Risky but Raw: On (Not) Regulating One of the Most High-Risk Dishes in Japan

Abstract: Over the past decade in Japan, consumption of raw chicken dishes increased after the government placed restrictions on raw beef and pork. This article explores the lax regulations on raw chicken, a high-risk food with a devoted following, especially among young consumers in Japan. Historically, raw chicken was mostly limited to particular regions and breast meat, but it has recently expanded more broadly throughout Japan and encompasses riskier cuts from internal organs. Drawing on government statistics of food poisoning, I analyze trends in documented incidents, geographic variation, and demographic composition. I then contextualize these trends through interviews with hygiene division officials in Saga Prefecture and Miyazaki Prefecture, two prefectures that employ different strategies to reduce their high rates of food poisoning from raw chicken. This analysis of raw chicken in Japan illustrates the need to go beyond superficial encounters with unfamiliar cuisines to engage with the underlying social and ecological forces that shape situated expressions of risk within culinary practice.
delve into the gray zone of raw chicken where regulations, public perceptions, and profits work at times to exacerbate and sometimes to mitigate the riskiness of eating raw chicken. I conclude that at present the Japanese government is doing far more to exacerbate than mitigate the risks posed by raw chicken dishes.

I ate raw chicken for the first time two weeks after I arrived in the field. I went with a new friend to a yakitori (chicken parts on skewers) restaurant in Miyazaki City. The menu listed several options for raw chicken (tori no sashimi), including raw liver, gizzard, combination platter, and seared chicken (tataki). We ordered raw chicken (tori sashi), which featured seared raw breast tenderloin (sasami) served with garnishes like shiso leaf, a chile daikon paste (momiji oroshi), and two dipping sauces—one, wasabi soy sauce, and the other ponzu (a sauce usually made with a citrus fruit like yuzu and soy sauce) (see figure 1). I used far too much of the chile daikon paste on my first piece of raw chicken, and so, rather than focusing on this novel food, I had a coughing fit. Eventually, the burning subsided and I tried another. “This is great! My first time.” My friend responded, “You can eat it as sashimi. Delicious!” We both marveled that such a dish was possible and that it was actually delectable. Standing behind the counter, the chef had thirty years of experience tending the coals (sumibi) at this restaurant. He explained, “For tori-sashi, it’s really okay to just use breast tenderloin (sasami), but there are various combinations. It’s a fresh protein without much flavor (aji).” Multiple dipping sauces often accompany raw chicken to add additional depth of flavor.

During this honeymoon phase of my research, I embraced the notion that as a chicken researcher, I should embody my role by eating lots of raw chicken. A five-minute walk from my apartment, the local supermarket sold raw chicken. The sign above the raw chicken display boasted: “We are committed to Miyazaki’s local food systems” (literally: local consumption of local products) (see figure 2 and figure 3). My carefree explorations of Miyazaki’s raw chicken screeched to a halt after I met with a professor at Miyazaki University. I arranged this meeting to learn about avian influenza, but mentioned offhandedly that like any good chicken researcher, I was making sure to partake in lots of raw chicken. The professor indulgently explained that, yes, it might taste good, but no, raw chicken is not magically safe—it is dangerous. He kept repeating a word I didn’t understand, so I asked him to write it down in my notebook. He wrote in precise capital letters “CAMPYLOBACTER.”

Campylobacter is the leading source of food poisoning from Japan’s raw chicken dishes. It is also the leading culprit of diarrhea around the world (Humphrey, O’Brien, and Madsen 2007: 239). Properly cooking chicken almost always kills campylobacter, but it lives on in raw or undercooked chicken. This doesn’t mean that everyone who eats raw chicken gets sick. Not all chicken contains campylobacter, and the condition of food poisoning results from a mutable interaction between campylobacter and the microbiome of an individual’s gut flora. In general, people fall into different categories of highly, moderately, and less susceptible to food poisoning from campylobacter. Fortunately, I was either very lucky or less susceptible, and so despite many high-risk meals, I never attributed any illness to raw chicken. But whenever my partner visited me in Miyazaki, she kept getting sick. Since there is usually a lag of several days after one eats raw chicken before one gets sick, we did not immediately make the link, although I should have known better based on my research. In those who get sick, campylobacter gains a foothold in their gut to which the body and immune system respond by causing symptoms like stomach cramping and diarrhea, although some cases...
result in more serious and long-term conditions (Blaster and Engberg 2008).

