## **Abstract**

## Hepatitis B perinatal infection awareness survey results and future directions presented

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Since July 1st, 2002 the Korea Disease Control and Prevention Agency (KDCA) has run a national project to prevent perinatal hepatitis B infection. The main content of the project is to provide the cost of the hepatitis B vaccine, immunoglobulin as well as hepatitis B antigen and antibody laboratory tests up to 3 times, targeting newborns who were born to mothers who are hepatitis B carriers. From December 19th to 20th, 2019 the KDCA conducted a mobile survey targeting 3,097 project participants regarding their acknowledgement of the disease and the national project as well as the evaluation of the health care facilities providing the services. The purpose of the survey was to collect basic data as evidence to establish the future direction of the project.

The results showed that participants had high acknowledgement of the disease (hepatitis B infection) and the project. Furthermore, the hepatitis B vaccination rate and the rate of receiving the first antiqen/antibody test were high. The evaluation of the health care facilities revealed that explanations of the disease, and warnings after receiving vaccination were insufficient and needed to be improved. Satisfaction with the project was relatively high, and participants perceived that the project was helpful in preventing hepatitis B infection in their children and believed that it reduced the economic burden of child support.

Based on the survey results, the efforts of the health care facilities providing basic information on hepatitis B infection and the necessity of performing laboratory tests should be emphasized to provide better understanding of the project and to enhance patient participation. As a result, this study recommended that the KDCA continue to produce brochures or leaflets that highlight that the project provides practical help preventing perinatal hepatitis B infection as well as reducing the economic burden of child support.

**Keywords:** National project to prevent perinatal hepatitis B infection, Hepatitis B infection, Hepatitis B vaccine, Survey, Future direction of the project

Table 1. Respondent characteristics

		Number of cases	Ratio (%)
		(n=3,097)	(11)
	20's	93	3.0
Age group	30's	2,464	79.6
	40's	540	17.4
	Metropolitan area	1,446	46.7
	Chungcheong area	313	10.1
Area	Gyeongsang area	863	27.9
	Honam area	346	11.2
	Gangwon/Jeju	129	4.2
	1 person	1,180	38.1
Number of children	2 persons	1,484	47.9
	3 or more persons	433	14.0
	Less than 12 months	589	19.0
Variable abild's and	Less than 12-36 months	1,247	40.3
Youngest child's age	Less than 36-48 months	628	20.3
	Over 48 months	633	20.4
Policy awareness of a hepatitis	High (I know very well. I know it well.)	1,853	59.8
B perinatal infection prevention project	Low (I don't know the details, but I know about it. I don't know, but I've heard of it.)	1,244	40.2

<sup>\*\*</sup>References: Satisfaction Survey Results Report of a hepatitis B perinatal infection prevention project ©MACROMILL EMBRAIN 2020.4.28, Prepared for RAINBOW Communication & Consulting. 2020.

Table 2. Is your child vaccinated against hepatitis B?, Reasons for not getting your child's hepatitis B vaccine

		Number of cases (n=3,097)	Ratio (%)
Is your child vaccinated against hepatitis B?	Vaccinated	3,074	99.3
	Not vaccinated	23	0.7

			Number of cases (n=23)1)	Ratio (%)
	Vaccination	Because the disease to be vaccinated against is not a serious disease	4	17.4
Reasons for not getting the child's	Vaccination uselessness	Because of the belief that children can be healthy even if they are not vaccinated	3	13.0
	Time of vaccination.	I feel like children do not need to get vaccinated at such a very young age	3	13.0
		There are too many vaccinations to be given	2	8.7
hepatitis B vaccine	Place of vaccination	Living abroad at the time of the vaccination	2	8.7
(duplicate response)	Abnormal reaction after vaccination	For fear of abnormal vaccine reactions after vaccination	1	4.3
		Because children might get a disease after getting inoculated	1	4.3
		for lack of relevant information/knowledge	2	8.7
	Etc.	Because children is not a carrier	1	4.3
		I forgot schedule	1	4.3

<sup>&</sup>lt;sup>1)</sup>Caution when interpreting less than 30 cases, Minority opinions and misrecognized opinions are not presented.

