



VIỆN KIỂM NGHIỆM AN TOÀN VỆ SINH THỰC PHẨM QUỐC GIA
NATIONAL INSTITUTE FOR FOOD CONTROL

SAMPLING, TESTING TO DETERMINE THE CAUSE OF FOOD POISONING

Ninh Binh, 03/2026

Contents of the report



Regulations on Investigation and Sampling of Taxpayers

Testing and determining the causes of food poisoning

Current situation and proposed amendments

Main content

- Chapter I: General provisions (scope, subjects, terminology, principles).
- Chapter II: Declaration and reporting of taxpayers.
- Chapters III–IV: Investigation Methods & 11 Steps (with form).
- Chapter V: Conclusion, processing and disclosure of information.
- Chapter VI: Organization of implementation.

Framework of principles when a case of food accident occurs

- 1) Receiving Information and Reporting
Correctly identifying the right case of the FP
- 2) Prepare for the investigation
- 3) Data Collection
- 4) Sampling – testing
- 5) Conclusion – processing
- 6) Publications/Communications

Methods of investigating food poisoning

Prepare for the investigation

- Forms
- Instruments
- Personnel: epidemiology, microbiology, environmental sanitation, food safety, infectious diseases



PHỤ LỤC

CÁC BƯỚC ĐIỀU TRA NGỘ ĐỘC THỰC PHẨM

(Ban hành kèm theo Quyết định số: 39/2006/QĐ-BYT ngày 13 tháng 12 năm 2006 của Bộ trưởng Bộ Y tế)

1. Điều tra cá thể bị ngộ độc

Bảng 1: Điều tra cá thể bị ngộ độc (mẫu điều tra 1)

TT	Ho và tên	Tuổi	Giới	Địa chỉ	Thời gian phát bệnh		Triệu chứng								Ngày lấy mẫu phân	Kết quả xét nghiệm
					Ngày	Giờ	Đau bụng	Tiêu chảy	Buồn nôn	Nôn	Co giật	Nội mê đậy	Sốt	Khác		
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)	(16)	(17)
1								(5 X) (4 X)		(5 X) (4 X)						
2																
3																
4																
5																
6																
7																
8																
9																
10																

Ngày ...tháng ...năm
Người điều tra

Methods of investigating food poisoning

- Investigation of patients, eaters, and people involved in the poisoning case
- Facility Investigation
- Investigation of food circulation systems and solutions
- Physician Interview
- Sample Inspection
- Sample preservation



Food Poisoning Investigation Process (11 Steps)



1. Investigation of individuals suffering from food poisoning.
2. Investigate people who have eaten meal X and meal Y have not suffered from food poisoning.
3. Investigate the food eaten, the person who ate it, and the time of eating.
4. Investigate the foods, the number of people who eat and do not eat with food poisoning and do not suffer from food poisoning at meal X and meal Y.
5. Investigate the cause of the meal.
6. Investigate the cause of food.
7. Investigation of the origin and situation of food processing.
8. To investigate the medical history of people who prepare and cook for food and drink.
9. Investigation of food samples recovered for testing.
10. Investigation of grassroots.
11. Investigation of environmental conditions and epidemics in localities.

Conclusion of the food poisoning case

- Conclusion of investigation results.
- Propose measures to handle food poisoning.
- Propose handling according to law.
- Announcement of food poisoning.



Sở An toàn thực phẩm kết luận đây là vụ ngộ độc thực phẩm do cơ sở bánh mì cóc cô Bích gây ra, với tác nhân là bánh mì nhiễm vi khuẩn Salmonella.

Decision No. 5327/2003/QĐ-BYT to collect food samples



(1) Preparation



(2) Sampling



Sampling Process



(3) Packaging, labeling, recording sample information



(4) Writing Minutes



(5) Storage and transportation

Tool Preparation



1. **Sampling instruments need to be ensured:**
 - Made of neutral, sterile material
 - Non-corrosive to food, sterilizable
2. The capacity can hold at least 250ml or 250g of food, with a tightly closed lid to prevent sample leakage.
3. **Sample storage tools:** ensure that the sample is kept cold or the conditions are suitable for each type of sample.



Sampling



Requirements for testing laboratories



- At the laboratory, food samples and specimens must be preserved:
 - ❖ Frozen preserved foods must be kept at temperatures below -5°C
 - ❖ Fresh food, processed foods must be kept at temperature $0^{\circ}-5^{\circ}\text{C}$.
 - ❖ Dry and canned foods do not need to be refrigerated..
 - ❖ Specimens stored at temperature $0^{\circ}-5^{\circ}\text{C}$.
- The microbiological test sample is divided into 02 sample units: stored at -70°C and $0^{\circ}-5^{\circ}\text{C}$.
- All food samples and specimens must be tested within 24 hours. If the testing capacity is exceeded, the testing laboratory must immediately send the sample to the higher-level testing laboratory.

