## 211 - SOCIOECONOMIC PROFILE OF CHILDREN UNDER FIVE YEARS OLD HOSPITALIZED FOR ACUTE RESPIRATORY

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### INTRODUCTION

Acute respiratory diseases (ARD), such as asthma, bronchitis and pneumonia, are recognized internationally as a major cause of morbidity and mortality in all ages, particularly in children (Duarte, BOTELHO, 2000). In Brazil, respiratory diseases account for 40% of outpatient visits and more than 30% of hospital admissions, these, about 10% of children will die (RICCETTO et al., 2006).

Respiratory diseases also generate costs for the Unified Health System (SUS), knowing that in 2000 the state of Sao Paulo, the costs of hospital admissions for respiratory disease was around 45 million (NASCIMENTO et al. 2004). In urban areas, it is estimated that each child had 5 to 8 episodes of acute respiratory infection per year in the first five years of life, and in rural areas, 1 to 4 episodes of respiratory infection per year (Duarte, BOTELHO, 2000).

They are causing the DRA various socioeconomic factors such as family income, housing conditions, level of parental education, maternal age and gestational age, breastfeeding, age and sex of children, smoking, among others, which are factors that may be increasing the number of children (Carvalho, Pereira, 2002).

This study aimed to identify those socioeconomic factors which are aggravating the health of children under five years and generate a greater number of hospitalizations for pneumonia, asthma and bronchiolitis in children admitted to University Hospital in Little Angel Itajaí / SC.

#### **MATERIALS AND METHODS**

This study was conducted in the B University Hospital Pequeno Anjo (HUPA), located in the city of Itajaí, state of Santa Catarina. Its main objective was to identify the socioeconomic profile of children under five years hospitalized for acute respiratory illness in HUPA.

Participants were parents and / or caregivers of children under five years who were hospitalized from October to November 2007 (two thousand and seven), who freely and voluntarily consented to answer an interview based on a questionnaire, which contained 12 (twelve) closed questions that dealt with family income, housing conditions, level of parental education, maternal age and gestational age, breastfeeding, age and sex of children and exposure to tobacco smoke.

Were taken as exclusion criteria, children over five years, other than respiratory diseases, neurological sequels, patients admitted to surgical and hospitalized children with HIV.

Data collection was conducted from October to November 2007 (two thousand and seven), on Mondays and Thursdays in the evening, after the approval of the Ethics Committee in Research (CEP). Arriving at the hospital were separated from the medical records of children with respiratory disease (pneumonia, asthma and bronchiolitis), and soon after, we drove to the rooms of patients. The interviewees, so we got to the quarter of the patients were informed about what it was and what it would in the future, this research, and after reading and signing the consent form, answered the interview, the basis of a questionnaire. We, the researchers, did each of the questions orally, and from the responses of parents or caregivers, we recorded the response in the questionnaire.

The results were analyzed, are presented in graphs and discussed to try to identify the factors responsible for hospitalizations for acute respiratory illness at University Hospital Little Angel.

### **RESULTS**

The sample consisted of fifty children, and among these 68% (n = 34) male and 32% (n = 16) were female. The predominant age was 1 year and 1 day to 3 years were 54% (n = 27) of the sample, followed by 0 to 12 months 32% (n = 16) and 3 years and 1 day to 5 years 14% (n = 7). Pathologies investigated in this study we found the values in descending order, where the pneumonia prevailed with 80% (n = 40), and soon after came to 16% with bronchiolitis (n = 8) and asthma with 4% (n = 2).

Among the surveyed strata is present family income, with a predominance of families made available in 1 to 3 salaries minimum per month, with 53% (n = 27), followed by receiving 3 to 5 wage, 31% (n = 16).

For maternal education in our sample, 30% (n = 15) of mothers of hospitalized children had only elementary school, followed by 28% (n = 14) completed high school. The results in our study came to highlight the importance of breastfeeding, as 36% (n = 18) of children who were hospitalized were breastfed less than a month after his birth, and some were not breastfed, followed by children received breastfeeding between 1 and 3 months, with 22% (n = 11) of the sample.

