Recently published literature

In this guide

53. The previous discussion paper (TOX/2025/03) on mercury in the maternal diet included a comprehensive literature review on the toxicological effects of inorganic and organic mercury exposure including summaries of recent reviews and toxicologic/epidemiologic studies identified therein. The literature review predominantly covered reproductive toxicology – i.e., pregnancy outcomes and effects on maternal health – in addition to blood pressure, biomarkers and epigenetic effects of mercury exposure.

54. An additional literature search was performed to specifically identify recent publications on the Faroe Islands (Oulhote et al., 2019) and Republic of Seychelles birth cohorts (Wahlberg et al., 2018; Xu et al., 2019; Zareba et al., 2019; McSorley et al., 2020; Yeates et al., 2020; Cediel Ulloa et al., 2021; Strain et al., 2021; Love et al., 2022; De Paula et al., 2023; Wesolowska et al., 2024). The first of the numerous observational cohort studies established in the Faroe Islands and Republic of Seychelles began over three decades ago (Weihe and Grandjean., 2012; Shamlaye et al., 2020). The goal of these studies has been to understand potential adverse health effects in children raised by mothers with high seafood diets and thus high exposures to marine contaminants such as MeHg. The results of these studies have been crucial to deriving health-based guidance values (HBGVs) for MeHg and inorganic mercury by leading authorities JECFA and EFSA (search terms in Annex A).

55. The previous COT statement on MeHg in the infant and child diet (COT ., 2018) included a similar literature search for the 2012-2018 period (year of last EFSA evaluation to year of COT discussion); hence the most recent literature searches specified years 2018-2025.

56. Upon review of the recent literature, the COT concluded that the data confirmed the current knowledge on the toxicity of inorganic and MeHg and did not constitute a basis for revising the current HBGVs. The section below, therefore, describes the JECFA and EFSA evaluations and derivations of HBGVs for MeHg and inorganic mercury.