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Sustainable food procurement by the University of California's health systems: Reflections on 10 years and recent COVID-19 challenges

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Abstract

Across the country, hospitals are buying more sustainable food and passing internal policies in support of sustainable food procurement. This reflective essay describes the results of the sustainable procurement goals and policy of the University of California's five health systems from 2009 to 2021. Based on my observations as a staff person in the University of California and my participation in internal meetings with foodservice and sustainability staff, I discuss the evolution of the University of California's sustainable food procurement policy goals and its definition of "sustainable." I describe staff and programmatic support for purchasing environmentally sustainable food and beverages and the growth of the University of California's sustainable food purchases as a percentage of its hospitals' food budgets. This essay also explores staff debates about the sustainability of sourcing poultry with the label of "no antibiotics ever" after a 2020 COVID-19 outbreak at a poultry processing facility in California that led to the deaths of several workers. These debates about labor and working conditions in poultry supply chains from the five University of California health systems offer insights into ongoing challenges and opportunities for institutional food procurement and policy to change the food system utilizing existing supply chains and third-party certifications and label claims. The University of California's experiences also illustrate the ongoing need for farm-to-institution and farm-to-hospital efforts to better integrate values around working conditions in supply chains into sustainable procurement goals.

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COVID-19, Foodservice, Hospitals, Labor, Pandemic, Poultry, Procurement, Sustainability, Third-Party Labels, Values-Based Supply Chain, Farm-to-Hospital, Farm-to-Institution

Introduction and Literature Review

In the past several decades, the farm-to-school movement has grown beyond K–12 schools to include entities such as colleges and universities, corporate campuses, government agencies, and hospitals. These institutions, out of concern for the ecological and economic challenges impacting agriculture, are undertaking activities such as deliberately purchasing more regional, ecologically sustainable, fresh, and healthy food items from suppliers as a means to change the food system (Feenstra & Ohmart, 2012; Thottathil, 2018). While the impacts of farm-to-institution activities on the food system have been mixed, research has shown that sustainable procurement by institutions can support small to mid-sized farmers and has stimulated interest and growth in federal policies and funding to support sustainable agriculture. Additionally, sustainable procurement is economically impacting communities and is providing healthier meals to young children, patients, and other individuals (Christensen et al., 2018; Farm to Institution New England, n.d.; Prescott et al., 2020; Zuckerman, 2013).

Since the early 2000s, the healthcare sector has become more active in farm-to-hospital endeavors, as healthcare delivery entities, medical professional associations, and nonprofits began advocating for hospitals to play a larger role in promoting different and sustainable food production practices for better public health outcomes through their food procurement (Klein et al., 2019). Many professional healthcare associations, from the Academy of Nutrition and Dietetics to the American Medical Association (AMA) and the American Public Health Association, have passed outward-facing resolutions that link the operational decisions made by hospitals (such as food procurement) to sustainable agriculture and human health (AMA, 2009; American Planning Association, n.d.). More recently, *The Lancet* (2019), one of the world's most prominent medical journals, highlighted the link between hospital food procurement, human health, and environmental sustainability, and argued that the current food production paradigm is contributing to human health problems instead of nourishing individuals.

As a part of farm-to-hospital efforts, hospitals throughout the U.S. have passed internal policies in support of sustainable food procurement (Harvie et al., 2009; Klein et al., 2019; Thottathil, 2019). Since 2005, the nonprofit Health Care Without Harm has been an influential organization in the farm-to-hospital movement and has been coordinating sustainable procurement efforts by hospitals with the Healthy Food in Health Care Initiative (Harvie et al., 2009). To support the initiative, Health Care Without Harm (in close partnership with another nonprofit, Practice Greenhealth, or PGH) lists on its website a set of third-party certifications and label claims for food products that their staff have vetted.[1] A food item is defined as "sustainable" by Health Care Without Harm and PGH if it has at least one of the certifications or label claims from the list. PGH measures the sustainability performance of a member hospital utilizing the metric of "percent spend on sustainable food and beverages" out of the hospital's total annual food and beverage budget (Practice Greenhealth, n.d.-b). Close to one third of U.S. hospitals (including the University of California's hospitals) are now participating in the PGH–Health Care Without Harm network and utilizing its resources for sustainable food procurement (Health Care Without Harm, 2019).

