

## Diagnostic characterization of services providing care to victims of accidents and violence in five Brazilian state capitals

### Caracterização diagnóstica dos serviços que atendem a vítimas de acidentes e violências em cinco capitais brasileiras

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**Abstract** *This article characterizes the services providing care to victims in five Brazilian regions with high violence and accident rates. It analyzes care activities and strategies, the profile of the teams, the conditions of installations, equipment and supplies, integrated care and registration services and the opinion of health managers with respect to the needs and requirements for a better care to the victims. The sample is composed by 103 services: 34 from Recife, 25 from Rio de Janeiro, 18 from Manaus, 18 from Curitiba and 8 from Brasília. The still preliminary results indicate: lower number of services focusing on the elderly; scarce investment in preventive actions; the principal actions carried out are social assistance, ambulatory and hospital care and psychological assistance; patients received from Basic Health Units require attention of the communities and families; need for investment in capacity building programs for professionals; precarious registries, data handled manually. The wording of the National Policy for Reduction of Morbidity and Mortality from Accidents and Violence is not well-known and there is a lack of articulation among and inside sectors and between prehospital and emergency care services. Rehabilitation services are insufficient in all cities.*

**Key words** *Violence, Accidents, Public policies, Services*

**Resumo** *Este artigo caracteriza serviços que atendem as vítimas em capitais das cinco regiões brasileiras com altos índices de violências e acidentes. Analisam-se atividades e estratégias de atendimento, perfil das equipes, condições das instalações, equipamentos e insumos, serviços integrados de atenção e de registro de agravos e a ótica de gestores de saúde sobre demandas e necessidades para uma atenção de qualidade às vítimas. O acervo se constitui de 103 serviços: 34 de Recife, 25 de Rio de Janeiro, 18 de Manaus, 18 de Curitiba e 8 de Brasília. Os resultados ainda preliminares indicam: menor número de serviços com atendimentos voltados a idosos; pouco investimento em ações de prevenção; suporte social, atendimento ambulatorial, hospitalar e psicológico são as principais ações empreendidas; encaminhamentos das unidades básicas de saúde requerem atenção nas comunidades e famílias; necessidade de investimentos na capacitação dos profissionais para atendimento; registros precários e feitos manualmente. O texto da Política Nacional de Redução de Morbimortalidade por Acidentes e Violências é pouco conhecido e há desarticulação inter e intra-institucional e entre atendimento pré-hospitalar e de emergência. Em todas as cidades há insuficiência de serviços de reabilitação.*

**Palavras-chave** *Violência, Acidentes, Políticas públicas, Serviços*

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## Introduction

In 2005, violence and accidents were the second cause of general mortality in the country and the sixth cause for hospital admissions<sup>1</sup>. The increasing demand for services providing care in case of injuries and traumas provoked by these phenomena requires new skills, equipment and organization of the health system. These challenges imply in extensive reflections, decision-making and actions. Seeking to offer directives for the actions on State and municipal level, the Ministry of Health elaborated the National Policy for Reduction of Morbidity and Mortality from Accidents and Violence<sup>2</sup>.

The main directives of this policy are: 1) promotion and adoption of sound conducts and environments; 2) monitoring of the occurrence of accidents and violence; 3) systematization, amplification and consolidation of prehospital care; 4) interdisciplinary and intersectorial care to victims of accidents and violence; 5) structuring and consolidation of services focused on recovery and rehabilitation; 6) capacity building for human resources; 7) studies and research activities.

With this policy, the issue is officially introduced to the agenda of the health sector, extending its formerly limited approach to the police and the judicial branch. However, in spite of the priority given by this specific policy to the care to victims of accidents and violence, the efforts for organizing a system for delivering this care were slow, fragmented and embarrassed by the high demand. This is why initiatives for evaluating the implantation of the policy, the advances and gaps in the care services, and for identifying the forms of organization and investment used by the sector for monitoring this situation, are so important.

The present article analyzes part of the data produced by the research project "Diagnostic analysis of local health care systems for victims of accidents and violence". The original investigation aims at a diagnostic analysis of the organization of health care services for victims of accidents and violence in five Brazilian capitals (Rio de Janeiro, Recife, Brasília, Curitiba e Manaus) and at suggesting a methodology for evaluating these services. The paper seeks to characterize the services providing assistance to these victims in the mentioned capitals, to analyze their strategies and activities, the profile of the staff, the conditions of facilities, equipment and supplies, integrated services and the way

the cases are registered. Finally we analyze the difficulties for consolidating high-quality assistance to these victims from the viewpoint of health managers.

The diagnostic analysis carried out in this paper refers to the quality and quantity of the offered services. Diagnosis is understood as an analysis of the situation, considering among others the available general infrastructure as well as the planning and support activities for granting successful actions. This strategic investigation is engaged in finding answers from the system, with the intent to improve the care delivered to the population in question<sup>3</sup>.

## Methodology

The investigation was carried out using the method of triangulation aimed at: 1) cross-examination of different viewpoints; 2) joint action of researchers from different fields; 3) combining the viewpoint of different informants; and 4) use of different techniques for data collection. In practice, this method allows for interaction, intersubjectivity and comparison<sup>4,5,6</sup>.

