



# **SHIFTING U.S. FOOD AND FARM POLICY TO DELIVER POSITIVE HEALTH OUTCOMES**

**Farm Action Policy Recommendations**

**Prepared for the White House Conference  
on Hunger, Nutrition, and Health**

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# INTRODUCTION

Farm Action is a farmer-led nonprofit using original research to develop and advocate for policy changes in support of a food and agriculture system that works for everyone, not just a handful of corporations.

The 2022 White House Conference on Hunger, Nutrition, and Health is an historic opportunity to address one key cause of our current public health crisis: the policy foundations of the system that produces our food. Our current food and farm policy is a major driver of poor health in the U.S. because our food system is dominated by a handful of powerful corporations singularly focused on amassing more money and control, at the expense of everyone else.

Based on our research and feedback from our national network of farmers and food system advocates, we have compiled a list of recommendations that correspond to the pillars provided by the White House Conference on Hunger, Nutrition, and Health.

To address several key barriers to health in America, we've responded to pillars one, two, three, and five with the below policy recommendations:

1. Shifting the priorities of our farm support systems away from the production of high-calorie, low-nutrient foods and toward the nutrient-dense foods recommended by our federal dietary guidelines.
2. Emphasizing the importance of nutrition to health in our current and future physician training.
3. Making nutrient-dense foods, such as fruits and vegetables, more affordable and accessible to all consumers.
4. Protecting farmworkers and food system workers from hazardous working environments.
5. Protecting consumers from exposure to hazardous agrichemicals.
6. Helping farms transition away from systems that threaten public health.

We are grateful for this opportunity to submit our policy recommendations toward a healthier food system and healthier population.

# **PILLAR 1: IMPROVE FOOD ACCESS AND AFFORDABILITY**

*End hunger by making it easier for everyone — including urban, suburban, rural, and Tribal communities — to access and afford food.*

In this section, we discuss how we could improve food access for Americans by shifting the focus of our vast and powerful farm system from the production of cheap animal feed and processed food — which is then funneled into meat exports — toward the production of nutrient-dense foods grown for human consumption.

## **U.S. FOOD SUBSIDIES ARE A DRIVER OF POOR NUTRITION**

### **THE ISSUE**

The government funnels the vast majority of its support toward the production of processed foods and cheap animal feed, and little toward fiber-rich foods. Government food subsidies should at a minimum align with their own government nutritional guidelines, but our subsidies are presently the inverse of USDA dietary guidelines. The USDA recommends filling each plate with 50% fruits and vegetables;<sup>1</sup> however, only 2-5% of federal farm supports went toward the production of fruits, nuts, and vegetables in 2020.<sup>2</sup> Contrast that with the 37% that meat, poultry, eggs, and animal feed received (not including funds for COVID-19 and trade relief), and the 7% that food grains (which generally end up as highly-processed foods stripped of dietary fiber) received in federal farm spending in 2020.<sup>3</sup>

Subsidized commodity crops, such as corn and soybeans, yield cheap sugars, starches, and oils for highly-processed, unhealthy food and cheap feed for livestock and poultry. Meanwhile, nutrient-dense crops such as fruits and vegetables are too often considered luxury items. One need look no further than USDA's own categorical classification of fruits and vegetables as "specialty crops" to appreciate their priority level within the agency.

We can also see USDA's targeted support for certain commodity crops reflected in land use figures: roughly 77 million acres of American cropland are used to grow plant foods for human consumption, while 128 million acres are used to grow crops for livestock feed.<sup>4</sup>

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<sup>1</sup> "Dietary Guidelines for Americans: 2020-2025." United States Department of Agriculture. Available at [https://www.dietaryguidelines.gov/sites/default/files/2021-03/Dietary\\_Guidelines\\_for\\_Americans-2020-2025.pdf](https://www.dietaryguidelines.gov/sites/default/files/2021-03/Dietary_Guidelines_for_Americans-2020-2025.pdf).

<sup>2</sup> "U.S. Farm Spending Diverges from Nutritional Guidelines." Agriculture Fairness Alliance. Accessed July 2022. Available at <https://agriculturefairnessalliance.org/news/farm-spending-and-dga/>.

<sup>3</sup> Ibid.

<sup>4</sup> Ibid.