Despite this growth over the years, farm-to-hospital efforts have encountered several challenges, from the requirement by hospitals for a consistent supply of a large volume of food items to accommodate their large customer base of patients, staff, and visitors, to the disparity between consumer expectations and the seasonality and

[1] PGH and Health Care Without Harm's list of third-party certifications and label claims that meet their definition of sustainable are available online: https://noharm-uscanada.org/sites/default/files/documents-files/3373/Healthier%20food%20purchasing%20standards.pdf

availability of produce for pre-prepared menus by chefs (Klein & Michas, 2014; Perline et al., 2015). As a result of these logistical challenges, institutions like hospitals may favor larger suppliers, such as established broadline distributors, who have better access to diverse infrastructure and a larger number of producers, for sustainable food products (Izumi et al., 2010). These supply chain requirements have been barriers for smaller farmers who may seek to diversify their markets by selling to institutions (Harris et al., 2012).

Scholars have identified values-based supply chains (VBSC) as being able to accommodate these logistical difficulties and meet the operational requirements of large-scale food consumers like hospitals while also supporting farm-to-institution principles (Klein & Michas, 2014). VBSCs can take many forms, from farmers markets to food hubs, but what they have in common is that suppliers commit to issues such as greater environmental sustainability and transparency with their food products (Peterson et al., 2022). While VBSCs have had documented success in supporting small-scale and regional producers (Bloom & Hinrichs, 2011; Feenstra & Hardesty, 2016; Klein & Michas, 2014), many larger suppliers are also participants in VBSCs (Peterson et al., 2022). Many hospitals are participating in VBSCs by buying products labeled with third-party sustainability certifications or claims such as "local." These hospitals use existing contracts and arrangements with distributors and other suppliers, some of whom are large in scale, and some of whom may also carry conventional food products and products from large producers (Klein & Michas, 2014).

Farm-to-hospital work took off in a more formal and centralized way at the University of California's five health systems in 2009. That year, foodservice and sustainability staff agreed on shared policy goals, including one requiring that 20% of their hospitals' food and beverage purchases would be sustainable by 2020. In 2019, these health systems collectively surpassed this goal and spent US$3 million total that year on food and beverages that had third-party sustainability certifications or sustainability label claims (University of California, n.d.-b). In light of this progress, in 2020, staff passed updated sustainable procurement policy with an even larger sustainability requirement, that each of the health systems would dedicate at least 30% of their food and beverage spend to sustainable food products by 2030. To meet this goal, the health systems, as members of PGH, rely on the definition of "sustainable" PGH has set with Health Care Without Harm to make determinations around sustainable food purchases. To find and procure their sustainable food, the health systems also collectively take advantage of existing food contracts between the university and large distributors and other suppliers.

Utilizing information from both my personal communications and observations from internal meetings, as well as food purchasing data from public Annual Sustainability Reports published by the University of California, I will describe the results of the university's sustainable food procurement policies since 2009. I will also reflect on a challenge the university faced around its poultry purchases about 10 years later, in 2020. Specifically, to meet their new sustainable procurement requirement, the University of California's health systems routinely purchase items such as "no antibiotics ever" chicken, which is considered sustainable according to the university's updated policy; these poultry products with the label "no antibiotics ever" are typically purchased through existing contracts with large distributors and farmers. However, in 2020, a deadly outbreak of COVID-19 affected workers at Foster Farms, one of the largest poultry companies in the United States, and with which the university has a contract to source "no antibiotics ever" chicken. The outbreak led to internal questioning among staff about whether these poultry items should be considered sustainable under its new policy goals, especially if their production came from facilities with questionable working conditions. Staff debated whether and how the university should shift its food procurement in response to Foster Farms' public health violations and the deaths from the COVID-19 outbreak. These discussions from the five University of California health systems around the relationship of sustainability to labor and working conditions offer insights into both the opportunities and ongoing challenges for farm-to-hospital, VBSCs, and institutional food procurement and policy as currently

structured to comprehensively change the food system.

Methodology

The data for this reflective essay comes primarily from observations from my participation in internal meetings with other staff in the University of California from 2018 to 2022. As an Associate Director of Sustainability in the University of California's Office of the President during that time, I was immersed in decision-making and discussions around sustainable food procurement and policy goals for the university's health systems and campuses. I actively participated in Sustainable Foodservices Working Group meetings, which are regular meetings of foodservice and sustainability staff from every University of California health system and university campus. The working group sets policy goals for the university and monitors progress toward them. These meetings are chaired by one to two representatives from a health system or campus and regularly staffed by someone from the Office of the President. I staffed the meetings from 2019 to 2022. Additionally, prior to joining the University of California, I was employed by Health Care Without Harm from 2012 to 2015. I worked directly on its food procurement advocacy campaigns, including those related to sustainable poultry procurement and antibiotics in animal agriculture. Such participatory methodology is not uncommon in these reflective essays or in articles about institutional food procurement (Klein & Michas, 2014; Sands et al., 2016). To supplement my observations, I also analyzed food procurement data collected by the University of California's health systems from 2018 to 2022, which are published in public Annual Sustainability Reports put out by the University. Finally, I analyzed language from the University's Sustainable Practices Policy from the years 2004–2020.

