

**PUE “INSTITUTE OF RADIATION SAFETY “BELRAD”**

APPROVED

Director of PUE “Institute of Radiation  
Safety “Belrad”

\_\_\_\_\_ A.V. Nesterenko

“ \_\_\_\_ ” \_\_\_\_\_ 20\_\_

**SHORT REPORT**

**UNDER THE CONTRACT No. 36 (ATLAS-2) DATED TO JUNE 25, 2008**

**(STAGES 3 AND 4)**

Deputy director  
for international cooperation

\_\_\_\_\_ V.I. Babenko

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**MINSK**



According to the Contract No. 36 dated to June 25, 2008 following actions given in the table 1 were performed in framework of the stages 3 and 4.

Table 1 – Data on the number of measurements and the quantity of the preparation VITAPECT given in framework of the stages 3 and 4 to the Contract No. 36.

Settlement	Date	Number of measurements			Quantity of VITAPECT		Notes
		expected	all	children	expected	actual	
Antonov kindergarten and elementary school of Narovlya district of Gomel region	02.12.2009	26	33	23	52	-	
	22.03.2010	-	-	-	-	26	
	29.04.2010	26	27	20	-	-	
	04.05.2010	-	-	-	-	26	Additionally
Verbovichi kindergarten and secondary school of Narovlya district of Gomel region	04.05.2010	126	-	-	126	126	The measurement were not performed
Golovchitskaya Buda kindergarten and basic school of Narovlya district of Gomel region	26.11.2009	52	52	48	104	-	
	21.01.2010	-	58	51	-	-	Control measurements
	22.03.2010	-	-	-	-	104	
	30.04.2010	52	48	46	-	-	
Golovchitsy kindergarten and secondary school of Narovlya district of Gomel region	03.12.2009	122	52	38	244	-	
	20.01.2010		133	122	-	-	Control measurement
	22.03.2010	-	-	-	-	244	
	06-27.05.2010	122	60	50	-	-	
Demidov kindergarten and basic school of Narovlya district of Gomel region	25.11.2009	56	58	52	112	-	
	23.01.2010	-	44	43	-	-	Control measurement
	22.03.2010	-	-	-	-	112	
	05.05.2010	56	51	51	-	-	
Zavoyt kindergarten and basic school of Narovlya district of Gomel region	26-27.11.2009	33	38	30	66	-	
	22.03.2010	-	-	-	-	66	
	31.04.2010	33	27	26	-	-	

Kirov secondary school and kindergarten of Narovlya district of Gomel region	22.01.2010	85	92	76	170	-	
	22.03.2010	-	-	-	-	170	
	27.04.2010	85	70	57	-	-	
	17.05.2010	-	-	-	-	85	Additionally
Narovlya secondary school No.3 of Gomel region	24-27.11.2009	393	370	347	786	-	
	04.05.2010	-	-	-	-	786	
	17.05.2010	-	-	-	-	196	Additionally
	20-21.05.2010	393	306	286	-	-	
<b>TOTAL:</b>		<b>1660</b>	<b>1519</b>	<b>1366</b>	<b>1660</b>	<b>1941</b>	

Hereafter there is a statistical data processing.

## ANTONOV

Characteristics	Value	Source
<sup>137</sup> Cs contamination density of the territory	8.13 Ci/km <sup>2</sup>	Dose catalogue of the Ministry for Public Health Services of the Republic of Belarus, 2004
Number of inhabitants	188 persons	-----«-----
External dose	1.40 mSv/a	-----«-----
Internal dose	1.40 mSv/a	-----«-----
Cumulative dose	2.37 mSv/a	-----«-----

According to the data dated to December 2009 in the Antonov kindergarten and elementary school and there are 17 children, 6 teachers and 16 persons of another staff.

Children from following settlements go to the kindergarten and elementary school: Antonov, Grushevka.

### December 02, 2009

The first measurement of children in the Antonov kindergarten and elementary school of Narovlya district of Gomel region was performed in the school building. A total of measured persons was 33 persons (23 children and 10 adults).

Average <sup>137</sup>Cs specific activity in the whole group (n = 23): (70.3 ± 19.9) Bq/kg.

Average <sup>137</sup>Cs specific activity in the critical group (n = 15): (93.2 ± 29.1) Bq/kg.

Median value in the whole group: 35.9 Bq/kg.

Median value in the critical group: 40.4 Bq/kg.

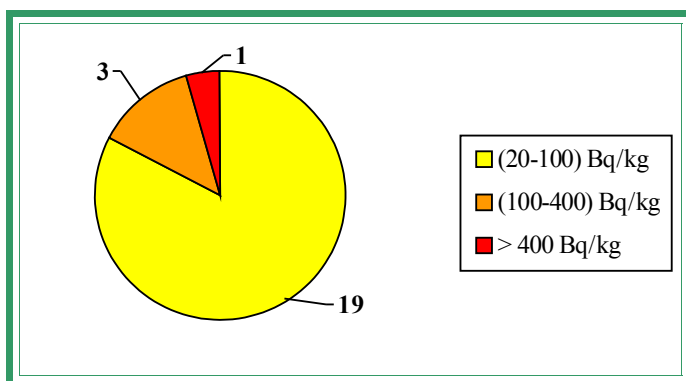
The table 2 demonstrates the maximal levels of <sup>137</sup>Cs specific activity (the critical group) according to the results of measurements dated to December 02, 2009.

Table 2

No.	Surname Name Patronymic	Occupation	Sex	Weight, kg	Year of birth	Sp. activity, Bq/kg
1.	P.P.S.	SCHOOLGIRL	F	30	2002	468.3

2.	R.A.L.	CHILD PRESCHOOL AGE	M	25	2003	173.0
3.	L.D.Yu.	CHILD PRESCHOOL AGE	M	21	2004	130.2
4.	L.A.Yu.	SCHOOLGIRL	F	26	2001	127.1
5.	H.L.V.	SCHOOLGIRL	F	29	2001	93.4
6.	S.S.S.	SCHOOLGIRL	F	20	2002	68.8
7.	P.O.D.	SCHOOLGIRL	F	22	2001	49.1
8.	L.Z.S.	SCHOOLBOY	M	24	2002	40.4
9.	G.N.N.	CHILD PRESCHOOL AGE	M	19	2005	37.4
10.	E.M.S.	CHILD PRESCHOOL AGE	M	21	2003	36.7
11.	G.A.N.	CHILD PRESCHOOL AGE	M	18	2006	36.6
12.	S.P.A.	CHILD PRESCHOOL AGE	F	13	2006	35.9
13.	E.N.A.	CHILD PRESCHOOL AGE	M	15	2006	35.3
14.	P.M.S.	SCHOOLGIRL	F	26	2001	33.4
15.	S.A.A.	SCHOOLGIRL	F	29	2000	32.7

The figure 1 contains the diagram of the interval  $^{137}\text{Cs}$  specific activity distribution in children in the Antonov kindergarten and elementary school of Narovlya district of Gomel region in accordance with the results of measurements dated to December 02, 2009.



←Figure 1 – Diagram of the interval  $^{137}\text{Cs}$  specific activity distribution in children in the Antonov kindergarten and elementary school of Narovlya district of Gomel region in accordance with the results of measurements dated to December 02, 2009.

On March 22, 2010 26 packings of the pectin preparation VITAPECT were given for children.

### April 29, 2010

The second measurement of children in the Antonov kindergarten and elementary school of Narovlya district of Gomel region was performed in the school building. A total of measured persons was 27 persons (20 children and 7 adults).

Average  $^{137}\text{Cs}$  specific activity in the whole group (n = 20):  $(31.4 \pm 5.7)$  Bq/kg.

Average  $^{137}\text{Cs}$  specific activity in the critical group (n = 15):  $(40.0 \pm 6.1)$  Bq/kg.

Median value in the whole group: 26.9 Bq/kg.

Median value in the critical group: 38.5 Bq/kg.

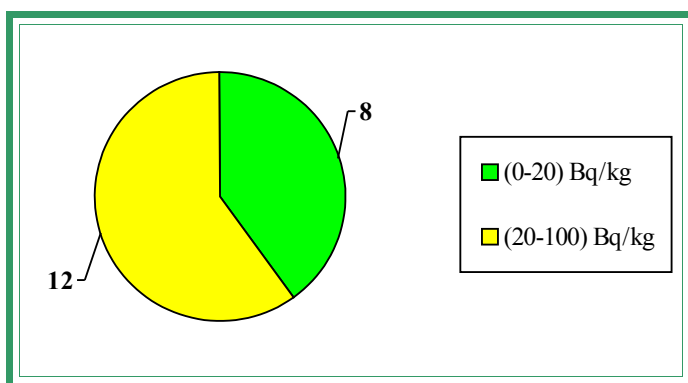
The table 3 demonstrates the maximal levels of  $^{137}\text{Cs}$  specific activity (the critical group) according to the results of measurements dated to April 29, 2010.

Table 3

No.	Surname Name Patronymic	Occupation	Sex	Weight, kg	Year of birth	Sp. activity, Bq/kg
1.	P.P.S.	SCHOOLGIRL	F	30	2000	79.4
2.	M.V.S.	CHILD PRESCHOOL AGE	M	20	2004	78.6
3.	L.Z.S.	SCHOOLBOY	M	24	2002	67.1
4.	V.D.S.	SCHOOLBOY	M	31	2000	59.1
5.	J.M.V.	SCHOOLGIRL	F	47	1996	50.2
6.	H.L.V.	SCHOOLGIRL	F	33	2001	45.3
7.	G.N.N.	CHILD PRESCHOOL AGE	M	20	2005	40.0
8.	S.S.S.	SCHOOLGIRL	F	20	2002	38.5

9.	A.V.V.	CHILD PRESCHOOL AGE	M	18	2004	38.4
10.	R.A.L.	SCHOOLBOY	M	24	2003	29.1
11.	M.A.A.	SCHOOLBOY	M	21	2003	24.7
12.	P.V.A.	CHILD PRESCHOOL AGE	M	13	2007	23.1
13.	P.V.A.	SCHOOLGIRL	F	24	2002	9.0
14.	E.I.S.	SCHOOLGIRL	F	40	2000	9.0
15.	S.A.A.	SCHOOLBOY	M	25	2002	8.0

The figure 2 contains the diagram of the interval  $^{137}\text{Cs}$  specific activity distribution in children in the Antonov kindergarten and elementary school of Narovlya district of Gomel region in accordance with the results of measurements dated to April 29, 2010.



←Figure 2 – Diagram of the interval  $^{137}\text{Cs}$  specific activity distribution in children in the Antonov kindergarten and elementary school of Narovlya district of Gomel region in accordance with the results of measurements dated to April 29, 2010.

To demonstrate the efficiency of the effects of pectin preparations there are comparative data on interval distribution of the specific activity of  $^{137}\text{Cs}$  in children having taken VITAPECT and having passed two WBC measurements (on December 02, 2009 and April 29, 2010). This group consists of 15 children.

### **December 02, 2009**

### **April 29, 2010**

The first measurement of children in the Antonov kindergarten and elementary school of Narovlya district of Gomel region was performed in the school building. A total of measured persons was 33 persons (23 children and 10 adults).

The second measurement of children in the Antonov kindergarten and elementary school of Narovlya district of Gomel region was performed in the school building. A total of measured persons was 27 persons (20 children and 7 adults).

The data of statistical processing of the results of measurements of the group of children having passed two WBC measurements and having taken VITAPECT-T (15 children).

Average specific activity of  $^{137}\text{Cs}$ :

after the first measurement:  $(80.7 \pm 29.5)$  Bq/kg,

after the second measurement:  $(32.9 \pm 7.0)$  Bq/kg.

Reduction of average specific activity of  $^{137}\text{Cs}$  was 59 %.

Increase of specific activity: in 13% children.

The same level of specific activity: in 20% children.

Reduction of specific activity: in 67% children.

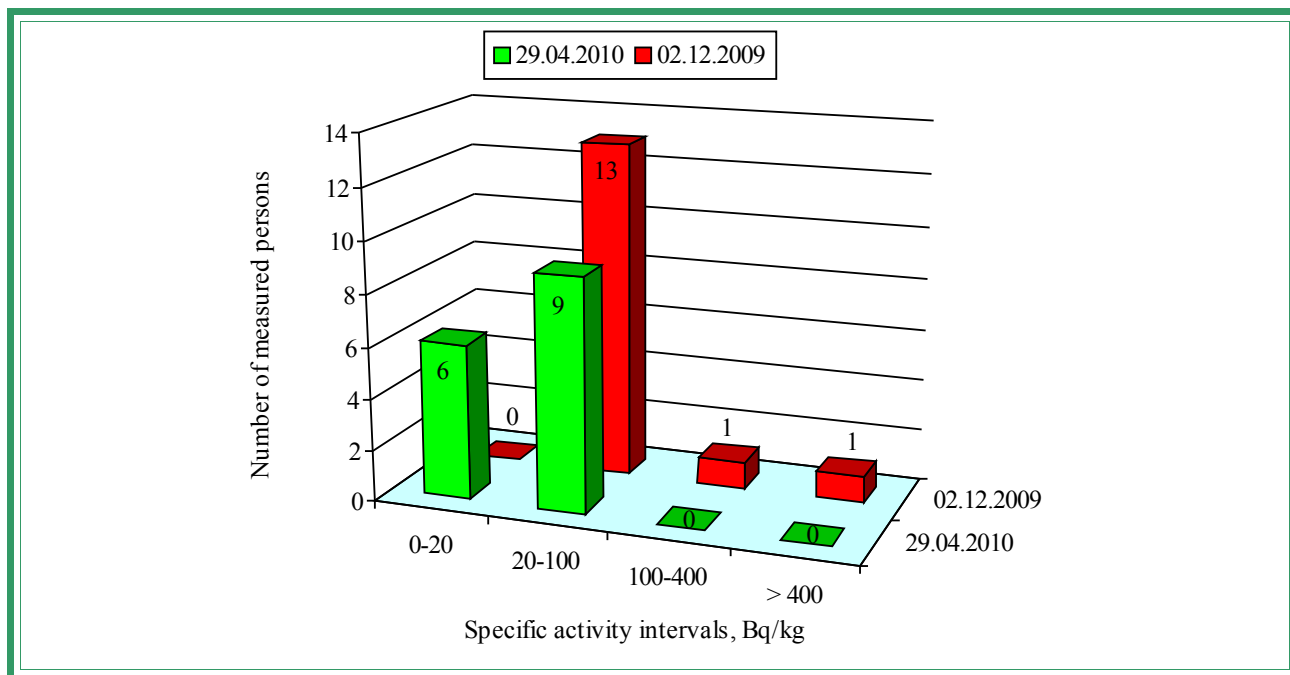
The evaluation of the scientific significance according to T-Student criterion (n = 15):  
t=2.2. The received criterion  $t > 1.96$ ;  $p < 0.01$ .