Like me, many overlook the dangers of raw chicken, in part because of their positive association between Japanese cuisine and safety. Domestically, the Japanese government promotes local and traditional cuisine through a food education (shokuiku) program that reinforces the link between traditional Japanese food and positive social and health outcomes (Assmann 2017; Takeda 2008; Mah 2010). Part of the widespread positive associations with Japanese cuisine results from a savvy public relations campaign. Following the March 11, 2011, Fukushima triple disaster, for example, citizens mobilized to draw attention to the presence of unsafe irradiated food that entered the food system, but the Japanese government moved to dismiss these concerns as “spurious rumors” (fu¯hyo¯higai) (Kimura 2016). The government also launched an “Eat and Support” (tabete o¯enshiyo¯) campaign to promote the consumption of food from affected regions (Takeda 2017). The Japanese government has tended to prioritize the protection of reputations and commerce over food safety concerns unless an incident manages to break through and grab the public’s attention. In part to reduce criticisms over food safety in the wake of the Fukushima disasters, the government sought out UNESCO certification for Japanese cuisine (washoku) (Assmann 2015). Internationally, the Japanese government promotes Japanese cuisine as a form of soft power that burnishes the country’s image (Gang 2015; Cwiertka and Miho 2020; Farrer 2015; Rath 2016). Yet in one of the world’s most reputed cuisines, we encounter the jarring high-risk practice of eating raw chicken, a practice made even more dangerous by a dearth of oversight.

An Overview of Raw Meat Dishes in Japan

Japanese historian Harada (2013, 2014) traces the historical spread of animal husbandry and raw animal meat cuisine across East Asia from China to Korea before arriving in Japan. The extent to which meat or raw food was eaten in premodern Japan, however, remains unclear. As early as the seventh century, the Japanese Emperor banned the eating of certain categories of animal meat for half of the year (Ishige 2001: 53; Rath 2010: 214). The Emperor’s ban initiated a stigma, especially in high society, around eating meat that was linked to Buddhist theology, but meat eating persisted throughout the territory that now makes up Japan. A tenth-century dictionary, the Wamyō ruijushō, defines the word...
“namasu” as meaning raw meat (Nagayama 2013: 31). Today, namasu commonly refers to a raw ingredient—such as vegetables or fish—served with a vinegar dressing. Namasu appears in the earliest collection of Japanese poems, the Man’yōshū, compiled around the eighth century (Nagayama 2013: 32). In a poem titled “The Hart,” after a hunter shoots a deer with an arrow, the deer makes many requests of how its body parts should continue to serve its lord, including that its liver be eaten raw as namasu.

One of the earliest Japanese cookbooks, from around the seventeenth century, called the Barbarians’ Cookbook (Nanban Ryōrisho), draws on Iberian cuisine, with many recipes using eggs and chicken meat (Rath 2010). Although the Barbarians’ Cookbook’s circulation was limited, some of the recipes contained in the manuscript spread more widely. By the Meiji-era (1868–1912), the Japanese emperor partook in elaborate French banquets that featured meat, and meat became positively associated with Westernization, modernization, and military prowess (Cwiertka 2006). Raw meat dishes consistently appear in historical cookbooks. Take for example this 1904 recipe for chicken sashimi: “The meat used for this is limited to the breast of just-killed chickens. Like normal sashimi, it can be sliced thin and served raw with wasabi soy sauce” (Murai and Ozaki 1904: 29). The directions are succinct but contain practical food safety advice such as the use of recently slaughtered chickens and the cut of breast meat.

Although numerous terms indicate raw dishes in Japanese cuisine, the terms “sashimi” and “tataki” are the most prominent for raw chicken dishes. Sashimi refers to thinly sliced flesh served raw, often with soy sauce and wasabi (see figure 4). Tataki refers to a way of preparing raw food in which the outside flesh is seared while the inner flesh remains raw. In regional culinary books from the 1980s (Asahi Shimbun-sha, 1984; Horii, 1982), sashimi and tataki refers not just to chicken but also to raw fish, seafood, vegetables, and animal meat other than chicken.

Chickens were commonly found in rural households until the 1970s, when industrial grain, breeds, and corporate structures from the United States caused a sharp decline in backyard husbandry as large meat and egg-specific operations expanded rapidly (Schrager 2018). Food poisoning from campylobacter increased alongside the expansion of industrial methods for producing chicken (Allen and Lavau 2015). As a result, the spread of industrial methods of producing chicken likely introduced a much higher level of risk to the practice of eating raw chicken than traditional practices that relied on backyard flocks and used only breast meat. Through the 1980s and 1990s, concerns increased over the safety of imported and industrial chicken meat.

In response, the Japanese government and prefectural organizations mobilized around a category of chicken called jidori (Schrager 2021). The term jidori originally indicated a wide range of meanings associated with local, regional, and place-based chicken. Starting with Akita Prefecture’s Hainai-jidori in the 1980s, the word “jidori” was increasingly used to indicate an emerging category of artisan heirloom chicken.

In 1999, the national government introduced jidori as the basis for a Japanese Agricultural Standard, JAS jidori. In order for chickens to qualify as JAS jidori they had to be raised for a minimum of 80 days (reduced to 75 days in 2015), have a maximum stocking density of 10 birds per square meter, and be at least half native heirloom breeds (with native heirloom defined as having arrived in Japan prior to 1868). All jidori brands had to adapt to either fulfill JAS jidori requirements or refrain from branding their chicken as jidori. Despite satisfying the requirements for JAS jidori, the majority of jidori brands abstained from obtaining JAS certification in part because JAS jidori facilitated the growth of more industrial and corporate approaches to jidori (Schrager 2021).

