**Health and Safety Standards Compliance Among Food Service Providers in the University of Eastern Philippines**

**ABSTRACT**

This study aimed to determine the level of compliance with health and safety standards among food service establishments operating within the University of Eastern Philippines, as perceived by selected respondents. Specifically, the study assessed compliance in three key areas: physical controls, administrative controls, and additional safety protocols.

The study employed a descriptive-correlational research design. It is descriptive as it documents the various types of food services operating in the university. Additionally, it describes respondents’ perceptions of the level of compliance of food service centers in the university with health and safety standards. Data were gathered using validated survey questionnaires administered to three key sectors of the UEP academic community—students, faculty members, and non-teaching personnel.

The findings of the study revealed the UEP academic community, composed of students, faculty members, and non-teaching employees, were very much aware and would patronize street-vended foods, school-operated canteens/food services, school-managed food courts, and privately owned carenderias or eateries. As to the compliance with health and safety standards, the respondents perceived that food establishments were highly compliant in terms of physical controls, administrative controls, and additional protocols. This implies a critical need for the institutionalization and strict enforcement of food safety and nutrition standards across all types of food providers—including street vendors, school-operated canteens, and privately-owned eateries.

***Keywords:*** *Compliance, Health and Safety Standards, Food Services,* Eespondents’ perceptions

1. **INTRODUCTION**

Food is a fundamental human necessity, but when provided to large groups—particularly in institutional settings such as universities—it carries significant responsibilities. Every day, students, faculty, and staff rely on campus food service providers, placing their trust not only in the quality and convenience of the food but also in its safety. This underscores the importance of adhering to health and safety standards, which are designed to ensure that food served in such settings not only meets nutritional and sensory expectations but also safeguards public health.

Food service providers play a central role in ensuring this compliance. Their daily operations—ranging from maintaining cleanliness and proper food storage to training staff and implementing emergency protocols—are essential to minimizing health risks. These efforts are generally categorized into three key areas: physical controls (e.g., sanitation and hygiene practices), administrative controls (e.g., staff training, supervision, and documentation), and additional protocols, which may include measures introduced during public health emergencies such as pandemics.

Ideally, food service providers in academic institutions are expected to offer balanced meals that adhere to dietary guidelines, ensure access to healthy food, promote the prevention of health issues, and establish lifelong healthy habits and practices. [1]

In higher education institutions, the Commission on Higher Education (CHED), particularly during the pandemic, stressed the role of school food service facilities in maintaining the cleanliness of school canteens and dining areas and ensuring that the academic community, particularly the students, adheres to existing health and safety guidelines. [2] Further, the Joint Memorandum of the Department of Trade and Industry and the Department of Tourism, issued specific guidelines that promote safe behaviors in restaurants and eateries including school canteens and dining areas. This includes the provision of hand hygiene and sanitation facilities and supplies, enough table and seats spacing, provision of proper facility for proper storage, collection, treatment, and disposal

of wastes, among others. [3]

Maniquiz emphasized that the core concept in establishing and operating a school-based food service unit is developing the love and interest in buying nutritious and healthy food among students, faculty, and other school personnel. [4] The paper further noted that school canteens may educate the public on reducing health risks from poor nutrition and unfit dietary practices. Along this point of view, the school food service providers, as part of the school community, is responsible to make a positive contribution to public health.

The study of Ubane provided a comprehensive discussion on the food services of UEP. Her paper narrated that the primary aims of UEP’s food service are to serve nutritious and affordable meals to students, faculty, employees, and other clienteles, and to serve as food laboratory center for home economics, food technology, and hospitality management students. [5] The UEP Kapihan, formerly known as Cafeteria, underwent changes and innovations in the foodservice industry, physically and operationally, adapted by its previous qualified managers and administration and metamorphosed to the present condition. Further, Irader and Ubane also forwarded that aside from the UEP Kapihan, other privately-owned food service centers including street vending food carts and stalls, are present in the University providing food to the academic community. [6]

This study, therefore, aims to examine the current state of food service operations at the University of Eastern Philippines, based on the perceptions of its respondents. Specifically, to determine the level of compliance with health and safety standards in terms of three key areas: physical controls, administrative controls, and additional protocols. The findings are expected to highlight existing strengths and identify areas in need of improvement to better safeguard the health and well-being of the university community.

