

***Public Health
Guard: CPHLs oath
to food and water
integrity***

**Prof. Dr. Nancy El Guindy
Head of CPHL- MoH**





- 01 Introduction to CPHL
- 02 **Our competences**
- 03 Food & Water analysis
- 04 **CPHL with One Health Approach & SDGs 2030**

01

Introduction to CPHL





CPHL

CPHL
CENTRAL PUBLIC HEALTH LABORATORIES

Royal Decree 1936



The Ministry of Health was established by the Royal Decree issued at the Sarai-Elkoba 15th Moharam , 1355 hijri-7th April, 1936 in order of majesty the King Fouad who divided the Ministry of Health into two divisions and consider the Central laboratories in item A of the first section

تم انشاء وزارة الصحة العمومية بالمرسوم الملكي الصادر بسراى القبة فى 15 محرم سنة 1355 هـ (7 ابريل سنة 1936) بأمر جلالة الملك فؤاد والذى قسم وزارة الصحة إلى قسمين ووضع المعامل المركزيه فى البند أ من القسم الأول

Vision (CPHL)

To act as a **Reference** laboratory for infectious diseases in the middle East and African region.



Mission

- To conduct laboratory tests using the **most updated international** scientific methods
- To have a highly **qualified and well trained** team
- To act as the reference lab to Egypt against epidemic and infectious diseases



**1- Clinical
microbiology
department**



**2- Clinical
pathology
department**



**3- Food &
Water
microbiology
department**

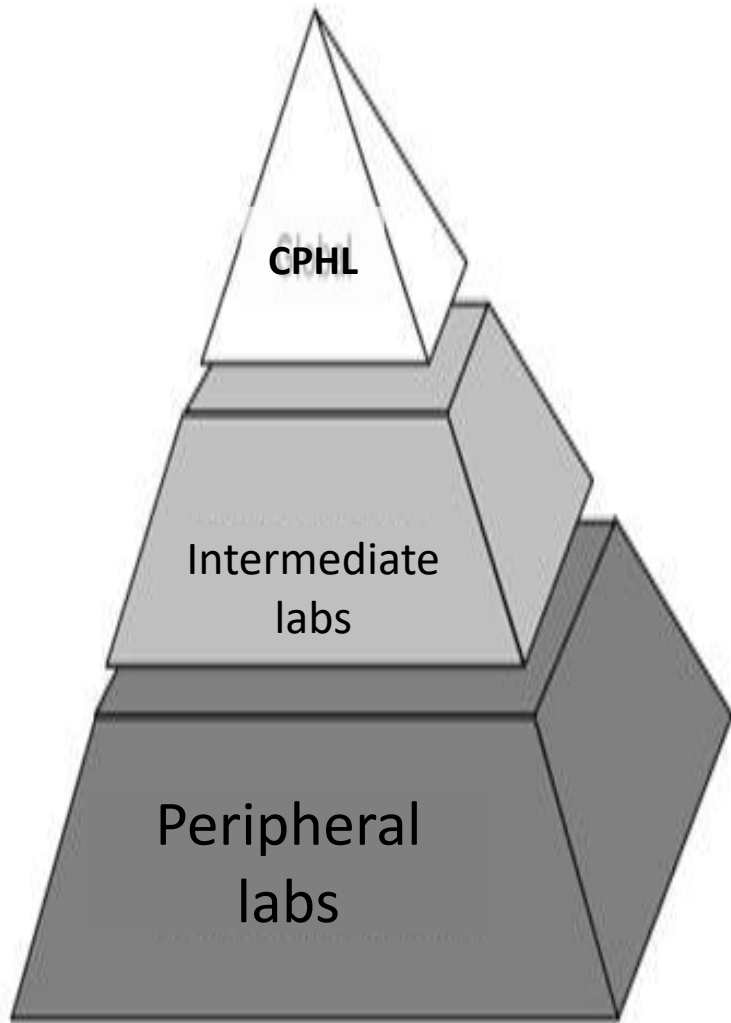


**4- Food &
Water
chemistry
department**



**5- Food toxins
and drug
abuse
department**





To cover **27** governorates, our laboratory coverage area includes:

- CPHL, as it plays the role of the national reference public health lab.
- Fever, general hospital labs and other intermediate labs.
- **28** Governmental labs for water and food testing



Egypt maps

Governmental labs (**28** different labs)

- Central Public Health laboratories (CPHL): which is the national reference lab.
- Laboratories of Ports:
 1. Central Laboratory in **Alexandria**.
 2. **Damietta** Regional lab
 3. **Port Said** regional lab
 4. **Suez** regional lab.
 5. **Ain Sokhna** lab
- Laboratories of touristic governorates:
 1. South Sinai
 2. Alarish
 3. Hurghda
 4. Matrouh
 5. Aswan



02

OUR COMPETENCES



COMPETENCE



EXPERIENCE



KNOWLEDGE



SKILLS



BEHAVIOR



PERFORMANCE



GOALS

COMPETENCE



- More than **860** well experienced and trained employee



COMPETENCE



- More than **860** well experienced and trained employee
- **More than 50** different labs are included.



COMPETENCE



- More than **860** well experienced and trained employee
- More than **50** different labs are included.
- **High Capacity: More than 6.000.000** different tests examined in 2022 only & more than **6.500.000** different tests examined in 2023.



COMPETENCE



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- **Newest Technology**



COMPETENCE



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- High Capacity: More than **6.000.000** different tests examined in 2022 only & more than **6.500.000** different tests examined in 2023.
- Newest Technology.
- **NRL & SNRL in different lab diagnostic tests**



COMPETENCE



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- **CPHL is responsible for surveillance across Egypt.**



COMPETENCE



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- Newest Technology.
- NRL & SNRL in different lab diagnostic tests
- CPHL is responsible for surveillance across Egypt.
- **CPHL is a strong arm of the preventive sector.**



03

FOOD & Water analysis



FOOD and Water analysis

Food Poisoning testing



Food microbiological testing



Water chemical & bacteriological analysis



Food chemical testing



Mycotoxins in food

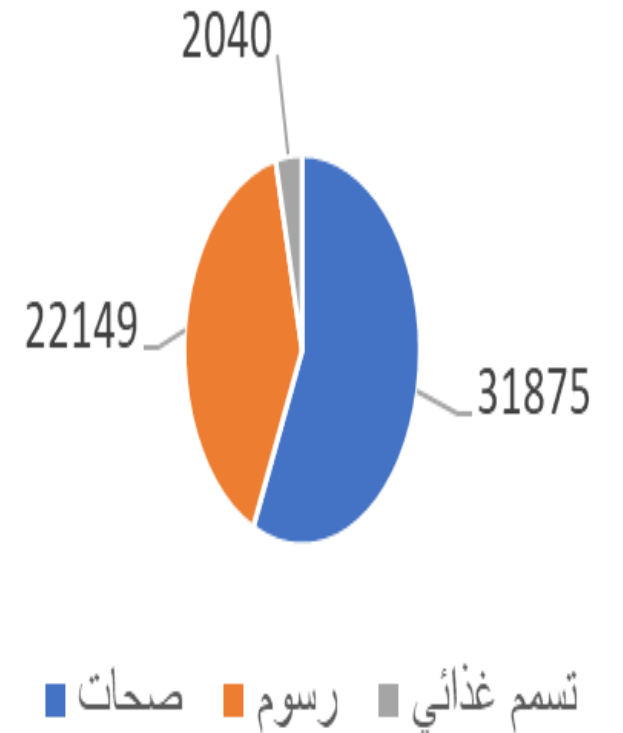


Food toxicology



Food microbiological testing

2023



- الصحات
- 31875 Tests
 - 63.7%

- الرسوم
- 22149 Tests
 - 33.2%

- تسمم غذائي
- 2040 Tests
 - 3.05%

ISO accredited in **14** different test methods

تسمم غذائي (Food Contamination) | الرسوم (Food Safety) | الصحات (Health)

