



Living Conditions, Healthy Practice and State of Households of a Town Rural in Colombia

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Abstract

Objective: To determine the hygienic-sanitary conditions of rural houses in a municipality of the Colombian Caribbean zone to identify characteristics and socioeconomic conditions regarding public health.

Method: A cross-sectional descriptive epidemiological study was carried out in 32 different dwellings in a rural municipality belonging to the department of Bolívar, located in the northern area of the Department of Bolívar, which, through the application of hygienic-sanitary inspections, sought to determine their current status against as indicated by sectoral and national policies that deal with public health. Within the population of 73,169 inhabitants according to DANE projections, representing 3.4% of the departmental population. The main motivation for the development of this project is based on the fact that almost half of the world's population lacks basic sanitation to protect their environment from human fecal contamination. Building a latrine is the first step on the sanitation ladder in developing countries where the majority of the population defecates in open or public areas. Public health programs to improve sanitation have consistently framed promotional messages in terms of preventing fecal-oral diseases and largely do not motivate changes in sanitation behavior. In this community there are at least 500 families residing for 18 years, with topographic difficulties, but with access to basic public services. Whereas the public health plan proposes projections to improve the health conditions of the population by focusing attention on the most vulnerable groups and applying a comprehensive care model based on the risk approach, continuous improvement of the quality of care and the promotion of participation and social control.

Results: The deficiencies found in most of the homes are related to poor lighting elements, the appearance of structural failures and inappropriate habits for cleaning and waste management in general. The findings made in this project will be published in a scientific journal, a book chapter, and a scientific outreach event.

Conclusions: Most of the anomalies found, both in houses and access roads, are of a structural nature, facilities, poor waste management and difficulties in the provision of drinking water next to the sectored toilet in green areas. It is very important to be trained and trained in good hygiene practices, deratization, and fumigation and to multiply the information in the younger population of the community about these practices.

Keywords: Sanitary Conditions; Socio-Economic; Public Health; Epidemiology

Abbreviations: ARI: Acute Respiratory Infections; WHO: World Health Organization; PHAO: Pan American Health Organization

Introduction

Sanitation is a term used primarily to characterize the safe and correct handling (and disposal) of human excreta, or simply, people's approach to taking care of their urgent (primary and unavoidable) need. According to the recent Human Development Report 2006, global access to adequate sanitation is approximately 58% and 37% is a conservative estimate for both South Asia and Sub-Saharan Africa [1].

Almost half of the world's population lacks basic sanitation to protect their environment from human fecal contamination. Building a latrine is the first step on the sanitation ladder in developing countries where most of the population defecates in open or public areas. Public health programs to improve sanitation have consistently framed promotional messages in terms of preventing fecal-oral diseases and largely do not motivate changes in sanitation behavior [2].

More than a third of the world's population (2.4 billion people) lacks access to proper excreta disposal. Four in five of these underserved people are in Asia, with about one in five in India and China, respectively. Even in large Asian cities, less than half of the people served use sewage systems; the others use on-site systems, from pit latrines to septic tanks. Most have been installed by homeowners or homebuilders employed by them, rather than by government or municipal agencies [3].

In developing countries, children under the age of five living in slums are highly vulnerable to diarrhea. However, there is a paucity of information on the relationship between sanitation facilities and hygienic conditions with acute diarrhea among children less than five years of age [4]. An estimated 40% of the world's population lacks access to sanitation facilities. Approximately 6,000 children, most of them in developing countries, die every day from diseases related to inadequate sanitation and lack of access to safe drinking water. In Europe, only 30% of all waterborne wastewater functions sustainably [5].

The changing role of government in the provision of infrastructure and the need for a community-based approach are gaining increasing recognition, but the extent to which local communities are involved in the provision of urban infrastructure in developing countries has not received adequate attention in the provision of their essential basic services [6].

Many factors in the home environment can negatively influence health. Lack of access to piped water or a nearby riser and lack of sanitation facilities are often considered key indicators of "unhealthy" housing, leading to a high burden of disease, in both urban and rural areas. Housing factors such as high noise levels, poor air quality, inadequate waste collection and storage facilities, poor food preparation and storage facilities, extreme temperatures and high humidity, overcrowding, poor lighting, inadequate or inappropriate building materials, construction defects and pests [7].

Recent research in developing countries provides theoretical and empirical evidence of a disparity in the conditions of the users of sanitation facilities and the expectations of the community; leaving many concerns expressed about the dimensions of community sanitation, it is in fact the only viable alternative for middle to low-income neighborhoods that see in the adequacy of community sanitation an opportunity to improve the health of the inhabitants [8].

Access to peri-urban water and sanitation services is one of the main needs to be covered and the result of formal policies of state origin, which is the key to structural improvements in water and sanitation that together with the use of appropriate and proven practices achieve recognition and articulation with the formal system under the new governance regimes [9].