Median value after the first measurement: 37.0 Bq/kg.

Median value after the second measurement: 29.1 Bq/kg.

Reduction of median value of specific activity of  $^{137}\text{Cs}$  was 21%.

The figure 3 contains the diagram of the interval  $^{137}\text{Cs}$  specific activity distribution in children in the Antonov kindergarten and elementary school of Narovlya district in accordance with



the results of measurements on December 02, 2009 and April 29, 2010.

Figure 3 – Diagram of the interval  $^{137}\text{Cs}$  specific activity distribution in children in the Antonov kindergarten and elementary school of Narovlya district in accordance with the results of measurements on December 02, 2009 and April 29, 2010

On May 04, 2010 26 packings of the pectin preparation VITAPECT were given for children additionally.

## GOLOVCHITSKAYA BUDA

Characteristics	Value	Source
$^{137}\text{Cs}$ contamination density of the territory	7.71 Ci/km <sup>2</sup>	Dose catalogue of the Ministry for Public Health Services of the Republic of Belarus, 2004
Number of inhabitants	300 persons	Golovchitsy village council, dated to 26.11.2009
External dose	0.99 mSv/a	Dose catalogue of the Ministry for Public Health Services of the Republic of Belarus, 2004
Internal dose	1.20 mSv/a	-----«-----
Cumulative dose	2.19 mSv/a	-----«-----

According to the data dated to December 2009 in the Golovchitskaya Buda basic school there are 41 children, 16 teachers and 12 persons of another staff and in the kindergarten there are 11 children and 2 persons of another staff.

Children from following settlements go to the Golovchitskaya Buda basic school and kindergarten: Golovchitskaya Buda, Linov and Pobeda.

### November 26, 2009

The first measurement of children in the Golovchitskaya Buda basic school and kindergarten of Narovlya district of Gomel region was performed in the school building. A total of measured persons was 52 persons (48 children and 4 adults).

Average  $^{137}\text{Cs}$  specific activity in the whole group (n = 48): (37.6 ± 5.1) Bq/kg.

Average  $^{137}\text{Cs}$  specific activity in the critical group (n = 15): (78.7 ± 9.9) Bq/kg.

Median value in the whole group: 22.1 Bq/kg.

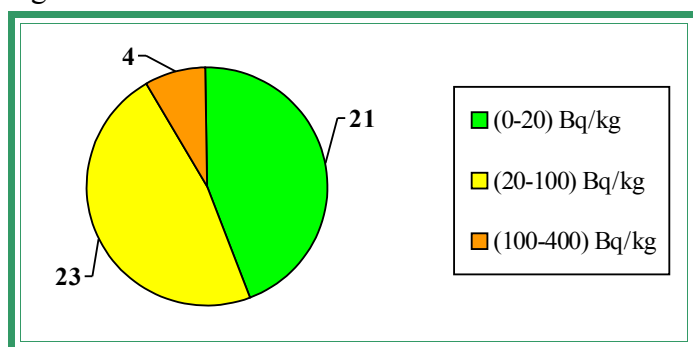
Median value in the critical group: 61.8 Bq/kg.

The table 4 demonstrates the maximal levels of  $^{137}\text{Cs}$  specific activity (the critical group) according to the results of measurements dated to November 26, 2009.

Table 4

No.	Surname Name Patronymic	Occupation	Sex	Weight, kg	Year of birth	Sp. activity, Bq/kg
1.	G.Yu.A.	SCHOOLGIRL	F	47	1994	171.9
2.	L.A.N.	SCHOOLBOY	M	67	1994	140.5
3.	B.A.N.	SCHOOLGIRL	F	35	1996	106.6
4.	V.A.G.	SCHOOLBOY	M	42	1995	103.0
5.	H.T.E.	SCHOOLGIRL	F	48	1995	90.4
6.	K.N.I.	SCHOOLGIRL	F	50	1994	80.1
7.	K.V.N.	SCHOOLBOY	M	20	2001	68.6
8.	S.A.V.	SCHOOLGIRL	F	28	2002	61.8
9.	B.M.O.	SCHOOLBOY	M	28	1999	59.6
10.	J.S.V.	SCHOOLBOY	M	68	1994	58.8
11.	S.A.V.	SCHOOLGIRL	F	35	1997	58.8
12.	C.V.A.	CHILD PRESCHOOL AGE	M	16	2004	55.0
13.	S.V.V.	CHILD PRESCHOOL AGE	M	12	2006	53.7
14.	H.E.E.	SCHOOLBOY	M	33	1999	41.0
15.	L.V.A.	SCHOOLBOY	M	41	1998	30.7

The figure 4 contains the diagram of the interval  $^{137}\text{Cs}$  specific activity distribution in children in the Golovchitskaya Buda basic school and kindergarten of Narovlya district of Gomel region in accordance with the results of measurements dated to November 26, 2009.



←Figure 4 - Diagram of the interval  $^{137}\text{Cs}$  specific activity distribution in children in the Golovchitskaya Buda basic school and kindergarten of Narovlya district of Gomel region in accordance with the results of measurements dated to November 26, 2009

## January 21, 2010

Control measurement of children in the Golovchitskaya Buda basic school and kindergarten of Narovlya district of Gomel region was performed in the school building. A total of measured persons was 58 persons (51 children and 7 adults).

Average  $^{137}\text{Cs}$  specific activity in the whole group (n = 51): (25.5 ± 2.9) Bq/kg.

Average  $^{137}\text{Cs}$  specific activity in the critical group (n = 15): (49.4 ± 4.0) Bq/kg.

Median value in the whole group: 28.8 Bq/kg.

Median value in the critical group: 45.1 Bq/kg.

The table 5 demonstrates the maximal levels of  $^{137}\text{Cs}$  specific activity (the critical group) according to the results of measurements dated to January 21, 2010.

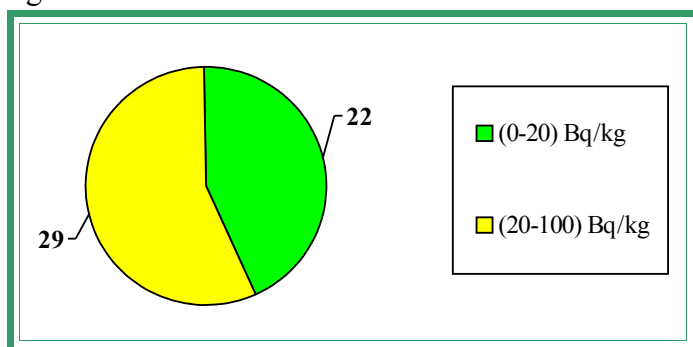
Table 5

No.	Surname Name Patronymic	Occupation	Sex	Weight, kg	Year of birth	Sp. activity, Bq/kg
1.	L.A.N.	SCHOOLBOY	M	55	1994	99.0



2.	G.Yu.A.	SCHOOLGIRL	F	48	1994	66.3
3.	S.N.V.	CHILD PRESCHOOL AGE	F	17	2004	52.2
4.	K.V.N.	SCHOOLBOY	M	20	2001	51.4
5.	P.A.M.	SCHOOLGIRL	F	48	1995	49.0
6.	M.M.M.	SCHOOLGIRL	F	21	2000	47.2
7.	B.A.N.	SCHOOLGIRL	F	35	1996	46.3
8.	S.A.V.	SCHOOLGIRL	F	28	2002	45.1
9.	V.A.G.	SCHOOLBOY	M	46	1995	44.2
10.	B.M.V.	SCHOOLGIRL	F	16	2005	41.2
11.	H.T.E.	SCHOOLGIRL	F	47	1995	40.2
12.	B.A.V.	SCHOOLGIRL	F	24	2000	40.1
13.	I.M.V.	CHILD PRESCHOOL AGE	M	20	2003	39.6
14.	G.R.S.	SCHOOLGIRL	F	25	2002	39.4
15.	B.S.V.	SCHOOLGIRL	F	35	1995	39.2

The figure 5 contains the diagram of the interval  $^{137}\text{Cs}$  specific activity distribution in children in the Golovchitskaya Buda basic school and kindergarten of Narovlya district of Gomel region in accordance with the results of measurements dated to January 21, 2010.



←Figure 5 – Diagram of the interval  $^{137}\text{Cs}$  specific activity distribution in children in the Golovchitskaya Buda basic school and kindergarten of Narovlya district of Gomel region in accordance with the results of measurements dated to January 21, 2010.

Hereafter there are comparative data on interval distribution of the specific activity of  $^{137}\text{Cs}$  in children having passed two WBC measurements (on November 26, 2009 and January 21, 2010). This group consists of 47 children.

## November 26, 2009 January 21, 2010

The first measurement of children in the Golovchitskaya Buda basic school and kindergarten of Narovlya district of Gomel region was performed in the school building. A total of measured persons was 52 persons (48 children and 4 adults).

Control measurement of children in the Golovchitskaya Buda basic school and kindergarten of Narovlya district of Gomel region was performed in the school building. A total of measured persons was 58 persons (51 children and 7 adults).

The data of statistical processing of the results of measurements of the group of children having passed two WBC measurements (47 children).

Average specific activity of  $^{137}\text{Cs}$ :

after the first measurement:  $(38.0 \pm 5.2)$  Bq/kg,

after the second measurement:  $(25.9 \pm 3.1)$  Bq/kg.

Reduction of average specific activity of  $^{137}\text{Cs}$  was 32 %.

Increase of specific activity: in 30% children.

The same level of specific activity: in 2% children.

Reduction of specific activity: in 68% children.

The evaluation of the scientific significance according to T-Student criterion (n = 47):  
t=2.84. The received criterion  $t > 1.96$ ;  $p < 0.01$ .

Median value after the first measurement: 21.6 Bq/kg.

Median value after the second measurement: 30.6 Bq/kg.

Reduction of median value of specific activity of  $^{137}\text{Cs}$  was 42%.

The figure 6 contains the diagram of the interval  $^{137}\text{Cs}$  specific activity distribution in children in the Golovchitskaya Buda basic school and kindergarten of Narovlya district of Gomel region in accordance with the results of measurements dated to November 26, 2009 and January 21, 2010.

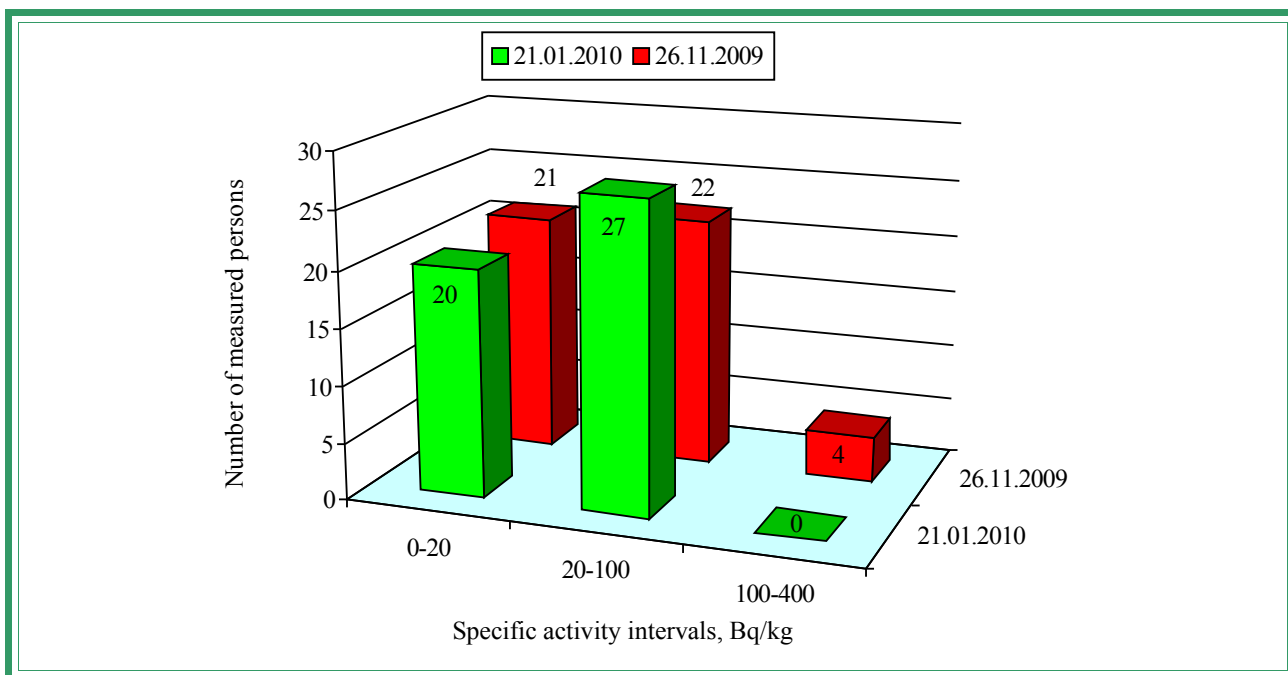


Figure 6 – Diagram of the interval  $^{137}\text{Cs}$  specific activity distribution in children in the Golovchitskaya Buda basic school and kindergarten of Narovlya district of Gomel region in accordance with the results of measurements dated to November 26, 2009 and January 21, 2010.

On March 22, 2010 104 packings of the pectin preparation VITAPECT were given for children.

### April 30, 2010

The second measurement of children in the Golovchitskaya Buda basic school and kindergarten of Narovlya district of Gomel region was performed in the school building. A total of measured persons was 48 persons (46 children and 2 adults).

Average  $^{137}\text{Cs}$  specific activity in the whole group (n = 46):  $(17.2 \pm 1.8)$  Bq/kg.

Average  $^{137}\text{Cs}$  specific activity in the critical group (n = 15):  $(31.3 \pm 1.7)$  Bq/kg.

Median value in the whole group: 16.1 Bq/kg.

Median value in the critical group: 28.8 Bq/kg.

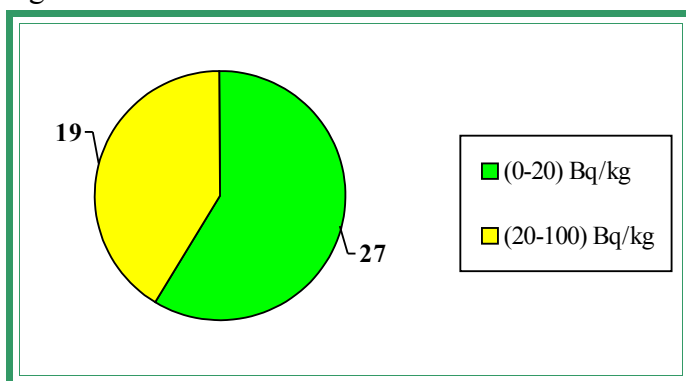
The table 6 demonstrates the maximal levels of  $^{137}\text{Cs}$  specific activity (the critical group) according to the results of measurements dated to April 30, 2010.

