Alli Kiru: Oral Health and Food Practices Among Amazonian Kichwa Youth

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Simon, father of three, says that his children love to eat the pineapples, papayas, and other fruits that grow seasonally in this part of the lush Ecuadorian Amazon. Once an elected Pueblo Kichwa leader, Simon has moved on and now grows tobacco and coffee to sell abroad. He also volunteers, teaching reading and writing to a group of elders who like him, live on Pueblo Kichwa, an indigenous reservation of more than 8,000 Amazonian Kichwa people. While Simon is bilingual in Spanish and Kichwa, I am not, so he tells me in Spanish about his family and the foods they eat as we sit in the dim, low-ceilinged front room of his two story wooden house. Rain is beating against the wooden boards as we talk. I’m still damp from the hour of walking, as the community health worker and I made our way from Rukullakta out to Tumbayaku, the village where Simon and his family live.

We sought out Simon and his family because two weeks previously the Alli Kiru Children’s Oral Health Program had spent the day doing dental exams on the children in his village. Upon examining his teeth, a volunteer dentist found that Simon’s five year-old son Nider had only one cavity. In the U.S., if a child already has a cavity by five years of age, her parents are cautioned sternly by their dentist about brushing regularly and staying away from sticky candies and sodas. But, in Pueblo Kichwa, an under resourced and politically underrepresented indigenous community, a five year old with a single cavity is a rarity.

Through six weeks of qualitative interviews with parents like Simon, I find out that cola first made its way into these indigenous communities back when Simon was about his son’s age. Parents in Pueblo Kichwa tell me that they remember fondly the first time they tasted cola, believing that the fizzy drink could provide lasting energy and even quench thirst longer than the traditional yucca chicha beverage. Not long after the arrival of sodas, gum appeared, followed by suckers and the most controversial treat among Kichwa parents, *bolos.* These six-inch long frozen popsicles are sold outside of schools in every village. Bolos are both tasty and often helpful for parents as a pacifier for a teething or whiny child. But as a result, it is all too common here in Pueblo Kichwa to do a dental exam on a young child and find all eight front teeth rotting from constant contact with the sugary ice pops.

The community health worker and I walked and bused into these jungle villages to speak with other parents. Unlike Simon, these parents had children no older than six years old, sometimes suffering from as many as fourteen cavities. According to the World Health Organization, early childhood caries is the most prevalent pediatric illness. Dental caries are most commonly caused by infection of the mouth with the bacterium *Streptococcus mutans*. Once an individual becomes colonized, the bacteria thrive off the carbohydrates that coat the teeth after a sugary meal. As the bacteria metabolize these sugars, they release acid that can build up and eventually rot teeth.

In Pueblo Kichwa, children with lots of cavities also have chronic pain. Children with chronic mouth pain can have a hard time eating, sleeping, and focusing on things like school and homework. Over time, children with many cavities and chronic mouth pain can become chronically fatigued and find it too painful to chew fibrous foods like fruits, vegetables, and nuts. All of this can contribute to malnutrition and growth stunting and may damage the fragile young brain.

As Simon explains, the people living in Pueblo Kichwa didn’t always suffer from what seems to have become a community-wide epidemic of poor oral health. He smiles widely and shows me a mouth full of straight, white, teeth explaining that in his youth he almost never heard of children’s teeth rotting and falling out. Simon says that the traditional Kichwa diet is rich in fibrous jungle foodstuffs like yucca, plantain, and hearts of palm. The only really sweet item in the Amazonian diet is sugar cane, which is chewed by farmers as they work their land. He tells me that sugar cane is also turned into *panela,* a raw brown sugar that is used for consumption in herbal teas and the occasional coffee.

Even oral hygiene has roots in the Amazon. Simon describes the abrasive leaf and anti-inflammatory tree sap *sangre de drago* or “dragon’s blood” that was commonly used to brush teeth before the western introduction of toothbrushes and toothpaste. Until about 20 years ago, a low-sugar diet and basic oral hygienic practices acted as protective mechanisms for people like Simon. Over the last two decades though, the introduction of western food products coupled with poor access to health care has spelled disaster for indigenous populations like Pueblo Kichwa.

As in marginalized communities in the U.S., even in the Amazon jungle, sweets are now often more accessible and affordable than fresh fruits, vegetables, and legumes. While children with rotted or missing teeth can’t chew a piece of pineapple they can suck on a popsicle. In the U.S., we have stemmed the prevalence of cavities with measures like fluoridated water, regular teeth brushing, and fluoride varnish application. In the Amazon though, teeth brushing and fluoride application have not yet become a social norm. Some families can’t afford to regularly purchase toothbrushes or fluoridated toothpaste. Corporate trucks carrying colas and candy often reach farther into the Amazon than mobile dental clinics.

So families like Simon avoid cavities by sticking to fairly traditional diets and avoiding sugar-rich western products. But this is easier said than done. According to a number of parents I interviewed, keeping their children from eating sweets is a losing battle. It involves not giving children the coins they beg for to buy candy at the corner store. It also means having someone at home to cook meals so that kids don’t eat the sugary classroom snacks donated by the government or sold just outside school grounds.

It is increasingly more common to find Kichwa families that are non-traditional, where a single mother is raising children alone or where mothers as well as fathers work outside the home during the daytime. In these homes, parents struggle to maintain control over their children’s food choices. Some single mothers don’t have the traditional resources brought in by a family farm and thus are forced to seek out more western food items. According to Flor, a single mother of three, this isn’t necessarily all bad. Flor has two children under the age of six, each with less than two cavities. She attributes this to lessons she learned in the government-sponsored preschool where she works as a teacher. There, Flor learned about the damage sodas and fruit drinks can do to young children. But she also learned about new vegetables she’d never heard of like Swiss chard and cauliflower. These foods were not available when she was a child. But it turns out these vegetables can now be found at the town market a 30-minute bus ride away, and her children appreciate the variety.

Like other single mothers in Pueblo Kichwa, Flor laments that she cannot be available to cook lunch or sometimes even dinner for her kids. Flor says that she prohibits her oldest son from eating junk food. She confides that explaining to her son exactly why goes a long way. She tells him that it is her love for him that keeps her from handing over the change he begs for. Still, she admits that she has little control over his eating habits while he is at school. In the past Kichwa children attended local bilingual Kichwa schools. Over the years though, better road access and deteriorating funds for indigenous schools has made busing children to state Spanish schools more appealing for parents. State schools once provided substantial lunches of fish, chicken, stews, and grains for students. But since the government has stopped providing hot lunches in recent years, Flor is forced to give her 12-year-old son some change to buy a snack at the food stands near the school. She worries about the hot dogs and sweet breads he likely buys when she isn’t present.

Like many of the other parents I spoke to this summer, Flor is troubled by the abundance of junk food made available to her children. Most parents I spoke to share a similar frustration when it comes to limiting children’s exposure to sweets in exchange for healthier alternatives. Today in Pueblo Kichwa, children with few cavities, as well as children with many cavities, live in a world full of sugar-rich junk food that 30 years ago was almost non-existent. Education at home and in the classroom is helping to change social norms around oral health and nutrition. Many children now have their own toothbrushes and families are increasingly aware of the risk sweet foods and beverages pose to their children’s health. Decreasing the availability of sweets near schools and increasing access to fluoridation may help to stem the incidence of cavities in this community. The concerns and thoughts shared by Kichwa parents this summer provide a wealth of information to be used by the Alli Kiru project and other community health collaborators as they continue their efforts in Pueblo Kichwa.