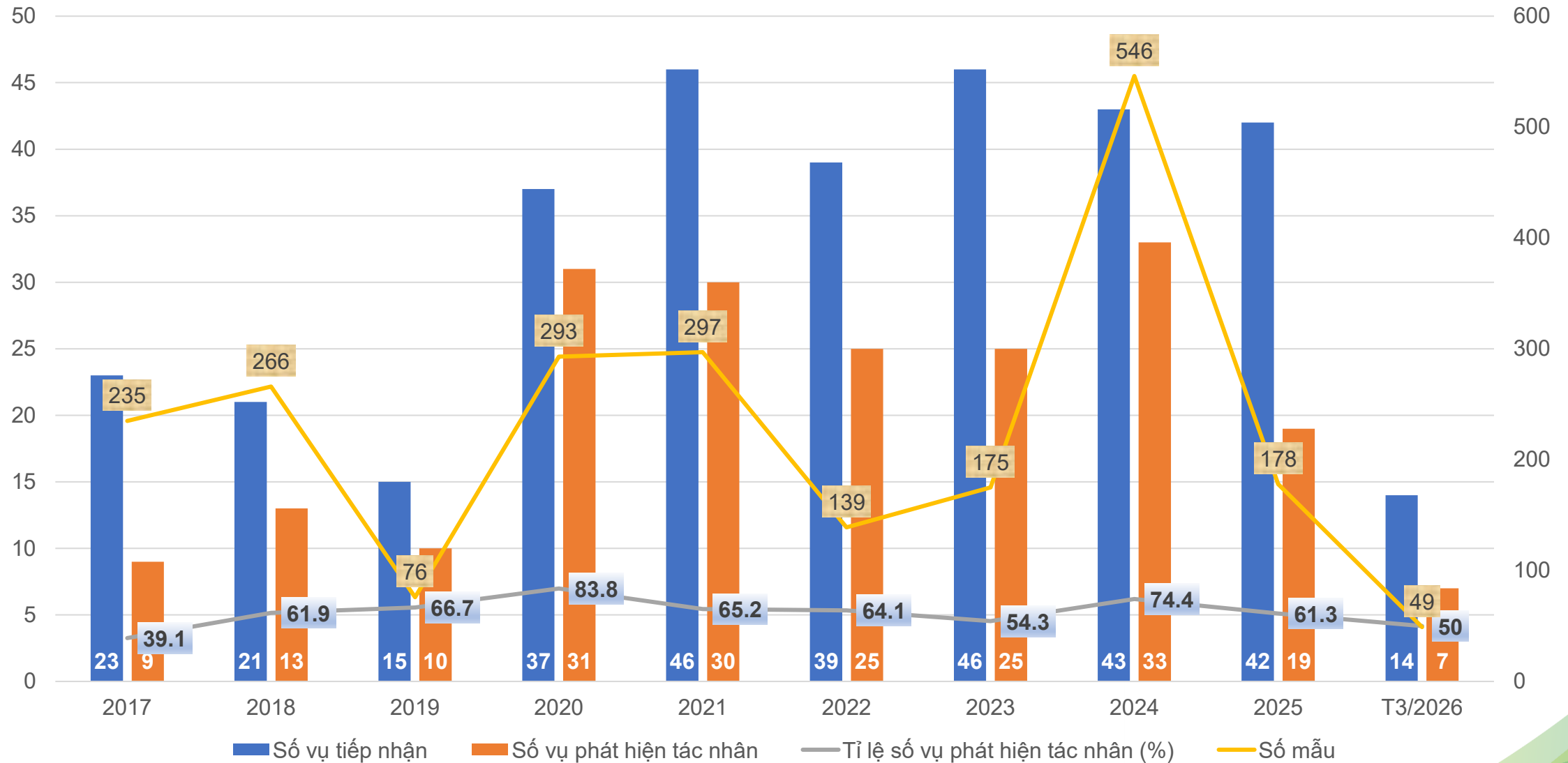
Testing to determine the cause of food poisoning



