

Dental caries, oral health literacy and affordability of fluoride toothpaste in rural and urban populations in Northeast Brazil: a population-based cross-sectional study



IDENTIFICATION

Household identification	City	Locality	Primary Health Care Unit (PHCU):
		Urban ☐ Rural ☐	
Full Name	Age	Sex	Contact (Whatsapp):
		Male ☐ Female ☐	
Examiner	Consent for examination		() 9 -
	Yes ☐ No ☐		

SOCIOECONOMIC CONDITIONS

Education level:	Monthly household income	R\$:
☐ No formal education ☐ Adult literacy course ☐ Incomplete primary education ☐ Complete primary education ☐ Incomplete secondary education ☐ Complete secondary education ☐ Incomplete higher education ☐ Complete higher education ☐ Do not know/No response	Water supply at household:	
	☐ Piped water inside the house ☐ Piped water only on the property ☐ No piped water ☐ Do not know/No response	
	Number of household residents (including participant):	
	☐ 1 ☐ 2 ☐ 3 ☐ 4 ☐ ≥5	
Did any resident of your household receive any income from government assistance benefits (such as Bolsa Família, Continuous Benefit - BPC-LOAS, among others) in the last year? →	☐ Yes ☐ No ☐ Don't know/No response	

ACCESS TO/USE OF ORAL HEALTH SERVICES

When was your last dental visit?	Reason for last dental visit (multiple answers allowed):		
☐ I've never been to the dentist. ☐ 6 months ago ☐ 1 year ago	☐ 2 years ago ☐ More than 2 years ago ☐ Don't know/No response	☐ Never visited ☐ Routine check-up/prevention ☐ Toothache ☐ Extraction ☐ Dental treatment (restoration, root canal, etc.) ☐ Gum problems ☐ Oral lesions	☐ Dental implant ☐ Orthodontic treatment ☐ Prosthetic treatment ☐ Other ☐ Don't know/No response
Where was your last dental visit?			
☐ I've never been to the dentist ☐ Public service ☐ Private service	☐ Dental insurance ☐ Don't know/No response		
Have you had a toothache in the last 6 months?			
☐ Yes ☐ No ☐ Not applicable (edentulous) ☐ Don't know/No response			
Topical fluoride application:			
☐ Yes, once a yer ☐ Yes, in the last year ☐ More than one year ago ☐ No ☐ Don't know/No response			

BEHAVIORAL CONDITIONS (LAST 5 YEARS)

Toothbrushing	
Do you brush your teeth regularly?	Have you ever shared your toothbrush?
☐ Yes ☐ No ☐ Don't know/No response	☐ Yes ☐ No ☐ Don't know/No response
How many times do you brush your teeth per day?	Have you received a toothbrush from any program?
☐ 1 ☐ 2 ☐ 3 ☐ >3 ☐ Do not brush	☐ Yes ☐ No ☐ Don't know/No response
Do you have your own toothbrush?	
☐ Yes ☐ No ☐ Don't know/No response	

Toothpaste			
Can fluoridated toothpaste prevent dental caries and other oral diseases?		Amount of toothpaste used during brushing:	
☐ Yes ☐ No ☐ Don't know/No response		☐ Rice-sized ☐ Pea-sized ☐ Full length of bristles	
Can fluoridated toothpaste be harmful to health?		Do you consider toothpaste affordable given your income?	
☐ Yes ☐ No ☐ Don't know/No response		☐ Yes ☐ No ☐ Don't know/No response	
Do you use fluoridated toothpaste?		Have you ever had difficulty buying toothpaste due to lack of money?	
☐ Yes ☐ No ☐ Don't know/No response		☐ Yes ☐ No ☐ Don't know/No response	
Do you regularly use fluoridated toothpaste?		Has toothpaste ever been unavailable in stores?	
☐ Yes ☐ No ☐ Don't know/No response		☐ Yes ☐ No ☐ Don't know/No response	
		Frequency of toothpaste purchase:	
		☐ Weekly ☐ Monthly ☐ Every 6 months	
		☐ Yearly ☐ Rarely ☐ Never	
		Cost of toothpaste:	
		R\$	
Factors influencing toothpaste choice:			
Price:		Packaging:	
☐ Yes ☐ No ☐ Don't know/No response		☐ Yes ☐ No ☐ Don't know/No response	
Taste:		Brand:	
☐ Yes ☐ No ☐ Don't know/No response		☐ Yes ☐ No ☐ Don't know/No response	
		Contains fluoride:	
		☐ Yes ☐ No ☐ Don't know/No response	

Dental Caries (dmft/DMFT) and Treatment Needs (All Ages)

All age groups. Root condition, Only for those aged 35 to 44 and 65 to 74.

The dental chart template displays tooth numbers 1 through 32 arranged in two rows. The top row contains teeth 18, 17, 16, 15, 14, 13, 12, 11, 61, 62, 63, 64, 65, 26, 27, 28. The bottom row contains teeth 48, 47, 46, 45, 44, 43, 42, 41, 71, 72, 73, 74, 75, 36, 37, 38. For each tooth, there are three boxes labeled CROWN, ROOT, and TREATMENT. Arrows indicate the direction of tooth numbering: from 18 to 11 and 61 to 28 in the top row, and from 48 to 41 and 71 to 38 in the bottom row.

