

**The Knowledge of Hepatitis  
and Attitudes towards Vaccination**  
April 2004

**Introduction**

The Danish National Board of Health has submitted the HTA report from the Danish centre for Evaluation and Health Technology Assessment (DACEHTA) for consultation on “introducing Hepatitis B vaccine as part of the Danish children’s immunization programme” for further views and attitudes towards the introduction of hepatitis B vaccine. The reason for this is that the HTA report does not have a professional unambiguous conclusion according to the National Board of Health.

As part of the response from the Danish Hepatitis Association, the association has asked the Institute for Opinion Polls to carry out a survey about the knowledge and attitudes to hepatitis, in general, and attitudes to vaccination amongst the population. The purpose of the survey is to contribute more information about the attitudes in the population so that the final decision about a potential introduction of Hepatitis B vaccine can take place on the best possible foundation. Consequently, the survey is supplementing the interview survey which has been carried out in connection with the HTA report.

The universe of the survey is the Danish population in the age 18-66 years old and the survey is then broader than the survey in the HTA report. The survey has been carried out by interviews over the telephone with individuals belonging to this universe. A total of 605 interviews have been carried out.

The selection of the respondents has taken place as follows:

Calls have been made to randomly picked telephone numbers. When in contact they have been asked how many individuals between the age of 18 and 66 that live in the household. These individuals have been entered on a numbered list where we have decided, beforehand, who to interview. If the individual is present and willing to participate the interview will take place. If the individual is not present he/she will be called again, up to four times. Telephone numbers with no answers will be called again four times at different hours.

The questionnaire used is inserted in the back of the report.

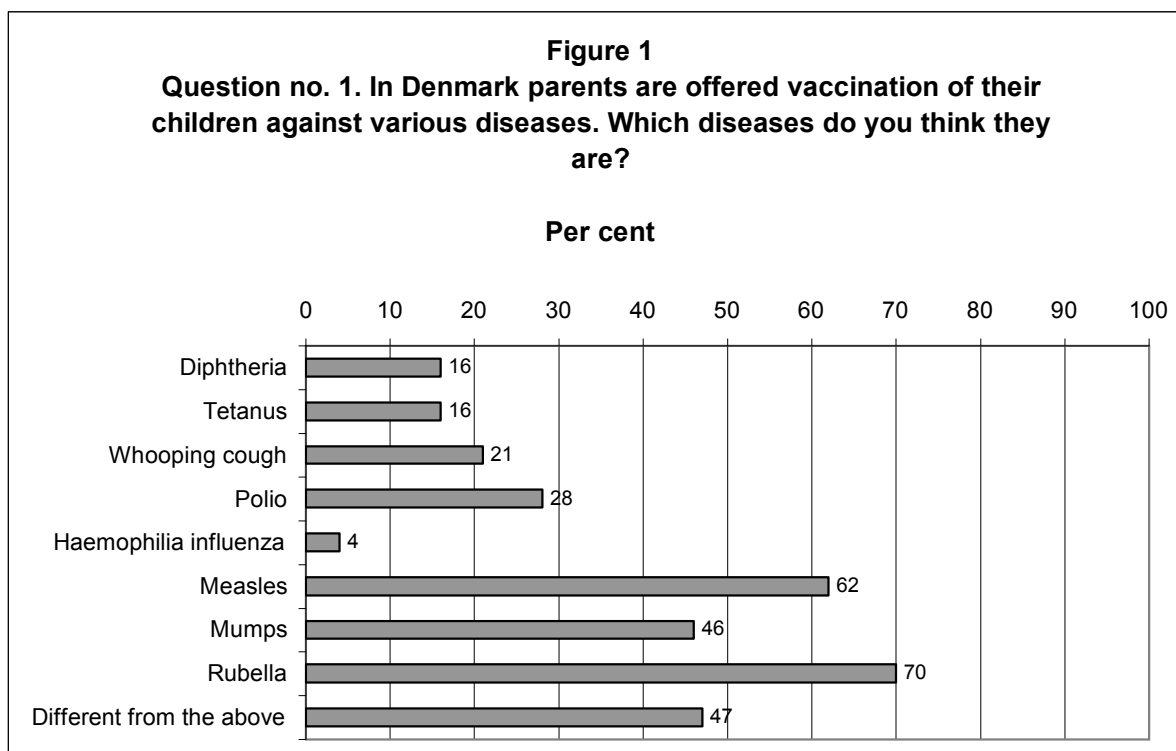
The results from the survey are covered in the order which they have been asked in the questionnaire. A number of diagrams of the main results are shown. Details are shown in the table section of the report which also contains an exact copy of the open questions of the survey.

The interview work has been carried out in the period 2 – 12 April 2004

The Institute for Opinion Polls  
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### The Results of the Survey

In the first question it is demonstrated that Danish parents are presented with the offer of vaccination of their children against various diseases. Then the respondents have been asked whether they know in what cases vaccine is given. No kind of assistance will be provided to the respondents. The answers to the question are shown in Fig. 1.