Americans' diets reflect this prioritization by the federal government of corn and soybeans over fiber-rich crops grown for human consumption. Nearly 90% of the U.S. population falls below the recommended dietary allowance (RDA) for vegetables, and 80% fall below the RDA for fruit.<sup>5</sup> In contrast, the average adult American male consumes 75% more protein than is required and the average adult American female consumes 50% more. Animal-based foods like meat, eggs, and dairy account for 70-85% of this dietary protein.<sup>6</sup> Americans also derive well over half their caloric intake from ultra-processed foods.<sup>7</sup>

As a result, America is in a diet-related health crisis. More than 10% of the U.S. population has diabetes.<sup>8</sup> In 2020, 41.9% of the U.S. was classified as obese, up from 30.5% in 1999.<sup>9</sup> During that same time period, the prevalence of severe obesity nearly doubled from 4.7% to 9.2%.<sup>10</sup> Obesity-related conditions such as heart disease, stroke, type 2 diabetes, and certain types of cancer are the leading causes of preventable premature death.<sup>11</sup> The estimated medical cost of obesity in the United States was nearly \$173 billion in 2019<sup>12</sup> and medical costs for adults who had obesity were on average \$1,861 higher than medical costs for people with healthy weights.<sup>13</sup> In 2018, national health expenditures were \$3.6 trillion and are projected to nearly double to \$6.2 trillion by 2028.<sup>14</sup> To critics who claim that the country cannot afford the programs we're recommending, we'd respond that the country cannot afford to leave this epidemic untreated.

Improving Americans' access to fiber-rich food is an important step in battling this health crisis. The U.S. Surgeon General has said that scientific evidence strongly suggests that "a dietary

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<sup>5</sup> United States Department of Agriculture, *Dietary Guidelines for Americans: 2020-2025*. Available at [https://www.dietaryguidelines.gov/sites/default/files/2021-03/Dietary\\_Guidelines\\_for\\_Americans-2020-2025.pdf](https://www.dietaryguidelines.gov/sites/default/files/2021-03/Dietary_Guidelines_for_Americans-2020-2025.pdf).

<sup>6</sup> "Protein Consumption and Production." Menus of Change. Accessed July 2022. Available at <https://www.menusofchange.org/issue-briefs/protein-consumption>.

<sup>7</sup> "Americans are eating more ultra-processed foods." Science Daily. October 14, 2021. Available at <https://www.sciencedaily.com/releases/2021/10/211014102038.htm>.

<sup>8</sup> "National Diabetes Statistics Report: 2020." Center for Disease Control. Available at <https://www.cdc.gov/diabetes/pdfs/data/statistics/national-diabetes-statistics-report.pdf>.

<sup>9</sup> "Adult Obesity Facts." Center for Disease Control. Accessed July 2022. Available at <https://www.cdc.gov/obesity/data/adult.html>.

<sup>10</sup> Ibid.

<sup>11</sup> Ibid.

<sup>12</sup> "Why it Matters." Center for Disease Control. Accessed July 2022. Available at <https://www.cdc.gov/obesity/about-obesity/why-it-matters.html>.

<sup>13</sup> "Adult Obesity Facts." Center for Disease Control. Accessed July 2022. Available at <https://www.cdc.gov/obesity/data/adult.html>.

<sup>14</sup> Sean Keehan, Gigi Cuckler, John Poisal, Andrea Sisko, Sheila Smith, Andrew Madison, Kathryn Rennie, Jacqueline Fiore, and James Hardesty. 2020. "National Health Expenditure Projections, 2019-28: Expected Rebound In Prices Drives Rising Spending Growth." *Health Affairs*, Vol. 39, No. 4. Available at <https://www.healthaffairs.org/doi/10.1377/hlthaff.2020.00094>.

pattern that contains excessive intake of foods high in calories, fat (especially saturated fat), cholesterol, and sodium, but that is low in complex carbohydrates and fiber is one that contributes significantly to the high rates of major chronic diseases among Americans.”<sup>15</sup>

But as we have demonstrated, our farm support system does not incentivize the production of fiber-rich crops. On average, Americans only eat half the amount of recommended dietary fiber,<sup>16</sup> and only half of that amount is supplied by the U.S. food system.<sup>17</sup> Since the U.S. farm system only produces about 25% of the dietary fiber our population needs, we import two thirds of our fresh fruit and one third of our fresh vegetables.<sup>18</sup> That means that if the 80-90% of Americans who do not consume sufficient fruits and vegetables were to suddenly transform their diets to mirror USDA’s recommendations, our current food supply system would be unable to meet the demand.

## **POLICY RECOMMENDATIONS**

The upcoming Farm Bill offers several important opportunities to begin shifting government supports away from the production of processed foods and cheap animal feed and toward fiber-rich food production. Below are some policy recommendations to achieve this; for more, please see Farm Action’s [Fair Farm Bill Policy Handbook](#). For readers less familiar with the farm bill, our [Fair Farm Bill Primer](#) is an excellent resource that helps readers get up to speed on farm bill programs, agencies, and acronyms.

