

Environmental Health Inspection and Targeted Food Safety Education at Three Nusantara Capital Authority Office Premises

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Article History

Received on 9 May 2026

1st Revision on 29 May 2026

2nd Revision on 1 June 2026

3rd Revision on 24 June 2026

Accepted on 29 June 2026

Abstract

Purpose: This community-service article reports hygiene and sanitation conditions identified through environmental health inspections and describes targeted food-safety feedback delivered at three food premises in the Nusantara Capital Authority office area, Indonesia.

Research Methodology: This descriptive cross-sectional case series involved one snack outlet and two class-A1 restaurants. Compliance was assessed using Ministry of Health Regulation No. 17 of 2024 checklists, with scores calculated from applicable compliant items. Data were analyzed descriptively, and immediate educational feedback was provided during inspections.

Results: Premises A, B, and C recorded 13/86, 25/225, and 23/225 nonconforming items, producing compliance scores of 84.88%, 88.89%, and 89.78%, respectively. Raw nonconformity counts were not directly compared because checklist denominators differed. Identified gaps concerned personal hygiene, protective clothing, nail cleanliness, covered waste bins, internal labeling, freezer arrangement, thawing procedures, kitchen temperature, fly control, training documentation, and annual health-examination records.

Conclusions: The inspections identified premise-specific corrective priorities and enabled immediate, context-specific feedback. Findings were limited to the three inspected premises and cannot demonstrate intervention effectiveness, behavioral change, contamination, or wider regional compliance.

Limitations: Limitations included a single inspection, no post-education reassessment, microbiological or chemical testing, severity weighting, or inter-rater reliability assessment.

Contribution: This article provides a transparent inspection-feedback procedure for similar community-service activities, with appropriate local adaptation, current regulatory references, and follow-up evaluation.

Keywords: Checklist Compliance, Environmental Health Inspection, Food Premises, Food Safety, Inspection Feedback

How to Cite: Ningsih, R., Sedionoto, B., Budiarti, D. W., Puspitasari, K., Tanty, Y., & Masiroh, R. E. (2026). Environmental Health Inspection and Targeted Food Safety Education at Three Nusantara Capital Authority Office Premises. *Yumary: Jurnal Pengabdian kepada Masyarakat*, 6(4), 359-371.

1. Introduction

Food safety is a fundamental component of environmental health because inadequate handling, storage, processing, and food service practices may expose consumers to microbiological, chemical, and physical hazards that contribute to foodborne diseases ([WHO, 2022](#)). The World Health Organization estimates that contaminated food causes more than 200 diseases worldwide, resulting in substantial health, social, and economic burdens. To minimize these risks, the Codex General Principles of Food Hygiene recommend preventive control measures throughout the food production and service chain, including proper facility design, equipment sanitation, operational procedures, personnel hygiene, temperature control, waste management, and pest prevention ([Ahmed, Akbar, & Sadiq, 2021](#)). These principles have become the international benchmark for ensuring food safety and protecting public health.

Despite the availability of internationally recognized food hygiene standards, maintaining consistent compliance in food-service establishments remains a major challenge. Numerous studies have demonstrated that food handlers often possess adequate knowledge of hygiene and sanitation but fail to consistently apply this knowledge in daily practice. Such discrepancies are influenced by multiple organizational and environmental factors, including insufficient training, weak managerial supervision, limited sanitation facilities, inadequate health monitoring, excessive workload, and poor organizational commitment to food safety. Likewise, studies conducted in Indonesia have reported inconsistencies between food safety knowledge, observed hygienic practices, and microbiological quality of food products, indicating that knowledge alone is insufficient to ensure safe food handling ([Abdilahy et al., 2025](#)). Consequently, comprehensive food safety assessment should incorporate direct observation of operational practices and evaluation of supporting documentation rather than relying solely on questionnaires or knowledge-based indicators ([Gemeda, Yazew, Moroda, & Kuyu, 2025](#)).