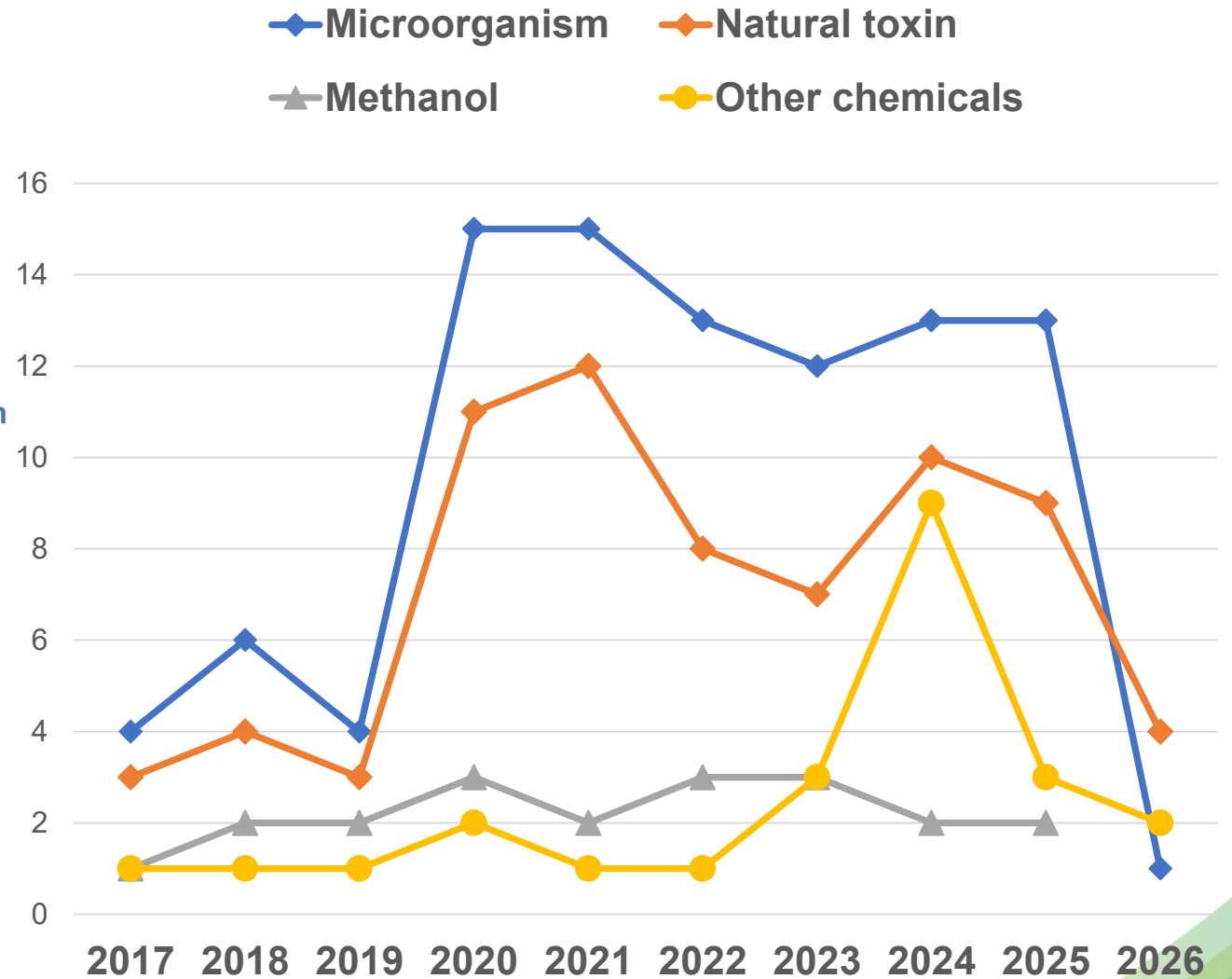
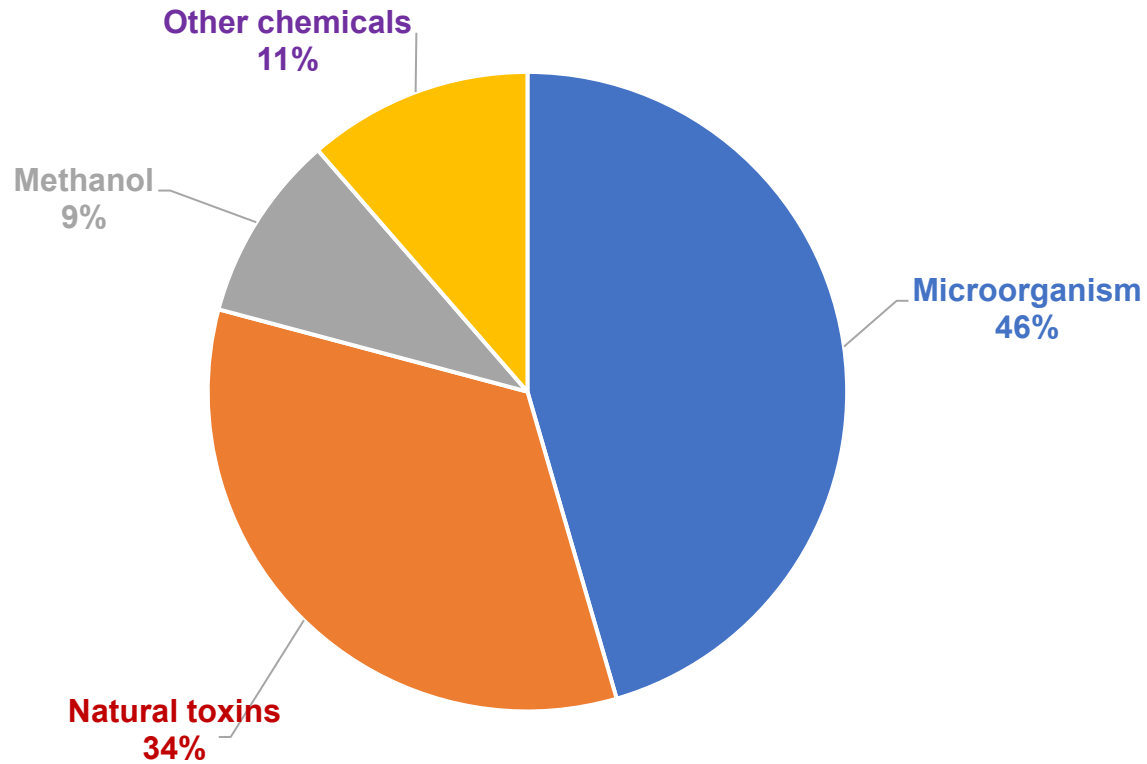
	Year	Total number of cases		
		Number of poisoning cases	Number of cases	Death
2015 - 2010	2016	174	4.554	12
	2017	148	4.087	24
	2018	108	3.472	17
	2019	88	2.235	11
	2020	139	3.094	30
Average case year		131.4	3.4884	18.8
2020 - 2024	2020	139	3.094	30
2021 - 2025	2021	81	1.942	18
	2022	66	1.489	29
	2023	125	2.149	28
	2024	135	4.936	24
	2025	70	1.558	17