1. Expand crop insurance options to support more diversified, regenerative, non-conventional operations that produce nutrient-dense food for people. One example of this would be expanding the recent micro-farm insurance program.
  - a. Marker Bills: Food and Farm Act; Crop Insurance Modernization Act of 2018
2. Set payment limits on risk management and commodity programs so that the largest farms aren’t receiving the bulk of the supports.
  - a. Marker Bill: Rural Preservation Act of 2012
3. Stop the abuse of commodity checkoff programs, many of which promote the production of meat in industrial systems that harm human health.
  - a. Ensure checkoff programs are transparent and accountable.

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<sup>15</sup> “The Surgeon General’s Report on Nutrition and Health: Summary and Recommendations.” 1988. U.S. Department of Health and Human Services. Publication No. 88-50211. Accessed July 2022. Available at <https://profiles.nlm.nih.gov/spotlight/nn/catalog.nlm.nih.gov/nlmuid-101584932X727-doc>.

<sup>16</sup> Laura Ferguson. 2019. “10 Things You Need to Know About Fiber.” Tufts Nutrition. Accessed July 2022. Available at <https://sites.tufts.edu/nutrition/winter-2019/10-things-you-need-to-know-about-fiber/>.

<sup>17</sup> “An American Health Crisis.” Agriculture Fairness Alliance. Accessed July 2022. Available at <https://agriculturefairnessalliance.org/news/an-american-fiber-crisis/>.

<sup>18</sup> “US Imports of Fresh Fruit and Vegetable.” February 24, 2021. Rural Migration News. Accessed July 2022. Available at <https://migration.ucdavis.edu/rmn/blog/post/?id=2569#:~:text=The%20US%20imports%20almost%20two.third%20of%20its%20fresh%20vegetables>.

- b. Allow commodity producers to participate in checkoff programs on a voluntary, rather than mandatory, basis.
  - c. Marker Bills: Voluntary Checkoff Program Participation Act; Opportunities for Fairness in Farming Act
- 4. The USDA needs to help develop infrastructure to support farmers transitioning to nutrient-dense high fiber crops, like fruits and vegetables.
  - a. The USDA recently deployed \$100 million under the new Food Supply Chain Guaranteed Loan Program to make available nearly \$1 billion in loan guarantees. These loan guarantees will back private investment in processing and food supply infrastructure. This infrastructure is critical to building up a thriving produce economy in the U.S. The USDA needs to increase its investment in this program.
  - b. The USDA needs to help support regional produce markets by using its purchasing power. They should establish purchasing targets, or set-asides, for purchases of food from independent regional producers, foods from socially disadvantaged producers, and foods from organic and regenerative farms.

## **PILLAR 2: INTEGRATE NUTRITION AND HEALTH**

*Prioritize the role of nutrition and food security in overall health, including disease prevention and management, and ensure that our healthcare system addresses the nutrition needs of all people.*

In this section, we give recommendations for prioritizing the role of nutrition in both our farming and medical system. Diet and nutrition are arguably the most significant way Americans can combat the prevalence of obesity and diet-related disease. It is widely accepted that Americans need to increase the amount of fiber, fruits, and vegetables in their diets. And yet, our farming system prioritizes the production of corn and soybeans for highly processed, high-sugar, high-fat foods and cheap animal feed over the production of fiber-rich food for human consumption. Furthermore, our medical system fails to equip our physicians with the knowledge base they need to give patients proper nutritional counsel.

### **U.S. FOOD SUBSIDIES ARE A DRIVER OF POOR NUTRITION**

*Please refer to Pillar 1 to read more about this issue and the corresponding policy recommendations.*

## **THE U.S. HAS NOT EQUIPPED ITS HEALTHCARE PROVIDERS TO COMBAT A DIETARY EPIDEMIC**

### **THE ISSUE**

Doctors need more training on the interrelationships between food, nutrition, and health. Nutrition is a critical factor of an individual's overall health, and yet the Liaison Committee on Medical Education, the accrediting organization for U.S. medical schools, has set the minimum recommendation for nutrition education at a mere 25 hours for the entire four-year medical school curriculum.<sup>19</sup> Furthermore, most medical schools fall short of this requirement: one study found that 71% of schools failed to provide the full 25 hours of nutrition education, and 36% provided less than half that amount.<sup>20</sup> Another study found that 88% of instructors at medical institutions

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<sup>19</sup> Shanley Pierce. September 25, 2019. "Food for thought: Medical schools lack adequate nutrition education." Texas Medical Center. Accessed July 2022. Available at <https://www.tmc.edu/news/2019/09/food-for-thought-medical-schools-lack-nutrition-education/>.

<sup>20</sup> Kelly Adams, W. Scott Butsch, and Martin Kohlmeier. 2015. "The State of Nutrition Education at US Medical Schools." Journal of Biomedical Education, Article ID 357627. Available at <https://www.aamc.org/system/files/c/2/449566-stateofnutrition.pdf>.



believed their employers should offer more nutritional training.<sup>21</sup> Without a strong foundation in nutrition principles and the fundamental relationship between nutrition, food, and health, it is unrealistic to expect physicians to have the appropriate knowledge base to combat our diet-related epidemic.