Environmental health inspection is widely recognized as a systematic approach for identifying sanitation deficiencies, evaluating compliance with food safety standards, and prioritizing corrective actions based on risk ([Rifat, Talukdar, Lamichhane, Atarodi, & Alam, 2022](#)). Inspection findings not only provide evidence of regulatory compliance but also serve as an important management tool for continuous quality improvement. Nevertheless, compliance percentages derived from inspection checklists should be interpreted cautiously because a high overall score may conceal critical deficiencies in specific operational components that pose significant food safety risks ([Alzhrani & Shatwan, 2024](#)). Therefore, inspection results should be complemented by qualitative descriptions of observed nonconformities to provide a more comprehensive understanding of hygiene and sanitation conditions. Furthermore, educational feedback delivered during inspections has been reported to improve awareness and encourage corrective actions among food handlers, although its effectiveness should ideally be verified through follow-up evaluations or repeated inspections ([Atalay, Gebeyehu, & Gelaw, 2025](#); [Palupi, Budiningsari, Khoirunnisa, & Hanifi, 2024](#)).

Within Indonesia, the implementation of hygiene and sanitation standards in institutional food-service facilities has become increasingly important as government offices seek to provide safe and healthy food environments for employees and visitors. However, published evidence describing hygiene and sanitation conditions in government-managed food premises remains limited, particularly within newly established administrative regions. This lack of documented field evidence restricts opportunities to identify common sanitation deficiencies and formulate practical recommendations for continuous improvement. Addressing this gap requires systematic inspection accompanied by structured reporting of both quantitative compliance scores and qualitative observations.

Accordingly, this article reports a community service activity conducted in three food premises within the Nusantara Capital Authority office area. The objectives were to describe premise-specific hygiene and sanitation findings, calculate category-specific checklist compliance scores, identify observed nonconformities, and document the targeted educational feedback provided during the inspection

process. As a bounded case series, this study is intended to provide practical documentation of inspection outcomes and corrective recommendations rather than estimate prevalence or evaluate intervention effectiveness. Therefore, the findings are limited to the three inspected premises but may serve as a useful reference for improving hygiene and sanitation management in comparable institutional food-service settings.

2. Research Methodology

2.1 Design and Setting

This community-service activity employed a descriptive cross-sectional design and is reported as a bounded case series. The activity was conducted on 13 May 2026 in three food-service premises located within the office area of the Nusantara Capital Authority, Indonesia, under institutional authorization through Letter Number 1694/UN17.11/DT/S2/2026. A descriptive cross-sectional approach was selected because it enables the systematic assessment and documentation of hygiene and sanitation conditions at a single point in time without manipulating the study setting, making it appropriate for environmental health inspections and community-based assessments ([da Vitoria, de Souza Couto Oliveira, de Almeida Pereira, de Faria, & de Sao Jose, 2021](#)).

The unit of assessment was the food premise, with each premise evaluated during a single scheduled field visit using a standardized environmental health inspection checklist. Observations focused on hygiene and sanitation conditions, food-handling practices, supporting facilities, operational processes, and management documentation available at the time of inspection. The bounded case-series design was adopted because the objective was to document premise-specific inspection findings and the educational feedback provided immediately after the inspection rather than to estimate prevalence, test statistical associations, or evaluate intervention effectiveness. Consequently, the findings should be interpreted as descriptive evidence limited to the inspected premises and observation period, while providing practical information to support corrective actions and future environmental health inspection activities ([Atalay, Gebeyehu, & Gelaw, 2025](#); [Kosola, Kiviniemi, & Lundén, 2022](#)).