* Báo cáo công tác Y tế hàng năm

Testing to determine the causes of food poisoning of VKNATVSTPQG 2017 - 2026



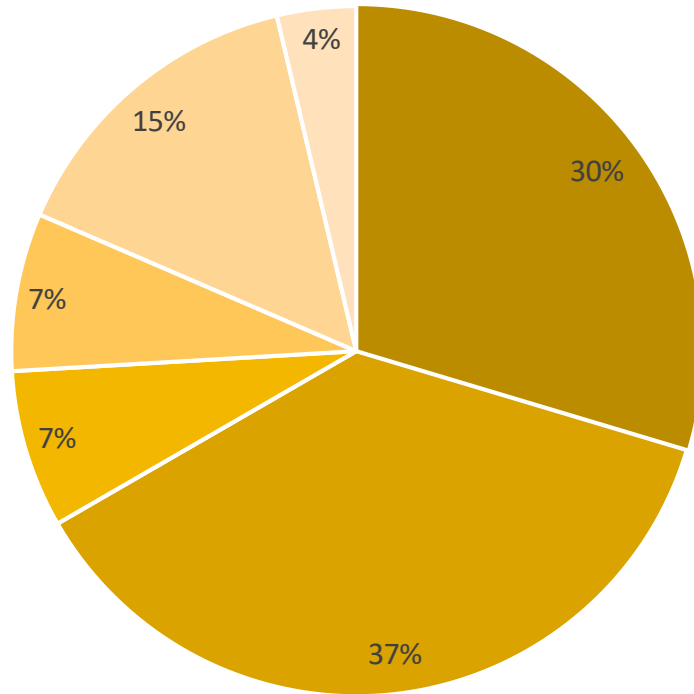
Testing to determine the causes of food poisoning of VKNATVSTPQG 2017 - 2026



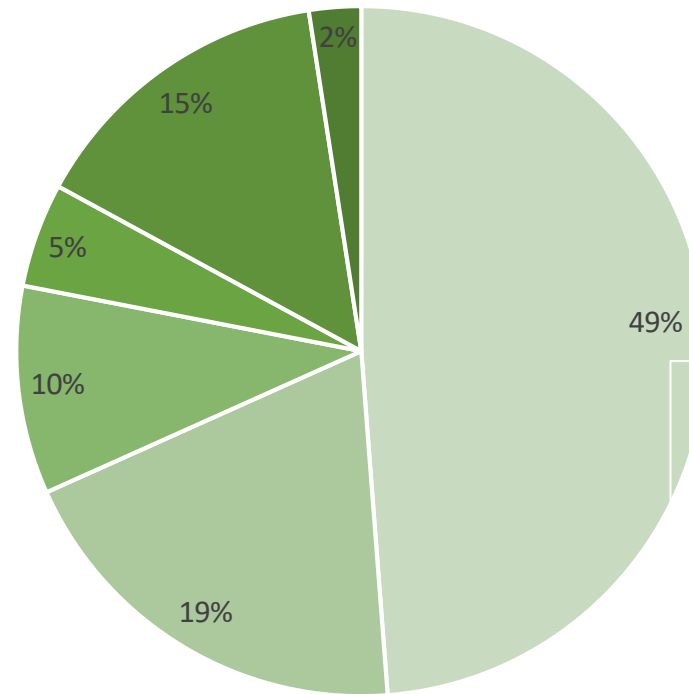
Testing to determine the causes of food poisoning of VKNATVSTPQG 2017 - 2026