## **POLICY RECOMMENDATIONS**

USDA's Gus Schumacher Nutrition Incentive Program (GusNIP) has successfully increased participants' food security and fruits and vegetable intake through its nutrition incentive and produce prescription projects.<sup>22</sup> Based on its success, GusNIP funding should be increased and the program expanded. Expand GusNIP to create programs that certify both doctors and medical schools in nutritional training.

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<sup>21</sup> Kelly Adams, Karen Lindell, Martin Kohlmeier, and Steven Zeisel. 2006. The American Journal of Clinical Nutrition, Vol. 83, Issue 4. Available at <https://academic.oup.com/ajcn/article/83/4/941S/4649273>.

<sup>22</sup> Nutrition Incentive Hub. (January 18, 2022). "Improving Community Nutrition: GusNIP Year 2 Impact Findings Report Released" [Press Release]. Available at <https://www.nutritionincentivehub.org/news-events/news/improving-community-nutrition-gusnip-year-2-impact-findings-report-released>.

## **PILLAR 3: EMPOWER ALL CONSUMERS TO MAKE AND HAVE ACCESS TO HEALTHY CHOICES**

*Foster environments that enable all people to easily make informed healthy choices, increase access to healthy food, encourage healthy workplace and school policies, and invest in public messaging and education campaigns that are culturally appropriate and resonate with specific communities.*

In this section we examine our food system's failures to facilitate healthy choices and working environments, and offer actionable opportunities for improvement.

1. We address the power the upcoming farm bill has to make healthy food more affordable for Americans.
2. We advocate for stronger protections from agrichemicals to keep both farmworkers and consumers safe from dangerous levels of exposure.
3. We address how consolidation in our food system has disenfranchised food system workers and exposed them to hazardous working environments.
4. We also stress the importance of improving our physicians' nutritional training so that they can empower consumers with the necessary information to make healthy choices.

### **NECESSARY FRUITS AND VEGETABLES ARE NOT AFFORDABLE TO ALL THE ISSUE**

The USDA recommends a diet comprised of at least 50% fresh fruits and vegetables,<sup>23</sup> but many Americans consider them “luxury” items due to their relatively high price point. Nearly 90% of the U.S. population falls below the recommended dietary allowance (RDA) for vegetables, and 80% fall below the RDA for fruit. When provided with better access to fruits and vegetables, studies have shown that consumers increase their intake.<sup>24</sup>

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<sup>23</sup> United States Department of Agriculture, *Dietary Guidelines for Americans: 2020-2025*. Available at [https://www.dietaryguidelines.gov/sites/default/files/2021-03/Dietary\\_Guidelines\\_for\\_Americans-2020-2025.pdf](https://www.dietaryguidelines.gov/sites/default/files/2021-03/Dietary_Guidelines_for_Americans-2020-2025.pdf).

<sup>24</sup> Nutrition Incentive Hub. (January 18, 2022). “Improving Community Nutrition: GusNIP Year 2 Impact Findings Report Released” [Press Release]. Available at <https://www.nutritionincentivehub.org/news-events/news/improving-community-nutrition-gusnip-year-2-impact-findings-report-released>.

## POLICY RECOMMENDATIONS

The upcoming farm bill is an outstanding opportunity to reorient our food and farm system to deliver better health outcomes. Below are some policy recommendations to achieve this; for more, please see Farm Action's [Fair Farm Bill Policy Handbook](#). For readers less familiar with the farm bill, our [Fair Farm Bill Primer](#) is an excellent resource that helps readers get up to speed on farm bill programs, agencies, and acronyms.

1. In order to address pricepoint discrepancies, the government needs to shift farm supports away from the production of processed foods and cheap animal feed and toward nutrient-rich food production.
  - a. Expand crop insurance options to support more diversified, regenerative, non-conventional operations that produce nutrient-dense food for people. One example of this would be expanding the recent micro-farm insurance program.
    - i. Marker Bills: Food and Farm Act; Crop Insurance Modernization Act of 2018
  - b. Set payment limits on risk management and commodity programs so that the largest farms aren't receiving the bulk of the supports.
    - i. Marker Bill: Rural Preservation Act of 2012
  - c. Stop the abuse of commodity checkoff programs, many of which promote the production of meat in industrial systems that harm human health.
    - i. Ensure checkoff programs are transparent and accountable.
    - ii. Allow commodity producers to participate in checkoff programs on a voluntary, rather than mandatory, basis.
    - iii. Marker Bills: Voluntary Checkoff Program Participation Act; Opportunities for Fairness in Farming Act
  - d. The USDA needs to help develop infrastructure to support farmers transitioning to nutrient-dense high fiber crops, like fruits and vegetables.
    - i. The USDA recently deployed \$100 million under the new Food Supply Chain Guaranteed Loan Program to make available nearly \$1 billion in loan guarantees. These loan guarantees will back private investment in processing and food supply infrastructure. This infrastructure is critical to building up a thriving produce economy in the U.S. The USDA needs to increase its investment in this program.
    - ii. The USDA needs to help support regional produce markets by using its purchasing power. They should establish purchasing targets, or set-asides, for purchases of food from independent regional producers, foods from socially disadvantaged producers, and foods from organic/regenerative farms.
2. Government assistance programs should help Americans access nutritious food.

