HEALTH AND ENVIRONMENT PROGRAMS AROUND THE CHERNOBYL EXCLUSION AREA.

DEVELOPMENT, TRAINING AND COORDINATION OF HEALTH PROJECTS FOR THE PROTECTION OF PERSONS RESIDING AROUND THE CHERNOBYL EXCLUSION AREA. (2013-2017).

Led by Professor Yury Bandazhevsky

Speakers:

Professor Yu. Bandazhevsky

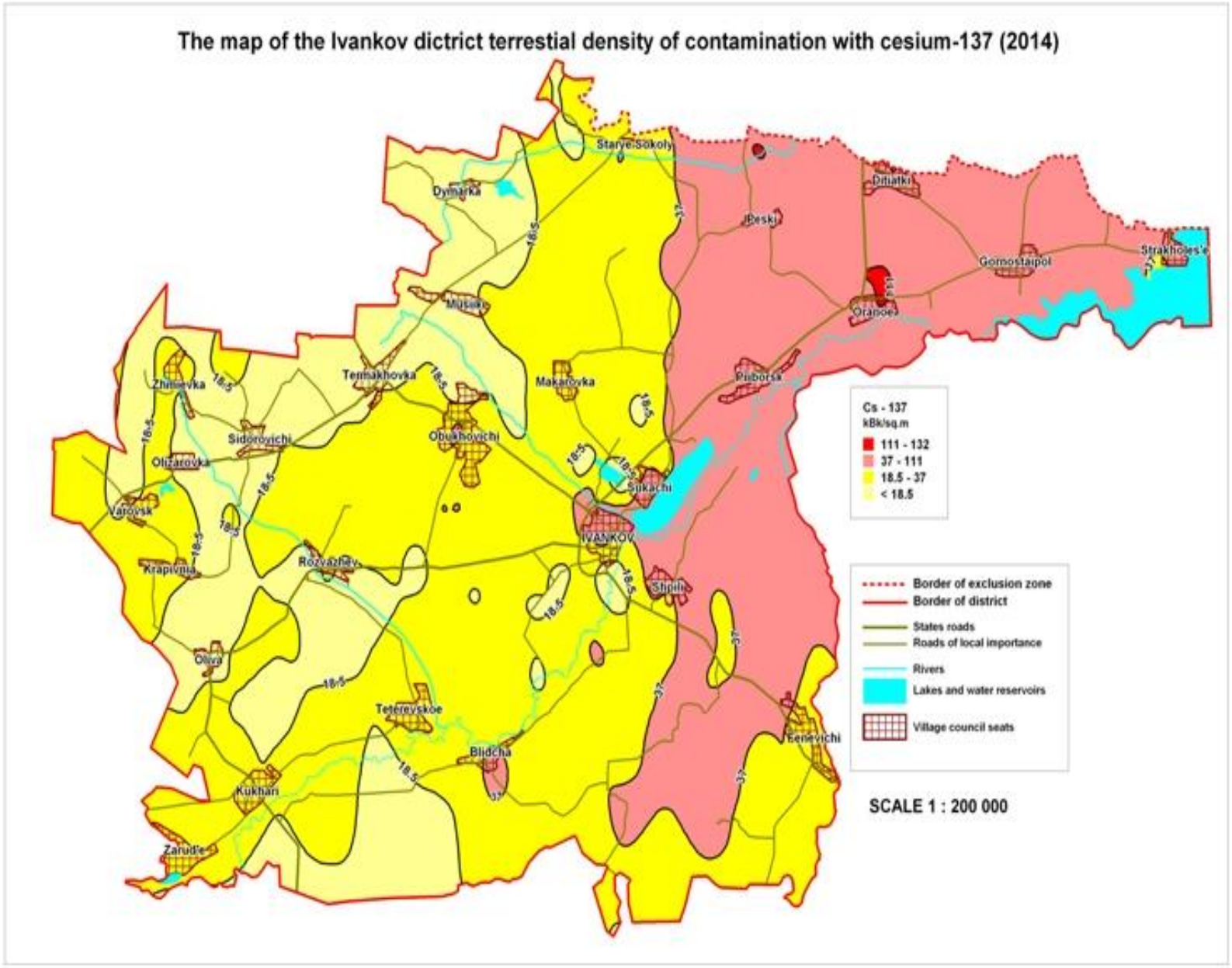
Associate Professor N. Dubovaya

https://chernobyl-health.org

RADIATION MONITORING

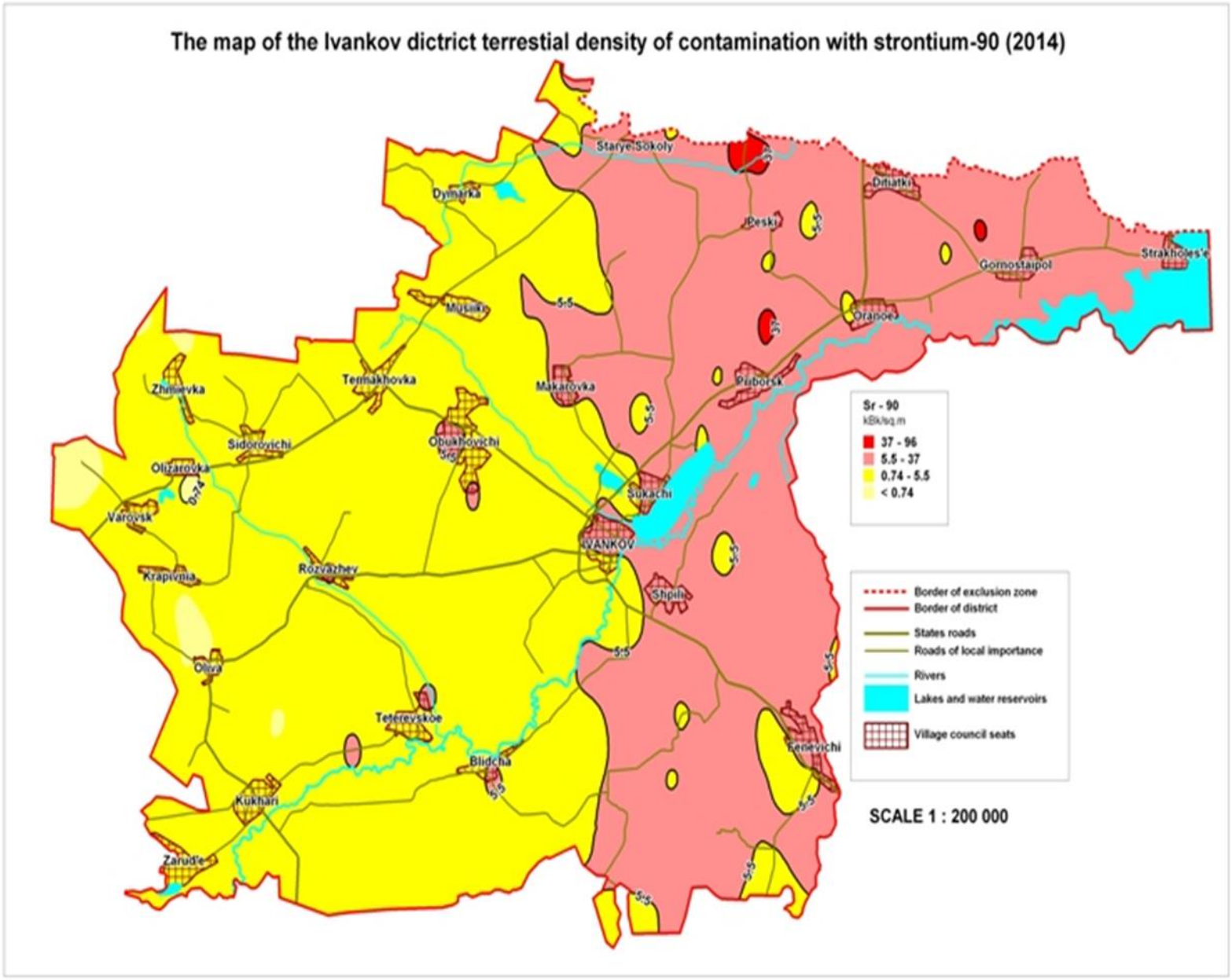
IVANKOV DISTRICT

«Development, training and coordination of health-related projects»