The original investigation is interinstitutional and interdisciplinary and was carried out by researchers making part of different research and teaching programs of the five cities under study.

### Criteria used for selecting the capitals

The study covers the cities of Manaus, in the North of the country, with an estimated population of 1,644,690 inhabitants for 2005; Recife with 1,501,008; Rio de Janeiro with 6,094,183; Brasília with 2,333,108; and Curitiba with 1,757,904 inhabitants<sup>7</sup>.

The cities were selected based on a study carried out by Souza<sup>8</sup> for the Ministry of Health, aimed at subsidizing the establishment of the National Plan for the Prevention of Violence. The study included 224 cities of the country with more than 100,000 inhabitants and constructed a synthetic indicator for violence based on the number of deaths and mortality rates from homicide, traffic accidents and suicide in 2002. All municipalities were ranked on the basis of this synthetic indicator.

On national level, the here selected capitals ranked as follows: Rio de Janeiro, 2nd place; Recife, 3rd; Brasília, 5th; Manaus, 13th; and finally, Curitiba, in the 17th place. With excep-

tion to Rio de Janeiro, all cities were selected for occupying the first place in their respective regions in terms of violence. As refers specifically to the Southeast of the country, the city with the highest rate violence was São Paulo. However, in view of the complexity of this capital and for turning the study easier from the operational viewpoint, we opted for including the city of Rio de Janeiro, which occupied the second place in the region.

More recent data show that in 2003 all these cities continued presenting homicide rates higher than the national mean (28.2 per 100 thousand inhabitants); Brasília with a rate of 33.9; Curitiba with 28.5; Rio de Janeiro with 47.7; Recife with 67.4; and Manaus with 29.0 per 100 thousand inhabitants<sup>1</sup>.

### **Instruments used for collection, processing and analysis of data**

The instruments used for data collection were a questionnaire and semi-structured interviews. The questionnaire was applied to services providing health care to victims of accidents and violence. This instrument contains 23 questions with respect to the following variables: kind of institution, assisted population, development of preventive actions, institutional objectives, developed activities, strategies and means employed in the activities, services to which patients are directed, number of assisted victims, kind of registry, composition and qualification of the team providing assistance, physical installations, equipment, supplies and origin of financial resources.

In view of the magnitude of the service network of each of these cities, this study only included services providing specific care and/or directly intended to providing care to victims of violence/accidents indicated by representatives of the Municipal and State Health Departments. Units only occasionally providing this kind of assistance were not included in the study. A Basic Health Unit (BHU) for example was only included if carrying out some activity focused on violence.

The same methodology was used for identifying nongovernmental organizations (NGOs) providing assistance to victims clearly related to health care (those who provide care in the field of Public Safety or Defense of Rights were excluded). Thus, we investigated a number of 103 services: 34 from Recife, 25 from Rio de Janeiro, 18 from Manaus, 18 from Curitiba and

8 from Brasília. Thirteen of these services are NGOs, two are foundations and 88 governmental organizations linked to the Unified Health System (four of them through cooperation agreements).

Field investigations in the services of the western zone of the city of Rio de Janeiro were performed, but operational drawbacks (the team was victim of an assault) made it impossible to present these results. The data are being collected again and will be presented in future publications.

The data of the questionnaires were entered in a data bank (EpiData) and criticized. The analysis had exploratory character and used descriptive statistics (simple and relative frequencies) for all variables.

Health managers and experts involved in the planning and execution of assistive activities to victims of accidents and violence (directors of health units, heads of emergency departments and rescue services, and coordinators of the sectors epidemiology and planning) were interviewed. We heard professionals and managers involved in prehospital care, emergency and rehabilitation, the three areas considered essential by the National Policy for Reduction of Morbidity and Mortality from Accidents and Violence. The interviews explore the main difficulties faced by these sectors. A total of 23 persons were interviewed, 5 in Curitiba, 6 in Brasília, 5 in Rio de Janeiro, 3 in Manaus and 4 in Recife.

The interviews were transcribed and analyzed according to the principles of content analysis, with basis on their thematic modality<sup>9</sup>. Content analysis was performed by means of interpretation<sup>10</sup>. Anyway, given the exploratory character of the study, priority was given to stated information (manifest content). The analysis involved the following steps: 1) reading of the entire material; 2) identification and comparison of ideas and senses contained in each question; 3) description of senses attributed in the answers of the professionals; 4) outline of interpretative hypotheses.

## **Results and discussion**

### **Characterization of institutions**

Most services providing care to victims of accidents and violence belong to the municipal public system (38.1%), followed by the state

system (37.1%), and only 7.2% make part of the federal system. The services cooperating with the Unified Health System by means of agreements or foundations/companies amount to 5.8% of the total of services. These data show that in the organization of the Brazilian public health system the municipalities are mainly in charge of actions. The care provided on state level however is also quite significant. The states are responsible for providing financial support and formulating policies as well as for coordinating regional systems and for carrying out specific regional actions.

The state system is mainly represented in Brasília, where it is responsible for the total of services, and in Manaus, where it corresponds to 55.6% of provided services. Expressive percentages of the services, 47.1% in Recife, 50% in Curitiba and 48% in Rio de Janeiro, are delivered by municipal systems. In Manaus, 16.7% of studied units belong to the federal system.