Table 6

No.	Surname Name Patronymic	Occupation	Sex	Weight, kg	Year of birth	Sp. activity, Bq/kg
1.	L.A.N.	SCHOOLBOY	M	69	1994	49.2
2.	S.A.V.	SCHOOLGIRL	F	38	1997	39.6
3.	B.A.O.	SCHOOLGIRL	F	24	2000	37.0
4.	K.V.N.	SCHOOLBOY	M	20	2001	33.3
5.	J.S.V.	SCHOOLBOY	M	70	1994	32.8
6.	M.M.M.	SCHOOLGIRL	F	23	2000	31.9
7.	H.T.E.	SCHOOLGIRL	F	48	1995	30.9
8.	P.I.A.	SCHOOLBOY	M	22	2003	28.8
9.	C.V.A.	CHILD PRESCHOOL AGE	M	18	2004	28.4
10.	B.S.V.	SCHOOLGIRL	F	37	1995	27.7
11.	B.V.O.	SCHOOLBOY	M	32	1997	26.4

12.	M.I.N.	SCHOOLBOY	M	45	1997	26.3
13.	B.V.A.	CHILD PRESCHOOL AGE	M	25	2004	25.8
14.	A.I.V.	SCHOOLGIRL	F	55	1994	25.6
15.	K.N.I.	SCHOOLGIRL	F	51	1994	25.3

The figure 7 contains the diagram of the interval  $^{137}\text{Cs}$  specific activity distribution in children in the Golovchitskaya Buda basic school and kindergarten of Narovlya district of Gomel region in accordance with the results of measurements dated to April 30, 2010.



←Figure 7 – Diagram of the interval  $^{137}\text{Cs}$  specific activity distribution in children in the Golovchitskaya Buda basic school and kindergarten of Narovlya district of Gomel region in accordance with the results of measurements dated to April 30, 2010.

To demonstrate the efficiency of the effects of pectin preparations there are comparative data on interval distribution of the specific activity of  $^{137}\text{Cs}$  in children having taken VITAPECT and having passed two WBC measurements (on January 21, 2009 and April 30, 2010). This group consists of 45 children.

### **January 21, 2010**

### **April 30, 2010**

Control measurement of children in the Golovchitskaya Buda basic school and kindergarten of Narovlya district of Gomel region was performed in the school building. A total of measured persons was 58 persons (51 children and 7 adults).

The second measurement of children in the Golovchitskaya Buda basic school and kindergarten of Narovlya district of Gomel region was performed in the school building. A total of measured persons was 48 persons (46 children and 2 adults).

The data of statistical processing of the results of measurements of the group of children having passed two WBC measurements and having taken VITAPECT-T (45 children).

Average specific activity of  $^{137}\text{Cs}$ :

after the first measurement:  $(24.0 \pm 3.0)$  Bq/kg,

after the second measurement:  $(17.4 \pm 1.8)$  Bq/kg.

Reduction of average specific activity of  $^{137}\text{Cs}$  was 27 %.

Increase of specific activity: in 20% children.

The same level of specific activity: in 8% children.

Reduction of specific activity: in 41% children.

The evaluation of the scientific significance according to T-Student criterion (n = 45):  
 $t=2.67$ . The received criterion  $t > 1.96$ ;  $p < 0.01$ .

Median value after the first measurement: 24.8 Bq/kg.

Median value after the second measurement: 16.7 Bq/kg.

Reduction of median value of specific activity of  $^{137}\text{Cs}$  was 32%.

The figure 8 contains the diagram of the interval  $^{137}\text{Cs}$  specific activity distribution in children in the Golovchitskaya Buda basic school and kindergarten of Narovlya district of Gomel region in accordance with the results of measurements dated to January 21 and April 30, 2010.

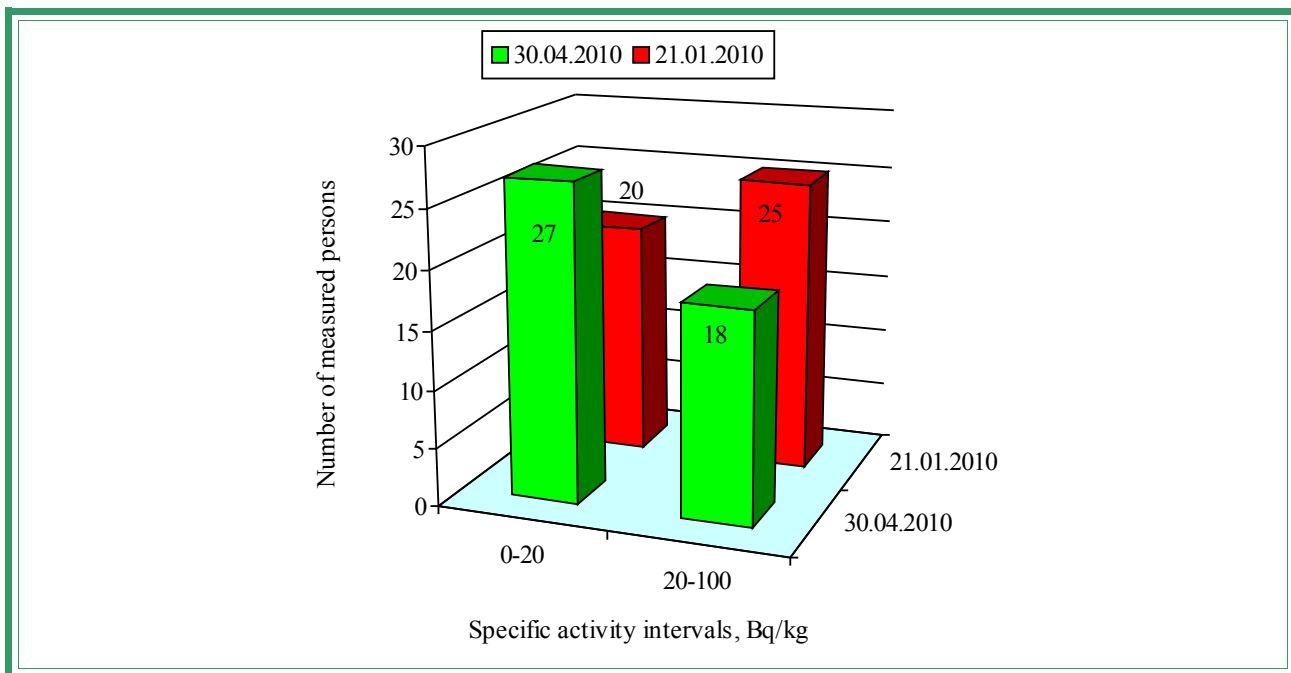


Figure 8 – Diagram of the interval  $^{137}\text{Cs}$  specific activity distribution in children in the Golovchitskaya Buda basic school and kindergarten of Narovlya district of Gomel region in accordance with the results of measurements dated to January 21 and April 30, 2010

## GOLOVCHITSY

Characteristics	Value	Source
$^{137}\text{Cs}$ contamination density of the territory	11.88 Ci/km <sup>2</sup>	Dose catalogue of the Ministry for Public Health Services of the Republic of Belarus, 2004
Number of inhabitants	445 persons	Golovchitsy village council, dated to 01.12.2009
External dose	1.42 mSv/a	Dose catalogue of the Ministry for Public Health Services of the Republic of Belarus, 2004
Internal dose	0.70 mSv/a	-----«-----
Cumulative dose	2.12 mSv/a	-----«-----

According to the data dated to December 2009 in the Golovchitskaya Buda secondary school there are 95 children, 20 teachers and 14 persons of another staff and in the kindergarten there are 27 children and 3 persons of another staff.

Children from following settlements go to the Golovchitskaya Buda basic school and kindergarten: Golovchitsy, Golovchitskaya Buda, Budki, Demidov, Gazhin and Chekhi.

### December 03, 2009

The first measurement of children in the Golovchitsy secondary school and kindergarten of Narovlya district of Gomel region was performed in the school building. A total of measured persons was 52 persons (38 children and 14 adults).

Average  $^{137}\text{Cs}$  specific activity in the whole group (n = 38): (56.2 ± 9.1) Bq/kg.

Average  $^{137}\text{Cs}$  specific activity in the critical group (n = 15): (101.3 ± 17.2) Bq/kg.

Median value in the whole group: 37.2 Bq/kg.

Median value in the critical group: 68.2 Bq/kg.

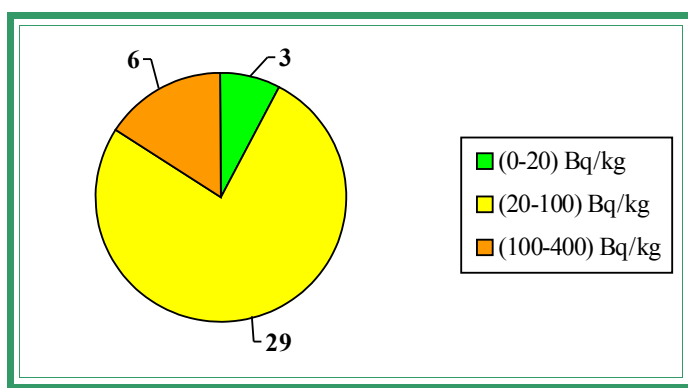
The table 7 demonstrates the maximal levels of  $^{137}\text{Cs}$  specific activity (the critical group) according to the results of measurements dated to December 03, 2009.

Table 7

No.	Surname Name	Occupation	Sex	Weight, kg	Year of birth	Sp. activity, Bq/kg
-----	--------------	------------	-----	------------	---------------	---------------------

	Patronymic					
1.	V.E.V.	SCHOOLGIRL	F	60	1996	226.9
2.	E.A.S.	SCHOOLBOY	M	25	2002	216.8
3.	E.S.S.	SCHOOLBOY	M	31	1999	210.3
4.	B.S.M.	SCHOOLBOY	M	54	1997	141.4
5.	K.Ya.V.	SCHOOLGIRL	F	35	1997	121.2
6.	F.K.A.	SCHOOLGIRL	F	33	1998	102.9
7.	G.V.A.	SCHOOLBOY	M	37	1996	71.5
8.	B.A.R.	SCHOOLBOY	M	31	1999	68.2
9.	K.Yu.V.	SCHOOLGIRL	F	44	1995	57.9
10.	B.R.D.	CHILD PRESCHOOL AGE	F	13	2006	55.5
11.	Sh.M.V.	SCHOOLBOY	M	32	1998	51.0
12.	K.V.V.	SCHOOLGIRL	F	31	1997	50.4
13.	Sh.T.N.	SCHOOLGIRL	F	44	1997	49.9
14.	B.L.M.	SCHOOLBOY	M	30	1998	49.3
15.	P.D.A.	CHILD PRESCHOOL AGE	M	28	2003	46.3

The figure 9 contains the diagram of the interval  $^{137}\text{Cs}$  specific activity distribution in children in the Golovchitsy secondary school and kindergarten of Narovlya district of Gomel region in accordance with the results of measurements dated to December 03, 2009.



←Figure 9 – Diagram of the interval  $^{137}\text{Cs}$  specific activity distribution in children in the Golovchitsy secondary school and kindergarten of Narovlya district of Gomel region in accordance with the results of measurements dated to December 03, 2009

## January 20, 2010

The control measurement of children in the Golovchitskaya Buda secondary school and kindergarten of Narovlya district of Gomel region was performed in the school building. A total of measured persons was 133 persons (122 children and 11 adults).

Average  $^{137}\text{Cs}$  specific activity in the whole group (n = 122): (43.4 ± 6.1) Bq/kg.

Average  $^{137}\text{Cs}$  specific activity in the critical group (n = 15): (159.4 ± 38.4) Bq/kg.

Median value in the whole group: 29.0 Bq/kg.

Median value in the critical group: 115.3 Bq/kg.

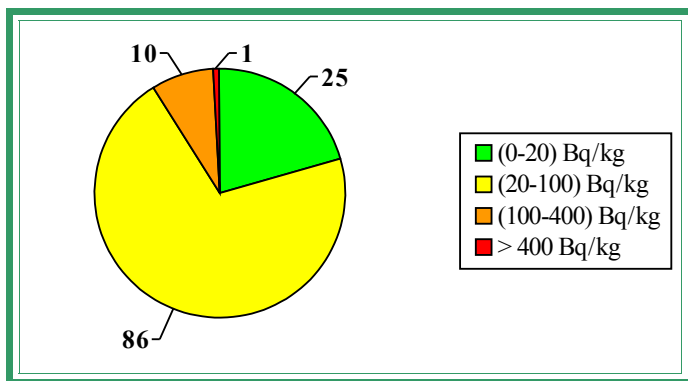
The table 8 demonstrates the maximal levels of  $^{137}\text{Cs}$  specific activity (the critical group) according to the results of measurements dated to January 20, 2010.

Table 8

No.	Surname Name Patronymic	Occupation	Sex	Weight, kg	Year of birth	Sp. activity, Bq/kg
1.	A.R.N.	SCHOOLBOY	M	67	1993	659.7
2.	K.S.V.	SCHOOLBOY	M	59	1993	268.7
3.	K.N.V.	SCHOOLGIRL	F	65	1993	225.9
4.	Sh.M.S.	SCHOOLGIRL	F	24	2000	126.3
5.	A.Yu.V.	SCHOOLGIRL	F	57	1993	124.6
6.	K.Ya.V.	SCHOOLGIRL	F	37	1997	123.9
7.	V.E.V.	SCHOOLGIRL	F	58	1996	122.4
8.	E.A.S.	SCHOOLBOY	M	25	2002	115.3
9.	E.E.N.	CHILD PRESCHOOL AGE	F	16	2005	113.5
10.	E.S.S.	SCHOOLBOY	M	32	1999	109.7
11.	C.I.Yu.	SCHOOLBOY	M	24	2002	104.1
12.	B.V.N.	SCHOOLGIRL	F	27	2000	86.6

13.	B.I.M.	SCHOOLGIRL	F	29	2000	75.4
14.	K.V.A.	SCHOOLBOY	M	25	2000	72.7
15.	B.S.M.	SCHOOLBOY	M	56	1997	62.9

The figure 10 contains the diagram of the interval  $^{137}\text{Cs}$  specific activity distribution in children in the Golovchitsy secondary school and kindergarten of Narovlya district of Gomel region in accordance with the results of measurements dated to January 20, 2010.



←Figure 10 – Diagram of the interval  $^{137}\text{Cs}$  specific activity distribution in children in the Golovchitsy secondary school and kindergarten of Narovlya district of Gomel region in accordance with the results of measurements dated to January 20, 2010

Hereafter there are comparative data on interval distribution of the specific activity of  $^{137}\text{Cs}$  in children having passed two WBC measurements (on December 03, 2009 and January 20, 2010). This group consists of 32 children.