Soon after the jidori standard was established in 1999, books on chicken featured more raw chicken and often linked these dishes with the positive appeal of jidori and qualities like freshness. For example, a magazine from 2002 begins with profiles of four famous jidori brands and then introduces 55 chicken specialty restaurants from across Japan (Magazine Top 2002). Many of the photographs from these restaurants feature raw chicken, including dangerous...
dishes such as raw liver. According to the 2005 book *Cooking Techniques for Jidori Cuisine*, “With better access to exceptionally fresh jidori meat, there is a recent increase in raw chicken dishes. For sashimi, each cut brings to mind a unique mouthfeel and requires a methodical approach” (Asahiya Shuppan 2005: 55). Despite the association between raw chicken and jidori, restaurants also expanded their use of industrial chicken in raw dishes, which further exacerbated the already high risk of food poisoning, especially from campylobacter.

The Japanese government tolerated the high risk of raw animal meat dishes until five people died from eating yukke (raw ground beef) at a yakiniku (Korean-style barbecue) restaurant in 2011. In response to public criticism over the lax regulations of raw beef, the government banned raw beef and liver early in 2012, a ban that the state extended to raw pork in 2015 (Nagata 2015). The state deemed these dishes too risky because of the dangers posed by a particular strain of *E. coli*, the shiga-toxin-producing O157 strain.

The Japanese Meat Information Service Center conducts annual surveys with over a thousand respondents that show shifting consumer perceptions of eating raw animal meat. In a 2012 survey that mentioned the 2011 beef yukke incident, a small proportion of consumers reported they had shifted from raw beef to raw horse (2.3%), raw chicken (2.5%), or raw pork (0.8%), or to travel to South Korea, where raw beef remains legal (0.6%) (JMISC 2012: 53). The percentage of respondents expressing strong or mild concern over the consumption of raw animal meat peaked at 69 percent in 2013 but then gradually declined to 56 percent in 2019 (JMISC 2019: 150). In the aftermath of the yukke incident, demand for raw beef and pork ebbed while demand for other raw meat increased.

While raw animal meat remains a comparatively uncommon dish, Japanese dishes more frequently contain raw eggs for dishes such as raw egg on rice (*tamago kake-gohan*) and sukiyaki, a dish in which boiled meat and vegetables are dipped in a raw egg before eating. People are occasionally sickened by raw egg despite regulations that seek to reduce disease vectors such as salmonella. For example, a 74-year-old woman from Nobeoka City, Miyazaki Prefecture, died in 2011 after eating a raw egg infected with salmonella, and the women’s family eventually received 45 million yen (~ $450,000) in compensation from the Nobeoka Poultry Farming Association (Nobeoka yōkei jigyō kumiai) following a trial (Asahi Shimbun 2014). Despite isolated instances of food poisoning from raw eggs, raw animal meat is a far greater source of food poisoning, as I will demonstrate in the ensuing section.

Before delving into statistics on food poisoning in Japan, it is useful to briefly examine raw food and food safety approaches in wealthy Western countries. Before the norm of sterile food took hold, eating involved far more exposure to risk. For example, in the United States many died due to food poisoning from drinking raw milk; as a consequence, state governments began mandating pasteurization in the 1910s and 1920s, which reduced deaths but hastened the demise of many small dairy farms (DuPuis 2002: 82). In Western cuisine, dairy provides the most vivid example of the tension between food safety regulations and the bacterial livelihood of artisan cuisine (Linn 2019a, 2019b; Paxson 2008). Raw milk intersects with discourses of local and natural food that evoke consumer trust, levels of trust that for some outweigh expert discourses of raw milk as a fundamentally risky food (Enticott 2003; Linn 2019a). Raw milk provides a striking example of food safety because food safety experts enforce a clear distinction between safe (pasteurized) and unsafe (raw) milk (Linn 2019b).

Government regulations often seek to control food risk in situations far more complex than the case of pasteurized milk. For example, Mansfield (2012) examines the regulation of pollutants from seafood that bioaccumulate in the body. She argues that the regulation of these pollutants in the United States focuses on pregnant women, making women responsible for avoiding pollutants that harm reproduction. The government seeks to steer vulnerable populations away from harmful food by emphasizing consumption choices, and aspects of this approach resemble the Japanese government’s strategies for regulating raw chicken dishes.

### Japanese Statistics on Food Poisoning

The Ministry of Health, Labour, and Welfare (MHLW) compiles statistics on food poisoning in Japan (MHLW 2020). This remains the key source of data for determining trends in food poisoning despite its limitations. The first limitation is that the official statistics capture only a small fraction of the overall number of cases of food poisoning, a common problem with food-poisoning statistics in other countries as well (e.g., Painter et al. 2013). A study led by Kubota based on Miyagi prefecture in 2005 estimated that only one of every 200 actual cases of food poisoning from campylobacter enter the national food-poisoning statistics (Kubota, Amanuma, and Kasuga 2013, 11). In analyzing a different publication led by Kubota (Kubota et al. 2011), Vetchapitak and Misawa (2019) estimate that only one of every 450...
incidents of food poisoning from campylobacter enter the official statistics. The wide range in these estimates, 1:200 or 1:450, underscores that the MHLW data vastly undercounts the actual numbers and that high levels of uncertainty persist regarding the actual number of people poisoned.

