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refer to:

Your reference:

Dr Wachira Pengjuntr
Director-General
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Tiwanon Road,
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30 October 2018

Response to the inquiry related to milk-fluoridation programme in Thailand

Dear Dr Wachira Pengjuntr,

I refer to your letter transmitted to the WHO HQ Oral Health Programme by Dr Kertesz, WHO Representative to Thailand dated 12 September 2018.

In Thailand, the level of dental caries in young children is high despite efforts to control the disease through public health programs. The national oral health survey conducted in 2017 found that for 12-year-olds a mean DMFT was 1.4. For the deciduous dentition in 5-year-olds the prevalence was 75.6%. With the changing living conditions, lifestyles and the growing consumption of sugars, the incidence of dental caries may increase, compounded by poor access to professional care.

In such a national context, there is an urgent need for systematic implementation of oral disease prevention programmes as part of the overall noncommunicable disease (NCD) prevention programmes.

I understand that the Ministry of Public Health, Thailand has promoted milk fluoridation among children between 3 to 12 years old since 2000. According to the article published by O'Mullane et al (2016), a few systematic reviews of the clinical effectiveness of milk fluoridation have been done so far but existing data encourage and suggest that milk fluoridation is effective in the prevention of dental caries. Moreover, the addition of fluoride to milk is a simple process and the cost of fluoridated milk is usually the same as non-fluoridated milk. The cost of the programmes in Thailand was estimated around 2 to 3 US\$ per child per year. Considering effectiveness as well as relatively low cost, milk fluoridation, which can be promoted in schools, may be a good alternative and should be scaled up nation-wide as a part of national Health Promoting School strategies.

Although it is reported that risk of adverse effects is very low as the dose of fluoride is constant and related to age and background fluoride exposure, it is important to remind that responsible for dental public health should be aware of the total fluoride exposure / intake in the population before programme implementation or before introducing any additional fluoride programme for caries prevention. Also, adequate surveillance system through periodic urinary fluoride monitoring in the population,

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as well as regular monitoring of enamel fluorosis prevalence and severity in children enables to adjust exposure to fluoride if needed.

I remain at your disposal should you have any question or need any further clarification.

Your sincerely,



Dr Benoit Varenne
Dental Officer
Oral Health Programme
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