LUMEN ET VIRTUS

# Perspectives for the construction and applicability of the situational diagnosis of educational practices used in the school context as a way of transmitting knowledge for the prevention and coping with arboviruses

https://doi.org/10.56238/levv15n38-066

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## ABSTRACT

Introduction: In recent years, there has been an increase in cases of diseases transmitted by arboviruses (arboviruses) in tropical regions. In this scenario marked by the growing risk of these diseases, schools are assuming a fundamental role in the prevention, control and confrontation of these diseases. Thus, many schools have been developing new educational practices focused on the theme of arboviruses. In this context, the situational diagnosis (SD) of arbovirus education in schools is an important tool for data collection, treatment and analysis, ensuring subsequent planning for the effectiveness of future actions. This article aims to present the construction of a tool for diagnosing the teaching-learning situation related to arboviruses in the school context. Methodology: The SD will be divided into two stages: the first stage approaches the approximation with the school's profile and activities already carried out with a learning objective related to arboviruses. The second stage of the diagnosis consists of knowing possible scenarios in the school environment. Results: Based on the information collected, the situational diagnosis allows the identification of the school's strengths, those aspects that work well and contribute to the success of the students. On the other hand, it is also possible to detect the weak points, the areas that need to be improved to ensure quality education. Considerations: the situational diagnosis of educational practices for arboviruses in schools is an essential tool to strengthen health education and contribute to the prevention and control of these diseases. Through the evaluation of existing practices, it is possible to identify points of improvement and develop effective actions to protect the health of students and the school community.

**Keywords:** Situational Diagnosis, Educational Practices, Arboviruses.

## INTRODUCTION

In recent years, there has been an increase in cases of diseases transmitted by arboviruses (arboviruses) in tropical regions, involving factors such as climate change, massive population movements, increase in deforested areas, disorderly urban occupation and lack of adequate and comprehensive sanitation policies in urban areas[1].

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In a scenario marked by the growing risk of these diseases, schools are starting to play a fundamental role in the prevention, control and confrontation of these diseases. The guidelines provided by the Ministry of Health guide the development of health education strategies aimed at the enrolled population, considering the peculiarities of each community, stimulating participation and protagonism in the construction of health care[1].

In this way, many schools have been developing new educational practices focused on the theme of arboviruses[2]. In this context, the situational diagnosis of arbovirus education in schools is an important tool for data collection, treatment and analysis, ensuring subsequent planning for the effectiveness of future actions[3].

Situational diagnosis (SD) It can be understood such as denouement of the procedure from collection, Structuring and interpretation of the data obtained in certain area, which can be visa how a tool that helps the management work and action planning. This technique marks The beginning of planning analysis of the reality and its Shortcomings in the face of investigation of the current state, possibilitysubsequently the implementation of actions based on in the observed indicators, manner Problem-solving and effective[4].

It is known that action planning involves a set of information acquired in order to guide the planner as to the needs of the public involved and the order of priority of these needs, as well as the offer of existing services and their capabilities involved[5].

The situational analysis precedes the actions that should be thought of for implementation with the students, as it contributes to the detection of weaknesses and possible ways of coping. Therefore, the planning of the activities to be developed depends on the data collected in the situational diagnosis and its analysis[6].

Through situational diagnosis, it is possible to identify strengths and weaknesses, opportunities and challenges, thus guiding strategic decision-making on educational practices to be proposed.

This article aims to present the construction of a tool for diagnosing the teaching-learning situation related to arboviruses in the school context**.** The tool will be applied as part of a doctoral thesis research involving educational practices, especially digital games, as a means to change the behavior of students in relation to the prevention and fight against arboviruses.

## METHODOLOGY

It is important to highlight that the situational diagnosis must be carried out in a contextualized way, considering the specific characteristics of each school and community.

The present situational diagnosis will be carried out in future actions in the context of the development of doctoral research during the second semester of this year, after agreement with a partner school.

The DS will be divided into two stages.

## FIRST STAGE OF DIAGNOSIS

In the first stage, the approach to the school's profile and activities already carried out with a learning objective related to arboviruses from the year 2022 to 2024 will begin, focusing on a set of components related to the didactic-pedagogical organization, Pedagogical Political Project and integration of the school with health units. The 2022-2024 period was chosen based on the incidence of dengue notifications in the State of Rio Grande do Sul, which increased from 95.8 in 2021 to 589.6 in 2022 and currently stands at 1,611.6 in 2024 (data from June 2024)[7].