Food microbiological testing

2023

الصحات

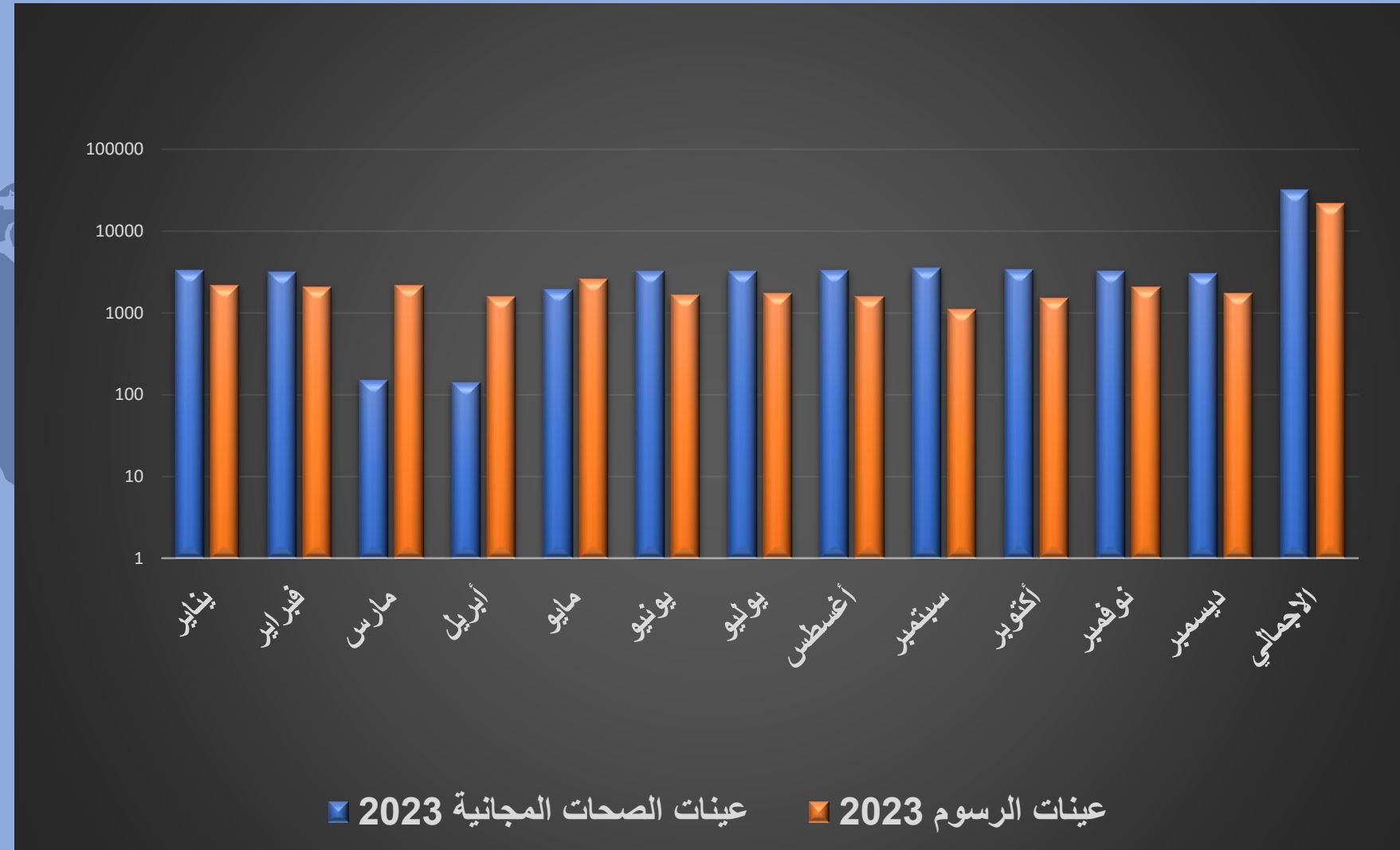
- 31875 Tests
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الرسوم

- 22149 Tests
- 33.2%

تسمم غذائي

- 2040 Tests
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Food microbiological testing

Future planning

1) GMO Testing

- Molecular diagnosis of genetic modified organisms.
- National reference lab.
- Equipment and kit purchase.

2) Genetic sequencing

- Genome unit is center of excellence in genetic sequencing in Africa & Middle East.
- Sequencing of food and water products of medical importance.
- Genetic mapping



3) PT provider EGYPTC

- Provide PT samples for food microbiology.
- The first cycle was at the 1st quarter of 2024.
- Preparing for the 2nd cycle.
- ISO 17043 accreditation is planned at the end of 2024



