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## Background

An increase in the prevalence of erosive tooth wear (ETW) has been observed in children during the last decade, ranging around the world from 13 to 100%. Reported associated risk factors are acidic food and beverages consumption as well as presence of gastrointestinal or eating disorders.

## Aim

Erosive tooth wear (ETW) has not been reported in schoolchildren in Bogotá. This study aimed at determining the prevalence of ETW and describe related factors in a representative sample of 12-15-year olds from Bogotá.

## Methods

IRB approval & informed consents

Children invited to participate:

•1800 children from the 86 schools in the municipality of Usaquén

12-15 yr. olds from Usaquén, Bogotá

Calibration of 3 examiners in ETW (BEWE index)

Clinical assessment

B,L,O/I surfaces of all permanent teeth scored

Highest sextant BEWE score (0-3)

Cumulative BEWE score: sum of highest BEWE (0-18)

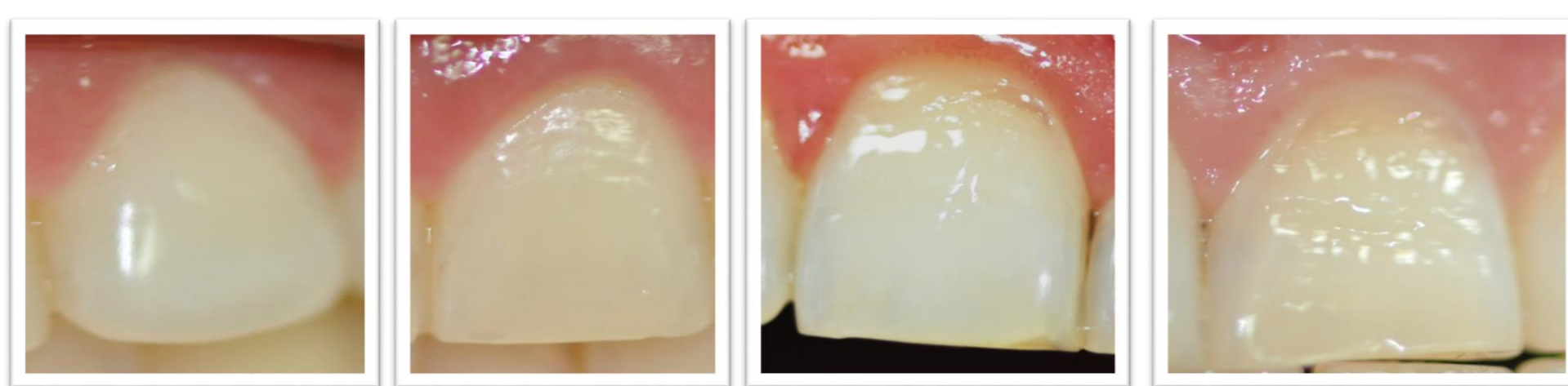
20-items questionnaire: ETW-related factors (from O'Toole, Lussi, Martignon)

Gastroesophageal symptoms

Dietary habits

Oral hygiene habits

### BEWE Index



BEWE 0 No wear  
BEWE 1 Initial loss  
BEWE 2 Affected surface <50%  
BEWE 3 Affected surface ≥50%

Descriptive statistics analysis: ETW and ETW-related factors' frequency

## Results

Total sample 454 subjects: mean age: 13.5±1.07 years.

Sample characteristics		%
Schools	Public	31.2
	Private	68.8
Sex	Female	61.8
	Male	38.2
Social-economic status	Low	20.3
	Middle	75.2
	High	4.5