As appears from the figure the three diseases which respondents point out most frequently as diseases which children are offered vaccine against are those three included in the so-called MMR namely measles, mumps and rubella. Measles are mentioned by 62% of the respondents, mumps by 46% and rubella by 70%. Of the diseases included in the children's immunization programme, polio is the one disease respondents point out most frequently by 28%, whooping cough is pointed out by 21%, tetanus and diphtheria by 16% and haemophilia influenza by 4%.

Generally, women know more about the diseases where vaccination is carried out than men while there is no substantial difference in age just like there is no substantial difference whether the respondents have children in different age groups.

Besides the diseases shown in the figure following diseases are pointed out by the respondents in question number one and the subsequent question number two about diseases children will be getting vaccines against or diseases which they ought to be getting vaccines against.

Chickenpox	16%
Smallpox	10%
Meningitis	7%

Tuberculosis	5%
Hepatitis	4%
Influenza	3%
Scarlet fever	2%

Less than 1%:

Cerebrospinal meningitis  
Aids  
Cancer

Question number three in the survey was an open question about what infectious diseases the respondents think are the most severe ones among the population in general. Where the first two questions were about diseases that children are getting vaccines against this question is broader and is including the entire population. Still, no assistance will be provided for answering the questions. The answers are as follows:

AIDS	24%
HIV	16%
Influenza	13%
Tuberculosis	11%
Meningitis	11%
Mumps	7%
Rubella	7%
Pneumonia	4%
Hepatitis	4%
Gonorrhoea	3%
Coryza	3%
Syphilis	2%

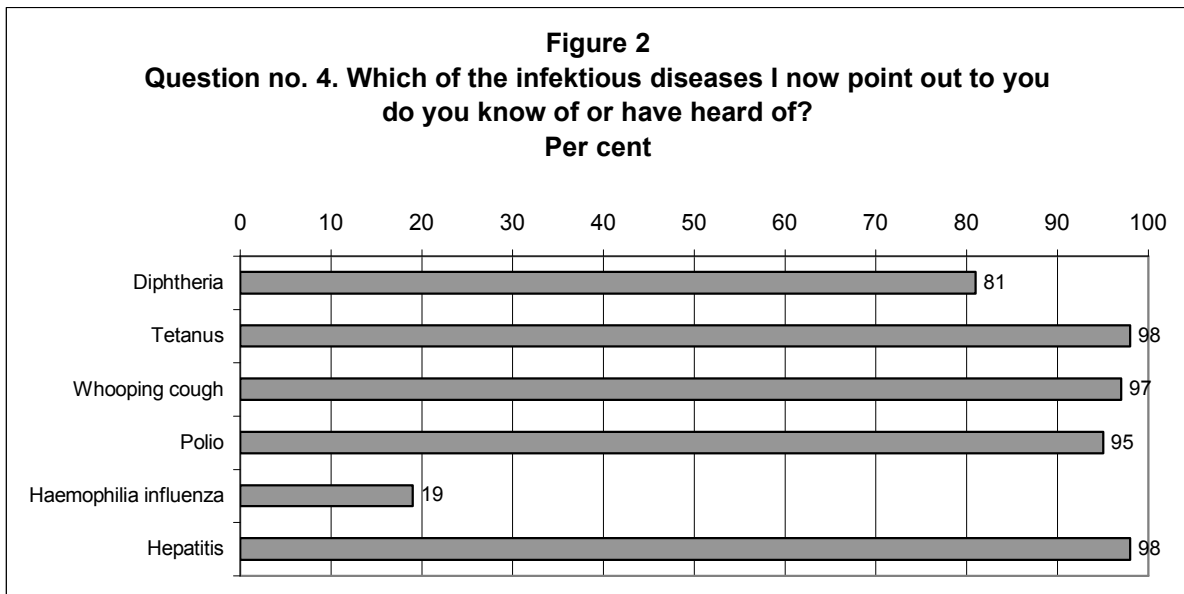
Less than 1%:

Impetigo  
Blood poisoning  
Chlamydia

16% of the respondents replied “don’t know”