Food Chemical testing

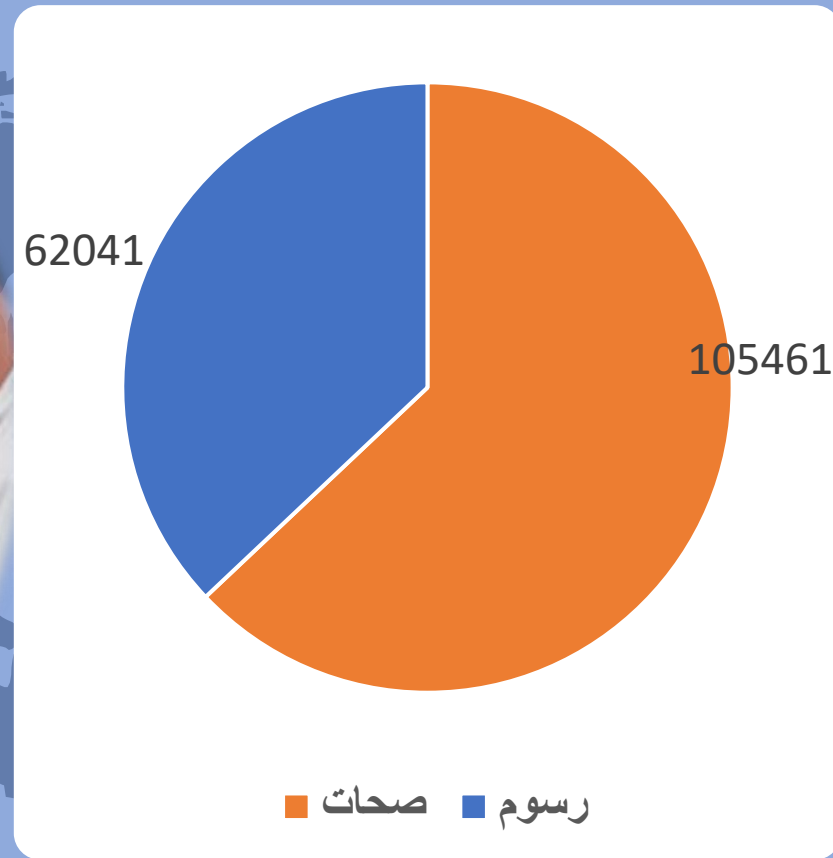
2023

- 105461 Tests
- 62.9%

- 62041 Tests
- 37.1%

الصحات

الرسوم



ISO accredited in **76** different test methods

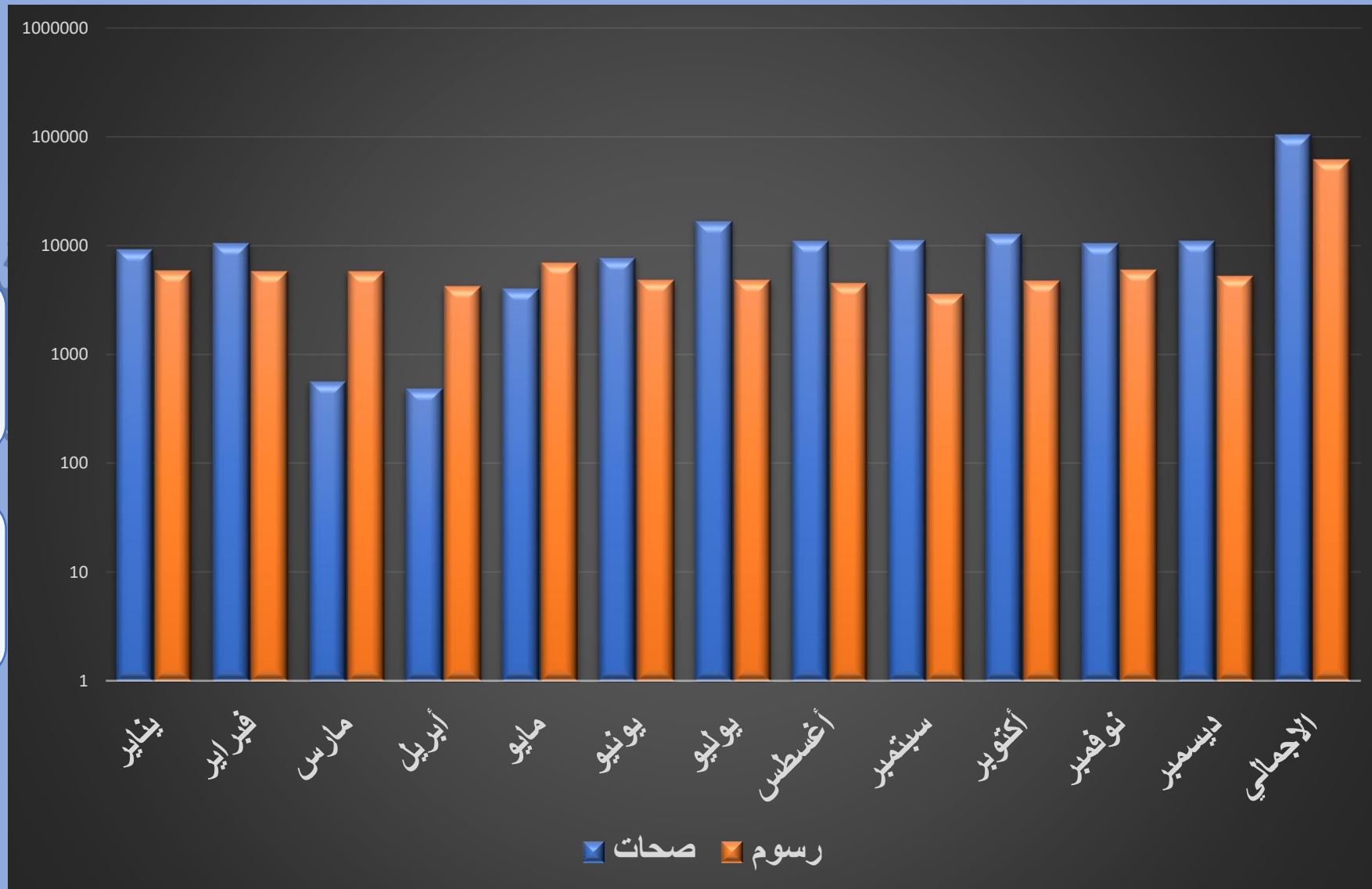
Food Chemical testing

الصحات

- 105461 Tests
- 62.9%

الرسوم

- 62041 Tests
- 37.1%



Food chemical testing

Future planning

1) Food contact materials

- Detect the causative food for different diseases
- Allergy, metabolic disorders and carcinogenic effects.



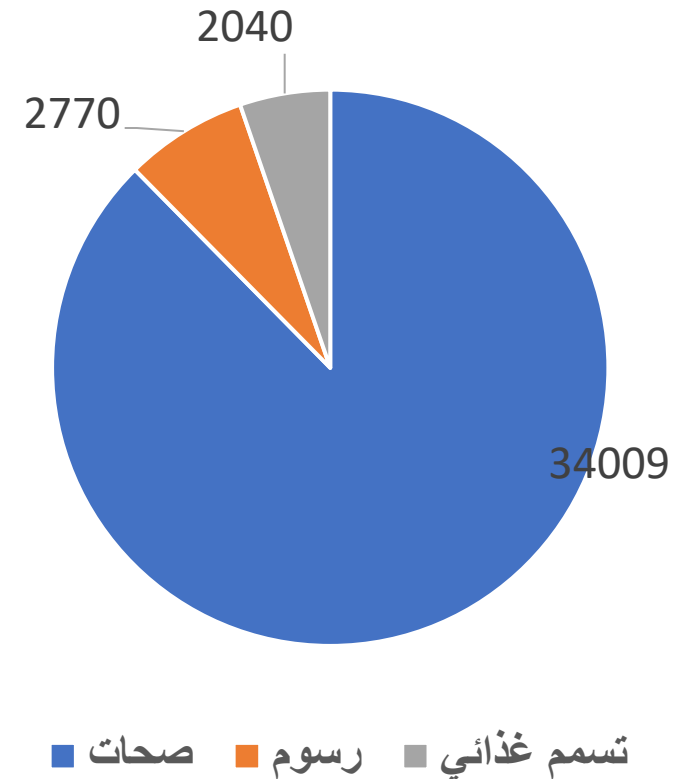
2) PT provider EGYPTC

- Provide PT samples for food chemistry. (planned)
- ISO 17043 accreditation is planned at the end of 2024



