EVALUATION OF THE IMMUNIZATION COVERAGE AGAINST HEPATITIS B

ABSTRACT

Objective: to evaluate the immunization coverage against hepatitis B. Method: a descriptive and epidemiological study conducted through the reports issued by the Computerized National Immunization Program (Si-NBP), which is in the public domain, in the city of Teresina-PI. After collection there was performed the tabulation of data. There was conducted the simple descriptive analysis using the software Excel. The findings more meaningful were presented in figures. Results: there was an increase in the number of doses applied over the years, younger age of 01 (one) year old and 1 year of age there was an annual increase in the number of doses applied mainly in the years 2010 to 2012. Conclusion: the verification of vaccination coverage against the population aged 1 to 29 years old still need to intensify, since the doses of vaccines administered vary greatly each year. Descriptors: Vaccination Coverage; Vaccination; Hepatitis B.

RESUMO

Objetivo: avaliar a cobertura vacinal contra hepatite B. Método: estudo de natureza descritiva e epidemiológico realizado por meio dos relatórios emitidos pelo Programa Sistema Informatizado do Programa Nacional de Imunização (PNI-SI), que está no domínio público, no município de Teresina-PI. Após a coleta, procedeu-se a tabulação dos dados. Realizou-se análise descritiva simples, utilizando-se o software de planilha eletrônica Excel. Os achados mais significativos foram apresentados em figuras. Resultados: houve um aumento no número de doses aplicadas ao longo dos anos, faixa etária menor de 01 (um) ano e a de 1 ano de idade houve um aumento anual do número de doses aplicadas principalmente nos anos de 2010 a 2012. Conclusão: a verificação das coberturas vacinais contra a população com idades entre 1 a 29 anos ainda necessitam de intensificação, uma vez que as doses de vacinas aplicadas variam muito a cada ano. Descritores: Cobertura Vacinal; Vacinação; Hepatite B.

RESUMEN

Objetivo: evaluar el alcance de la vacunación contra la hepatitis B. Método: este es un estudio descriptivo y epidemiológico, realizado por los informes emitidos por el Programa de Información del Sistema del Programa Nacional de Inmunizaciones (PNI-SI), que está en el dominio público, en el municipio de Teresina-PI. Después de recoger procedió la tabulación de los datos. Se llevó a cabo un análisis descriptivo simple, utilizando el software de hoja de cálculo Excel. Los hallazgos más significativos se presentan en las figuras. Resultados: hubo un aumento en el número de dosis aplicadas en los últimos años, el grupo de menores de 01 (un) año y 1 año de edad se registró un aumento anual del número de dosis aplicadas principalmente en los años de 2010 hasta 2012. Conclusión: la verificación del alcance de la vacunación en la población de 1 a 29 años todavía necesita de intensificación, ya que las dosis de vacunas aplicadas varían considerablemente cada año. Descriptores: La Cobertura de Inmunización; Vacunación; Hepatitis B.

Líndia Kalliana da Costa Araújo Alves Carvalho1, Isabela Bastos Jácome de Souza2, Smairá Rêgo Martins de Deus Leal3, Antonio Dean Barbosa Marques4, Rosane da Silva Santana5, Adélia Dalva da Silva Oliveira6

Nurse, Master of Family Health by the University Center UNINOVAFAPI. Teresina (PI), Brazil. Email: lindiakalliana@hotmail.com; Nurse, Master of Family Health by the University Center UNINOVAFAPI. Teresina (PI), Brazil. Email: isabelinhajacome@hotmail.com; Nurse, Master of Clinical Pharmacology by the Federal University of Ceará – UFC. Teresina (PI), Brazil. Email: samirarmd@hotmail.com; Nurse, Master of Collective Health by the University of Fortaleza (UNIFOR). Fortaleza (CE), Brazil. Email: antonio-dean@hotmail.com; Nurse, Master of Adult and Child Health by the Federal University of Maranhão - UFMA. Teresina (PI), Brazil. Email: rosane_santana5@hotmail.com; Nurse, Doctoral Student of Public Policies by the Federal University of Piauí (UFPI). Teresina (PI), Brazil. Email: poliveira@uninovafapi.edu.br
INTRODUCTION

Viral hepatitis is characterized by a group of liver diseases that are caused by a viral infection of the hepatocytes. This is brought about by different viral infections and it is associated with one of the five specific viruses that infect hepatocytes. These agents were assigned the human hepatitis virus and are called HAV, HBV, HCV, HDV and HEV.

