



Using Total Diet Studies for long term exposure assessment

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**World Health
Organization**

Dietary Exposure Assessment

“... the qualitative and/or quantitative evaluation of the likely intake of biological, chemical, and physical agents via food ...”¹.

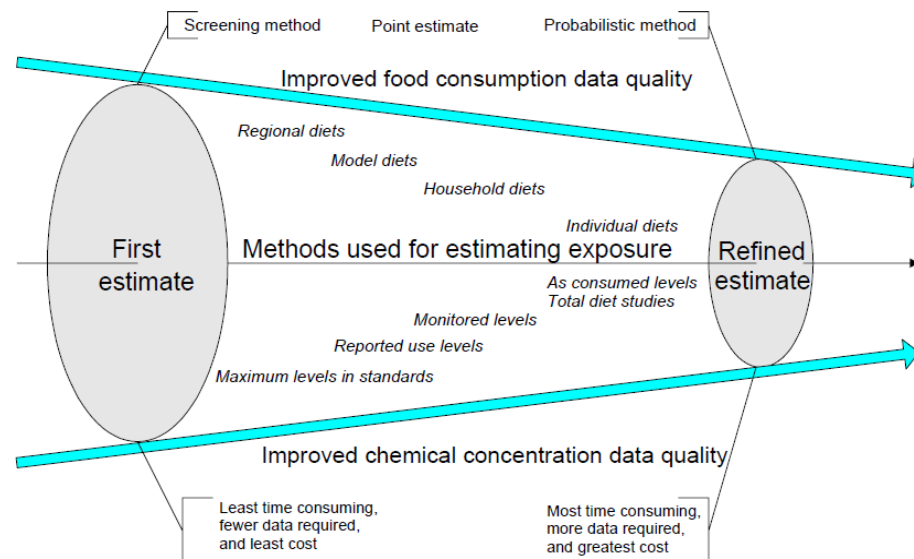
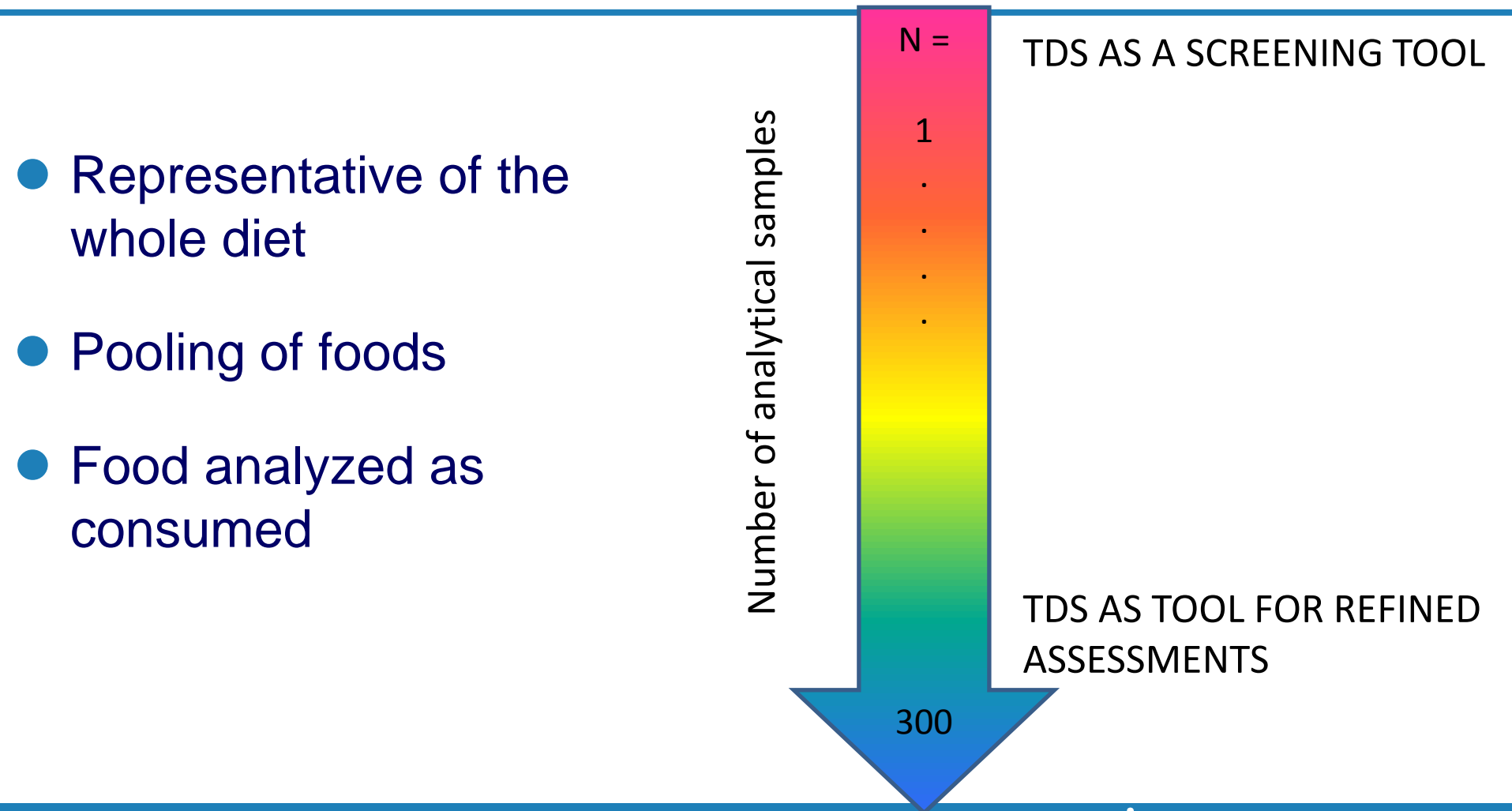


Figure 1 Stepwise approach to obtaining realistic dietary exposure assessments
Note: Data and methods selected from the right-hand side of the diagram are likely to result in a more realistic dietary exposure estimate or "refined estimate"; however, it may not be the "refined estimate" in terms of the "most appropriate" one to suit the purpose of a specific dietary modelling exercise.

¹ The Codex Alimentarius Commission's (CAC) Procedural Manual (FAO/WHO, 2008a)

Total Diet Studies



TDS as a screening tool

- Generally many chemicals analysed
- Pooling of samples for a broad food group
- Less than 100 samples
- Limited budget

TDS as a refined estimate

- Focusing on the chemicals identified by former steps
- Analysing food samples as consumed
- Estimating the central tendency of occurrence for each food item
- Combining mean occurrence with individual food consumption data in a distributional way.

Conclusions

- A TDS approach is often used as a screening tool to estimate the average dietary exposure from the whole diet.
- A TDS approach can also constitute a refined step of the exposure assessment process
 - Sampling and chemical analysis should be performed at food item level rather than at food group level
 - Raw data from an individual food consumption survey should be available to match occurrence with consumption.

For more info...



JOINT GUIDANCE OF EFSA, FAO AND WHO

TOWARDS A HARMONISED TOTAL DIET STUDY APPROACH: A GUIDANCE DOCUMENT



Thank you

Question ?