Food Toxicological testing

2023



- الصحات
- 34009 Tests
 - 87.6%

- الرسوم
- 2770 Tests
 - 7.1%

- تسمم غذائي
- 2040 Tests
 - 5.3%

ISO accredited in 6 different test methods

ISO accredited in 400 different pesticide residual test methods

Food Toxicological testing

2023

الصحات

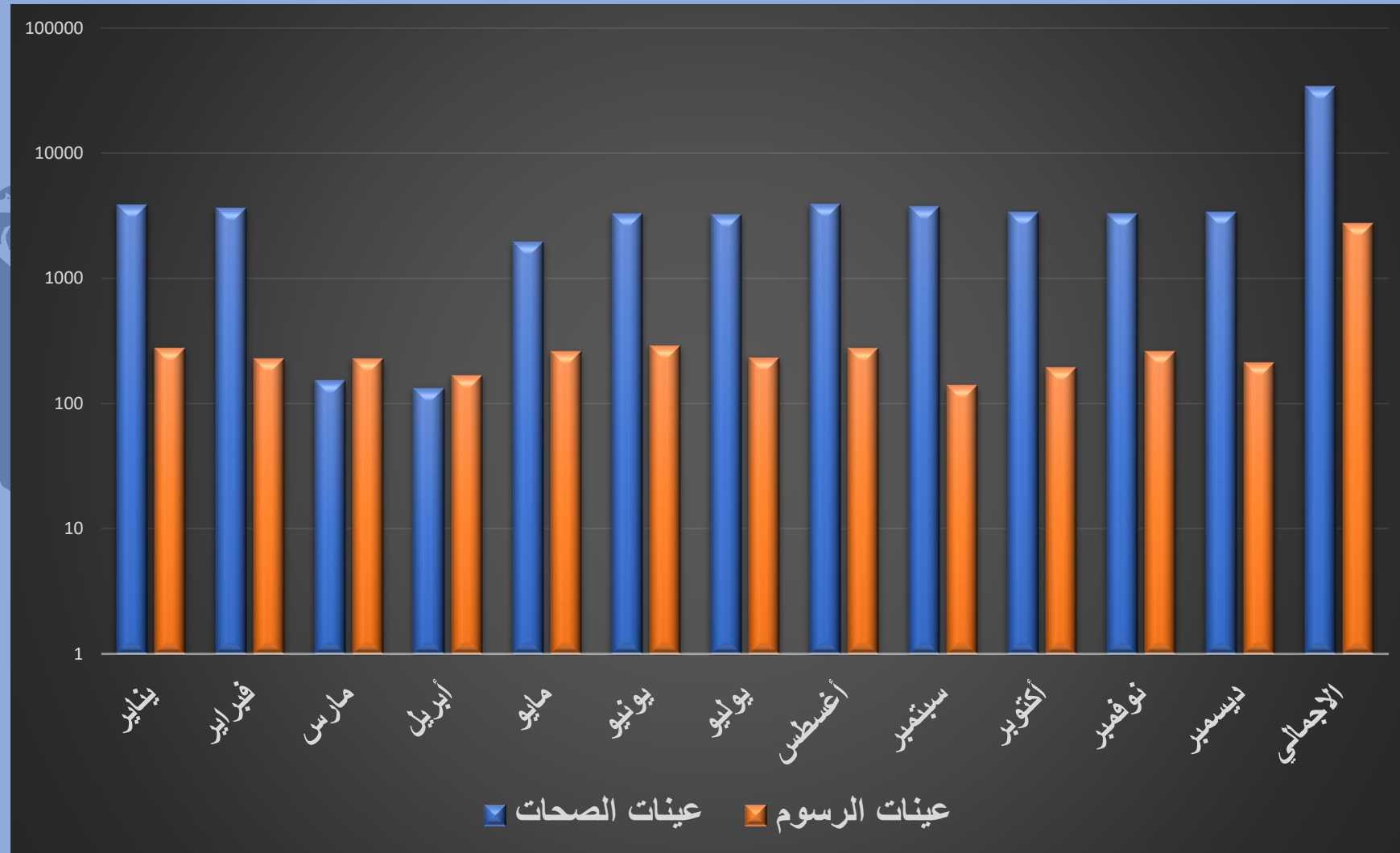
- 34009 Tests
- 87.6%

الرسوم

- 2770 Tests
- 7.1%

تسمم غذائي

- 2040 Tests
- 5.3%



Food toxicological testing Future planning

1) Acrylamide testing

- Detect the Acrylamide in different matrices
- By using GC Mass Mass & LC Mass Mass



2) PT provider EGYPTC

- Provide PT samples for food Toxicology. (planned)
- ISO 17043 accreditation is planned at the end of 2024



Food Mycotoxins testing Future planning

1) Scope of Accreditation

- Aflatoxin differentiation in B1,B2 &G1,G2 using LC Mass Mass



2) PT provider EGYPTC

- Provide PT samples for food mycotoxins. (planned)
- ISO 17043 accreditation is planned at the end of 2024



Water chemical & bacteriological testing

2023

43566



مياه
الشرب

مياه
الصرف

مياه
حمامات
السباحة

المياه
المعبأة

مياه غسيل
الكلى

ISO accredited in **21** different test methods



Water bacteriological testing

Future planning

2023

- Endotoxin testing

- Pyrogenic effects
- Causes diseases to renal dialysis patients.



43566

ISO accredited in 21 different test methods



الإحصائية السنوية للعام 2023 لمعامل المحافظات

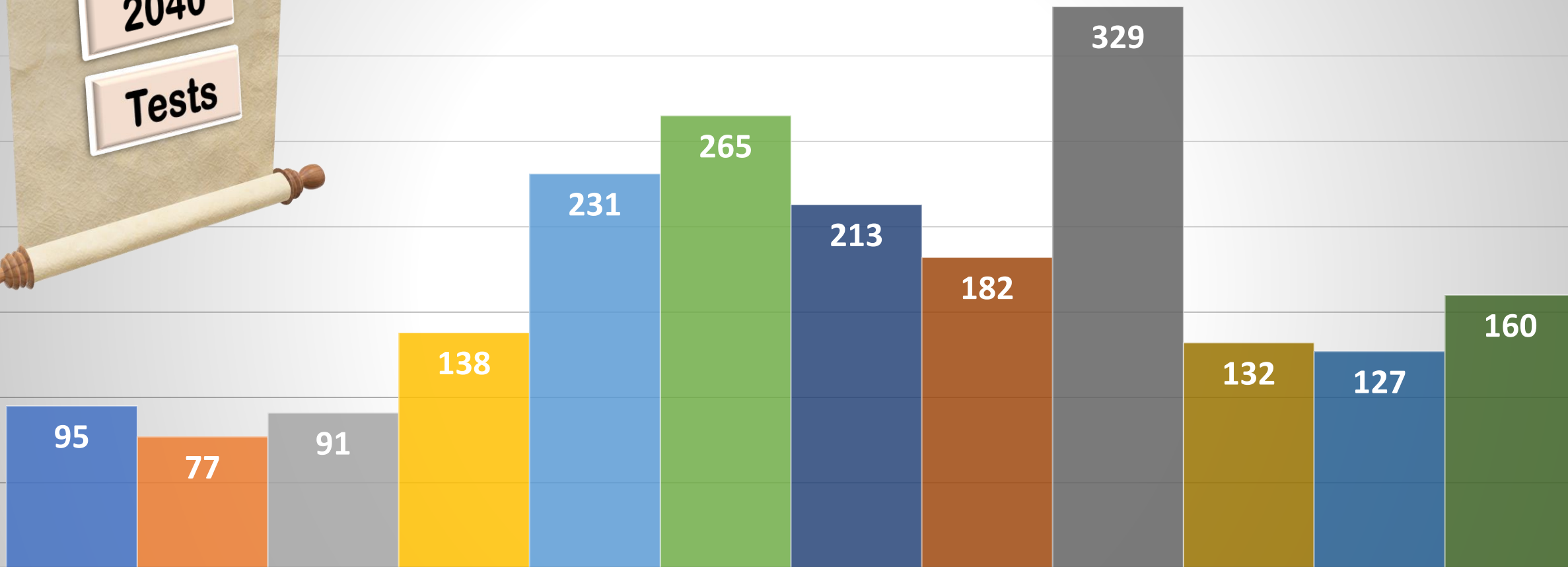
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0	لا يوجد معمل مشترك				الجيزة	1
173408	17254	40142	28935	87077	القليوبية	2
62592	0	32645	10511	19436	طنطا المحلة الغربية	3
30922	0	30922	0	0		
134760	8715	52214	21435	52396	المنوفية	4
172621	0	59545	15819	97257	الشرقية	5
163988	9317	118536	4458	31677	الدقهلية	6
389487	24560	33294	9128	322505	البحيرة	7
50221	27892	11427	4340	6562	كفر الشيخ دسوق	كفر الشيخ
20089	0	13778	3045	3266		
81178	10281	37304	33593	0	الاسكندرية	9
17222	586	5446	878	10312	مطروح	10
48435	7957	14395	15060	11023	دمياط	11
22694	5102	3587	9974	4031	بورسعيد	12
32487	1018	17391	2442	11636	الاسماعيلية	13
17430	5571	4778	2242	4839	السويس	14
19942	1783	8931	3454	5774	شمال سيناء	15
31160	1249	3015	0	26896	جنوب سيناء	16
58381	8253	980	10704	38444	الغردقة سفاجا	البحر الاحمر
8197	0	5608	0	2589		
7745	928	5889	928	0	الوادي الجديد	18
46412	3779	26650	4401	11582	الفيوم	19
49257	16032	29789	2715	721	بني سويف	20
67208	0	53489	0	13719	المنيا	21
115114	3418	63439	14623	33634	سوهاج	22
139168	0	118110	6720	14338	اسيوط	23
68133	8013	21268	5626	33226	قنا	24
24641	788	11596	938	11319	الاقصر	25
47386	4080	6488	1536	35282	اسوان	26
14415	0	10447	0	3968	حلوان	27
2114693	166576	841103	213505	893509	الاجمالي	

