

Understanding the occupational health concerns among Chinese restaurant workers in San Francisco Summer 2006



Margaret Lee and Elizabeth Hom
Occupational Health Internship Program (OHIP)
Chinese Progressive Association (CPA) 华人进步会
UC Berkeley Labor and Occupational Health Program (LOHP)
California Department of Health Services (DHS)

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Abstract

This summer OHIP internship was a partnership between the Chinese Progressive Association, UC Berkeley Labor and Occupational Health Program (LOHP), and CA Department of Health Services seeking to obtain more information about the worker health and safety of Chinese immigrant restaurant workers. A key goal of this project was to gain a better understanding of the perspectives that these workers have about their workplace health and safety, and to learn how to gather information from this particular population. Another important objective was to observe food safety and fire safety inspections, and to revise an existing LOHP checklist of workplace health and safety hazards in restaurants. To accomplish these goals, methods included worker interviews conducted in Cantonese (n=11), food and fire safety inspections (n=5), and key informant interviews (n=6). Key findings include: 1) Chinese immigrant knowledge of both Western and Eastern medicine and terminology, 2) contradiction and agreement between food and fire safety interests versus worker health and safety concerns, 3) new hazards such as mold, food borne, and infectious disease, and 4) importance of social networks in the Chinese immigrant community. Important results of this project include in-depth worker information, revised checklist of hazards, and a set of recommendations for work with this population.

Background

The restaurant industry is one of the largest service industries in San Francisco. Within the San Francisco Chinatown industry, the majority of restaurant workers are Chinese mono-lingual immigrants who have arrived in the United States at different time periods.

Target Population and Risk Factors

According to the research of the Chinese Progressive Association, many of these immigrants have experienced the inequalities that exist in the majority of the restaurants in which they work. For example, many of the employees are not paid the minimum wage, given work insurance or workers compensation nor have they received much training in occupational health and safety. Many of these workers have been and are exposed to occupational health and safety hazards in the workplace. Within the restaurant business, workers hold a variety of jobs, including positions as cooks, dim sum waitresses, kitchen assistants, waiters and dishwashers. Each job poses a set of hazards to the worker. When looking at worker health and safety, we must look at the health and safety hazards posed to each restaurant job position as well as the general restaurant population. For example, dermatitis is seen in dishwashers and musculoskeletal injuries are seen in waiters. These injuries and illnesses are only a few of the ones that are prevalent in this particular population of workers.

Current Approaches Used to Target Work Safety

Currently, Cal/OSHA (California Occupational Safety and Health Administration) conducts worker health and safety inspections but because their resources are limited, they rarely inspect restaurants. However, food and fire safety inspections are annually conducted in San Francisco's Chinatown. Food and fire safety inspections are conducted by the San Francisco County Health Department. Restaurants need to pass these inspections and be in compliance with food and fire safety regulations in order to receive their operating license. Though no research has been done on the correlation between food safety inspection score and worker safety in Chinatown restaurants, we suspect that the food safety inspection scores do reveal much about worker health and safety conditions. Inspections are rated from 0 to 100, with 100 being the best score possible. We learned from the inspectors that scores in Chinatown have ranged from 38 to 95.

Connection between food and fire safety, and worker health and safety

In the past, restaurants with a low food and safety or fire inspection score have also employed some very discontent workers who experienced many injuries and illnesses. For example, a restaurant which scored low because of slippery, dirty floors might also employ workers who are discontent with the physical work conditions. Although not all workers are experiencing daily health or safety problems in their workplace, the majority of restaurant workers have at some point experienced a work related illness, injury or problem.

Preliminary Research

Some research has been done regarding this target population. Last years OHIP interns, Alex Cooper and Henning Chu accomplished the following:

- Did preliminary research on the demographics of the Chinese restaurant worker population in Chinatown, San Francisco.

- Formed focus groups at the Chinese Progressive Association. During these focus groups, they attempted to understand the overall working conditions of these workers. Through these focus groups, they discovered that the workers are most concerned with a variety of work organizational issues including: wage, tension with co-workers, psychological and physical stress, poor working conditions and long hours.
- Upon discovering these conditions, Cooper and Chu visited restaurants in the Oakland Chinatown with Alameda City Health Department inspectors. They discovered three main worker hazards in these restaurants: 1) slips, trips and falls, 2) burn hazards, 3) ventilation and air quality hazards.
- Upon these findings, Cooper and Chu developed a comprehensive checklist based on the Labor of Occupational Health Program's training materials for restaurant workers.

In summary, last year's research has revealed to us the poor working conditions that the majority of Chinatown restaurant workers face. These findings have given us a broad understanding of the worker health and safety hazards in the population.

Objective and Purpose

Building upon last year's findings, we decided to do a more extensive research on worker health and safety in Chinatown restaurants in San Francisco and focus on the workers personal experiences in occupational health, illnesses and injuries.

Our broad, overall purpose is to improve the occupational health and safety standards in the Chinese restaurant community in San Francisco. In order to achieve this larger goal in the future, we have developed a few, specific objectives:

- Gain a deeper understanding of the health and safety hazards facing the current Chinese worker population.
- Revise the draft worker health inspection list.
- Learn how to effectively gather health and safety information from this target population.

Methods

I. *Worker Interviews*

- a. Purpose. To gather a deeper understanding of the health and safety concerns as well as the holistic experience of Chinese restaurant workers in San Francisco Chinatown.
- b. Interview style. We conducted one-on-one, in-person interviews in Cantonese. All workers felt most comfortable with answering questions in Cantonese, rather than English. The interview focused mainly on a set of questions on the workers' occupational health and injury history and current concerns. See Appendix 1 for the interview guide. These interviews were conducted in a conversational style in which we were open to discuss other topics that participants brought up. This style was chosen so that people would be willing to express concerns that they normally would not discuss in focus groups.
- c. Recruitment. The interviewees were recruited in three ways:
 - 1) Former CPA ex-campaign workers
 - 2) Single Room Occupancy (SRO) tenants whom CPA's peer organizers knew through SRO visits
 - 3) SRO tenants who we found at random while doing method #2
- d. Setting. From the week of 6/27/06 to 7/14/06, we conducted a series of interviews with 11 workers restaurant workers. Four of the interviews were conducted in the offices of Chinese Progressive Association. Seven workers were interviewed during single occupancy residence visits.

II. *Health and Safety Inspections and Training Sessions.*

- a. Purpose. To understand other health and safety hazards that have not been brought up through the worker interviews, we shadowed food safety inspectors and educators, and a fire inspector. Shadowing these inspections allowed us to see the workplace conditions which the workers work in, identity observable and non observable health and safety hazards and also, see the reaction of employers and employees to health and safety intervention by these inspectors.
- b. Food safety inspection on 07/05/06. This inspection was hosted by Jackie Greenwood, a senior food and safety inspector at the Department of Public Health in San Francisco. With her team of 5 other inspectors, Pamela Hollis, Calvin Tom, Mohammed, Eric, Imelda, we split up into two groups to go into two different Chinese restaurants in Chinatown. Greenwood and two other inspectors brought Margaret Lee and Pam Tau Lee to Restaurant A, a medium-sized restaurant. Inspector Pamela Hollis brought two other inspectors and Liz Hom to Restaurant B, a large-sized restaurant. After the physical inspections of the restaurant, the two

inspection groups met up to review the inspections and write up the individual restaurant reports. The visits and write up took about 3 hours.

- c. Food safety education sessions on 07/19/06. We were hosted by Jackie Greenwood and Timothy Ng, senior health inspector and educator, to follow up on the inspections done on 7/05/06. The purpose of this inspection was to check where the hazards found in the last food safety inspection have been corrected and to educate all employees about food safety and handling.
- d. Informal tour of Chinatown restaurants on 7/19/06. Ng also brought us to very informal visits to various restaurants that represent the worse in food health and safety and the best in Chinatown. Seeing one of the best restaurants was very inspiring.
- e. Fire safety inspection on 07/24/06. San Francisco Fire Department senior fire inspector Kaan (Can) Chin hosted us on an inspection of Restaurant C, a large-sized restaurant. From this inspection, we were able to see the fire hazards that not only affect customers but workers health and safety on the job.

III. *Interview with Key Informants.*

- a. Purpose. Talking to these key informants provided us with various points of view on the topics aspects of worker health and safety. Being familiar this information allows future researchers and community organizers to learn how to best talk to this population about occupational health and safety.
- b. Interview style. We conducted one-on-one, phone interviews with key informants. Similar to the worker interviews, we utilized an interview guide, but also allowed informants to talk about other topics. See Appendix 2 for the questions.
- c. Recruitment. Key informants were recruited via personal and professional contacts of CPA staff, DHS staff, and OHIP interns. They had a variety of different backgrounds including community organizers, worker center leaders, health care providers, Cal/OSHA inspectors and safety engineers, and occupational health professors.