1. **MATERIALS AND METHODS**

his study was conducted at the University of Eastern Philippines–Main Campus and involved three groups of respondents: students, faculty members, and non-teaching personnel. The university employs 618 faculty members and 346 non-teaching staff. Combined with the student population, the total number of individuals across the three groups was 17,518. Using the Krejcie and Morgan Table for Sample Size Determination, a total of 377 respondents were selected to participate in the data collection phase. Through a proportionate sampling technique, the sample consisted of 356 students (94.43%), 14 faculty members (3.72%), and 7 non-teaching personnel (1.85%).

1. **RESULTS** **AND DISCUSSION**

**Food Services Operating in the University of Eastern Philippines as Perceived by the Respondents**

Table 1 presents information on the types of food services operating in the University of Eastern Philippines – Main Campus and the respondents’ awareness and patronage of these food establishments. As gleaned on the table, the UEP academic community, composed of students, faculty members, and non- teaching employees, were very much aware and would patronize street-vended foods like food carts, food trucks/ tricycle/ side car, *ihaw-ihaw, tusok-tusok,* and ice cream carts with a frequency of 271 ranked as first. Following this are school- operated canteen/ food service like the UEP Kapihan with 255 responses ranked as second, school-managed food court like the UEP Business Arcade with 228 responses ranked as third, privately-owned carenderias or eateries with 205 responses ranked as fourth, privately-owned fast food, restaurants, bars, and coffee shops with 173 responses ranked as fifth, and lastly, privately-owned bakery/bakeshop with 156 responses.

Based on observations, while institution-owned and registered privately-owned food establishments are regulated by the local government unit and other agencies like the DTI and DOH through sanitation and health Offices, turo-turos or carenderia are not directly regulated by these agencies except for occasional visits by the barangay and the UEP Business Affairs Unit in compliance for accreditation visits. Further, street vendors are not also regulated by either the LGU or the institution. It must be noted however that UEP has assigned specific places in the University where street vendors are allowed to sell their products.

The findings suggest that as an academic community patronize street-vended foods and would regularly buy and consume food sold by street vendors. This may be attributed to factors like affordability, convenience, and taste and variety particularly that street-vended foods are accessible to masses, easily available, and offer a wide range of options from isaw (grilled chicken intestines), kwek-kwek (quail eggs in orange batter), and fish balls, often paired with flavorful dipping sauces.

This result corroborates the findings in the paper of Irader and Ubane who conducted a study in the same locale highlighting that street vending food carts and stalls are very common in the University and considering its availability and affordability, the academic community particularly the students would really patronize street-vended foods. Yet, the same study noted the health risks associated to the consumption of street- vended food which are often not regulated.

The institution-owned food establishment like UEP Kapihan and other registered privately-owned food centers are regulated by various agencies, carenderias and street-vending food providers are not regularly and periodically assessed and supervised as regards their compliance to existing policies on food preparation, health, and sanitation. While the needs of economically disadvantaged members of the community, like students, are addressed through the provision of cheaper food, health risks remain as threat since regulation of some food service providers are not periodically checked and regulated.

**Table 1**

**Food Services Operating in the University of Eastern Philippines as Perceived by the Respondents**

|  |  |  |
| --- | --- | --- |
| **Food Services** | **Frequency** | **Rank** |
| Street-vended foods (food carts, food trucks/ tricycle/ side car, | 271 | 1 |
| ihaw-ihaw, tusok-tusok, ice cream carts, among others) |  |  |
| School-operated canteen/ food service (UEP Kapihan) | 255 | 2 |
| School-managed food court (UEP Business Arcade) | 228 | 3 |
| Privately-owned Carenderia/s or Eateries (turo-turo) | 205 | 4 |
| Privately-owned Fast Food, Restaurants, Bars, and/or | 173 | 5 |
| Coffeeshops  Privately-owned Bakery/ Bakeshop | 156 | 6 |

*\*multiple responses*

**Level of Compliance on the Health and Safety Standards as Perceived by the Respondents**

**Physical Controls**

Table 2 discusses the level of compliance on the health and safety standards of the food services in UEP in terms of physical controls.

The academic community considered that these food establishments were “moderately compliant” concerning physical controls with a grand mean of 3.22. This suggests that while the respondents were comfortable as regards the physical setup in these establishments, there are still areas which need to be improved particularly on the provision of some necessities like hands-free trash receptacles and towel dispensers.

This may be attributed to the fact that this protocol was implemented during the height of the Covid-19 pandemic, hence, only few food establishments would retain these hands-free facilities particularly that hand-wash areas are already available.

