

## The potential of the vulnerability and human rights framework for studies and practices in the prevention of arbovirus infections

Potencialidades do quadro da vulnerabilidade e direitos humanos para os estudos e as práticas de prevenção às arboviroses

Potencialidades del cuadro de vulnerabilidad y Derechos Humanos para estudios y prácticas de prevención frente a arbovirosis

Neide Emy Kurokawa e Silva <sup>1</sup>  
Miriam Ventura <sup>1</sup>  
César Augusto Paro <sup>1</sup>

doi: 10.1590/0102-311X00213119

From the Alma-Ata Conference in 1978 to Astana Conference in 2018, it is possible to identify clear changes in the underlying principles of primary healthcare (PHC), especially in shift in the meaning of rights, from “universal right to health” to “universal health coverage”, transmuting the idea of human rights to a market-oriented perspective of services consumption. This situation emerges from the encroachment of economic globalization, with the private sector’s growing share in the organization and financing of health systems, thereby increasing the risk of privatizing and exclusionary health policies, especially in Latin America <sup>1</sup>.

In Brazil, the recognition of this shift as a serious threat to the constitutional foundations of the Unified National Health System (SUS) call on us both to reject the ideological and political forces backing this threat and to embrace the critical task <sup>2</sup> of reviewing and rebuilding the references themselves that have oriented health practices. After all, the severity of a danger is inversely proportional to our knowledge of what is at risk and our capacity to confront it.

Considering that participatory democracy (inherent to the contemporary human rights perspective) is under threat, the current article aims to problematize hegemonic approaches to the prevention of arbovirus infections, reclaiming reflections and practices from the framework of vulnerability and human rights.

### Arbovirus infections and strategies for dealing with them: old “problems”, old “solutions”...

The field of disease prevention and health promotion, prime activities in PHC, features a historical reproduction of old strategies, which in the case of arbovirus infections prioritize awareness-raising campaigns against the mosquito vector and call on the populace to monitor and eliminate household mosquito breeding sites, thereby reducing the understanding of rights and participation, subsuming individuals and the population as mere objects of interventions.

Such practices have been subject to criticisms since the 1980s. The mosquito *Aedes aegypti*, which had been eradicated by yellow fever control measures in 1955, was reintroduced into Brazil’s national territory. Assuming the intrinsic relationship between health, education, and human rights, researchers from the Leopoldina Center for Studies and Research (Cepel) of the Sergio Arouca National

<sup>1</sup> Instituto de Estudos em Saúde Coletiva, Universidade Federal do Rio de Janeiro, Rio de Janeiro, Brasil.

#### Correspondence

N. E. K. Silva  
Instituto de Estudos em Saúde Coletiva, Universidade Federal do Rio de Janeiro.  
Av. Horácio Macedo s/n, Rio de Janeiro, RJ  
21941-598, Brasil.  
neks@iesc.ufrj.br



School of Public Health, Oswaldo Cruz Foundation (ENSP/Fiocruz) were already calling attention to the importance of social mobilization to expand the strategies for mitigation of factors favoring the proliferation of mosquitos, such as basic sanitation <sup>3,4</sup>.

Based on their experiences with community groups in low-income neighborhoods of Rio de Janeiro, these researchers problematize both the “dictatorship of urgency” exalted during outbreaks, when government rejects any discussion on the water supply system, and the “crisis of interpretation” by the mediators (professionals, technical staff, politicians) in understanding the discourse of community members, resulting from an attitude that fails to accept that residents of the peripheral neighborhoods are capable of producing knowledge and organizing and systematizing ideas on society that can even assist the mediators’ own understanding of the same society <sup>3</sup>. To address such issues, they propose to rethink community participation in the control of endemics based on shared construction of knowhow that considers the various forms of knowledge (technical-scientific knowledge and community experiences) and emerges from the structuring and strengthening of social support networks <sup>4</sup>.

Other authors have advocated for new technological models in the organization of the work process and healthcare that are structured through social participation, such as the proposal for territory-based health surveillance <sup>5</sup>.

Since arbovirus infections returned to Brazil’s national scene, taking center stage in public health, the the health sector’s response has still been based hegemonically on the medical, individual patient-care, and campaign-based model, with centralizing government interventions, a top-down communication model, little linkage with social determinants of health, and absence of territorial organization and social mobilization <sup>5</sup>.

### **The framework of vulnerability and human rights and the critique of hegemonic practices**

The distribution of information leaflets and campaigns based on community clean-up drives aimed at eliminating mosquito breeding sites are old and widespread health education technologies, founded on pedagogical assumptions based on the transmission of information and individual behavior change, blaming the population for the breeding sites harboring *Ae. aegypti* larvae.

Some authors <sup>3,6,7,8</sup> have called attention to the fact that, although information and behavior change can be considered in the prevention activities, the practical experience has shown that they alone are insufficient and/or ineffective. Moreover scare tactics increase the discrimination and prejudice <sup>7</sup>.