2.2 Premise Selection and Reporting

The field activity included three food-service premises that were operating normally and accessible to the inspection team within the designated office area of the Nusantara Capital Authority. The inspected premises consisted of one snack outlet and two Class A1 restaurants. Because the activity was conducted as a community-service inspection rather than an epidemiological survey, no statistical sample-size calculation or probability sampling technique was applied. Instead, all premises scheduled for inspection during the activity were included, making the assessment a complete enumeration of the available inspection units rather than a representative sample of food-service establishments ([Creswell & Creswell, 2023](#); [Kosola, Kiviniemi, & Lundén, 2022](#)).

To maintain confidentiality and avoid unnecessary identification of individual establishments, the inspected premises are reported as Premises A, B, and C throughout this article. Premise A refers to the snack outlet, whereas Premises B and C refer to the two Class A1 restaurants. Accordingly, the inspection findings should be interpreted as premise-specific observations describing hygiene and sanitation conditions at the time of assessment. The results are not intended to support statistical generalization to other food-service establishments within the Nusantara Capital Authority or elsewhere but rather to provide practical evidence for identifying nonconformities and prioritizing corrective actions in the inspected premises ([Atalay, Gebeyehu, & Gelaw, 2025](#)).

2.3 Inspection Instrument and Scoring

The field team conducted environmental health inspections using category-specific checklists adapted from the hygiene and sanitation provisions of Indonesian Ministry of Health Regulation No. 17 of 2024. The assessment covered premises and sanitation facilities, food-handler hygiene and protective attire, waste management, food storage and internal labeling, freezer organization, thawing practices,

temperature control, pest and vector control, training documentation, and periodic health examinations ([Fekadu et al., 2024](#)). The completed checklists comprised 86 applicable assessment items for Premise A and 225 applicable assessment items for each restaurant.

Each checklist item was recorded as either compliant or noncompliant. Compliance was quantified by calculating the proportion of compliant items relative to the total number of applicable assessment items using the following formula [1](#) (Akabanda, Hlortsi, & Owusu-Kwarteng):

$$\text{Compliance score (\%)} = \frac{\text{Number of compliant applicable items}}{\text{Total number of applicable assessment items}} \times 100 \quad (1)$$

The same compliance score can also be expressed by subtracting the proportion of noncompliant applicable items from 100%, as shown in [2](#) (Hayati, Asyary, Wispriyono, Rashid, & Memish; Jevsnik et al.):

$$\text{Compliance score (\%)} = 100 - \left(\frac{\text{Number of noncompliant applicable items}}{\text{Total number of applicable assessment items}} \times 100 \right) \quad (2)$$

All applicable checklist items were assigned equal weight, and no severity weighting was applied to individual nonconformities. The checklist source is reported transparently because it was the instrument used during the field inspection. Although Indonesian Ministry of Health Regulation No. 17 of 2024 had been superseded by Regulation No. 11 of 2025 before this community service activity was reported, the checklist remained appropriate for documenting field observations. Consequently, the calculated compliance scores should be interpreted solely as performance against the inspection instrument used during data collection and not as a formal determination of compliance with the regulation currently in force ([Kesehatan, 2024](#); [Rizzo, Venuto, Genovese, Squeri, & Genovese, 2025](#)).

2.4 Inspection and Educational Feedback Procedures

Data collection integrated three complementary techniques: direct observation of hygiene and sanitation conditions, brief confirmation interviews with food handlers or premise representatives, and review of operational records available during the inspection visit ([Isoni, Stedefeldt, & Puppini, 2019](#)). Combining these data sources enabled the inspection team to verify observed practices with available documentation and clarify operational procedures when necessary, thereby improving the completeness and credibility of the inspection findings ([Creswell & Creswell, 2023](#)). Immediately after the assessment, documented nonconformities were discussed with the responsible premise representative to ensure that the findings and recommended corrective actions were clearly understood ([Hashanuzzaman, Bhowmik, Rahman, Zakaria, Voumik, & Mamun, 2020](#)).