The official statistics are so much lower because a person sickened by food poisoning faces many hurdles before their illness enters official statistics: the person who falls ill must visit a doctor; that doctor must analyze their patient’s stool sample to identify the biological agent that caused the sickness; the doctor then must report the results to the government hygiene division along with their suspicion for the source of the food poisoning; and, finally, the government hygiene division must investigate and confirm the suspected source of food poisoning. The exact order of these steps varies—someone might, for example, report an incident directly to a hygiene division—but these hurdles mean that the official statistics necessarily underreport the actual number of incidents. Further, variation in prefectural reporting practices could lead some prefectures to report a greater proportion of the actual incidents of food poisoning. A prefecture that fosters greater cooperation between citizens, doctors, and hygiene officials in documenting incidents of food poisoning would ironically report more incidents and thus appear less safe than prefectures with less rigorous cooperation.

The second limitation of this dataset is that the foods responsible for causing food poisoning are inconsistently recorded in the MHLW’s official data. For many incidents, the food is designated as unknown or in generic terms such as “the food served by the establishment.” Out of the entire dataset, from January 2000 until November 2020, 42 percent (n = 1,162) of incidents indicate chicken as the food source, and these incidents poisoned 15,332 people.² Of those incidents, 88.1 percent (n = 1,024) were caused by campylobacter, and this accounted for 63.5 percent (n = 9,732) of the people poisoned from chicken. Using the higher estimate at which campylobacter goes underreported in this data (1:450), these reported incidents of campylobacter poisoning from chicken would represent 4.4 million people poisoned since 2000, a rate of 210,000 people per year.³ Using the lower estimate (1:200), the reported incidents would represent 1.9 million people poisoned since 2000, a rate of 90,000 people per year. The actual number of people sickened by campylobacter from chicken is surely far greater due to the high number of incidents that list campylobacter as a cause but do not trace it to a specific food source. Kubota and colleagues (2012: 1596) estimate that Japan had 1.5 million cases of food poisoning from campylobacter in 2005.

Of the 1,162 incidents of food poisoning that identify chicken as the food source, 62.9 percent (n = 731) indicate the intentional use of raw or undercooked chicken dishes such as chicken sashimi or tataki even when excluding generic descriptions such as “chicken cuisine” or “chicken course meal.”⁴ According to my analysis of the data, for incidents that indicate raw or undercooked chicken, campylobacter was the source of illness for over 95 percent of incidents and people poisoned. Campylobacter is the leading cause of food poisoning in Japan, and raw chicken dishes are the leading cause of campylobacter food poisoning among incidents with a known cause (Vetchapitak and Misawa 2019: 65). Based on the MHLW (2020) statistics on food poisoning, which has significant limitations, raw chicken dishes appear to be the dish that poisons the most people in Japan. Although the total number of people sickened by seafood outnumbers chicken (see table 1), no single species of seafood such as oyster or tuna comes anywhere close to

<table>
<thead>
<tr>
<th>Incidents</th>
<th>Sickened</th>
<th>Deaths</th>
</tr>
</thead>
<tbody>
<tr>
<td>Seafood</td>
<td>3,132 (11.2%)</td>
<td>30,304 (5.9%)</td>
</tr>
<tr>
<td>Chicken</td>
<td>1,162 (4.2%)</td>
<td>15,350 (3.0%)</td>
</tr>
<tr>
<td>Animal meat (not chicken)</td>
<td>520 (1.9%)</td>
<td>7,900 (1.5%)</td>
</tr>
<tr>
<td>Other food or unknown</td>
<td>23,158 (82.8%)</td>
<td>461,435 (89.6%)</td>
</tr>
<tr>
<td>Overall</td>
<td>27,972</td>
<td>514,989</td>
</tr>
</tbody>
</table>

All data based on MHLW (2020). To select dishes for “seafood,” I searched for “fish,” “seafood,” “sushi,” “sashimi,” and so on. To select dishes for “chicken,” I searched for “chicken,” “bird,” “yakitori,” and the like. For “animal meat (not chicken)” I excluded chicken dishes and selected for “meat,” “ground meat,” “beef,” “pork,” and so on. “Other food or unknown” includes all incidents excluded from the other three categories.
the numbers for raw chicken. Unfortunately, this dataset contains much uncertainty because of the previously mentioned limitations of inconsistent reporting and documentation of food-poisoning incidents.

Despite its limitations, the MHLW’s food incident dataset is the best resource for evaluating trends in food poisoning with respect to food categories, regional differences, and demographics. To examine the geographic distribution of incidents of food poisoning from chicken meat, I first removed the small number of incidents not linked to any prefecture. Then I multiplied the proportion of Japan’s population that lives in each prefecture by the total number of reported incidents (n = 1,154) to create an expected number of incidents for each prefecture if culinary practices and reporting were consistent throughout the country. Then I divided the number of reported incidents by expected incidents to create a reported/expected ratio. If the ratio is less than one, it indicates fewer incidents occurred than were expected while more than one indicates more incidents than expected. By controlling for population, clear geographic trends emerge for the distribution of incidents of food poisoning from chicken. There was far less food poisoning in northern Japan, as no prefectures from Niigata and Fukushima northward had more food poisoning than expected from chicken. By contrast, Shiga (3.57), Osaka (2.92), and Miyazaki (2.82) had significantly higher reported rates of food poisoning. In the ensuing sections, I describe the differing strategies to regulate raw chicken dishes in Shiga and Miyazaki Prefectures.