Sustainable Food Procurement and Policy by the University of California's Health Systems

The University of California is a large public university system located in the state of California, and, in addition to 10 university campuses, is composed of five health systems that have hospital operations: UC Davis Health, UC Irvine Health, UC Los Angeles (UCLA) Health, UC San Diego Health, and UC San Francisco (UCSF) Health. The health systems consist of 12 hospitals in total. (UC Riverside Health is only comprised of disparate small clinics; it does not have separate centralized foodservice operations, either.) Together, these hospitals are currently the third-largest provider of inpatient services and the fourth-largest provider of hospital-based outpatient services in California (University of California, n.d.-a).

History of the University of California's Sustainable Practices Policy and Food Procurement Goals

As public Annual Sustainability Reports released by the University describe, for almost 20 years, sustainability goals have been operationalized within the University of California. The University passed its first system-wide environmental sustainability policy in 2004, after receiving pressure from students and with approval from the Regents of the University of California, its governing body (see Figure 1). While the "Sustainable Practices Policy" originally focused on green building design and energy efficiency, the policy has since been expanded to include several other issue areas. For example, the University of California now has a carbon neutrality goal for 2025 (for scopes 1 and 2 greenhouse gas emissions only), as well as targets for water and waste reduction (University of California, 2022). These goals were instituted as a part of "responsible stewardship of … resources and education and innovation for the public good" in California (University of California, 2021a, paragraph 1).

In 2009, the University of California added the first food procurement goal to its Sustainable Practices Policy, that its university campuses would purchase 20% sustainable food by 2020. Staff decided upon a dollar metric in part to make data collection from suppliers and calculations easier. After conducting a feasibility study, the five University of California health systems adopted the sustainable food procurement goal by consensus one year later, which was passed into policy in 2011 (Office of the President, 2010). "Sustainable food" was defined by the university as having one of the third-party certifications or label claims in a short list internally vetted by university staff and published in

Figure 1. Summary of Sustainable Food Procurement Policy Goals and Milestones at the University of California, 2004–2021

2004	– The University passes its first systemwide policy on sustainability ("Policy on Sustainable Practices")
2009	– Sustainable food procurement goals for campuses added to Policy on Sustainable Practices
2011	– Sustainable food procurement goals for health systems (to purchase 20% sustainable food by 2020) added to Policy on Sustainable Practices
2018	– Requirement that each health system join Practice Greenhealth (PGH) added to Policy on Sustainable Practices
2019	– 26% of food and beverages spend (US$27 million) by the University meets sustainability criteria (health systems accounted for US$3 million)
2020	– Sustainable food procurement goals for health systems updated in Policy on Sustainable Practices (to purchase 30% sustainable food by 2030) – US$7.7 million food and beverages spend by the health systems meets PGH criteria, the equivalent of about 21% of their total food and beverage spend – COVID-19 outbreak at a Foster Farms facility in California
2021	– The University issues the statement "Commitment to Worker Health and Safety during the COVID-19 Pandemic" – US$7.4 million food and beverages spend by the health systems meets PGH criteria, the equivalent of about 22% of their total food and beverage spend

the Sustainable Practices Policy from the years 2009–2019 (see Table 1).

In 2018, the University of California added another set of goals to its Sustainable Practices Policy, which focused primarily on sustainability in hospital operations, in recognition of "the unique challenges and opportunities for implementing sustainable practices in healthcare facilities" (University of California, 2019). A new requirement included that each health system join (and annually pay dues to) PGH, which sets and collects sustainability metrics for hospitals nationwide. As a result, each health system began reporting their sustainable food procurement practices to PGH on an annual basis. UCSF Health and UCLA Health had already been members of PGH and had also previously collaborated with Health Care Without Harm on various sustainable food initiatives.