### **December 03, 2009**

### **January 20, 2010**

The first measurement of children in the Golovchitsy secondary school and kindergarten of Narovlya district of Gomel region was performed in the school building. A total of measured persons was 52 persons (38 children and 14 adults).

The control measurement of children in the Golovchitskaya Buda secondary school and kindergarten of Narovlya district of Gomel region was performed in the school building. A total of measured persons was 133 persons (122 children and 11 adults).

The data of statistical processing of the results of measurements of the group of children having passed two WBC measurements (32 children).

Average specific activity of  $^{137}\text{Cs}$ :

after the first measurement:  $(57.1 \pm 10.2)$  Bq/kg,

after the second measurement:  $(38.5 \pm 5.8)$  Bq/kg.

Reduction of average specific activity of  $^{137}\text{Cs}$  was 33 %.

Increase of specific activity: in 13% children.

The same level of specific activity: in 9% children.

Reduction of specific activity: in 78% children.

The evaluation of the scientific significance according to T-Student criterion (n = 32):  
 $t=2.24$ . The received criterion  $t > 1.96$ ;  $p < 0.01$ .

Median value after the first measurement: 34.3 Bq/kg.

Median value after the second measurement: 25.4 Bq/kg.

Reduction of median value of specific activity of  $^{137}\text{Cs}$  was 26%.

The figure 11 contains the diagram of the interval  $^{137}\text{Cs}$  specific activity distribution in children in the Golovchitsy secondary school and kindergarten of Narovlya district of Gomel region in accordance with the results of measurements dated to December 03 and January 20, 2010.

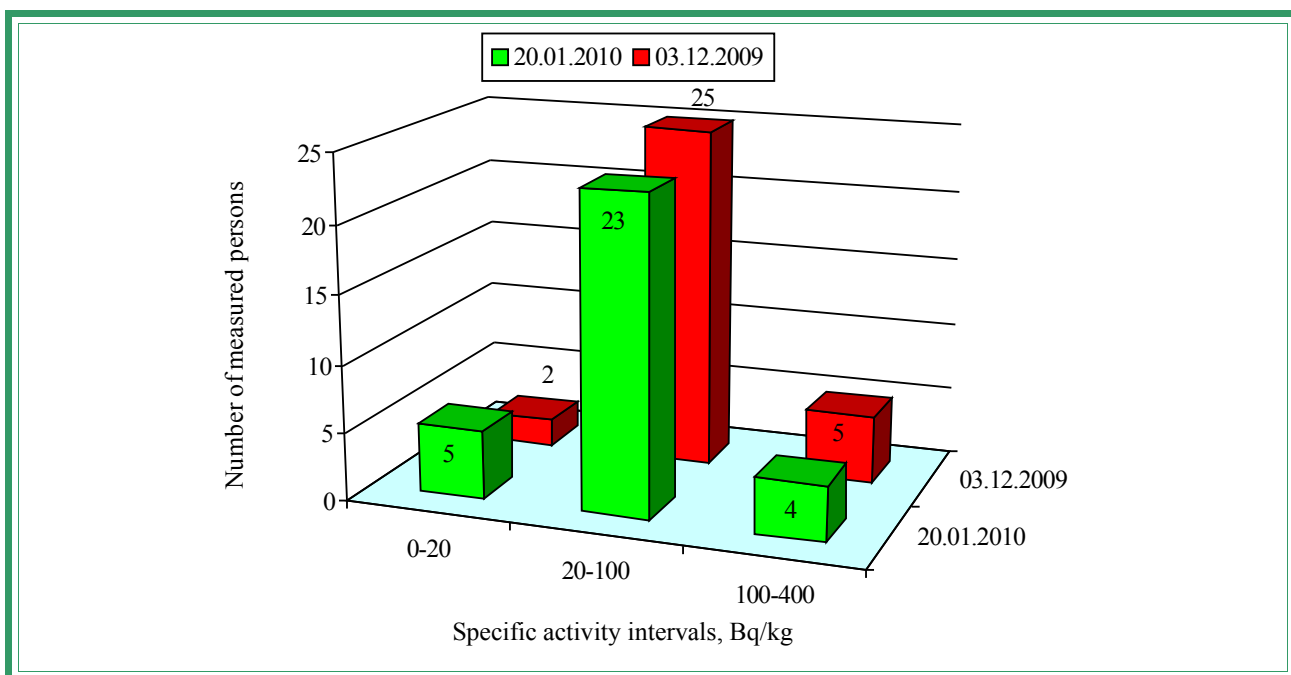


Figure 11 – Diagram of the interval  $^{137}\text{Cs}$  specific activity distribution in children in the Golovchitsy secondary school and kindergarten of Narovlya district of Gomel region in accordance with the results of measurements dated to December 03 and January 20, 2010

On March 22, 2010 244 packings of the pectin preparation VITAPECT were given for children.

### May 06 and May 27, 2010

The second measurement of children in the Golovchitsy secondary school and kindergarten of Narovlya district of Gomel region was performed in the school building and consisted of two stages: on May 06 and May 27, 2010. A total of measured persons was 60 persons (50 children and 10 adults).

Average  $^{137}\text{Cs}$  specific activity in the whole group (n = 50):  $(17.0 \pm 3.0)$  Bq/kg.

Average  $^{137}\text{Cs}$  specific activity in the critical group (n = 15):  $(36.0 \pm 7.8)$  Bq/kg.

Median value in the whole group: 10.0 Bq/kg.

Median value in the critical group: 25.3 Bq/kg.

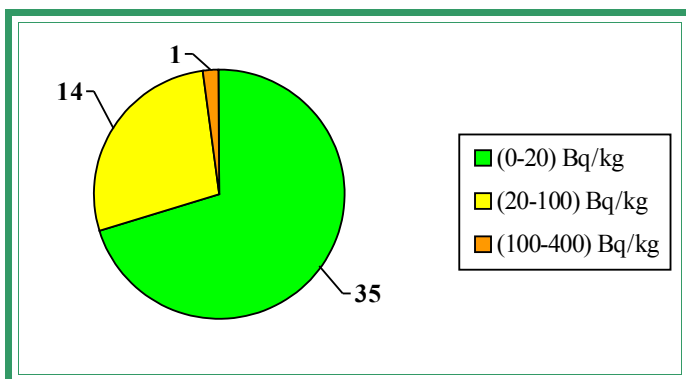
The table 9 demonstrates the maximal levels of  $^{137}\text{Cs}$  specific activity (the critical group) according to the results of measurements dated to May 06 and May 27, 2010.

Table 9

No.	Surname Name Patronymic	Occupation	Sex	Weight, kg	Year of birth	Sp. activity, Bq/kg
1.	K.N.V.	SCHOOLGIRL	F	66	1993	142.1
2.	K.E.S.	SCHOOLGIRL	F	41	1996	48.2
3.	K.A.V.	SCHOOLGIRL	F	57	1995	39.7
4.	K.M.A.	SCHOOLGIRL	F	57	1993	35.7
5.	P.O.D.	SCHOOLGIRL	F	27	2001	30.6
6.	A.Yu.V.	SCHOOLGIRL	F	60	1993	29.4
7.	B.I.M.	SCHOOLGIRL	F	33	2000	27.8
8.	G.V.S.	SCHOOLGIRL	F	37	1999	25.3
9.	K.Yu.V.	SCHOOLGIRL	F	50	1995	25.2
10.	T.A.A.	SCHOOLGIRL	F	37	1999	24.0
11.	D.A.A.	CHILD PRESCHOOL AGE	M	19	2006	23.8

12.	M.A.S.	CHILD PRESCHOOL AGE	M	23	2004	23.7
13.	A.G.E.	SCHOOLBOY	M	60	1992	23.1
14.	P.A.V.	CHILD PRESCHOOL AGE	M	17	2006	21.0
15.	K.A.V.	SCHOOLGIRL	F	55	1995	20.8

The figure 12 contains the diagram of the interval  $^{137}\text{Cs}$  specific activity distribution in children in the Golovchitsy secondary school and kindergarten of Narovlya district of Gomel region in accordance with the results of measurements dated to May 06 and May 27, 2010.



←Figure 12 contains the diagram of the interval  $^{137}\text{Cs}$  specific activity distribution in children in the Golovchitsy secondary school and kindergarten of Narovlya district of Gomel region in accordance with the results of measurements dated to May 06 and May 27, 2010

To demonstrate the efficiency of the effects of pectin preparations there are comparative data on interval distribution of the specific activity of  $^{137}\text{Cs}$  in children having taken VITAPECT and having passed two WBC measurements (on January 20, 2009 and May 06 and 27, 2010). This group consists of 29 children.

### **January 20, 2010** **May 06 and 27, 2010**

The control measurement of children in the Golovchitskaya Buda secondary school and kindergarten of Narovlya district of Gomel region was performed in the school building. A total of measured persons was 133 persons (122 children and 11 adults).

The second measurement of children in the Golovchitsy secondary school and kindergarten of Narovlya district of Gomel region was performed in the school building and consisted of two stages: on May 06 and May 27, 2010. A total of measured persons was 60 persons (50 children and 10 adults).

The data of statistical processing of the results of measurements of the group of children having passed two WBC measurements and having taken VITAPECT-T (29 children).

Average specific activity of  $^{137}\text{Cs}$ :

after the first measurement:  $(43.4 \pm 4.9)$  Bq/kg,

after the second measurement:  $(12.3 \pm 1.9)$  Bq/kg.

Reduction of average specific activity of  $^{137}\text{Cs}$  was 71 %.

Increase of specific activity: in 3% children.

The same level of specific activity: in 7% children.

Reduction of specific activity: in 90% children.

The evaluation of the scientific significance according to T-Student criterion (n = 29):  
t=8.37. The received criterion  $t > 1.96$ ;  $p < 0.01$ .

Median value after the first measurement: 33.9 Bq/kg.

Median value after the second measurement: 8.1 Bq/kg.

Reduction of median value of specific activity of  $^{137}\text{Cs}$  was 76%.

The figure 13 contains the diagram of the interval  $^{137}\text{Cs}$  specific activity distribution in children in the Golovchitsy secondary school and kindergarten of Narovlya district of Gomel region in accordance with the results of measurements dated to January 20, 2010 and May 06 and May 27, 2010.



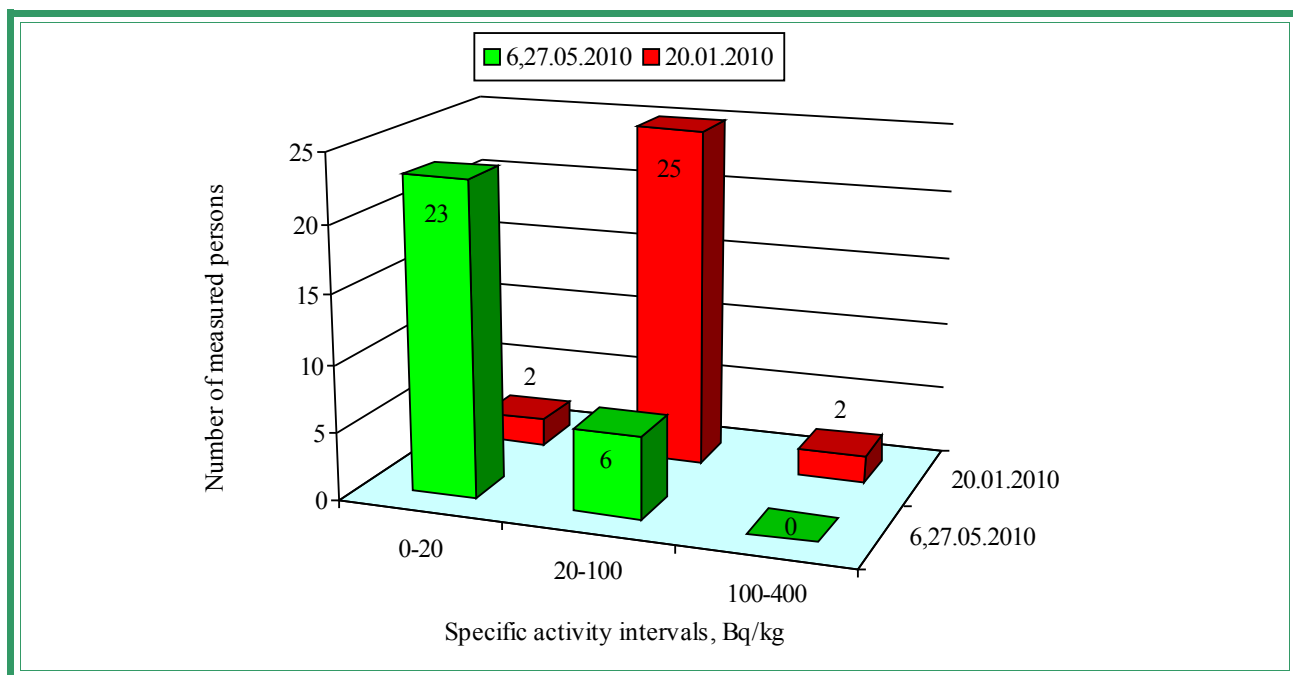


Figure 13 – Diagram of the interval  $^{137}\text{Cs}$  specific activity distribution in children in the Golovchitsy secondary school and kindergarten of Narovlya district of Gomel region in accordance with the results of measurements dated to January 20, 2010 and May 06 and May 27, 2010.

## DEMIDOV

Characteristics	Value	Source
$^{137}\text{Cs}$ contamination density of the territory	9.13 Ci/km <sup>2</sup>	Dose catalogue of the Ministry for Public Health Services of the Republic of Belarus, 2004
Number of inhabitants	278 persons	Golovchitsy village council, dated to 25.12.2009
External dose	1.09 mSv/a	Dose catalogue of the Ministry for Public Health Services of the Republic of Belarus, 2004
Internal dose	1.30 mSv/a	-----<-----
Cumulative dose	2.39 mSv/a	-----<-----

According to the data dated to November 2009 in the Demidov basic school there are 44 children, 15 teachers and 14 persons of another staff and in the kindergarten there are 12 children and 2 persons of another staff.

Children from following settlements go to the Demidov basic school and kindergarten: Demidov, Gazhin, Svecha and Maltsy.

### November 25, 2009

The first measurement of children in the Demidov basic school and kindergarten of Narovlya district of Gomel region was performed in the school building. A total of measured persons was 58 persons (52 children and 6 adults).

Average  $^{137}\text{Cs}$  specific activity in the whole group (n = 52): (66.4 ± 7.4) Bq/kg.

Average  $^{137}\text{Cs}$  specific activity in the critical group (n = 15): (133.4 ± 14.2) Bq/kg.

