

Introduction

Workshop on

Dietary Exposure Assessment

Tools for Prioritizing Food Safety Concerns

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Issues

Ensuring a safe and wholesome food supply requires a defined strategy for identifying and responding promptly to food safety concerns as they arise

- e.g., unexpected chemical or microbial contaminants
- often limited information
- rapid assessment of significance frequently necessary



Issues

Prioritization should be an important component of the strategy because of:

- Limited resources
- Advances in analytical technology
- Global food supply
- Risk-based decisions

Need for a framework

- Structured approach, criteria, tools

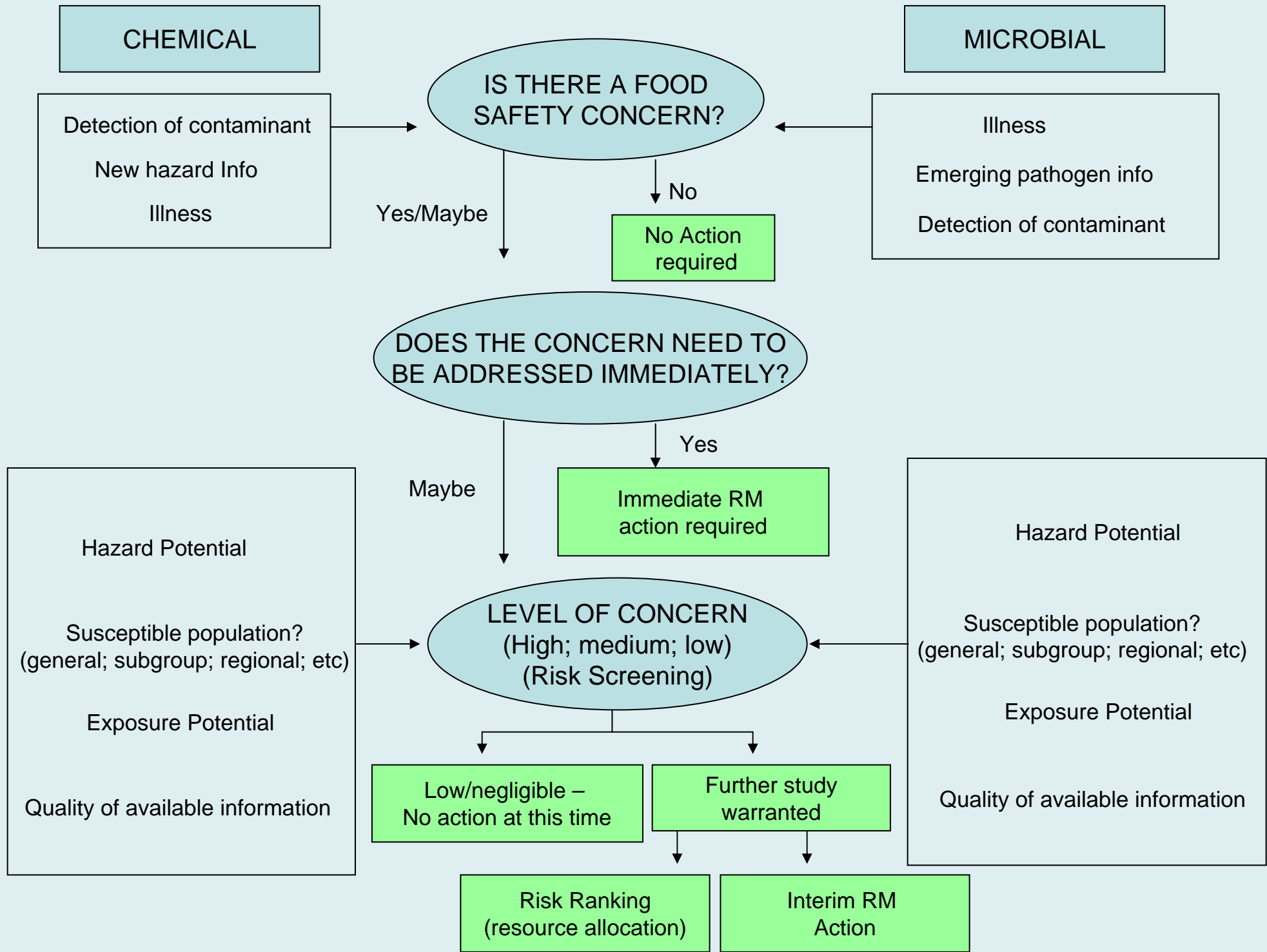


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Focused broadly on approaches for identifying and prioritizing potential risks of chemical and microbial contaminants in foods, to facilitate resource allocation and decision-making

- Summary and other documents on the JIFSAN website
- Paper to be submitted for publication in early 2009
- Figures distributed for this Dietary Exposure Assessment workshop are from the draft paper





Dietary Exposure Potential

Some dietary input data that may be useful in assessing Level of Concern for chemical or microbial contaminants in a food:

- Frequency of consumption
- Proportion of population consuming
- Size of population of interest
- Proportion of product contaminated
- Amount at consumption

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Some conclusions

- Prioritization framework may serve different purposes (e.g., program planning; common basis for industry and government responses to detection of a contaminant)
- Quantity and quality of information required are linked to both the specific concern and the prioritization goals
- Uncertainties/level of confidence in the risk prioritization must be clearly stated
- Prioritization across chemical and microbial risks remains a challenge
- Screening tools (e.g., SAR/TTC for chemicals) can be useful in rapidly identifying situations of very low concern