Educational feedback focused on the specific deficiencies identified during the inspection, including food-handler hygiene, use of required protective attire, nail hygiene, covered waste bins, internal product labeling, freezer organization, controlled thawing practices, ventilation, pest control, training documentation, and periodic health examinations ([Licata, Costantino, Pelullo, & Bianco, 2024](#)). For each finding, the inspection team explained the observed condition, its plausible hygiene pathway, and practical corrective measures that could be implemented within the premise. However, the educational component was intended solely as part of the community-service activity and was not evaluated using pre-test or post-test instruments, microbiological testing, follow-up inspections, or behavioral observations. Consequently, the study documents the delivery of educational feedback but does not provide evidence regarding its effectiveness in improving food safety knowledge, compliance, or hygiene practices ([Gebru, Gebremeskel, Tafere, & Bari, 2024](#); [Atalay, Gebeyehu, & Gelaw, 2025](#)).

2.5 Data Management and Analysis

Data were analyzed using descriptive statistics and summarized as frequencies, denominators, and compliance percentages for each inspected premise. This approach was considered appropriate because the primary objective of the community-service activity was to describe hygiene and sanitation conditions and identify documented nonconformities rather than to test hypotheses or examine statistical relationships ([Creswell & Creswell, 2023](#)). Accordingly, no inferential statistical analyses, effect estimates, or significance tests were performed.

Because the snack outlet and the two Class A1 restaurants differed in operational characteristics and the number of applicable checklist items, raw counts of nonconformities were not used for direct performance comparisons across premise categories. Instead, the findings were interpreted descriptively within the context of each premise, while conceptual hygiene pathways and potential food safety implications were derived from established food hygiene principles and the observed inspection findings. Neither microbiological contamination, foodborne illness outcomes, nor behavioral changes following educational feedback were measured. In addition, inter-rater reliability was not assessed because all inspections were conducted by a single inspection team using one standardized inspection instrument ([Rohin et al., 2024](#); [Kosola, Kiviniemi, & Lundén, 2022](#)).

3. Results and Discussion

3.1 Premise Profiles and Checklist Compliance Scores

Table 1. Premise profiles and category-specific checklist compliance scores

No	Premise	Category	Food handlers	Compliant / assessed items	Nonconformities	Checklist score
1	Premise A	Snack outlet	1	73 / 86	13	84.88
2	Premise B	Restaurant class A1	3	200 / 225	25	88.89
3	Premise C	Restaurant class A1	4	202 / 225	23	89.78

Table 1 summarizes the characteristics of the inspected food premises, including premise category, number of food handlers, number of applicable checklist items, compliant items, documented nonconformities, and overall checklist compliance scores. The inspection covered one snack outlet (Premise A) and two Class A1 restaurants (Premises B and C). Because the checklist was adapted to the operational characteristics of each premise type, the total number of applicable assessment items differed between the snack outlet (86 items) and the restaurants (225 items). Consequently, the checklist scores should be interpreted within the context of each premise rather than used as direct indicators of comparative performance across different categories.

Premise A achieved 73 compliant items out of 86 applicable items, corresponding to a checklist compliance score of 84.88%. Premise B recorded 200 compliant items out of 225 (88.89%), while Premise C achieved the highest compliance with 202 compliant items out of 225 (89.78%) ([Teym, Adane, Assaye, & Zeleke, 2025](#)). Although the two restaurants demonstrated slightly higher compliance percentages than the snack outlet, these differences should not be interpreted as evidence of superior hygiene and sanitation performance because the premises differed in operational complexity, infrastructure, staffing, and assessment criteria. The checklist scores are therefore descriptive indicators of compliance within each premise rather than measures intended for statistical comparison.

Across the three premises, nonconformities were identified in several operational domains that are directly related to food safety, including food-handler hygiene and required protective attire, nail hygiene, waste-bin coverage, internal labeling of stored food, freezer organization, thawing practices, temperature control, fly control, training documentation, and records of periodic health examinations ([Asati, Abdulai, Boateng, Appau, Ofori, & Agyekum, 2024](#)). These findings indicate that deficiencies were concentrated primarily in routine operational practices and management documentation rather

than in a single aspect of facility infrastructure, suggesting that improvements require both behavioral and managerial interventions.

