## TO SAFEGUARD THE US FOOD SUPPLY CHAIN DURING THE COVID-19 PANDEMIC, WE MUST PROTECT FOOD AND AGRICULTURAL WORKERS: RECOMMENDATIONS FOR POLICYMAKERS AND EMPLOYERS

O ur nation's food supply hinges upon the coordinated efforts of over 21 million people, or one of every seven workers in the United States (US), not including the global trade partners on whom we also rely.¹ Taken together, workers in food production, processing, distribution, retail, and service represent the largest employment sector in the US.¹ Each stage along the food supply chain is deeply affected by, and to a large degree dependent on, the others. More than just the sum of its parts, a functioning food system—such as it is, with its many flaws, gaps, and vulnerabilities—is a pillar of our economy, our health, and our very survival.

Much of the nation's food and agricultural workforce has remained on the job during the COVID-19 pandemic. In the interests of our food supply and those who uphold it, these frontline workers merit support from all levels of government, employers, and labor unions. Here, we provide an illustrative set of recommendations reflecting established public health guidelines to protect the food and agricultural workforce from unnecessary risk.

## **BACKGROUND**

The need for stronger measures to protect the food and agricultural workforce against COVID-19 is particularly evident in the nation's slaughterhouses. Even prior to the pandemic, workers in animal slaughtering and meat processing plants faced hazardous conditions and high rates of injury and illness.<sup>2</sup>

The spread of coronavirus infections has compounded the risks to this already vulnerable population. According to the Centers for Disease Control and Prevention (CDC), as of May 2020 COVID-19 cases have been reported at 115 meat and poultry pro-

cessing facilities across 19 states, infecting nearly 5,000 workers and killing 20.3 Two independently published reports found that parts of the country that have meat processing plants are seeing COVID-19 cases increase at twice the national average. 4,5 While there have been recent efforts to prevent further transmission, CDC research suggests that the operating procedures at processing facilities often make it difficult for workers to maintain a six-foot distance from one another, and that facilities have had difficulty adhering to worksite cleaning and disinfection protocols. The speed and physical demands of processing work can make it difficult for line workers to adhere to recommendations for using face masks,3 and wearing a single face mask for the duration of a work shift is not recommended if it becomes wet or soiled. The environment in slaughterhouses may further compound the risk of transmission; experts have posited that low temperatures (designed to keep meat from spoiling) may help the virus survive, while aggressive ventilation systems could be transporting it throughout the facilities.7







Nearly one-third of workers in the industry are immigrants,2 and an estimated one-quarter are undocumented.8 For the latter, speaking up about hazardous working conditions may run the risk of endangering themselves or their families, while language barriers contribute to communication gaps in how workers are notified of strategies for managing the risks of COVID-19. Even in the absence of language barriers, poultry plant workers who have been in contact with infected persons have faced pressure to return to work earlier than the recommended two weeks, despite widespread infections.9 Regardless of the comprehensive reforms needed to address the broader social inequities and public health harms associated with the US industrial meat and livestock sector, 10,11 there is an immediate responsibility to protect the workforce involved.

Infections with COVID-19 have additionally been reported among contract farmworkers, 12-14 vegetable processing plants, 15,16 food distribution facilities, 17 food service providers<sup>18</sup> and restaurants.<sup>19</sup> Outbreaks among seasonal farmworkers have been particularly widespread<sup>12-14</sup>; farmworkers are often housed in crowded dwellings and travel to worksites together in vans or buses.<sup>20,21</sup> The heighted risks of transmission associated with these conditions have prompted some legislators to push for stronger regulations on migrant housing.<sup>22</sup> Taken together, it has become evident that the entire food supply chain is vulnerable to widespread COVID-19 infections, with large segments of the workforce—including meat inspectors—reporting shortages in personal protective equipment as recently as April.<sup>23,24</sup> With the upcoming peak season for summer fruit and vegetable harvests, and no sign of the pandemic ending any time soon, food system workers will likely remain at risk for the foreseeable future while the toll on our nation's health and food supply may worsen.