Infection with chronic viral hepatitis affects 550 million people worldwide, with 350 million people are infected with hepatitis B virus (HBV), 185 million hepatitis C virus (HCV) and 15 million with delta hepatitis virus. Viral hepatitis causes over 1 million deaths per year, low-income countries suffer the most from this problem due to limited access to health services, only in Africa about 100 million people are estimated to be infected with HBV or HCV in return in rich countries the average reaches 23 million.

Hepatitis B (HBV) is a DNA virus that can be acquired through exposure, both vertical and horizontal, infected blood or other body fluids, the most important contagion forms are sexual, percutaneous inoculation through sharps and vertical transmission is via the placenta, at birth, or during breastfeeding and through neonatal care, the incubation period is 1-4 months. During the prodromal phase, patients may feel a sickness like reaction serum, which is followed by anorexia, nausea, abdominal pain right upper quadrant and jaundice.

In this context, the main medium is prevention through vaccination against hepatitis B. Since HBV is a major cause of liver cancer worldwide; vaccination prevents not only hepatitis but also cancer, ie, it prevents acute disease, preventing chronicity of liver disease. More than 80 countries have adopted vaccination for the entire population to combat the disease.

The hepatitis B vaccine is given in three doses, with the second and third doses administered one and six months, persons up to 24 years, 11 months and 29 days old were included in the immunization program. In addition, adults 25 to 59 years old, vulnerable unvaccinated or without proof of earlier vaccination, namely pregnant women after the first trimester of pregnancy; health workers; firefighters, police officers, civil and road; truck drivers, police station guards and penitentiaries; collectors hospital and household waste; morticians, sexual contacts of people with HBV; blood donors; gays, bisexuals and transgenders; reclusive people; manics, pedicures and podiatrists; potential recipients of multiple blood transfusions; sex workers; users of injectable, inhalants and hookah drugs; and STD patients should receive the vaccine.

Thus hepatitis a serious public health problem is characterized, in Brazil it is estimated that at least 15% of the population has been exposed to HBV, some areas have a higher prevalence of HBV, as the western Amazon and even some parts southern Brazil, vaccination coverage is an important component in preventing this infection, know the real vaccine coverage is important for the evaluation and improvement of current prevention strategies.

From the above, this study aims to evaluate the vaccination coverage against hepatitis B.

METHOD

This is a study of descriptive, quantitative and epidemiological nature. Data were collected through reports issued by the program National Computerized Program System Immunization (SI-PNI), which is attached to the Department of Health System Information - DATASUS for the monitoring of vaccination coverage against hepatitis B in the city Teresina-PI that were registered in the program from 2008 to 2012 by using a previously designed form. There were included individuals of both genders; aged between zero and 29 years old had the vaccination schedule against HBV, complete or incomplete, referring to the three doses of the vaccine schedule.

After collecting there was proceeded data tabulate. It carried out a simple descriptive analysis using Excel spreadsheet software. The most significant findings were presented in Figures.

During the research it was observed all aspects contained in the resolution of the National Health Council (CNS) 466/12, which regulates research involving human subjects.

The discussion of the data was based on the scientific literature on the subject. Considering that the survey was conducted from a public domain database, it was not necessary submission to the Research Ethics Committee.

RESULTS

Considering the period of proposed study, figure 01, then, demonstrates the number of applied doses of vaccines against hepatitis B in the range of years of 2008 to 2012:
Analyzing Figure 1 it can be seen that the growth in the number of doses over the years, the year 2012 found values more expressive when compared to the others.

<table>
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<th>Age (in years of age)</th>
<th>2008</th>
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<td>12.977</td>
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</table>

Figure 2. Number of doses of hepatitis B vaccine applied by age range in the city of Teresina in the period from 2008 to 2012. Source: DATASUS

The lower age was of 1 year old and that 1 year of age there was an annual increase in the number of doses applied mainly in the years 2010 to 2012, 02 (two) and 03 (three) years old there was a variation in the number of doses, whereas in 2008 and 2009 had the highest number and in the years 2010 to 2012 there were fewer. At the age of 5 there was a decrease of doses a year, except for 2010 from 15 to 19 years old, there was a significant variation and 20 to 29 years old, there was a decrease in the number of doses applied in the years 2008 to 2010 and an exponential increase in the years 2011 and 2012.

DISCUSSION

Analyzing the data in Figure 1 it is clear that there was an increase in the number of doses over the years considering that the Ministry of Health promoted several campaigns extending the age range that was previously up to 19 years old, from 2011, 20 to 24 years old and in 2012 became 25 to 29 years old. This was due to the increased number of cases of hepatitis B have increased in this population, considered sexually active. This vaccination coverage is likely to increase in 2013 extending to the population aged 30-49 years old.