2020 Updates to the Sustainable Practices Policy: New Procurement Target and Definition of "Sustainable"

All 10 campuses and four out of five health systems individually met the 2020 goal of purchasing 20% sustainable food before the 2020 deadline. Collectively, in 2019, over US$27 million or 26% of the University of California's food and beverage expenditures in residential dining halls, retail food service, and the health systems met sustainability criteria. The health systems accounted for US$3 million of that total.[2] The health systems and university campuses were able to achieve such sustainable spending through a variety of means, including hiring staff to support sustainable sourcing and offsetting potential higher costs of sustainable food items by adjusting menus and pricing (University of California, 2019).

[2] These figures exclude UC Irvine Health because it did not report any data in 2019. In conversations with staff at the health system, I was told that this shortcoming could be the result of a transition in its dining operations between foodservice management companies. The University of California's *2019 Annual Report on Sustainable Practices* states that: "UC Irvine Health is in the process of establishing processes to track and measure the amount spent on sustainable products."

Table 1. The University of California's Definition of Sustainable Food from its Policy on Sustainable Practices, 2009–2019

Sustainable Foodservices

In the context of this Policy, sustainable food is defined as food and beverage purchases that meet one or more of the criteria listed below, which are reviewed annually by the UC Sustainable Foodservices Working Group (under the UC Sustainability Steering Committee).

i. Locally Grown [a]
ii. Locally Raised, Handled, and Distributed
iii. Fair Trade Certified [b]
iv. Domestic Fair Trade Certified
v. Shade-Grown or Bird Friendly Coffee
vi. Rainforest Alliance Certified
vii. Food Alliance Certified
viii. USDA Organic
ix. AGA Grassfed
x. Grass-finished/100% Grassfed
xi. Certified Humane Raised & Handled
xii. American Humane Certified
xiii. Animal Welfare Approved
xiv. Global Animal Partnership (steps III, IV, V)
xv. Cage-free
xvi. Protected Harvest Certified
xvii. Marine Stewardship Council
xviii. Seafood Watch Guide "Best Choices" or "Good Alternatives"
xix. Farm/business is a cooperative or has profit sharing with all employees
xx. Farm/business social responsibility policy includes (1) union or prevailing wages, (2) transportation and/or housing support, and (3) healthcare benefits
xxi. Other practices or certified processes as determined by the location and brought to the Sustainable Foodservices Working Group for review and possible addition in future Policy updates.

[a] Resulting from regional constraints, campus definitions of "Locally Grown" and "Locally Raised, Handled, and Distributed" may vary; however, "Locally Grown" and "Locally Raised, Handled, and Distributed" distances shall not exceed 500 miles.
[b] Fair Trade Certified products must be third party certified by one of the following: IMO Fair For Life, Fairtrade International (FLO), Fair Trade USA.

As the University of California approached the year 2020, and given that all campuses and four health systems met the 2020 goal early, dining directors, other foodservice staff, and sustainability staff from each health system and university campus began deliberating new sustainable food procurement goals for the university. Most of these discussions took place in systemwide Sustainable Foodservices Working Group meetings. Desire from staff to update the systemwide Sustainable Practices Policy was further fueled by the fact that the existing definition of "sustainable food" in the policy was outdated. Not only did it not recognize newer certifications and label claims available in the market, but also several older label claims and certifications had fallen out of favor in sustainability networks, such as "cage-free" for eggs.[3] Months of discussion took place at one in-person meeting and

[3] In 2018, voters in California approved a ballot measure requiring all eggs sold in the state to be "cage-free." Given that norms around egg production had shifted, many staff within the University of California argued that the "cage-free" label claim should no longer count as a separate and presumably optional sustainability criterion.

in several subsequent and virtual Sustainable Foodservices Working Group meetings, and via email exchanges and phone calls. Eventually, the dining directors at each health system and campus reached a consensus for new targets to achieve within 10 years, by 2030. These new goals were passed into policy in 2020. The University of California's Sustainable Practices Policy now requires that 30% of each of the University of California's health systems' food and beverage spend must be sustainable by 2030.[4]

In the update, instead of listing sustainability criteria in detail, the Sustainable Practices Policy refers directly to PGH and Health Care Without Harm's definition of sustainable food and beverages for the health systems. This definition is the list of third-party certifications and label claims the two organizations have vetted. Staff at the University of California's health systems picked this definition of "sustainable" for a few reasons. First, each health system was already a member of PGH, as required by the 2018 updates to the Sustainable Practices Policy, and they were therefore annually reporting sustainability metrics to PGH. Second, as staff expressed during working group meetings, they welcomed freedom from the burden of regularly updating and vetting sustainability criteria internally and placed confidence in PGH to evaluate third-party certifications and label claims on a regular basis instead.