- a. USDA's Gus Schumacher Nutrition Incentive Program (GusNIP) has successfully increased participants' food security and fruits and vegetable intake through its nutrition incentive and produce prescription projects.<sup>25</sup> Based on its success, GusNIP funding should be increased and the program expanded.
- b. The USDA should make it easier for producers to accept SNAP benefits, for example by easing some of the payment schedule restrictions.

## **THE U.S. FOOD SYSTEM ENDANGERS MEATPACKING WORKERS**

### **THE ISSUE**

Rampant consolidation of companies along the U.S. food supply chain has robbed food system workers of their negotiating power: often there is only one employer in a given region. This disempowerment has led to dangerous working conditions that are hazardous to workers' health.

In the highly-consolidated meatpacking industry, workers have been forced to endure inhumane conditions: denied access to basic needs, workers have reportedly resorted to the use of adult diapers or even been forced to urinate on themselves.<sup>26</sup> Due to the dangerous nature of their work environment, they face a doubled rate of amputations compared to the average worker, and suffer from various musculoskeletal injuries.<sup>27</sup> When line speeds are raised, the risk of injury increases.<sup>28</sup>

Meatpacking workers were also greatly impacted by the coronavirus pandemic: A recent report issued by the Select Subcommittee on the Coronavirus Crisis detailed how meatpacking companies stoked "baseless" fears of meat shortages to influence policy and continue to operate during quarantine periods. As a result, 59,000 meatpacking workers contracted the virus between March 1, 2020 and February 1, 2021; of those individuals, 269 eventually died.<sup>29</sup>

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<sup>25</sup> Ibid.

<sup>26</sup> "No Relief: Denial of Bathroom Breaks in the Poultry Industry." 2016. Oxfam. Available at [https://s3.amazonaws.com/oxfam-us/www/static/media/files/No\\_Relief\\_Embargo.pdf](https://s3.amazonaws.com/oxfam-us/www/static/media/files/No_Relief_Embargo.pdf).

<sup>27</sup> Protecting America's Meatpacking Workers Act of 2021, S. 3285, 117th Cong. (2021). Available at <https://www.congress.gov/bills/117/congress/senate-bill/3285/text#toc-id420657E455FF4EE6A7F9C9F48DCF2924>.

<sup>28</sup> Ibid.

<sup>29</sup> Select Subcommittee on the Coronavirus Crisis.. (May 12, 2022). "New Select Subcommittee Report Reveals Extensive Coordination Between Trump Administration And Meatpacking Industry To Protect Profits While Endangering Workers" [Press release]. Available at <https://coronavirus.house.gov/news/press-releases/new-select-subcommittee-report-reveals-extensive-coordination-between-trump>.

## POLICY RECOMMENDATIONS

The upcoming farm bill is an outstanding opportunity to foster healthy working environments within the food system. Below are some policy recommendations to achieve this; for more, please see Farm Action's [Fair Farm Bill Policy Handbook](#). For readers less familiar with the farm bill, our [Fair Farm Bill Primer](#) is an excellent resource that helps readers get up to speed on farm bill programs, agencies, and acronyms.

1. Protect meatpacking workers from line-speed waivers that adversely impact worker safety.
  - a. Marker Bill: Protecting America's Meatpacking Workers Act of 2021
2. Strip corporations of their excessive market power and control of our food supply chains.
  - a. Begin the process of reviewing the largest mega-mergers of the past two decades.
    - i. Marker Bills: Prohibiting Anticompetitive Mergers Act of 2022; Food and Agribusiness Merger Moratorium and Antitrust Review Act of 2022
  - b. Create a moratorium on large agribusiness, food and beverage manufacturing, and retail grocery mergers and acquisitions.
    - i. Marker Bills: Prohibiting Anticompetitive Mergers Act of 2022; Food and Agribusiness Merger Moratorium and Antitrust Review Act of 2022

## FARMWORKERS ARE EXPOSED TO HAZARDOUS AGRICHEMICALS

### THE ISSUE

Conventional farm production practices depend upon the use of agrichemicals, and fruit and vegetable production is especially dependent on manual labor. Given the lack of federal protections in this area, that means that workers on conventional produce farms are routinely exposed to dangerous levels of poison in the workplace.