Teenagers have been considered a group at high risk of exposure to HBV, since they have a tendency to unprotected sex and multiple partners, experimenting with illegal drugs and alcohol abuse. Moreover, teenagers are susceptible to negative pressure from their partners, and the feeling of invulnerability and immortality, and have difficulty in associating behaviors current risk and future consequences. Thus, studies have shown an increased positive for HBV in adolescence that extends into adulthood.7

Considering the vaccines as tools of a practice of collective reach, it is understood that the act of vaccinating in its individual dimension results in protection not only of the individual vaccinated against certain diseases, but also the collective protection in which the subject is inserted. This, thus action even when performed in the routine of health units...
take a collective dimension, since it is aimed at individuals inserted in a particular social context and in a specific epidemiological reality.

By analyzing Figure 2 can be said that in the age group below 01 (one) year old and over one (01) year old was an annual number of doses applied mainly increase in the years 2010 to 2012. This increase is justified due to the expansion of the number of teams from the Family Health Strategy covering thus a greater number of families, which allowed for closer monitoring, especially with visits from community health workers and other staff members.

In the age of 02 (two) and 03 (three) years old there was a variation in the number of doses per year, and in 2008 and 2009 had the highest number of doses applied and in the years 2010 to 2012 there were a number lower doses applied the vaccine against Hepatitis B. In the age of four (04) years old there has been an increasing in the number of doses applied annually except for 2010 when there was a slight decrease in the number of doses applied.

At the age of 05 (five) to 10 (ten) years old, a significant decrease in the number of doses administered the vaccine in the years 2008 to 2012, the same happened in the age group 11 to 14 years old, with the exception of 2010 wherein an increase in the number of doses.

Increasing the number of doses below 01 year old consequently decreases the number of doses in other childhood age considering that according to the basic vaccination schedule, the doses of hepatitis B vaccines should be administered until 1 year old. The doses of this vaccine in children under the age of 01 year old are delayed doses. With the expansion of teams from the year 2010 there was an increase in the number of doses in children below 01 year old and over 01 year old and a decrease in other age child demonstrating a quality monitoring of this population in the city of Teresina.

Vaccination is offered by primary care, especially by the Family Health Strategy, which seeks the complex integration of individual and collective actions, curative, preventive and health promotion, in order to provide facing and solving health problems, in a defined territory. Through the analysis of Figure realizes the need of Health teams of Family invest in health education process, sensitizing young people on the need for vaccination.

Despite the adoption of a national vaccination schedule and vaccines being offered to the population, their use depends on the teenager's personal decision to get vaccinated. The promotion of education, with resources from the community and the reorganization of health practices in vaccination rooms, as well as co-responsibility for the protection are steps to a more comprehensive action in terms of solution of health problems, in particular the improvement of immunization coverage.

Looking at the age of fifteen (15) to nineteen (19) years old, we see that there is a wide variation in the number of doses applied annually, a significant decrease in the number of 2008 year of doses to 2009, in 2010 around to have an increased number of doses and the following years 2011 and 2012 again back to drop the number of doses applied in this age group.

In the age of 20 (twenty) to 24 (twenty four) years old and 25 (twenty to twenty five) to 29 (twenty nine) years old, there was a decrease in the number of doses applied in the years 2008 to 2010 and an exponential increase in the years 2011 and 2012. This increase in the number of doses applied in 2011 due to the Ministry of Health have extended the age range to 20 to 24 years old and there was carried out intense national campaign of vaccination against hepatitis B in this age group and in 2012, the Ministry of Health again extended the age range to 25 to 29 years old, thus justifying the increase in the number of doses.

**CONCLUSION**

The verification of vaccination coverage against the population aged 1 to 29 years old still needs to intensify, since the doses of vaccines given vary greatly each year, thus deserving greater awareness of local managers, professionals of health and society to obtain satisfactory results.

We believe that the vaccination coverage in the population of Teresina can be further be improved by providing vaccine in a school setting according to the proposal of the School Health Program in conjunction with the Family Health Strategy, and the effective participation of managers so they are ensuring suitable locations, hours of operation by vaccination teams based on customer needs, promoting the quality of services provided, acceptance and adherence of the population, establishing strategies for quick, informative and enjoyable vaccination, avoiding stress, riots, queues and failures, meeting thus the principles of human care.
It is also important that prevention campaigns are employed, in order to inform the population about the risks of Hepatitis B and its modes of transmission - parenteral and sexual - and how to prevent the spread of the disease and to report on vaccination, which has been of utmost importance in the fight against HBV.

REFERENCES