To compare food categories, I analyzed the dataset of 27,972 unique incidents and coded for whether the source of food poisoning was attributed to chicken meat, other animal meat, or seafood (see table 1). Between 2000 and 2020, chicken meat accounted for more than twice as many incidents of food poisoning and people sickened compared to all other animal meats. When compared to the far more widespread practice of raw seafood, chicken accounts for half as many people sickened. Unlike raw seafood and other meat, no deaths have been attributed to raw or cooked chicken dishes. This bolsters the perception of raw chicken as comparatively safer than other animal meats such as beef and pork. After the 2011 yukke incident, the number of food-poisoning incidents from chicken increased relative to other meat. From 2000 to 2011, there were 1.5 times more incidents of food poisoning from chicken than all other animal meats. From 2012 to 2020, it increased to 4.5 times more.
The MHLW dataset also provides insights into the demographic groups at the greatest risk of food poisoning from raw meat dishes. Although the presence of warning disclaimers is inconsistent, such disclaimers typically caution that vulnerable people—children, elderly, and those pregnant or otherwise at risk—should avoid it. Demographic statistics on those who fall ill from meat indicate that young men—decidedly not the at-risk demographic warned away from raw animal meat—are the most likely to fall ill.6 Examining statistics from 1996 to 2018, 59 percent of the people sickened by animal meat were between 15 and 39 years old. Of the 12,100 who were sickened, 7,000 (57%) were male. The majority of the meat they ate was served to them in restaurants, and a significant portion of this food poisoning arose from campylobacter in raw chicken dishes. Food poisoning from raw chicken mainly afflicts the young, strong, and adventurous. Their weakness isn’t immunological, but rather arises from their perception that they are less at risk and that foods sold in restaurants are generally safe.

Rising Concern over Labeling in Shiga Prefecture

To better understand how the government attempts to regulate raw chicken dishes, I visited Shiga Prefecture, which has Japan’s highest per capita rate of reported food-poisoning incidents from chicken since 2000. At the food hygiene division, I interviewed an official named Suzuki.7 He explained that raw chicken was introduced fairly recently to Shiga Prefecture and that its consumption increased dramatically following the beef yukke incident. In addition, social media generated greater awareness of raw chicken in Shiga Prefecture. As the overall consumption of raw chicken increased, so too did the cases of food poisoning.

Shiga prefecture’s hygiene division has limited tools to intervene and reduce the spread of raw chicken. Suzuki explained:

Like in other parts of the country, it isn’t against the law to serve raw chicken. As a hygiene division, we recognize the risk of food poisoning from campylobacter, but we can’t force restaurants to stop selling it, because it isn’t illegal. We can’t say, “Don’t offer it.” The most we can do is to explain the risk and request that they please refrain from serving it.

In the event of a confirmed food-poisoning incident, the food hygiene division conducts an investigation that produces a detailed report of the incident and sanctions against the offending establishment. The detailed reports are briefly made available to the public through a government website and then removed from the internet. When restaurants or other businesses are deemed culpable for an incident, their operations are typically suspended for three days by the hygiene division. Restaurants, and sometimes the slaughterhouses that supply the restaurants that serve raw chicken, face legal exposure. Restaurant operators occasionally give money to those who are sickened. In some instances, sickened customers report an incident after failing to negotiate amicable terms with a restaurant.

Restaurants are buffeted between the threat of sanctions from government regulations and the fear of losing business and younger customers if they withdraw raw chicken from their menu. Suzuki explained:

I think there are many people who, if they understood the risk, wouldn’t eat raw chicken. In Shiga Prefecture, we emphasized getting shops to stop serving it raw, but now it is also important to persuade consumers, especially younger consumers, so that they grasp the risk. Even if raw chicken isn’t prohibited, if customers gradually stop demanding it, then shops will shift to different products. At present, there are a number of shopkeepers who want to stop selling raw chicken, but if they do that other shops would take their customers, so they almost don’t have a choice but to keep selling it.

Since raw chicken remains legal, members of the Shiga Prefecture Hygiene Division cannot strongly criticize restaurants for selling it. They have sought to spread their message about the risks of raw chicken by posting information on their homepage, giving presentations at schools, and creating content for local television stations.

In 2017, the MHLW and Japan Poultry Association announced a guidance to reduce food poisoning from campylobacter in raw chicken that emphasized the role of chicken meat labeling (MHLW 2017). This guidance encourages slaughterhouses to clearly label their chicken using warnings such as “for cooking,” “please be sure to eat after thoroughly cooking,” or “not for raw consumption.” Restaurants are warned that they will be closely monitored if found to be undercooking meat that is meant “for cooking.” If the meat isn’t properly labeled, negligent slaughterhouses are to be warned. This strategy encapsulates the Japanese government’s main response to raw chicken dishes: to recast it as a practice that shouldn’t exist but persists due to a lack of proper labeling and adherence to labels.