Microbiological hazards



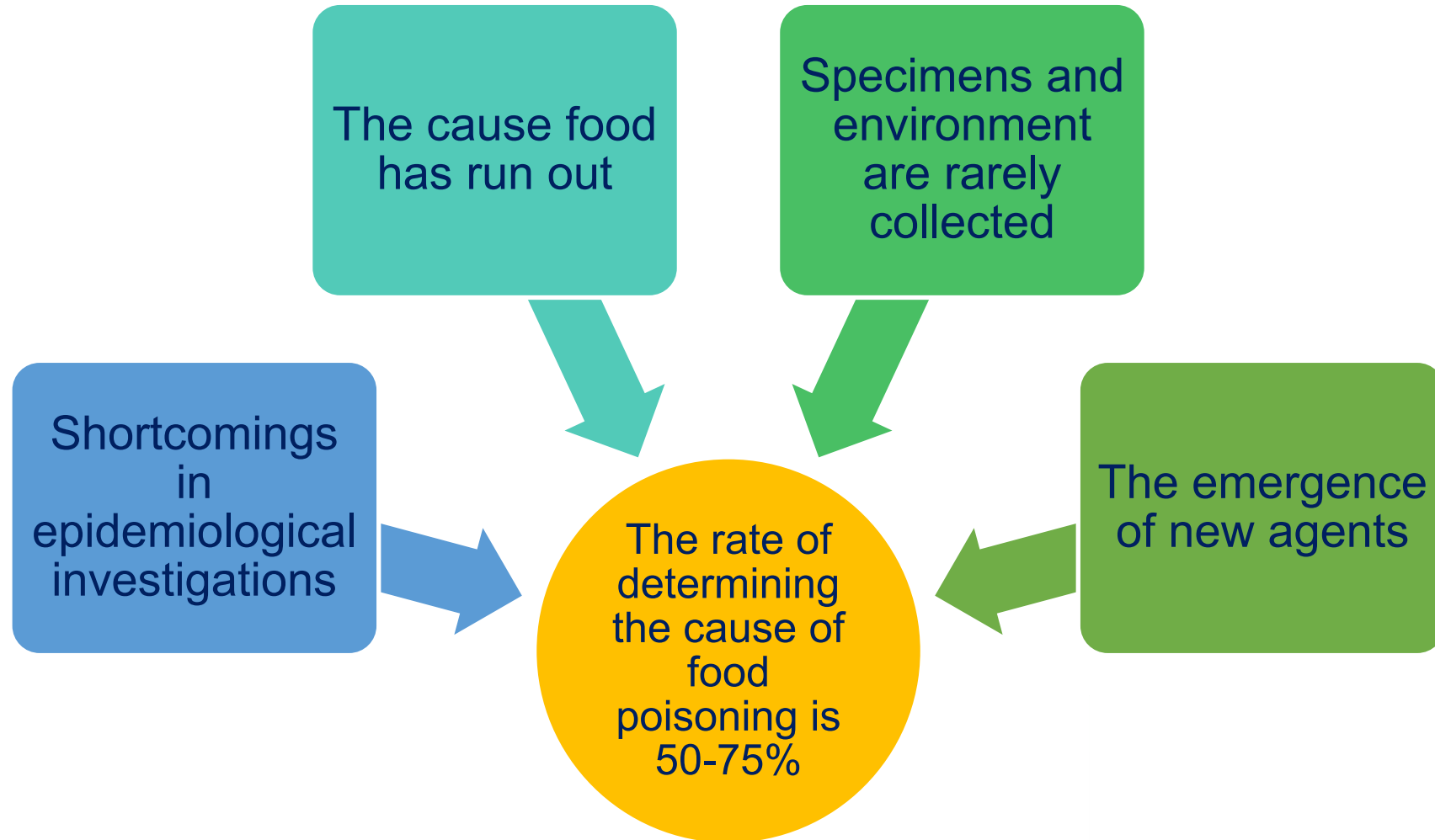
Natural toxins



- S. aureus and its toxin
- Hygiene indicators
- Salmonella
- Enterobacteriaceae
- B. cereus
- Clostridium botulinum

- Mushrooms
- Leaves, Fruits (finger leaves, bellflowers Hong Chau, pea seeds)
- Pickled wine (Commercial Record, Money Code)
- Toad
- Marine fish (histamine)
- Others

Difficulties in determining the cause of food poisoning



Points to note

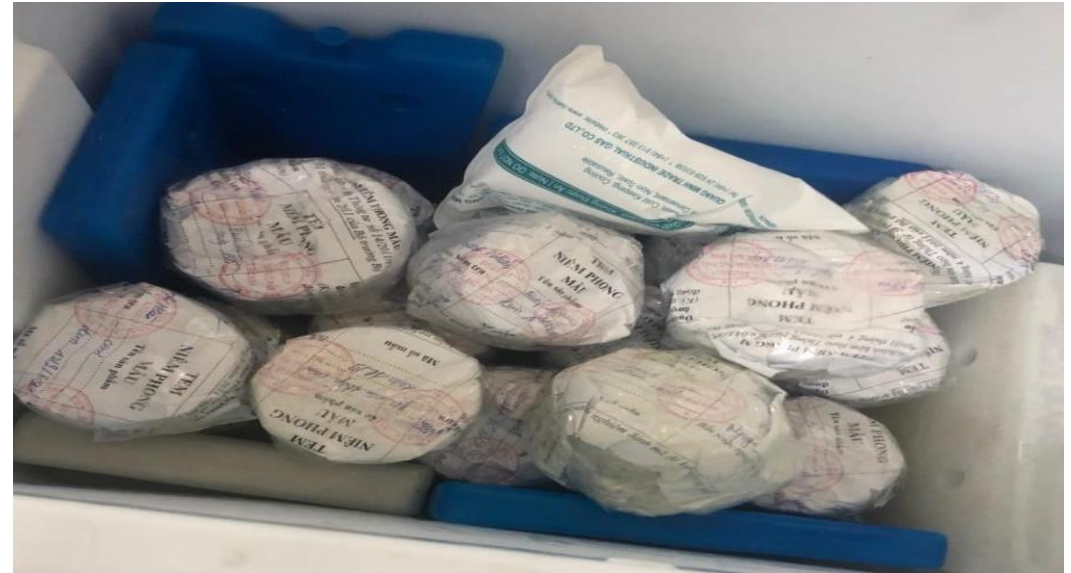
- **Correct samples of food and meals are obtained: the correct sample should be taken at the place where the poisoning occurred.**
- **The testing to determine the cause of food poisoning depends on the quality and quantity of samples taken at the cause meal.**



Points to note

Sample storage and transportation

- **Proper storage of samples:**
 - + Suitable containers, packaging
 - + Temperature storage conditions.
- Ensuring conditions for sampling and preservation
- **Specimen Transportation.**



Sample storage and transport

Food samples



Thermal bin



Place dry ice on the bottom of the container



Laying a layer of insulation (e.g., bubble foam film)



Put the sample in



Laying a layer of insulation (e.g., bubble foam film)



Place dry ice on the insulation and close the lid of the bin

Current situation and proposed amendments

1

Fact

Uniform definitions in documents and criteria for determining food poisoning cases+

+ Law on Food Safety: Food poisoning (food poisoning) is an acute medical condition that occurs due to eating or drinking contaminated food (bacteria, chemicals, natural toxins) that harm health or life.

+ Decision 39: **an acute** poisoning occurs in 2 or more people who show signs of poisoning when eating the same food **at the same place and time**. The case of **only one person contracting and dying** is also considered a case of food poisoning

Proposed amendments

- Food poisoning is an acute poisoning that occurs in 2 or more people who show signs of poisoning when eating the same food at the same place and time and **there is evidence between food consumption and symptoms**. The case of only one person contracting and dying is also considered a case of food poisoning.