Looking at where the data of age and sex of the children yielded the most significant predominance of males in all age groups, being in greater quantity at the age of 1 year and 1 day to 3 years with 34% (n = 17), which was the oldest age group in this study. The crossing of medical diagnosis versus sex showed pneumonia with 50% (n = 25) of male children and 30% (n = 15) were female, there were no girls hospitalized for asthma, it is also due to fewer the sample in this sex.

Considering also the pneumonia as the predominant pathology, the data were compared with the age group of children, where this disease had a higher occurrence among children aged 1 year and a day to 3 years, accounting for 44% (n = 22) sample and even in this age group, followed by pneumonia found bronchiolitis and asthma, which achieved its greatest bouts in this age group, with 4% (n = 2) and 6% (n = 3) respectively.

The crossover age group versus Family Income predominated income from 1 to 3 minimum wages (54%) of these, 32% (n = 16) possessed children aged 1 year and 1 day to 3 years and 16% (n = 8) aged from zero to 12 months. Followed by 36% of the sample with income family-run 3 to 5 minimum wages, these 20% (n = 10) aged 1 year and 1 day to 3 years.

Analyzing medical diagnosis results versus duration of breastfeeding showed that the 50 children studied, 36% (n = 18) were breastfeed for less than a month and this total, 32% (n = 16) had been hospitalized for pneumonia. The sample of children with bronchiolitis found the highest percentage of children who were breastfed 1 to 3 months, with 10% (n = 5). Asthma was not found as a diagnosis in children 4 to 6 months and 8 months to 1 year, both with 2% (n = 1).

The results of maternal age, gestational age, maternal smoking and housing conditions were not as triggers or aggravating factors of acute respiratory diseases, so the results of simple frequency and cross were not described.

#### DISCUSSION

The largest number of boys found in the sample due to the fact that these pulmonary system has its full development after the girls, a comparison of the ages, as it brings the literature of Postiaux, (2004), indicating that the boys have a tendency to acquire more respiratory illnesses than girls due to immaturity of their pulmonary system and, according to Macedo et al. (2007), this is due to the fact that the airways of children have lower caliber than those of girls.

It is the age of 1 year and 1 day to 3 years, the child begins to walk and develop to perform some activities independently, such as playing alone, and the mother is replaced by less care, since it is more than one child lap, and we begin to live without much awareness of what is right and wrong, easily taking objects to the mouth and getting more contact with infectious agents. Thus, the acquisition of new skills related to age and lived interactions with others in his group because it is known that the first years of life, especially the first three are crucial to the acquisition of knowledge and skills (BISCEGLI et al., 2007).

Pneumonia was the most frequent pathology, and this occurs because it is the respiratory disease that causes more morbidity and hospitalizations in children under five years, as all factors such as gender, low family income, low maternal education, crowding, pollution domestic and environmental triggers are directly or indirectly with this condition (RICCETO et al., 2003).

The more disposable income to help control respiratory diseases, the smaller the number of admissions, as well as parents create a healthier environment to raise children, less polluting and better care because the income is considered a basic element in determining child health, since it indicates the availability of resources for the caregiver of the child. Most of the deaths from preventable causes is concentrated in the strata of low income (GOYA, FERRARI, 2005).

The education of women changes the traditional role within the family, bringing you greater discretion in matters relating to the child. Education modifies the knowledge of women and their opinions about cause, prevention and treatment of diseases, influencing health care. Mothers with higher education seek health care early and often for the treatment of children and maintains the medical recommendations of a more appropriate, and there is education as a means to introduce new codes of behavior among children, such as insisting on measures hygiene, which persists throughout adulthood, as an idea socially accepted and desirable (GOYA, FERRARI, 2005).

Breast-feeding, offered by the mother, has a number of advantages for the child. Breast milk has many factors that protect the working-class children from common infections such as acute respiratory diseases, promoting growth and development of infants fed different artificilmente, he is an important factor in immune defense, the large quantities of antibodies that the mother passes to the children, reducing values of morbidity and mortality (Mello, 2004).

When two risk factors for in-patients are crossed, such as age and sex of children with acute respiratory illness, the chances of having a DRA is relatively higher, because boys have lower airway caliber and the risk of hospitalization for AKI in ages children is much greater, because they have immature immune system and decreased caliber of the airways, which favor the development of the framework for the severe forms. Together they are the factors influencing the incidence and severity of respiratory conditions among children (Macedo et al., 2007).