Food poisoning Testing

تسمم غذائي 2023

2040

Tests



تسمم غذائي

يناير فبراير مارس أبريل مايو يونيو يوليو أغسطس سبتمبر أكتوبر نوفمبر ديسمبر

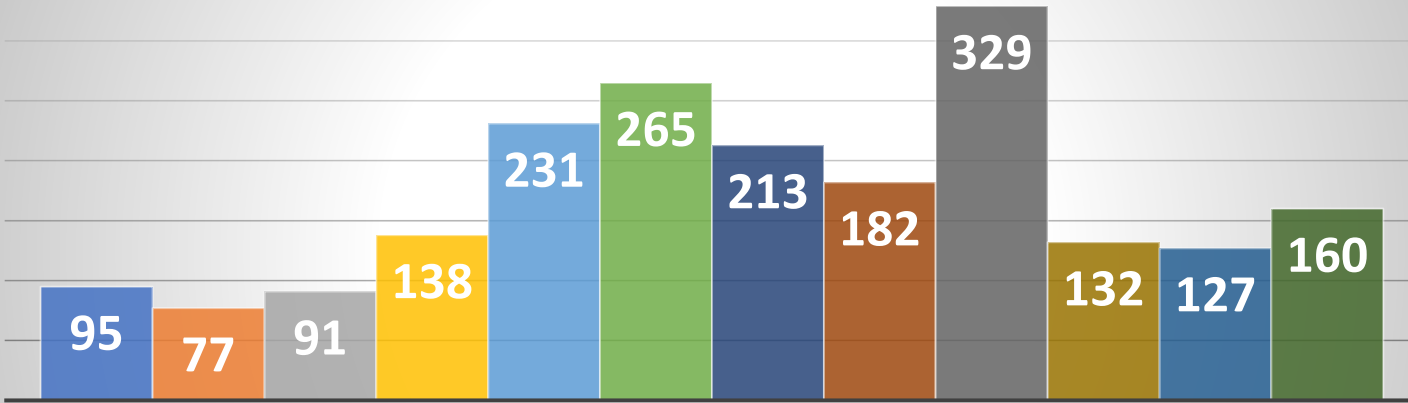


Food poisoning Testing

Sample used:

- *Food residues.*
- *Vomitus*
- *Blood*
- *Diarrheal stool*

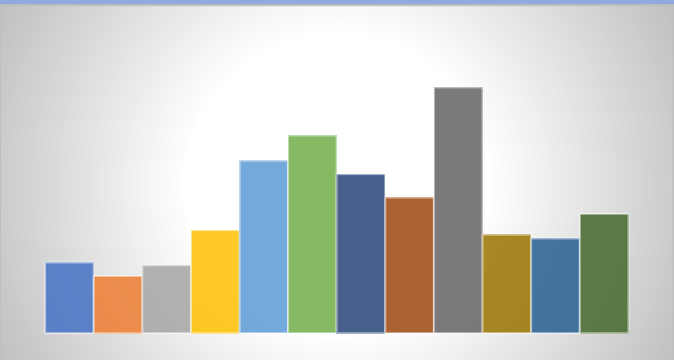
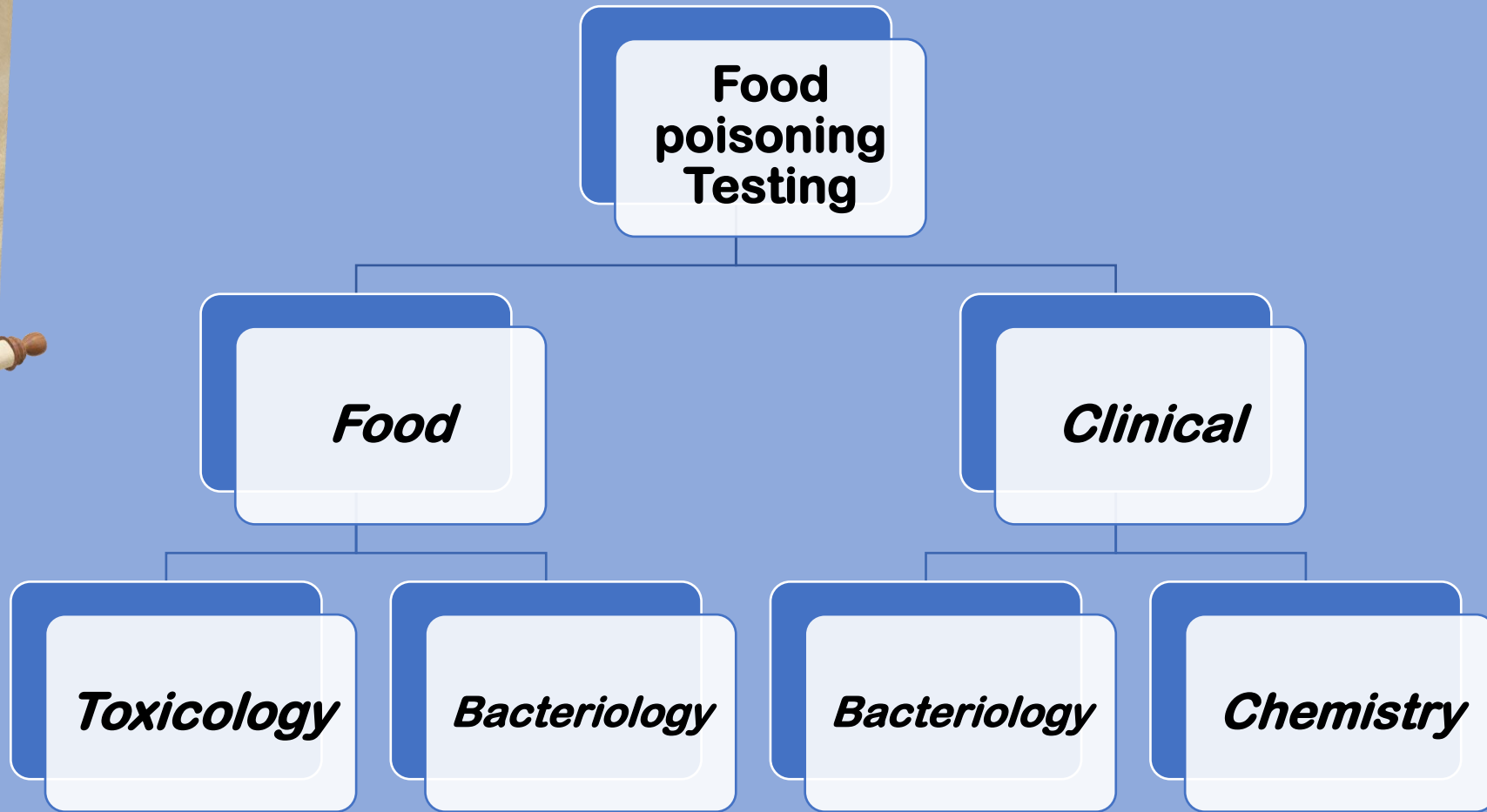
تسمم غذائي 2023