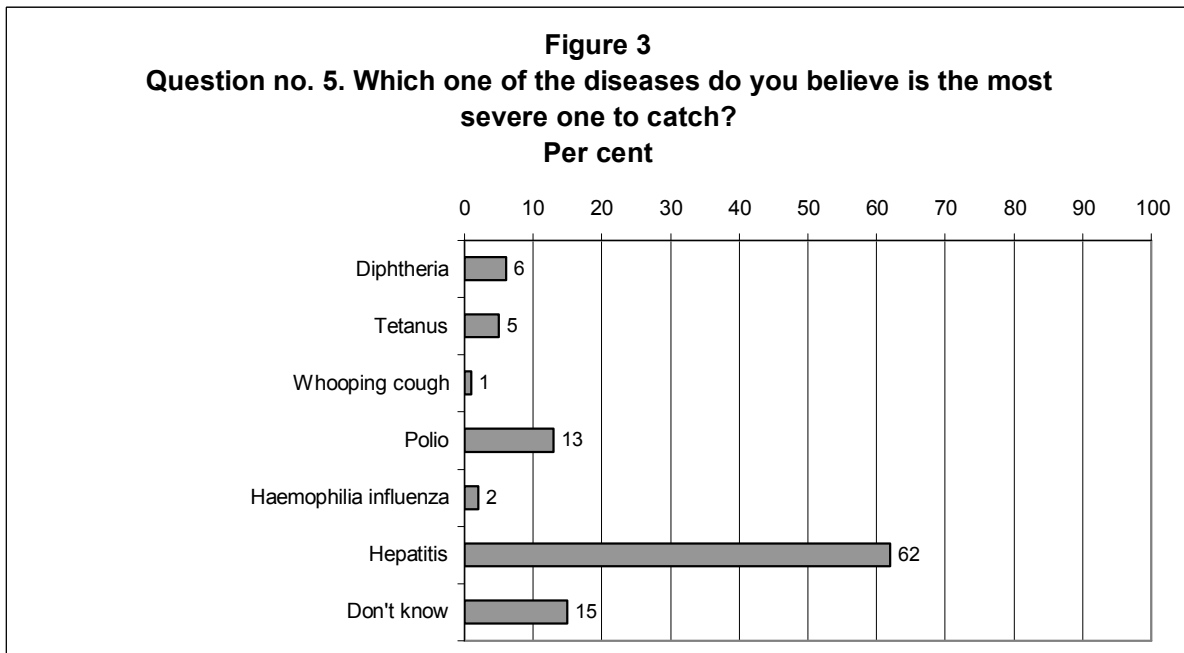
As appears from the list it is clear that AIDS and HIV are considered the most severe infectious deceases among the population in general. Hepatitis is pointed out by 4%.

Until now, the questions have been asked without any assistance. In the following question the knowledge to a number of infectious diseases is measured in a way that the interviewer asks the respondents whether they know of or have heard of the diseases which the interviewer is pointing out to them. The diseases mentioned in the question are the ones which parents are offered vaccines against in the children’s immunization programme and hepatitis. The knowledge appears in Fig. two.



As appears in the figure the knowledge to four of the infectious diseases is almost total. 98% of the respondents know of tetanus and hepatitis, 97% know of whooping cough and 95% know of polio. The knowledge of diphtheria is somewhat lower (81%) while the knowledge to haemophilia influenza is much lower (19%).

Based on this knowledge the respondents were then asked which of these diseases they believe to be the most severe one to catch. The replies appear from Fig. three.



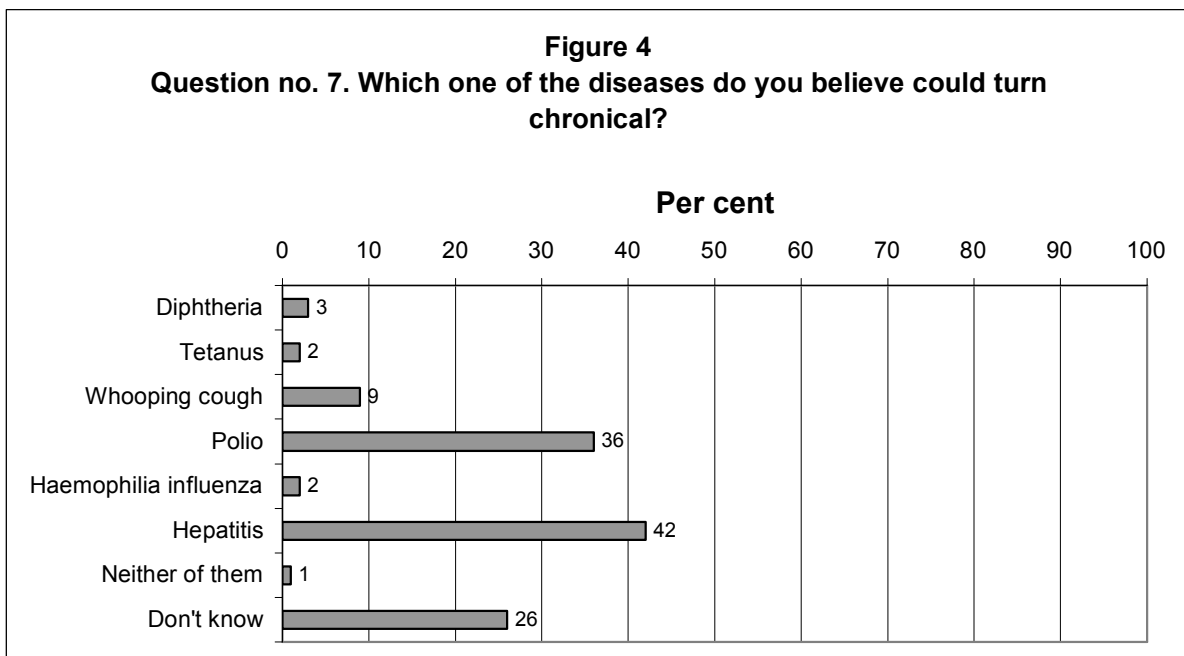
62% of the respondents believe that hepatitis is the most severe disease of them all. 13% believe that it is polio, 6% that it is diphtheria and 5% that it is tetanus. 15% of the respondents reply “don’t know” to this question.