Median value in the whole group: 46.1 Bq/kg.

Median value in the critical group: 140.3 Bq/kg.

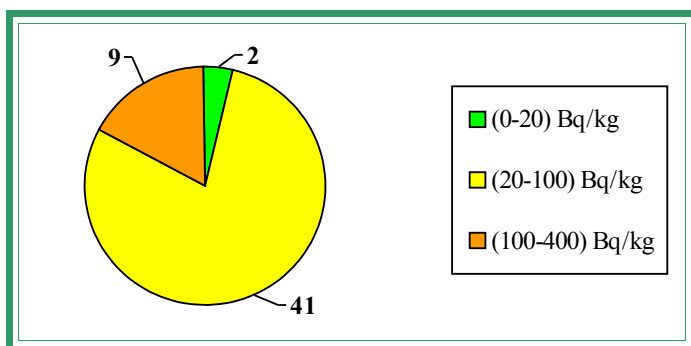
The table 10 demonstrates the maximal levels of  $^{137}\text{Cs}$  specific activity (the critical group) according to the results of measurements dated to November 25, 2009.

Table 10

No.	Surname	Occupation	Sex	Weight, kg	Year of birth	Sp. activity, Bq/kg
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	Name Patronymic					
1.	K.A.N.	SCHOOLBOY	M	46	1996	220.7
2.	C.D.A.	SCHOOLBOY	M	38	1998	220.3
3.	A.A.V.	SCHOOLBOY	M	46	1996	209.9
4.	K.A.G.	SCHOOLGIRL	F	31	2000	179.4
5.	S.N.N.	SCHOOLGIRL	F	59	1995	156.1
6.	K.A.I.	SCHOOLBOY	M	52	1995	144.4
7.	K.I.I.	SCHOOLBOY	M	36	1996	140.8
8.	K.G.A.	SCHOOLGIRL	F	52	1995	140.3
9.	N.I.V.	SCHOOLBOY	M	32	1998	120.9
10.	A.A.A.	SCHOOLBOY	M	75	1994	80.5
11.	C.Ya.D.	CHILD PRESCHOOL AGE	F	16	2005	79.3
12.	L.D.V.	CHILD PRESCHOOL AGE	F	18	2005	78.3
13.	N.P.V.	SCHOOLBOY	M	40	1996	77.2
14.	A.A.A.	SCHOOLBOY	M	32	2001	76.3
15.	K.T.N.	SCHOOLGIRL	F	43	1998	76.2

The figure 14 contains the diagram of the interval  $^{137}\text{Cs}$  specific activity distribution in children in the Demidov basic school and kindergarten of Narovlya district of Gomel region in accordance with the results of measurements dated to November 25, 2009.



← Figure 14 – Diagram of the interval  $^{137}\text{Cs}$  specific activity distribution in children in the Demidov basic school and kindergarten of Narovlya district of Gomel region in accordance with the results of measurements dated to November 25, 2009.

## January 23, 2010

The control measurement of children in the Demidov basic school and kindergarten of Narovlya district of Gomel region was performed in the school building. A total of measured persons was 44 persons (43 children and 1 adult).

Average  $^{137}\text{Cs}$  specific activity in the whole group (n = 43):  $(45.7 \pm 8.1)$  Bq/kg.

Average  $^{137}\text{Cs}$  specific activity in the critical group (n = 15):  $(92.7 \pm 18.0)$  Bq/kg.

Median value in the whole group: 24.3 Bq/kg.

Median value in the critical group: 67.1 Bq/kg.

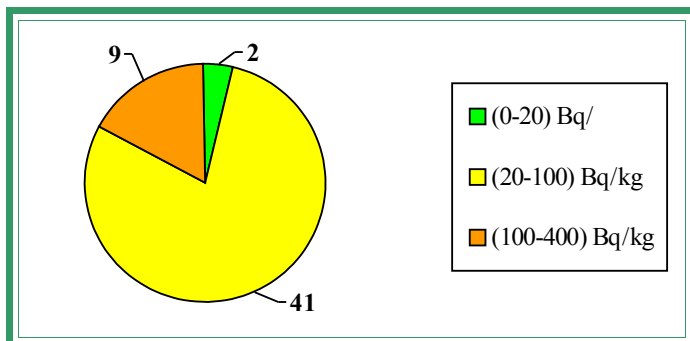
The table 11 demonstrates the maximal levels of  $^{137}\text{Cs}$  specific activity (the critical group) according to the results of measurements dated to January 23, 2010.

Table 11

No.	Surname Name Patronymic	Occupation	Sex	Weight, kg	Year of birth	Sp. activity, Bq/kg
1.	N.A.A.	SCHOOLBOY	M	55	1995	221.6
2.	N.I.V.	SCHOOLBOY	M	31	1998	205.9
3.	K.I.I.	SCHOOLBOY	M	36	1996	186.1
4.	K.A.I.	SCHOOLBOY	M	52	1995	149.4
5.	A.A.V.	SCHOOLBOY	M	47	1996	121.9
6.	C.Yu.V.	SCHOOLBOY	M	24	2001	119.9
7.	K.A.N.	SCHOOLBOY	M	48	1996	76.4
8.	C.D.A.	SCHOOLBOY	M	41	1998	67.1
9.	L.K.O.	SCHOOLGIRL	F	67	1996	46.6
10.	K.M.M.	SCHOOLBOY	M	32	2000	36.0
11.	C.V.N.	SCHOOLGIRL	F	38	1998	34.3
12.	N.P.A.	SCHOOLBOY	M	42	1996	32.1
13.	V.A.G.	SCHOOLBOY	M	36	1997	32.0

14.	L.A.A.	SCHOOLGIRL	F	42	1998	30.8
15.	P.K.O.	SCHOOLBOY	M	24	2000	30.1

The figure 15 contains the diagram of the interval  $^{137}\text{Cs}$  specific activity distribution in children in the Demidov basic school and kindergarten of Narovlya district of Gomel region in accordance with the results of measurements dated to January 23, 2010.



← Figure 15 – Diagram of the interval  $^{137}\text{Cs}$  specific activity distribution in children in the Demidov basic school and kindergarten of Narovlya district of Gomel region in accordance with the results of measurements dated to January 23, 2010.

Hereafter there are comparative data on interval distribution of the specific activity of  $^{137}\text{Cs}$  in children having passed two WBC measurements (on November 25, 2009 and January 23, 2010). This group consists of 40 children.

### November 25, 2009 January 23, 2010

The first measurement of children in the Demidov basic school and kindergarten of Narovlya district of Gomel region was performed in the school building. A total of measured persons was 58 persons (52 children and 6 adults).

The control measurement of children in the Demidov basic school and kindergarten of Narovlya district of Gomel region was performed in the school building. A total of measured persons was 44 persons (43 children and 1 adult).

The data of statistical processing of the results of measurements of the group of children having passed two WBC measurements (40 children).

Average specific activity of  $^{137}\text{Cs}$ :

after the first measurement:  $(68.4 \pm 9.1)$  Bq/kg,

after the second measurement:  $(42.2 \pm 7.5)$  Bq/kg.

Reduction of average specific activity of  $^{137}\text{Cs}$  was 38 %.

Increase of specific activity: in 20% children.

The same level of specific activity: in 5% children.

Reduction of specific activity: in 75% children.

The evaluation of the scientific significance according to T -Student criterion (n = 40):

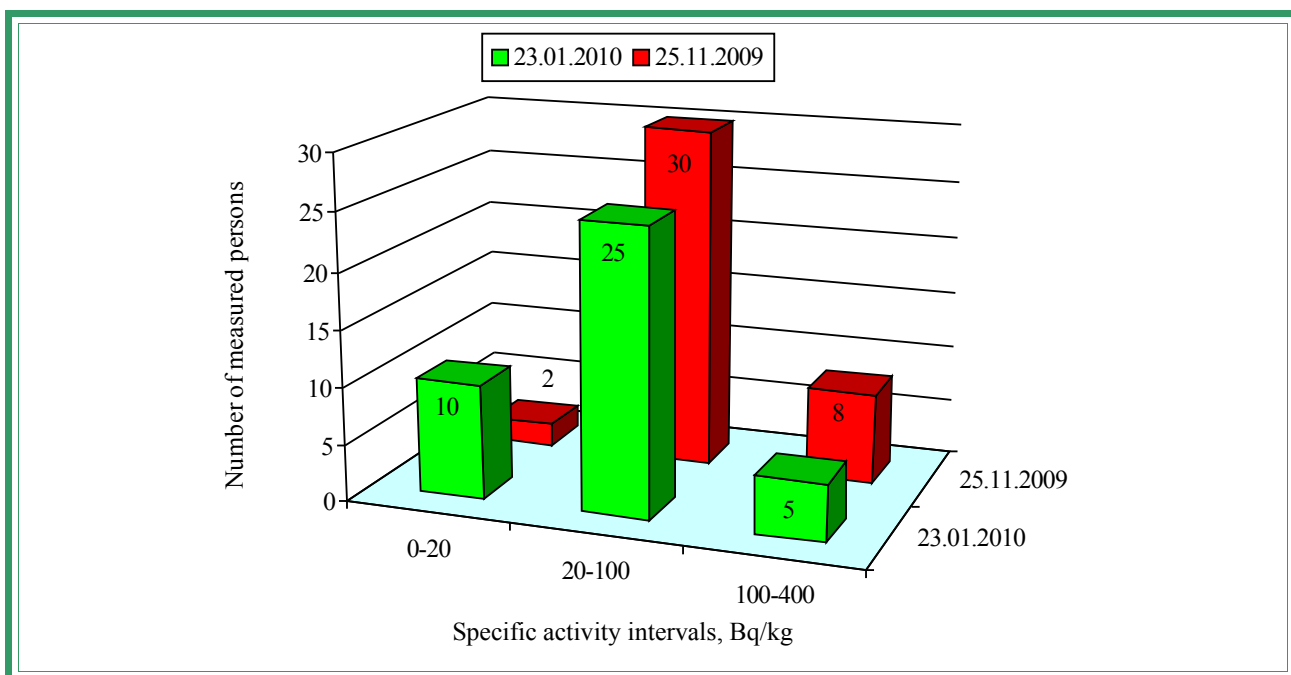
t=3.14. The received criterion  $t > 1.96$ ;  $p < 0.01$ .

Median value after the first measurement: 46.1 Bq/kg.

Median value after the second measurement: 23.7 Bq/kg.

Reduction of median value of specific activity of  $^{137}\text{Cs}$  was 49%.

The figure 16 contains the diagram of the interval  $^{137}\text{Cs}$  specific activity distribution in children in the Demidov basic school and kindergarten of Narovlya district of Gomel region in accordance with the results of measurements dated to November 25, 2009 and January 23, 2010.



The figure 16 contains the diagram of the interval  $^{137}\text{Cs}$  specific activity distribution in children in the Demidov basic school and kindergarten of Narovlya district of Gomel region in accordance with the results of measurements dated to November 25, 2009 and January 23, 2010

On March 22, 2010 112 packings of the pectin preparation VITAPECT were given for children.

### May 05, 2010

The second measurement of children in the Demidov basic school and kindergarten of Narovlya district of Gomel region was performed in the school building. A total of measured persons was 51 persons.

Average  $^{137}\text{Cs}$  specific activity in the whole group (n = 51):  $(39.0 \pm 3.8)$  Bq/kg.

Average  $^{137}\text{Cs}$  specific activity in the critical group (n = 15):  $(70.5 \pm 7.6)$  Bq/kg.

Median value in the whole group: 33.7 Bq/kg.

Median value in the critical group: 56.9 Bq/kg.

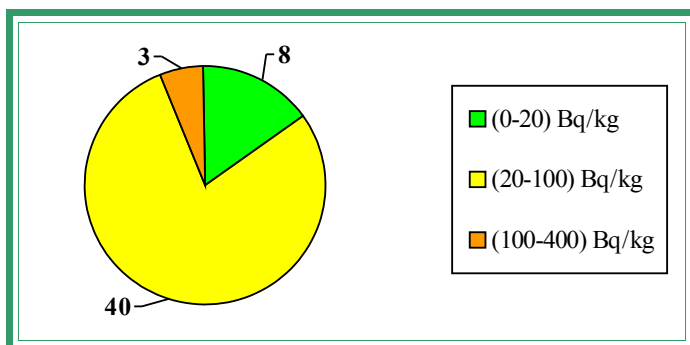
The table 12 demonstrates the maximal levels of  $^{137}\text{Cs}$  specific activity (the critical group) according to the results of measurements dated to May 05, 2010.

Т а б л и ц а 12

No.	Surname Name Patronymic	Occupation	Sex	Weight, kg	Year of birth	Sp. activity, Bq/kg
1.	K.G.A.	SCHOOLGIRL	F	51	1995	129.5
2.	K.A.N.	SCHOOLBOY	M	48	1996	116.2
3.	N.I.V.	SCHOOLBOY	M	31	1998	106.1
4.	N.A.A.	SCHOOLBOY	M	55	1995	92.8
5.	K.I.V.	SCHOOLBOY	M	36	1996	80.5
6.	K.T.N.	SCHOOLGIRL	F	45	1998	79.3
7.	K.A.I.	SCHOOLBOY	M	52	1995	73.8
8.	P.A.V.	SCHOOLGIRL	F	62	1995	56.9
9.	A.A.V.	SCHOOLBOY	M	47	1996	55.0
10.	C.D.A.	SCHOOLBOY	M	41	1998	50.0
11.	N.P.A.	SCHOOLBOY	M	42	1996	47.4
12.	J.V.S.	CHILD PRESCHOOL AGE	M	26	2004	46.7
13.	V.A.G.	SCHOOLBOY	M	36	1997	44.2

14.	C.Yu.V.	SCHOOLBOY	M	24	2001	40.7
15.	K.A.G.	SCHOOLGIRL	F	39	2000	37.8

The figure 17 contains the diagram of the interval  $^{137}\text{Cs}$  specific activity distribution in children in the Demidov basic school and kindergarten of Narovlya district of Gomel region in accordance with the results of measurements dated to May 05, 2010.



← Figure 17 – Diagram of the interval  $^{137}\text{Cs}$  specific activity distribution in children in the Demidov basic school and kindergarten of Narovlya district of Gomel region in accordance with the results of measurements dated to May 05, 2010.

To demonstrate the efficiency of the effects of pectin preparations there are comparative data on interval distribution of the specific activity of  $^{137}\text{Cs}$  in children having taken VITAPECT and having passed two WBC measurements (on January 23, 2010 and May 05, 2010). This group consists of 43 children.

### **January 23, 2010**

### **May 05, 2010**

The control measurement of children in the Demidov basic school and kindergarten of Narovlya district of Gomel region was performed in the school building. A total of measured persons was 44 persons (43 children and 1 adult).