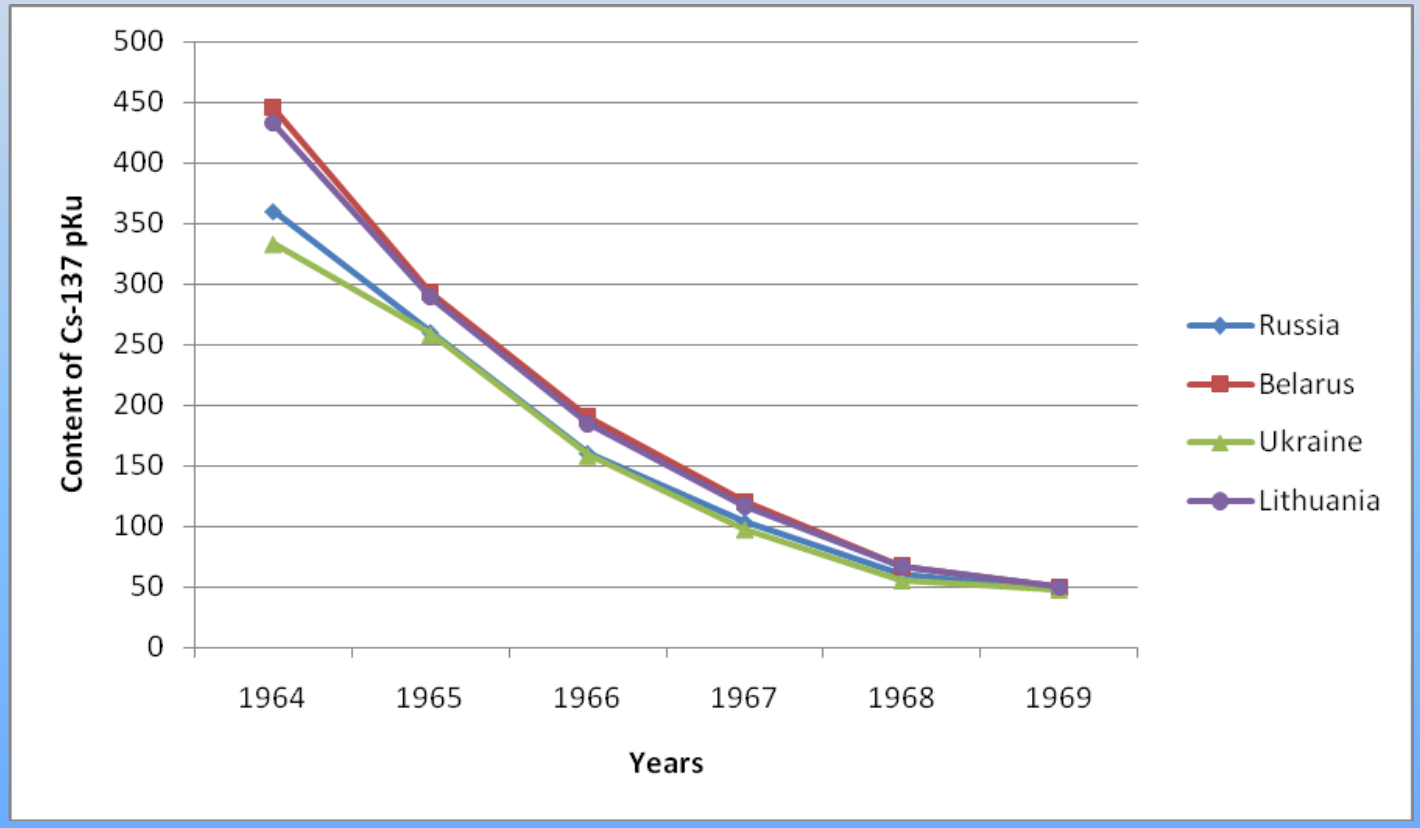


IVANKOV DISTRICT

«Development, training and coordination of health-related projects»