## **RECOMMENDATIONS**

To protect our food supply and the workers who uphold it, food supply chain companies, labor unions, and state agencies should implement plans aimed at mitigating the spread and impact of COVID-19,

supported by public funding. The **SHIELD** • **TEST** • **TRACE** • **TREAT** framework described below applies evidence-based public health principles and approaches in support of this aim, drawing upon guidance from the World Health Organization,<sup>25</sup> the CDC and the Occupational Safety and Health Administration (OSHA),<sup>6</sup> policy resolutions from the American Public Health Association,<sup>26-29</sup> Resolve to Save Lives' Box It In strategy,<sup>30</sup> and the University of Nebraska Medical Center's Meat Processing Facility COVID-19 Playbook and Checklist.<sup>31</sup> The following are intended as an illustrative, and not exhaustive, set of potential actions; detailed recommendations can be found at the cited sources above. All parts of this framework will depend upon robust public funding.

**SHIELD:** Protect workers using mitigation strategies based on the hierarchy of controls<sup>32</sup> including in-plant COVID-19 mitigation strategies enhanced with personal protective equipment (PPE).

Employers should reduce the risk of transmission by reconfiguring the work environment, such as by maintaining a six-foot distance between processing plant workers and installing physical barriers between them where possible. Employers should also promote social distancing among workers, such as by staggering arrival, departure, and break times. Slowing line speeds may be necessary to ensure adherence to these recommendations. Face coverings have been recommended as a means of reducing the release of infectious respiratory droplets when persons with COVID-19 talk, sneeze, or cough. Food system workers often require additional protection beyond what cloth masks can provide, such as face shields. Additional detailed recommendations are available from the University of Nebraska Medical Center's Meat Processing Facility COVID-19 guidelines<sup>31</sup> and other sources. Distancing measures and PPE should also be provided for employees in the context of employer-owned or controlled housing and transportation.

**TEST:** Prioritize workers for regular COVID-19 testing.

Optimal worker protection requires a multifaceted approach, and while appropriate distancing measures and PPE must be prioritized, frequent testing is additionally recommended for identifying infected workers who could spread COVID-19. Frequent testing is particularly important given persons could be carriers without experiencing symptoms. As a supplementary measure, screening—such as by checking temperatures of workers prior to entry—can identify symptomatic carriers. Additional detailed testing recommendations are available from the University of Nebraska Medical Center's Meat Processing Facility COVID-19 quidelines<sup>31</sup> and other public health sources.

**TRACE:** COVID-19 cases must be subject to contact tracing by state and local health departments.

If and when a worker is found to be infected, contact tracing, per CDC guidance, <sup>33</sup> is critical to identify other contacts who may have been exposed to the virus, and to help ensure safe and effective quarantine measures to prevent additional spread. State and local health agencies will require sufficient resources to ramp up their capacity for contact tracing. Employers and their safety committees must cooperate with these agencies and provide the necessary information for contact tracing, while also maintaining worker confidentiality, particularly for undocumented workers and their families who may be at risk for deportation.

**TREAT:** Provide workers affected by COVID-19 with access to healthcare, isolation and quarantine pay and other support to stop outbreaks.

Food and agricultural workers who show signs of infection should be immediately separated from other workers and sent home. Once workers are safely isolated, employers should ensure COVID-related healthcare costs are waived, and financial support such as isolation pay and flexible sick leave policies

are provided. Infected employees should not return to work prior to meeting the test-based conditions recommended by the CDC<sup>34</sup> for coming out of isolation. If adequate testing is not available, symptom-based recommendations can be followed. Employees who have been in close contact with a COVID-19 case will also need to follow quarantine guidelines and should receive quarantine pay and flexible leave policies as well.

In addition to these measures, ongoing monitoring and evaluation should play an essential role in assessing the effectiveness of each intervention and adjusting course as needed. In this time of unprecedented food system change, policy makers, labor representatives, and industry have a unique opportunity to build resilience against an uncertain future. Regardless of what tomorrow may bring, a swift, evidence-based response could mean the difference between a safe, functioning work environment and crippled supply chains. The workforce upon whom we rely for our daily sustenance deserves the former.

The Johns Hopkins Center for a Livable Future (CLF) engages in research, policy analysis, education, and other activities guided by an ecologic perspective that diet, food production, the environment, and public health are interwoven elements of a complex system. The Johns Hopkins Education and Research Center (ERC) for Occupational Safety and Health provides an integrated, interdisciplinary approach to training researchers and practitioners in the field of occupational safety and health with the ultimate goal of protecting the safety and health of all workers. Both the CLF and the ERC are based at the Bloomberg School of Public Health in the Department of Environmental Health and Engineering. The opinions expressed herein are our own and do not necessarily reflect the views of The Johns Hopkins University.