The NGOs have a modest participation in the provision of health services to victims of violence and accidents (12.6% of the total of provided services), mostly in Recife (20.6%) and in Rio de Janeiro (16%).

Seeing that the majority of studied services are public initiatives, 92.2% of them are formally institutionalized, a fact contributing to the continuity of actions. The highest level of institutionalization was found in Manaus (100%) and the lowest percentage (75%) was found in Brasília.

From the 103 studied services, 34 are operating in Recife, including 14 prehospital services, 7 hospitals, 6 rehabilitation centers and 7 NGOs. The 25 services in Rio de Janeiro are distributed among 8 prehospital services, 12 hospitals, 1 rehabilitation service and 4 NGOs. The 18 units operating in Manaus include 8 hospitals, 7 prehospital and 3 rehabilitation

units. The 18 services in Curitiba are composed by 7 prehospital units, 6 hospitals, 3 rehabilitation services and 2 NGOs. Brasília has 8 services, 4 hospitals and 4 prehospital care units. Some of the services characterized here as prehospital units provide specialized ambulatory care to victims. The NGOs represent a group of heterogeneous initiatives, ranging from care to victims of conjugal violence, ill-treatment of children and adolescents to physical rehabilitation.

As shown in table 1, among the groups considered "target groups" according to criteria like age, gender, etc., the most frequently assisted group by these services are children and adolescents (92.2%), followed by women with 79.6%. The group family, considered a specific target group, was the less mentioned one. Only 26.2% of the services declared providing care to this group.

Among the studied cities, Curitiba and Manaus show the highest percentage of services provided to man, women and the elderly. All services from Manaus and Brasilia informed providing assistance to children/adolescents, and the proportion of services providing care to young people in these cities is high (88.9% in Manaus and 87.6% in Brasilia).

The predominance of services focused on violence against children and adolescents is an indicator for the special interest and commitment of the academic community in studying this issue and investigating forms for intervening in this kind of violence and accidents<sup>11</sup>.

The expressive number of women among care providers is in part a result of the historical fight of the Brazilian feminist movement, finding in the health area a field for getting to action. The elderly appear only recently in the scenery of care provided to victims of accidents and violence. On the other hand, the family is still calling very little attention because the dy-

**Table 1**  
Proportion of care services according to groups.

|                | Children/<br>Adolescents | Young       | Men         | Women       | Elderly     | Families    |
|----------------|--------------------------|-------------|-------------|-------------|-------------|-------------|
| Brasília       | 100.0                    | 87.5        | 62.5        | 75.0        | 50.0        | 37.5        |
| Curitiba       | 94.1                     | 72.2        | 83.3        | 83.3        | 72.2        | 61.1        |
| Manaus         | 100.0                    | 88.9        | 88.9        | 88.9        | 77.8        | 11.1        |
| Recife         | 85.3                     | 58.8        | 55.9        | 76.5        | 52.9        | 11.8        |
| Rio de Janeiro | 92.0                     | 68.0        | 64.0        | 76.0        | 68.0        | 28.0        |
| <b>Total</b>   | <b>92.2</b>              | <b>70.9</b> | <b>68.9</b> | <b>79.6</b> | <b>64.1</b> | <b>26.2</b> |

namics of production and reproduction of violence, whose main locus are the multiple roles and arrangements in the family environment, are still not being taken into consideration<sup>12</sup>.

### Characterization of care activities

Table 2 shows that the greater part of services rendered to victims of violence and accidents occurred in Rio de Janeiro, Recife and Manaus, perhaps as a result of the high violence rates in these cities. In 2002 and 2003, this kind of assistance represented about 12% of the total of assisted individuals. This percentage is a little higher in Recife, in 2003, and in Rio, in 2004. These data however should be considered relative, given that the registries in many of the visited units are precarious, and in some of them based on estimations.

It has to be pointed out that the only service that answered to the investigation in Brasília is exclusively dedicated to providing care to victims of violence so that, in this case, the total number of assisted individuals is equivalent to the number of victims of accidents/violence.

Data for the year 2005 show a percentage of 6.9% of hospital admissions due to injuries and poisoning in Brazil, 10.2% of them in Curitiba, 7.6% in Brasília, 7.4% in Rio de Janeiro, 6.8% in Recife and 5.5% in Manaus<sup>12</sup>. The data for 2003 and 2004 of the studied services also include cases not recorded in the hospital admission authorizations. These data reveal much higher percentages for being reference data and for including ambulatory and emergency care.

Besides providing direct care to victims, 42.3% of the services also develop preventive

actions. This refers to 64% in Rio de Janeiro, 41.2% in Recife, 37.5% in Brasília, 27.8% in Manaus and 16.7% in Curitiba.

Considering the institutional objectives of the services of the five studied cities, the main objective (33.5%) was medical care. Here we should point out that health care involves more than medical care *per se*, but it can hardly be satisfactory without efficient medical care.

Recife stands out for presenting juridical assistance as the objective of 8.1% of its services. Research is the main objective of services only in Rio Janeiro, where 2.2% of services declare having this mission, besides capacity building for professionals, objective of 4% of the services in this city.