To the following open question the respondents were asked to state the reasons for their replies. Most of the respondents believe that it is hepatitis which is the most severe disease of them all. When it comes to stating the reasons there are two main groups. The one group have difficulties explaining why they chose hepatitis. Many of the respondents reply “don’t know” to this thorough question while several acknowledge that they are guessing or that they have a less justified presumption. The other main group of respondents reply that the liver is a problematic organ for a disease and therefore such a disease must be fatal.

Reasons for choosing polio as the answer to this question is, that the disease is causing disablement and paralysis.

In the table section you can read all the replies and in that way get a more detailed experience of what explanations the respondents are providing.

The respondents were also asked to consider what diseases pointed out in the questionnaire could turn chronic. The responds appear from Fig. four.

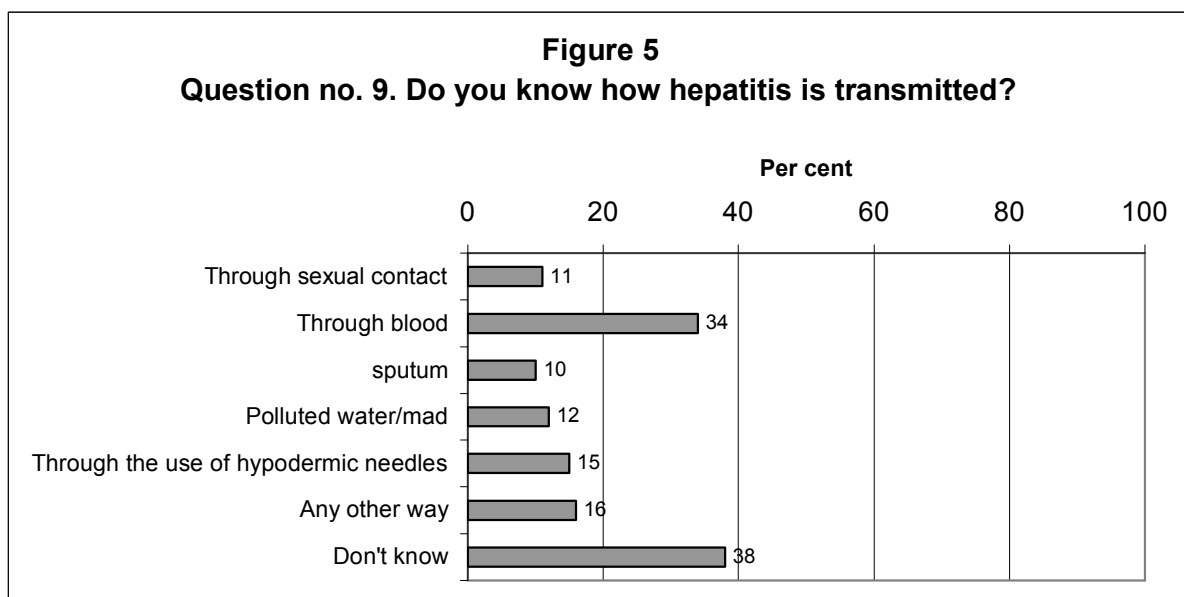


It appears from the figure that 42% of the respondents think that hepatitis could turn chronic. 36% believe that polio could turn chronic. As to the other diseases pointed out in the question only a few of the respondents believe that they could turn chronic. There are only a few differences when it comes to the view of the diseases in various demographic groups.

To get a clear impression of what the respondents really know about hepatitis, an entirely open question was asked where after the interviewers have registered precisely the replies to that question.

Generally speaking, we note that the knowledge of hepatitis is relatively low. A large number of the respondents cannot explain in greater details what hepatitis is. A large group believes that the disease is fatal and many of the respondents link the disease together with journeys abroad just like many of the respondents believe that the disease has something to do with drug addicts. A small number of the respondents know that there exist several types of the disease. Details are shown in the table section.

To the question of how hepatitis is transmitted, the replies are shown in Fig. five.