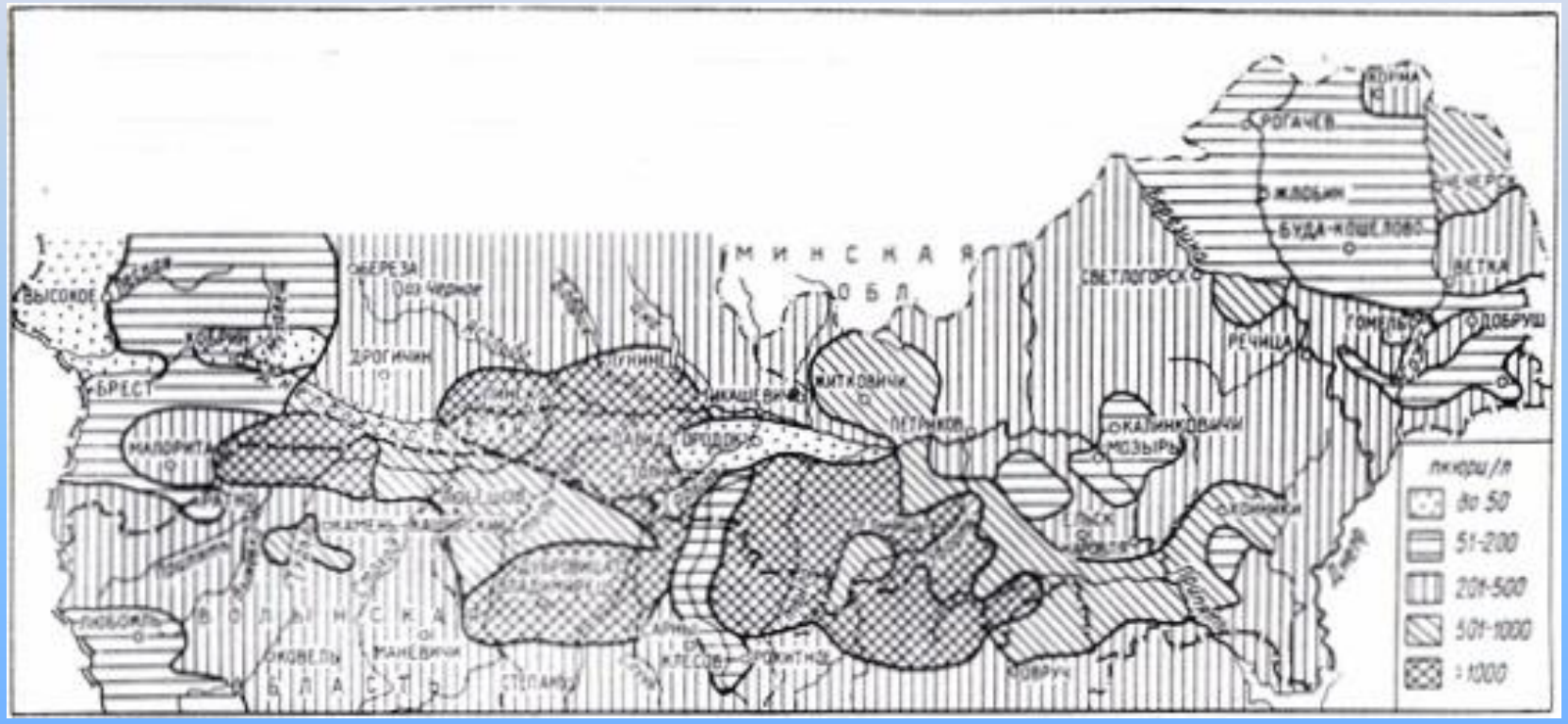


Starting with the sixties there has been a great number of Cs-137 radionuclides contents in foodstuffs consumed by the inhabitants of mentioned states within many years. (Marey A.N. and co-authors, 1974. Rusyayev A.P. and co-authors, 1974. Ternov V.I., Gurskaya N.V., 1974).



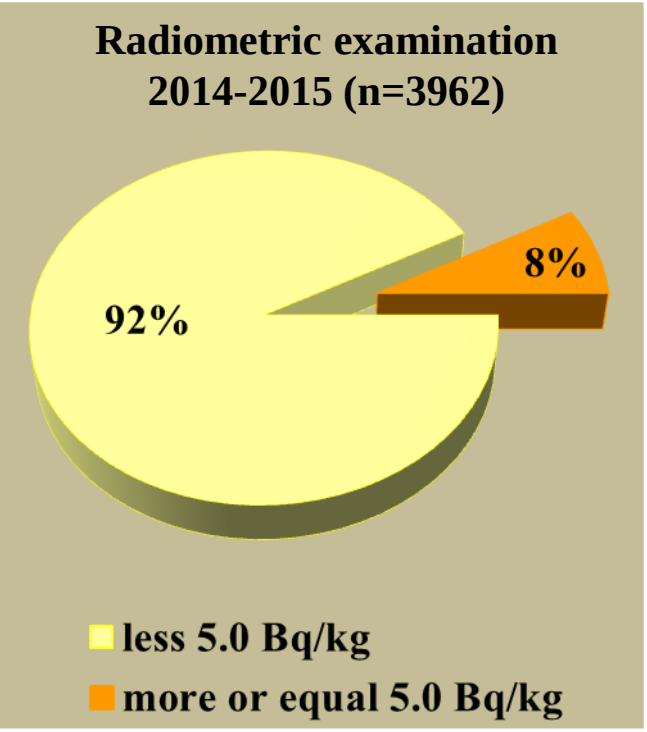
Cs-137 contents in villagers' daily food allowance in **pCi** (Marey A.N. and co-authors, 1974).

Cow's milk is one of the basic products forming rather high levels of Cs-137 radionuclides contents in inhabitants of Belarus and Baltic lands. “Milk-Caesium Map” was created – the largest Cs-137 radionuclides contents were observed from 1967 to 1970 in Gomel region of the Republic of Belarus.

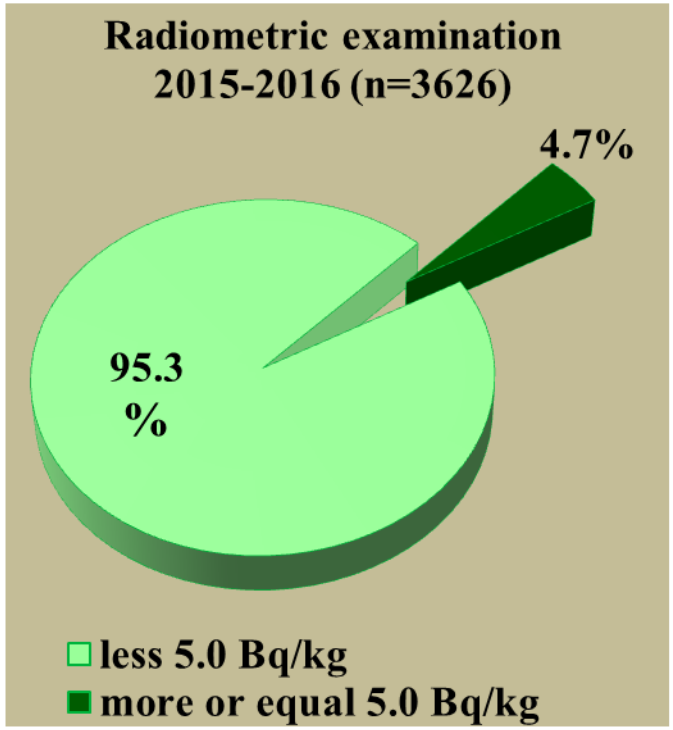


Cs-137 contents in cow's milk from different districts of Belarus in the sixties of the 20th century.

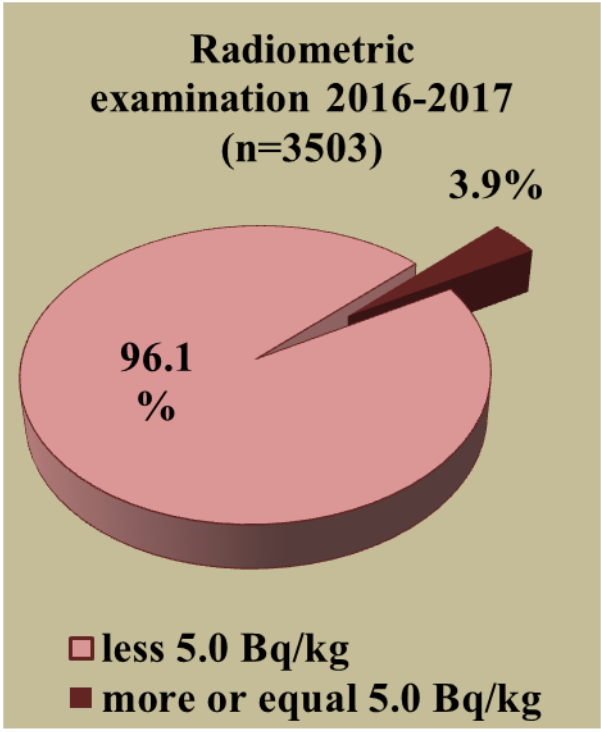
^{137}Cs CONTENT IN CHILDREN'S BODIES



[1.98 – 307.29 Bq/kg]