As can be seen in table 3, the main actions of the investigated services are social assistance (including a variety of actions such as counseling about rights, insertion in the labor market and family counseling) with 62.8%, ambulatory care (53.9%), hospital care (52.4%) and psychological care (offered by 48% of units). More than 40% of the services organize lectures and distribute educative material.

The cities also do not perform important actions to the same extent: psychological assistance, for example, is less offered in Rio de Janeiro and Curitiba; the strategy called Group of Parents is rarely used in Manaus and in Rio de Janeiro; workshops for prevention of violence are almost inexistent in Manaus; and domiciliary visits are rarely used by the services in Curitiba (a strategy prioritized by the Basic Health Units).

Taking into consideration the intersectorial articulations necessary for the care to victims of violence and accidents ratified by the National

**Table 2**

Distribution of total care provided and care provided to victims of accidents and violence by the services/programs in 2003 e 2004.

| Cities         | Total of persons attended by the service |                |                  |                | Total of attended victims of violence |                |                |                |
|----------------|--|----------------|------------------|----------------|---------------------------------------|----------------|----------------|----------------|
|                | 2003                                     |                | 2004             |                | 2003                                  |                | 2004           |                |
|                | n  | % <sup>1</sup> | n                | % <sup>1</sup> | n                                     | % <sup>2</sup> | n              | % <sup>2</sup> |
| Brasília       | 12,499 (T=1)                             | 0.3            | 13,089 (T=3)     | 0.3            | 12,499 (T=1)                          | 100.0          | 13,087 (T=3)   | 100.0          |
| Curitiba       | 608,096 (T=12)                           | 13.8           | 731,205 (T=14)   | 15.5           | 51,038 (T=7)                          | 8.4            | 77,864 (T=11)  | 10.6           |
| Manaus         | 1,279,213 (T=11)                         | 29.0           | 1,243,460 (T=13) | 26.4           | 127,198 (T=10)                        | 9.9            | 120,134 (T=11) | 9.7            |
| Recife         | 1,150,993 (T=24)                         | 26.1           | 1,512,176 (T=33) | 32.0           | 164,071 (T=15)                        | 14.3           | 160,432 (T=20) | 10.6           |
| Rio de Janeiro | 1,353,884 (T=17)                         | 30.8           | 1,216,156 (T=16) | 25.8           | 146,829 (T=16)                        | 10.8           | 230,408 (T=16) | 18.9           |
| <b>Total</b>   | <b>4,404,685</b>                         | <b>100.0</b>   | <b>4,716,086</b> | <b>100.0</b>   | <b>501,635</b>                        | <b>11.4</b>    | <b>601,925</b> | <b>12.8</b>    |

<sup>1</sup> Percentage calculated in relation to the total of cases attended in the five cities.

<sup>2</sup> Percentage calculated in relation to the total of cases attended each year in the city.

T = Total of institutions answering the question.

**Table 3**

Proportion of services according to the kind of actions and means.

| Actions/means   | Brasília | Curitiba | Manaus | Recife | Rio de Janeiro | Total |
|---|----------|----------|--------|--------|----------------|-------|
| Prehospital care ambulatory/stationary                | 75.0     | 35.3     | 38.9   | 11.8   | 16.0           | 26.5  |
| Hospital care   | 75.0     | 55.6     | 72.2   | 35.3   | 52.0           | 52.4  |
| Physical rehabilitation                               | 50.0     | 33.3     | 38.9   | 32.4   | 20.0           | 32.0  |
| Ambulatory care                                       | 75.0     | 61.1     | 64.7   | 38.2   | 56.0           | 53.9  |
| Social assistance                                     | 100.0    | 61.1     | 61.1   | 55.9   | –              | 62.8  |
| Domiciliary visit                                     | 37.5     | 22.2     | 27.8   | 32.4   | 32.0           | 30.1  |
| Psychological assistance                              | 62.5     | 38.9     | 50.0   | 58.8   | 33.3           | 48.0  |
| Group of parents                                      | 37.5     | 16.7     | 5.6    | 26.5   | 4.0            | 16.5  |
| Group of children/adolescents/young/<br>women/elderly | 25.0     | 11.1     | 11.1   | 29.4   | 28.0           | 22.3  |
| Waiting room group                                    | –        | 11.1     | 5.6    | –      | 16.0           | 6.8   |
| Workshops for prevention against violence             | 37.5     | 22.2     | 5.6    | 20.6   | 24.0           | 20.4  |
| Lectures  | 25.0     | 33.3     | 38.9   | 50.0   | 52.0           | 43.7  |
| Distribution of educational material                  | 37.5     | 50.0     | 33.3   | 38.2   | 52.0           | 42.7  |
| Other   | 37.5     | 27.8     | 25.0   | 17.6   | 50.0           | 30.0  |

Policy, we sought to identify the services present in this reference and contra-reference system. In all cities, the Tutorial Council (TC) received the highest percentage of patients (64.7%), followed by general hospitals (58.8%), specialized ambulatory services (57.6%) and specialized hospitals (56.9%). The high number of transfers to the TC combines with the expressive percentage of assisted children and adolescents.

The greater part of services studied in each city directs patients to specialized ambulatories, general hospitals, hospital emergencies, specialized hospitals, TC, the police department for the protection of children and adolescents, and social assistance services.