This interpretation is consistent with previous environmental health inspection studies, which emphasize that checklist compliance scores should be considered alongside the nature and potential risk of individual nonconformities rather than as standalone indicators of food safety performance. Accordingly, the inspection findings presented in this study are intended to identify priority areas for corrective action within each premise rather than to estimate regional prevalence, compare establishment performance statistically, or evaluate intervention effectiveness ([Luthfia, 2024](#)).

3.2 Domain-Specific Inspection Findings

Table 2. Domain-specific inspection findings in the three premises

Domain	Premise A	Premise B	Premise C
Handler hygiene	Required mask was not used; long fingernails were observed.	Required masks and hair restraints were not used consistently.	Required hair restraints, masks, and aprons were not used consistently.
Waste management	An open waste bin was observed.	No nonconformity was documented in this domain during the visit.	No nonconformity was documented in this domain during the visit.
Frozen-food storage	No nonconformity was documented in this domain during the visit.	Frozen-food packages were stored without racks.	Frozen-food packages were stored without racks.
Internal labeling	A product label was incomplete.	Internal products did not consistently include production and expiry or discard dates.	Internal labels were incomplete.
Thermal conditions	The documented storage temperature met the checklist requirement.	Kitchen room temperature exceeded 30 degrees C.	The kitchen area was relatively hot.
Thawing practice	No inappropriate thawing was documented during the visit.	The observed thawing practice did not meet the checklist requirement.	The observed thawing practice did not meet the checklist requirement.
Pest and vector control	No vector was observed during the visit.	No vector was observed during the visit.	Flies were observed in the kitchen area.
Food-safety training documentation	Training documentation was incomplete.	Two handlers had no documented food-safety training.	Not all handlers had documented training.
Periodic health-examination records	Annual health examinations had not been documented.	Annual health examinations had not been documented.	Annual health examinations had not been documented.

Table 2 presents the domain-specific findings obtained during the environmental health inspection of the three food premises. The assessment covered nine key sanitation domains, including food-handler hygiene, waste management, food storage, process control, pest management, training, and health monitoring. As the inspection was conducted during a single site visit, the absence of documented nonconformities indicates only that no deficiencies were observed or recorded at the time of inspection and should not be interpreted as evidence of continuous compliance.

Food-handler hygiene represented the most consistent area of nonconformity across all three premises. Observed deficiencies included the absence or inconsistent use of required personal

protective equipment, such as masks, hair restraints, and aprons, together with inadequate nail hygiene ([Zaenab & Azizah, 2025](#)). These findings are consistent with previous studies reporting that compliance with personal hygiene standards depends not only on food handlers' knowledge but also on regular supervision, organizational commitment, adequate facilities, and continuous food safety training ([Kulpiisova et al., 2025](#)). The recurrence of similar deficiencies across all premises suggests that strengthening routine supervision and reinforcing hygienic behavior should be prioritized.

Several nonconformities were also identified in operational process control. These included incomplete internal product labeling, frozen-food storage without appropriate racks in Premises B and C, inappropriate thawing practices in both restaurants, and inadequate thermal conditions within food preparation areas ([Hartantyo et al., 2023](#)). Although these observations do not directly indicate unsafe food products, they represent weaknesses in inventory management, stock rotation, separation of food materials, sanitation practices, and temperature control that may increase food safety risks if not addressed. Similar findings have been reported in institutional and catering facilities in Indonesia, where food safety performance is influenced by the interaction between food-handler practices, facility conditions, operational procedures, and microbiological quality ([Hayati et al., 2024](#)).