Farmworkers experience more chemical-related illness and injury than any other industry<sup>30</sup> and occupational exposure to pesticides poisons occurs in more than 20,000 farmworkers annually.<sup>31</sup> Farmworkers can be exposed through a variety of direct and indirect methods; they risk bringing residues into their homes on their skin, clothes, tools, or shoes, and exposing their children and

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<sup>30</sup> G.M. Calvert, J. Karnik, L. Mehler, J. Beckman, B. Morrissey, J. Sievert, R. Barrett, M. Lackovic, L. Mabee, A. Schwartz, Y. Mitchell, and S. Moraga-McHaley. 2008. "Acute pesticide poisoning among agricultural workers in the United States, 1998-2005." *American Journal of Industrial Medicine*, Vol. 51, No. 12, pg. 883-898; M. Donohoe, M. and E. Hansen. 2003. "Health issues of migrant and seasonal farmworkers." *Journal of Health Care for the Poor and Underserved*, Vol. 14, No. 2, pg. 153-164.

<sup>31</sup> "Regulatory impact analysis of Worker Protection Standard for agricultural pesticides." 1992. U.S. EPA.

other family members to elevated pesticide levels.<sup>32</sup> Pesticide exposure can lead to a variety of both short- and long-term health risks, including stinging eyes, rashes, blisters, blindness, nausea, dizziness, headaches, coma, and death.<sup>33</sup> Long-term health impacts include infertility, birth defects, endocrine disruption, neurological disorders, and cancer.<sup>34</sup>

## **POLICY RECOMMENDATIONS**

The U.S. must enact stronger worker protections for farmworkers. This includes bolstering the regulations around agricultural applications and enforcing them more vigorously.

## **THE FARM SYSTEM'S DEPENDENCE ON HERBICIDES LEADS TO UNHEALTHY EXPOSURE FOR CONSUMERS**

### **THE ISSUE**

The practice of using herbicides has become entrenched within our farm system. Herbicides were applied to more than 95% of U.S. corn acres in 2010 and soybean acres in 2012.<sup>35</sup> U.S. farm system supports — including crop insurance, subsidies, disaster relief, and commodities markets — were designed to support herbicide-dependent cropping systems. And yet, we have insufficient regulation in place to protect farmers and consumers from the effects of exposure to these hazardous chemicals.

Research increasingly indicates dangerously high levels of consumer exposure to glyphosate (the active ingredient in Roundup). The CDC recently found traces of glyphosate in 87% of the urine samples it collected from children.<sup>36</sup> Another study found detectable levels of glyphosate in 93% of pregnant women.<sup>37</sup> The World Health Organization has classified glyphosate as “probably

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<sup>32</sup> “Exposed and Ignored: How pesticides are endangering our nation’s farmworkers.” 2013. Farmworker Justice. Accessed July 2022. Available at <https://kresge.org/sites/default/files/Exposed-and-ignored-Farmworker-Justice-KF.pdf>.

<sup>33</sup> G.M. Calvert, J. Karnik, L. Mehler, J. Beckman, B. Morrissey, J. Sievert, R. Barrett, M. Lackovic, L. Mabee, A. Schwartz, Y. Mitchell, and S. Moraga-McHaley. 2008. “Acute pesticide poisoning among agricultural workers in the United States, 1998-2005.” *American Journal of Industrial Medicine*, Vol. 51, No. 12, pg. 883-898.

<sup>34</sup> M. Sanborn, D. Cole, K. Kerr, C. Vakil, L.H. Sanin, and K. Bassil. 2004. “Pesticides literature review.” Available at <http://www.bvsde.paho.org/bvstox/fulltext/rpesticides.pdf>.

<sup>35</sup> “U.S. corn and soybean farmers use a wide variety of glyphosate resistance management practices.” 2016. USDA Economic Research Service. Accessed July 2022. Available at <https://www.ers.usda.gov/data-products/chart-gallery/gallery/chart-detail?chartId=78922>.

<sup>36</sup> EWG. (July 2022). “CDC finds toxic weedkiller in 87 percent of children tested” [Press release]. Available at <https://www.ewg.org/news-insights/news-release/2022/07/cdc-finds-toxic-weedkiller-87-percent-children-tested>.

