

## WORKSHOP

<b>Training Worksheet</b>	<b>Data Extraction and Filling out the GEMS/Food Template</b>
<b>Organized by</b>	<b>AIDSMO and GFRSS, under the Arab Codex Initiative</b>
<b>Location</b>	<b>Muscat, Oman</b>
<b>Dates</b>	<b>30 – 31 July 2025</b>

*This exercise uses an excerpt from a monitoring dataset on Lead (Pb) in spices (both individual and mixed spices).*

*Participants will work with the Excel worksheets provided to practice identifying, extracting, evaluating and completing missing information in order to prepare the dataset for standardized data sharing.*

### OBJECTIVE

Reliable and well-structured occurrence data are essential for developing evidence-based food regulatory decisions and conducting accurate risk assessments. They also play a key role in contributing to international standard-setting processes by providing data that reflect local, national, or regional contexts.

This workshop is designed to build the capacity of stakeholders in the Arab region to manage and prepare occurrence data for standardized data sharing. It will guide participants through best practices for identifying, extracting, and completing relevant data from **food monitoring programs**, with the aim of contributing to global data platforms, like the GEMS/Food database, and supporting risk-based food safety decision-making.

### OCCURRENCE DATA FROM FOOD MONITORING PROGRAMS

*In this exercise, examine the Excel worksheet provided that presents Lead (Pb) concentration levels in various spices.*

- The objective is to use the provided information to complete the “Data Extraction Template” by identifying and filling in any missing data.
- For the food mapping, use the GEMS/Food database system (<https://extranet.who.int/gemsfood/Search.aspx>)
- For any missing information, discuss the most appropriate ways to obtain it; for example, by reaching out to relevant sources such as the laboratory department or other data holders.

## INSTRUCTIONS FOR COMPLETING THE EXERCISE

### Preparation Steps:

1. Identify the contaminant(s) analyzed (e.g., lead)
2. Identify the specific food item tested (e.g., chili powder, black pepper, etc.)
3. Gather all relevant analytical information (method, results, LOD, LOQ, etc.)
4. Structure the data using the GEMS/Food template (Excel or online)

### Key Fields in GEMS/Food Excel Template

Field	What You Need to Fill In	Example
<b>Tier</b>	1 = Official data, 2 = Research, 3 = Preliminary/Pilot data	Tier 2 = University research
<b>Year</b>	Year of publication or data submission	2024
<b>Year of Sampling</b>	When the samples were collected	2022
<b>Country</b>	Use a full country name	Oman
<b>Region</b>	WHO region name	Near East
<b>Type of Contaminant</b>	Categories such as heavy metal, pesticide, etc.	Heavy metal
<b>Contaminant</b>	Specific contaminant name	Lead
<b>Food Group</b>	General GEMS/ Food category	Herbs, spices and condiments
<b>Food Identifier</b>	Specific GEMS/Food name	Turmeric, root
<b>Food Name</b>	Specific food name when it is not found in the adopted classification, or any additional specification	Zaatar
<b>Country of Origin</b>	Country of origin (imported, locally produced)	Locally produced
<b>State of Food</b>	Form of food tested (e.g., fresh, ground, powder, as consumed)	Powder
<b>Sampling plan</b>	Sampling methodology	Targeted vs random
<b>Number of Samples</b>	Number of individual samples	1 or more
<b>Analytical Method</b>	Method used in lab (e.g., ICP-MS, AAS)	ICP-MS
<b>LOD / LOQ</b>	Limits of detection and quantification (with unit)	LOD: 0.05 mg/kg
<b>Results</b>	Result values: min, max, average, individual	Avg: 0.26 mg/kg
<b>Unit</b>	Always use standardized units like mg/kg or µg/kg	mg/kg
<b>Authors / Source</b>	Study authors, lab name, or official body	Ministry of Health, Oman
<b>Study Objective</b>	Why the data was collected	National monitoring program

### Tier Explanation (Arabic-region example)

Tier	Meaning	Arab Region Example
Tier 1	National official program, with full QA	GCC-wide surveillance by Ministries of Health
Tier 2	University or government research	Study from Cairo University, 50 spice samples
Tier 3	Pilot or small-scale data	NGO or private lab with <10 samples, limited QA

### Practical Tips for Arab Region Participants

Tip	Details
Use Arabic food names in the “Local name”	But also provide the English name in “Food Name” for standardization.
Align with Codex codes if available	Especially for spices, cereals, dried fruits.
Get help from national Codex Contact Point	They may help validate Tier level or codes.
Use the WHO GEMS Food Template	Ask for the latest Excel format or use the WHO web submission tool.
Ensure consistent units (mg/kg)	Convert from µg/kg if needed (1 mg/kg = 1000 µg/kg).