Key differences in PGH's "healthier food purchasing standards" compared to the University of California's pre-2020 standards include the incorporation of newer label claims that focus exclusively on the use of antibiotics in animal agriculture as a sustainability criterion. Meat and poultry with the label claims "raised without antibiotics," "no antibiotics administered, "no antibiotics ever," or "no antibiotics added" can now be counted as sustainable, according to PGH. Older sustainable food certifications that address broader topics, such as humane animal care, have multiple requirements about food production, including restrictions around the use of antibiotics in animal husbandry. However, the labels "raised without antibiotics," "no antibiotics administered," "no antibiotics ever," and "no antibiotics added" focus exclusively on the issue of antibiotics and do not ever allow for their administration. These labels do not make any guarantees around animal welfare, worker health and safety, or aspects of environmental sustainability such as climate change, soil health, or water quality.

Despite the limited scope of the no-antibiotics labels, the use of antibiotics in animal agriculture has been a key concern for PGH, Health Care Without Harm, and the University of California's hospitals. Research has highlighted that 80% of antibiotics sold in the U.S. are for use in animal agriculture, as opposed to human medicine, often for the purposes of growth promotion when animals are being reared.[5] Further, this antibiotic use in animal agriculture has been linked to antibiotic-resistant infections in humans (Martin et al., 2015). The University of California's hospitals have therefore made it a priority to purchase "no antibiotics ever" chicken for health and environmental concerns. As a result of mobilized efforts by entities like Health Care Without Harm, many poultry companies have shifted away from ever using antibiotics in raising chickens and turkeys (Charles, 2016; Mohan, 2015). Companies like Foster Farms, a supplier based in California, claim that they are now "leaders" in offering "antibiotic-free chicken" (Foster Farms, n.d.).

Progress Toward the 2030 Procurement Goal

The University of California's dining locations reported data on the new sustainable food procurement goals for the first time in the 2020 Annual Sustainability Report from the University of California, published in January 2021. According to

[4] The new goals also created separate targets for campuses. By 2030, 25% of each campus's food and beverage spend must meet the Association for the Advancement of Sustainability in Higher Education's (AASHE) definition of "sustainable" (University of California, 2022).

[5] Note that antibiotic use impacts the growth and reproduction of bacteria but not the growth and reproduction of other microbes, such as viruses. Antibiotics are administered at the farm level and not at other stages of food production and processing, such as slaughter.

this report, the university as a whole spent US$19.6 million on products that met sustainability criteria during fiscal year 2019–2020 (referred to as "2020 data"). Many of these food and beverage items included those with the certifications and labels of organic, Fair Trade, or "no antibiotics ever" poultry, and came from medium- to large-sized distributors and other suppliers. Of that figure, the university's five health systems purchased US$7.7 million of food and beverages that met PGH's standards. This figure was the equivalent of about 21% of their total food and beverage spend in fiscal year 2019–2020, a reported increase from the year before (University of California, 2021a).[6] In Sustainable Foodservices Working Group meetings and email correspondence, foodservice staff from at least two of the health systems commented that they had originally expected the percentage of dollars spent on sustainable food and beverages to be even higher, given that the health systems had been collectively at 20% or above for sustainable food purchasing in the previous three years, before 2020. Their explanations about their 2020 data revolved around the coronavirus pandemic, as their dining operations experienced decreases in food sales and increases in food supply disruptions. They also found collecting data from suppliers to be challenging during the pandemic.

Despite these challenges, sustainable food procurement is a point of pride for the health systems because of the accolades they have received for their procurement efforts. UC Davis Health, for example, has been honored twice by the James Beard Foundation for sustainable seafood procurement (UC Davis Health, 2020). UC Davis Health was also recognized by PGH as a "leader in sustainable food services" in 2020 (PGH, n.d.-c).

The health systems feature sustainable food procurement—particularly related to sustainable meat and poultry products—prominently in promotional materials, on their menus, and on their websites. For instance, in its cafeterias, UCSF Health advertises that its grilled burger is made with grass-fed beef and mushrooms. The mushrooms are included to increase the plant-based content in a serving (Fitzpatrick, 2017). UC San Diego Health and UCLA Health publicize on their websites and in presentations that they serve poultry raised without antibiotics (Champeau, 2014; UC San Diego, n.d.). UCSF Health even passed a resolution, in collaboration between faculty and foodservice staff, and now available on its website, to phase out any purchases of poultry raised with non-therapeutic antibiotics (Fleischer, 2018).