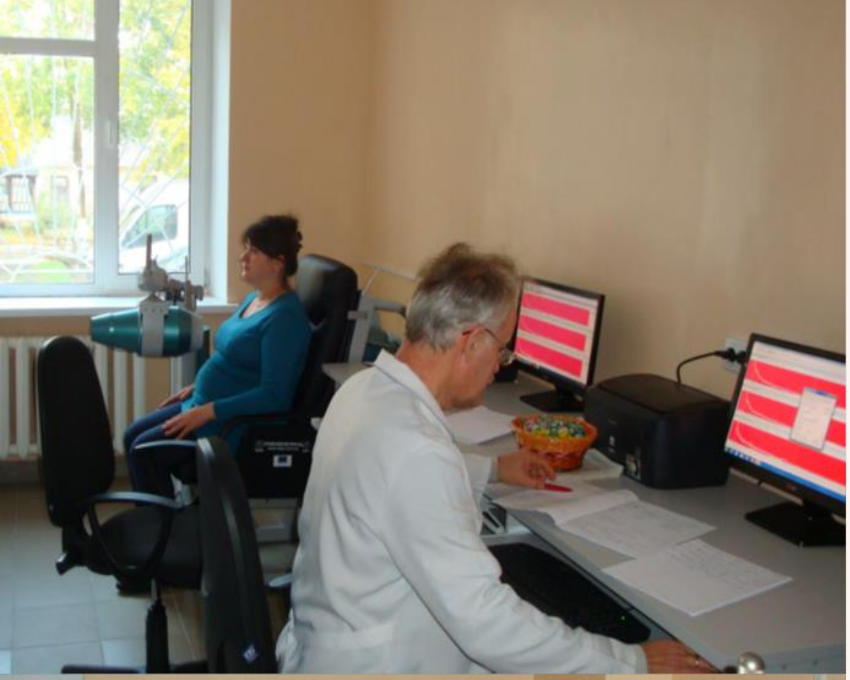


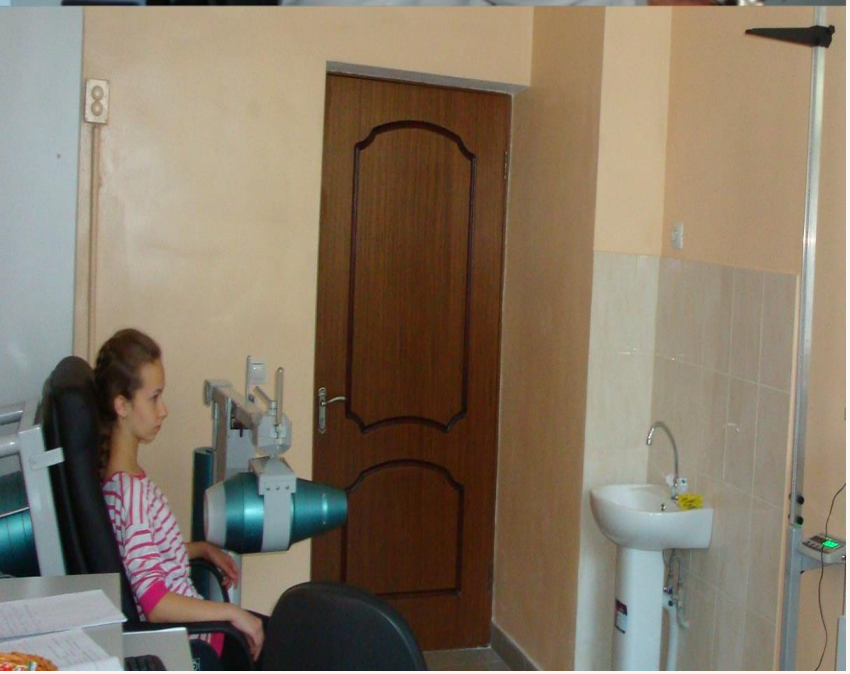
[1.93 – 118.51 Bq/kg]



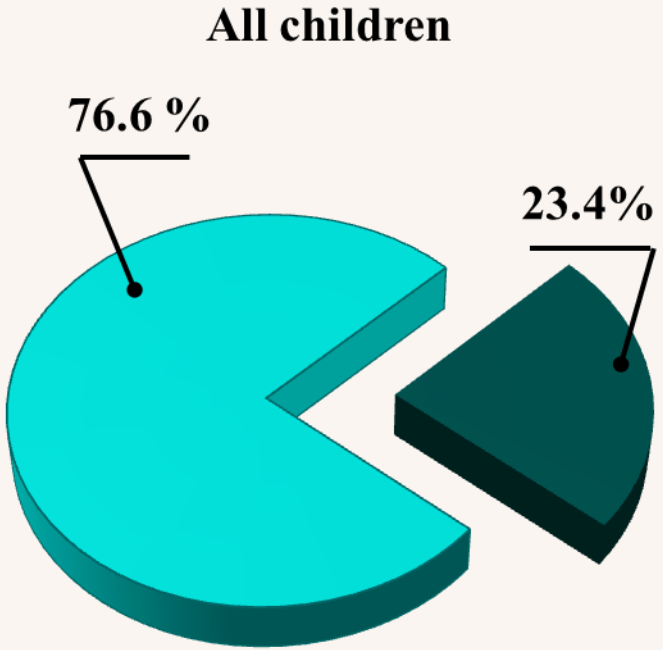
[1.91 – 111.48 Bq/kg]

Bandazhevsky Yu.I., Dubovaya N.F., 2017





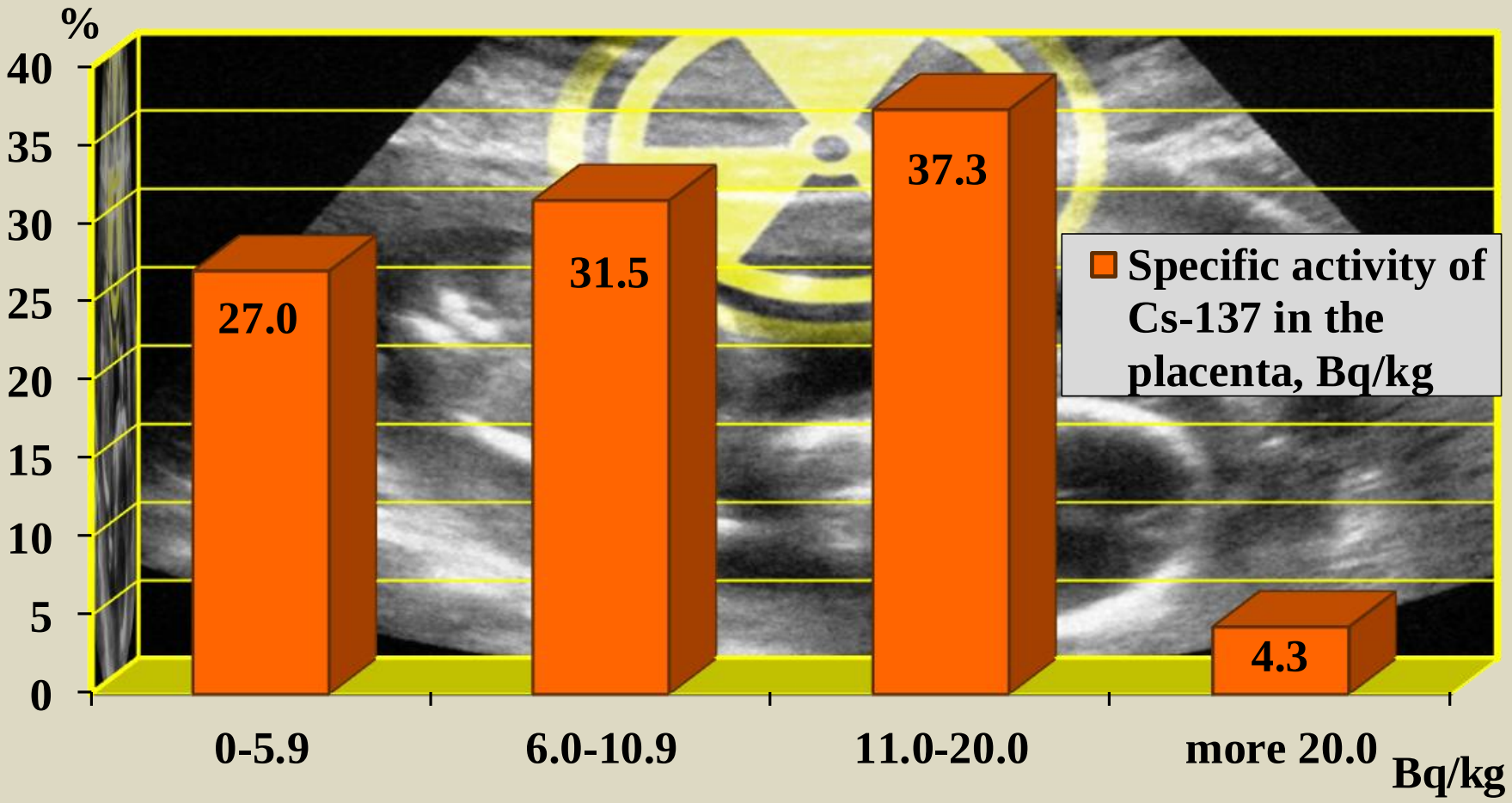
SPECIFIC ACTIVITY ^{137}CS IN THE CHILD'S BODY



