

Overestimation of hospitalizations due to the lack of sanitation in Brazil: The spread of an urban legend through internet

Christovam Barcellos
Departamento de Informações em Saúde,
Centro de Informação Científica e Tecnológica,
Fundação Oswaldo Cruz,
e-mail: xris@cict.fiocruz.br
Av Brasil 4365, Manguinhos,
Rio de Janeiro, 21045-900, Brasil

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The assertion that "in Brazil, 68% of the hospitalizations are due to the lack of sanitation" is presently widespread in internet. The proportion of water-related diseases on the total hospitalization burden is obviously overestimated, considering that the main cause of hospitalization in Brazil is, fortunately, the delivery. Brazilian Health Ministry offers the access to health information through an internet site, in which it is possible to tabulate data on hospitalizations, deaths, live births, and population (www.datasus.gov.br). Using this information source it was calculated that infectious and parasitic diseases (IPD) appear as the fourth cause, corresponding to 8.4% of the total of hospitalization burden. When considering strictly the water-related diseases, this proportion declines to 4.8%. It is impossible to track the origin of the false assertion. Using an internet search machine, this assertion was located in 204 internet sites, such as environmental conservation governmental and non-governmental organizations, professional associations, faculties and research centers. Other 472 sites pages show small modifications of this sentence. One of those sites state that "around 85% of the known diseases are water

associated". The dissemination pattern of this false information characterizes an urban legend¹: the frightening content, the absence or imprecision of information sources, the lack of place and time specification of context, and its systematic recurrence. In fact, most of those sites does not mention any reference, or do in vague way, hampering the identification of information sources and their reliability, using sentences such as "The WHO affirms...", "data of the last census shows...", "data of Health Ministry reveal...", etc. The citation flow among documents was mapped based on the cited reference by each web site.

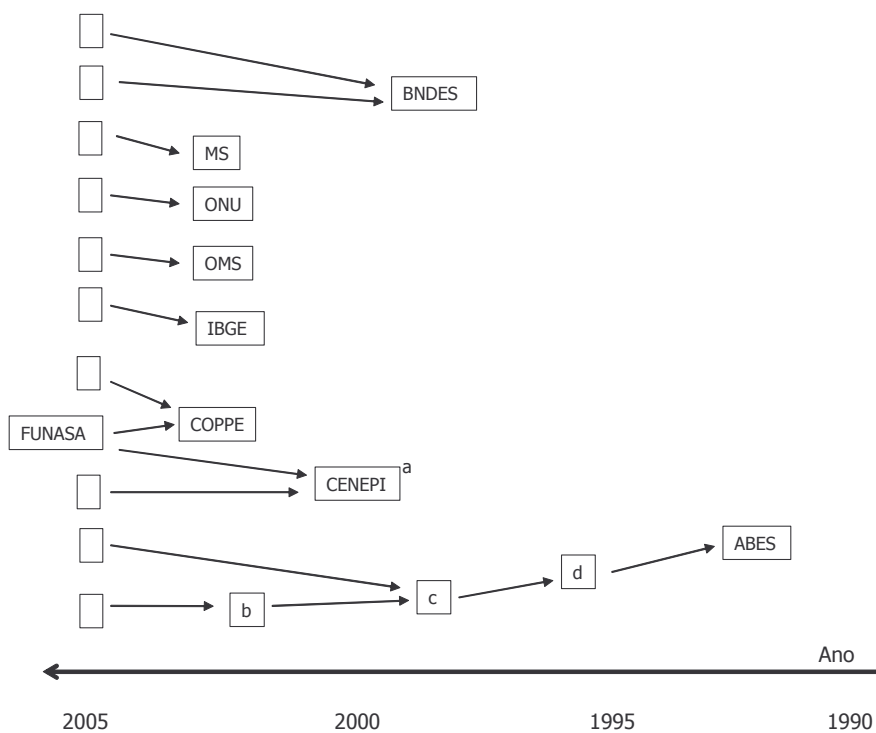


Figure 1: Citation flow of the assertion that "in Brazil, 68% of the hospitalizations are due to the lack of sanitation". Main institutions cited and references among these institutions.

The main cited institutional references for the assertion were the WHO, Brazilian Ministry of Health, and the National Bank of Social and Economic Development (BNDES). The Brazilian Sanitation Engineering Association (ABES) was identified as the likely original source and the false information dissemination pathways were traced through internet.

The diffusion of the information seems to be promoted by corporative groups interested on expanding civil sanitation works². However, the actual sanitation needs in Brazil are mainly the permanent water provision in quality and quantity standards, the protection of water springs, the adequate waste disposal and wastewater collection and treatment. These improvements should guarantee the quality of water supply services, instead of their quantity³. The spread of wrong figures on hospitalization due to the lack of sanitation jeopardize the social investment on real priorities. The construction of epidemiological indicators is a prime task for monitoring sanitation conditions and certainly hospitalization is not the appropriate indicator.

References

1 Urban Legends. www.christianarsenal.com/UrbanLegends.htm. (access in April 20, 2005)

2 Mota, S. Saneamento. In: Rouquariol, M. Z. Epidemiologia e saúde. 5a ed. Rio de Janeiro: Editora FIOCRUZ, 2000.

3 Barcellos, C.; Barbosa, K.C.; Pina, M.F.; Magalhães, M.M.A.F.; Paola, J.C.M.D.; Santos, S.M. (1998) Interrelacionamento de dados ambientais e de saúde: Análise de risco à saúde aplicada ao abastecimento de água no Rio de Janeiro utilizando Sistemas de Informações Geográficas, Cadernos de Saúde Pública, 14(3): 597-605.