2

Fact

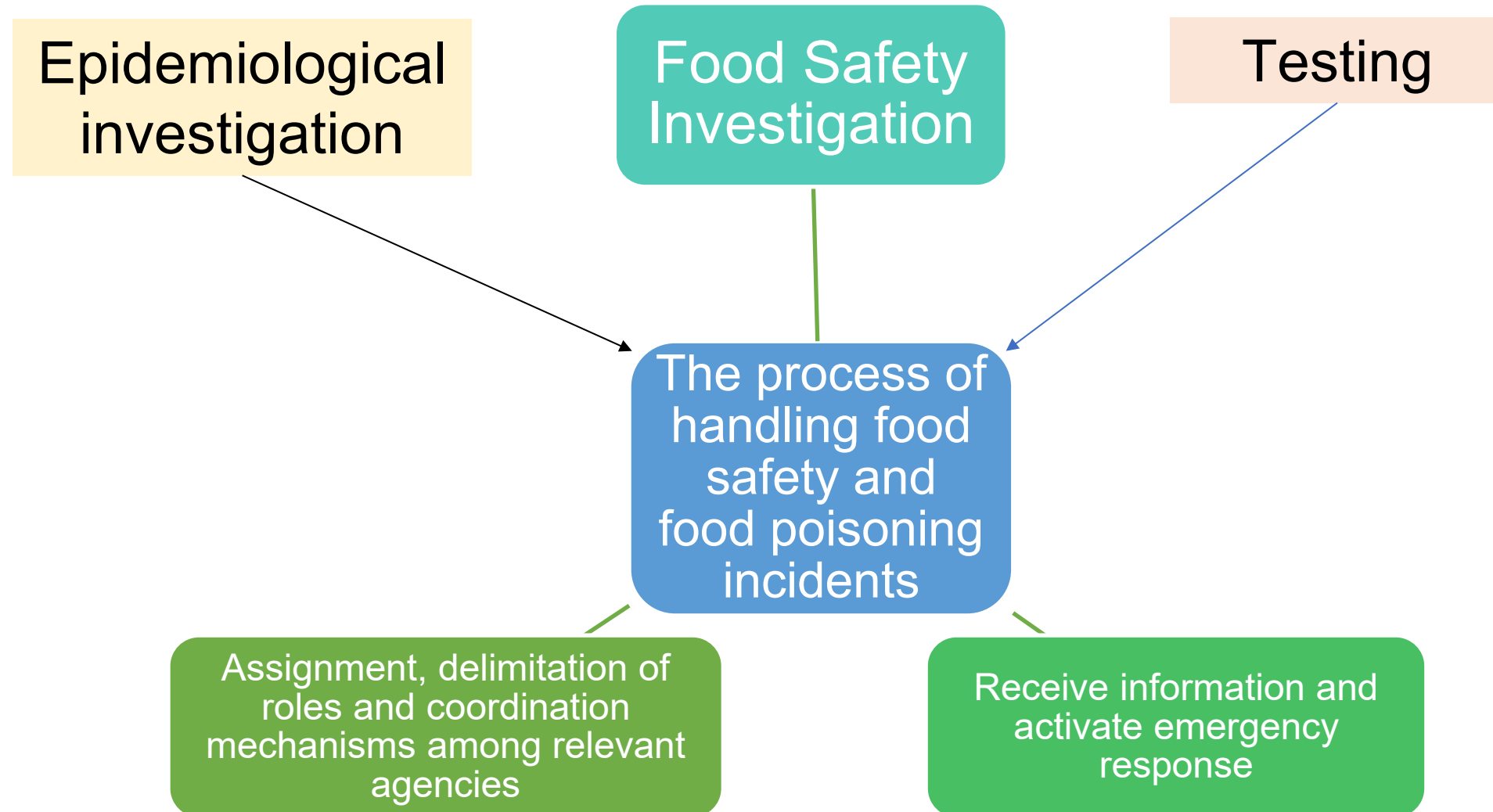
- The functions of each unit and the regulations on coordination between investigation units have not been clearly defined.
- The unit to take **clinical samples** for testing has not been clearly specified

Proposed amendments

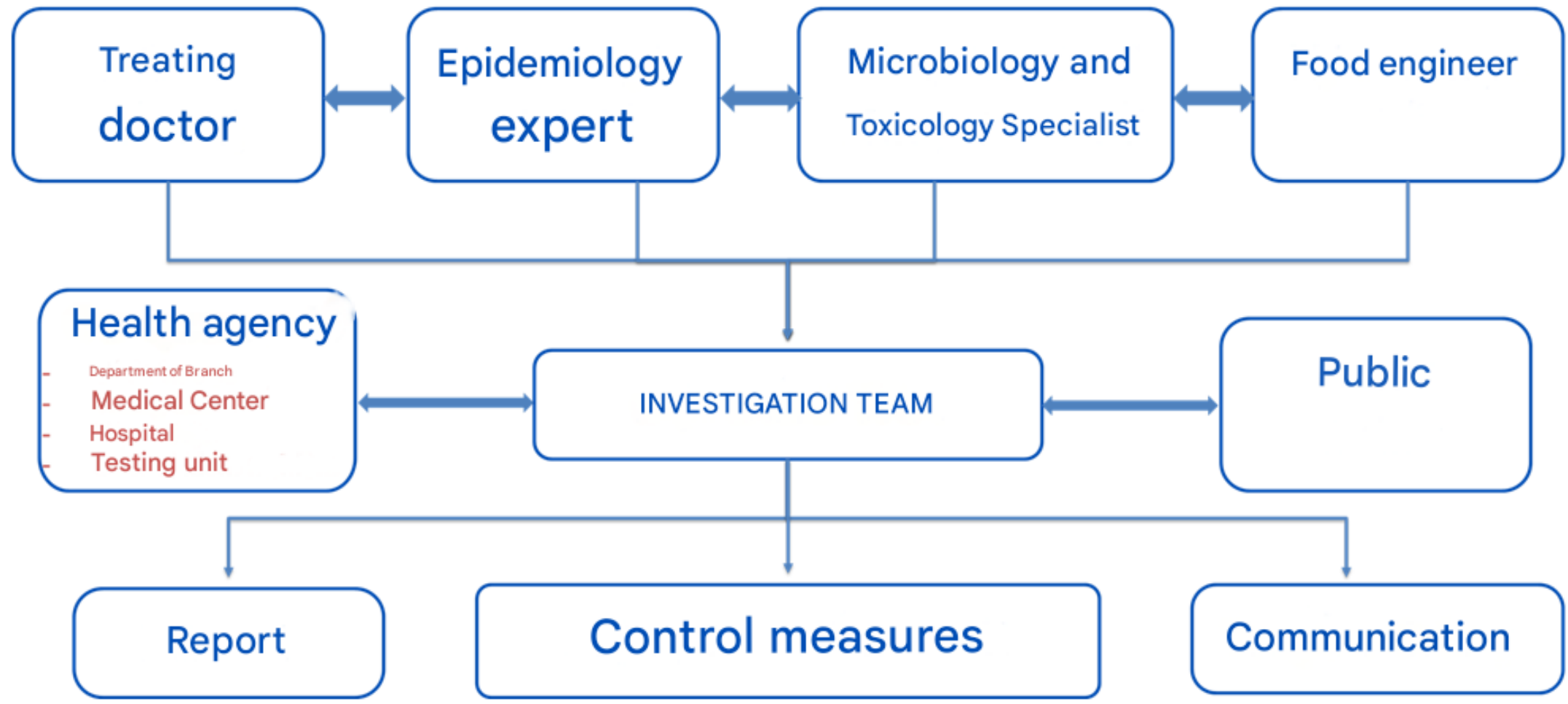
To implement the 2-level government, it is necessary to:

- Specify the functions and tasks of each health agency from the central to the local level in the investigation and sampling of food poisoning
- Regulation on coordination in food poisoning investigation between functional agencies, with the basis of causes and regulations on coordination in taking specimens

Recommendations



Investigation Team



Current situation and proposed amendments

3

Facts

- Failure to properly identify the cause of the food
- Failure to get food causes
- Stored food is no longer than 24-hour sample storage regulations

Proposed amendments

- Invite all members of the investigation team
- Fully investigate factors related to the food poisoning case (sick people, healthy people, environment,)
- Increase the sample storage time, so that the cause of food can be collected, the food saved when food poisoning cases occur at collective kitchens.

Current situation and proposed amendments

4

Facts

- There are no detailed instructions on taking food samples, disease samples, environmental samples, etc
- The time for taking specimens has not been specified.



Proposed amendments

- Regarding food sampling: apply regulations on microbiological and chemical sampling according to TCVN/ISO,...
- Regarding specimen collection: apply the guidelines of the U.S. CDC, and the tools used
- Regarding environmental sampling: application of TCVN (ISO) surface sampling regulations
- Specimen collection time:
 - ❖ Bacteria: during acute diarrhea (as soon as possible after the onset of the disease)
 - ❖ Chemical: within 48 hours after exposing
 - ❖ Parasites: the sooner the better
 - ❖ Virus: within 48-72 hours after the onset of the disease

Current situation and proposed amendments

	Facts	Proposed amendments
5	<ul style="list-style-type: none"> - There is no guidance on the mechanism for rapid response when food poisoning occurs 	<ul style="list-style-type: none"> - Stipulating the rapid response mechanism when there is information about food poisoning cases + Focal unit + Emergency actions
6	<ul style="list-style-type: none"> - Currently, food poisoning information published by newspapers and radio units has led to some false information about the food poisoning case 	<ul style="list-style-type: none"> - It is necessary to clearly stipulate the units that perform the task of communicating about food poisoning and providing information to the press agencies - Strengthening prevention communication activities

Food poisoning prevention communication activities



SỔ TAY PHÒNG CHỐNG NGỘ ĐỘC NẤM

*“Dùng trong tuyên truyền phòng chống nguy cơ
ngộ độc nấm tại các tỉnh miền núi phía Bắc”*







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SON, QUẢNG NINH, HOÀ
BÌNH, ĐIỆN BIÊN, KON
TUM,...

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GIANG, HÀ NỘI, HOÀ BÌNH,
THANH HÓA, NGHỆ AN,
QUẢNG BÌNH, ĐẮK NÔNG,
KHUẤT HÒA, ...

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NỘI TANG**

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XUẤT HIỆN 15 – 30 PHÚT SAU ĂN

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KHÓ

CHÔNG MẮT
LẤN LỘN

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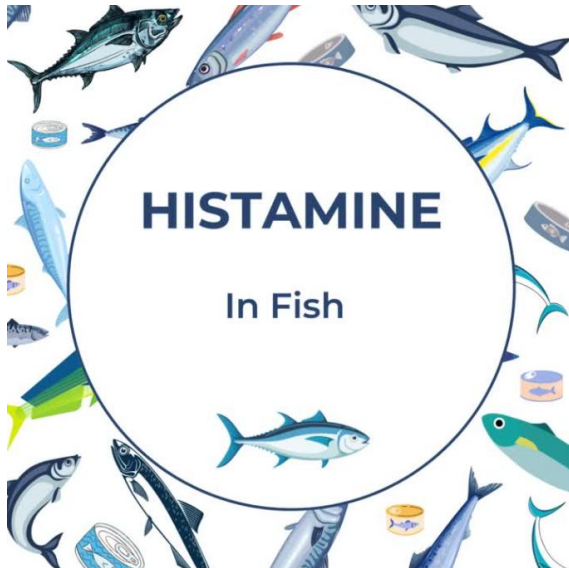
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Current situation and proposed amendments

7

Facts	Proposed amendments
<ul style="list-style-type: none"> - Current regulations have not fully promulgated the level of microbiological and chemical pollution 	<ul style="list-style-type: none"> - To promulgate sufficient limits on microbiological and chemical pollution <ul style="list-style-type: none"> + Processed foods (boxed rice, soup,...) + Agricultural food (vegetables, seafood,...)