Studies on the health status of slum people in Nairobi, Kenya show that more women with average age (by slum) of 20.46 to 21.30 years than men with average age of (by slum) 15.86 to 19.49 years They are the visitors to the clinic. The top self-reported visitor health complaints were cough, abdominal pain, and headache for both genders. The most frequent diagnoses were viruses, acute respiratory infections and bronchitis. Differences in health complaints by slums were noted and are described here. Major health complaints and diagnoses, in addition to differences in slum health complaints and diagnoses, show that conditions can have important influences on health status [10].

The risk of Acute Respiratory Infections (ARI) in low-income children demonstrated a significantly higher incidence of ARF in mal-nourished children and in children from poor socioeconomic class with poor access to basic public services [11].

Small differences were found between the educated and uneducated groups in the knowledge and practice of home hygiene. Health services in the village were used by all women regardless of whether they had attended school or not, but educated mothers seemed to have a better understanding of health education messages [12].

Children whose parents are uneducated and relatively poor will experience significantly higher mortality risks than children of the educated and less poor. Conditional risks assess the impact of health equity by estimating the interaction of equity indicators with household exposure to CHPS service operations [13]. The central purpose of this initiative is to determine the hygienic-sanitary conditions of rural homes in a municipality of the Colombian Caribbean zone to identify characteristics and socioeconomic conditions regarding public health.

Review and Background

The Bangkok Charter (2005) affirms that policies and partnerships to empower communities and improve health and equity must be at the center of global and national development. Community participation, alliances, empowerment and equity are keys to building healthy spaces. They integrate the commitment to health within the culture, structure, processes and routines of the spaces.

Review of the Caribbean context Multi-family homes and single-family homes generally present more acceptable environmental conditions than existing homes in barracks or citadels. In this way, apartments and single-family dwellings could be considered the best, while existing homes in barracks would be the worst [14].

According to the World Health Organization (WHO) and the Pan American Health Organization (PAHO), healthy housing must meet the following conditions: secure tenure, which leads to recognizing residents as property owners and they have documentation legal possession for property and land; safe location, located in a safe place without threat of natural risks, protected from exposure or proximity to industrial or commercial areas with high production of noise, industrial waste, odors or environmental pollution [15].

The housing phenomenon in Colombia shows that according to the last census of 2005, in Colombia about 3.8 million homes have a qualitative housing deficit or lack it, with the department of Antioquia as the fourth that concentrates more than 50% of the population, housing need of the country [16]. Considering that the human population in the richest countries spends up to 90% of their lives in an indoor environment, especially in the home, the links between housing and health are really strong, and more must be done to improve the general consideration of these issues both in the general population and in the home [17].

In Colombia, there is no legal figure that supports residents regarding physical, spatial or environmental problems that arise in the closed unit or in the apartment, either due to the quality of the materials and facilities, or due

to the size and arrangement of the spaces that challenge the habitability of this typology, the patrimony of the buyers and, even, the peaceful coexistence, the mental health or the lives of the residents [18].

The environment of the residential area is important, being relatively difficult to maintain good sanitary practices when the local community has poor sanitation and water supply conditions. Communities often share similar values and norms, which, through pressure from others, often play an important role in shaping health behaviors [19].

Hygienic-sanitary quality as a factor of SAN has been widely studied and discussed, since food-borne diseases are one of the main factors that contribute to morbidity rates in the countries of Latin America and the Caribbean [20].

At present, in some spaces with low population density (which includes a dispersed population and populated centers with few inhabitants), it is difficult to access information, both on public policies and on the risks to their sanitary conditions due to certain personal and social behaviors. One of the most important aspects of physical health is the consumption of water potentially contaminated by human activity. It is described that one of the most frequent causes of gastrointestinal diseases in humans is transmissible by the contamination of water intended for domestic consumption, with etiological agents of viral origin such as rotavirus, astrovirus, adenovirus and norovirus, among others, as well as bacteria [21].

The above, together with the social structural factors of the territory, added to unhealthy behaviors, generate the favorable conditions for the development of infectious diseases, which have an impact especially in childhood and in older adults. The virological analysis demonstrates this, which, articulated with the analytical approach of agrarian social processes, makes it possible to interpret the sanitary and health conditions of the inhabitants of such rural territories as part of the social inequalities that are "marked" in their bodies on a daily basis [22].

The detrimental effects of poor health on family living standards are also increasingly being viewed as an issue of social justice, possibly reflecting the view that loss of income and health care payments associated with ill health is simply the unintended consequence of unwanted health "shocks" (Wagstaff A, van Doorslaer, 1993). In some rural areas of Chile, it is evident that the public sewerage system only exists in the urban area (23.4), implying a lack of care with the sanitation and handling of food. The large number of families that use water from sources / wells for human consumption can harm their condition of Food and Nutritional Security [23-26].