Table 3. Whether your child is tested for hepatitis B antigen and antibody1), reasons for not testing your child for hepatitis B antigen antibody

		Number of cases (n=2,667) <sup>2)</sup>	Ratio (%)
Whether your child is tested	Had the first examination	2,273	85.2
for hepatitis B antigen and antibody	Didn't check	394	14.8

			Number of cases (n=394)3)	Ratio (%)
		I didn't know if I had to check	93	23.6
	Lack of	Because I don't know when the test is recommended	64	16.2
	prevention project information	Because I don't know the details of the inspection fee support	47	11.9
		Not knowing that children is a prevention project target	41	10.4
		Immune globulin and vaccination alone were thought to be sufficient to form immunity	27	6.9
Reasons for not testing your child for hepatitis B antigen antibody		When my children was hospitalized, I heard that the test results showed that antibodies were formed	14	3.6
		Because inspection is not absolutely necessary	11	2.8
(duplicate response)	Lack of accessibility	Because the hospital or health center for testing is too far away	10	2.5
		I have the burden of having to draw blood at a young age	172	43.7
	Etc.	I don't have time to go to the test	43	10.9
		Because I'm going to check	14	3.6
		Because children has a disease, etc., at the recommended time for the test	12	3.0
		I was reluctant to disclose the fact that my children was a target for the hepatitis B prevention project	8	2.0

<sup>1)</sup> Since the included data is rounded to less than the unit, the total value and the sum of the contents may not match, and the increase/decrease ratio may differ depending on the unit

<sup>3)</sup> Minority opinions and misrecognized opinions are not presented

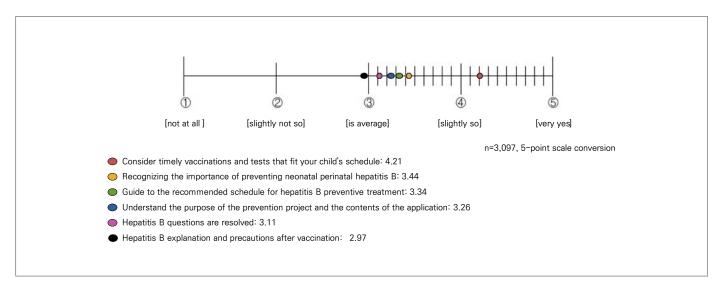


Figure 1. Degree of help after explaining hepatitis B and hepatitis B perinatal infection from medical institutions

<sup>&</sup>lt;sup>2)</sup>Those who did not arrive at the test time such as incomplete basic vaccination (430) are excluded from the response

Table 4. Sufficient explanation of the hepatitis B perinatal infection prevention project, when to explain prevention project

		Number of cases (n=3,097)	Ratio (%)
prevention project at a medical		1,243	40.1
	Is average	920	29.7
	No (not at all, It's not like that.)	934	30.2

		Number of cases (n=1,243) <sup>1)</sup>	Ratio (%)
Time to explain the hepatitis B perinatal infection prevention project in medical institutions	During pregnancy	780	62.7
	At birth	247	19.9
	When vaccinated	216	17.4

<sup>&</sup>lt;sup>1)</sup>The number of project participants who responded that they had received sufficient explanations from medical institutions

Table 5. Whether preventive measures schedule management advance notification text message service is provided, the degree of help with the preventive treatment schedule management of the text message service

		Number of cases (n=3,097)	Ratio (%)
Whether preventive measures schedule management advance notification text message service is provided	Been guided	2,021	65.3
	I didn't get any guidance	1,076	34.7

		Number of cases (n=2,021) <sup>1)</sup>	Ratio (%)
The degree of help with the preventive treatment schedule management of the text message service	Yes (somewhat, very much)	1,842	91.2
	Is average	154	7.6
	No (not at all, It's not like that.)	25	1.2

<sup>&</sup>lt;sup>1)</sup>The number of project participants who responded that they received a preventive treatment schedule management advance notice message

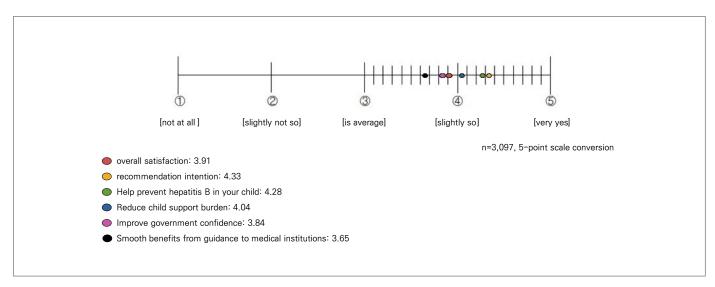


Figure 2. Satisfaction with the hepatitis B perinatal infection prevention project