The findings reflect that based on the respondents’ perceptions, majority of the food establishments in UEP met the required standards set under physical controls. This finds support in the study of Borbon and Tolentino highlighting that food establishments in the Philippines are compliant on health and safety standards along physical setups and provision of necessary facilities. This may also affirm CHED’s program on ensuring food safety particularly after the pandemic.

**Table 2**

**Level of Compliance on the Health and Safety Standards**

**in terms of Physical Controls as Perceived by the Respondents**

**Indicators Students Teaching Non-Teaching Average**

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
|  | **Mean** | **Interpretation** | **Mean** | **Interpretation** | **Mean** | **Interpretation** | **Mean** | **Interpretation** |
| The table and seating | 4.09 | Highly | 4.36 | Very Highly | 3.14 | Moderately | 3.86 | Highly |
| arrangements make |  | Compliant |  | Compliant |  | Compliant |  | Compliant |
| the dining experience |  |  |  |  |  |  |  |  |
| comfortable. |  |  |  |  |  |  |  |  |
| There is enough | 3.52 | Highly | 3.80 | Highly | 2.86 | Moderately | 3.39 | Moderately |
| ventilation to improve |  | Compliant |  | Compliant |  | Compliant |  | Compliant |
| air flow. |  |  |  |  |  |  |  |  |
| Exhaust fans and air | 3.43 | Highly | 3.43 | Highly | 2.71 | Moderately | 3.19 | Moderately |
| filtration devices are |  | Compliant |  | Compliant |  | Compliant |  | Compliant |
| properly installed and |  |  |  |  |  |  |  |  |
| regularly checked. |  |  |  |  |  |  |  |  |
| Hand-washing sink | 3.42 | Highly | 3.29 | Moderately | 2.29 | Fairly | 3.00 | Moderately |
| with an adequate and |  | Compliant |  | Compliant |  | Compliant |  | Compliant |
| safe water supply is |  |  |  |  |  |  |  |  |
| present. |  |  |  |  |  |  |  |  |
| Soap and water or | 3.28 | Moderately | 3.21 | Moderately | 2.29 | Fairly | 2.93 | Moderately |
| alcohol and hand |  | Compliant |  | Compliant |  | Compliant |  | Compliant |
| sanitizers are |  |  |  |  |  |  |  |  |
| provided. |  |  |  |  |  |  |  |  |
| Hands-free trash | 3.25 | Moderately | 3.07 | Moderately | 2.14 | Fairly | 2.82 | Moderately |
| receptacles and towel |  | Compliant |  | Compliant |  | Compliant |  | Compliant |
| dispensers are |  |  |  |  |  |  |  |  |
| available. |  |  |  |  |  |  |  |  |
| Queueing and | 3.69 | Highly | 3.79 | Highly | 2.71 | Moderately | 3.40 | Highly |
| payment areas are |  | Compliant |  | Compliant |  | Compliant |  | Compliant |
| available. |  |  |  |  |  |  |  |  |
| Visual cues and | 3.72 | Highly | 3.21 | Moderately | 2.71 | Moderately | 3.21 | Moderately |
| signage to |  | Compliant |  | Compliant |  | Compliant |  | Compliant |
| communicate |  |  |  |  |  |  |  |  |
| important information |  |  |  |  |  |  |  |  |
| are posted. |  |  |  |  |  |  |  |  |
| There are distinct | 3.82 | Highly | 3.29 | Moderately | 2.29 | Fairly | 3.13 | Moderately |
| entry and exit points. |  | Compliant |  | Compliant |  | Compliant |  | Compliant |
| The music volume is | 3.79 | Highly | 3.71 | Highly | 2.29 | Fairly | 3.26 | Moderately |
| kept to a minimum to avoid disturbances. |  | Compliant |  | Compliant |  | Compliant |  | Compliant |
| **Grand Mean** | **3.60** | **Highly** | **3.52** | **Highly** | **2.54** | **Fairly** | **3.22** | **Moderately** |
|  |  | **Compliant** |  | **Compliant** |  | **Compliant** |  | **Compliant** |

Administrative Controls

Table 3 discusses the level of compliance on the health and safety standards of the food services in UEP in terms of administrative controls the three groups of respondents perceived that food service providers in UEP were “moderately compliant” as regards administrative controls as shown by the grand mean of 33.33. In particular, it was revealed that these food establishments were “highly compliant” with regard to the “securing sanitary and health permits” while they were just “moderately compliant” on the use of “digital modes of payment.” This reflects that while food service providers acknowledge the environmental significance of single-use or QR-based menus, they still need to invest on digitalization particularly on digital payment modes.