Recife shows lower percentages to this respect than the other cities, maybe for gathering a great number of reference services. A very low number of individuals however are directed to services for the defense of rights and police departments, suggesting the need for a better articulation of the health sector with the other sectors. In the city, 45.5% of the services direct patients to the TC, which is the most frequently used organism.

The greater part of services in the investigated cities inform receiving the patients from the Basic Health Units (55.8%), from the units of the Family Health Program (55.4%) and from the Tutorial Council (49.5%). This shows clearly that the units working with communities and families are aware to situations of accidents and violence and function as “entrance doors” to the system.

As can be seen in graph 1, the interaction with schools is deficient. These social organizations direct a high percentage of patients to the health sector but receive a low counter-reference from the health sector. This is noteworthy because these institutions play a strategic role for being in daily contact with children, adolescents and their families. The departments providing assistance to the elderly show also a modest participation in the system, probably because there are only few police units in charge of this question.

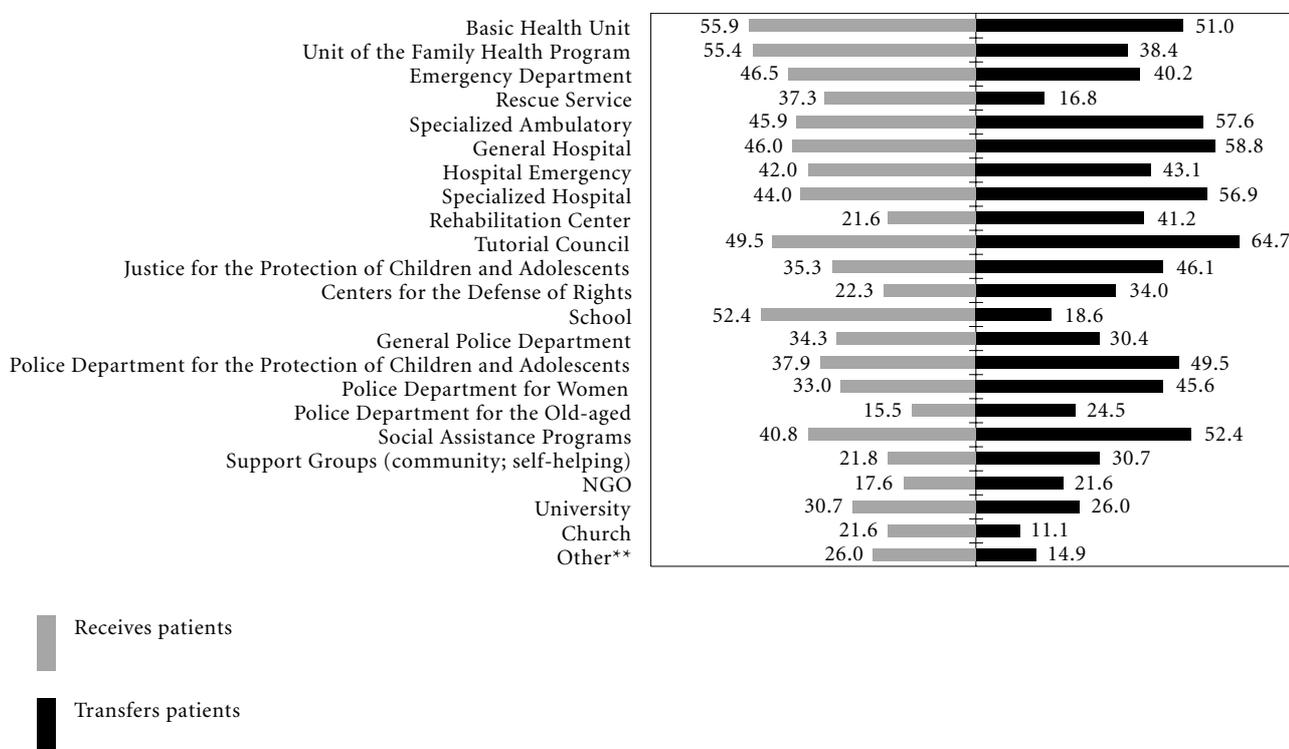
#### Characterization of the structure of the services/programs

As can be seen in table 4, the principal professional categories represented in most of the services are physicians, social workers, psychologists and nursing personnel, forming multidisciplinary teams. In Manaus, we found some other categories like nutritionists, pharmacists/biochemists and other academic professions, probably due to the considerably high number of hospitals existing there. Part of the information provided in this table deserves being commented, among others the existence of social workers in only 44.4% of units in Curitiba, of nurses in only 37.5% of units in Brasilia and 41.2% in Recife. In Recife and in Manaus, there is also a low percentage of nurse's aids (20.6% and 33.3% respectively).

As to capacity building of the staff for providing care to victims of accidents and violence,

**Graph 1**

Proportions of services transferring and receiving patients in situations of accidents/violence, referring the five analyzed Brazilian cities.\*



\* Brasília, Curitiba, Manaus, Recife and Rio de Janeiro.