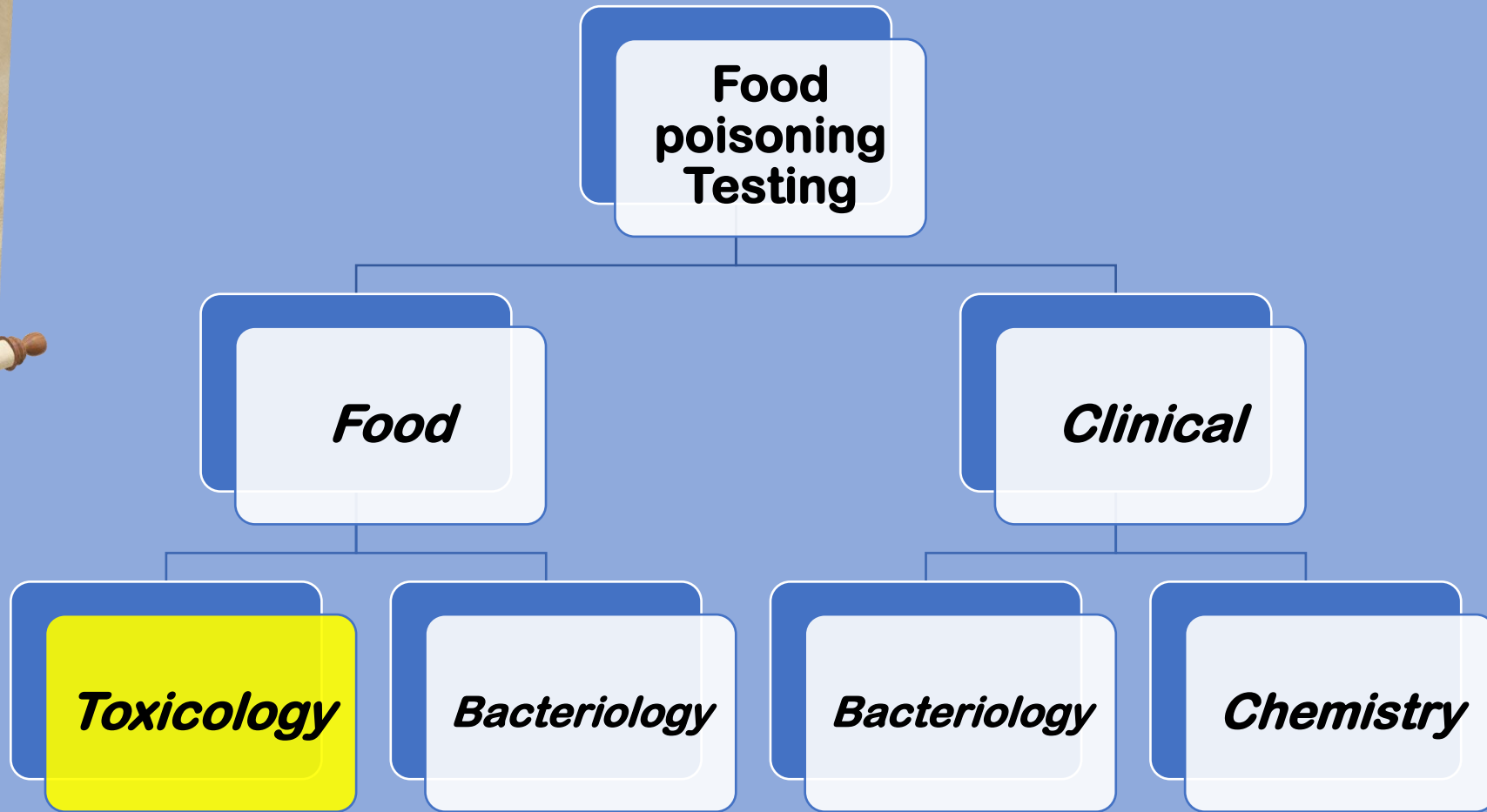


تسمم غذائي

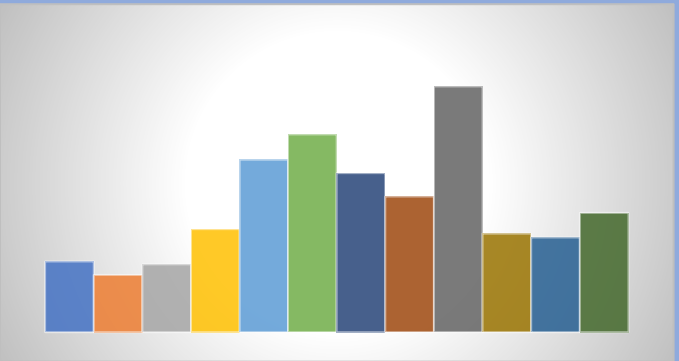
يناير فبراير مارس أبريل مايو يونيو
يوليو أغسطس سبتمبر أكتوبر نوفمبر ديسمبر