## **REFERENCES**

- 1. Food Chain Workers Alliance and Solidarity Research Cooperative. 2016. No Piece of the Pie: US Food Workers in 2016. Los Angeles, CA: Food Chain Workers Alliance.
- 2. Human Rights Watch. 2019. "When We're Dead and Buried, Our Bones Will Keep Hurting": Workers' Rights Under Threat in US Meat and Poultry Plants.
- 3. Centers for Disease Control and Prevention. May 1, 2020. COVID-19 Among Workers in Meat and Poultry Processing Facilities—19 States, April 2020. Accessed May 2020. Available at: <a href="https://www.cdc.gov/mmwr/volumes/69/wr/mm6918e3.htm?s\_cid=mm6918e3\_e&deliveryName=USCDC\_921-DM27224">https://www.cdc.gov/mmwr/volumes/69/wr/mm6918e3.htm?s\_cid=mm6918e3\_e&deliveryName=USCDC\_921-DM27224</a>
- 4. Dorning M, Carey D, and Merrill D. May 11, 2020. Infections Near US Meat Plants Rise at Twice the National Rate. *Bloomberg*.
- 5. Graddy S, Rundquist S, Walker B. May 14, 2020. Investigation: Counties With Meatpacking Plants Report Twice the National Average Rate of COVID-19 Infections. Environmental Working Group. Accessed May 2020. Available at: <a href="https://www.ewg.org/news-and-analysis/2020/05/ewg-map-counties-meat-packing-plants-report-twice-national-average-rate">https://www.ewg.org/news-and-analysis/2020/05/ewg-map-counties-meat-packing-plants-report-twice-national-average-rate</a>
- 6. Centers for Disease Control and Prevention. May 12, 2020. Meat and Poultry Processing Workers and Employers: Interim Guidance from CDC and the Occupational Safety and Health Administration (OSHA). Accessed May 2020. Available at: <a href="https://www.cdc.gov/coronavirus/2019-ncov/community/organizations/meat-poultry-processing-workers-employers.html">https://www.cdc.gov/coronavirus/2019-ncov/community/organizations/meat-poultry-processing-workers-employers.html</a>
- 7. Molteni M. May 7, 2020. Why Meatpacking Plants Have Become COVID-19 Hot Spots. Wired.
- 8. Southern Poverty Law Center. 2010. Injustice On Our Plates.
- Barrett D. April 28, 2020. Virus spread at Virginia chicken plants alarms health officials. The Washington Post.
- 10. Pew Commission on Industrial Farm Animal Production. 2008. Putting Meat on the Table: Industrial Farm Animal Production in America. The Pew Charitable Trusts and the Johns Hopkins Bloomberg School of Public Health.
- 11. Johns Hopkins Center for a Livable Future. 2013. Industrial Food Animal Production in America: Examining the Impact of the Pew Commission's Priority Recommendations.
- Associated Press. April 25, 2020. Farmworkers test positive for COVID-19 at Washington orchard. Q13 FOX.
- 13. Doran E. May 5, 2020. 2 hospitalized from Madison County 'hot spot'; 139 cases confirmed; testing continues at huge greenhouse. *Syracuse.com*.
- 14. Shearn IT. May 11, 2020. More Than Half of a South Jersey Farm's Workers Infected With COVID-19, DOH Reports. *NJ Spotlight*.
- 15. Fox 12 Staff. April 30, 2020. Albany frozen foods plant shuts down processing as workers test positive for COVID-19. FOX 12 Oregon.
- 16. KOMO News Staff. May 10, 2020. COVID-19 outbreak at Kittitas Co. processing plant foils recovery. *KOMO News*.
- 17. Mason H. April 8, 2020. Service industry workers seek hazard pay in unsafe work conditions. CBS 46.
- 18. Terry L. April 9, 2020. 7 Food Services Employees At OHSU Infected With COVID-19. The Lund Report.
- 19. Spiegel A. May 8, 2020. Restaurant Workers Are Testing Positive for COVID-19. What Businesses Do Next Is Uncertain. *Washingtonian*.
- 20. Eisenstadt M. May 8, 2020. Inside Green Empire Farm: Upstate NY's biggest coronavirus outbreak slams migrant workers. *Syracuse.com*.
- 21. League of United Latin American Citizens. Statement on COVID-19 and the Risks to Farmworkers. Accessed May 2020. Available at: <a href="https://lulac.org/COVID19/advocacy/COVID19">https://lulac.org/COVID19/advocacy/COVID19</a>
  <a href="mailto:Farmworker\_Advocates\_Statement.pdf">Farmworker\_Advocates\_Statement.pdf</a>
- 22. Jenkins D. April 24, 2020. Washington proposes COVID-19 rules for migrant housing. Capital Press.
- 23. Davies S. April 22, 2020. Lack of PPE becomes major concern at food facilities. Agri-Pulse.