- % of children with the level of 137Cs below 5.0 Bq/kg in the body
- % of children with the level of 137Cs [6.08-307.2] Bq/kg in the body

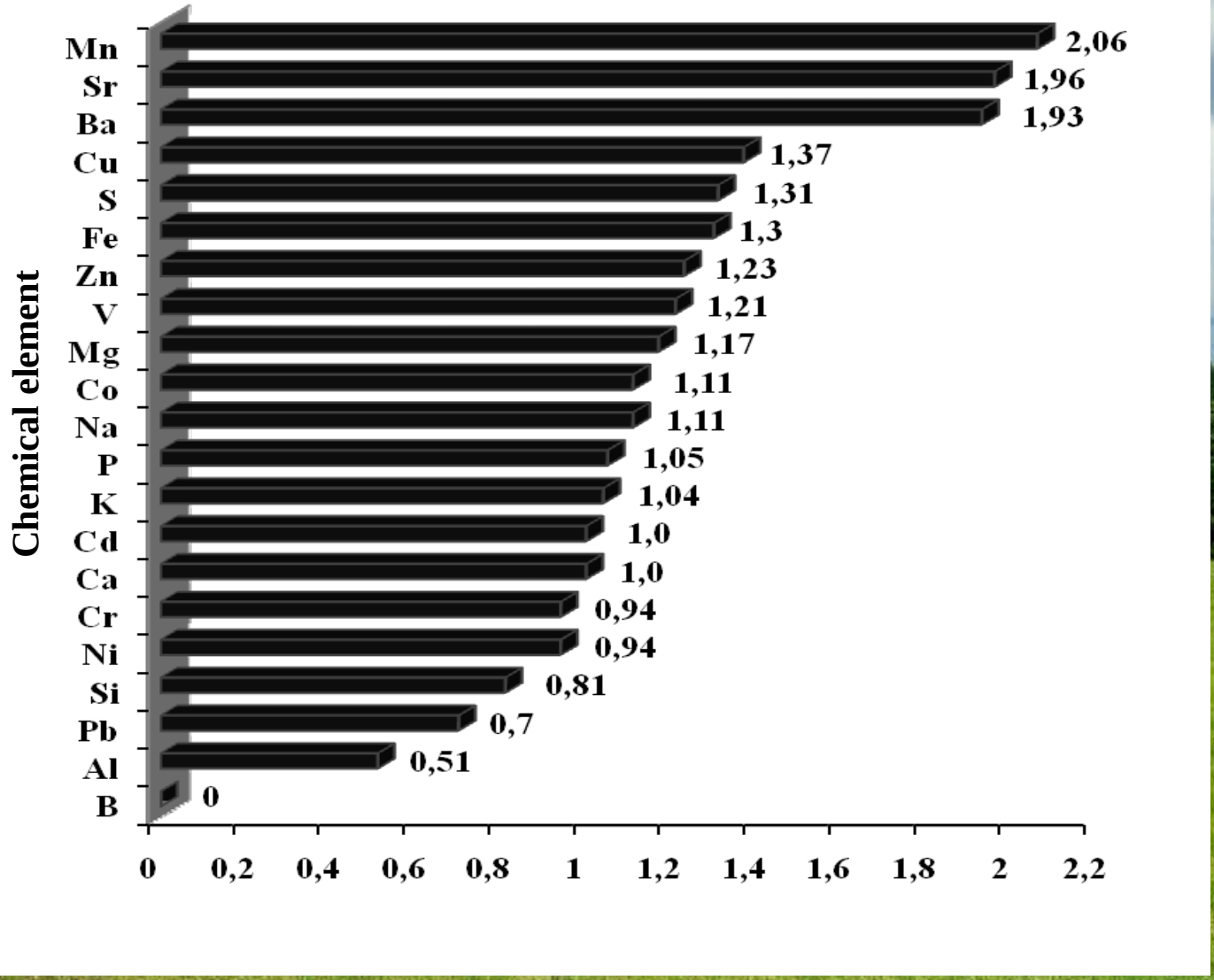
Bandazhevsky Yu. I., Dubovaya N. F. (2017)

CONTENT Cs-137 IN THE PLACENTA OF IVANKOV'S DISTRICT WOMEN WHICH HAS GIVEN BIRTH CHILDREN PER 2015-2017, (n = 400)



Bandazhevsky Yu. I., Dubovaya N. F. (2017)

CORRELATION OF CHEMICAL ELEMENTS IN OAT GRAIN (SAMPLE № 1 / SAMPLE № 2)