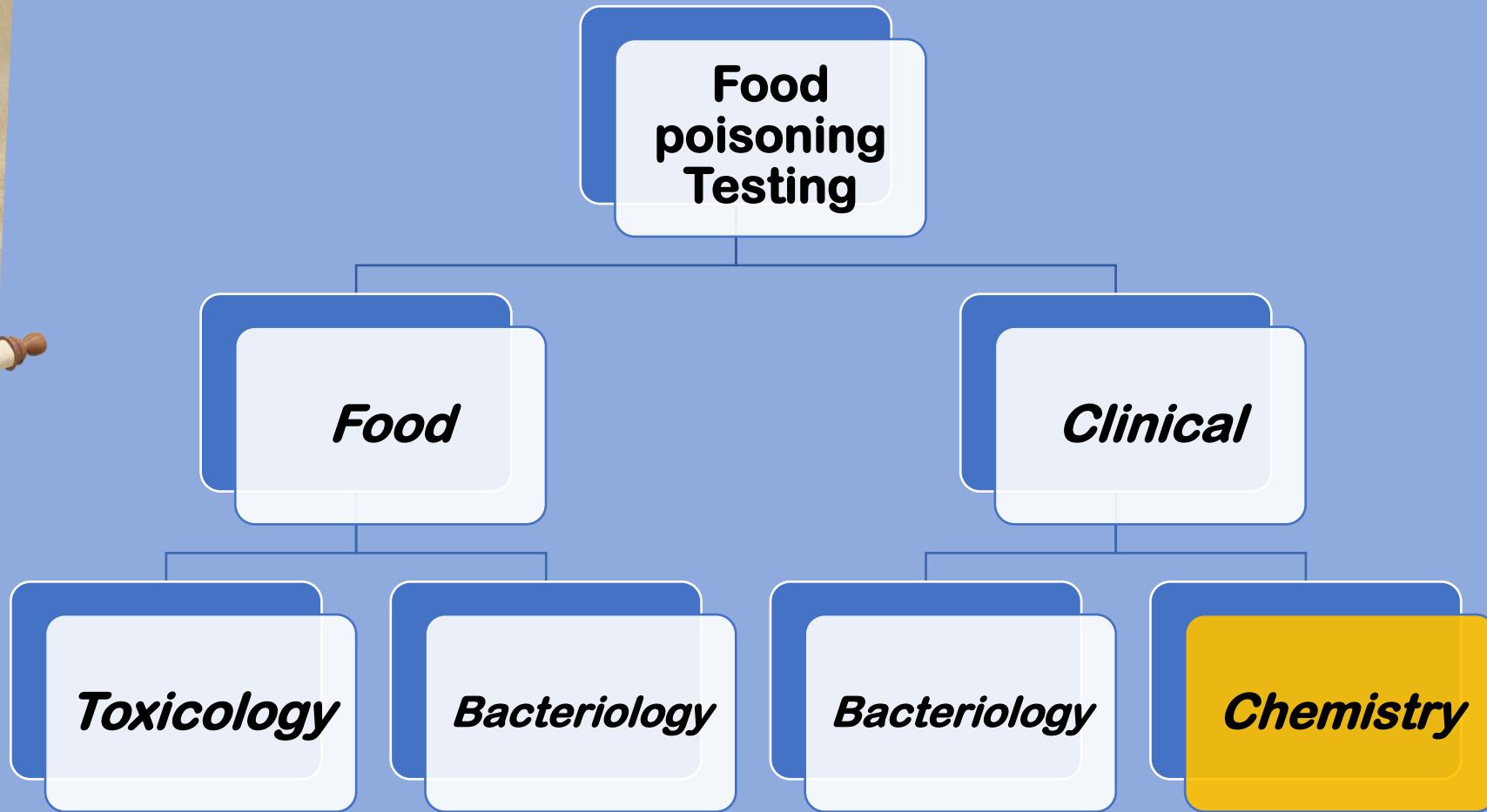




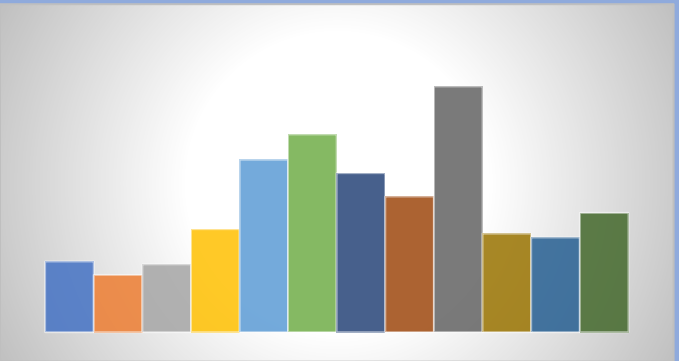


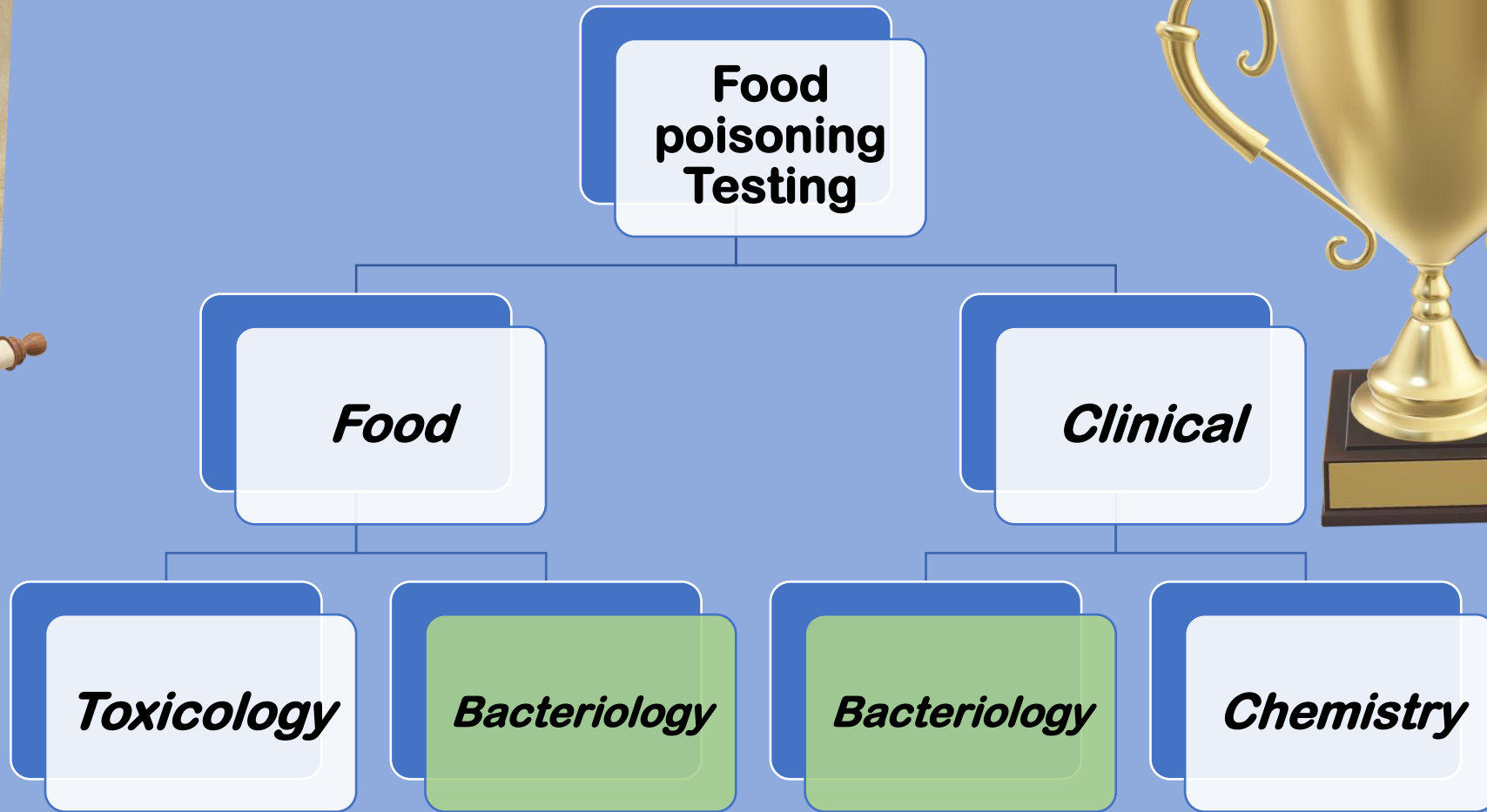
For Pesticide residue detection



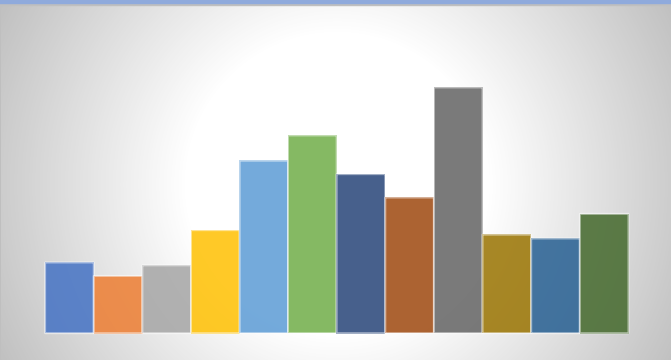


For Causative chemicals





Unique



For infectious organism detection and similarity



04

CPHL with One Health Approach & SDGs 2030



CPHL with One Health Approach and SDGs 2030



CPHL with One Health Approach and SDGs 2030



ANIMAL HEALTH

- *Injected animal with hormones: **Ractopamine**.*
- *AMR in animals.*
- *Water and plants pollutions with pesticides and other pollutants.*
- *Zoonosis and diseases transmitted by animals*



