



Emerging and Reemerging Infectious Diseases, Region of the Americas

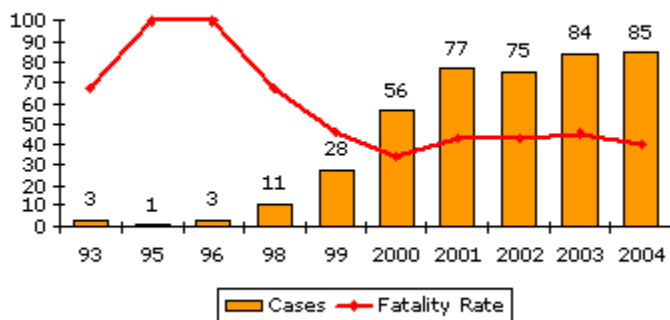
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Epidemiological Situation of Hantavirus in Brazil

Up to 5 September 2004, 85 new cases of Hantavirus were confirmed in Brazil as Hantavirus Cardiopulmonary Syndrome (HCPS). The number of cases reported to date for this year is equivalent to the total number of cases reported for 2003 (Figure 1).

These 85 cases were detected in 10 (37%) of the Brazilian states, with only the northeastern region not registering cases. Nearly 60% of the cases were detected in Minas Gerais and the Federal District. The geographical spread of the disease is limited to 45 areas or municipalities of transmission, or 0.8% of the total number of Brazilian municipalities (Figure 2).

**Figure 1: Hantavirus—
Number of Cases and Fatality Rate (Brazil, 1993–2004*)**



Source: Sistema de Vigilância em Saúde, Ministério da Saúde (SVS/MS) (System of Health Surveillance, Ministry of Health of Brazil). (*) preliminary data

Cases for detected every month this year, with 56.5% (48) reported from May to July and an increase in the number of cases from April on (Figure 3).

Concerning the profile of the persons admitted to hospital for HCPS this year, 69.4% (59 cases) were men and 81.2% (69) were between 21 and 50 years of

age (Tables 1 and 2). Age ranged from 15 to 71 years, with the mean and median ages 34 and 36, respectively. The mode was 24 years.

Table 1: Hantavirus—Number and Percentage of Cases by Age Group (Brazil, 2004*)

Age Group	Cases	%	Cumulative %
< 10 years	--	--	--
11–20 years	12	14.1	14.1

21–30 years	23	27.1	41.2
31–40 years	16	18.8	60.0
41–50 years	18	2.2	81.2
51–60 years	12	14.1	95.3
61–70 years	3	3.5	98.8
> 70 years	1	1.2	100.0
Total	85	100.0	--
<i>Source:</i> Sistema de Vigilância em Saúde, Ministério da Saúde (SVS/MS) (System of Health Surveillance, Ministry of Health, Brazil). (*) preliminary data			

Nearly 65% of the deaths occurred among males; however, case fatality was 24% higher among women (Table 2).

Table 2: Hantavirus—Number of Cases and Deaths and Case-Fatality Rate by Gender (Brazil, 2004*)

Gender	Cases	%	Deaths	%	Case-Fatality Rate (%)
Male	59	69.4	22	64.7	37.3
Female	26	30.6	12	35.3	46.2
Total	85	100.0	34	100.0	40.0
<i>Source:</i> Sistema de Vigilância em Saúde, Ministério da Saúde (SVS/MS) (System of Health Surveillance, Ministry of Health, Brazil). (*) preliminary data					

Of the 85 cases, 51 of the patients (60%) were released from the hospital. During the period under analysis, the State of Minas Gerais presented the lowest case-fatality rate—32% among the 25 cases—followed by Santa Catarina (with 37.5%) and the Federal District (with 38.5%). Altogether, these states reported 69.4% of all cases (or 59 of them). The average case-fatality rate now stands at 40%, which is lower than in the past (Table 3).

Table 3: Hantavirus—Number of Cases and Deaths and Case-Fatality Rate by State (Brazil, 2004*)

State	Cases	%	Deaths	Case-Fatality Rate (%)
AM	2	2.4	--	--
DF	26	30.6	10	38.5
GO	7	8.2	4	57.1
MG	25	29.4	8	32.0

MT	1	1.2	1	100.0
PA	1	1.2	--	--
PR	1	1.2	1	100.0
RS	3	3.5	--	--
SC	8	9.4	3	37.5
SP	11	12.9	7	63.6
Total	85	100.0	34	40.0

Source: Sistema de Vigilância em Saúde, Ministério da Saúde (SVS/MS) (System of Health Surveillance, Ministry of Health, Brazil).

(*) preliminary data

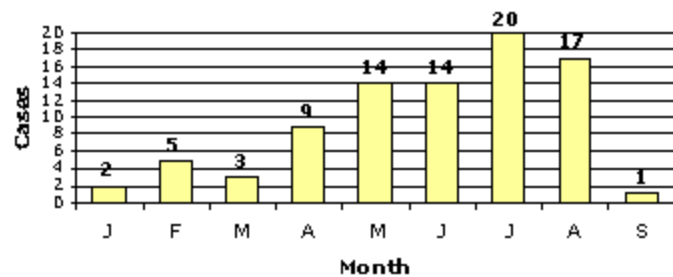
Source: Sistema de Vigilância em Saúde, Ministério da Saúde (SVS/MS) (System of Health Surveillance, Ministry of Health of Brazil).

Figure 2: Areas of Transmission for Hantavirus (Brazil, 2004*)



Source: Sistema de Vigilância em Saúde, Ministério da Saúde (SVS/MS) (System of Health Surveillance, Ministry of Health of Brazil).
(*) preliminary data

Figure 3: Hantavirus—Number of Cases per Month by Onset of Symptoms (Brazil, 2004*)



Source: Sistema de Vigilância em Saúde, Ministério da Saúde (SVS/MS) (System of Health Surveillance, Ministry of Health of Brazil). (*) preliminary data