The second measurement of children in the Demidov basic school and kindergarten of Narovlya district of Gomel region was performed in the school building. A total of measured persons was 51 persons.

The data of statistical processing of the results of measurements of the group of children having passed two WBC measurements and having taken VITAPECT-T (43 children).

Average specific activity of  $^{137}\text{Cs}$ :

after the first measurement:  $(45.7 \pm 8.1)$  Bq/kg,

after the second measurement:  $(41.1 \pm 4.4)$  Bq/kg.

Reduction of average specific activity of  $^{137}\text{Cs}$  was 10 %.

Increase of specific activity: in 60% children.

The same level of specific activity: in 9% children.

Reduction of specific activity: in 31% children.

The evaluation of the scientific significance according to T-Student criterion (n = 43):  
t=0.71. The received criterion  $t < 1,96$ ;  $p > 0,01$ .

Median value after the first measurement: 24.3 Bq/kg.

Median value after the second measurement: 34.0 Bq/kg.

Reduction of median value of specific activity of  $^{137}\text{Cs}$  was 40%.

The figure 18 contains the diagram of the interval  $^{137}\text{Cs}$  specific activity distribution in children in the Demidov basic school and kindergarten of Narovlya district of Gomel region in accordance with the results of measurements dated to January 23 and May 05, 2010.

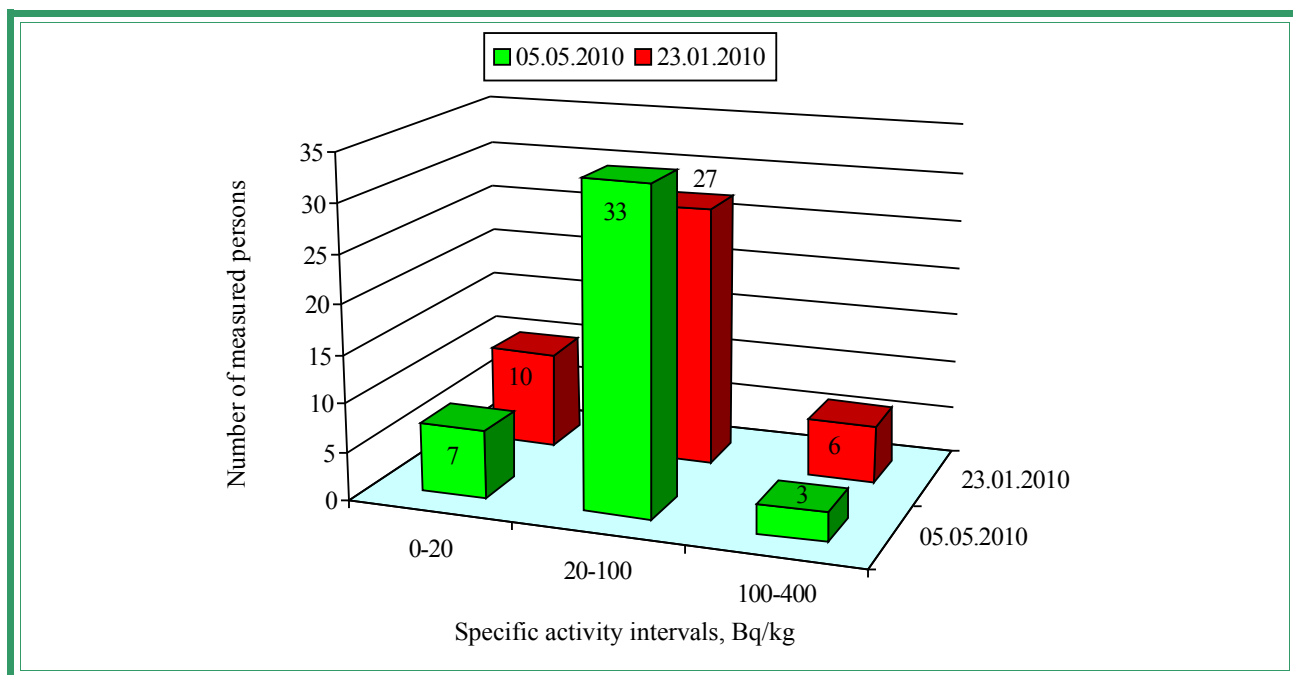


Figure 18 – Diagram of the interval  $^{137}\text{Cs}$  specific activity distribution in children in the Demidov basic school and kindergarten of Narovlya district of Gomel region in accordance with the results of measurements dated to January 23 and May 05, 2010.

## ZAVOYT

Characteristics	Value	Source
$^{137}\text{Cs}$ contamination density of the territory	11.69 Ci/km <sup>2</sup>	Dose catalogue of the Ministry for Public Health Services of the Republic of Belarus, 2004
Number of inhabitants	303 persons	Zavoyt village council, dated to 27.12.2009
External dose	1.40 mSv/a	Dose catalogue of the Ministry for Public Health Services of the Republic of Belarus, 2004
Internal dose	1.80 mSv/a	-----<-----
Cumulative dose	4.20 mSv/a	-----<-----

According to the data dated to November 2009 in the Zavoyt basic school there are 25 children, 13 teachers and 7 persons of another staff and in the kindergarten there are 8 children and 1 teacher.

### November 26-27, 2009

The first measurement of children in the Zavoyt basic school and kindergarten of Narovlya district of Gomel region was performed in the kindergarten building. A total of measured persons was 38 persons (30 children and 8 adults).

Average  $^{137}\text{Cs}$  specific activity in the whole group (n = 30): (43.3 ± 4.6) Bq/kg.

Average  $^{137}\text{Cs}$  specific activity in the critical group (n = 15): (61.0 ± 6.3) Bq/kg.

Median value in the whole group: 33.7 Bq/kg.

Median value in the critical group: 56.6 Bq/kg.

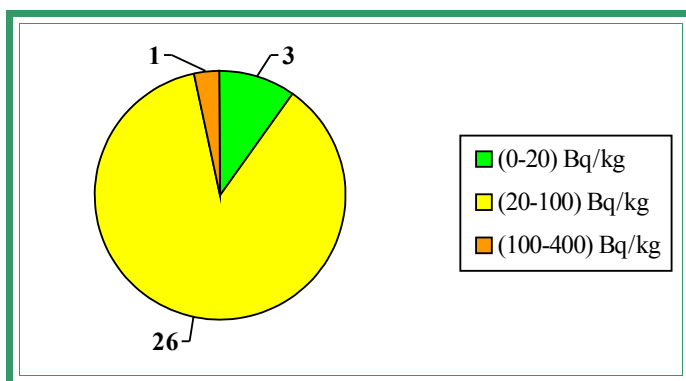
The table 13 demonstrates the maximal levels of  $^{137}\text{Cs}$  specific activity (the critical group) according to the results of measurements dated to November 26 and November 27, 2009.

Table 13

No.	Surname Name	Occupation	Sex	Weight, kg	Year of birth	Sp. activity, Bq/kg
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	Patronymic					
1.	M.I.I.	SCHOOLBOY	M	40	1996	119.3
2.	F.E.V.	SCHOOLBOY	M	38	1996	99.9
3.	Ch.V.G.	SCHOOLBOY	M	34	1995	89.5
4.	S.Yu.S.	SCHOOLBOY	M	31	1997	69.0
5.	A.D.A.	CHILD PRESCHOOL AGE	M	17	2003	61.2
6.	A.N.A.	SCHOOLBOY	M	33	1998	59.9
7.	K.A.V.	SCHOOLGIRL	F	52	1995	58.1
8.	K.S.V.	SCHOOLBOY	M	30	1998	56.6
9.	N.T.V.	SCHOOLGIRL	F	47	1995	56.4
10.	M.M.V.	CHILD PRESCHOOL AGE	M	17	2006	50.3
11.	M.M.A.	SCHOOLGIRL	F	31	1999	44.4
12.	K.D.A.	SCHOOLBOY	M	72	1995	42.0
13.	T.V.S.	CHILD PRESCHOOL AGE	M	26	2003	40.8
14.	K.E.A.	CHILD PRESCHOOL AGE	F	22	2003	34.1
15.	V.N.V.	SCHOOLBOY	M	64	1997	34.0

The figure 19 contains the diagram of the interval  $^{137}\text{Cs}$  specific activity distribution in children in the Zavoyt basic school and kindergarten of Narovlya district of Gomel region in accordance with the results of measurements dated to November 26 and November 27, 2009.



←Figure 19 – Diagram of the interval  $^{137}\text{Cs}$  specific activity distribution in children in the Zavoyt basic school and kindergarten of Narovlya district of Gomel region in accordance with the results of measurements dated to November 26 and November 27, 2009

On March 22, 2010 66 packings of the pectin preparation VITAPECT were given for children.

### April 31, 2010

The second measurement of children in the Zavoyt basic school and kindergarten of Narovlya district of Gomel region was performed in the school building. A total of measured persons was 27 persons (26 children and 1 adult).

Average  $^{137}\text{Cs}$  specific activity in the whole group (n = 26):  $(32.6 \pm 2.1)$  Bq/kg.

Average  $^{137}\text{Cs}$  specific activity in the critical group (n = 15):  $(40.2 \pm 1.9)$  Bq/kg.

Median value in the whole group: 31.8 Bq/kg.

Median value in the critical group: 38.4 Bq/kg.

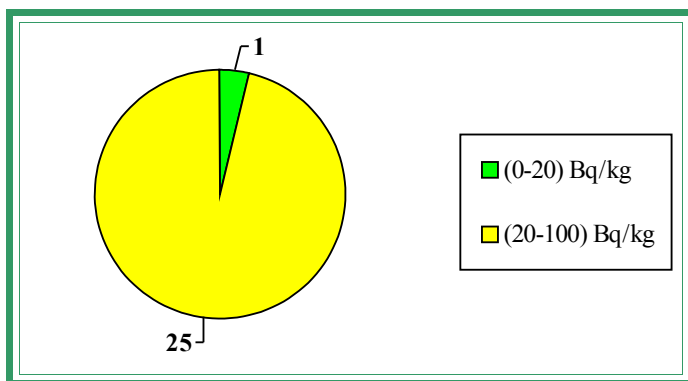
The table 14 demonstrates the maximal levels of  $^{137}\text{Cs}$  specific activity (the critical group) according to the results of measurements dated to April 31, 2010.

Table 14

No.	Surname Name Patronymic	Occupation	Sex	Weight, kg	Year of birth	Sp. activity, Bq/kg
1.	Ch.V.G.	SCHOOLBOY	M	34	1995	53.0
2.	M.I.I.	SCHOOLBOY	M	41	1996	51.9
3.	T.A.V.	SCHOOLBOY	M	30	2002	47.9
4.	V.M.V.	SCHOOLBOY	M	25	2002	46.1
5.	T.D.S.	CHILD PRESCHOOL AGE	M	17	2004	44.1
6.	A.A.E.	CHILD PRESCHOOL AGE	F	20	2006	42.0
7.	Sh.A.A.	SCHOOLBOY	M	41	1998	41.2
8.	S.A.S.	SCHOOLBOY	M	25	2001	38.4

9.	A.D.A.	SCHOOLBOY	M	20	2003	37.8
10.	T.V.S.	SCHOOLBOY	M	25	2003	37.4
11.	A.D.E.	SCHOOLBOY	M	24	2002	37.0
12.	F.E.V.	SCHOOLBOY	M	44	1996	35.6
13.	N.T.V.	SCHOOLGIRL	F	49	1995	32.0
14.	P.V.A.	SCHOOLGIRL	F	52	1994	31.6
15.	T.M.S.	CHILD PRESCHOOL AGE	F	18	2006	26.9

The figure 20 contains the diagram of the interval  $^{137}\text{Cs}$  specific activity distribution in children in the Zavoyt basic school and kindergarten of Narovlya district of Gomel region in accordance with the results of measurements dated to April 31, 2010.



← Figure 20 – Diagram of the interval  $^{137}\text{Cs}$  specific activity distribution in children in the Zavoyt basic school and kindergarten of Narovlya district of Gomel region in accordance with the results of measurements dated to April 31, 2010.

To demonstrate the efficiency of the effects of pectin preparations there are comparative data on interval distribution of the specific activity of  $^{137}\text{Cs}$  in children having taken VITAPECT and having passed two WBC measurements (on November 26 and November 27, 2009 and April 31, 2010). This group consists of 23 children.

### November 26 and November 27, 2009 April 31, 2010

The first measurement of children in the Zavoyt basic school and kindergarten of Narovlya district of Gomel region was performed in the kindergarten building. A total of measured persons was 38 persons (30 children and 8 adults).

The second measurement of children in the Zavoyt basic school and kindergarten of Narovlya district of Gomel region was performed in the school building. A total of measured persons was 27 persons (26 children and 1 adult).

The data of statistical processing of the results of measurements of the group of children having passed two WBC measurements and having taken VITAPECT-T (23 children).

Average specific activity of  $^{137}\text{Cs}$ :

after the first measurement:  $(45.5 \pm 5.7)$  Bq/kg,

after the second measurement:  $(33.2 \pm 2.3)$  Bq/kg.

Reduction of average specific activity of  $^{137}\text{Cs}$  was 27 %.

Increase of specific activity: in 30% children.

The same level of specific activity: in 9% children.

Reduction of specific activity: in 61% children.

The evaluation of the scientific significance according to T-Student criterion (n = 23): t=2.82. The received criterion  $t > 1.96$ ;  $p < 0.01$ .

Median value after the first measurement: 34.0 Bq/kg.

Median value after the second measurement: 32.0 Bq/kg.

Reduction of median value of specific activity of  $^{137}\text{Cs}$  was 5%.



The figure 21 contains the diagram of the interval  $^{137}\text{Cs}$  specific activity distribution in children in the Zavoyt basic school and kindergarten of Narovlya district of Gomel region in accordance with the results of measurements dated to November 26 and November 27, 2009 and April 31, 2010.