<sup>37</sup> S. Parvez, R.R. Gerona, C. Proctor, M. Friesen, J.L. Ashby, J.L. Reiter, Z. Lui, and P.D. Winchester. 2018. “Glyphosate exposure in pregnancy and shortened gestational length: a prospective Indiana birth cohort study.” *Environmental Health*, Vol. 17, No. 23. Available at <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC5844093/>.

carcinogenic to humans”<sup>38</sup> and the U.S. Agency for Toxic Substances has supported studies connecting glyphosate to Non-Hodgkin lymphoma.<sup>39</sup> Glyphosate exposure has also been linked to impotence,<sup>40</sup> preterm birth,<sup>41</sup> and obesity;<sup>42</sup> the effects have even been shown to carry over to exposed fetuses.<sup>43</sup>

In addition to its original use as an herbicide, glyphosate is frequently used as a desiccant: a chemical sprayed on living crops to kill them. This practice allows farmers to more precisely control the time of harvest, but also drastically increases consumers’ exposure to the chemical. As a result, studies have found alarming amounts of glyphosate in our food.<sup>44</sup>

## POLICY RECOMMENDATIONS

1. There are significant barriers impeding farmers’ transition away from herbicide dependence. To remove these barriers and assist farmers in the transition to healthier methods, we recommend the following actions:
  - a. Certain regenerative farming practices, such as cover cropping and increasing diversified crop rotations, can substantially reduce farmers’ dependence upon herbicides.<sup>45</sup> The government should provide financial incentives for these types of

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<sup>38</sup> “IARC Monograph on Glyphosate.” March, 2015. International Agency for Research on Cancer. Available at <https://www.iarc.who.int/featured-news/media-centre-iarc-news-glyphosate/>.

<sup>39</sup> “Toxicological Profile for Glyphosate.” 2020. United States Department of Health and Human Services. Available at <https://www.atsdr.cdc.gov/toxprofiles/tp214.pdf>.

<sup>40</sup> Liu Jing-Bo, Li Zi-Fa, Wang Zhen-Yong, and Wang Lin. 2022. “Glyphosate damages blood-testis barrier via NOX1-triggered oxidative stress in rats: Long-term exposure as a potential risk for male reproductive health.” *Environment International*, Vol. 159, No. 107038. Available at <https://www.sciencedirect.com/science/article/pii/S0160412021006632>.

<sup>41</sup> Corina Lesseur, Khyatiben Pathak, Patrick Pirrotte, Melissa Martinez, Kelly Ferguson, Emily Barrett, Ruby Nguyen, Sheela Sathyanarayana, Daniele Mandrioli, Shanna Swan, and Jia Chen. 2022. “Urinary glyphosate concentration in pregnant women in relation to length of gestation.” *Environmental Research*, Vol. 203, No. 111811. Available at <https://www.sciencedirect.com/science/article/abs/pii/S0013935121011051>.

<sup>42</sup> Xiao-Min Ren, Yun Kuo, and Bruce Blumberg. 2020. “Agrochemicals and obesity.” *Molecular and Cellular Endocrinology*, Vol. 515, No. 110926. Available at <https://www.sciencedirect.com/science/article/pii/S0303720720302264>.

<sup>43</sup> Paul Winchester, Jordan Huskins, and Jun Ying. 2008. “Agriculture in surface water and birth defects in the United States.” *Acta Paediatrica*.

<sup>44</sup> EWG. (October, 2018). “Roundup for Breakfast, Part 2: In New Tests, Weed Killer Found in All Kids’ Cereals Sampled” [Press release]. Available at <https://www.ewg.org/news-insights/news-release/2018/10/roundup-breakfast-part-2-new-tests-weed-killer-found-all-kids>; Alexis Temkin, Ph. D. and Olga Naidenko, Ph. D. 2020. “EWG Tests of Hummus Find High Levels of Glyphosate Weedkiller.” EWG. Available at <https://www.ewg.org/research/glyphosate-hummus>.

<sup>45</sup> Elizabeth Creech. 2018. “Discover the Cover: Managing Cover Crops to Suppress Weeds and Save Money on herbicides.” United States Department of Agriculture. Available at: <https://www.farmers.gov/blog/discover-cover-managing-cover-crops-suppress-weeds-and-save-money-on-herbicides>; David Weisberger, Virginia Nichols, and Matt Liebman. 2019. “Does diversifying crop rotations suppress weeds? A meta-analysis.” *Plos One*, Vol. 14, No. 7. Available at <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC6638938/>.

practices, such as USDA's Pandemic Cover Crop Program (PCCP), in which farmers receive a \$5 per acre discount on their crop insurance premiums for all acres that are cover cropped.

- b. A strong organic transition assistance program would help farmers transition from conventional to organic farming practices. This must include financial and technical assistance programs. During the three-year transition period to organic, farmers are likely to face decreased yields; they cannot yet market their products as organic and so must receive conventional market prices. To ensure more farmers can successfully transition to organic production, we need programs to provide financial support during this period.
  - c. Prioritize EQIP spending on practices that demonstrably reduce farmers' dependence upon agrichemicals.
2. The EPA needs to ban the use of herbicides as a desiccant. Desiccation was not the original intent of glyphosate — which received FDA approval as a herbicide — and the desiccation of crops grown for human consumption exposes consumers to risky levels of exposure.