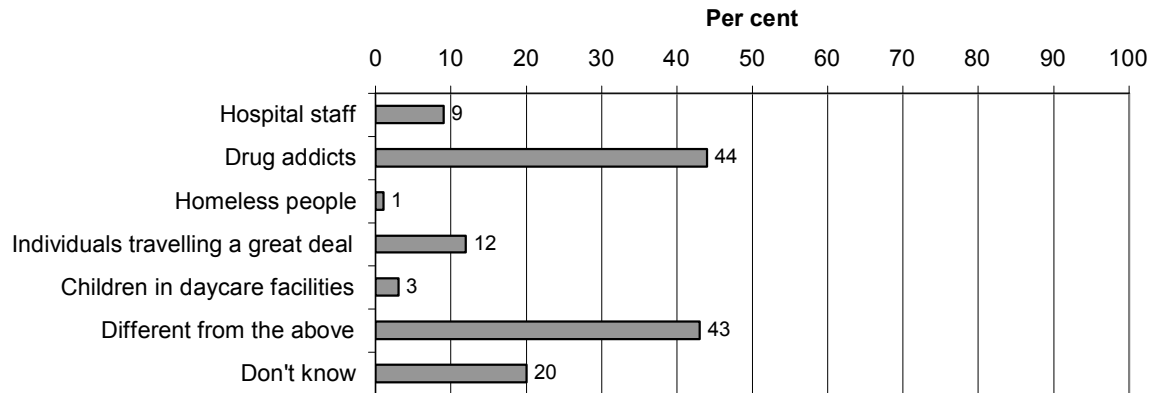


About one third of the respondents (38%) do not know how hepatitis is transmitted. Just like one third (34%) believe that the disease is transmitted through blood. 11% are of the impression that the disease is transmitted through sexual contact, 10% that the infection takes place through sputum and 12% that the infection takes place through water and food. 15% believe that the disease is transmitted through the use of hypodermic needles amongst drug addicts. Finally, 16% of the respondents state other ways in which to spread the infection. Several of the respondents have indicated several replies to this question. Only small variations occur in the knowledge from one section of the population to another.

Some of the respondents have replied “in another way” and then there are several replies that have to do with going to the lavatories. The details can be seen in the table section.

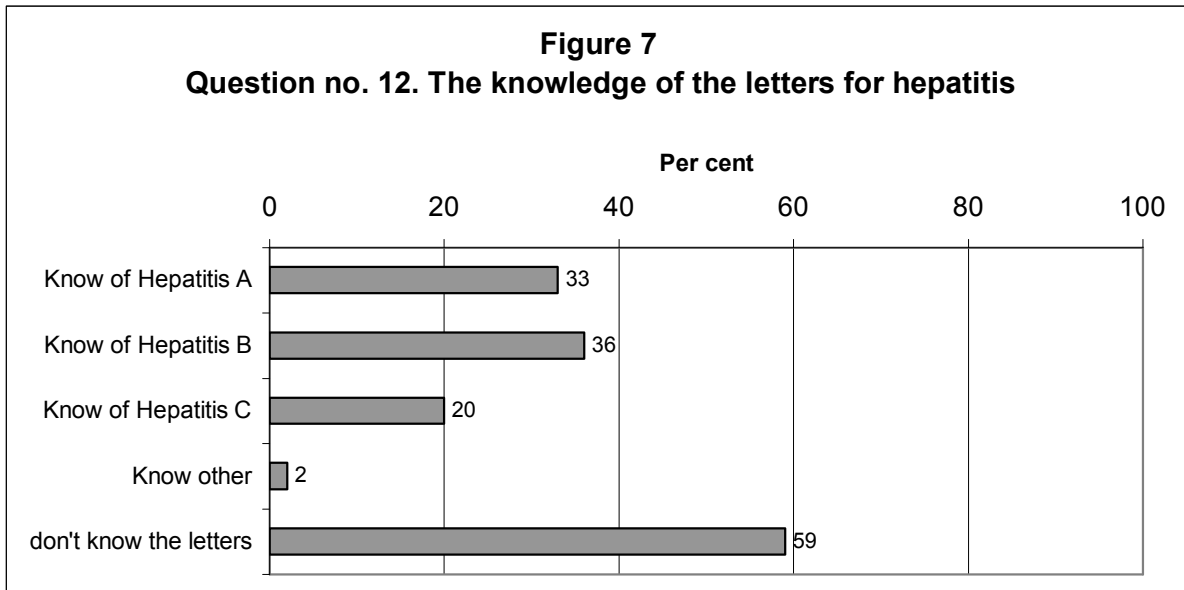
In continuation of this question, the respondents were asked whether they believe that some individuals or groups of individuals are particularly exposed to infection of hepatitis. The replies to this question can be seen in Fig. six.