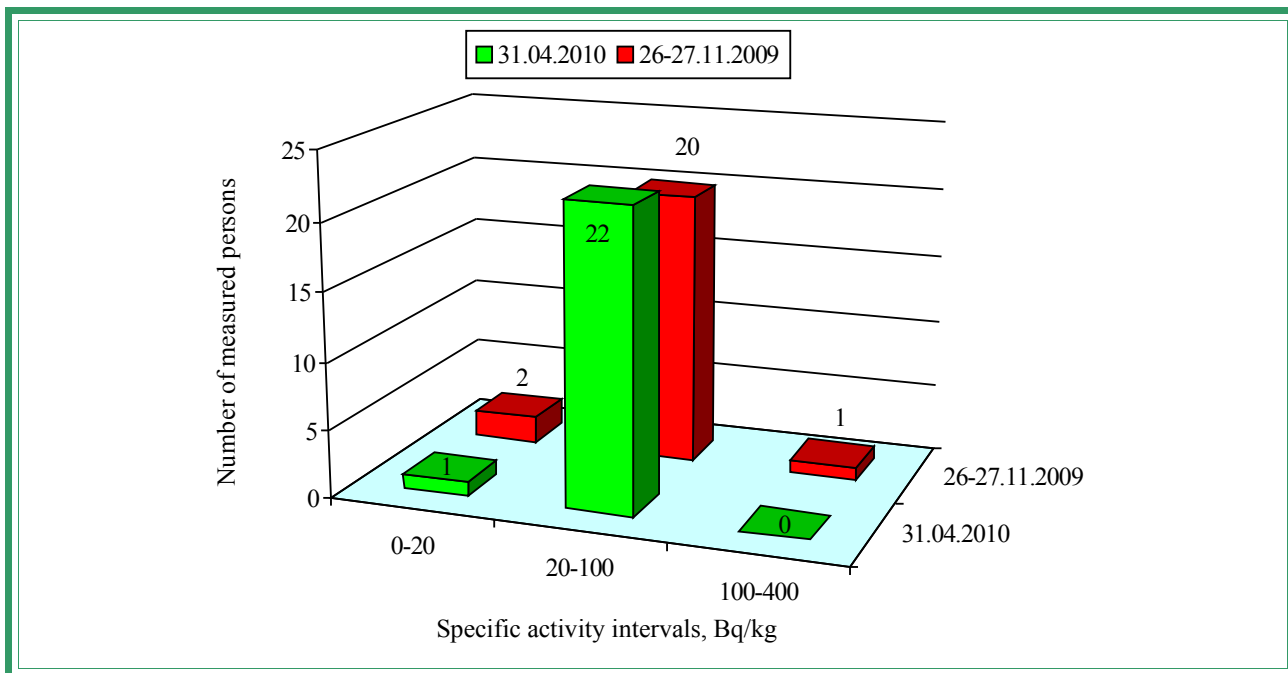


Figure 21 – Diagram of the interval  $^{137}\text{Cs}$  specific activity distribution in children in the Zavoyt basic school and kindergarten of Narovlya district of Gomel region in accordance with the results of measurements dated to November 26 and November 27, 2009 and April 31, 2010

## KIROV

Characteristics	Value	Source
$^{137}\text{Cs}$ contamination density of the territory	15.31 Ci/km <sup>2</sup>	Dose catalogue of the Ministry for Public Health Services of the Republic of Belarus, 2004
Number of inhabitants	290 persons	Kirov village council, dated to 24.11.2009
External dose	1.83 mSv/a	Dose catalogue of the Ministry for Public Health Services of the Republic of Belarus, 2004
Internal dose	1.10 mSv/a	-----«-----
Cumulative dose	2.93 mSv/a	-----«-----

According to the data dated to November 2009 in the secondary school there are 67 children, 17 teachers and 14 persons of another staff and in the kindergarten there are 18 children and 12 persons of another staff.

Children from following settlements go to the Kirov secondary school and kindergarten: Kirov, Aleksandrovka, Dzerzhinsk, Krasnovka, Bratskaya and Khomenki.

### January 22, 2010

The first measurement of children in the Kirov secondary school and kindergarten of Narovlya district of Gomel region was performed in the school building. A total of measured persons was 92 persons (76 children and 16 adults).

Average  $^{137}\text{Cs}$  specific activity in the whole group (n = 76): (71.4 ± 19.4) Bq/kg.

Average  $^{137}\text{Cs}$  specific activity in the critical group (n = 15): (269.5 ± 81.5) Bq/kg.

Median value in the whole group: 30.4 Bq/kg.

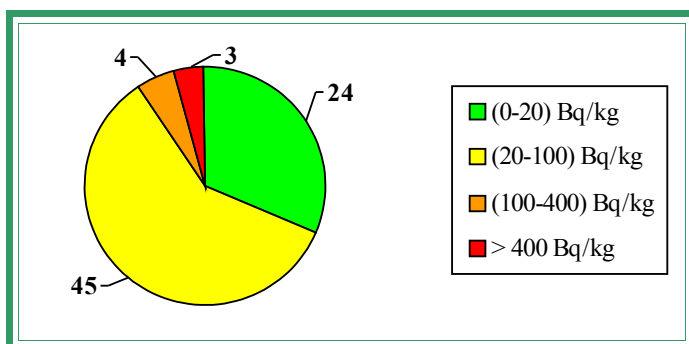
Median value in the critical group: 92.3 Bq/kg.

The table 15 demonstrates the maximal levels of <sup>137</sup>Cs specific activity (the critical group) according to the results of measurements dated to January 22, 2010.

Table 15

No.	Surname Name Patronymic	Occupation	Sex	Weight, kg	Year of birth	Sp. activity, Bq/kg
1.	V.M.P.	SCHOOLGIRL	F	53	1995	973.4
2.	T.E.A.	SCHOOLGIRL	F	24	2000	826.6
3.	V.G.P.	SCHOOLGIRL	F	48	1997	750.6
4.	B.N.A.	SCHOOLGIRL	F	29	2001	358.4
5.	T.S.A.	SCHOOLGIRL	F	18	2003	251.4
6.	R.M.L.	SCHOOLGIRL	F	53	1996	200.4
7.	K.K.V.	SCHOOLGIRL	F	30	2000	146.6
8.	Z.A.S.	SCHOOLBOY	M	35	1998	92.3
9.	B.B.A.	CHILD PRESCHOOL AGE	M	17	2006	80.3
10.	G.V.V.	SCHOOLBOY	M	35	1998	77.5
11.	G.V.A.	CHILD PRESCHOOL AGE	M	24	2005	62.0
12.	G.V.V.	SCHOOLBOY	M	70	1993	61.9
13.	K.B.S.	SCHOOLBOY	M	22	2000	57.9
14.	Z.K.S.	SCHOOLBOY	M	32	1999	54.6
15.	E.K.A.	CHILD PRESCHOOL AGE	M	22	2005	48.9

The figure 22 contains the diagram of the interval <sup>137</sup>Cs specific activity distribution in children in the Kirov secondary school and kindergarten of Narovlya district of Gomel region in accordance with the results of measurements dated to January 22, 2010.



←Figure 22 – Diagram of the interval <sup>137</sup>Cs specific activity distribution in children in the Kirov secondary school and kindergarten of Narovlya district of Gomel region in accordance with the results of measurements dated to January 22, 2010.

On March 22, 2010 170 packings of the pectin preparation VITAPECT were given for children.

### April 27, 2010

The second measurement of children in the Kirov secondary school and kindergarten of Narovlya district of Gomel region was performed in the school building. A total of measured persons was 70 persons (57 children and 13 adults).

Average <sup>137</sup>Cs specific activity in the whole group (n = 57): (113.9 ± 41.4) Bq/kg.

Average <sup>137</sup>Cs specific activity in the critical group (n = 15): (381.3 ± 138.1) Bq/kg.

Median value in the whole group: 22.2 Bq/kg.

Median value in the critical group: 103.0 Bq/kg.

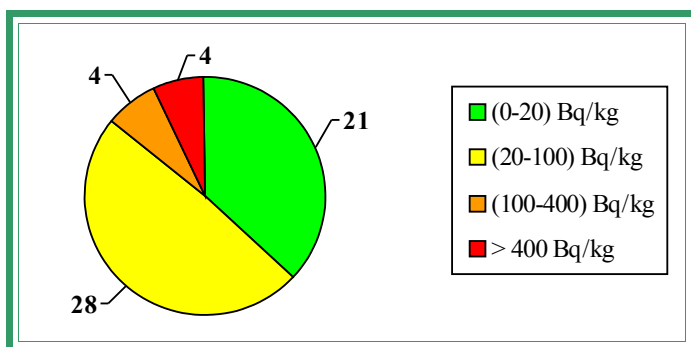
The table 16 demonstrates the maximal levels of <sup>137</sup>Cs specific activity (the critical group) according to the results of measurements dated to April 27, 2010.

Table 16

No.	Surname Name Patronymic	Occupation	Sex	Weight, kg	Year of birth	Sp. activity, Bq/kg
1.	V.M.P.	SCHOOLGIRL	F	50	1995	1445.4
2.	V.G.P.	SCHOOLGIRL	F	50	1997	1373.8
3.	V.A.P.	SCHOOLGIRL	F	48	1993	1351.0
4.	T.E.A.	SCHOOLGIRL	F	24	2000	483.9
5.	S.D.A.	SCHOOLBOY	M	54	1992	226.3

6.	B.N.A.	SCHOOLGIRL	F	29	2001	216.8
7.	K.B.S.	SCHOOLBOY	M	22	2000	106.6
8.	T.S.A.	SCHOOLGIRL	F	18	2003	103.0
9.	R.M.L.	SCHOOLGIRL	F	50	1996	93.5
10.	L.K.N.	SCHOOLGIRL	F	50	1993	84.7
11.	K.K.V.	SCHOOLGIRL	F	30	2000	53.2
12.	Z.A.S.	SCHOOLBOY	M	40	1998	51.7
13.	P.A.A.	SCHOOLBOY	M	65	1992	47.1
14.	Z.K.S.	SCHOOLBOY	M	33	1999	45.1
15.	P.O.A.	SCHOOLGIRL	F	23	2002	37.2

The figure 23 contains the diagram of the interval  $^{137}\text{Cs}$  specific activity distribution in children in the Kirov secondary school and kindergarten of Narovlya district of Gomel region in accordance with the results of measurements dated to April 27, 2010.



← Figure 23 – Diagram of the interval  $^{137}\text{Cs}$  specific activity distribution in children in the Kirov secondary school and kindergarten of Narovlya district of Gomel region in accordance with the results of measurements dated to April 27, 2010

To demonstrate the efficiency of the effects of pectin preparations there are comparative data on interval distribution of the specific activity of  $^{137}\text{Cs}$  in children having taken VITAPECT and having passed two WBC measurements (on January 22, 2010 and April 27, 2010). This group consists of 54 children.

### January 22, 2010

### April 27, 2010

The first measurement of children in the Kirov secondary school and kindergarten of Narovlya district of Gomel region was performed in the school building. A total of measured persons was 92 persons (76 children and 16 adults).

The second measurement of children in the Kirov secondary school and kindergarten of Narovlya district of Gomel region was performed in the school building. A total of measured persons was 70 persons (57 children and 13 adults).

The data of statistical processing of the results of measurements of the group of children having passed two WBC measurements and having taken VITAPECT-T (54 children).

Average specific activity of  $^{137}\text{Cs}$ :

after the first measurement:  $(87.7 \pm 27.0)$  Bq/kg,

after the second measurement:  $(94.2 \pm 36.9)$  Bq/kg.

Increase of average specific activity of  $^{137}\text{Cs}$  was 7 %.

Increase of specific activity: in 31% children.

The same level of specific activity: in 9% children.

Reduction of specific activity: in 60% children.

The evaluation of the scientific significance according to T-Student criterion ( $n = 54$ ):  $t=0.20$ . The received criterion  $t < 1.96$ ;  $p > 0.01$ .

Median value after the first measurement: 28.5 Bq/kg.

Median value after the second measurement: 22.0 Bq/kg.

Reduction of median value of specific activity of  $^{137}\text{Cs}$  was 23%.

The figure 24 contains the diagram of the interval  $^{137}\text{Cs}$  specific activity distribution in children in the Kirov secondary school and kindergarten of Narovlya district of Gomel region in accordance with the results of measurements dated to January 22 and April 27, 2010.

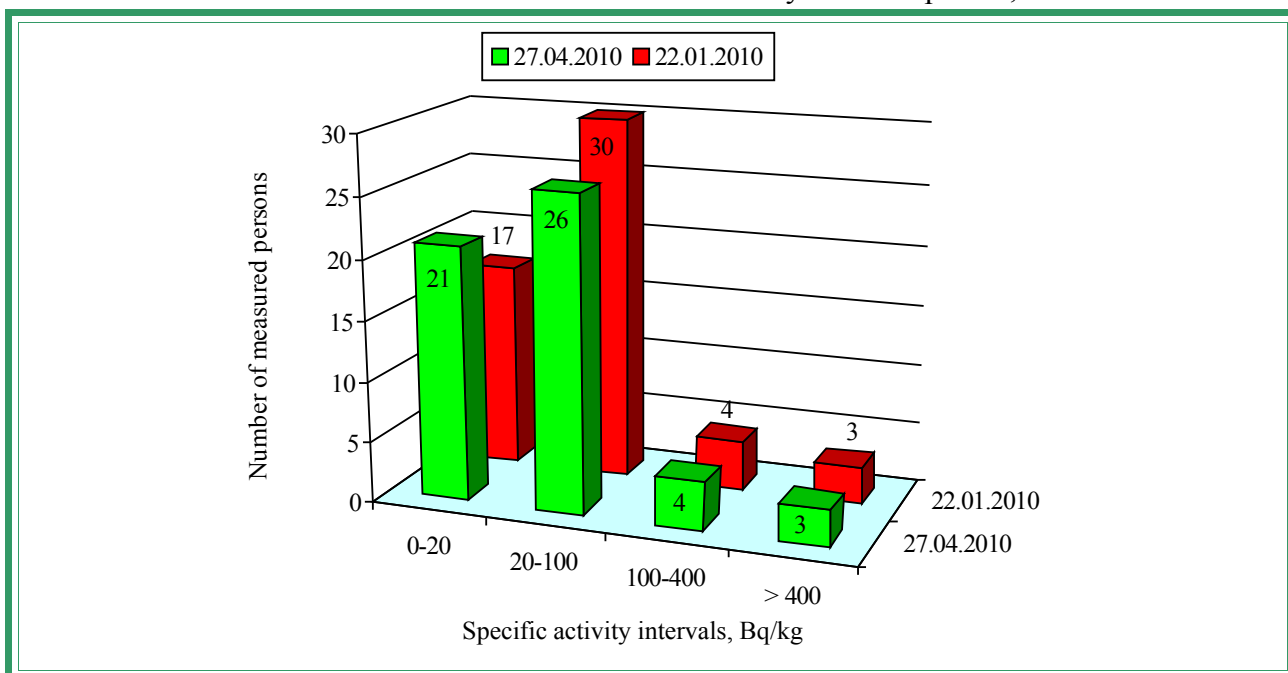


Figure 24 – Diagram of the interval  $^{137}\text{Cs}$  specific activity distribution in children in the Kirov secondary school and kindergarten of Narovlya district of Gomel region in accordance with the results of measurements dated to January 22 and April 27, 2010

On May 17, 2010 85 packings of the pectin preparation VITAPECT were given for children additionally.