Discussion

Over the course of more than 10 years, sustainable food procurement at the University of California's health systems has been made official in internal policy, celebrated in communications, and normalized in culture among staff and faculty. Millions of dollars are now spent annually on sustainable food and beverages by the University of California's health systems. Based on trends since 2010, and barring long-term COVID-19–related issues, this dollar figure will likely continue to grow as 2030 approaches.

Support for Environmental Issues

There is clear support from many staff members throughout the University of California for environmental initiatives in sustainable food procurement. For instance, both the University of California's health systems and campuses are interested in expanding the scope of their sustainable food work to address climate change. The Sustainable Foodservices Working Group is currently exploring new goals that would require that both the health systems and campuses increase their plant-based food spend as a proportion of their overall food and beverage purchases. The goal aims to reduce the greenhouse gas emissions related to their food procurement activities. During the course of several working group meetings, foodservice staff agreed by verbal consensus to this exploration. The consensus was based on research they were presented from students, faculty, and nonprofit partners such as Health Care Without Harm documenting that animal proteins have a higher climate footprint compared to plant-based ingredients. Many sus-

[6] The 2020 data represents about a US$4.7 million increase from the 2019 Annual Sustainability Report. However, the 2019 report did not include information from UC Irvine Health.

tainability staff also expressed support for this exploration in order to further align food procurement activities with the University of California's broader carbon neutrality goals, which do not currently address food purchases. PGH, Health Care Without Harm, and other nonprofit organizations are providing guidance and support to the University of California's hospitals to measure and track plant-based food purchases. Four of the health systems have also signed onto the "Cool Food Pledge," a climate change–focused campaign run by the World Resources Institute, and have pledged to measure and reduce the climate impact of their food (PGH, n.d.-a).

Challenges to Sustainable Procurement Illuminated by a COVID-19 Outbreak in Poultry

Despite the growth the University of California's health systems have seen in their sustainable food procurement efforts, disruptions from the coronavirus pandemic in agricultural production and food supply chains showcase some of the limitations around their goals. For instance, in the spring of 2020, over 16,000 meat-processing workers tested positive for the COVID-19 virus, and 86 workers died in the U.S. (Waltenburg et al., 2020). COVID-19 outbreaks continued throughout the year in the poultry sector. One estimate found that there were 334,000 COVID-19 infections in the U.S. meat processing sector in 2020, primarily resulting from the lack of health and safety precautions for workers (HealthDayNews, 2021). In August and September 2020, nine people died from a COVID-19 outbreak in one poultry processing facility run by Foster Farms in California, and over 392 individuals tested positive for the virus. In the weeks afterward, several more individuals died from the original outbreak and another outbreak at Foster Farms in California. In December 2020, United Farm Workers of America filed a lawsuit against Foster Farms within the state. Attorneys argued that Foster Farms put workers at the plant at an increased risk of contracting and dying from COVID-19 and accused the company of operating in "naked disregard of both national and local guidelines" (as cited in Hall, 2020). In May 2021, state regulators cited the company for several repeated and serious COVID-19 violations.

While the scope of the pandemic was unprecedented and unpredictable, concerns about the health and well-being of poultry workers, from risk of bodily injury to warnings about the spread of respiratory illnesses, were not new and unique (Grabell & Yeung, 2020; Human Rights Watch, 2005; MacMahon et al., 2008). Many advocacy organizations had also long-documented the poor working conditions in poultry processing facilities (Oxfam, 2016; The Food Chain Workers Alliance, 2012). This outbreak of COVID-19 among workers is notable, however, because the University of California's health systems (and campuses) are sourcing much of their fresh and "no antibiotics ever" poultry, now considered sustainable according to PGH and university policy, from Foster Farms, with which the university has a systemwide contract through 2023.[7] COVID-19 catalyzed new conversations among university staff about the inadequacies of its existing sustainability program and methods for vetting labels for issues around labor.