**Figure 6**  
**Question no. 10. Do you know whether there are some individuals or groups of individuals who are particularly exposed to infection with hepatitis?**



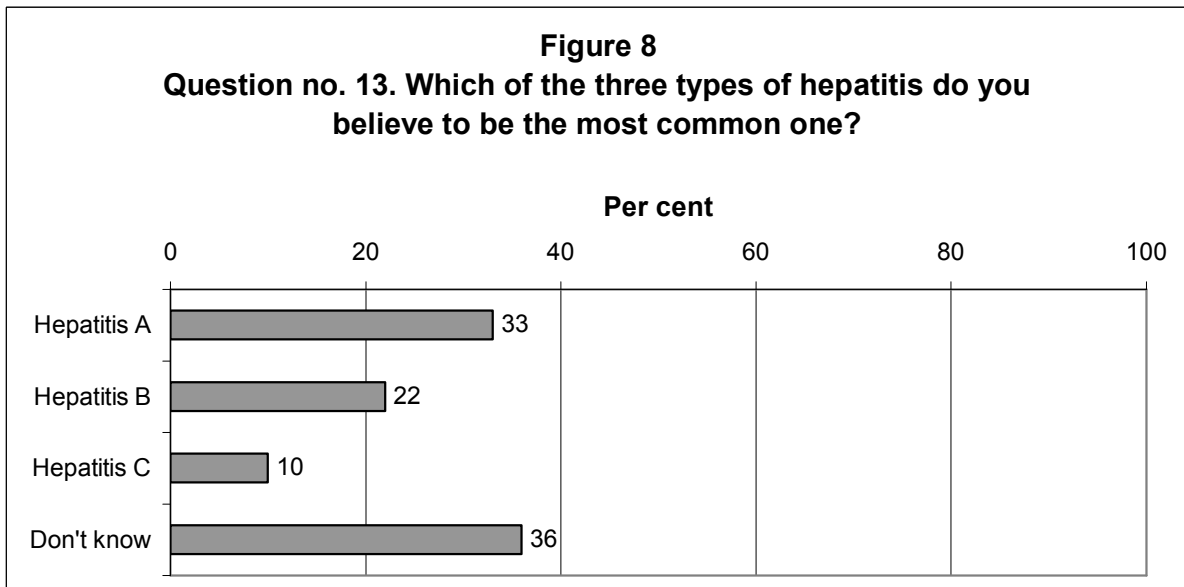
44% are of the opinion that drug addicts are particularly exposed to infection with hepatitis. 12% point out that individuals travelling a great deal are particularly exposed to infection. 9% point out hospital staff and 3% children in daycare facilities. 20% do not know whether any one group is more exposed than others. 43% reply differently than from the options in the questionnaire. The most frequent replies are alcoholics, homosexuals, prostitutes and blood donors. Characteristic is then that the opinion, in general, is that the danger of infection is largest amongst the lowest social groups in society.

To the question whether the respondents are aware of the fact that there exist other types of hepatitis, 61% reply that they are. However, it turns out that one third of them do not know of the letters. Fig. seven shows the share of all respondents who know about the various letters.



The figure shows that about one third know of hepatitis A and B while 20% know of hepatitis C. 59% of the respondents do not know of the various letters.

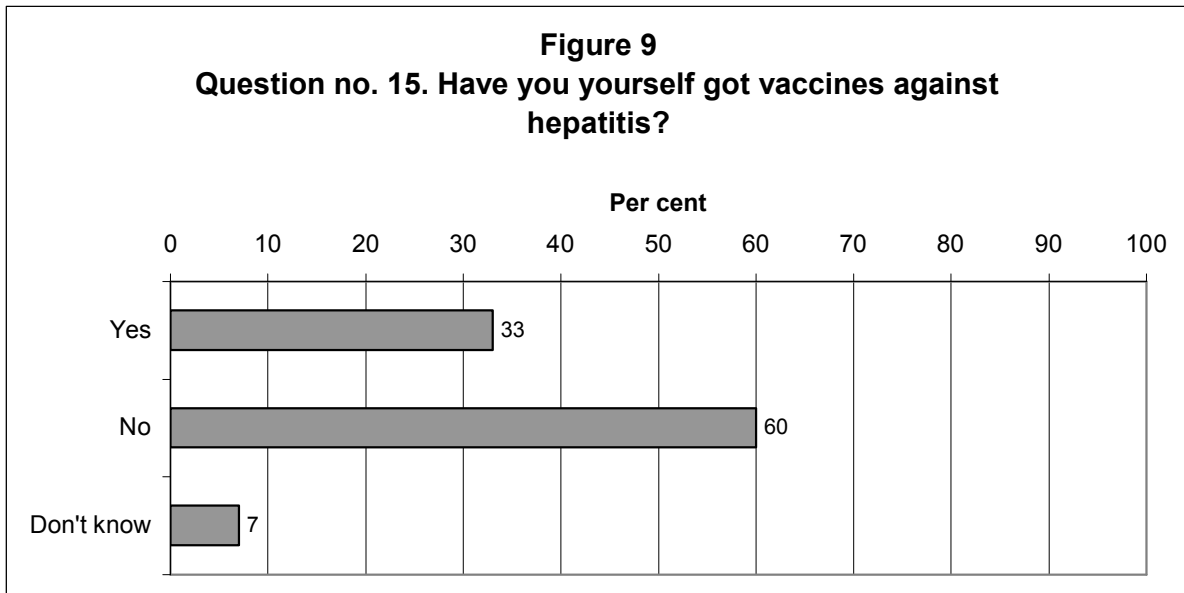
After having clarified the three most common types of hepatitis A, B and C respectively, the respondents were asked which one of the three types of hepatitis is the most common one. The results can be seen in Fig. eight.