For the diagnosis, it will be necessary to survey the following institutional documents: Institutional Development Plans – PDI (if available), Pedagogical Political Project (PPP) and documents that deal with aspects related to curricular activities focused on arboviruses.

After prior contact with the partner school, a moment will be scheduled to collect the pertinent information with the pedagogical coordination or indicated actors, as shown in Chart 1.

Chart 1 - Situational diagnosis questionnaire of the school's profile and activities developed in the context of arboviruses, 2024.

| |
|---|
| **School identification**<br>Name:<br>Address:<br>Teaching Modality: ( ) Infant ( ) Elementary ( ) High School<br>Identification of the partner UBS: |
| **General Data**<br>Total active classes:<br>Total number of registered children:<br>Grand total of employees working at the school: |
| **Faculty data**<br>Number of active teachers:<br>Number of teachers belonging to the risk group (pre-existing diseases and the elderly):<br>Number of teachers aged up to 29 years:<br>Number of teachers aged between 30 and 49 years:<br>Number of teachers aged 50 years and over: |
| **Technology data**<br>Does the school have broadband internet?<br>Does the school have Wi-Fi?<br>Does the school have computer labs?<br>Does the school have an interactive screen in the classroom?<br>Does the school have mobile equipment, such as *chromebooks*, for use in the classroom? |

| |
|---|
| **Data Health at School Program (PSE)**<br>Does the school participate in the PSE?<br>If so, were there joint actions with UBS in the 2022-2024 period?<br>How many actions involved the theme of arboviruses?<br>Were the actions aimed at preventing or coping with the disease?<br>Which classes participated?<br>What educational practice(s) was used?<br>For how many times?<br>How long does each practice last? |
| **Matriz curricular**<br>Which disciplines worked on the theme of arboviruses in 2024?<br>With which classes? |
| **Teaching-learning methodologies**<br>Considering the final years of elementary school, use the proposal in chart 2 for each school year; |
| **Evaluation methodologies**<br>Was an evaluation methodology used after the educational practice related to arboviruses? Which? |

Source: prepared by the authors

Table 2 - Information on teaching methodologies used by class at school in the context of arboviruses, 2024.

| **School Year: Class:** | | | | |
|---|---|---|---|---|
| **Possible strategies/activities with an arbovirus (dengue)-themed used in the 1st semester of 2024** | **Date the application occurred:** | **Focus of learning: prevention or coping:** | **How many times has this practice been used:** | **How long does each practice last:** |
| Problem-based *learning* | | | | |
| Project-based learning | | | | |
| Exhibition room (traditional) | | | | |
| Flipped classroom | | | | |
| Discussion of publications | | | | |
| Discussion of a case that occurred in the school reality | | | | |
| Field study | | | | |
| Digital games | | | | |
| Board Games | | | | |
| Science Fair | | | | |
| Lecture | | | | |
| Seminar | | | | |
| Realistic simulation/theatre | | | | |
| Group work | | | | |
| Other: | | | | |

Source: prepared by the authors

## SECOND STAGE OF DIAGNOSIS

This stage consists of knowing possible scenarios of the school environment.

### Available teaching-learning scenarios

The teaching-learning scenario can be understood as a teaching-learning situation composed of a set of elements that involve the context, the environment and the actors involved[8].

Verify the facilities and resources used in the school's curricular activities as shown in chart 3.

Table 3: Description and quantity of the teaching-learning scenarios

| Infrastructure and Educational Resources | Quantitative/Description |
|---|---|
| Classroom Rooms | |
| Games room | |
| Computer room | |
| Access to portable computer equipment | |
| Library | |
| Covered patio | |
| Uncovered patio | |
| Gymnasium or Indoor Court | |
| Other | |

Source: prepared by the authors

## Epidemiological scenario

The epidemiological scenario of arboviruses within a school, in the context of a situational diagnosis, offers a comprehensive view of the risk of transmission of these diseases among students, teachers and other employees.

### Case history

The case history should be carried out according to Chart 4. And if possible, seek data to analyze the spatial distribution of cases within the school (by classrooms, classes, etc.).

Chart 4 - Epidemiological data collected at the school that occurred in the 1st semester of 2024.

| Epidemiological data | Quantitative |
|---|---|
| Number of cases of arboviruses in students in 2024 | |
| Number of cases of arboviruses in teachers/staff in 2024 | |
| Class with the most infected students | |
| Most prevalent type of arbovirus | |

Source: prepared by the authors

### Characteristics of the school environment:

Geographic location: To evaluate the proximity of the school to breeding sites of the Aedes aegypti mosquito, the main vector of arboviruses.