Upon request, I was able to review over 30 detailed reports of chicken meat incidents from Shiga Prefecture. The contents of these reports clearly changed in response to the 2017 national guidance. Prior to MHLW guidance on labeling, the detailed reports from Shiga Prefecture seldom note the role of labeling or used the term “insufficiently
cooked (kanetsu fujibuni) chicken meat.” After the 2017 guidance, most of the detailed reports from Shiga Prefecture on raw chicken incidents indicate the failure to properly label and thoroughly cook chicken meat. The accumulation of reports that frame incidents in this way—as a lack of labeling and oversight—bolsters the government’s case for prohibiting raw chicken should the government ever attempt to do so in the future.

Regulating Chicken for Raw Consumption in Miyazaki Prefecture

In Miyazaki Prefecture, chickens and their eggs were prominent within rural society. According to a book on folk practices in Miyazaki Prefecture, “Chickens were extremely valuable, and so they were only killed for festive occasions like a housewarming party, wedding, or the visit of an important guest” (Miyazaki Prefecture, 1992: 254–255). Within Miyazaki Prefecture, the mountainous Miyakonojo region that borders on Kagoshima Prefecture is the most strongly associated with raw chicken dishes. In oral history research of regional food practices, residents of Miyakonojo describe the chicken meat for sashimi as being from just-killed chicken and using mainly breast meat (Tanaka 1991). In response to a spate of food-poisoning incidents from raw chicken in the 1990s, Miyazaki Prefecture introduced a manual with recommended guidelines for handling raw chicken in 2000 and updated it in 2007 (Miyazaki Prefecture, 2007). Despite the long tradition of raw chicken in Miyazaki Prefecture, the ban on raw beef and pork liver following the 2011 yukke incident fueled an increase in raw chicken consumption, especially for riskier cuts from the chicken’s internal organs such as liver and gizzard.

I went to the food hygiene divisions for both Miyazaki City and Miyazaki Prefecture to learn about their strategies for regulating raw chicken. At the Miyazaki Prefecture office, I spoke with two officials, one of whom summarized the prefectural government’s position on raw chicken dishes as follows:

As to the question, “How do you protect against food poisoning?” we are blunt that there is no other way than to thoroughly cook it. Eating chicken raw, that in itself is a risk. There is no other way to prevent food poisoning, and so food should be properly cooked. Since Miyazaki Prefecture created a manual like this, some misperceive that Miyazaki is somehow endorsing or promoting raw chicken. That is not the case. Miyazaki Prefecture promotes cooking as the foundational strategy to prevent food poisoning. However, there are a lot of people who love raw chicken...We cannot prevent this since it is still legal, so for those who insist on serving raw chicken, we request that they at least follow this manual’s guidelines.

This official succinctly outlines the tensions they face. Rather than emphasizing the role of labeling “for cooking,” Miyazaki Prefecture created a manual of recommendations for “raw consumption.” The guidelines emerged as a response to incidents of food poisoning from raw chicken with the goal of reducing food poisoning. But the guidelines do not endorse raw chicken dishes. No matter what measures a slaughterhouse or restaurateur takes, raw chicken will always be a high-risk food because of the liveliness of harmful bacteria like campylobacter.

The manual makes recommendations only in areas where there is clear scientific consensus, such as the temperature at which raw chicken should be stored. Some restaurants advertise that they serve chickens killed that very day, which conveys ideas of freshness and safety. However, most experts recommend against this since certain strains of campylobacter start off at higher levels once a chicken is killed but then decrease over time. In this instance, the risk analysis of food safety contradicts the folk wisdom that fresher meat is safer to eat. The guidelines also avoid the topic of farm conditions even though these shape the levels of campylobacter found in chicken carcasses and resulting contamination found in slaughterhouses and restaurants. The relationship between farm conditions and harmful bacteria involves difficult-to-parse dynamics that encompass stress levels experienced by individual chickens and local environmental factors. Officials avoided making recommendations on farm conditions and optimal timing because these areas proved difficult to stake out a clear scientifically supported position.

Miyazaki Prefecture’s guidelines focus on slaughterhouses and restaurants. For slaughterhouses, the manual contains instructions such as the separate storage of internal organs from other cuts of meat. Most harmful pathogens are in the digestive tract, so internal organs have an especially high risk of contamination. Small slaughterhouses also test their meat at least twice a year, at a cost of approximately 10,000 yen ($100) per test, to check for the presence of four contaminants: campylobacter, fecal matter, salmonella, and staphylococcus aureus. The guidelines call for meat to be free of these contaminants. An inspector from the hygiene division also visits designated small slaughterhouses once a month to check that the standards are being properly observed. An inspector from the Miyazaki City hygiene division described that the most common issue they encounter are uncleaned corners and ceilings in which spiders and their webs proliferate. The inspector said that operators fixed the problems she identified over the course of her monthly visits.
For restaurants, the manual requests that raw chicken be omitted from course menus that are ordered as a set and that menus include warnings for raw chicken, especially regarding the risk it poses to vulnerable populations. The Miyazaki Prefecture official elaborated, “Basically, we request for restaurants to make customers individually order raw chicken. If raw chicken is included in a 3,000 yen [~ $30] all you can eat set menu, then people will end up eating it who didn’t intend to do so.” Large parties often order from set menus in Japan, and so the aim of this guideline is to reduce the unintentional consumption of raw chicken dishes.