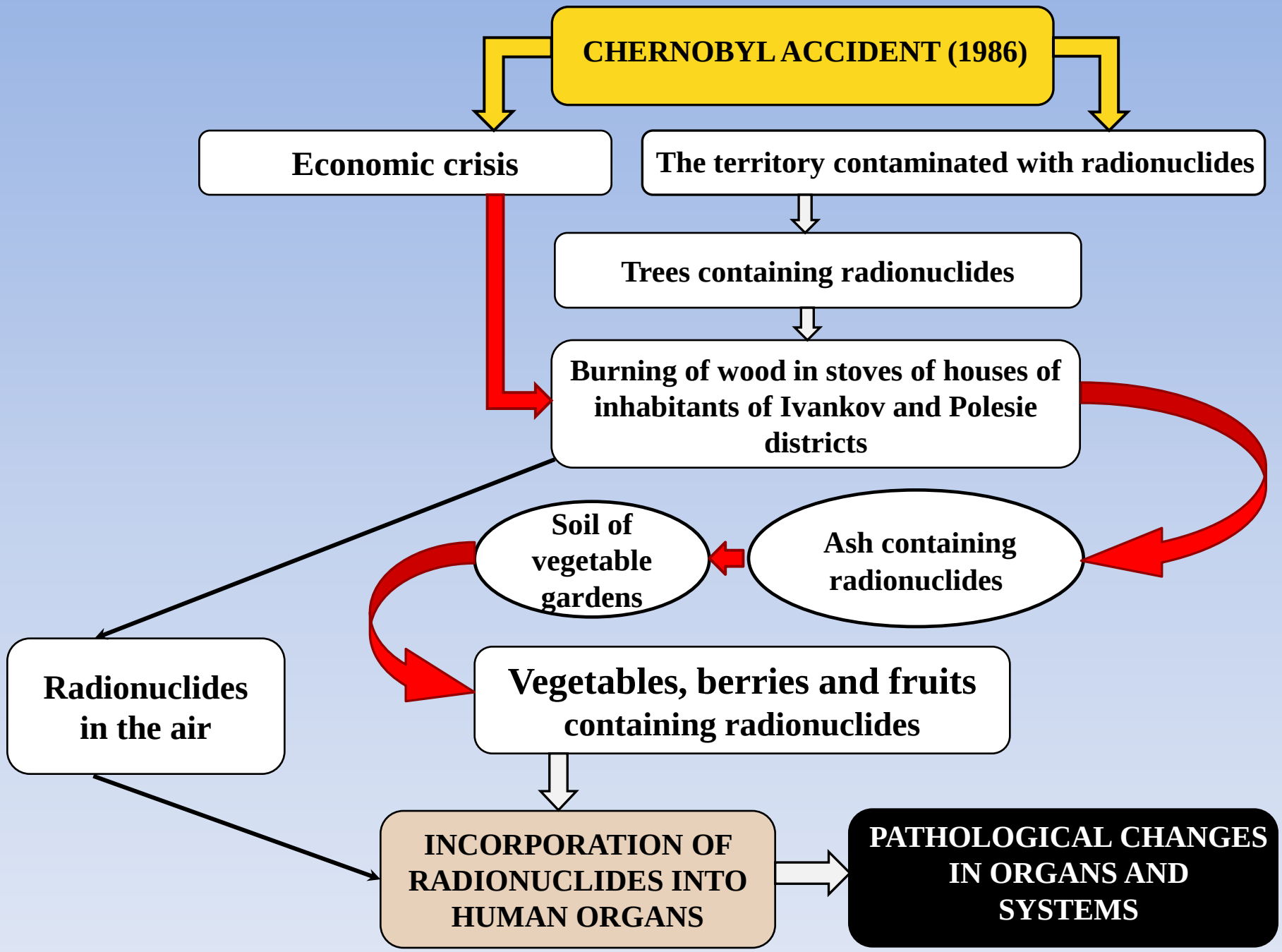
Bandazheuski Yu.I. Teratogenicity of oats grown in an area affected by the Chernobyl nuclear power plant accident / Yu. I. Bandazheuski, N.F. Dubovaya, V.V. Schwartau, I.P. Kozyarin // Pediatrics. Eastern Europe. – 2014. - № 3(07). - C. 40-45.

Removal of timber from the Exclusion Zone (Ivankov District)

CONTENT OF RADIONUCLIDES IN THE TIMBER OF WOOD OF IVANKOV AND POLESIE DISTRICTS OF THE KIEV REGION, UKRAINE (2017)

Cs-137	**38.0 – 2 548.0**	**Bq/kg**
Sr-90	**670.0 – 11 000.0**	**Bq/kg**

Bandazhevsky Yu. I., Dubovaya N. F. (2017)



Bandazhevsky Yu. I., Dubovaya N. F. (2017)

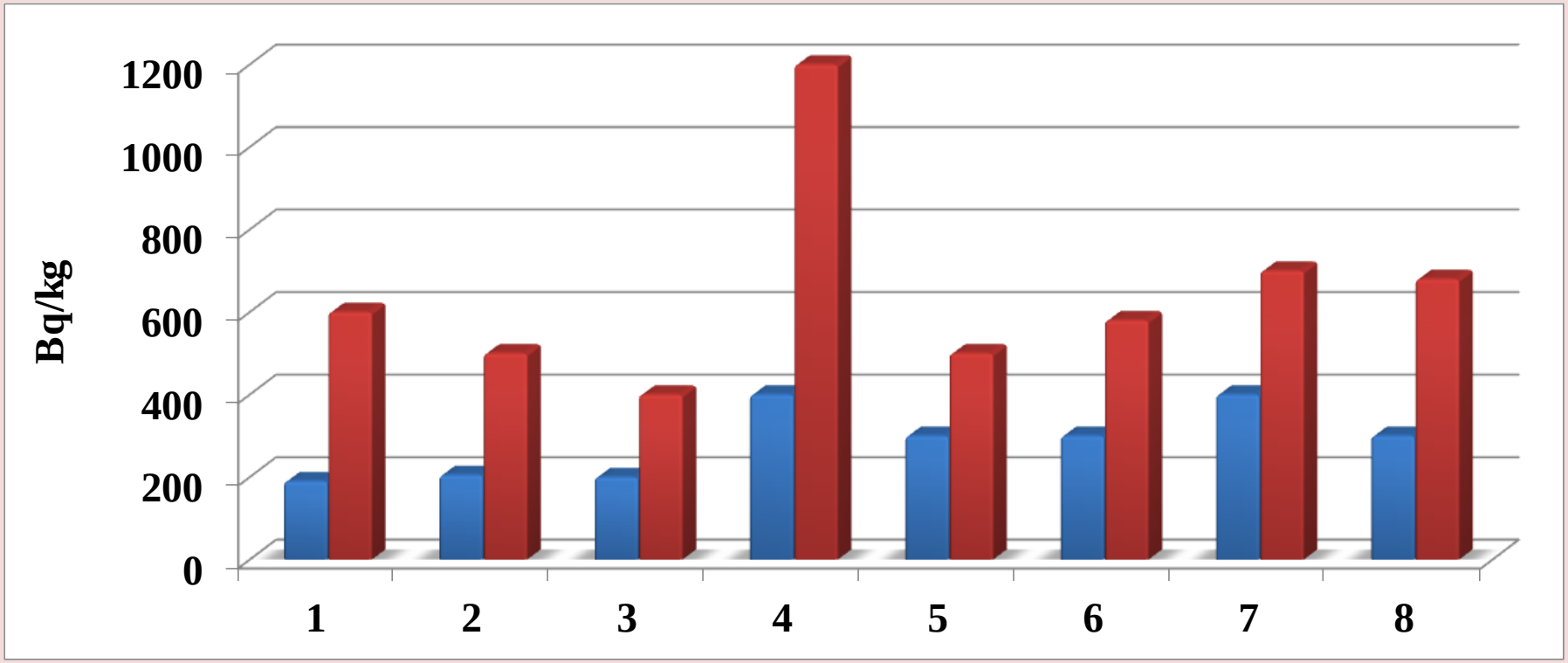
THE HEALTH OF CHILDREN

NUMBER OF CHILDREN AND PREGNANT WOMEN SURVEYED DURING THE PROJECT

MONITORING	EXAMINED OF CHILDREN	EXAMINED OF PREGNANT WOMAN
THE FIRST YEAR	3812	188
THE SECOND YEAR	3500	262
THE THIRD YEAR	3350	189

Bandazhevsky Yu. I., Dubovaya N. F. (2017)