News of the workers' deaths from COVID-19 led to several debates about worker health and safety within Sustainable Foodservices Working Group meetings in the fall of 2020. Some foodservice staff expressed discomfort about calling "no antibiotics ever" chicken from Foster Farms "sustainable," given the working conditions in poultry processing that contributed to the COVID-19 outbreaks. They argued that the University of California should terminate its contract with Foster Farms as a result, given social justice concerns. Other staff pointed out that if the university immediately ended the contract, campuses and health systems would likely face a shortage of poultry products. At the time, there was no alternative supplier that could meet the university's large volume demand of fresh and processed (for example, already cut up) chicken and turkey items as outlined in its contract with Foster Farms. Moreover, they argued,

[7] These poultry products are primarily being delivered to University of California locations through broadline distributors. For example, US Foods delivers for four of the health systems.

many other meat processing facilities were being shut down temporarily or operating at reduced capacity as a result of COVID-19, further restricting poultry supplies nationwide.

These potential supply shortages made many foodservice staff nervous that they would be unable to plan menus or meet consumer (student, staff, and visitor) demand for food items. Further, if some of the health systems and campuses wanted to plan ahead and purchase and store surplus poultry (for example, in freezers or warehouse space), which could be utilized during supply chain shortages, foodservice staff explained that their locations did not have such storage capacity or labor to manage such logistics. And finally, some members of the working group even argued that campuses and health systems did not need to be troubled about the outbreak. The Foster Farms facility where the first outbreak of COVID-19 occurred was not the origin of the processed poultry products being supplied to the University of California. In sum, the majority of concerns about ending the contract with Foster Farms revolved around the availability of processed poultry products from other suppliers, ongoing supply chain disruptions, and the University of California's own infrastructure and staffing limitations. This varied list of concerns highlights how there was no one or immediate solution for responding to labor violations around the COVID-19 outbreak, given the complex nature of meat processing, supply chains, consumer food preferences, and institutional procurement.

After weeks of discussion, individuals from the Sustainable Foodservices Working Group drafted a public statement that emphasized the importance of worker health and safety during the pandemic. The statement was then endorsed by the Working Group and other sustainability groups internal to the university. In 2021, the statement, called "Commitment to Worker Health and Safety during the COVID-19 Pandemic," was signed by high-level administrators in the University of California's Office of the President, the Chief Operating Officer and Chief Financial Officer. It was then both put on the University of California's website and sent by procurement staff to over 300 systemwide suppliers, including Foster Farms.[8] As of the middle of 2022, the university is maintaining its poultry contract with Foster Farms. Meat and poultry products marked "raised without antibiotics," "no antibiotics administered," "no antibiotics ever," or "no antibiotics added" are still considered sustainable by PGH, Health Care Without Harm, and the University of California's sustainable food procurement policy for health systems.

Outstanding Questions for Consideration in Sustainable Procurement Policy and Initiatives

The Sustainable Foodservices Working Group continues to grapple with unanswered questions regarding campus and hospital food supply chains: How can and should the University of California hold its contracted suppliers accountable for public health and other violations impacting workers? What options for action does the university have if there is no other immediate supply source for an affected product? Can supply for any product ever be guaranteed when and if the university relies entirely on one supplier for delivering it? And finally, should "raised without antibiotics," "no antibiotics administered," "no antibiotics ever," and "no antibiotics added" label claims still qualify as sustainable in the University of California's Sustainable Practices Policy, or are they too narrow in scope in their focus on one aspect of food production (which excludes labor concerns, for example)?

These questions illustrate the limitations to the impact of sustainable procurement policies by institutions like hospitals as currently designed, particularly if institutions are relying solely on the procurement of products with existing third-party sustainability certifications and label claims from larger suppliers as a means for changing the food system. To date, social justice and concerns around working conditions have not yet been focal points in most of these certifications or labels. The overwhelming majority of the third-party food certifica-

[8] The "Commitment to Worker Health and Safety during the COVID-19 Pandemic" from the University of California is available online at https://www.ucop.edu/procurement-services/for-suppliers/sustainable-procurement/covid19_letter_workerhealthand-safety.pdf

tions and label claims on PGH and Health Care Without Harm's "healthier food standards" revolve around environmental criteria or animal welfare. Only one on the list, Fair Trade, directly tackles labor. As advocacy organizations have pointed out, however, there are currently less than a handful of third-party certifications available in the marketplace that address workers and social justice, and these focus primarily on farmworkers (Nargi, 2019). Relatedly, only a few advocacy organizations, such as the Good Food Purchasing Program, address the intersection of institutional food procurement and labor (Silverman, 2021). The overall emphasis of farm-to-institution over the years has been on farm size and local or regional food (Prescott et al., 2020), not working conditions in food supply chains. This shortcoming mirrors that of the broader food movement, which has focused more on environmental sustainability and less on social justice (Minkoff-Zern, 2017).