Methodology

Through a cross-sectional descriptive epidemiological study in 32 different homes in a rural municipality belonging to the northern area of the Department of Bolívar, which through the application of hygienic-sanitary inspections sought to determine their current status compared to what is indicated by the sectorial and national policies that deal with public health.

A previously tested structured health card and an observational checklist were used for data collection to evaluate the environments of the homes of the selected individuals, in order to carry out a hygienic assessment of the 32 homes where the cases under study resided. The procedure consisted in the application of said card with a health rating record of the environments by means of a closed survey, through interviews with residents of houses and a hygienic inspection of the existing spaces, as well as the verification of the dwelling by a water and sanitation technologist.

The precision of the tool in its national validation had been defined in a 0.99 confidence interval in the 85.5 to 93.5% limits. Each respondent of the survey was trained in the topics covered, emphasizing the deficiencies detected at the time of the activity and providing educational and illustrative material (brochure) on aspects of health and hygiene in the home. The data obtained in the visits to be ordered and tabulated to form the primary database that allows the processing of useful information in the results report to be published.

Results

In the evaluations carried out, they correspond to a sample where 45% of the total inhabitants are men, 46% are women and 9% are children. Some of the evaluated considered living in conditions sanitary unsatisfactory, because they share a room between 5 to 7 people, being considered these anti hygienic in 24.5% and with overcrowding in 13.2% and also inhabitable in 2%.

Housing Conditions

In 16 of the homes visited (50%) deficiencies were found, for example, insufficient lighting in rooms and common areas, 25 of the homes (78%) require adaptation actions to avoid possible health consequences (replacement of roofs, adequacy of floors and walls) with also problems of humidity and molds (52.8%). The second was the insufficiency of the floor area in relation to the inhabitants (37.7%). Other problems were the bedrooms (9.4%), the bathrooms (8.5%) and the kitchens that did not meet the minimum safety

requirements, but that were not sufficient both in the ceiling heights (3.7%), as in the windows (2.8%) of the rooms, in contravention of the Colombian law that deals with it.

It is also inferred that only 21.40% of the homes represent a good condition of their homes and have good practices in environmental health, reflecting the ideal condition of a healthy home, the remaining 78.6% should reinforce aspects of construction and hygiene inside their homes both in the field of environmental health and the adoption of good environmental practices and infrastructure of their home, good to environmental practices and waste management.

Quality and Consumption of Drinking Water

The results of the sociological survey showed that among rural residents the demand for a consumption of treated drinking water increased, due to the deterioration of the quality of tap water in rural areas. 22% of the respondents indicated that the quality of the drinking water was inadequate, especially due to factors such as odor, color and the presence of rust that can affect their health. It was determined that there was a frequency of use of bottled drinking water: daily it was used by 13 rural respondents (40.6%), once a week - 11 respondents (34.3%), 2-3 times a week - 8 respondents (25%).

Waste Management

In all homes surveyed the collection of household waste was evidenced by the lending company in intervening days, although there is no culture of segregation at source, due to that inside household waste indiscriminate way are collected given if n do no sorting or separation is coughing taking into account the characteristics of such waste by increasing the risk health of solid waste unwilling exposing them to suffer injuries, intoxication or infection by a bad disposition, in addition to make sure that the home have adequate and easy-to-use sanitary facilities. In case the toilets are of the flush type, it is preferable that the toilet bowls are of the squat type rather than the sitting type.

Conclusion

In the results predominated hygiene and unfavorable housing conditions (faults in structure) where the latter are decisive in the requirements to apply as educating the population on the use adequacy of resources, practices sanitation, basic, training and management ordinary waste, drinking and sewage water management. It is important to train and train in good hygiene practices, deratization, fumigation and multiply the information in the younger population of the community about these practices.

Recommendations

Housing Conditions

The surveyed dwellings must implement improvements in the infrastructure of areas (floors, walls, and ceilings) which must be built in washable materials, in addition to the distribution of areas of the dwelling and the adoption of hygienic habits such as (regular cleaning, sanitation of areas, lighting of rooms and common areas, disinfection of bathrooms and kitchen, pest fumigation).

Quality and Consumption of Drinking Water

You must be certain of the quality of the water to be consumed, this in order to avoid diseases due to gastrointestinal infections or poisonings, in case you do not have security about this condition in the water received, alternatives such as decantation, boiling and the use of disinfectants Commercial are a good option, which alternated with proper storage that ensures hygiene should be mandatory activities if they are to guarantee the health of the community.

In Waste Storage

Use suitable containers such as plastic containers with covers and marked to avoid poor intermediate disposal of waste. Combustible waste such as paper, plastic and glass can be classified and disposed of for recycling, avoiding burning and dumping in the open, which are polluting practices that are harmful to collective health.

Biodegradable waste can be buried to be used as organic fertilizer on plants or domestic crops.

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