to the Commonwealth Fund. These benefits most frequently cover [delivering meals after hospital discharge](#) to lower the risk of readmission (usually for a period of fewer than 30 days). Some insurers have also

begun providing monthly [food charge cards](#) to “dual eligible”—those who qualify for both Medicare and Medicaid because of disability or extreme poverty. And, federal programs such as [Gus Schumacher Nutrition Incentive Program](#) are evaluating nutrition incentive and produce prescription programs to inform future coverage of food for health.

Food Workers Have Some Of The Worst Health Access And Outcomes

The recognition of food as medicine is a welcome trend. Unfortunately, the food industry is itself a substantial driver of poor health. In the US, the food industry is responsible for some of the lowest wages, the highest rates of uninsured, and some of the most striking racial and gender disparities in health. The sector accounts for [more than 10 percent](#) of US employment, but many in the food system are undocumented. [More than 50 percent of farm labor does not have authorization to work in the country](#) and across the food system [1.7 million workers are undocumented](#). Even for those authorized to work in the country, conditions are poor. Work in the food system can involve [exposure to environmental hazards and high risks for injury](#). Despite the need, [fewer than half of farm workers used health care in the prior two years](#). Farm work often lies outside the purview of [overtime and minimum wage regulations](#). The United States has a long history of [racially discriminatory policy to keep farm labor cheap](#). Policy frameworks that have benefited the agriculture industry continue to discriminate against low-income communities across the food system, far beyond the field.

Food processing and delivery workers are the least protected by labor law and have to handle not only low but also unpredictable wages. Food service workers have some of the lowest rates of insurance, with national estimates ranging from [25 percent](#) to [35 percent](#) uninsured. In Medicaid expansion states, coverage is more robust with, for example, only 6 percent uncovered in Hawaii, but in [non-expansion states such as Wyoming and Texas, more than 40 percent are uncovered](#). The food service industry reflects some of the starkest [structural inequities along race and gender fault lines](#), with 53 percent of back-of-house roles covered by people of color versus 22 percent for tier-1 positions in fine dining. When COVID-19 struck, an analysis of excess mortality by industry in California showed that the [highest number of excess deaths occurred in food and agriculture](#). The top five roles with excess mortality in 2020 included cooks, miscellaneous agricultural workers, and meat-processing workers.

Health Care’s Large-Scale Purchase Of Food As Medicine Could Further Erode Wages And Health Care For Workers

As health care steps up purchasing of food as medicine at scale, its focus on driving cost reductions will put pressure on the food system. Price competition is already well underway in the health system around the cost of food. When insurers purchase meal delivery for patients discharged from hospitals, contract negotiations are based on the price per meal. Large food providers such as Mom's Meals and DeliverLean CARE are establishing relationships with insurers, competing against each other to [win this big new business](#). North Carolina's Medicaid waiver program has begun paying for food through its Healthy Opportunities Pilots. It [calculates reimbursements](#) per box of produce, or meal picked up or delivered, which, therefore, becomes the basis on which clinics and hospitals negotiate contracts with their providers.

Markets allocate resources well when prices accurately reflect both the private and external costs, in other words [the full social costs](#), of production. But if food is being purchased to improve health directly, and the food system's externalities mean that low prices are achieved through structural pathways that make vulnerable populations unhealthy, then markets fail. The outcome of price-based competition under the current food system is poorer health for those who produce the food. If a pharmaceutical industry technician faced a similar situation, there would be an outcry. Left unaddressed, however, this may be the inevitable consequence of the food system's interaction with the health care system.

The structure of the food system has made it hard to advocate for higher wages and greater spending on health care. The food industry is [increasingly consolidated in the United States](#). Growing monopoly and oligopoly power allows the food industry [to lobby the government for favorable legislation](#), turning private costs into externalities, with particularly [negative effects for workers](#). With bargaining power restricted and lacking alternative employment because of the limited number of buyers for their labor, it's virtually inevitable that when large purchasers enter the food system, their focus on low prices will put pressure on already low wages, exacerbating inequities.

Where We Can Start

Leverage The Mission Of Health Care

Hospitals have increasingly embraced the notion that its cafeteria food should promote health, although it has been [slow going](#). As the push has been made to ensure healthier food in their cafeterias, [compelling arguments](#) have been made to justify higher prices of healthier food against the backdrop of health care's mission and goals. With health care purchasing nutritional food as medicine, the connection is much more explicit between food and health. It is not just that people delivering health care happen to eat in the cafeteria. It's that the people producing the food need healthier working conditions and guaranteed health care. And, with hospitals and nursing homes [purchasing \\$27 billion](#) of a total of \$56 billion in non-commercial restaurant services, the impact would not be trivial.

Learn From Movements In The Food System

Market prices are not, by themselves, good indicators of whether the production processes are conducive to worker and environmental health. There are ways in which “value added” can be flagged by non-monetary indicators. “Organic” is a US Department of Agriculture standard that aligns the perception of personal health benefits with protection for workers on farms from exposure to industrial chemicals. “Fair Trade” [can](#) establish some protocols of labor standards at a global level, as well as a reasonable return to farmers themselves. A “Good Health” certification means that foods purchased by the health care system to work as medicine for some could also ensure health for those who produce it. But the structural barriers to raising workers’ conditions are unlikely to be alleviated by a label alone.