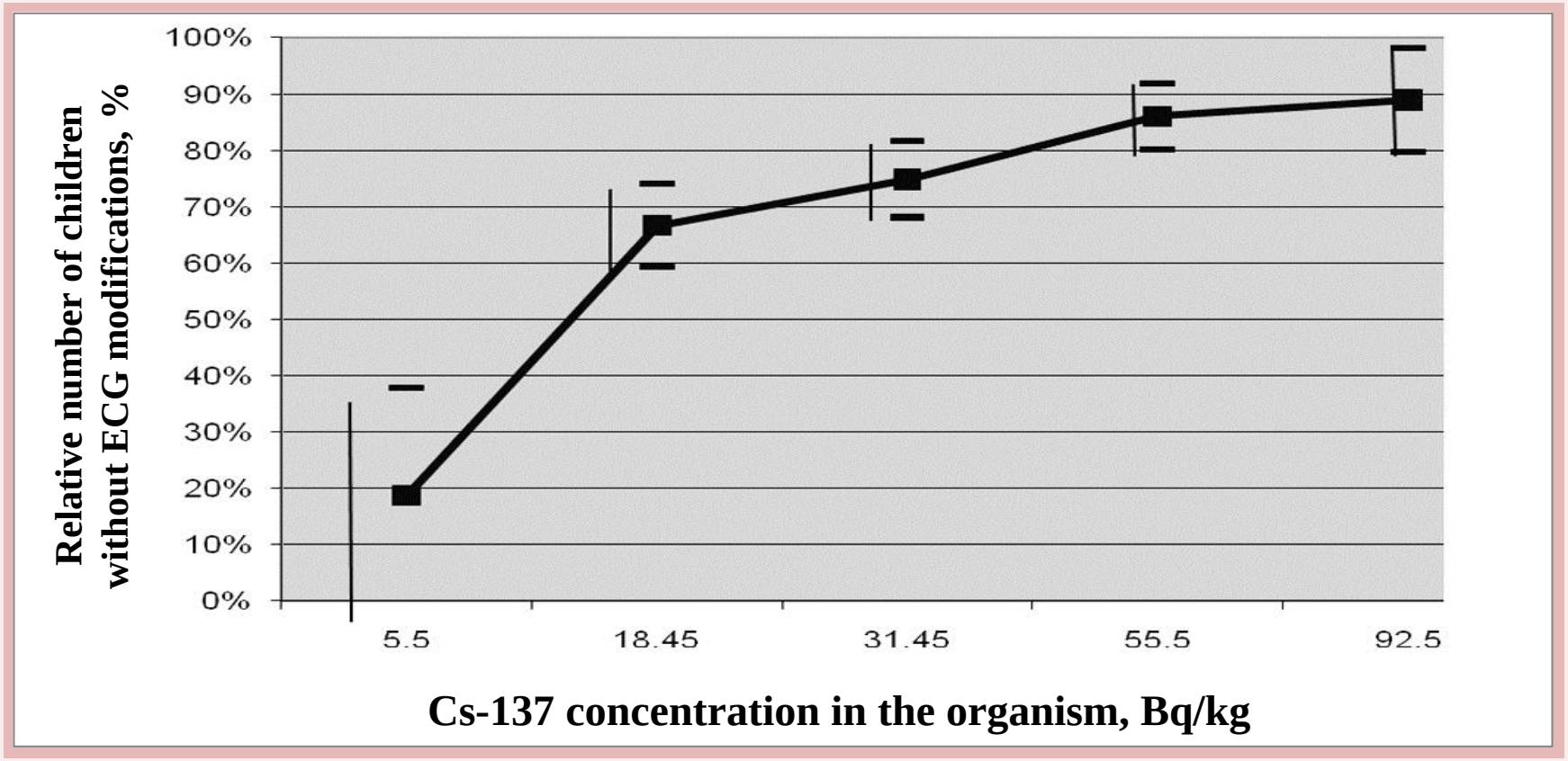
Cs-137 radionuclides under conditions of permanent chronic intake by people with food are accumulated in vitally important organs: thyroid gland, heart, kidneys, spleen, cerebrum, and degree of expressiveness of incorporation is various.



1 – myocardium, 2 – brain, 3 – liver, 4 – thyroid gland,
5 – kidneys, 6 – spleen, 7 – skeletal muscles, 8 – small intestine.

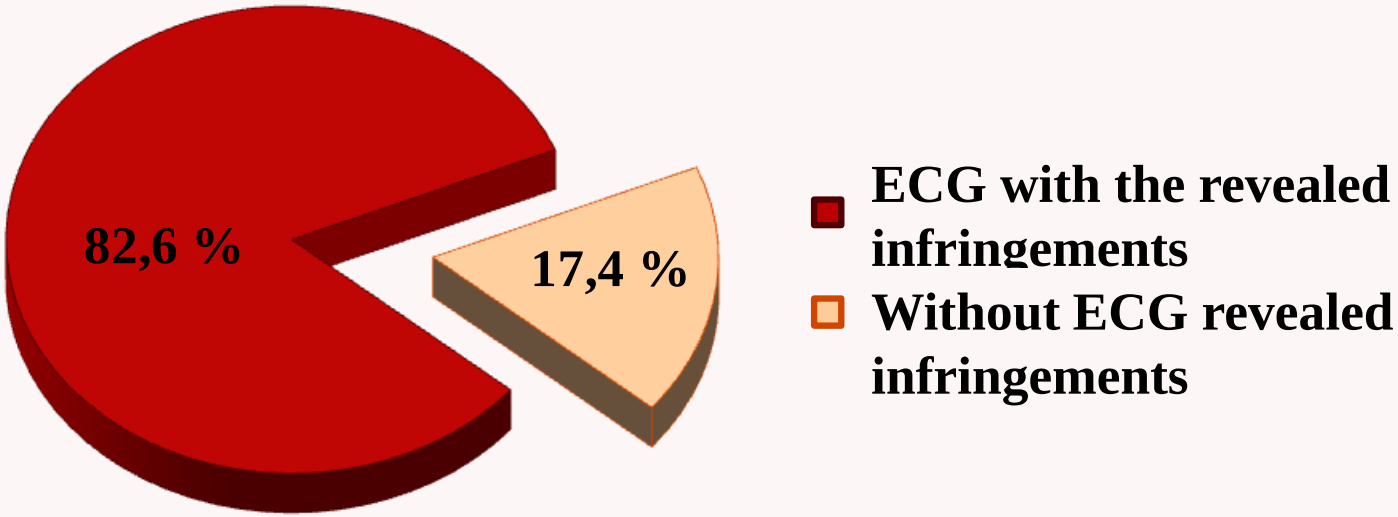
Cs-137 contents in adults' and children's viscera according to the data of radiometric measurements of the autopsies of inhabitants of Gomel region in 1997 and 1998 ***(Yu. I. Bandazhevsky, 1999, 2003).***

NOMBRE D'ENFANTS SANS MODIFICATIONS DE L'ECG, FONCTION DU NIVEAU DE CONCENTRATION DU CS-137 DANS L'ORGANISME[1]