Code			Condition
Deciduous Teeth	Permanent Teeth		
Crown	Crown	Root	
A	0	0	Sound tooth
B	1	1	Decayed
C	2	2	Filled with caries
D	3	3	Filled without caries
E	4	Not applicable	Missing due to caries
F	5	Not applicable	Missing for other reasons
G	6	Not applicable	Fissure sealant presente
H	7	7	Bridge abutment, crown, or veneer
K	8	8	Unerupted – root not exposed
T	t	Not applicable	Trauma (fracture)

Tissue alterations (For all ages): _____

Code	Treatment	Code	Treatment
0	None	5	Pulp treatment and restoration
1	One-surface restoration	6	Extraction
2	Two or more surfaces restoration	7	Remineralization of White spot lesion
3	Crown for any reason	8	Sealant
4	Esthetic veneer	9	Hypoplasia

Brazilian Oral Health Literacy-Adults Questionnaire (BOHL-AQ) (Sistani *et al.*, 2014), translated and validated for the Brazilian population by Almeida *et al.* (2022).

Oral Health Literacy				
Reading comprehension (reading and knowledge skills)				
Reading comprehension (reading and knowledge skills) In this part you will see a passage about oral health knowledge. Fill the blank line by choosing one word that you think is correct and <u>circle the letter in front of the word</u> .				
Q1- 1- Research shows that there may be a link between oral diseases and other health problems such as _____.				
A) Skin disease	B) Myocardial infarction	C) Mental illness	D) Muscular dystrophy	E) Don't know
Q2- One of the most common oral diseases is tooth decay. Brushing with toothpaste that contains _____ At least twice a _____ with flossing and avoid foods with lots of _____ could prevent tooth decay.				
A) Flavors	A) Month	A) Salt		
B) Whitening	B) Meal	B) Spices		
C) Detergents	C) Day	C) Fat		
D) Fluoride	D) Week	D) Sugar		
E) Don't know	E) Don't know	E) Don't know		
Q3- Every person has 32 _____ teeth which get the _____ at six years old.				
A) Incisor		A) Most of them		
B) Deciduous		B) First one		
C) Molar		C) Last one		
D) Permanent		D) All of them		
E) Don't know		E) Don't know		
NUMERACY				
In this part you will see a prescription for antibiotic consumption. Please <u>write or select the answers below each card</u> .				
Diagnose: Infection and dental abscess Treatment : Amoxicillin (500 mg) _____ capsules (21) Take one capsule by mouth three times (every 8 hours) a day for 7 days				
Q4- If you take the first capsule at 14, when should you take the next one?		Q5- If your symptoms are gone by the 4th day of taking the medication, should you stop taking the medication?		
At _____ ☐ Don't know		☐ Yes ☐ No ☐ Don't know		
In this part you will see an instruction of mouth rinse. Please <u>write or select the answers below each card</u>				
Sodium fluoride mouth rinse 0.2 % Swish and spit 5cc for 1minute onetime per week then do not eat and drink anything for 30 minutes				
Q6- With regard to this prescription can you swallow it?		Q7- If you use it at 12 am, when can you eat or drink?		
☐ Yes ☐ No ☐ Don't know		At _____ ☐ Don't know		
Listening (listening, reading, writing, calculation and communication skills)				
In this part you will hear some sentences about post extraction instruction. Please write or select the answers.				
Bite down on a moist gauze pad for 30 minutes on the site of tooth extracted Do not spit out for 12 hours Eat cold and soft food like ice cream or cold soup for 12 hours after tooth extraction (This card will be read by interviewer and the interviewee will not see this card)				
Q8- If your tooth was extracted at 8 am, when should you put the gauze out of your mouth?		Q9- If your tooth was extracted at 8 am, can you eat hot food at 2 P.M?		
At _____ ☐ Don't know		☐ Yes ☐ No ☐ Don't know		
Appropriate decision-making (reading, comprehension and decision making skills)				
In this part you will see some questions about oral health problems and dental examination form. Choose the best answer and <u>circle the letter in front of the sentence</u> .				
Q10- What is the best decision if little bleeding occurs after brushing or flossing?		Q11- Which is the best decision if pain and swallowing occur in month?		
A) Eating hard foods like apple B) Rinsing with a mouthwash C) Use anti tartar and extra whitening toothpaste D) Getting a dental cleaning E) Don't know		A) Antibiotic consumption B) Analgesic consumption C) Consultation with family D) Attend to the doctor or dentist E) Don't know		
Q12- Which of the following is the best way to remove stain and calculus from a person's teeth?		Q13- What is the meaning of "I exonerate my dentist from unintentional complications of treatment" in your opinion?		
A) Eating hard foods like apple B) Rinsing with a mouthwash C) Use anti tartar and extra whitening toothpaste D) Getting a dental cleaning		A) My dentist is responsible for unintentional complications of treatment B) I consent to my dentist proposed treatment		

E) Don't know	C) I give my permission to my dentist to do any treatment as necessary D) My dentist is not responsible for unintentional complications of treatment E) Don't know
Q14- What is the meaning of “I have a history of allergy to some drugs” in your opinion?	
A) I feel problem in speaking and convulsing after consumption of some drugs B) I get severe chest pain after consumption of some drugs	C) I feel inability to breath and redness in my skin after consumption of some drugs D) I feel anxiety and dizziness after consumption of some drugs E) Don't know

THANK YOU FOR YOUR PARTICIPATION!