Physical structure: Identify possible sources of standing water (poorly sealed water tanks, tires, drainage ditches, etc.) in and around the school.

Hygiene conditions: Analyze the presence of accumulated garbage, standing water in containers and other factors that favor the proliferation of the mosquito.

### Surveillance and control actions in the school environment

Existence of an action plan: Check if the school has an action plan for arboviruses, with surveillance measures, vector control and communication in case of outbreaks.

Partnerships with health agencies: Evaluate the existence of partnerships with public health agencies for monitoring, vector control, and guidance actions for the school community.

Training of professionals: Verify that school professionals are trained to identify cases of arboviruses, guide students and families, and take appropriate control measures.

Partnerships with projects from educational institutions: Observe the existence of partnerships with extension projects from universities engaged in the proposal to combat and confront arboviruses.

### THIRD STAGE OF DIAGNOSIS

Considering the reality and the data presented, agree so that the school's focal point can suggest at least three strengths and weaknesses related to arboviruses in the context of their school.

Finally, ask the focal point what is the school's perception of what is effective for an educational action to be successful in that community.

## EXPECTED OUTCOMES

Based on the information collected, the situational diagnosis allows you to identify the strengths of the school, those aspects that work well and contribute to the success of the students. On the other hand, it is also possible to detect the weak points, the areas that need to be improved to ensure quality education.

In this sense, the situational diagnosis will serve to refine the actions already carried out and future actions that can contribute to the theme in the school context, such as greater approximation with community health agents (CHA) and/or endemic disease control agents (ACE); teaching practices where the student is the protagonist; constant training/continuing education of the school's staff and teachers; use of digital technologies; prevention actions such as active search for foci of the transmitting mosquito in the school and surroundings; coping actions such as recognition of dengue symptoms in possible infected people.

The situational diagnosis is not limited only to identifying the reality of the school, but also opens doors to the discovery of opportunities for growth. By analyzing the data collected, it is possible to identify new possibilities to improve the quality of education, expand the offer of services, strengthen the school community and, consequently, achieve better results.

## CONSIDERATIONS

The situational diagnosis of educational practices for arboviruses in schools is an essential tool to strengthen health education and contribute to the prevention and control of these diseases. Through the evaluation of existing practices, it is possible to identify points of improvement and develop effective actions to protect the health of students and the school community.

## REFERENCES


Brasil, Ministério da Saúde. (2022). Diretrizes para a organização dos serviços de atenção à saúde em situação de aumento de casos ou de epidemia por arboviroses. Secretaria de Vigilância em Saúde (SVS). 38 p.

Pereira, C. V., Alves, S. A. A., Sobreira, C. L. S., & Lopes, M. do S. V. (2021). Educação ambiental e arboviroses no contexto escolar. Revista de Enfermagem UFPE on line, 15.

Silva, P. S. da, Pereira, M. C., Vieira, C. S. A., & Gomes, L. M. X. (2018). Diagnóstico situacional em saúde: Uma ferramenta para o planejamento das ações na estratégia saúde da família do município de Foz do Iguaçu-PR. Seminário Integrador do Serviço Público. Retrieved from https://dspace.unila.edu.br/handle/123456789/5495

Salomão, L. G., Oliveira, J. da S., Dos Santos, L. F., De Souza, D. A., De Souza, J. F. C., Candido, A. C., et al. (2023). Diagnóstico situacional: Um relato de experiência dos acadêmicos do Programa de Educação pelo Trabalho em Saúde. Brazilian Journal of Development, 9, 15517–15530.

Tancredi, F. B., Barrios, S. R. L., & Ferreira, J. H. G. (1998). Fazendo um diagnóstico da situação de saúde da população e dos serviços de saúde. In Planejamento em Saúde (pp. 19–26). Faculdade de Saúde Pública da Universidade de São Paulo.

Puccinelli, A. D., Bitencort, G. S., Ribeiro, P., & Veronez, L. F. C. (2014). Análise situacional da Escola Municipal de Ensino Fundamental Dr Alcides de Mendonça Lima. Congresso de Iniciação Científica UFPEL, 7, 809–820.

Rio Grande do Sul. (2024). Painel de casos de Dengue RS. Secretaria Estadual de Saúde. Retrieved June 2, 2023, from https://dengue.saude.rs.gov.br/

Lab FTE. (2017). Cenários de Aprendizagem – Guidebook. University of Lisbon. Retrieved February 27, 2024, from http://ftelab.ie.ulisboa.pt/tel/gbook/contextualizacao/