Additional deficiencies were documented in waste management, pest control, staff training records, and periodic health examinations. Premise A used an uncovered waste bin, while flies were observed in the kitchen area of Premise C. Furthermore, training documentation was incomplete in all premises, and annual health examination records were unavailable for one or more food handlers. These findings identify specific areas requiring corrective action to strengthen hygiene and sanitation management. However, they should not be interpreted as evidence of food contamination or disease transmission because the inspection relied on a single observational visit. Accordingly, observations such as the absence of vectors or inappropriate thawing reflect only the conditions documented during the inspection and do not necessarily represent routine operational performance ([Waseem, Ahmad, Asif, Amir, & Ali, 2022](#)).

3.3 Risk Informed Corrective Priorities

Table 3. Conceptual hygiene pathways and corrective actions

Inspection finding	Plausible hygiene pathway	Potential consequence	Corrective action
Required protective attire not used consistently	Hair, droplets, clothing, or hand contact may introduce contaminants during preparation or service.	Increased opportunity for contamination of food or food-contact surfaces.	Provide the required attire, define when it must be used, and supervise consistent use.
Long fingernails	Soil and microorganisms may remain under nails and transfer through hand contact.	Reduced hand-hygiene effectiveness and possible transfer to food or utensils.	Require short, clean nails and prohibit artificial nails or nail polish where applicable.
Open waste bin	Waste residues may attract pests and contaminate nearby surfaces.	Poor environmental hygiene and increased pest attraction.	Use covered, lined bins and apply a documented emptying and cleaning schedule.
Frozen-food storage without racks	Packages may contact unclean surfaces or accumulated ice, limiting separation and cleaning.	Greater opportunity for cross-contact and reduced stock control.	Install food-grade racks and separate products by type and processing status.

Inspection finding	Plausible hygiene pathway	Potential consequence	Corrective action
Inappropriate thawing	Food may remain for extended periods at temperatures that support microbial growth.	Loss of time-temperature control and deterioration of product safety or quality.	Use controlled thawing methods, such as refrigeration, and document start and completion times.
Hot kitchen conditions	Heat may increase time-temperature control challenges and reduce worker comfort.	Longer exposure of ingredients and lower adherence to required protective attire.	Improve ventilation, limit room-temperature exposure, and monitor relevant room and food temperatures.
Flies in the kitchen	Flies may mechanically transfer material from waste, drains, or unclean surfaces.	Contamination of food-contact areas and indication of inadequate pest control.	Remove attractants, improve waste and drain management, install barriers, and document pest monitoring.
No documented annual health examination	Conditions relevant to safe food handling may not be identified or documented promptly.	Reduced assurance that handler health is being monitored.	Schedule periodic examinations in accordance with applicable requirements and maintain records.
Incomplete training records	Managers cannot confirm who has received required instruction or when refresher training is due.	Weak accountability and inconsistent reinforcement of safe practices.	Maintain a training register and schedule brief refresher sessions based on recurring findings.

Table 3 synthesizes the principal inspection findings by linking each documented nonconformity to its plausible hygiene pathway, potential food safety consequences, and recommended corrective actions. These pathways represent conceptual interpretations derived from established food hygiene principles rather than direct evidence of contamination or foodborne illness. Accordingly, the table should be interpreted as a practical risk-management framework to support corrective planning rather than as proof of causal relationships.

The identified corrective actions can be grouped into three complementary operational priorities. The first comprises immediate behavioral improvements, including consistent use of required protective attire, maintenance of proper nail hygiene, use of covered waste bins, accurate internal product labeling, and implementation of appropriate thawing procedures. These measures primarily target routine food-handling practices that directly influence opportunities for contamination during food preparation and service.

The second priority involves improvements to facilities and operational processes. Recommended actions include installing food-grade freezer racks, improving kitchen ventilation, strengthening waste and drainage management, and implementing effective pest-control measures. Together, these interventions support better environmental hygiene, facilitate proper food storage and handling, and reduce conditions that may increase food safety risks. The third priority focuses on strengthening management documentation through the maintenance of training registers, temperature and thawing records, pest-monitoring logs, and periodic health-examination records. Comprehensive documentation enhances traceability, accountability, and continuous monitoring of hygiene and sanitation practices ([Zamrudiani, Wahab, & Harisaputra, 2023](#)).

