CHAPTER 4

CONCLUSION

It provides an opportunity to define abnormal intake of trace elements. It is generally accepted that hair is a good biological indicator. The emphasis of this research was placed on mercury content in dental personnel's hair by Cold Vapor Atomic Absorption Spectrometry (CVAAS). The result from validation methods for CVAAS technique shown that this technique is suitable for mercury analysis because of simple, low detection limit, and high precision. The standard addition method is required for quantification of mercury in hair sample due to matrix interference. The mean value of mercury in human hair in this study is within the range that the World Health Organization (WHO) classes as normal value. The highest mercury concentration was found in dentist's hair and the lowest value was found in Hat-Yai resident's hair. The gender revealed a positive correlation with mercury level. Female's hair, in most cases, showed higher mercury concentration than male's hair. The study of dental personnel's life style showed that the frequency of fish and seafood consumption had a slightly significant effect in mercury accumulation in hair. The year of practice of dental personnel, frequency of using gloves and frequency of using mask were correlated to the mercury concentration in their hairs. Mercury level in the hair of dental personnel of Faculty of Dentistry, Prince of Songkla University was less than mercury in hair of Bangkok dental personnel ten year ago. This may due to more precaustionary measures.