## **THE U.S. HAS NOT EQUIPPED ITS HEALTHCARE PROVIDERS TO COMBAT A DIETARY EPIDEMIC**

*Please refer to Pillar 2 to read more about this issue and the corresponding policy recommendations*



# **PILLAR 5: ENHANCE NUTRITION AND FOOD SECURITY**

## **RESEARCH**

*Improve nutrition metrics, data collection, and research to inform nutrition and food security policy, particularly on issues of equity, access, and disparities.*

In this section, we address critical gaps in research that would support our farm system's transition away from its dependence upon hazardous agrichemicals and toward practices that benefit our health, our environment, and our communities.

## **MORE DATA IS NEEDED TO SUPPORT AN ORGANIC AND REGENERATIVE TRANSITION**

### **THE ISSUE**

The data increasingly affirm that foods grown organically and regeneratively have more nutritional value. Studies show that crops grown using regenerative farming practices on average contain more magnesium, calcium, potassium, and zinc; more vitamins (B1, B12, C, E, and K); and more phytochemicals (which have been shown to reduce inflammation and boost human health).<sup>46</sup> Furthermore, these practices also reduce consumer and farmworker exposure to hazardous chemicals.

However, farmers frequently cite a lack of technical resources and information as a barrier to implementing organic and regenerative farming practices. In order to encourage a widespread transition away from unhealthy production methods, the U.S. needs to fund more research about the benefits and best practices for organic and regenerative farming.

### **POLICY RECOMMENDATIONS**

Increase funding for agricultural research programs, including the Organic Agriculture Research Extension Initiative (OREI), Organic Transitions Program (ORG), and Sustainable Agriculture Research and Education (SARE).

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<sup>46</sup> David Montgomery, Anne Bikle, Ray Archuleta, Paul Brown, and Jazmin Jordan. 2022. "Soil health and nutrient density: preliminary comparison of regenerative and conventional farming." Environmental Science. Available at <https://peerj.com/articles/12848/>.

# THE U.S. MUST ACKNOWLEDGE AND ACT ON RESEARCH ABOUT THE HARMS OF AGRICHEMICALS

## THE ISSUE

Industry has made a very clear and concerted effort to suppress information about the harms of agrichemical exposure. In the absence of such warnings, our farm system has become reliant upon chemical herbicides, pesticides, fungicides, and antibiotics without a clear understanding of their health impacts.

The common practice of administering antibiotics to livestock and poultry in Concentrated Animal Feeding Operations (CAFOs) has exposed our communities to a dangerous rise in antibiotic-resistant bacteria.<sup>47</sup> Long-term effects of pesticides include elevated cancer risks and disruption of the body's reproductive, immune, endocrine, and nervous systems.<sup>48</sup> The United Nations estimated that globally, pesticides are responsible for approximately 200,000 acute poisoning deaths each year.<sup>49</sup>

Large agricultural conglomerates have used their influence to spread misinformation and sow confusion. The U.S. appeals court recently overturned the EPA's ruling that glyphosate (the active ingredient in Roundup) was "unlikely to cause cancer" and in its ruling criticized the EPA for its "inconsistent reasoning."<sup>50</sup> Meanwhile, the CDC recently found evidence of glyphosate in the urine samples of 87% of the children it tested. The ubiquity of these products cannot be understated and should not be underestimated.

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<sup>47</sup> "Big Ag Mythbusters: Are Industrial Agriculture's Practices Really Harmless to Public Health?" (September 23, 2021). Farm Action. Accessed July 2022. Available at <https://farmaction.us/2021/09/23/big-ag-mythbusters-are-industrial-agricultures-practices-really-harmless-to-public-health/>.

<sup>48</sup> "Pesticides in our Food System." (October 4, 2018). Food Print. Accessed July 2022. Available at <https://foodprint.org/issues/pesticides/>.

<sup>49</sup> "UN human rights experts call for global treaty to regulate dangerous pesticides." (March 7, 2017). United Nations. Accessed July 2022. Available at <https://news.un.org/en/story/2017/03/552872-un-human-rights-experts-call-global-treaty-regulate-dangerous-pesticides>.

<sup>50</sup> Center for Food Safety. (June 17, 2022). "Federal Court Rejects Glyphosate Registration Decision Because EP Ignored Cancer Risks, Endangered Species Risks" [Press release]. Available at <https://www.commondreams.org/newswire/2022/06/17/federal-court-rejects-glyphosate-registration-decision-because-epa-ignored>.

## **POLICY RECOMMENDATIONS**

1. The U.S. government should commission a report that synthesizes the findings of existing reports about the harms associated with chemical agricultural inputs. Such a compendium of data will provide a clear picture of the risks of our status quo, and provide insight into how we can create a food and farm system that encourages positive health outcomes for consumers, workers, and producers alike.