**Table 4**

Proportion of services according to professional categories and occupations.

| Categories  | Brasília | Curitiba | Manaus | Recife | Rio de Janeiro |
|---|----------|----------|--------|--------|----------------|
| Physician   | 100.0    | 88.9     | 88.9   | 64.7   | 87.5           |
| Social worker   | 62.5     | 44.4     | 77.8   | 61.8   | 75.0           |
| Psychologist  | 50.0     | 50.0     | 55.6   | 58.8   | 62.5           |
| Nurse   | 37.5     | 66.7     | 77.8   | 41.2   | 62.5           |
| Physiotherapist, phonotherapist, occupational therapist | 12.5     | 33.3     | 33.3   | 26.5   | 12.5           |
| Odonthologist   | 12.5     | 38.9     | 27.8   | 23.5   | 16.7           |
| Nutritionist  | 37.5     |          | 75.0   | 11.8   | 25.0           |
| Pharmacist/biochemist                                   | 12.5     | 11.1     | 87.5   | –      | 4.2            |
| Professor/ educator/ pedagogue                          | 12.5     | 11.1     | 37.5   | 26.5   | –              |
| Graduate professionals from other fields                | –        | 22.2     | 75.0   | 26.5   | 16.7           |
| Nurse's aids/technicians                                | 75.0     | 72.2     | 33.3   | 20.6   | 50.0           |
| Other technical personnel                               | 25.0     | 27.8     | 37.5   | 5.9    | 8.33           |
| Students (undergraduate and graduate)                   | 37.5     | 33.3     | 25.0   | 5.9    | 16.7           |
| General services auxiliaries                            | 37.5     | 44.4     | 22.2   | 8.8    | 20.8           |
| Administrative agents/auxiliaries                       | –        | 44.4     | 25.0   | 2.9    | 8.3            |
| Cook/servant  | –        | 5.6      | 12.5   | –      | –              |
| Guard/ municipal guard/driver/ fireman                  | –        | 38.9     | 50.0   | 2.9    | 4.2            |

82% of the services of the different cities inform carrying out some activity in this sense. This figure oscillated between 100% in Curitiba and 73.5% in Recife, the city with the lowest percentage.

Of the total of investigated cities, 32.6% of services performed capacity building activities some time ago. The periods varied: 44.4% received capacity building 6 months before this investigation; 11.1% from 6 to 12 months before; 29.6% from 12 to 24 months; and 14.8% more than 24 months before the present study.

Capacity building programs are regularly offered to the staff in 44.4% of services of the studies cities. Brasília stands out with the highest percentage of services (75%) and the city of Recife calls attention for showing the lowest percentage (24.0%). The services in Rio de Janeiro (57.9%), Manaus (47.1%) and Curitiba (41.2%) show medium values.

The capacity building programs are mostly offered in six months (27.8%) or yearly (22.2%), intervals suggesting that in fact there is no continued investment.

In 20.9% of services of the investigated cities, the professionals seek for upgrading on their own account. As expected, this occurs most frequently in Recife (40.0%).

Finally, 2.3% of services declared that no capacity building is offered, nor is it sought by the professionals. This picture is more serious in Manaus, where 11.8% of services affirm this fact.

The sufficiency and adequacy of the infrastructure for providing care to victims of accidents and violence was evaluated by the services. As refers to *insufficiency*, the items considered most precarious were the physical installations, equipment, supplies and staff. Compared to the total of cities, Brasília and Rio de Janeiro showed most unsatisfied.

With respect to *adequacy*, the situation inverted. Most of the services of all cities (with exception to Brasília) informed having adequate installations.

The greater part of services declared to have data banks. In 50% of services, however, data are handled manually and only 40% work with an informatized data handling system. The highest percentage of services handling data manually was found in Brasília (87.5) and the highest rate of informatized handling of data was found in Manaus (64.7%). However, on collecting data in this city, we observed that in fact the data were not immediately available. It

must be pointed out that with exception to Brasília many services still do not keep records of their actions. This refers to 10% of the total of cities. In Rio de Janeiro and Recife, this percentage is of 12.5% and 14.7% respectively.

Asked about the existence of evaluation processes for their work, 67.0% of services answered positively: 84% in Rio de Janeiro, 77.8% in Curitiba, 75% in Brasília, 52.9% in Recife and 55.6% in Manaus.

Almost all services (98.1%) of the five cities confirm expecting to continue their work. Only in Manaus 5.6% of services answered negatively, probably due to the extinction of the prehospital care delivered by SOS and the Fire Department, and of one ambulatory service for victims of sexual violence.

The National Policy for Prevention of Accidents and Violence is only known by 57.7% of the investigated services, indicating insufficient dissemination. In Brasília and Curitiba, the percentages increase to 62.5% and 61.1% respectively. It was not possible to collect this information for Rio de Janeiro. In Manaus, 72.2% of services declared to know the policy, compared to only 47.1% in Recife. The researchers observed however that many times the informant affirms knowing the policy for being embarrassed to admit the contrary.

### **Prehospital, hospital and rehabilitation care to victims of accidents and violence from the viewpoint of health managers**

*Prehospital* care is basically emergency medical care provided to victims of acute clinical cases or traumas. Stabilizing patients early and efficiently not only significantly increases their chances of survival but also helps to avoid later sequels. Prehospital care can be provided by Basic Health Units, Community Health Programs, specialized ambulatories, services for diagnosis and therapy and by 24h emergency services, but many times these services do not accept victims of violence and accidents, directing them to the emergency centers of the great hospitals. Prehospital care also includes assistance to victims of interpersonal, domestic and other forms of violence. It further includes rescue and rapid transportation of victims to an emergency department<sup>13</sup>.