IV. *Reviewing the existing restaurant worker health and safety inspection list.*

- a. Purpose. Pam Tau Lee gave us a checklist designed by Cal/OSHA and LOHP that was designed to assist employers in training their workers about help and safety. There was also an emphasis for this checklist to assist with training young workers. The goal was to devise a more comprehensive worker health inspection list that may be used by a coalition of food safety, fire safety, and worker health/safety inspectors in the future.
- b. Tools. We incorporated our findings from key informant interviews, as well as food and fire safety inspections to determine how to modify the checklist.

Findings

Worker interviews

I. Basic worker information.

Demographics. In summary, the job positions represented by interviewed workers include 4 part-time dim sum waitresses, 1 full time waiter, 2 kitchen helpers, 1 dim sum maker, 1 chef, and 2 dishwashers. Their years of experience ranged from ½ year (1 dishwasher) to 30 years (the waiter). See Table 1 for individual worker data. See Tables 2 and 3 for summaries of this information.

The majority, eight, of the interviewees were females. Amongst the female restaurant workers, 4 of them were part time dim sum workers. Generally, all dim sum workers were found to be female. The remaining females were dishwashers and kitchen helpers. None were cooks or dim sum makers. The males, with the exception of one waiter, worked in the kitchen preparing food.

Workload. The female dim sum workers work no more than 4 hours a day. The female kitchen helpers and dishwashers worked up to 8 hours a day. All the males we interviewed worked full time, with 8 hours or more regardless of their job position. Waiters worked about 8 hours a day. Chefs worked 8-10 hours a day. Their shifts were significantly longer in hours and their years of experience in the restaurant industry were more compared to the majority female counterparts. We found that in general, kitchen staff holds longer shifts than the wait staff. These relatively longer shifts may lead to greater risk for hazards.

Table 1: Individual worker data

Gender	Job Position	Hours Worked/Day	Years Worked
Female	Dim Sum Waitress	4	Few
Female	Dim Sum Waitress	4	3
Female	Dim Sum Waitress	4	2
Female	Dim Sum Waitress	3 ½	4
Female	Dishwasher	Few	5
Female	Dishwasher	3½	4
Female	Kitchen Helper	8-10 (Varies)	3
Female	Kitchen Helper	9	Few
Male	Chef	10	10
Male	Chef	8	Few
Male	Waiter	8-10	30

Table 2: Time Spent in the Restaurant Industry

Years worked
≤1 year (n=1)
1-5 years (n=5)
5-10 years (n=1)
10-30 years (n=2)
“A Few” (n=2)

Table 3: Workload

Hours worked Per Day
≤ 4 hours (n=4)
4-8 hours (n=1)
8-10 hours (n=3)
10-12 hours (n=0)
Varies day to day (n=3)

II. *Hazards Observed By Workers.* In each interview, we asked the workers to describe the types of hazard that they or a co-worker with the same job position may face on the job. Table 4 describes the types of hazards observed:

Table 4: Types of Health and Safety Hazards Observed by Workers (By Job Position)

Chef	<ul style="list-style-type: none">• Lack of burn protection• Risk of cuts• Heat from steam and no ventilation• Handling raw food
Kitchen Assistant	<ul style="list-style-type: none">• Same risks as chefs• More chances of falling and tripping from constantly moving around the entire kitchen and transporting stock/food/dishes• Dangers faced from multitasking• Being ordered around by chefs
Dishwasher	<ul style="list-style-type: none">• Dermal exposure to harsh soap and hot water• Slippery floors due to wet and greasy floors and stairs• Constant repetitive motion and high speed of work increases risk of musculoskeletal injuries• Poor ventilation• Risk of cuts
Dim Sum Waitress	<ul style="list-style-type: none">• Pressure to work at high speeds and slippery floors can cause falling/slipping• Lifting and carrying heavy trays of dim sum• Accidents caused by carrying overload of dishes or overcrowded aisles• Being yelled at by picky customers (stress)• Some of the waitresses note that cooks have even more hazards than the waitresses and that being a waitress is not as physically dangerous.
Dim Sum Maker	<ul style="list-style-type: none">• Steam• Oil
Waiter	<ul style="list-style-type: none">• Same as dim sum waitress. However, waiters have longer exposure to hazards because waiters typically work full time shifts, whereas dim sum waitresses work part time shifts. Thus, waiters have increased risk of musculoskeletal injuries or accidents.

To understand the occupational health history of the workers, we asked them what types of injuries and illnesses they experienced from their jobs. See Table 5 for details:

Table 5: Types of Occupational Injuries, Illnesses and Physical Problems Experienced by Workers

Chef	<ul style="list-style-type: none"> • 1st and 2nd degree oil burns • Minor and deep cuts • Respiratory problems (difficulty breathing) • Eye problems (red, swollen, itchy, blurred vision)
Kitchen Assistant	<ul style="list-style-type: none"> • 1st and 2nd degree oil burns (especially fryer user) • Psychological stress from doing too many jobs at once
Dishwasher	<ul style="list-style-type: none"> • Dermatitis • Minor slips on the floor
Dim Sum Waitress	<ul style="list-style-type: none"> • Musculoskeletal pain in lower arms, lower leg and feet, • “Chou gun” (similar to muscle cramps in western medicine)
Dim Sum Maker	<ul style="list-style-type: none"> • Steam burns • Oil burns • Sharp cuts • Musculoskeletal pains in feet, arms and back • “Yeet hay” (similar to dehydration in western medicine)
Waiter	<ul style="list-style-type: none"> • Musculoskeletal pain in feet and shoulders • Tired wrist • Verbal customer abuse

III. Other Findings

In addition to health and safety, workers also discussed general health, safety, lifestyle and medical history.

Particular Hazards Associated with Specific Job Positions. We have found that the job position of the workers heavily influence the types of health and safety hazards they experience. Chefs are at higher risk for burns while performing their job. Meanwhile, dim sum waitresses are generally at a low risk for burns unless they make a mistake, such as spilling a bowl of soup. However, waitresses seem at particular risk for musculoskeletal problems from lifting and carrying. Through our interviews, we have also discovered that dishwashers experience dermatitis and cooks experience eye irritation. Dermatitis and eye irritation are new hazards that were not identified last year. Both of these illnesses were not seen in other jobs outside of dishwashers and cooks.

Connection between food safety and worker health safety.

We found that some restaurant workers often take short cuts in order to speed up production. These shortcuts pose a dangerous both to food safety and worker health safety. For example, one dim sum worker said,

“Some of our waiters run into the kitchen, quickly grab cooked spareribs with their bare hands, put them on a plate, then bring the plate outside and serve it to our customers. Our chefs also go outside to smoke then come back and start preparing food without washing their hands. I would never eat at my employer’s restaurant!”

She admits that taking these shortcuts are due to several factors: laziness of the workers, pressure to produce and serve food quickly, and most of all, lack in health and safety training. None of the workers have received official worker health and safety training. Many of the workers admit that they learn what and what not to do by watching other workers make mistakes on the job instead.

Frequency of Injury. All but two workers claimed that at some point, they have experienced either some serious illness or prolonged physical or stressful discomfort from the job at least once. We realized that it may be useful to find out when the injuries occurred, at night or day.

Though many workers do get injured on the job, we find that not all workers experience injuries or illnesses in their jobs. Furthermore, amongst these workers, a few of them are actually very happy with their jobs and their working conditions. However, workers who claim to work in dirty and crowded environments claim to be less happy and that they experience more risk for injury and illnesses. We find that food safety and labor violations often reveal worker health violations as well.

Injury and Illness Treatment Methods. Workers have various ways of dealing with their occupational injuries and illnesses. While some workers told us that they have private health insurance or worker insurance, the majority of workers self-treat their own injuries and illnesses without ever seeing a doctor due to the lack of private and workers health insurance. Self-treatment was often done in response to muscle skeletal pains or injuries with the use of pain relief ointments, such as Tiger Balm or other Chinese ointments. In one case example, a dishwasher experienced a painful skin infection on both her hands from constant dishwashing and exposure to dishwashing chemicals (even when she wore gloves). She self treated herself with an anti-microbial solution purchased from Walgreens. After three bottles of the solution, the infection cleared up on its own, though leaving her fingernails slightly disfigured. In another case, a man who has been suffering vision blurriness and red eyes at work used eye drops bought from Walgreens. In addition, workers explained that usually the boss does not allow workers time off if workers have at fevers and headaches. Instead, workers often continue working even if they have a cold or a fever.

Cultural Differences in Health. During our interviews, several Chinese medical terminologies were used. We learned that in general, the target population is familiar with eastern medical terminology in addition to western medical terminology. The terminologies are not all understood by the other cultures’ medical practice, though similarities do exist where a Chinese medical term may have a similar term in Western medicine. During our interviews, we hear two Eastern medicine conditions being mentioned:

1. “Chou Gun.” Two workers expressed (a dim sum waitress and waiter) experiencing the concept, “chou gun” frequently. We learned that “chou gun” (literally meaning “twisting

muscles”), is an Eastern medicine concept that would be similar to “muscle spasms” in Western medicine.