The data denotes that food establishments in UEP effectively follow organizational, procedural, and documentation-related food safety practices which manifests a systematic framework for maintaining food safety. This is backed-up by the study of Dorado discussing that food establishments in the Philippines have satisfactory level of compliance on food safety and quality assurance as manifested by common administrative controls like food safety protocols and standard operating procedures. [7]

**Table 3**

Level of Compliance on the Health and Safety Standards in terms of Administrative Controls as Perceived by the Respondents

**Indicators Students Teaching Non-Teaching Average**

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
|  | **Mean** | **Interpretation** | **Mean** | **Interpretation** | **Mean** | **Interpretation** | **Mean** | **Interpretation** |
| Staff maintain high | 3.91 | Highly | 3.86 | Highly | 3.14 | Moderately | 3.64 | Highly |
| standards of personal |  | Compliant |  | Compliant |  | Compliant |  | Compliant |
| cleanliness, including |  |  |  |  |  |  |  |  |
| proper handwashing and |  |  |  |  |  |  |  |  |
| wearing clean uniforms, |  |  |  |  |  |  |  |  |
| gloves, and hairnets. |  |  |  |  |  |  |  |  |
| Entry limits are enforced | 3.80 | Highly | 3.36 | Moderately | 3.14 | Moderately | 3.43 | Highly |
| in designated areas to |  | Compliant |  | Compliant |  | Compliant |  | Compliant |
| avoid contamination of |  |  |  |  |  |  |  |  |
| food. |  |  |  |  |  |  |  |  |
| Sanitary and health | 3.84 | Highly | 4.00 | Highly | 3.57 | Highly | 3.80 | Highly |
| permits are secured by |  | Compliant |  | Compliant |  | Compliant |  | Compliant |
| the employees. |  |  |  |  |  |  |  |  |
| Customers are reminded | 3.73 | Highly | 3.14 | Moderately | 3.14 | Moderately | 3.34 | Moderately |
| to practice good hygiene |  | Compliant |  | Compliant |  | Compliant |  | Compliant |
| and eating etiquette. |  |  |  |  |  |  |  |  |
| The use of online or | 3.56 | Highly | 3.50 | Highly | 2.86 | Moderately | 3.31 | Moderately |
| mobile platforms for |  | Compliant |  | Compliant |  | Compliant |  | Compliant |
| rendering services is |  |  |  |  |  |  |  |  |
| maximized. |  |  |  |  |  |  |  |  |
| Single-use or QR-based | 3.33 | Moderately | 2.79 | Moderately | 2.43 | Fairly | 2.85 | Moderately |
| menus are utilized. |  | Compliant |  | Compliant |  | Compliant |  | Compliant |
| Digital modes of | 3.42 | Highly | 2.50 | Fairly | 2.57 | Fairly | 2.83 | Moderately |
| payment are utilized. |  | Compliant |  | Compliant |  | Compliant |  | Compliant |
| Premises are regularly | 3.56 | Highly | 3.07 | Moderately | 3.00 | Moderately | 3.21 | Moderately |
| disinfected. |  | Compliant |  | Compliant |  | Compliant |  | Compliant |
| **Grand Mean** | **3.64** | **Highly** | **3.28** | **Moderately** | **2.98** | **Moderately** | **3.30** | **Moderately** |
|  |  | **Compliant** |  | **Compliant** |  | **Compliant** |  | **Compliant** |

Additional Protocols

Table 4 elaborates the level of compliance on the health and safety standards of the food services in UEP in terms of additional protocols.

Food service providers in UEP were perceived as moderatel compliant with additional health and safety protocols, as reflected by a grand mean of 3.24. Respondents noted that these establishments were highly compliant in terms of posting necessary licenses and permits, which received a mean score of 3.59. However, the display of allergen information garnered the lowest mean of 2.79, indicating only moderate compliance in this area. This suggests that while UEP food service providers reliably secure the required legal licenses and permits to operate, the presentation of detailed or scientific allergen information may be limited. This limitation likely stems from the nature of the food service units within the university, where more specialized allergen disclosures may not be feasible or commonly practiced.