In the context of the AIDS epidemic in the world and in Brazil, these criticisms led to the proposal of the vulnerability and human rights framework <sup>9,10</sup>, which allowed many of actions in HIV prevention to shift from the centrality of information and behavior modeling to contexts that explore the process of discrimination and stigmatization, as well as the guarantee of rights and government accountability, with a view towards promoting community participation and human rights <sup>8</sup>.

The concept of vulnerability encompasses multiple meanings, ranging from those developed by bioethics, evidencing the weaknesses inherent to all human beings, to those associated with human rights, denouncing the inequalities that express injustices and oppression. In public health, the notion was explored initially when the AIDS epidemic struck <sup>9</sup> and has progressively converged with the human rights references and debates.

Nearly two decades since the first Brazilian publications proposed analyses based on the vulnerability and human rights framework, it is possible to summarize some of the traits <sup>11</sup> that can serve as the reference for analyses of vulnerabilities to arbovirus infections.

The above-mentioned framework assumes active linkage between theory and practice, glimpsing continuous feedback of elements that both foment the continuous (re)construction of knowledge and strategies for different interventions, considering the actual experiences of individuals in interaction.

The framework also allows identifying the practical meanings of experiences, that is, the values, fears, and perceptions in any events that threaten health, and which shape different ways of responding to such threats.

For example, it is worthwhile to reflect on the “place” of arbovirus infections in the context of health problems in a given territory, highlighting that the pragmatism assumed by the concept is not limited to a possible instrumentality of its use, but relates to the fertility of the questions it entails: “*what is at stake and why, how does it challenge us, what opportunities does it create for us, what values and feelings does it awaken in us, and what capacities does it require of us?*”<sup>11</sup> (p. 8).

The attempt here is thus to overcome the logic of factoring problems anchored in explanation, and to embrace a comprehensive approach that links the different dimensions that shape such problems. For this purpose, the analysis based on the framework of vulnerability and human rights links the broader social dimensions, the dimensions referring to individual conditions and capacities, and the dimensions involving health services’ institutionalized policies, programs, and practices (although the analysis can be performed based on one of them).

Thus, the incorporation of human rights takes a multidimensional and dynamic perspective that transcends its legal-normative nature, linking it to ethical, political, economic, social, historical, cultural, and pedagogical dimensions<sup>11</sup>, highlighting its emancipatory potential and the importance of investment in its pedagogical dimension. The struggle for rights is not “taken for granted”, and thus requires training for participation and exercise of rights, i.e., human rights education.

Given the environmental characteristics of arbovirus infections, the point of departure for recognition of vulnerabilities should be the local spaces where such spaces occur. Such spaces should be viewed not as mere places that harbor mosquitos, but focused on their surrounding conditions, the way the residents grasp and deal with them, the relations between local spaces and other spaces, etc.

### **Multidimensional analysis in rebuilding responses to arbovirus infections**

The following is an outline of an initial attempt to assimilate aspects from the vulnerability and human rights framework in health promotion and disease prevention concerning each of the proposed dimensions:

- (i) Individual dimension: life priorities and projects; meanings of arbovirus infections and the territory; conditions and capacity for receiving, searching for, and analyzing information critically, as well as the sources; conditions and capacity for exercising the human rights.
- (ii) Programmatic dimension: type and quality of information provided by health agencies; availability, quality, and impact of measures in prevention and health promotion and other demands related to arbovirus infections; consistency between policies and practices and the principles of the SUS; access to public services in general and especially sanitation; availability of channels for transparency and accountability related to rights (ombudsman’s offices, public defenders, etc.).
- (iii) Social dimension: economic and political interests and their relations with the environment and local territories; contexts of curtailment and violations of rights that affect the local population (violence, discrimination, etc.); favorable or unfavorable contexts for collective/participatory initiatives; contexts of production or mitigation of social inequalities.

Each of the three dimensions is grasped individually, but there also is a clear interdependence between them, whatever the point of departure. For example, the context of unfavorable social inequality for some population segments alone would not prevent the existence of health services, nor would it depend only on the residents’ initiative to demand such services. For the territory to have such services requires political will by government officials and the population’s capacity for organization and mobilization.

Drawing inspiration from Paulo Freire<sup>12</sup> and highlighting his critical reference<sup>2</sup>, the vulnerability and human rights framework is consistent with the idea of denunciation and announcement. Denunciation is expressed in the identification of vulnerabilities, emerging from real-life experiences and people’s involvement with health problems, while announcement involves the possibility of transformation of reality and is only possible when demands raise the tone from subjects’ rights to subjects of rights<sup>13</sup>.