Although these priorities were developed using a risk-based perspective, they were not assigned different levels of severity because all checklist items were weighted equally during the compliance assessment. Consequently, checklist percentages should be interpreted together with the domain-specific findings when establishing corrective priorities. Figure 1 illustrates the inspection and feedback workflow applied during this community service activity. The workflow is presented solely to describe the sequence of inspection, identification of nonconformities, and delivery of recommendations, and should not be interpreted as a validated causal or effectiveness model.

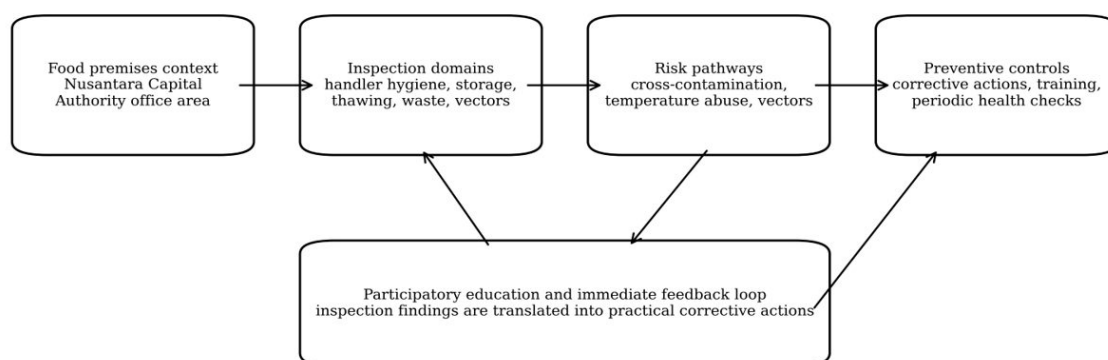


Figure 1. Inspection-feedback process used in the three-premise community-service activity

3.4 Educational Feedback and Documented Response

Educational feedback was provided immediately after the inspection through brief, premise-specific discussions based on the nonconformities identified during the site visit. Rather than delivering general food safety information, the inspection team used observations from each premise to explain why particular conditions required correction and to recommend practical actions. The discussions addressed deficiencies in the use of required protective attire, nail hygiene, internal product labeling, controlled thawing procedures, freezer organization, waste-bin coverage, pest prevention, and hygiene documentation. This approach enabled food handlers and managers to receive recommendations that were directly relevant to their operational conditions (Fekadu et al., 2024).

Providing feedback immediately after inspection is consistent with food safety education principles that emphasize contextual and observation-based learning. Site-specific recommendations are generally easier for food handlers to understand because they are directly linked to conditions encountered in their own workplace, while brief and repeated educational sessions are considered practical for improving food safety knowledge and reinforcing safe food-handling behaviors (Berglund, Simsek, & Feng, 2024; Young, Waddell, Wilhelm, & Greig, 2020). Nevertheless, this community service activity was designed to document inspection findings and deliver educational feedback rather than to evaluate educational outcomes. Consequently, no measurements of knowledge, attitudes, food-handling practices, microbiological contamination, or compliance were conducted before or after the intervention. Therefore, the study can only report that educational feedback was delivered and cannot conclude that it improved food safety performance.

To facilitate continuous improvement, each premise was provided with premise-specific corrective recommendations, and the use of a simplified internal inspection checklist was encouraged to support routine self-monitoring. However, the implementation and long-term sustainability of these recommendations could not be evaluated because no follow-up inspection or post-intervention assessment was included in the available community service activity data. Future community service activities should incorporate repeated observations or pre-post assessments to evaluate whether educational feedback contributes to sustained improvements in food safety practices (Gibson et al., 2023).