2. “Yeet hay.” One chef claimed to experience this frequently. In Chinese medicine, the concept yeet hay means ones body is too full of hot air. According to this belief, the body can become too hot from activities such as eating foods with very hot properties, being in the sun for too long, or not drinking enough water. The chef claimed that the smoke and oil caused this condition. We are still unsure as to what this eastern medicinal concept would translate to in western medicine.

Ultimately, understanding the cultural differences in medicine has allowed us to learn how workers understand the concept of health. We hope that these health concepts that workers are familiar can be integrated into future health and safety training sessions.

Defeated Attitude Towards Work. Many workers are aware of the occupational hazards in their jobs but reveal a defeated attitude. They often feel that there is nothing that can be done to change their situation. This quote describes this feeling:

“It is all part of the job, better than having no work.”

Living Conditions. In addition, we were informed that many of the restaurant workers live in single occupancy residences with large families and smaller apartments relative to the average family housing apartment size in San Francisco. During the visits to the SROs, we saw first hand the unhealthy conditions that many workers experience:

- 4-5 people share a small room for sleeping and studying
- They share a common bathroom and kitchen with other SRO residents.
- Buildings are not well maintained on the outside and inside:
 - Evidence of rats
 - Fumes and secondhand smoke
 - Improperly stored garbage

Understanding these conditions helped us identify the environmental health conditions that this population experience on a daily basis. In addition, we also realized that these conditions may influence workers’ attitude towards safety and health conditions in the workplace. For example, a crowded, cluttered restaurant would not pose an obvious hazard to a workforce where the majority live in crowded and deteriorating housing.

Inspections

I. Rationale

Last year’s summer interns also went on food safety and fire safety inspections to identify major health and safety hazards. However, most of their inspections were done in Alameda County. Through our visits this summer, we hoped to see whether or not these concerns were located in

San Francisco Chinatown restaurants as well. In addition, we went on food safety and fire safety inspections to find out what physical safety hazards workers face on a daily basis. Going on these inspections also helped us gain a working knowledge of the hazards so that we could mention them during worker interviews. We also hoped to compare our observations of conditions in restaurants with descriptions that workers gave during interviews.

II. Food safety inspection

There were a variety of specific concerns related to food safety that inspectors noticed at the two restaurants that we visited. See List 1 in “Detailed findings” for more information. From this inspection, we were not only able to see food and sanitation safety hazards but how many of these food and sanitation safety hazards can also be worker health and safety hazards. In addition, there were also concerns that affected worker health and safety. These concerns included:

- Slippery floors due to build up of grease and water. Water could have come from defrosting meat or washing vegetables. Grease comes from cooking and preparing food.
- Lack of burn protection when cooking. Some workers who were frying food on the wok or deep frying food wore short-sleeved shirts and did not have any gloves or other burn protection.
- Slippery stairs. No traction on the steps of the stairs could lead to workers falling down when carrying large items of food.
- Improper storage of ammonium carbonate, or “baker’s ammonia.” While a worker was observed lifting the ammonium carbonate, some of the ammonium carbonate was leaking out of the bag and coming out as dust in the air. The potential health hazards of ammonium carbonate include irritation to the respiratory tract when inhaled, irritation to the eyes, and skin irritations.

III. Follow-up food safety education sessions

Unfortunately, the food safety inspectors found that these particular restaurants had serious food safety violations. As a result, the food safety inspectors made return visits to both restaurants in order to conduct food safety educational sessions for each restaurant’s employees. See List 2 and 3 in “Detailed findings” for topics covered by education sessions for kitchen staff and food handlers. Basic topics include safe food handling, rodent control, burn prevention, prevention of infectious, and prevention of food borne disease. Inspectors require that all employees that handle food at the restaurant attend the training. We realized that this food safety training may potentially be a good time to also talk to workers about health and safety issues in the future. See List 4 in “Detailed findings” for reasons why these trainings may be good opportunities to discuss worker health/safety.

Another advantage of attending the educational sessions was that we were able to observe effective styles of communication with workers. Ng, the food safety educator, had a dynamic, interactive style during his presentation with workers. See List 5 in “Detailed findings” for effective techniques that he used which should be incorporated into future worker health/safety presentations with this target population.

IV. Personal observations by inspectors

In addition, to accompanying inspectors on their visits to restaurants, we were also able to have informal conversations with them about their observations about the Chinese restaurant industry. These insights were very interesting because they reveal cultural insights on behavior of employers and employees in SF Chinatown restaurants. See List 6 in “Detailed findings” for more information on these insights.

V. *Fire safety inspections*

We accompanied SF Fire Department inspector Kaan Chin on a visit to the Restaurant C. In addition to the inspection, we also had a discussion with Chin about worker health hazards related to fires that are commonly found in Chinese restaurants that are. These include:

- Grease fires
- Compressed gas fires. Compressed gases are often used to heat movable dim sum carts. If not maintained properly and without worker awareness not to smoke around these carts, fires can result.
- Burn hazards
- Impact of cooking smoke on eye health of cooks

There is not a formal written checklist used by SF fire inspectors. However, based on our observations when accompanying Chin on his inspection, we put together this list of the different items that he checked included. See List 7 in “Detailed findings” for these items. Then See List 8 in “Detailed findings” for the violations found at Restaurant C.

Inspection hazard checklist

We revised the inspection hazard checklist so that inspectors may use on future worker health and safety inspections. Using observations from the food and safety inspections, we categorized the hazards identified by UC Berkeley’s LOHP program into three categories: low, moderate, high risk. Based on our food safety inspection visit, we also recommend that more hazards such as worker risk of infectious diseases be added to the checklist.

We incorporated feedback from Cal/OSHA safety engineer, Ullerich, into our list. His suggestions include:

- The hazard, poor condition of electrical cords, should be moved from the moderate risk category to the high risk category.
- The list should include: “Is the fire emergency system (ie. sprinklers and alarms) in good, working condition?”
- The list should also include: “Is there an emergency eye wash system in the kitchen that is in good operating condition?” This eye wash system is a concern because caustic, dishwashing chemicals may get into the eyes of workers.

See Appendix 3 for revised inspection checklist. We hope that we can convince current food and fire safety inspectors to integrate these hazards into the already existing inspections. We also hope to emphasize that many worker health/safety concerns also may be food and fire safety concerns. The section of this report provides more details about these overlapping concerns.

Connecting food and fire safety inspections with worker health/safety

I. Areas of agreement between food safety, fire safety, and worker health and safety
Cleanliness of cooking facilities and kitchen is important. It affects food safety, fire safety, and worker health and safety. See Table 6 for examples.

Food borne and infectious diseases is an important concern affecting the health of both the general public and the workers. Food borne diseases include salmonella and hepatitis A. Infectious diseases include staph and septicemia experienced by workers that have cuts. See Table 7 for more details.

II. Contradictions between food safety, and worker health and safety
An important finding that resulted from talking with food inspectors was the discovery that there is conflict between food safety, and worker health and safety. Examples include utilizing dumbwaiters, dishwashing gloves, and holding dishes. See Table 8 for more details.

III. Intersection of food safety, fire safety, worker health and safety
It is important to recognize that restaurants with food and fire safety problems also often had problems with their worker health and safety. Thus, if one type of concern was present, it was often not hard to find evidence that this same restaurant had other types of concerns as well.

Here is a diagram that visually demonstrates this phenomenon:

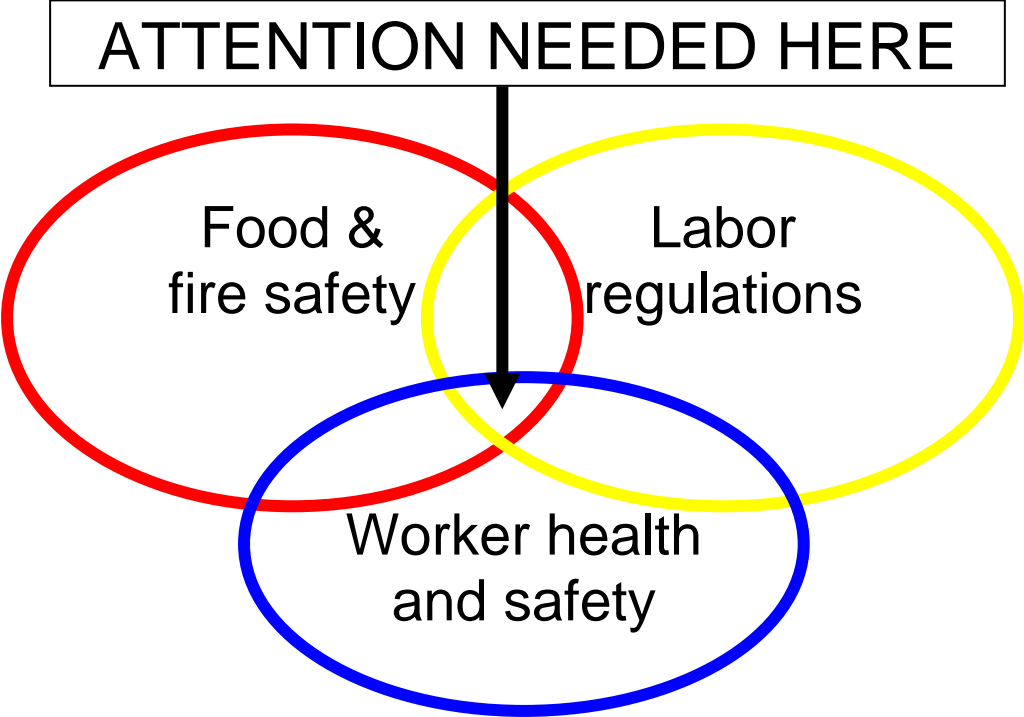


Table 6. Impact of cleanliness and equipment maintenance

Issue	Food safety	Fire safety	Worker health and safety
Mold and water damage on the ceilings	<ul style="list-style-type: none"> • Water damage and mold may also lead to ongoing degradation of the ceiling. • Debris from the damaged ceiling may fall down into food 	Mold disrupts the sprinkler system’s temperature sensor	<ul style="list-style-type: none"> • Mold is an indoor air quality concern • May cause respiratory problems for exposed workers
Dust and dirt accumulation in ventilation systems for kitchen and dining area	Dust and dirt may fall into food that is being prepared on stoves and grills	Dust and dirt may inhibit functioning of the overhead ceiling sprinkler system	Hot temperature in kitchen can result in heat stress
Maintenance of grease collection system, ventilation system for stoves and grills, and stove cooling systems		Maintenance reduces the chance of grease fires and accumulation of grease vapors in the air that may result in fire	Maintenance protects workers from burns and from inhalation and exposure to smoke and grease laden vapors
Buckets of food left on the floor	Food may become contaminated by dirt or debris falling into the buckets		Buckets create a tripping hazard

Table 7: Impact of food borne illness and infectious disease

Agent	Risk to public	Risk to worker	Prevention
Food borne illness including: <ul style="list-style-type: none"> • Salmonella • Hepatitis A 	<ul style="list-style-type: none"> • Salmonella: Workers handle raw food and cooked food that is served to the public without washing hands. • Hepatitis A: Workers use restroom and handle food that is served to public without washing hands. 	<ul style="list-style-type: none"> • Salmonella: Workers handle raw chicken and then consume their own food or beverage without washing hands. • Hepatitis A: Workers handle food contaminated with hepatitis A and then consume their own food or beverage without washing hands. 	<ul style="list-style-type: none"> • Countertops should be cleaned with iodine and bleach. • Workers should wash their hands properly before touching food, after handling food or dirty dishes, and after eating or using the restroom. • Employers must allow workers sufficient break time to eat and use proper restroom hygiene.
Cuts or skin abrasions experienced by worker when chopping or cutting food	<ul style="list-style-type: none"> • If a worker does not properly clean and bandage wound, yet continues to work, then blood from the cut may contaminate food served to the customer. • A customer eating contaminated food may get sick 	<ul style="list-style-type: none"> • A worker with a cut may be exposed to pathogens from the food or work environment. • Such infections may result in a staph infection. Or in a worst-case scenario, it may result in septicemia, a blood-borne illness. 	<ul style="list-style-type: none"> • If a worker gets cut, he should wash out the cut immediately with water. • He should squeeze out the blood and bandage the cut. • He should also cover the cut hand with a glove if he is returning to work.

Table 8. Contradictions between food safety and worker health/safety

Issue	Food safety	Worker health and safety	Possible reconciliation
Dumbwaiters	<ul style="list-style-type: none"> • Dumbwaiters should not be used because they are often not clean. • There is the danger of dust and dirt debris from inside the dumbwaiter falling into plates the food transported in the dumbwaiter. 	<ul style="list-style-type: none"> • Dumbwaiter use would prevent ergonomic injury among workers. • Workers use a mechanical device to transport food from one floor to another, instead of carrying heavy trays or plates with food manually. 	<ul style="list-style-type: none"> • Have workers transport trays with dishes holding food. • Be sure that each tray is manageable and does not carry too much weight at one time. • Regularly clean dumbwaiters and cover food in dumbwaiters.
Dishwashing gloves	<ul style="list-style-type: none"> • Gloves should not be used because they lead to cross contamination. • Workers may be very likely to handle dirty dishes and clean ones with the same pair of gloves. 	Gloves prevent workers from getting dermatitis due to frequent exposure to possibly harsh dishwashing detergent and hot water used to wash dishes.	<ul style="list-style-type: none"> • Have employees use disposable gloves when washing gloves. Change gloves when switching from dirty to clean dishes. • Use safer, less harsh alternative type of soap.
Holding dishes	<ul style="list-style-type: none"> • There is concern that holding dishes in neutral position will result in the worker placing their hand on the top of the plate where the food is located. • The preferred position is to hold the plate from the bottom and bending the wrist in an awkward, non-neutral position. 	The optimum hand position for holding dishes would be to hold them with the hand in neutral position	

Key informant interviews

I. Purpose

Key informant interviews (n=6) were conducted with a variety of different individuals with expertise in various areas including: health care (1), academic research (1), government agencies (2), and community-based organizations (2). Each of these individuals provided important information about the health and safety of Chinese immigrant restaurant workers from a different perspective.

II. Health care

Dr. Stanley Lowe, OD, an optometrist practicing in Burlingame, CA, suspects a possible connection between exposure to cooking smoke and occupational cataracts. Dr. Lowe diagnosed several patients that were 40-50 years in age with cataracts. He found this observation unusual because most patients with cataracts are diagnosed when they are 60-70 years in age. When he asked patients with early onset of cataracts about their previous occupations, he noticed that many of these patients had previous employment as cooks. Furthermore, some of these cooks were employed at Chinese restaurants. Thus, Dr. Lowe suspects that there may be a connection between exposure to cooking smoke and development of cataracts among cooks. However, he cautioned that his observations constitute anecdotal evidence, and should not be interpreted as a proven scientific connection.

III. Academic research

We interviewed Dr. Jenny Hsin-Chun Tsai, an Associate Professor at the University of Washington School of Nursing, Department of Psychosocial and Community Health. Professor Tsai gave a detailed interview about her qualitative research with Chinese immigrant restaurant workers in the Seattle-King County area. The primary purpose of her research is to identify workplace hazards, injury, and illness experienced by Chinese restaurant workers. An important secondary aim is to understand worker knowledge about health and safety regulations, as well as to understand how they perceive hazards and risks. She conducted in-depth interviews and a follow-up focus group with 18 workers.

There were several findings in Seattle similar to our findings San Francisco:

- Workers are not conscious of environmental and occupational health. They often do not feel that their workplace is hazardous or dangerous. In addition, workers tend to be more aware of hazards they feel physically, such as heat.
- Economic change affects workers' health because an employer may decrease their staff and make scheduling changes that requires employees to work for longer hours. There is increased anxiety among employees about job security and their ability to get enough working hours to support themselves.
- Work organizational environment and management style are also other key influences on worker health and safety.
- There is very little or no training on job tasks or worker health and safety. All of these factors create an environment conducive to worker injury.

- An organizational hierarchy that operates within restaurants. This hierarchy can create tension among workers.

There were also some key differences between findings in Seattle and San Francisco:

- In the Seattle area, workers were concerned about physical violence from managers or other employees if they made a mistake. This created a great deal of stress among workers.
- In the Seattle area, workers also complained about age discrimination, and discussed how older workers had more difficulty in finding a job.
- In the Seattle area, there was significant competition for jobs in Chinese restaurants outside of Seattle Chinatown.

IV. Government agencies

We interviewed two safety engineers from California Occupational Safety and Health Administration (Cal/OSHA), Rick Ullerich and Aston Ling.

Prioritization and targeting

According to Ullerich, Cal/OSHA does not often specifically prioritize the restaurant industry for inspections because this industry is considered a low to moderate risk industry. Cal/OSHA does target specific businesses based on their worker health and safety record. In addition, about 2 years ago, Cal/OSHA placed a special emphasis on the health and safety of young workers employed in restaurants. Cal/OSHA realized that many restaurant employers assumed that young workers know what to do. Often employers do not realize that young workers need special training to prevent occupational injuries. In response, Cal/OSHA created specific training materials and lists of workplace hazards designed for employers with young workers.