Within the food system, some organizations have come to recognize that more specific metrics are necessary to achieve better outcomes. For example, the [Good Food Purchasing Program](#) was developed by the Los Angeles Unified School District, the largest such organization in the United States. Seeing institutional food purchasing as a lever for change, the district sought to improve outcomes across five key areas: local economy, nutrition, worker dignity, animal welfare, and environmental sustainability. Through consultation with unions, parents, environmental activists, animal rights groups, and small businesses, a series of metrics and milestones emerged. Through its preferential purchasing and evaluation system, the program recognizes and rewards improvement across a range of relevant metrics. It has since expanded beyond Los Angeles across the United States and currently serves 2.5 million students across 50 school districts.

Central to the shift in food purchasing was the willingness to embrace difficult conversations around workers’ rights—which remains a taboo in the food industry—and to broker conversations in which valuing the workforce appears to conflict with other priorities, such as local business development. Those conversations can be held in ways that, while difficult, are more democratic and accountable than simply letting the market rule. Recognizing that the key to better outcomes lies in the clear and transparent [embrace of non-dollarized](#) outcomes has been central to the Good Food Purchasing Program’s success.

Frame Concerns About Costs In The Context Of Health Care’s Fundamental Challenges

Our health care costs are out of control, but downward pressure on food prices is not the solution to our health care cost crisis. First, the relative contribution of food is and will remain small compared to overall costs. The \$35 billion currently spent on food services by the health care sector is small compared to the \$3.8 trillion total expenditures of the health system. A recent [analysis of spending by health care institutions on social determinants of health](#) estimated \$294 million being spent on

food by 25 large health systems, each of which has revenues in the billions. Although food expenditures should increase, they will never be a major locus of excess costs for the health care industry in which untenably high per capita health care costs in the United States accompany [high prices](#) and [poor outcomes](#) relative to other developed nations. Paying more for food promises to [improve health cost-effectively](#). As long as we don't improve one group's health at the expense of another's, the benefits could be multiplicative. As always with our health care system, the challenge is ensuring alignment between those who reap benefits with those who pay to deliver those benefits. With food, that will mean that systems that pay "Good Health" prices for food will need to be incentivized and supported to make the transition.

Leverage Current Trends In Improving How We Pay For Health Care

We do not underestimate the challenges in encouraging health care institutions to track the health of people who are not directly a part of that institution. In the US, health care is big business. However, such business is subject to regulation. That may be the place to start. Government mandates already require the disclosure of metrics to demonstrate the quality of coverage by insurers and, to some extent, by health systems. Such mandatory reporting ties payment to performance, for example, [in measuring Body Mass Index and family counseling about nutrition and exercise](#). Similar performance measures for health systems might encourage the sourcing of food as medicine to support the health of those producing the food. Such a move would be part of the broader goal of paying for outcomes instead of units of food-as-medicine treatment. We might then enlarge and calibrate health outcomes across not just the direct recipients of health care but those in the supply chain of treatment. Reporting on quality measures as part of payments could include measures for health in the food production pipeline, as well as for the people the food helps at the end of the pipeline.

Set Standards In Early Research And Its Funding

The role of food in the health system is being demonstrated through a boom in research across the country. As results are being proven, setting a quality standard in food production processes can help pave the way for these same baseline standards to be maintained as the programs become normalized in the health system. We already know that such a path will be challenging in unexpected ways. One of the authors (Kahlon) was working on [a food-as-medicine project](#) with produce providers who had a proven record of good labor and environmental practices when the February 2021 winter storm hit Texas. To meet partner expectations and school calendars, moving ahead meant switching to more traditional providers. Such disruptions will not be rare. Sustainable providers as part of a nascent ecosystem are more vulnerable to shocks to their operating environment, be they COVID-19 or climate change. Integrating such providers into complicated research protocols will be hard. It will, however, be easier to establish that high production standards matter, as health care payers begin to pay to include food in their portfolio of therapeutic approaches as the business ecosystem for such programs is still forming. Funders investing in research will be pivotal here. Funders can

shoulder the additional program costs as part of embracing something akin to the Good Food Purchasing Policy, while funding research, to ensure that when nutrition programming is being assessed, all those participating in the food system are cared for as much as the patients directly receiving care through food.

Conclusion

Markets can be excellent engines for efficiency when those prices reflect the full social costs of production. In the food system, however, prices have been kept low through successfully externalizing costs, with grave consequences for the health of consumers and workers within that system. Attempts to remedy these inequities will, in the long term, involve regulating the manufacture of food. The food system's externalities are vast. A recent Rockefeller Foundation report [observed](#) that while consumers spent \$1.1 trillion on food in 2019, the externalities of the food system were at least \$2.1 trillion, for a social cost of \$3.2 trillion. While the larger changes needed to bring prices and true costs into alignment lie beyond the scope of health systems, a trail has been blazed by large institutional food service providers in education, looking to ensure that the food served to students is healthy for all. By measuring progress along non-dollarized metrics, projects such as the Good Food Purchasing Program have been able to "measure what matters," while feeding millions of students.

By recognizing the ethical, health care, and economic case for change, it may yet be possible both to "do no harm" and let "food be thy medicine." If food is medicine, we should anchor the use of food on the science of the impact it creates. But with "do no harm" must come a consistent, complimentary lens of ensuring that the science pertains to all in the pathway of creating and consuming the food. Identifying the right measures of success for health programs that include food and extending those measures to those who produced the food for the interventions, food and health systems may yet be able to have their cake and eat it too.

Authors' Note

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