The data denotes that food establishments in the University implement extra preventive measures beyond the basic food safety standards particularly in response to heightened health concerns such as the COVID-19 pandemic or emerging foodborne illness risks. This result counter the findings of Salvador who asserted that school-based food service providers received a "very poor" rating in terms of food safety compliance. While the study of Salvador is in the context of schools offering basic education, the present study was conducted in a state university setting wherein higher education institutions have units that impose and monitor stricter policies along food hygiene and safety. [8]

**Table 4**

**Level of Compliance on the Health and Safety Standards in terms of Additional Protocols as Perceived by the Respondents**

**Indicators Students Teaching Non-Teaching Average**

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
|  | **Mean** | **Interpretation** | **Mean** | **Interpretation** | **Mean** | **Interpretation** | **Mean** | **Interpretation** |
| Smoking areas are | 3.84 | Highly | 3.29 | Moderately | 2.86 | Moderately | 3.33 | Moderately |
| designated and do not |  | Compliant |  | Compliant |  | Compliant |  | Compliant |
| cause threats to the public. |  |  |  |  |  |  |  |  |
| Food is properly labeled | 3.85 | Highly | 3.43 | Highly Compliant | 2.86 | Moderately | 3.38 | Moderately |
| with preparation and |  | Compliant |  |  |  | Compliant |  | Compliant |
| expiry dates. |  |  |  |  |  |  |  |  |
| Food is properly kept and | 3.94 | Highly | 3.64 | Highly Compliant | 2.71 | Moderately | 3.43 | Highly |
| stored. |  | Compliant |  |  |  | Compliant |  | Compliant |
| Necessary permits and | 3.98 | Highly | 3.79 | Highly Compliant | 3.00 | Moderately | 3.59 | Highly |
| licenses are posted. |  | Compliant |  |  |  | Compliant |  | Compliant |
| Separate areas for raw | 3.93 | Highly | 3.21 | Moderately | 2.71 | Moderately | 3.28 | Moderately |
| and ready-to-eat foods are |  | Compliant |  | Compliant |  | Compliant |  | Compliant |
| designated to prevent |  |  |  |  |  |  |  |  |
| cross-contamination. |  |  |  |  |  |  |  |  |
| Separate utensils are used | 3.79 | Highly | 2.93 | Moderately | 2.14 | Fairly | 2.95 | Moderately |
| for different food types. |  | Compliant |  | Compliant |  | Compliant |  | Compliant |
| Staff members avoid | 3.67 | Highly | 3.57 | Highly Compliant | 2.29 | Fairly | 3.18 | Moderately |
| handling food and money |  | Compliant |  |  |  | Compliant |  | Compliant |
| simultaneously. |  |  |  |  |  |  |  |  |
| Allergen information is | 3.53 | Highly | 2.71 | Moderately | 2.14 | Fairly | 2.79 | Moderately |
| visibly displayed for pre- |  | Compliant |  | Compliant |  | Compliant |  | Compliant |
| packaged items, and |  |  |  |  |  |  |  |  |
| information upon request |  |  |  |  |  |  |  |  |
| for unpackaged foods is |  |  |  |  |  |  |  |  |
| provided. |  |  |  |  |  |  |  |  |
| Takeaway and delivery | 3.74 | Highly | 3.71 | Highly Compliant | 2.29 | Fairly | 3.25 | Moderately |
| foods are securely packaged to prevent spillage and contamination. |  | Compliant |  |  |  | Compliant |  | Compliant |
| **Grand Mean** | **3.81** | **Highly** | **3.36** | **Moderately** | **2.56** | **Fairly** | **3.24** | **Moderately** |
|  |  | **Compliant** |  | **Compliant** |  | **Compliant** |  | **Compliant** |

1. **CONCLUSION**

The UEP academic community demonstrated a high level of engagement with various food sources in the campus. This implies a critical need for the institutionalization and strict enforcement of food safety and nutrition standards across all types of food providers—including street vendors, school-operated canteens, and privately-owned eateries. With the community's high patronage, these establishments significantly influence the nutritional intake and health outcomes of students and staff.

The respondents perceived that food establishments within the UEP academic community demonstrate a high level of compliance with health and safety standards. The data suggests that regulatory efforts from the local government unit particularly on securing sanitary and health permits contribute to consumer confidence and a safer food environment on and around the campus. While this perceived high compliance reflects positively on the effectiveness of existing monitoring systems, training, and enforcement of food safety regulations imposed by the local government unit, this still may be strengthened through UEP’s efforts on the institutionalization of policies and programs along food services.

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