Pneumonia is the higher incidence of disease among children, and their risk increases when this disease affects an immature lung, unable to defend itself against an infectious agent that can achieve features of the respiratory system of children (GOYA, Ferreira, 2005).

The fact of the disease pneumonia have shown a greater amount in the total sample, and therefore, in all age groups, owes much to the research being conducted in a developing country, for while pneumonia is responsible for 2% of deaths of children aged zero to five years in developed countries, developing countries it accounts for around 10 to 20% of these deaths (Caetano et al., 2002).

Families who have low income, represent a risk two times higher for lung impairments, compared with high-income households (PINTO, MAGGI, Alves, 2004). This finding may strengthen the hypothesis of strong influence of economic factors in association with the aggravation of pneumonia, affecting a greater number of young children.

Early weaning occupies an important role among the preventive measures of pneumonia (BRAZILIAN SOCIETY OF PNEUMONIA Thoracic Society, 2007). Breastfeeding has important role in the prevention of respiratory diseases such as pneumonia and notes that the increased prevalence of breast accompanying the reduction of infant mortality in the first years of life (SAKAE, Costa Vaz, 2001).

### CONCLUSION

The socioeconomic profile was found most mothers with low education levels, with primary school aged greater than or equal to 20 years who become pregnant for 37 weeks or more and who did not smoke. Most families with incomes between 1 and 3 minimum wages, houses with sewage and with more than three rooms. As for the children prevailed males, aged 1 year and 1 day to 3 years, who had been hospitalized for pneumonia and who were breastfed within one month of life. We conclude that maternal education and low family income, male children of young age, breastfed for a short period, proved to be important risk factors for hospitalization for acute respiratory illness at University Hospital Little Angel.

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## SOCIOECONOMIC PROFILE OF CHILDREN UNDER FIVE YEARS OLD HOSPITALIZED FOR ACUTE RESPIRATORY

### **RESUME**

Identify the socioeconomic profile of children under five years old hospitalized for acute respiratory illness at University Hospital Pequeno Anjo, Itajaí, Santa Catarina. The study was conducted through questionnaires of closed questions to parents and / or caregivers of hospitalized children. There was a male predominance with 68% of the sample was composed of 54% of children aged 1 year and 1 month to 3 years, where the pneumonia, occurred in 80% of cases, 30% of mothers had not completed elementary school. Income in 53% of households ranged from 1 to 3 minimum wages. Of all the male children 34% were age 1 year and 1 month to 3 years, 50% were hospitalized with pneumonia and 32% had been breastfed for less than a month. The socioeconomic profile was found the majority of mothers with low education levels, with primary school aged greater than or equal to 20 years who become pregnant for 37 weeks or more and who did not smoke, low income families, with children in mostly boys, aged 1 year and 1 day to 3 years, hospitalized for pneumonia and fed to a month of life. It is hoped that this study can contribute to reducing morbidity and mortality, from the identification of predisposing factors for acute respiratory diseases.

KEYWORDS: socioeconomic, less than five years, acute respiratory diseases

### PROFIL SOCIAL-ECONOMIQUE DES ENFANTS MINEURES DE CINQUE ANNEE HOSPITALISE POUR MALADIE RESPIRATEUR AIGUË.

### RÉSUMÉ :

Identique le profil social-économique des enfants mineures de Cinque année hospitalise pour maladie respirateur aiguë sur le Hôpital Universitaire Pequeno Anjo, dans Itajaí, Santa Catarina. Le étudié ont été réalisé selon le application de questionnaires de questions fermé a les parents et/ou les responsables des enfants hospitalises. Il y a un domaine des garçons avec 68% des preuves, qui ont été composé pour 54% des enfants avec âge de 1 an et un moi jusqu'à 3 années, ou le pneumonie victime 80% des cases. 30% des mères n'y a pas complétée le enseignement fondamentale. Le revenue dans 53% des familles ont été de 1 jusqu'à 3 soldes minimum. Dans le total des garçons 34% ont été l'âge de 1 an et 1 moi jusqu'à 3 années. 50% ont été hospitaliser pour pneumonie et 32% ont été allaité pour moins de un moi. Le profil social-économique trouvaille ont été une majorité des mères avec un niveau de scolarité bas, avec enseignement fondamentale incomplète. Avec âge de vingt an ou plus, qui gestatif pour 37 semaines ou plus et qui ne pas fumée. Familles de bas revenu, ont été le majorité des enfants garçons, âge de 1 an et un jour jusqu'à 3 années. Hospitaliser pour pneumonie et allaité jusqu'à un moi de vie. S'attendre qui c'est étudié pouvoir aider avec le réduction du morbide et mortalité enfantin, a partir de identification des facteurs prédisposant a maladies respirateurs aiguës.