Common restaurant worker health and safety hazards

Ullerich and Ling provided a list of health and safety hazards in restaurants that have been identified by Cal/OSHA in the past:

- Slipping and tripping hazards
- Electrical hazards
- Rotating machinery
- Poor ventilation over stoves
- Lack of fire protection plans
- Poor housekeeping and cluttering
- Possible falling objects due to insecure storage on shelves
- Lack of Injury and Illness Prevention Plan, which is a written safety plan

Challenges of immigrant workers

Ling noted specific challenges related to Cal/OSHA's interactions with immigrant workers include:

- They lack trust in Cal/OSHA because they are not familiar with this agency.
- They are often unaware their rights in the workplace.
- They are very motivated to work and do not want to jeopardize their job by speaking up about workplace safety hazards.

- Employers intimidate employees and provide incentives for employees to withhold information about worker health and safety from Cal/OSHA.
- Latino workers are often more likely than Chinese workers to share information with Cal/OSHA inspectors. He is not sure why this is the case, but believes that there may be cultural reasons for this.

V. *Community-based organizations*

Restaurant Opportunities Center of New York (ROC-NY)

Saru Jayaraman is the Executive Director of the Restaurant Opportunities Center of New York (ROC-NY). ROC-NY has done extensive community-based research with restaurant workers in New York City (NYC). The purpose of ROC-NY's research was multi-fold. ROC-NY wanted to understand working conditions and payment of wages from the worker perspective, establish ROC-NY as a credible expert on labor conditions in NYC restaurants, and hoped to use surveying as an outreach method to gain more members.

One of the challenges with surveying was achieving a sense of random sampling of restaurant workers. Jayaraman acknowledged that random sampling was not possible, but that it could be approached by doing street outreach.

An important result of ROC-NY's research is that they raised awareness in the NYC restaurant industry about worker health and safety. After the first study, the organization disseminated results to a diverse audience including restaurant owners, associations, lawyers, and workers through a restaurant industry summit.

ROC-NY is also involved in policy work. It is currently advocating a bill that would result in restaurant owners in NYC losing their city health license to operate if they get three or more labor law violations. This organization is pushing this legislation based on their study showing that workplace with many labor law violations also tend to have many food safety violations.

Koreatown Immigrant Workers Association (KIWA)

Tritia Park is a Community Organizer at Koreatown Immigrant Workers Association (KIWA). KIWA has a history of labor organizing with workers in Koreatown, which is located in Los Angeles, CA.

KIWA is currently conducting a survey with Korean and Latino restaurant workers employed by Koreatown restaurants that are Korean-owned and that serve Korean food. KIWA hopes to survey 200 workers total, including 50 Korean workers and 150 Latino workers. The purpose of this survey is to use results to design worker health and safety training involving the workers and managers. The plan is to design culturally appropriate health and safety trainings based on the content of the Cal/OSHA trainings.

KIWA faced several different challenges when surveying workers. First, organizers found it more difficult to survey workers that organizers do not know previously. In addition, the attempt to partner with restaurant owners at first did not work out very well

with some of the larger restaurants. Some owners viewed this survey as a threat to their business, and reacted with defensiveness. They felt the findings could result in pointing fingers and blame put on particular restaurants. However, KIWA was not collecting the names of any restaurants on the survey. Also the restaurant categories on the survey were sufficiently vague to prevent those reading the results from being able to link results to specific restaurants. Furthermore some workers did not feel comfortable giving open and honest information when the survey was conducted at the workplace.

The survey data collection and data analysis are presently not complete.

Recommendations from key informants

I. Dr. Lowe

Further scientific research should be conducted to explore this possible connection. He also recommended first looking at scientific studies exploring “glassblower’s disease,” which is occupational cataracts caused by exposure to light and heat emitting from flame used by glassblowers.

II. Professor Jenny Tsai

- a. *Outreach:* She found it necessary to be extremely flexible with time and location of the meeting. To make workers feel comfortable, she also did not ask about workers’ immigration status or for their Social Security numbers.
- b. *Interview process:* Avoid using certain terminology such as “dangerous,” “health,” and “safety.” She found that workers often did not immediately associate their jobs with these terms. When she posed open-ended questions with these terms, she received limited responses. Instead, she found that it was helpful to use examples related to areas that workers were interested in.

III. ROC-NY

- a. To recruit restaurant workers, those administering the survey stood outside restaurants in busy commercial districts, and also followed workers on their subway rides home.
- b. In order to conduct a study with academic and scientific rigor, from the beginning bring together a coalition of academics, policy makers, and workers to prepare for the study. Recruit PhD academics as primary advisors for the study to give report credibility in the scientific community.
- c. Draw upon membership base to assist with surveying. ROC-NY only had 2 full-time staff members to coordinate the surveying. Therefore, the organization trained about 25 worker members to do surveying.

IV. KIWA

- a. Successful strategies to contact workers include: 1) Talking to workers during their off time, either before or after work, at a location outside the

- workplace, or 2) Asking current KIWA members to invite friends and co-workers who work in the restaurant industry to take the survey.
- b. Train organizers to have a “rap” that they say when they talk to workers. During this rap, organizers explain to workers that they hope to use survey results to improve conditions in restaurants. Workers can benefit from hearing about services offered by the organizers’ community organization.
 - c. Give each survey participant a small prize such as a mug or phone card as a token of appreciation for participating.
 - d. When trying to convince restaurant owners that health and safety training is good thing, emphasize how training will help reduce costs to restaurant owners because there will be decreased injuries, increased productivity, and fewer workers’ compensation claims.

Detailed findings

Inspections

I. Food safety inspections

Background

The San Francisco (SF) Department of Public Health, Environmental Health Section, has the mandate to protect the health of the general public by enforcing food safety regulations. Each inspector has a different district to oversee. Each district has roughly 300-350 food service establishments. Therefore, an inspector is usually able to visit each food service establishment in his/her district once per year.

List 1. Food safety concerns at restaurants

- Cross contamination of different kinds of meats when defrosting
- Indoor mold growing on ceilings
- Water temperature of dishwashing system are not hot enough to disinfect dirty dishes
- Storage of raw and cooked foods in same space that can result in cross contamination
- Use of water used to hydrate noodles to wash hands
- Leaving food in containers on the floor
- Rodent droppings found throughout the restaurant
- Sinks used for washing vegetables were not clean
- Sinks used for employee hand washing not available for use or lacked soap
- Unapproved cutting board used
- Improper defrosting of seafood

List 2. Topics covered by the education sessions for kitchen staff

- How to keep knives clean and safe to use
- Proper concentration of bleach and water needed to disinfect dishtowels
- Proper method to clean wooden chopping block
- Proper usage of chopping boards
- Proper cleaning of cooking equipment and utensils
- Proper storage of cooked and raw food
- Proper habits around water in the workplace
- Proper concentration of chlorine for dishwashing machine
- How to prevent cross-contamination
- How to get rid of rodent pests and deal with rodent infestation
- No eating while working

List 3. Topics covered by the education sessions for food servers

- Handling of drinks and dishes: Important not to have fingers in the drink cup or on the serving plate.
- Proper hand washing

- Sneezing precautions to avoid food contamination
- Proper food storage
- Important health risk to food servers: communicable diseases

List 4. Advantages of utilizing this food safety training include worker health safety

- Follow-up education sessions on food safety are scheduled immediately if the inspector feels that it is necessary. In this case, education sessions occurred two weeks after the inspections
- All food handlers in the restaurant are required to attend. Thus, it is very likely that almost all employees in the restaurant that are at risk for occupational injury will attend the session.

List 5. Effective techniques that he used which should be incorporated into possible future worker health/safety presentations

- Usage of colorful props to show the different kitchen animal pests.
- Doing a walk-through of the kitchen. Asking employees about their current habits and to physically demonstrate their behavior around food safety at specific locations such as the chopping board, walk-in refrigerator, and hand washing sink.
- Emphasize the economic advantages of having a healthy, clean workplace and good food safety habits. Examples include: Workers want tips. In order to get tips, workers should practice good hygienic food handling. It prevents customers from being disgusted and made physically ill by poor food handling. Also, you want to take care of your own health to avoid getting sick and missing work. If you get sick, you don't get paid.
- Need for workers to be peer educators. Workers need to remind and teach each other about good food safety practices.

List 6. Cultural insights by food safety inspectors

- Cultural attitudes among Chinese immigrants include:
 - Profit and making money are the primary motivating factors for restaurant owners in Chinatown.
 - Restaurants owners, managers, and employees don't want to throw anything away because they don't want to waste any money.
 - People are accustomed to congestion, crowding, and marginal sanitation conditions.
- Work organizational concerns include:
 - Workers might not feel comfortable in speaking up about a dangerous situation or letting their employer know about an injury.
 - Cook has a great deal of control over the restaurant. If the cook decides not to cook or decides to quit and leave the restaurant, an owner can be in trouble.
 - There tends to be tension between the owner and the cook. Also, there can also be issues of sexist attitudes between male cooks and female owners. It can be difficult for a female owner to be respected.