3.5 Practical Implications Within the Bounded Setting

Within the three inspected premises, the findings suggest a practical sequence for improving hygiene and sanitation management. Priority should first be given to correcting immediately observable behavioral deficiencies, followed by improvements in facilities and operational processes, and finally by strengthening supporting documentation and routine record keeping. This sequence represents a management recommendation derived from the inspection findings rather than evidence of the effectiveness of a particular intervention ([Barnes, Smith, Ross, & Whiley, 2024](#)).

To enhance future inspection activities, environmental health officers and premise managers should conduct assessments using the regulatory instrument currently in force, clearly document the total number of applicable assessment items and the treatment of non-applicable items, and maintain records demonstrating that identified nonconformities have been corrected. Where resources are available, subsequent inspections should incorporate repeated observations together with targeted microbiological testing to provide stronger evidence regarding food safety conditions ([Pouillot et al., 2024](#)). Furthermore, evaluating the effectiveness of educational feedback would require a pre-post study design capable of measuring changes in food handlers' knowledge, practices, or compliance over time ([Castro et al., 2024](#); [Kosola, Kiviniemi, & Lundén, 2022](#)).

The findings of this community service activity should be interpreted within the limits of its scope. Because the inspection involved only three food premises selected within the Nusantara Capital Authority office area, the results cannot be generalized to other food-service establishments in the region or used to estimate regional compliance, the prevalence of hygiene and sanitation deficiencies, or foodborne disease risk. Instead, the principal contribution of this activity lies in demonstrating a transparent and systematic approach for documenting premise-specific inspection findings, prioritizing corrective actions, and communicating practical recommendations that may support continuous improvement in institutional food-service hygiene and sanitation management ([Kosola, Rimhanen-Finne, Markkula, & Lundén, 2024](#)).

4. Conclusions

4.1 Conclusion

On 13 May 2026, environmental health inspection of three food premises in the Nusantara Capital Authority office area identified premise-specific hygiene and sanitation gaps. Checklist compliance scores were 84.88% for Premise A, 88.89% for Premise B, and 89.78% for Premise C. The principal findings involved handler hygiene and required protective attire, nail hygiene, waste-bin coverage, internal labeling, freezer organization, thawing, hot kitchen conditions, fly control, training documentation, and annual health-examination records. Immediate, targeted feedback was delivered during the same visit. The activity describes the three premises only; it does not demonstrate improved behavior, reduced contamination, intervention effectiveness, or compliance across the wider Nusantara Capital area.

4.2 Limitations

This bounded case series has several limitations. The scheduled field scope included only three premises and was not based on a statistical sampling frame. Conditions were observed during one visit, so temporal variability and observer effects cannot be excluded. The education was not evaluated using pre-post measures or a follow-up visit. No microbiological or chemical testing was conducted. Checklist items were scored without severity weighting, and inter-rater reliability was not assessed. The field checklist was adapted from Regulation No. 17 of 2024, which had been superseded by Regulation No. 11 of 2025 before the activity; the scores therefore should not be treated as a formal assessment under the regulation currently in force. Finally, the reported denominators should be checked against the original completed checklists before resubmission to confirm the handling of any non-applicable items.

4.3 Suggestions and directions for future activities

Premise managers should prioritize corrective actions specific to their findings and document completion. Future activities should use the current regulatory checklist, predefine the treatment of non-applicable items, train and calibrate inspectors, apply risk-based severity criteria where justified, and conduct follow-up assessments. Broader research should use an explicit sampling frame and, when feasible, integrate behavioral and microbiological outcomes.

Acknowledgements

The authors thank the premise managers and food handlers in the Nusantara Capital Authority office area for their cooperation during the inspection and educational-feedback activity. The authors also acknowledge the institutional and field teams that supported coordination, observation, documentation, discussion, and manuscript preparation. The authors declare no conflict of interest related to this activity.

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