TITLE: “POTABILITY STANDARDS BY MICROBIOLOGICAL, PHYSICAL AND CHEMICAL CHARACTERISTICS OF THE WELL-EXCAVATED FOR DRINKING WATER AND ITS RELATIONSHIP WITH THE HEPATITIS A OUTBREAK PERIOD OF THE INDIGENOUS POPULATION WAJÃPI - PÓLO ARAMIRÃ, AMAPÁ, BRAZIL”.

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ABSTRACT:
Water is essential to the life of living things. The Amazonian Region known as one of the largest reserves of fresh water from the world, but in some places, this resource have not an adequate sanitary conditions for consumption by the human. This is, in many cases, due to the anthropization associated with the precariousness of sanitary sewage systems. According to data from the Brazilian Geographic Institute, 87% of the municipalities from the Amazon region are not included in the sanitary sewage network, which is non-existent in Wajãpi indigenous reserve. Microbial test of drinking water quality plays an essential role in measures to protect public health. Water intended for human consumption from an individual alternative supply solution, regardless of the form of access, is subject to potability surveillance by monitoring its microbiological, physical and chemical quality. The microorganisms commonly used to monitor the quality of drinking water are total coliforms and thermotolerants, for example *Escherichia coli* (*E. coli*). The aim of this study was to evaluate the potability of well water used for consume by the Wajãpi indigenous population of the Aramirã Pole region located between the co-ordinates 1°50'0" latitude north and 54°0'0" longitude west. For microbiological characterization was used the Colilert® technique and for physical and chemical was used a multiparameter benchtop photometer (Model HI 83208-02 HANNA® Instruments), according to American Public Health Association (APHA). The evaluation of 28 samples showed that turbidity (82.14%), pH (42.85%), free residual chlorine (85.71%) and color (all samples) are out of the recommended by Ordinance No. 2914/2011 of the Brazilian Ministry of Health. The evaluation of thermotolerant coliforms (*E. coli*) revealed that 60.71% of the samples were improper for consumption. For total coliforms, all the samples were positive in different concentrations, with 61% out of the standard established by the same Ordinance. These results are relate with an outbreak of Hepatitis A in the period of sampling. In the points where the water was microbiologically compromised, the number of positive cases of Hepatitis A is higher when compared to the 14.30% where chlorination was detected. The study underscored the poor quality of the water supply in the indigenous reserve investigated, showing the undesirable effects of differential sanitation, besides positive effects of chlorination in well excavated for drinking water.

Keywords: drinking-water quality, well-excavated, water-related infectious disease, oriental amazon, indigenous population.

Development Agency: CNPq/FAPEAP/PPSUS, Special Indigenous Sanitary District of Amapá and Northern Pará, Brazilian Army/Frontier Command Amapá and 34th Infantry Battalion of Jungle and TARGET e.V. Ruediger Nehberg (Human Rights Organization).