PAROLES-CLÉ: Profil social-économique, mineures de Cinque année, maladie respirateur aiguë.

# PERFIL SOCIOECONOMICO DE LAS CRIATURAS MENORES DE CINCO AÑOS HOSPITALIZADAS POR ENFERMEDAD RESPIRATORIA AGUDA RESUMEN

Identificar el perfil socioeconômico de las criaturas menores de cinco años hospitalizadas por enfermedad respiratoria aguda em el Hospital Universitário Pequeno Anjo, Itajaí, Santa Catarina. El estudio fue ejecutado por médio de la aplicación de cuestionários de preguntas cerradas a los padres y/o a los cuidadores de las criaturas hospitalizadas. Tenía predomínio del sexo masculino com el 68% de la muestra que fue compuesta por 54% de criaturas com edad de 1 año y 1 día a los 3 años, donde el pulmonía acometeu 80% de los casos, 30% de lãs madres no habían terminado la educación básica. La renta em el 53% de las famílias era de 1 a los 3 salarios mínimos. Del total de las criaturas del sexo masculino 34% tenían faja etária de 1 año y 1 día a los 3 años, 50% habían sido internados por la pulmonía y 32% habían sido amamantados menos de um mês. El perfil socioeconomico hallado fue la mayoria de madres com el nível de la escolaridade bajo, com educacíon básica incompleta, com edad más grande o igual los 20 años, que gestaram más o por 37 semanas y que no fumó, las famílias de la renta baja, siendo las criaturas em su mayoría niños, em la faja etária de 1 año y 1 día a los 3 años, hospitalizados por la pulmonía

y amamantados hasta un mes de vida.

Esperase que con este estudio puede se contribuir com la reducción de la morbidad y la mortalidad infantil, para irse de la identificación de los factores predisponent de las enfermedades respiratorias agudas.

PALAVRA-LLAVE: perfil socioeconomico, menores de cinco años, enfermedades respiratorias agudas.

### PERFIL SOCIOECONÔMICO DE CRIANÇAS MENORES DE CINCO ANOS HOSPITALIZADAS POR DOENÇA RESPIRATÓRIA AGUDA

RESUMO:

Identificar o perfil socioeconômico das crianças menores de cinco anos hospitalizadas por doença respiratória aguda no Hospital Universitário Pequeno Anjo, Itajaí, Santa Catarina. O estudo foi realizado mediante a aplicação de questionários de perguntas fechadas aos pais e/ou cuidadores das crianças hospitalizadas. Houve predomínio do sexo masculino com 68% da amostra que foi composta por 54% de crianças com idade de 1 ano e 1 mês a 3 anos, onde a pneumonia acometeu 80% dos casos, 30% das mães não haviam completado o ensino fundamental. A renda em 53% das famílias foi de 1 a 3 salários mínimos. Do total de crianças do sexo masculino 34% tinham a faixa etária de 1 ano e 1 mês a 3 anos, 50% foram internadas por pneumonia e 32% haviam sido amamentadas por menos de um mês. O perfil sócioeconômico encontrado foi a maioria de mães com nível de escolaridade baixo, com ensino fundamental incompleto, com idade maior ou igual a 20 anos, que gestaram por 37 semanas ou mais e que não fumavam, famílias de renda baixa, sendo as crianças em sua maioria meninos, na faixa etária de 1 ano e 1 dia a 3 anos, hospitalizados por pneumonia e amamentados até um mês de vida. Espera-se que este estudo possa contribuir com a redução da morbidade e mortalidade infantil, a partir da identificação de fatores predisponentes as doenças respiratórias agudas.

PALAVRAS-CHAVE: perfil socioeconômico, menores de cinco anos, doenças respiratórias agudas.

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