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**NATIONAL STANDARD OF THE
PEOPLE'S REPUBLIC OF CHINA**

GB 17018-2011

Replacing GB 17018-1997

Division of endemic fluorosis areas

地方性氟中毒病区划分

(English Translation)

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Foreword

All technical contents of this standard is mandatory.

This standard was drafted in accordance with GB/T 1.1-2009 given rules.

This standard replaces GB 17018-1997 "endemic fluorosis criteria for the classification." the main changes compared to the Standard and GB 17018-1997 are as follows.

- Original standard of drinking water fluorosis areas determined under index revised to fluoride in drinking water and disease at the same time comply with the case in order to determine the Ward;
- Deleted the original standard coal smoke fluorosis areas divided population total fluoride intake indicators;
- Increased tea type endemic fluorosis divided evaluation;
- Added Appendix A Evaluation determining method.

This standard is proposed and administered by the People's Republic of China Ministry of Health.

This standard by the People's Republic of China Ministry of Health is responsible for interpretation.

This standard was drafted. Endemic Disease Control, Chinese Center for Disease Control and Prevention Center, Guizhou Provincial Disease Prevention and Control Center, Sichuan disease Prevention and Control Center, the Institute of Endemic Disease Control, Shandong Province, the Shaanxi Provincial Institute of Endemic Disease Control, Institute of Endemic Disease Control Shanxi, Inner Mongolia Endemic Disease Research Center.

1 Scope

This standard specifies the endemic fluorosis determination and division indicators.

This standard applies to drinking water in villages or villages as a unit, the division of burning coal and tea type of endemic fluorosis.

2 Normative references

The following documents for the application of this document is essential. For dated references, only the dated version suitable for use herein Member. For undated references, the latest edition (including any amendments) applies to this document.

GB 5749 drinking water health standards GB/T 5750.2 drinking water standard test method for water samples collection and preservation GB/T 5750.5 drinking water standard test method for inorganic non-metallic Index WS192 endemic skeletal fluorosis diagnostic criteria WS/T 208 dental fluorosis diagnosis

3 Terms and Definitions

The following terms and definitions apply to this document.

Water type endemic fluorosis drinkingwatertypeendemicfluorosis Bone tissue and teeth as people living in high fluoride content of the water environment, excessive intake of fluoride through drinking water caused by Tired a chronic accumulation of poisoning.

Coal burning endemic fluorosis burningcoalpolutiontypeendemicfluorosis Because people long to open the furnace open stove burning high fluoride coal used for heating, cooking or baking food, pepper, etc., resulting fluorine-containing dust contaminated air Gas and food, the body caused by excessive intake of fluorine to tooth and bone tissue mainly involved the accumulation of chronic poisoning.

Tea type fluorosis drinkingteatypeendemicfluorosis Bone tissue and teeth due to people drinking high fluoride content of tea, so that the human intake of excess fluoride caused mainly involved the accumulation of chronic poisoning.

4.1.1 Water type endemic fluorosis

Drinking water fluoride content of $> 1.2\text{mg/L}$, and 8 years old to 12 years old live-born children of local dental fluorosis prevalence of $> 30\%$.

4.1.2 Pollution from coal burning endemic fluorosis

Residents have open stove fired furnace open habit, native-born and 8 years old to 12 years old living in child dental fluorosis prevalence of $> 30\%$.

4.1.3 Tea type endemic fluorosis

16+ population daily intake of fluorine tea > 3.5mg, and confirmed by X-ray examination in patients with skeletal fluorosis.

4.2.1.1 Mild Ward

Local 8 years old to 12 years old live-born children with moderate prevalence of dental fluorosis and $\leq 20\%$, or by X-ray examination confirmed mild Skeletal fluorosis patients but not in patients with moderate to severe bone disease fluorine.

4.2.1.2 Moderate Ward

Native-born living in the age of 8 to 12 year olds with moderate prevalence of dental fluorosis and > 20% and $\leq 40\%$, or by X-ray examination certificate Real have moderate or severe bone disease in patients with fluorine, but severe skeletal fluorosis prevalence $\leq 2\%$.

4.2.1.3 Severe Ward

Local 8 years old to 12 years old live-born children with moderate prevalence of dental fluorosis and > 40%, or by X-ray examination confirmed severe fluorine Bone disease prevalence > 2%.

4.2.2.1 Mild Ward

X-ray examination, 36 years of age to 45 years of age and older people do not moderate skeletal fluorosis occurs.

4.2.2.2 Moderate Ward

X-ray examination, 36 years of age to 45 years of age and older crowd moderate skeletal fluorosis prevalence $\leq 10\%$.

4.2.2.3 Severe Ward

X-ray examination, 36 years of age to 45 years of age and older crowd moderate skeletal fluorosis prevalence > 10%.

Method 5

5.1 Diagnosis indexing dental fluorosis, according to WS/T 208 requirements execution.

5.2 fluoride in drinking water and tea sample collection and preservation, performed in GB/T 5750.2 requirements.

5.3 fluoride in drinking water and tea Determination of fluorine content, according to GB/T

5750.5 requirements for execution.

5.4 endemic skeletal fluorosis diagnosis, according to WS192 requested the Executive.

Determination of 5.5 index, see Appendix A.

Appendix A

(Normative)

Evaluation Determination A.1 people daily tea intake of fluorine in the village of Ward proposed determination, samples were collected from tea and water samples 10 families, measuring the amount of tea and fluorine content of fluoride in drinking water, and tune Check all the household resident population over the age of 16 the average daily drinking water, people were calculated daily intake of fluorine tea, all people resident in the 10 Daily tea intake port of fluorine calculated arithmetic mean. The formula shown in Equation (A.1).

Person tea daily fluoride intake amount (mg) = [tea fluorine concentration (mg/L) - water fluoride concentration (mg/L)] x people daily drinking water (L) (A.1) A.2 The prevalence of dental fluorosis Ward village in the proposed determination to check the age of 8 to 12 year olds living in the teeth of all native-born, calculate the prevalence of dental fluorosis. meter See calculation formula of formula (A.2).

The prevalence of dental fluorosis = the number of persons with mild to moderate to very light Headcount severe Number of subjects x 100% (A.2) A.3 X line prevalence of skeletal fluorosis in the village of Ward proposed determination, the target population for all shooting pelvis, right forearm and right leg plus plus elbow knee and other parts of the X-ray Piece of bone X-ray changes, calculated X-ray skeletal fluorosis prevalence see equation (A.3).

X-ray skeletal fluorosis prevalence = Skeletal fluorosis number of X-ray examination confirmed Number of subjects x 100% (A.3)