Threshold of Toxicological Concern (TTC)

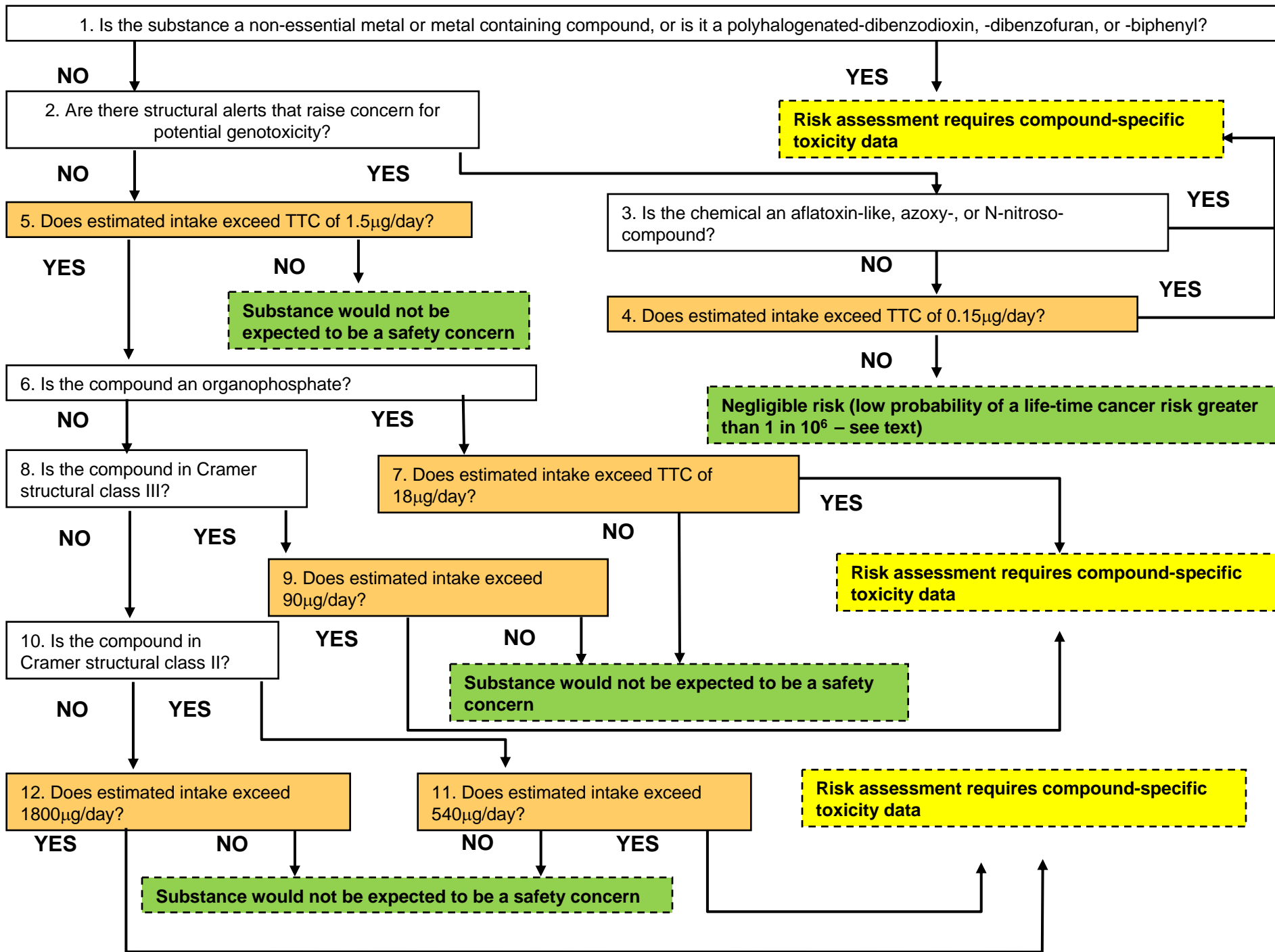
Tiered approach for setting and applying health-protective exposure limits for chemicals lacking a full toxicity database

Based on known toxicity of chemicals with similar structural characteristics (SAR)

Same underlying principle as FDA Threshold of Regulation for indirect food additives

Used by JECFA and EFSA in safety review of flavoring agents





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Some criteria for an acceptable and effective risk-based prioritization framework include:

- Scientifically sound
- Transparent
- Simple
- Adaptable/flexible
- Data-driven

Appropriate tools are needed for estimating *exposures* to unexpected chemical or microbial contaminants.



Objectives of this Workshop

Recommend approaches, tools, and criteria for dietary exposure assessment within a framework for prioritizing potential risks associated with chemical and microbial contaminants in foods, for purposes of resource allocation and decision-making.

Identify critical knowledge gaps and research needs in dietary exposure assessment for prioritizing potential food safety risks.

Workshop Plan

Two talks – background and key issues and challenges, in preparation for our discussions

Panel discussion – issues and perspectives from government, industry, academia, consumer; chemical and microbial

Charge to breakout groups – how we will spend the next 24 hours

Breakout sessions

Breakout group reports and discussion



So – here we
go!