Bacillus Cereus Reheated Rice Syndrome



Current situation and proposed amendments

8

Facts	Proposed amendments
<ul style="list-style-type: none"> - Studies have not been carried out to prevent and prevent the risk 	<ul style="list-style-type: none"> - Conduct studies to determine the limit level that endangers human health - Carry out risk assessments, identify low-risk, high-risk, medium-risk foods - From the results of annual monitoring, develop and issue prevention plans

Health Canada / Santé Canada
 Your health and safety... our priority. / Votre santé et votre sécurité... notre priorité.

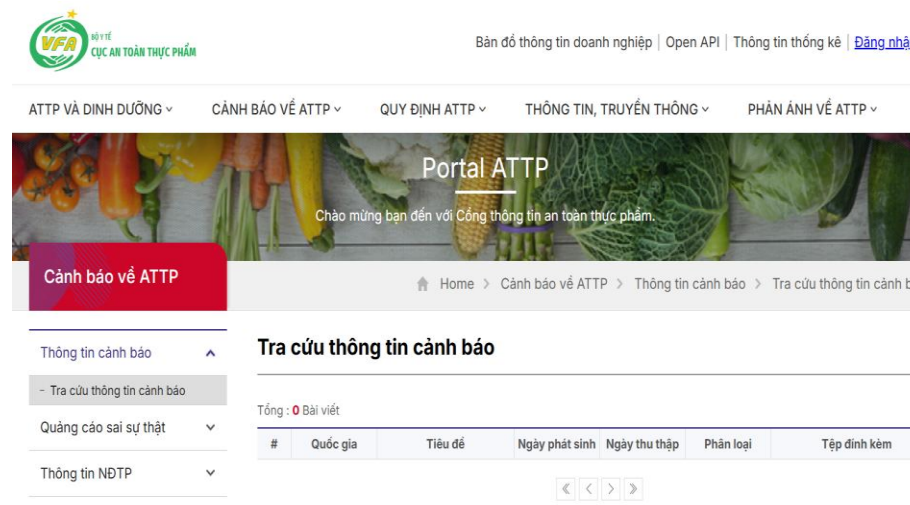
Microbial Guidelines for Ready-to-Eat Foods – A Guide for the Conveyance Industry and Environmental Health Officers (EHO)

Member State	Specific type of food	Sampling stage or point of application	Specific sampling plan indicating the parameters m , M , $c^{(c)}$ and $n^{(d)}$ (if applicable) or guideline limits
Austria	RTE food including spices ^(a) , presumptive <i>Bacillus cereus</i> > 10,000 CFU/g, unsafe – unfit for human consumption		
	RTE food including spices ^(a) , presumptive <i>Bacillus cereus</i> > 100,000 CFU/g, unsafe – injurious to health		
	Dried infant formulae intended for infants below 3 months of age ^(a) , presumptive <i>Bacillus cereus</i> > 5,000 CFU/g, unsafe – unfit for human consumption		
Belgium ^(b)	RTE foods (cooked)	HORECA/distribution	$m = 1,000$ CFU/g, $M = 10,000$ CFU/g, $c = 2$, $n = 5$
	RTE foods (cooked)	Kindergarten/processing	$m = 100$ CFU/g, $M = 1,000$ CFU/g, $c = 2$, $n = 5$
	Pasteurised milk/spices/gelatine/meat substitutes	Processing/distribution	$m = 1,000$ CFU/g, $M = 10,000$ CFU/g, $c = 2$, $n = 5$
	Prepared milk in baby bottles	Maternity dep. hospital	$m = 50$ CFU/g, $M = 500$ CFU/g, $c = 1$, $n = 5$

Current situation and proposed amendments

9

Facts	Proposed amendments
<ul style="list-style-type: none"> - The food safety management system has not fully monitored information about poisoning, food safety incidents are updated slowly 	<ul style="list-style-type: none"> - Completing the database system on food poisoning and food safety incidents in real time - Building a rapid warning system on food safety, connecting with the international community and the public



Cảnh báo Liên Minh Châu Âu Về Tăng Cường Kiểm Tra Đối Với Sầu Riêng Nhập Khẩu Từ Việt Nam



Current situation and proposed amendments

10

Facts	Proposed amendments
<ul style="list-style-type: none">- The food safety management system as well as testing has not been completed. There is no regulation on the coordination mechanism between ministries in emergency situations.- Human resources and infrastructure have not been focused on testing for the detection of new and strange agents/toxins.	<ul style="list-style-type: none">- Consolidate the KN system from the central to the local level.- Increase investment and training in testing systems to meet the requirements of toxic testing.

Documentation

1. Decision No. 39/2006/QD-BYT dated 13/12/2006
2. Decision No. 3081/QD-BYT dated 15/7/2020.
3. Decision No. 5327/2003/QD-BYT dated 13/10/2023.
4. Annual health work report of BYT
5. Summarizing opinions of local units on Decision 39 – Department of Food Safety
6. Report on the assessment of the implementation of Decision No. 39/2006/QD-BYT dated 13/12/2006 and Decision No. 5327/2003/QD-BYT dated 13/10/2003 of the Ministry of Health, Existence and Recommendations - SAFEGRO Project in conjunction with the Department of Food Safety



THANK YOU!

Science - Training and International Cooperation

Contact: 024 39335735

Email: khdt@nifc.gov.vn