Similar to the 2017 guideline on labeling chicken meat as “for cooking,” the weakness with Miyazaki Prefecture’s guidelines on “for raw consumption” is that they are mere guidelines as opposed to enforceable regulations. Even though Miyazaki Prefecture creates guidelines “for raw consumption,” the official from the Miyazaki City food hygiene division said that, to the best of his knowledge, no slaughterhouse employs an affirmative “for raw consumption” label. Indeed, he cautioned that although Miyazaki Prefecture has clear recommendations for how chicken intended for raw consumption should be processed, stored, and served, some restaurants disregard these recommendations.

An incident from November 4, 2018, indicates the gaping holes that remain in the regulation of raw chicken in Miyazaki Prefecture. An izakaya in Miyazaki City included raw chicken in a course meal that caused 75 of 114 customers aged between 18 and 25 to fall ill. Their symptoms included diarrhea, stomach pains, and fever, and one person required hospitalization (Asahi Shimbun 2018). An advertisement posted on Facebook for the izakaya from about a month prior to the outbreak featured the daily recommendation (honjitsu no osusume) of a four-item combination of chicken sashimi for 790 yen (~$7.90). The four-item combination included raw liver and heart made from a branded chicken called “Kirishima-dori” killed that morning. Although the official report cautioned that the restaurant used chicken intended “for cooking,” the ambiguous regulations for raw chicken obscure whether there was an unofficial understanding between the slaughterhouse and the izakaya. In response to the incident, the hygiene division suspended the izakaya’s business operations for three days and local newspapers noted the incident.

Even knowing the high-risk nature of raw chicken, some continue to partake in this delicacy. An illustrated comic (manga) by a raw-food enthusiast relates that among the subculture of people who still eat raw beef liver, they refer to falling ill from food poisoning as “having been loved by” (ai sareta) that food (Taniguchi 2013: 141). Although I did not observe such a positive reframing of food poisoning in Miyazaki Prefecture, a greater tolerance was expressed for food poisoning among those who liked raw chicken. Some described the risk as generally understood, and so a moderate case of food poisoning should be tolerated in private rather than inflicting pain on a local business. I also encountered anecdotes of people from outside Miyazaki being sickened by raw chicken that people from Miyazaki ate without suffering any ill effects. Several people explained that after falling ill from raw chicken they learned to avoid it. These regional understandings of raw chicken dishes likely decreased the number of incidents in Miyazaki Prefecture that were reported and entered the official statistics.

At the end of my interview at the Miyazaki City hygiene division, a female official who seemed around the same age as me, early 30s, asked me if I eat raw chicken. I said, “Yes.” She followed up, asking if I liked it, to which I replied, “Yeah, but I’ve been warned off it even though it’s tasty.” I then posed this question to the officials. “Do you like it?” The younger official was emphatic, “I love it.” We laughed, and then I asked the more senior official. He replied, “I loved it, but since I came to the hygiene division, I don’t eat it.” Even though all of us were well aware of the scientific risks, we still had this visceral desire to eat raw chicken.

As the interview with the hygiene officials from Miyazaki City illustrates, even among people who are aware of the risks posed by raw chicken dishes, many (including me) still decide to eat this high-risk food. For raw chicken, factors that contribute to its deliciousness include the cool temperature of the meat, varying textures based on the cut, subtle flavors of raw chicken, and accompanying sauces and garnishes. Eating raw chicken also provides the eater with an embodied experience of partaking in a dangerous delicacy prepared with additional care. Aside from the taste and experience, individuals vary their behavior based on the availability of raw chicken and their personal experiences of (not) getting sick.

Regulations and High-risk Dishes

Raw chicken dishes in Japan are neither illegal nor subject to special regulations. Although I accept culturally different attitudes to food and risk, the current approach taken by the Japanese government unnecessarily exacerbates the risk of an already dangerous food. At the national level, the government introduced guidelines that call for more rigorous labeling of chicken meat as “for cooking,” a policy that implies that food poisoning from raw chicken arises from a lack of
proper adherence to labeling. Such a policy flies in the face of the widespread enthusiasm for raw chicken among segments of the Japanese population and the fact that raw chicken dishes are legal. By contrast, the approach taken by Miyazaki Prefecture—to introduce guidelines for serving raw chicken—helps to reduce the risk of eating raw chicken.

Based on this evidence, the current situation is untenable and could lead to another tragic loss of life similar to the beef yukke incident. Campylobacter is the leading cause of food poisoning in Japan, and raw chicken dishes are by far the leading cause of campylobacter food poisoning among incidents with a known cause (Vetchapitak and Misawa 2019: 65). Although the MHLW (2020) government data on food poisoning has major limitations, it indicates that raw chicken dishes are the food that poisons the most people in Japan.