From the point of view of the health managers, this level of assistance faces a number of problems affecting directly the quality of the provided services. As refers to stationary pre-

hospital care units, the managers point to the lack of beds in relation to the demand. In Recife, the emergency services of the polyclinics have great clinical demand and do not provide care to victims of small injuries, not only due to the lack of personnel but because the lack of an established policy is overburdening the emergencies.

In some cities the ambulatory prehospital care is divided between two institutions: the Fire Department and the Service for Emergency Medical Care (SEMC), created by the Ministry of Health in 2003. In Manaus, in 2005, one witnessed the transition from the Fire Department and SOS Rescue, of municipal responsibility, to the SEMC. Health managers consider this division the motive for polemics and disagreements (a situation not occurring in Curitiba). The managers of the Fire Department argue that their department counts on more experience (25 years) and qualified staff but, on the other hand, they complain that the department is suffering a process of deterioration due to the lack of investment. The passage or redistribution of responsibilities between the two institutions resulted in an interruption of the services and lack of interchange of information between the two teams.

With regard to rescue services, the professionals interviewed in Recife, Brasília and Rio de Janeiro refer to the constant shortage of hospital beds. Unusual situations are related from Rio de Janeiro: patients in severe health conditions not being admitted in emergency departments under the allegation of lacking specialists; rescue teams forced to make true peregrinations for finding assistance for the victims. As an alternative, these professionals resort to personal relationships so that the victims are "accepted".

Other testimonies reveal that although the rescue services should contact the emergency services previously with respect to vacancies in order to avoid unnecessary transportations, in practice the teams decide not to do so, fearing negative answers *a priori*. They prefer to arrive with the patient and try to negotiate his admission.

Serious problems for rescuing victims living in the interior of the region were pointed out in Manaus. Some patients died due to the delay in being rescued.

The lack of beds, the insufficient human and financial resources combined with a high number of patients, seem to be the reason for

the resistance to accept serious victims, as stated by some of the interviewed professionals. A health manager from Recife says: *Many times we have to leave the stretcher there with the patient because there is no bed available*. A manager from Rio de Janeiro mentions that the paramedics are seen like people "bringing problems". This kind of obstacles and conflicts can result in considerable sequels and even in the death of users.

Some cities relate a lack of articulation between prehospital and emergency care. This collides seriously with the recommendations of the Ministry of Health in the sense of counting on the support of a system of reference and other services mediated by the Regulation Center, with defined flows and transfer mechanisms for patients<sup>13</sup>.

The *emergency care*, as confirmed by the literature, suffers from chronic overcrowding due to the ambulatory demand of less equipped neighbor cities and lack of spare beds, thus requiring a complex management<sup>14, 15</sup>.

This is completed by the lack of internal articulation in the hospitals. The emergency departments have difficult access to hospital beds, additional examinations, expert evaluation and transfer to internal sectors of the hospitals, resulting in unavoidable congestions. One also observes that some reference hospitals do not count on complete teams, sometimes a neurosurgeon is lacking, sometimes an orthopedist and sometimes another specialist. In Manaus for example, only one hospital counts on a neurosurgeon and another provides the only ophthalmologic emergency service in the city. According to health managers, the entire western zone of Rio de Janeiro has lack of neurosurgeons.

This kind of situation goes against the State Hospital Reference System for Urgency and Emergency Care, agreed between the Ministry of Health and state and municipal authorities. This system defines the establishment of regionalized and hierarchically organized care systems, allowing for a better articulation of services, defining flows and resolute references, elements indispensable for equal access and quality care<sup>13</sup>.

Managers from Rio de Janeiro report lack of supplies and material, not rare even lack of basic drugs. They also point to a considerable rotation of professionals in the emergency sector, many times staying those with no emergency profile. The weekend teams (the most

critical moment for emergency care to victims of violence and accidents) are the less prepared, usually composed by young professionals and students. In the late shift they are usually alone, with instructions to call the doctor if necessary.

According to the interviews, in all cities the *rehabilitation* sector is the most precarious among the services provided to victims of accidents and violence.

Health managers emphasize that this sector is clearly neglected in the agenda of the municipalities. First of all, they refer to the lack of beds for this kind of assistance, besides the small number of specialized services in the cities in relation to an ever increasing demand. Thus the waiting time is excessive and the services are forced to make the horrible choice between providing care during a longer time, according to the needs of each case, or reducing the time of treatment to be able to attend more patients.

The managers still consider the available services not well distributed from the geographical viewpoint. This points to the lack of planning of this sector in relation to the morbidity and mortality picture of the cities.

The conditions of these services for providing care to patients are also precarious. Not always the services count on multidisciplinary teams, there is no adequate maintenance for the equipment and sometimes they lack even the cheapest of them (balls for example), as well as orteses and prostheses.

The scarce or inexistent intersectorial or even sectorial articulation is heavily criticized by the managers. The emergency units do not orient the patients with respect to the need for rehabilitation. According to the managers, the health professionals “seem not to understand” the importance of a quick rehabilitation for avoiding a number of sequels. Other testimonies consider this a “lack of commitment” with the future quality of life of the patients. In this sense we have to point out the initiative of a service in Manaus (Pro-Amde of the Federal University of Amazonas) carrying out bedside actions in emergency departments. This initiative, however, counts on only forty beds for a demand estimated to be much higher.