More than one third of the respondents do not know which one of the types is the most common one. 33% believe it is hepatitis A, 22% that it is hepatitis B and 10% that it is hepatitis C. To the question whether the respondents know of individuals or have heard of individuals infected with hepatitis, 22% reply that they know of individuals while 14% have heard of individuals

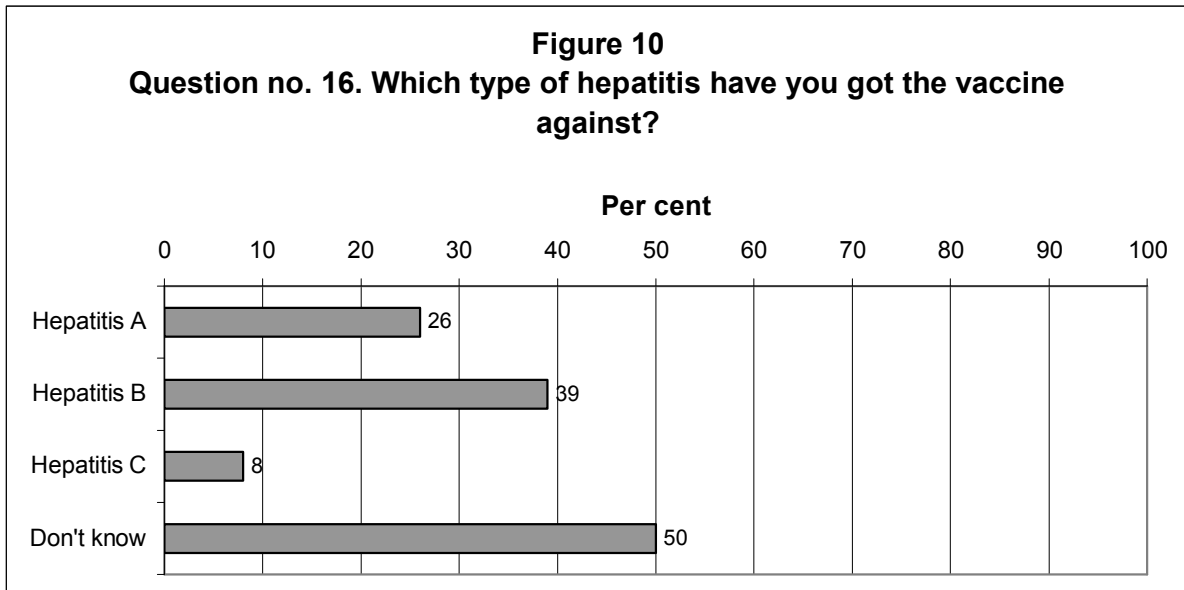
infected. Of course, the question is expressed in a way so the number of infected individuals cannot be estimated just like the reliability can easily be questioned. What the question tells us, however, is that about one third of the respondents believe to know of or have heard of individuals infected with hepatitis.

Then the respondents were asked whether they themselves have got vaccine against hepatitis. The results appear from Fig. nine.