- Specific aspects of Chinese cuisine include:
 - There are many different dishes that must be prepared for customers. There is more variety with Chinese restaurants than some other cuisines. This puts pressure on cooks and kitchen helpers because they must prepare things constantly in order to keep customers happy.
 - Also Chinese cuisine tends to use a lot of cottonseed cooking oil. This leads to serious grease build up on floors, countertops, and ovens.
- Some of the unique challenges to restaurant due to their location in Chinatown include:
 - Because many of the buildings are old, there are many holes or vulnerable parts of the wall that rodents can either crawl or chew through.
 - When handling garbage, there's a danger of silicosis from handling garbage cans covered with pigeon droppings.
 - High rent for some restaurant locations. Therefore some restaurants must be open for extended hours or seven days a week in order to make profit. This puts a lot of pressure and stress on workers and on owners.

II. Fire safety inspections

List 7. Fire safety checklist

- Last service date of fire extinguishers, fire hoses, sprinklers, and fire alarms
- Electrical outlets should not be open and exposed
- Clear, unobstructed exit doorways and hallways. Doors should also be easy to open and should open in both directions.
- Expiration date for restaurant's licenses for public assembly and restaurant
- Structural integrity of the building
- Maintenance of ventilation and exhaust system. This system should be regularly steam cleaned and treated with grease remover. This is important to make sure that air moves effectively through the system and reduces fire risk.
- For buildings with occupancy load is for 50 people or greater, also check:
 - Exit signs should be clearly marked.
 - Occupancy sign showing how many people are allowed should be clearly posted.
 - Fire department needs to check exit doors annually so that restaurant can maintain license.

List 8. Fire hazards at Restaurant C

- Ceiling tiles were moldy and had visible water damage. Mold is undesirable because it can alter the flow of air. Thus, hot air may be able to escape through gaps in the ceiling during a fire. So instead of experiencing a rise in temperature, the ceiling stays cooler than it should. Even if there is a fire, automatic sprinklers may not be immediately triggered and the response may be delayed.
- Grease was building up on the filters on the top of cooking grills. The grease on the filters was visible.

- The restaurant failed to post the maximum occupancy load on every floor.
- Fire alarm panel was difficult to see because it blended into wall decorations
- Exit signs and emergency signs near elevators are not bilingual in both English and Chinese.
- Dirt and dust build up was found on ventilation system.
- Fire suppression system in one of the kitchens was out of service. There were fire extinguishers, but these are only temporary remedies.
- One set of cooking grills had a system pouring water down the walls at the back of the cooking grills. This mini-waterfall on the walls prevents the buildup of grease. However, unfortunately this system was not completely maintained and the water was not flowing at the system's full capacity.

Key informant interviews

I. Health care

Upon Dr. Lowe's recommendation, we conducted a literature review exploring the different risk factors for occupational cataracts. Most literature has to do with cataracts or other eye problems in professions such as welding and glassblowing. There is also some literature looking at the connection between exposure to cooking smoke from biomass stoves and the development of eye problems, especially among women in developing countries.

II. Academic research

Outreach

In order to recruit workers, Dr. Tsai utilized social connections of her study coordinator, who was a medical interpreter. A challenge in her research was contacting and scheduling workers for interviews.

Findings

Some of Dr. Tsai's findings from her study in Seattle are similar to our findings in San Francisco. Workers in both locations are not conscious of environmental and occupational health. They often do not feel that their workplace is hazardous or dangerous. In addition, workers tend to be more aware of hazards when they feel physically such as heat.

Work organizational environment and management style mentioned by participants include pace and demands of work. If the restaurant gets busy, employees are encouraged to work more quickly and faster. Also, workers in both locations mentioned that often there is very little or no training on job tasks or worker health and safety. All of these factors create an environment conducive to worker injury.

Participants described the hierarchy like this: Because cooks control the quality of the food, owners often are most dependent on their cooks. Thus some cooks use this control to treat other employees with verbal abuse. In addition, there can also be conflicts and rivalries among workers that come from different regions of China.

Dr. Tsai's specific findings to Seattle include: Immigrants with fewer social connections with established members of Chinatown tended to look outside of Chinatown to find a job. These immigrants found that employers outside of Chinatown often valued workers who spoke English in addition to Chinese.

III. Government agencies

Background

Ullerich is a safety engineer with the Cal/OSHA Consultation Service, which offers free, confidential advice to business owners and employers about how to improve their workplace health and safety.

Ling is a safety engineer with the Economic and Employment Enforcement Coalition (EEEC). Ling also speaks Chinese. The EEEEC composes of Cal/OSHA, the Employment Development Department (EDD), and Division of Labor Standards and Enforcement (DLSE). Each month the EEEEC conducts "sweeps," which are surprise inspections of a specific industry in a certain geographic location within California in 1 of 7 high-risk industries. During these sweeps, EEEEC investigates employer tax compliance, workers compensation, wages, and breaks in addition to worker health and safety.

Prioritization and targeting

Cal/OSHA Consultation Service targets specific businesses based on their worker health and safety record. Ullerich explained that Cal/OSHA Consultation Service sends written letters to employers with large numbers of losses noted in workers compensation records. This letter invites employers to contact Cal/OSHA for a consultation on how to improve their worker health and safety. In addition, an employer can also contact Cal/OSHA Consultation Service directly for help.

Ling discussed how the EEEEC seeks out workplaces that lack workers compensation, have wage violations, and have workers reporting complaints.

Common restaurant worker health and safety hazards

More details on electrical hazards include:

- Exposed electrical outlets, including missing cover plates on electrical outlets
- Electrical panels have missing covers
- Electrical wiring is done by an employee instead of a qualified electrician
- Electrical extension cords are run everywhere instead of building more hard wired electrical outlets

Challenges of immigrant workers

According to Ling, specific methods that employers use to intimidate employees include:

- Employers to intimidate employees include telling employees that Cal/OSHA inspectors are immigration authorities. This encourages employees not to talk to Cal/OSHA.
- Employers give Chinese employees cash payments to not talk to Cal/OSHA inspectors.

IV. Community-based organizations

Restaurant Opportunities Center of New York (ROC-NY)

Study designs

The first survey by ROC-NY focused on finding out about wages and working conditions in NYC restaurants from the workers' perspectives. About 530 workers participated in the first survey. The resulting report was called "Behind the Kitchen Door: Pervasive Inequality in New York City's Thriving Restaurant Industry" (January 2005). Their second study looked at the connection between labor law violations and food safety violations at restaurants. About 300 workers participated in the second survey. The report from this survey was called "Dining Out, Dining Healthy: the Link Between Public Health and Working Conditions in New York City's Restaurant Industry" (April 2006).

Outreach strategy

ROC-NY conducted extensive census research to determine the demographics of NYC restaurant workers. Workers were then sought out to fulfill the different proportions of demographic categories according to census group categories.

Best practices

From the beginning, ROC-NY was interested in conducting a study with academic and scientific rigor. Thus, ROC-NY brought together a coalition of academics, policy makers, and workers to prepare for the study. The organization also recruited 2 PhD academics as primary advisors for the study. These PhD advisors give the resulting report credibility in the scientific community.

In addition, ROC-NY also drew upon their diverse, extensive membership base to assist with surveying. ROC-NY only had 2 full-time staff members to coordinate the surveying. Therefore, the organization trained about 25 worker members to do surveying. Because ROC-NY's worker members speak a variety of different languages, workers were able to do outreach and surveying in their respective communities. Each worker member who conducted was given monetary compensation for their time spent surveying.

Challenges

Jayaraman acknowledged a difficulty in relying on worker members to do street outreach is that ROC-NY experienced an overrepresentation of Latino restaurant workers in the first survey because of the large number of Latino ROC-NY members who were doing surveying.

Findings and moving forward

In addition to their summit, ROC-NY also formed the Restaurant Roundtable, which comprises of ROC-NY and owners who are interested in treating workers well. The Restaurant Roundtable created a manual outlining the legal obligations of owners to workers, and distributed them to all restaurant owners in NYC.

Koreatown Immigrant Workers Association (KIWA)

Culturally appropriate worker health and safety training

KIWA pointed out that a weakness of the Cal/OSHA trainings is that they are fairly general and do not necessarily give specific examples that apply to Korean restaurants. For example, Korean tofu houses use stone pots that require special precautions to avoid burns.

Outreach strategy

Originally, KIWA aimed to partner with restaurant owners to do the survey. Consequently, KIWA talked to owners to gain permission to survey workers at workplace. However, KIWA also used different strategies including: 1) Talking to workers during their off time, either before or after work, at a location outside the workplace, or 2) Asking current KIWA members to invite friends and co-workers who work in the restaurant industry to take the survey.