- 24. Tomson B. April 10, 2020. USDA meat inspectors told to find or make their own masks. Agri-Pulse.
- 25. World Health Organization. April 2020. COVID-19 Strategy Update. Geneva.
- 26. American Public Health Association. November 2006. *Preparing for Pandemic Influenza*. Accessed May 2020. Available at: <a href="https://www.apha.org/policies-and-advocacy/public-health-policy-state-ments/policy-database/2014/07/18/09/19/preparing-for-pandemic-influenza">https://www.apha.org/policies-and-advocacy/public-health-policy-state-ments/policy-database/2014/07/18/09/19/preparing-for-pandemic-influenza</a>
- 27. American Public Health Association. November 2011. Improving Housing for Farmworkers in the United States Is a Public Health Imperative. Accessed May 2020. Available at: <a href="https://www.apha.org/policies-and-advocacy/public-health-policy-statements/policy-database/2014/07/09/10/32/improving-housing-for-farmworkers-in-the-united-states-is-a-public-health-imperative">https://www.apha.org/policies-and-advocacy/public-health-policy-statements/policy-database/2014/07/09/10/32/improving-housing-for-farmworkers-in-the-united-states-is-a-public-health-imperative</a>
- 28. American Public Health Association. November 2011. Ending Agricultural Exceptionalism: Strengthening Worker Protection in Agriculture Through Regulation, Enforcement, Training, and Improved Worksite Health and Safety. Accessed May 2020. Available at: <a href="https://www.apha.org/policies-and-ad-vocacy/public-health-policy-statements/policy-database/2014/07/09/10/10/ending-agricultural-exceptionalism-strengthening-worker-protection-in-agriculture">https://www.apha.org/policies-and-ad-vocacy/public-health-policy-statements/policy-database/2014/07/09/10/10/ending-agricultural-exceptionalism-strengthening-worker-protection-in-agriculture</a>
- 29. American Public Health Association. November 2017. Improving Working Conditions for US Farmworkers and Food Production Workers. Accessed May 2020. Available at: <a href="https://www.apha.org/policies-and-advocacy/public-health-policy-statements/policy-data-base/2018/01/18/improving-working-conditions">https://www.apha.org/policies-and-advocacy/public-health-policy-statements/policy-data-base/2018/01/18/improving-working-conditions</a>
- 30. Resolve to Save Lives. April 2020. Box It In: Rapid Public Health Action Can Box In COVID-19 and Reopen Society.
- 31. University of Nebraska Medical Center Global Center for Health Security. 2020. Meat Processing Facility COVID-19 Playbook. <a href="https://www.unmc.edu/healthsecurity/education/programs/docs/Playbook.pdf">https://www.unmc.edu/healthsecurity/education/programs/docs/Playbook.pdf</a>
- 32. US Department of Labor Occupational Safety and Health Administration. 2020. Guidance on Preparing Workplaces for COVID-19.
- 33. Centers for Disease Control and Prevention. April 13, 2020. *Contact Tracing*. Accessed May 2020. Available at: <a href="https://www.cdc.gov/coronavirus/2019-ncov/php/open-america/contact-tracing.html">https://www.cdc.gov/coronavirus/2019-ncov/php/open-america/contact-tracing.html</a>
- 34. Centers for Disease Control and Prevention. May 3, 2020. Ending Home Isolation: Interim Guidance. Accessed May 2020. Available at: <a href="https://www.cdc.gov/coronavirus/2019-ncov/hcp/disposition-in-home-patients.html">https://www.cdc.gov/coronavirus/2019-ncov/hcp/disposition-in-home-patients.html</a>