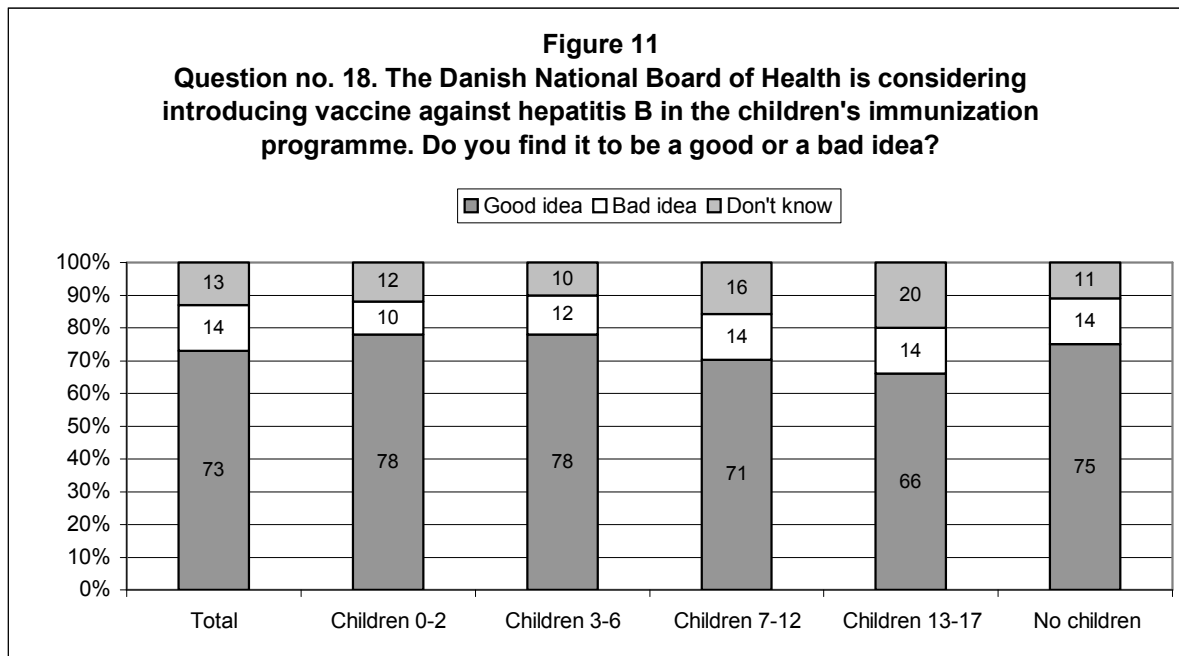
One third of the respondents say that they themselves have got vaccines against hepatitis. There are only small fluctuations from one age group to the other while there are somewhat more individuals in large cities than in the rest of the country who have got the vaccine.

The types of hepatitis that the respondents have got the vaccine against are shown in Fig. ten.



Half of the respondents claim to have got the vaccine against hepatitis. 26% say that they have got the vaccine against hepatitis A while 39% say that they have got the vaccine against hepatitis B. 8% claim they have got the vaccine against hepatitis C. When asked whether they know of or have heard of individuals who have got the vaccine against hepatitis, half of the respondents respond in the affirmative.

Then the respondents were told that the Danish National Board of Health is considering introducing vaccine against hepatitis B in the children's immunization programme. They were told that the vaccine can take place together with vaccines against the other diseases and that the vaccine is just as safe as the one against the other diseases. Then the respondents were asked whether they find it to be a good or a bad idea. The replies appear from Fig. 11.



73% of the respondents believe that it is a good idea to introduce the vaccine against hepatitis B in the children's immunization programme while 14% believe that it is a bad idea. 13% reply "don't know" to this question.

From the figure it appears that the attitude is most positive in respondents with children under the age of six while it is least positive in respondents with children in the age 13-17. However, the difference is so relatively small that even in the least positive group 66% believe that it is a good idea to introduce vaccine against hepatitis B in the children's immunization programme.

The table section shows an overview of every single reply and why the respondents find the idea good or bad.

Respondents who think it is a good idea state that it is good to get vaccines against infectious diseases. However, many of the respondents stress that one has to be certain that there is no risk or no side effects of importance. They also stress that when travelling it is a good idea to get vaccines.

Respondents who believe that it is a bad idea stress that there is always a risk connected with getting vaccines. Several respondents state that it is hard on the children while a large group believe that the problem with hepatitis is so small that there is no justified reason for getting vaccines.

Respondents who immediately did not think that getting vaccines against hepatitis B is a good idea have been told that the disease is infectious causing the risk of chronic hepatitis and subsequently liver cancer. Then the question was whether this information got the respondents to change their minds. 17% changed their minds while 47% maintained their opposition and 36% replied "don't know". Still, it is the risk involved in getting vaccines they are paying attention to.

Finally, the respondents were asked whether they know of the Danish Hepatitis Association. The knowledge of the association is not particularly widespread amongst the population as only 7% replied “yes” to that question.

### **Summing Up**

The survey shows that the knowledge of what diseases are included in the children’s immunization programme is relatively low while the knowledge of what diseases are included in the MMR vaccine is substantially higher.

If hepatitis is tabulated with the diseases in the children’s immunization programme, hepatitis is considered far the most severe one to catch which is connected with the opinion of the fact that hepatitis could turn chronic.

The knowledge of the way hepatitis is transmitted is mostly centred on blood, drug addicts, going to the lavatories etc and that it is the lowest social groups in society that are exposed to infection, according to most respondents.

Three fourth of the population believe that it is a good idea to introduce vaccine against hepatitis B in the children’s immunization programme on the assumption that it is carried out at the same time as the other vaccines just like there should not be a higher risk than with vaccines against other diseases.