CPHL with One Health Approach and SDGs 2030



SDG 2: To attain food security and improved nutrition through sustainable agriculture

SDG 6: Ensure availability and sustainable management of water and sanitation for all

SDG 13: Take urgent action to combat climate change and its impacts



CPHL with One Health Approach and SDGs 2030



SDG 2: To attain food security and improved nutrition through sustainable agriculture

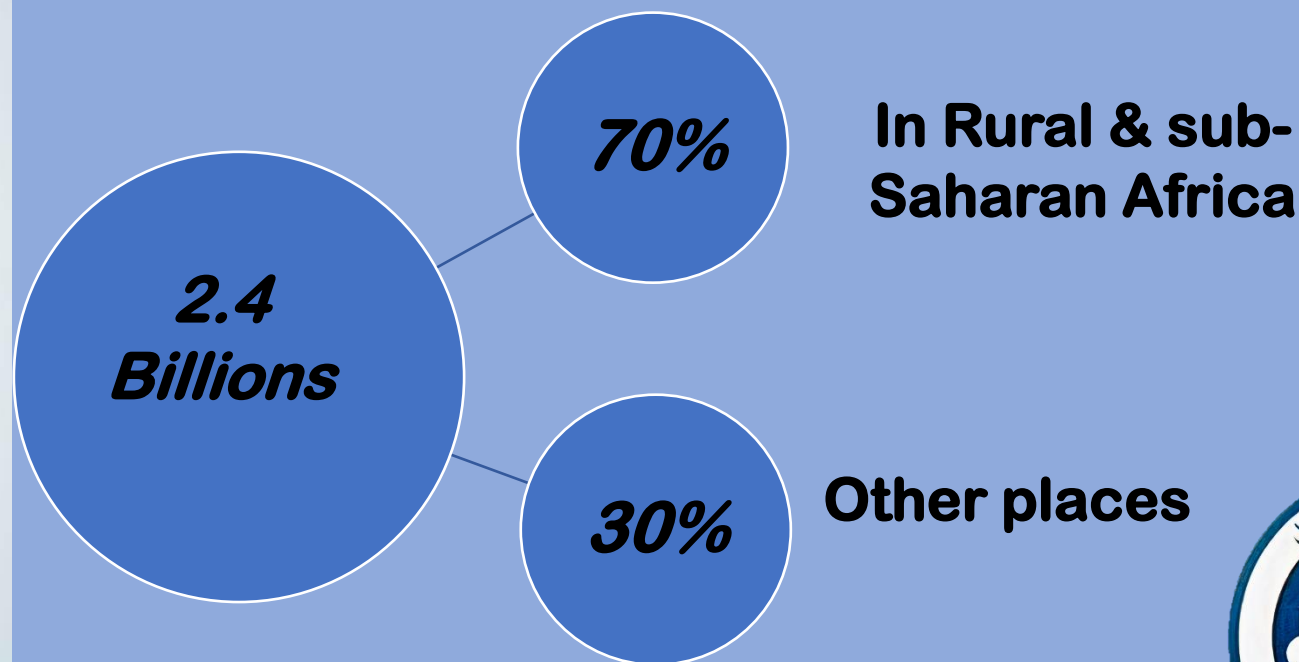
- Food QUALITY & Safety testing.
- Follow National and international guidelines.
- Heavy metals, Food pollution detection.



CPHL with One Health Approach and SDGs 2030



SDG 6: Ensure availability and sustainable management of water and sanitation for all



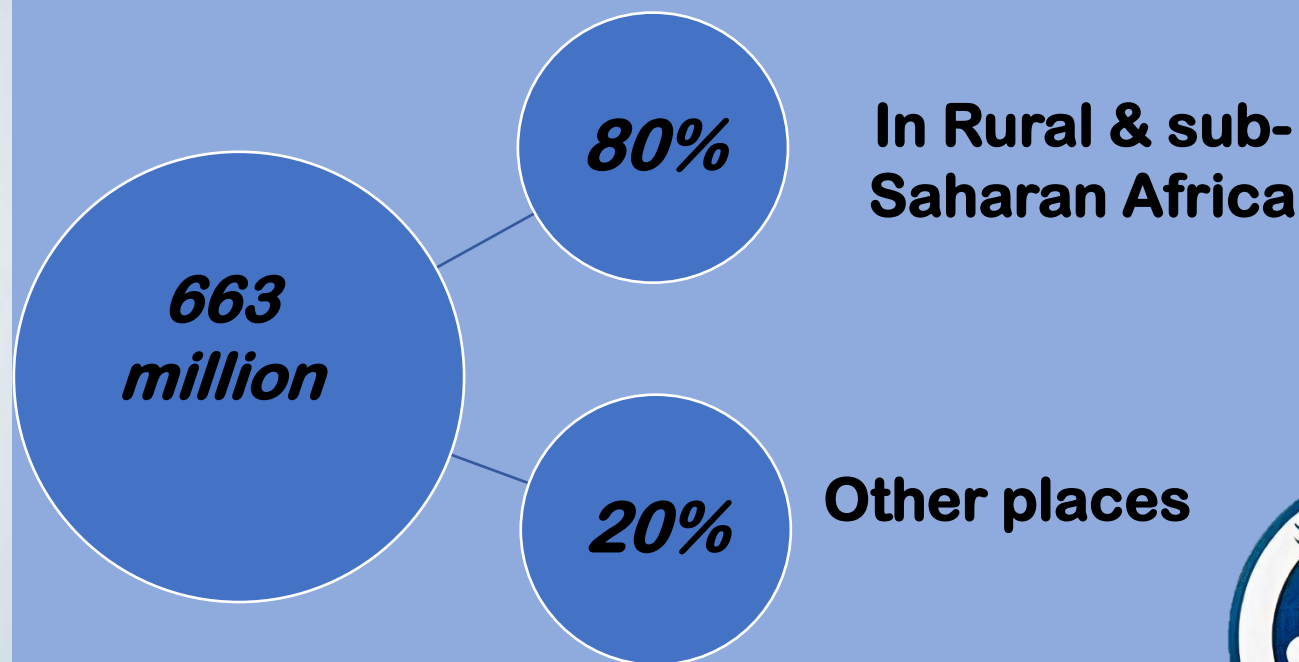
have no access to improved sanitation facilities



CPHL with One Health Approach and SDGs 2030



SDG 6: Ensure availability and sustainable management of water and sanitation for all



Lack Access to safe drinking



CPHL with One Health Approach and SDGs 2030

SDG 13: Take urgent action to combat climate change and its impacts



Americas



Siberian arctic reindeer on the Yamal Peninsula



West Africa



13 CLIMATE ACTION

Take urgent action to combat climate change and its impacts

Thank You for your patience