Best practices

Some surveyed workers appreciated hearing about the different services that KIWA offers. KIWA also used surveying as an opportunity to educate workers through a variety of materials:

- Workers rights booklet that covers basic labor law, was created by KIWA
- Comic book that covers scenario in which Latino and Korean workers who work in Koreatown come to KIWA, was created by a UCLA student
- One page list of referrals for different services related to immigration, health care, tenant resources, workers compensation, tax preparation
- Invitation to workers who are interested in finding out more about worker rights or social services to come to KIWA

Limitations and challenges

I. Selection bias

One limitation of this study is selection bias. Selection bias occurred because we only interviewed workers that were associated with CPA. Some of the workers interviewed were involved in past CPA campaigns to receive back wages that were withheld from workers. Other workers became associated with CPA's efforts to organize tenants in SROs. In these organizing efforts, Peer Organizers (PO's) are hired to do home visits and organizing work among SRO residents.

II. Limited access to restaurants and workers

Another challenge of this study was that access to restaurants and workers was limited. We were not able to enter restaurants and look at the kitchen facilities without accompanying food safety or fire inspectors. Thus, we were not able to visit as many restaurants as we would have liked. In addition, we could not talk to all workers that we came into contact with. For example, when on inspections, it was usually not possible to talk to workers. During this time, most workers were actively working or under constant supervision by managers, so they did not feel comfortable talking about their health and safety concerns.

III. Lack of employer perspective

In addition, during this study, we did not interview restaurant employers or managers. Thus, we were not able to gather their perspectives on worker health and safety. In the future, it will be very important to consider their opinions when designing and implementing intervention.

IV. Many different factors at work

A key challenge with this population is realizing that there are many different factors that affect the health and safety of workers. It is important to recognize that housing conditions, wage conditions, and poverty affect worker health and safety. Furthermore, it also must be acknowledged that fire and food safety not only affect the general public, but also affect worker health. It is also essential to design solutions for worker health and safety that are compatible with food and fire safety concerns.

Strengths and successes

I. In-depth worker information

Last year's OHIP interns conducted focus groups with workers. The benefit of focus groups is that they are able to gather a large breadth of information. In contrast to last year, this year we were conducted 1-on-1, in-depth interviews. There was a range of responses from different participants, from being very interested in talking to us for long periods of time to more guarded and only willing to provide limited amounts of information. The advantage of these interviews was that we were able to ask detailed questions from workers who were willing to share. These conversations helped us get an extensive understanding into the experience of workers. Some of these interviews took place in people's homes. Consequently, we were also able to get a more complete view of the living conditions and lived experiences of different workers.

II. Bilingual inspectors and educators

This year we also had the opportunity to shadow food and fire safety inspectors, as well as educators that were bilingual. An advantage to this was that we were able to see these individuals speak directly with workers, managers, and owners. There was appreciation from the workers, managers, and owners towards the inspectors and educators that could speak Chinese. Many of these workers seemed very engaged and interested in receiving training from someone who could directly speak their language instead of going through a translator.

III. Partnership with Chinese Progressive Association (CPA) and UC Berkeley Labor and Occupational Health Program (LOHP)

An advantage of this project was the opportunity to work with CPA. CPA has a history of working closely with the Chinese immigrant worker community on past efforts such as back wage campaigns and the fight to raise the minimum wage in San Francisco. In addition, CPA employs Peer Organizers (PO's). PO's often have built rapport with workers through repeated visits and numerous conversations. Thus, when we accompanied PO's on their home visits to interview workers about their health and safety, often workers were willing to share information with us. In addition, PO's often introduced us to workers and provided extra explanations or prompting when workers had difficulty understanding or responding to our questions.

Our close relationship with CPA during this internship also allowed us to work at the CPA office located in Chinatown, rather than being based out of the DHS office at Richmond. Thus, we were able to witness and participate in other CPA activities such as language training sessions, political education workshops, and support another summer intern working on a political action targeting the Gap. Also, our location made it easier to meet with workers at the CPA office and to visit their homes for interviews.

Furthermore, we also greatly benefited from having Pam Tau Lee from LOHP as our academic mentor. She provided essential insight on how to link our activities with CPA, a community-based organization, to our goals and objectives as OHIP interns. She also

provided important personal contacts so that we were able to meet with SF food and fire safety inspectors.

IV. Diverse, knowledgeable partners and key informants

One strength of this project was communication with a wide range of individuals. We were in contact with other community-based organizations, such as ROC-NY and KIWA, which also work with restaurant workers. Thus, we were able to draw upon the successful work of other organizations when designing and implementing our project. We were also working closely with individuals from many different areas of expertise, such as food and fire safety. The advantage of this was that we were able to get a more realistic picture of the complexity of the environment which affects workers health and safety.

Recommendations

Summary

Based on our research this past summer, we have several recommendations:

- More collaboration and communication between different enforcement agencies including Cal/OSHA, SF Department of Health (Environmental Health Section), and SF Fire Department
- Expand food safety educational sessions conducted by the SF Department of Health, Environmental Health Section to include information on worker health and safety
- Have inspectors from various different agencies mentioned above pilot test the revised, prioritized checklist in actual restaurants.
- Offer job training for current restaurant workers in other fields with better working conditions and wages
- Contact more medical staff and health educators that work with the Chinese immigrant population

Detailed recommendations

I. More collaboration and communication between different agencies

There are various agencies that visit Chinese restaurants for different purposes. Though they have different public health mandates in mind, many of their interests are overlapping. For example, cleanliness of kitchens and maintaining the structural integrity of the building is a concern for food safety, fire safety, and worker health and safety. Thus it seems appropriate for these different agencies to meet together and consider how they can work collaboratively. One possible model for collaboration is the EEEEC. For EEEEC, various California state agencies inspect workplaces to examine compliance with laws for wage payment, workers compensation, as well as worker health and safety. It may be helpful for local agencies to conduct inspections of workplaces together to look at these different aspects as well.

Cal/OSHA should cooperate with different agencies such as food and fire safety agencies because of their limited resources. Currently Cal/OSHA does not target the restaurant industry or small businesses as high priorities. However, local food and fire safety inspectors visit restaurants more frequently. For example, on average, each restaurant is inspected at least once a year by food safety inspectors. Therefore, it makes sense to utilize food and fire safety inspections and education sessions as opportunities to disseminate information on worker health and safety.

II. Expand food safety educational sessions

Our suggestion is that worker health and safety tips be incorporated into the existing food safety curriculum taught by SF health department food safety educators. This curriculum is required at restaurants with serious food safety violations. This curriculum is also part

of a food safety certification course that must be taken by at least one food handler at each retail food establishment according to California law. There are several reasons why food safety educational sessions should be considered as a method to educate workers about their health and safety:

- Research by ROC-NY suggests that restaurants with food safety violations often have labor regulation violations.
- Food safety educational sessions often occur in a short time period after the initial food safety inspection.
- Some topics covered by health educators already cover worker health and safety topics such as the reducing the risk of infectious disease for customers and workers by hand washing.
- Restaurants with serious food safety violations must require all its food handling employees attend food safety sessions in order to get into compliance. Thus, the participation rate of workers will be high.

III. Pilot revised checklist

Another important step is having inspectors from various different fields, including fire safety, food safety, and worker health and safety, pilot test the revised, prioritized checklist in actual restaurants. It is important to see how feasible it is for inspectors with busy schedules and limited time to use the checklist, especially if worker health and safety is not their primary concern. It will also be helpful to get the opinions of more Cal/OSHA inspectors on the way that we prioritized the different hazards. For this project, we were only able to gather a response from one Cal/OSHA Consultation Service safety engineer.

IV. Job training for current restaurant workers

In addition, many restaurant workers expressed interest in job training to gain the skills need to obtain jobs with fewer hazards and better wages. Thus, it is also important to consider that restaurant workers do not necessarily want to stay in their current jobs and would like to have the skills for more job mobility. It also may be possible to use job training as an opportunity to talk about health and safety concerns in their current jobs.

V. Contact more medical staff and health educators

We were interested in better understanding the perspectives of medical providers and health educators that serve the Chinese immigrant population. These individuals provide important information about the health concerns and cultural perspectives of this specific population. Unfortunately, we did not receive a reply from any of the health educators in community health clinics and public health departments that we contacted. However, we were able to contact one medical provider, an optometrist. In the future, more effort should be made to contact health educators.

References

Ammonium carbonate (<http://www.jtbaker.com/msds/englishhtml/a5688.htm>)

San Francisco Department of Health, Environmental Health Section, Food Safety Program
(<http://www.dph.sf.ca.us/eh/FoodSafety.htm>)

Appendices

Appendix 1: Key informant interview guide

1. Introduction

- a. Hi, my name is _____, and I am a summer intern with the Chinese Progressive Association (CPA). This summer I am working with CPA to better understand health and safety issues among Chinese immigrant restaurant workers.
- b. I am interested in conducting an interview with you to learn more about _____ (organizing, outreach, research, medical care) that you have done (or do) with (Chinese immigrant) restaurant workers.
- c. This interview should take about 20-30 minutes. Your input is needed to help us design a survey for workers and to develop an outreach strategy. Are you interested in participating?