## NAROVLYA, SECONDARY SCHOOL No. 3

Characteristics	Value	Source
$^{137}\text{Cs}$ contamination density of the territory	9.26 Ci/km <sup>2</sup>	Dose catalogue of the Ministry for Public Health Services of the Republic of Belarus, 2004
Number of inhabitants	8152 persons	Narovlya district executive committee, dated to 01.01.2009
External dose	1.11 mSv/a	Dose catalogue of the Ministry for Public Health Services of the Republic of Belarus, 2004
Internal dose	0.60 mSv/a	-----«-----
Cumulative dose	1.71 mSv/a	-----«-----

According to the data dated to November 2009 in the Narovlya secondary school No.3 there are 392 children, 40 teachers and 17 persons of another staff.

### November 24-27, 2009

The first measurement of children in the Narovlya secondary school No.3 was performed in the school building. A total of measured persons was 370 persons (347 children and 23 adults).

Average  $^{137}\text{Cs}$  specific activity in the whole group (n = 347): (55.1 ± 2.4) Bq/kg.

Average specific activity in the critical group (n = 30): (169.4 ± 13.1) Bq/kg.

Median value in the whole group: 44.1 Bq/kg.

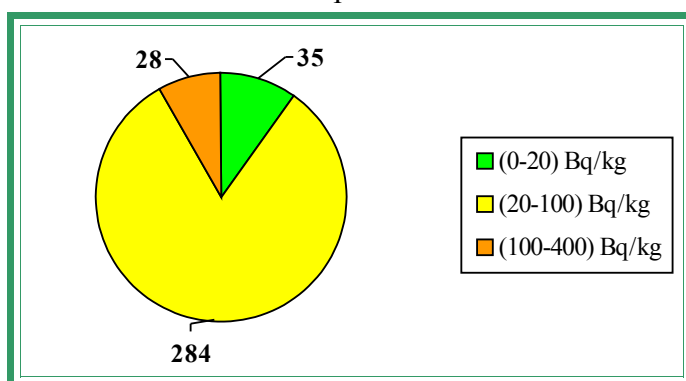
Median value in the critical group: 143.3 Bq/kg.

The table 17 demonstrates the maximal levels of  $^{137}\text{Cs}$  specific activity (the critical group) according to the results of measurements performed from November 24, 2009 and November 27, 2009.

Table 17

No.	Surname Name Patronymic	Occupation	Sex	Weight, kg	Year of birth	Sp. activity, Bq/kg
1.	B.V.K.	SCHOOLBOY	M	33	2000	382.8
2.	R.A.A.	SCHOOLBOY	M	39	1995	292.1
3.	N.M.A.	SCHOOLBOY	M	28	1999	288.6
4.	S.O.I.	SCHOOLGIRL	F	37	1998	272.8
5.	A.S.D.	SCHOOLGIRL	F	52	1996	247.3
6.	Yu.A.S.	SCHOOLBOY	M	63	1994	245.8
7.	R.K.A.	SCHOOLGIRL	F	42	1994	233.5
8.	K.I.R.	SCHOOLGIRL	F	41	1995	207.6
9.	Yu.A.N.	SCHOOLGIRL	F	31	1998	181.4
10.	A.E.D.	SCHOOLGIRL	F	37	1999	178.9
11.	K.T.S.	SCHOOLGIRL	F	57	1993	175.1
12.	B.V.V.	SCHOOLGIRL	F	30	2001	173.8
13.	D.A.O.	SCHOOLBOY	M	24	2002	166.4
14.	N.E.V.	SCHOOLBOY	M	41	1997	154.5
15.	M.M.A.	SCHOOLGIRL	F	14	2003	150.1
16.	Sh.K.O.	SCHOOLGIRL	F	46	1996	136.4
17.	Ya.V.I.	SCHOOLBOY	M	28	2000	133.9
18.	A.A.A.	SCHOOLBOY	M	29	2000	125.2
19.	A.A.V.	SCHOOLGIRL	F	47	1995	124.2
20.	M.V.G.	SCHOOLBOY	M	30	2000	123.6
21.	A.M.I.	SCHOOLBOY	M	28	1999	122.8
22.	G.A.A.	SCHOOLGIRL	F	37	1999	121.5
23.	Sh.M.D.	SCHOOLBOY	M	27	1998	114.6
24.	P.V.V.	SCHOOLGIRL	F	48	1994	109.7
25.	Sh.A.O.	SCHOOLBOY	M	27	2001	108.7
26.	M.G.G.	SCHOOLBOY	M	89	1995	105.9
27.	Ya.N.L.	SCHOOLGIRL	F	35	1996	105.0
28.	P.M.V.	SCHOOLGIRL	F	21	2003	104.8
29.	V.O.N.	SCHOOLGIRL	F	41	1997	98.6
30.	H.D.V.	SCHOOLGIRL	F	34	2000	97.9

The figure 25 contains the diagram of the interval  $^{137}\text{Cs}$  specific activity distribution in children in the Narovlya secondary school secondary No. 3 of Gomel region in accordance with the results of measurements performed from November 24, 2009 to November 27, 2009.



←Figure 25 – Diagram of the interval  $^{137}\text{Cs}$  specific activity distribution in children in the Narovlya secondary school secondary No. 3 of Gomel region in accordance with the results of measurements performed from November 24, 2009 to November 27, 2009

On May 04, 2010 786 packings of the pectin preparation VITAPECT were given for children.

On May 17, 2010 196 packings of the pectin preparation VITAPECT were given for children additionally.

## May 20-21, 2010

The second measurement of children in the Narovlya secondary school No. 3 of Gomel region was performed in the school building. A total of measured persons was 306 persons (286 children and 20 adults).

Average  $^{137}\text{Cs}$  specific activity in the whole group (n = 286):  $(29.6 \pm 1.9)$  Bq/kg.

Average  $^{137}\text{Cs}$  specific activity in the critical group (n = 30):  $(79.5 \pm 14.7)$  Bq/kg.

Median value in the whole group: 23.8 Bq/kg.

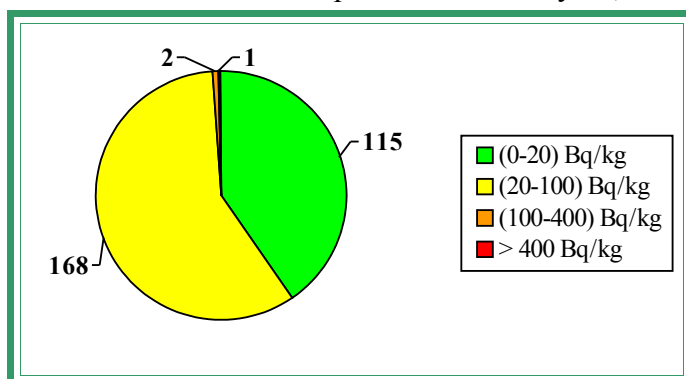
Median value in the critical group: 55.5 Bq/kg.

The table 18 demonstrates the maximal levels of  $^{137}\text{Cs}$  specific activity (the critical group) according to the results of measurements dated to May 20 and May 21, 2010.

Table 18

No.	Surname Name Patronymic	Occupation	Sex	Weight, kg	Year of birth	Sp. activity, Bq/kg
1.	A.A.A.	SCHOOLBOY	M	31	2000	464.3
2.	M.D.A.	SCHOOLBOY	M	36	2001	207.0
3.	P.A.V.	SCHOOLGIRL	F	40	2001	173.3
4.	Ch.G.A.	SCHOOLBOY	M	23	2002	77.9
5.	A.A.S.	SCHOOLGIRL	F	25	2000	72.1
6.	Ch.V.A.	SCHOOLBOY	M	24	2003	70.2
7.	N.M.A.	SCHOOLBOY	M	28	1999	68.2
8.	K.M.N.	SCHOOLBOY	M	31	1998	65.4
9.	K.K.M.	SCHOOLGIRL	F	19	2003	64.5
10.	K.V.A.	SCHOOLBOY	M	25	2003	62.2
11.	B.D.V.	SCHOOLBOY	M	94	1993	61.9
12.	B.E.G.	SCHOOLBOY	M	33	2000	59.5
13.	A.D.G.	SCHOOLBOY	M	40	1996	58.4
14.	Sh.E.A.	SCHOOLBOY	M	27	2001	55.8
15.	Z.E.S.	SCHOOLGIRL	F	23	2002	55.7
16.	P.M.V.	SCHOOLGIRL	F	22	2003	55.3
17.	Sh.T.A.	SCHOOLGIRL	F	36	1999	53.9
18.	B.D.G.	SCHOOLBOY	M	34	1999	52.8
19.	K.I.I.	SCHOOLBOY	M	24	2001	52.1
20.	T.A.V.	SCHOOLBOY	M	32	2000	51.8
21.	V.A.V.	SCHOOLGIRL	F	25	2003	51.2
22.	Yu.A.N.	SCHOOLGIRL	F	34	1998	51.0
23.	B.V.V.	SCHOOLGIRL	F	32	2001	51.0
24.	K.K.V.	SCHOOLGIRL	F	34	2000	50.8
25.	Z.E.A.	SCHOOLGIRL	F	28	1999	50.5
26.	A.V.Yu.	SCHOOLGIRL	F	25	2002	50.5
27.	A.A.S.	SCHOOLBOY	M	30	1999	49.5
28.	B.O.V.	SCHOOLGIRL	F	31	2000	49.4
29.	R.A.V.	SCHOOLBOY	M	30	2000	48.8
30.	L.D.A.	SCHOOLGIRL	F	31	2000	48.8

The figure 26 contains the diagram of the interval  $^{137}\text{Cs}$  specific activity distribution in children in the Narovlya secondary school secondary No. 3 of Gomel region in accordance with the results of measurements performed on May 20, 2010 to May 21, 2010.



←Figure 26 – Diagram of the interval  $^{137}\text{Cs}$  specific activity distribution in children in the Narovlya secondary school secondary No. 3 of Gomel region in accordance with the results of measurements performed on May 20, 2010 to May 21, 2010.

To demonstrate the efficiency of the effects of pectin preparations there are comparative data on interval distribution of the specific activity of  $^{137}\text{Cs}$  in children having taken VITAPECT and having passed two WBC measurements (from November 24 to November 27, 2009 and from May 20 and May 21, 2010). This group consists of 248 children.

### November 24-27, 2009

### May 20-21, 2010

The first measurement of children in the Narovlya secondary school No.3 of Gomel region was performed in the school building. A total of measured persons was 370 persons (347 children and 23 adults).

The second measurement of children in the Narovlya secondary school No. 3 of Gomel region was performed in the school building. A total of measured persons was 306 persons (286 children and 20 adults).

The data of statistical processing of the results of measurements of the group of children having passed two WBC measurements and having taken VITAPECT-T (248 children).

Average specific activity of  $^{137}\text{Cs}$ :

after the first measurement:  $(54.7 \pm 2.9)$  Bq/kg,

after the second measurement:  $(29.6 \pm 2.2)$  Bq/kg.

Reduction of average specific activity of  $^{137}\text{Cs}$  was 46 %.

Increase of specific activity: in 2% children.

The same level of specific activity: in 17% children.

Reduction of specific activity: in 81% children.

The evaluation of the scientific significance according to T-Student criterion (n = 248):  $t=9.69$ . The received criterion  $t > 1.96$ ;  $p < 0.01$ .

Median value after the first measurement: 44.2 Bq/kg.

Median value after the second measurement: 23.6 Bq/kg.

Reduction of median value of specific activity of  $^{137}\text{Cs}$  was 47%.

The figure 27 contains the diagram of the interval  $^{137}\text{Cs}$  specific activity distribution in children in the Narovlya secondary school No. 3 of Gomel region in accordance with the results of measurements performed from November 24 to November 27, 2009 and from May 20 and May 21, 2010.

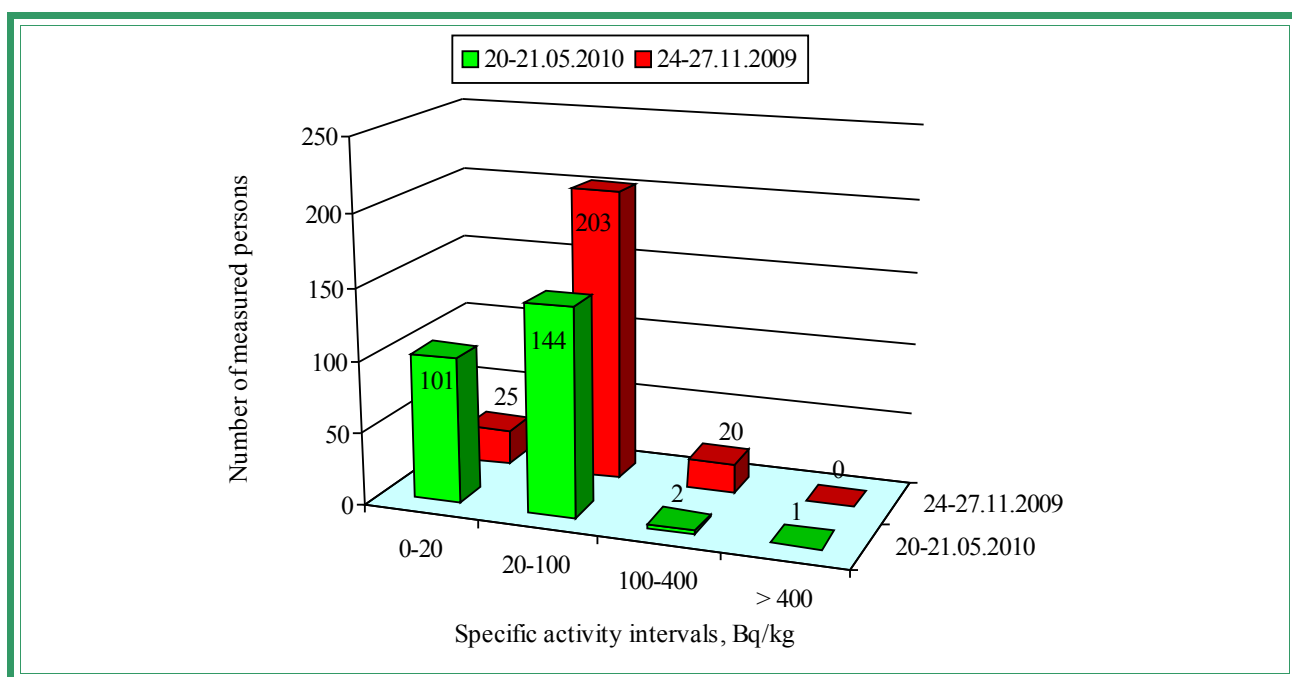


Figure 27 – Diagram of the interval  $^{137}\text{Cs}$  specific activity distribution in children in the Narovlya secondary school No. 3 of Gomel region in accordance with the results of measurements performed from November 24 to November 27, 2009 and from May 20 and May 21, 2010.

Senior engineer

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