Based on this perspective, studies and preventive practices in relation to arbovirus infections should overcome the “war-on-mosquitos” logic, which is limited to mass campaigns to eliminate domiciliary breeding sites, to cover the complexity and uniqueness of distinct territorial contexts

and real possibilities – but which have still not been tested – that minimize the vulnerabilities to the health problem. This requires engendering processes that promote active participation by the individuals living in the given community, with authentic dialogue and ethical-political-pedagogical action guided by reflection-action-reflection that allows establishing a critical analysis that confronts the so-called “problem” with the surrounding contexts, as well as building “untested feasibility” – unprecedented and viable collective projects that lay out the possibilities for actual creative acts for transformation of the reality <sup>14</sup>.

By transcending the issue’s individual and isolated dimensions, the approach proposed by the framework of vulnerability and human rights allows incorporating and dynamically and comprehensively linking other spheres that shape arbovirus infections as a health problem beyond the mosquito, breeding sites in backyards, and individual behavior.

To counter the discourses that threaten the principles of human and constitutional rights and the ethical and political principles consecrated in PHC requires our humility in undertaking a critique of our practices and innovation in their reconstruction.

## Contributors

N. E. K. Silva elaborated the study, collaborated in its conception and design, analyzed the information, and wrote the article. M. Ventura collaborated in the writing and final revision of the version for publication. C. A. Paro collaborated in the conception, analysis, and writing of the article.

## Additional informations

ORCID: Neide Emy Kurokawa e Silva (0000-0002-1314-8851); Miriam Ventura (0000-0001-8520-8844); César Augusto Paro (0000-0002-8447-9586).

## References

1. Carvalho RRP, Fortes PAC, Garrafa V. Reflexiones sobre la participación pública y privada en la asistencia a la salud. *Salud Pública Méx* 2014; 56:221-5.
2. Nobre MS. Curso livre de teoria crítica. Campinas: Papyrus; 2008.
3. Valla VV. Sobre participação popular: uma questão de perspectiva. *Cad Saúde Pública* 1998; 14 Suppl 2:S7-18.
4. Oliveira RM. A dengue no Rio de Janeiro: repensando a participação popular em saúde. *Cad Saúde Pública* 1998; 14 Suppl 2:S69-78.
5. Fernandes VR, Monken M, Gondin GMM, Luz ZMP, Lopes ABAS, Castro MC, et al. Denaturalizing “long-lasting endemic diseases”: social mobilization in the context of arboviral diseases in Brazil. In: Salazar LM, Villar RCL, editors. *Globalization and health inequities in Latin America*. Cham: Springer; 2018. p. 91-106.
6. Souza KR, Santos MLR, Guimarães ICS, Ribeiro GS, Silva LK. Saberes e práticas sobre controle do *Aedes aegypti* por diferentes sujeitos sociais na cidade de Salvador, Bahia, Brasil. *Cad Saúde Pública* 2018; 34:e00078017.
7. Ayres JRCM. Práticas educativas e prevenção de HIV/aids: lições aprendidas e desafios atuais. *Interface (Botucatu)* 2002; 6:11-24.
8. Paiva V. Sem mágicas soluções: a prevenção e o cuidado em HIV/aids e o processo de emancipação psicossocial. *Interface (Botucatu)* 2002; 6:25-38.
9. Mann J, Tarantola DJN, Netter TW. *Aids in the world*. Cambridge: Harvard University Press; 1992.

10. Ayres JR, Paiva V, França Jr. I. Conceitos e práticas de prevenção: da história natural da doença ao quadro da vulnerabilidade e direitos humanos. In: Paiva V, Ayres JR, Buchalla CM, organizadores. Vulnerabilidade e direitos humanos: prevenção e promoção da saúde. Livro I: da doença à cidadania. Curitiba: Juruá; 2012. p. 71-94.
11. Ayres JR, CM. Vulnerabilidade, direitos humanos e cuidado: aportes conceituais. In: Barros S, Campos PFS, Fernandes JJS, organizadores. Atenção à saúde de populações vulneráveis. Barueri: Edições Manole; 2014. p. 1-25.
12. Freire P. Pedagogia da indignação: cartas pedagógicas e outros escritos. 3ª Ed. São Paulo: Paz e Terra; 2016.
13. Rifiotis T. Direitos humanos: sujeito de direitos e direitos do sujeito. In: Silveira RMG, Dias AA, Ferreira LFG, Feitosa LAPAM, Zenaide MNT, organizadores. Educação em direitos humanos: fundamentos teórico-metodológicos. João Pessoa: Editora Universitária; 2007. p. 231-44.
14. Paro CA, Ventura M, Silva NEK. Paulo Freire e o inédito viável: esperança, utopia e transformação na saúde. Trab Educ Saúde 2020; 18:e0022757.

---

Submitted on 01/Nov/2019  
Final version resubmitted on 21/May/2020  
Approved on 06/Jul/2020