2. General questions for all participants

- a. I am particularly interested in the attitudes and beliefs that low-income, Chinese immigrant restaurant workers have that are different from the general population and other immigrant populations. I would also like to learn about specific cultural attitudes and beliefs among these workers that may influence how they deal with workplace injury and illness.
- b. What do you think are the unique attitudes that this population has regarding general health and well-being? about general injury and illness?
- c. What do you think are the unique attitudes that this population has regarding workplace injury and illness?
- d. According to your observations, where does this population seek medical care for workplace injury and illnesses?
- e. What are some barriers that this population faces when seeking medical care?

3. Specific questions for health educators

- a. I am interested in learning about your experiences as a health care educator for the Chinese immigrant community.
- b. What types of general health issues do you educate your clients about?
- c. What kinds of health issues do your clients seem most concerned about?
- d. What kinds of occupational health issues do you discuss with your clients?
- e. When you discuss occupational health issues with your clients, what types of words or phrases do you use?

4. Specific questions for health care providers

- a. I am interested in learning about your experiences as a health care provider for the Chinese immigrant community. Depending on your training and practice as either a Western medical doctor or Eastern medical doctor, please answer the following questions.

- b. What is your approach or philosophy to diagnosis and treatment of work-related, occupational injuries and illnesses?
- c. What are the demographics of the population that you treat?
(Race/ethnicity, gender, age)
- d. What are the most common occupations of your patients?
- e. Are there any patterns connecting certain occupations and worksites with a high number of injuries? For example, have you noticed that many of your patients work at particular restaurants?
- f. What kinds of health complaints do your patients seem most concerned about and feel are most urgent?
- g. When workers bring up occupational health complaints, how do they describe what's wrong with them? What types of words or phrases do they use?
- h. How often do you receive work-related, occupational health complaints?
- i. What is the degree of severity of these occupational health complaints? Please give an example of a minor health complaint and an example of a serious health complaint that you have seen.
- j. Among this population, what are the most common methods of payment for medical care? For example, do patients tend to pay out of pocket or with health insurance?
- k. Do your patients tend to use more than one system of health care? For example, if you are a Western medical doctor, do you know if your patients are also seeking additional care from Eastern medical doctors? If yes, do you know the particular Eastern medical doctors that they are visiting?

5. Specific questions for community-based organizations or academic researchers that have gathered information from the workers

- a. What was your outreach strategy?
- b. Who was your target population of workers?
- c. What was the purpose and objective of your data collection?
- d. What are best practices when it comes to surveying or talking to workers about their workplace safety and health issues?
- e. What are the challenges and barriers to being able to contact workers?
- f. What were the main topics that you surveyed workers about?
- g. If you could conduct your research again, what information did you wish you had collected?

Appendix 2: Worker interview guide

Restaurant Worker Questionnaire (Updated July 14, 2006)

Participant: _____

Location of Interview: _____

Date: _____

General

1) Do you work in a restaurant? If no, do you have any friends or relatives that work in a restaurant?

? ?

a)

2) When did you come to the United States?

?

a)

3) Which part of China are you from?

?

a)

4) Who are the members of your family and what do they do? If you have children, how old are they? If you have a spouse, what is their employment?

? ?

a)

b)

c)

5) What is your job history? What other jobs have you had in the past?

? ?

a)

b)

c)

Current Restaurant Job

6) How long have you worked at your current restaurant job? How long do you work per day?

? ?

a)

b)

7) How did you obtain your job?

a)

b)

8) What kind of tasks do you do at your job?

?

- a)
- b)

9) Which is your most strenuous task at your job?
?

- a)
- b)

10) Which part of your body do you think that you use the most at your job?
?

- a)
- b)

11) How many breaks do you take? How long? Are you provided water or a break room?
Do you feel like you have sufficient breaks?
? ? ? ?

- a)
- b)
- c)

Occupational Health and Illness History

12) Do you think that this job has impacted your health significantly?
?

- a)
- b)

13) Do you feel that your job is dangerous to your health mentally or physically?
?

- a)
- b)

14) What aspects of your job do you think affect your health?
?

- a)
- b)

15) What is the most common injury you experience on the job?
?

- a)
- b)

16) If you got injured on the job, how do you cope with this?
?

- a)
- b)

c)

17) If you are feeling physical pain or mental stress long term, how do you cope with this?

?

a)

b)

c)

18) Do you feel comfortable asking your employer for help or time off when you have a work-related health problem?

a)

b)

19) Has your employer ever discouraged you from getting medical help for work-related illnesses or injuries?

?

a)

b)

20) Have you talked to your co-workers about their health at work? How do you view your co-workers health?

?

?

a)

b)

21) Do you ever ask your co-workers for help if you need it?

?

a)

b)

c)

Workplace practices that endanger food safety and public health

22) Did you receive worker health and safety training?

?

a)

b)

23) Do you frequently feel pressure to cut corners in a way that could potentially harm the customer? (ie. Do you frequently feel that you must rush or do things unsafely to keep up the pace of the work environment?)

?

a)

b)

24) Do you frequently have to perform several jobs at once?

?

- a)
- b)

25) Is the restaurant you work at frequently understaffed?

?

- a)
- b)

26) Do employees at the restaurant you work at frequently handle food improperly?

?

- a)
- b)

27) Does the restaurant you work at frequently serve bad food to customers? Bad food includes food that is dirty, expired, spoiled, or leftover.

? ()

- a)
- b)
- c)

Reform

28) If you could change any physical part of this kitchen/work environment, which would it be? Why?

? ?

- a)
- b)
- c)

Medical care

29) When you do see doctor for a work related health problem, is it usually eastern or western?

?

- a)
- b)

30) How did you find this doctor?

- a)
- b)

31) How do you or your family members have serious health problems? (ie. Diabetes, high blood pressure, cancer, asthma) If yes, how do you treat these problems?

?

- a)
- b)
- c)

Job training

32) Are you interested in learning about new skills to help you find a new job or improving the conditions about your current job?

- a)
- Time available:
- b)

Wages, Labor law compliance

33) Does your current employer pay you minimum wage? Minimum wage in San Francisco is currently \$8.82.

?

- a)
- b)

34) Does your current employer pay overtime for work over 40 hours a week?

?

- a)
- b)

35) Has your current employer ever discriminated against you for any reason? (ie. on the basis of race, ethnicity, gender, age, sexual orientation, immigration status, language, religion, or politics)

?

()

- a)
- b)
- c)

Other

36) Other comments:

Appendix 3: Prioritized inspection checklist

DRAFT Chinatown Restaurant Worker Safety Checklist

Updated August 2, 2006

A) General Information

IA.	Inspection Date:	___ ___ / ___ ___ / ___ ___ MO./DAY/ YEAR
IB.	Inspector Name(s):	
IC.	Restaurant Name:	
ID.	Inspection Start Time:	___ ___ : ___ ___ AM / PM
IE.	Number of Employees:	___ ___ EMPLOYEES

B) Burn and Electrocutation Hazards

High risk
Do workers have dry potholders, gloves, mitts, or rags to prevent burns?
Do workers stand at an appropriate distance from hot cooking oil and take caution not to lean over oil?
Are electrical cords and plugs in good condition?
Is the fire emergency system (ie. sprinklers and alarms) in good, working condition?
Moderate risk
Is there an emergency eye wash system in the kitchen?
Are there splash guards on fryers?
Low risk
Are range tops uncluttered and not overcrowded with cookware?
Is fryer oil covered when not in use?

--

B) Cut Hazards

High risk

Is there proper storage for knives (counter or wall racks or storage blocks)?

Do sliders, grinders or food processors have machine guards?

Are there risers if needed to make cutting area height appropriate for chopping?

Moderate risk

Do workers use cut-resistant gloves?

Are glasses, bottles, and dishware away from areas with a lot of traffic?

Are outcomes, housing, and blades in good condition?

C) Slip and Fall Hazards

High risk

Are there sufficient quality non-slip mats (raised with drainage holes) in good condition in areas that could get wet?

Are there non-slip surfaces on handrails and stairs?

Are floors dry and clean, instead of wet and greasy?

Are floors and steps in good condition?

Moderate risk

Are walkways free of clutter?

Is there good lighting in work areas?

Are there adequate floor drains?

D) Ergonomic Hazards

High risk
If necessary, are there footstools and ladders available?
Are there food storage areas that are easily accessible? (ie. Accessible by means besides a ladder)
Moderate risk
Are workers carrying pans or trays loaded with an appropriate amount of food and dishes?
Low risk
Is there a garbage chute?

D) Other Hazards

High risk
Is there adequate ventilation?
Do workers have adequate clothing and shoes to protect them?
Are Emergency Numbers posted?
Are there sufficient unblocked emergency exits?
Are there sufficient fire extinguishers?
Are there first aid kits accessible to workers?
Moderate risk
Is kitchen temperature at a comfortable temperature?
Low risk
Are there surveillance cameras or mirrors?

E) Inspector Comments

Did you observe or learn anything else about safety hazards at this restaurant that is not captured above?

--

IE.	Inspection End Time:	__ __: __ __ AM / PM
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