The present policy involves neither prohibition nor regulation. Instead, the Japanese government recognizes that raw chicken is a high-risk food, permits it to be sold, but fails to regulate it. Further, the Japanese government promotes the safety of traditional and local food (Assmann 2017; Cang 2015; Gwirtka and Miho 2020). At the same time, the government rails against spurious rumors that call into question the safety of Japanese food (Kimura 2016; Takeda 2017). These campaigns have proven quite successful, but the result is that many Japanese consumers mistakenly assume that food like raw chicken is safe and regulated by the government.

Each of the possible policies that the national government could take in response to the high number of incidents of food poisoning from raw chicken raises different issues. If they do nothing, then raw chicken dishes will continue poisoning people at its current rate. In discussing the current policy, officials regularly used the term “self-restraint” (jishuku) to describe their request that restaurants and consumers decide to opt out of selling and eating raw chicken. During the Covid-19 pandemic, the Japanese government has frequently used this same term, “self-restraint,” to describe their request for people to stay home without implementing an official lockdown (Osaki 2020). This shifts the responsibility from the government to individual people and businesses. In the aftermath of the beef yukke incident, however, the government did intervene with regulations. Thus, the Japanese government has the capacity to introduce new regulations, but does so only in rare instances. Were the national government to prohibit raw chicken dishes, it would face criticism for disrupting commerce and traditional culinary practices. There would also be a rise in the sale of illicit raw chicken.

Based on my research, the best response would appear to be a policy based on the tenets of harm reduction, an approach that emerged in connection with addictive behavior and drugs. Marlatt (1996) describes that although abstinence is “an ideal outcome,” harm reduction recognizes alternative methods that reduce harm, methods that typically emerge from the bottom up. An approach that embraces harm reduction for raw chicken dishes would seek to take guidelines—those developed by Miyazaki Prefecture would be an excellent starting point—and introduce them across the whole country, not as guidelines but as regulations that, if not properly adhered to, result in sanctions that deter violations. Transitioning from the current unregulated world of raw chicken to one with regulations would be an arduous process. The goal of such a transition would be to introduce measures that help to reduce the relative risks posed by raw chicken, a high-risk food.

Beyond the challenge of transitioning toward regulations, harm reduction would raise an additional set of issues. Some may misinterpret the regulation of raw chicken to mean that it is actually safe when it is anything but. Another issue is that the practice of serving raw chicken will become more visible, and this may expose restaurants and slaughterhouses to greater levels of financial liability. However, this greater transparency may also help to reduce the riskiest of the high-risk practices and reduce the number of restaurants that, for example, serve raw liver from broiler chickens without taking special precautions. The harm reduction strategies in Miyazaki Prefecture’s guidelines also requested restaurants to remove raw chicken from set menus and to insert warning labels. Such practices may help drive down the demand for raw chicken, the primary goal of hygiene officials with whom I spoke.

Based on my research, my main tip for avoiding food poisoning from raw chicken is to avoid eating it. Abstinence. If you do choose to eat it, you should stick to breast meat, eat the dish quickly after it’s served, order only one dish per meal, avoid restaurants that brag of chickens freshly killed that morning, and opt for a restaurant that sources from small-scale slaughterhouses such as jidori artisan chicken. Following these tips, you are less likely to fall ill, but there’s still a chance you will get sick. A significant portion of the Japanese public is unaware of the risks posed by raw chicken dishes or assumes that, although risky, it is regulated by the state. Most menus I encountered outside of Miyazaki Prefecture lack even a weak disclaimer, such as “Eat at your own risk.” Such warnings should be obligatory. But the exposure to the risk of food poisoning from raw chicken has a deeper origin than individual choice. The exposure is rooted in
a systemic failure to regulate a delicious dish that poisons many people in Japan.

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Notes

1. For namasu, there are different characters, with 剃 indicating raw fish and 剃 indicating either raw animal or fish (Nagayama 2013).
2. All of the subsequent analysis of the MHLW data is similarly based on this timeframe from January 2000 until November 2020 unless otherwise indicated.
3. The average number of people sickened per incident of food poisoning from chicken is 13.2, while the average number for raw chicken is slightly lower at 9.5.
4. I manually coded for these incidents from those that identify chicken. Following the emphasis on labeling introduced in 2017 by MHLW (2017), many of the descriptions do not list a specific dish, but rather refer to chicken meat that was insuﬃciently cooked (kanetsu fuyabun). I coded these as intentionally raw or undercooked dishes.
5. I decided to use incidents that mention chicken rather than select for incidents that specify raw chicken. My reasoning is that reporting varies regionally, and some oﬃces may systematically use descriptions such as “chicken cuisine” instead of words that clearly indicate the presence of raw chicken dishes.
6. These data rely on a summary of statistics on demographics created by the MHLW that combines chicken and animal meat into a single category. Such demographic information is unavailable for chicken speciﬁcally, and since chicken accounts for half of all incidents of food poisoning from meat, it is relevant to include.
7. Suzuki is a pseudonym.

References