In the opinion of the health managers, the health sector does not interact very much with other sectors essential for the quality of life and social insertion of handicapped individuals. Transports, education, social development and work are the sectors mostly mentioned for better integration of actions.

The registries in the field of rehabilitation do not allow for a monitoring of the impact of accidents and violence on the demand for rehabilitation. When the diagnosis is “trauma”, no reference is made to the cause that led to the disability. As only the ICD of the lesion is informed, there is no way of knowing how many patients were attended or how many orteses or prostheses were delivered to victims of traffic accidents and/or violence.

According to the testimonies, the services provided do not meet the principal requirements of the directives of the National Policy for Reduction of Morbidity and Mortality from Accidents and Violence with respect to rehabilitation: care provided to the patient but also to his family; multiprofessional assistance for avoiding sequels and disabilities and for providing conditions for reinsertion of the patient in his family, his work and the society in general; offer the means for rehabilitation; orientation and support to the patient and his family; orientation to health managers and professionals with regard to their role in orienting disabled individuals and their families<sup>12</sup>.

The situations related by the interviewed persons are also in disagreement with the Directive 818 of the Ministry of Health, creating mechanisms for the organization and implantation of State Networks for Assistance to Physically Disabled Persons<sup>16</sup>.

The reality described here seems to be common to all cities in the country. According to a diagnosis of the National Health Policy for the Disabled Person, the care provided to these persons is precarious; the coverage is low and concentrated in the Southwestern region of the country. Health managers are not very sensitive to the question, rehabilitation services are not well remunerated and articulations with university hospitals for specialized care are still in their beginning. Finally, one still verifies the lack of orteses, prostheses and collection bags<sup>16</sup>.

## Conclusions

This initial diagnostic characterization contributes with important aspects to the debate about care to victims in capitals known to have high rates of accidents and violence. The care for the elderly is still not very important. On the contrary to what a number of international experiences providing care to victims of do-

mestic violence are suggesting, the family is also not the center of attention.

Preventive actions do not make part of the routine of all services, as one should expect from institutions providing routine care to victims. This situation is most critical in Manaus and Curitiba.

Social assistance, hospital and ambulatory care are the most frequent actions. Psychological care is offered by nearly half of the services, to a smaller extent in Rio de Janeiro and Curitiba. Initiatives like Groups of Parents and domiciliary visits, important strategies in situations of ill-treatment of children and adolescents, are still scarcely employed.

The significantly high percentage of cases received from the Basic Health Units is a clear indicator for situations requiring the attention of the community and families. Anyway, partnerships have to be strengthened continuously and sectorial and intersectorial references need to be expanded.

There is a need for investment in continued capacity building for professionals providing care to victims of accidents and violence, especially in Recife.

The registry of attended cases, an essential element for planning more effective actions and prevention, is still unreliable, data are mostly handled manually.

In a context in which the National Policy for Reduction of Morbidity and Mortality from Accidents and Violence is scarcely known, we observe a lack of intra and interinstitutional articulation between prehospital and emergency care. This picture is less serious in Recife and Curitiba but still critical in Rio de Janeiro and Manaus. The conflicts between the rescue services SEMC and Fire Department show the urgent need for interaction and redefinition of the respective roles. In some cases, emergency

care is also not very articulated with hospital care. Rehabilitation services were considered insufficient in all investigated cities.

In the attempt to perform a diagnosis of the situation of services in the different cities, we formed a set of 9 questions considered important by the National Policy for Reduction of Morbidity and Mortality from Accidents and Violence, as there are: 1) care provided to all age groups; 2) preventive actions; 3) offer of ambulatory and hospital services; 4) informatized registry system; 5) minimum requirements for multidisciplinary teams (physician, social worker and psychologist); 6) regular capacity building programs for professionals; 7) sectorial articulation – receive patients from Basic Health Units and the Family Health Program. The questions 8 and 9 aim at analyzing the intersectorial articulation in the health sector using two important sectors as examples: Defense of Rights and Public Safety. Item 8 analyzes if the services are directing patients to the TC and item 9 verifies if the services receive patients from the police department for the protection of children and adolescents (DPCA) and from the specialized department for the protection of women (DEAM). We worked with a cut off of 50%, so that the city that achieved or surpassed this mark received one point. Considering the non-comparable restriction between cities and the disparity between the numbers of services in each of the cities, Rio de Janeiro achieved the highest score. Brasília, Curitiba and Manaus reveal intermediate positions and Recife showed the lowest score, but on the other hand this city counts on the highest number of service units. It must be emphasized that even the cities showing the best percentages are still facing considerable gaps and require continued investment for enabling them to offer high-quality health care to the victims.

## Collaborations

SF Deslandes, ER Souza, MCS Minayo, CRBSF Costa, M Krempel, ML Cavalcanti, MLC Lima, SJ Moysés, ML Leal and CN Carmo have participated to an equal extent in the preparation of the present article.

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Article presented in 20/03/2006

Approved in 30/03/2006

Final version presented in 4/04/2006