## Prevalence of ETW: 75.3%

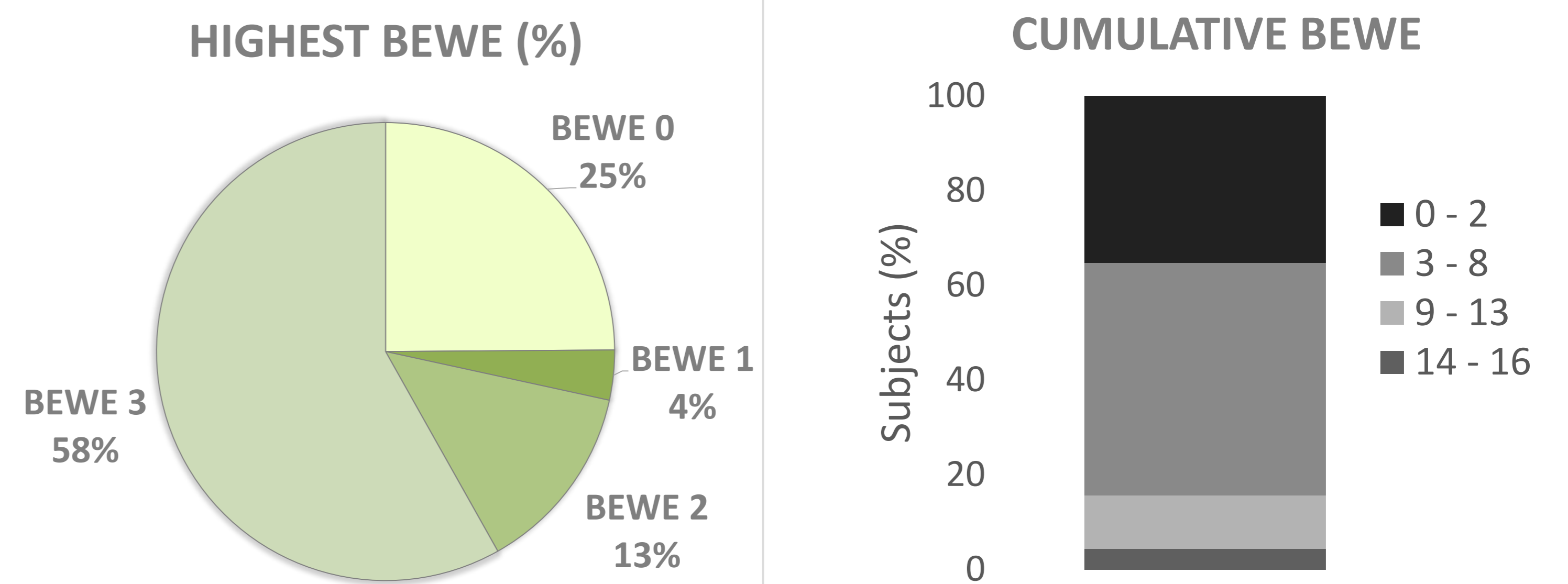
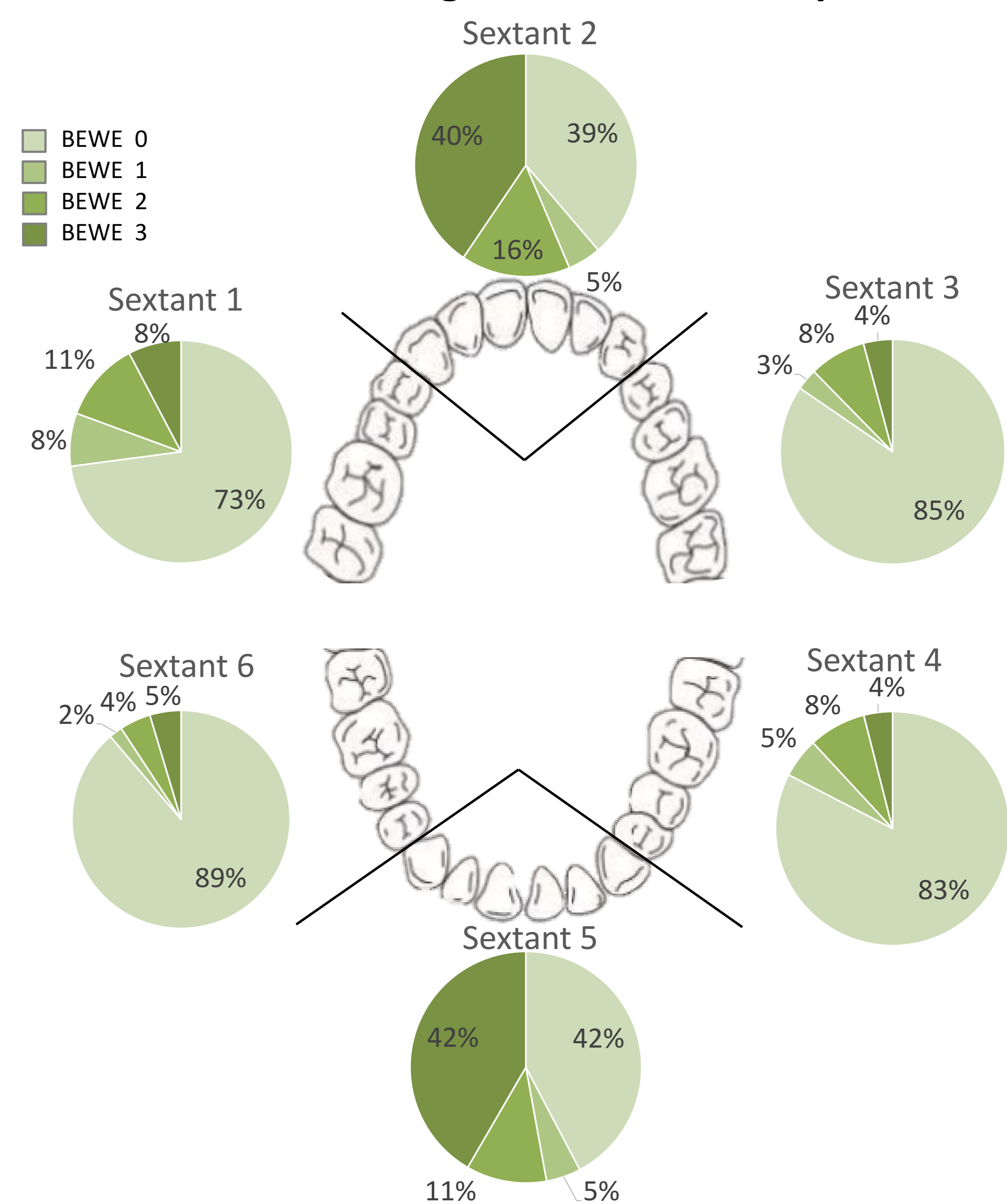


Figure 1. Distribution of general highest BEWE score

Figure 2. Distribution of cumulative score of all sextants

•Most of the subjects had cumulative score sums from 3-8 (49.1%) and the sum found was 16 (1.7%).

## Distribution of highest BEWE scores per sextant



## ETW-related dietary and oral hygiene factors

Risk factors	Frequency (%)
Gastrointestinal symptoms	33.2
Frequent vomiting periods	1.90
Taste for consuming acidic food/drinks	61.4
Daily consume of fruits/fruit juices	39.2
Most daily consumed fruits: Lime, tangerine and orange	27,1
≥ 10' period to eat the fruit/drink the juice	18.9
≥ 2 daily toothbrushing	53.3
Never brushed teeth before eating	74.7
Brushed teeth ≤ 10' after eating	61.9

Table 1. Questionnaire on ETW-related dietary and oral hygiene factors

## Conclusion

Colombian schoolchildren showed a high prevalence of ETW, most with BEWE score 3 as highest, and most with a total BEWE score of 3-8. Liking acidic food/drinks and gastroesophageal symptoms were the risk factors more frequently found.

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