To further complicate how the University of California should respond to external events that impact food supply chains is the fact that internal foodservice operations are dealing with pandemic-related crises around staffing shortages and smaller food and beverage budgets. The foodservice sector as a whole has experienced a decline in sales due to closures of cafeterias and other outlets because of mandatory shutdowns and low visitor numbers. At the same time, sanitation expenses have increased during the pandemic (McConnell, 2020; Pawlak, 2020; Shaw, 2020). The most recent food procurement data from the University of California's hospitals shows that the health systems purchased less food overall and spent about US$300,000 less (US$7.4 million, or 21% of their food and beverages) on food and beverages that met the PGH definition of sustainable in 2021 compared to 2020 (University of California, n.d.-c). Cafeterias, cafés, dining halls, and other foodservice locations are operating and continue to operate at a limited capacity throughout the University of California as a result of curtailment measures stemming from the pandemic. Foodservice staff have repeatedly shared on internal Sustainable Foodservices Working Group calls that pandemic-related pressures have taken time and resources away from internal activities that support existing sustainability goals.

Conclusion and Recommendations

Since the early 2000s, institutional food consumers such as hospitals have become increasingly engaged in sustainable food policy and procurement. Medical associations, hospitals, and nonprofit advocacy organizations have argued that hospitals can and should change the food system with their food and beverage purchases to protect the environment and mitigate human health problems. Staff at the University of California's five health systems are proud of the progress their hospitals have made on increasing their sustainable food and beverage purchases as a percentage of their foodservice budgets since 2010. These health systems have committed to dedicating a larger percentage, at least 30%, of their food purchases to sustainable food and beverages by 2030.

By spending millions of dollars annually on purchasing sustainable food and beverages—as the University of California's five health systems have been doing—they have signaled to suppliers that they are interested in values such as environmental protection. They have been willing to spend more money on food products with third-party certifications and label claims. They have been purchasing many of these items from suppliers with which they already have contracts. As other researchers have shown, many of these activities and those of other institutions relying on VBSCs have definitively led to positive ecological changes in food production and have supported small to mid-sized producers (Christensen et al., 2018; Farm to Institution New England, n.d.; Prescott et al., 2020; Zuckerman, 2013). However, the 2020 outbreak of COVID-19 that led to worker deaths at a poultry processing facility in California tests the limits of food systems change that may be possible, in particular with VBSCs. This is especially true when hospitals attempt to influence food production and processing solely by buying products with existing sustainability certifications and label claims from larger suppliers.

As sustainable procurement efforts from the University of California illuminate, there is need for farm-to-hospital efforts to better address concerns around labor and social justice in the food system. The University of California is continuing internal conversations about its relationship to its poultry

suppliers and how best to tackle workers' rights with procurement decisions. The university received a subcontract in late 2021 through a three-year grant with Georgetown University and the Robert Wood Johnson Foundation to explore developing a code of conduct for poultry suppliers and their workers. While work on the grant is nascent, a code of conduct could set parameters around acceptable health and safety conditions for workers in the poultry supply chains from which institutions source their food. Many universities, including the University of California, already have codes of conduct in place for trademark licensees (University of California, 2021d).

Moving forward, the broader farm-to-hospital movement could explore the role of a policy—such as a code of conduct addressing labor conditions in food supply chains—that health systems could adopt as a part of their sustainable procurement goals. Given that hospitals use third-party certifications and label claims for making decisions around their sustainable food purchases, farm-to-hospital efforts could also reevaluate the impact of antibiotic-use label claims on food systems change. Hospitals themselves may also want to consider accelerating their plant-based food procurement efforts to reduce their reliance on large meat and poultry suppliers that have had years of documented labor violations.

Finally, additional applied research continues to be needed around the infrastructure and supply chain barriers faced by institutions in diversifying their supplier base so that they are not entirely dependent on a few large suppliers for their food. For example, farm-to-hospital advocates could examine the limitations hospitals face in storing and processing food. These limitations serve as barriers for hospitals to purchase food from alternative suppliers who may have inconsistent supplies of food or food in forms that hospitals cannot immediately utilize without further processing (such as whole or frozen poultry). In turn, the farm-to-institution movement should continue to explore opportunities for connecting sustainable, small, and diverse suppliers to institutions. The need for institutions to rely on a diverse supplier base for their food products is likely to become increasingly important as supply chain resiliency continues to be tested by external shocks, including climate change-related disasters in agriculture and the ongoing COVID-19 pandemic.

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