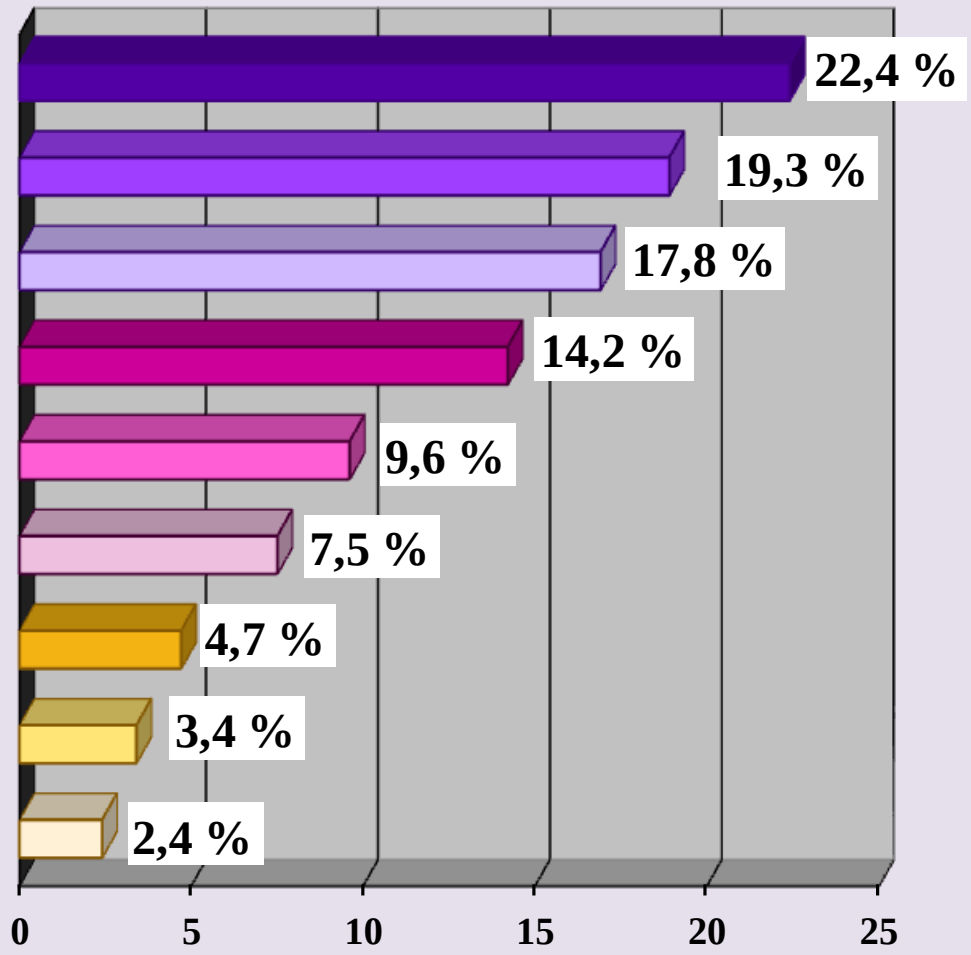
[1]*Bandazhevsky Y., Bandazhevskaya G., 1995, 2003, 2009, 2011, 2012.*

DISTRIBUTION OF ADOLESCENTS WITH IDENTIFIED DISORDERS OF THE CARDIOVASCULAR SYSTEM AS A RESULT OF THE ECG DIAGNOSIS (POLESIE AND IVANKOV DISTRICTS OF KYIV REGION), %



Bandazhevsky Yu.I. Assessment of the cardiovascular system in children from Polesie and Ivankov districts / Yu.I. Bandazhevsky, N.F. Dubovaya, G.S. Bandazhevskaya et al. // Scientific and practical collection «Chernobyl: ecology and health» / General adition by prof. Yu.I. Bandazhevsky. – Ivankov: PI Coordination and Analytical Center «Ecology and health», - Dnipropetrovsk: Serednyak T.K., 2015. - Issue 2. – C. 7-21.

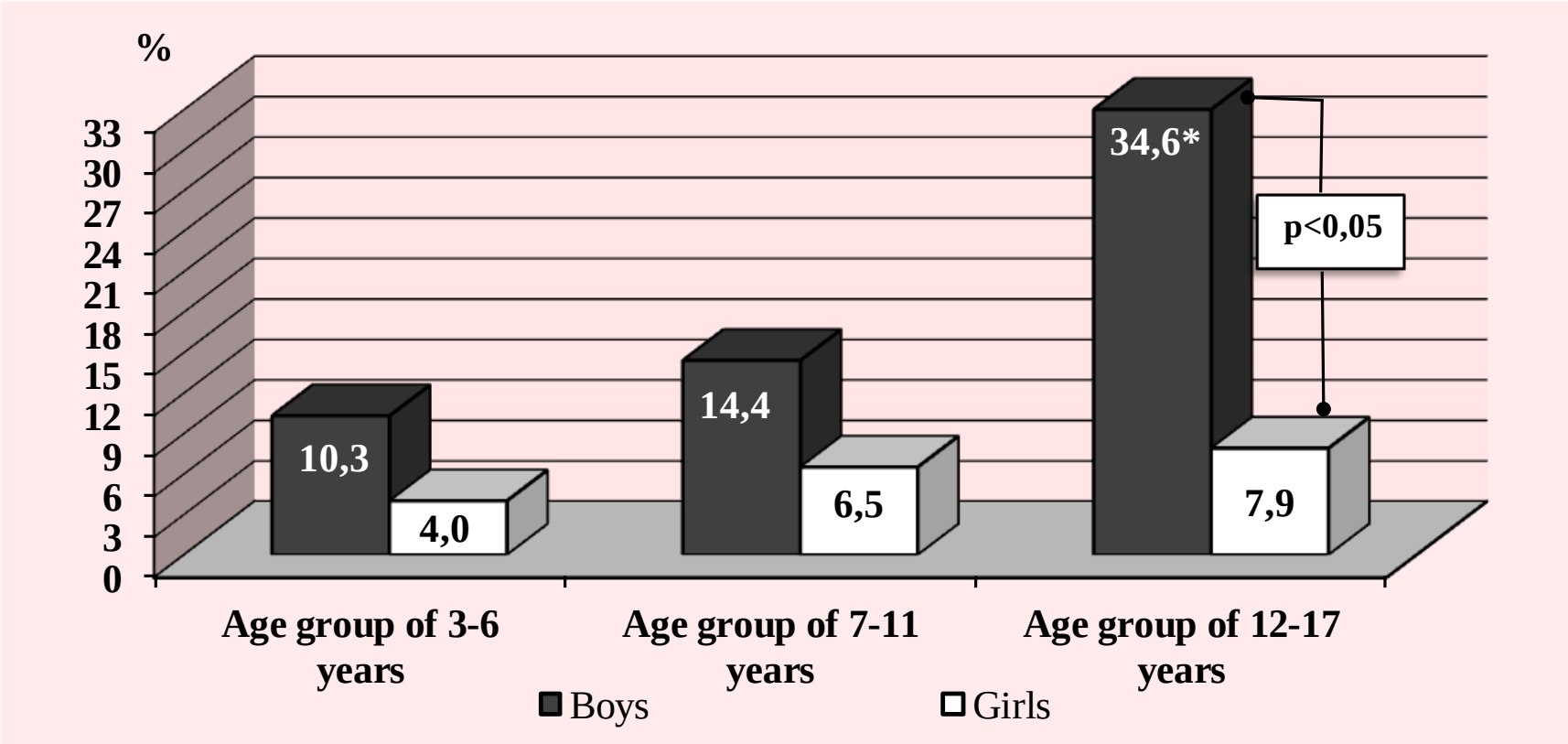
THE STRUCTURE OF CARDIAC DISORDERS IN EXAMINED CHILDREN FROM POLESIE AND IVANKOV DISTRICTS, %



- The short PQ syndrome
- The moderate changes in the ventricular myocardium
- Wandering atrial pacemaker
- Ectopic atrial rhythm
- Incomplete right bundle branch block
- The early ventricular repolarization syndrome
- Sinus bradycardia
- Sinus tachycardia
- Irregular sinus rhythm

Bandazhevsky Yu.I. Assessment of the cardiovascular system in children from Polesie and Ivankov districts / Yu.I. Bandazhevsky, N.F. Dubovaya, G.S. Bandazhevskaya et al. // Scientific and practical collection «Chernobyl: ecology and health» / General adition by prof. Yu.I. Bandazhevsky. – Ivankov: PI Coordination and Analytical Center «Ecology and health», - Dnipropetrovsk: Serednyak T.K., 2015. - Issue 2. – P. 22-35.

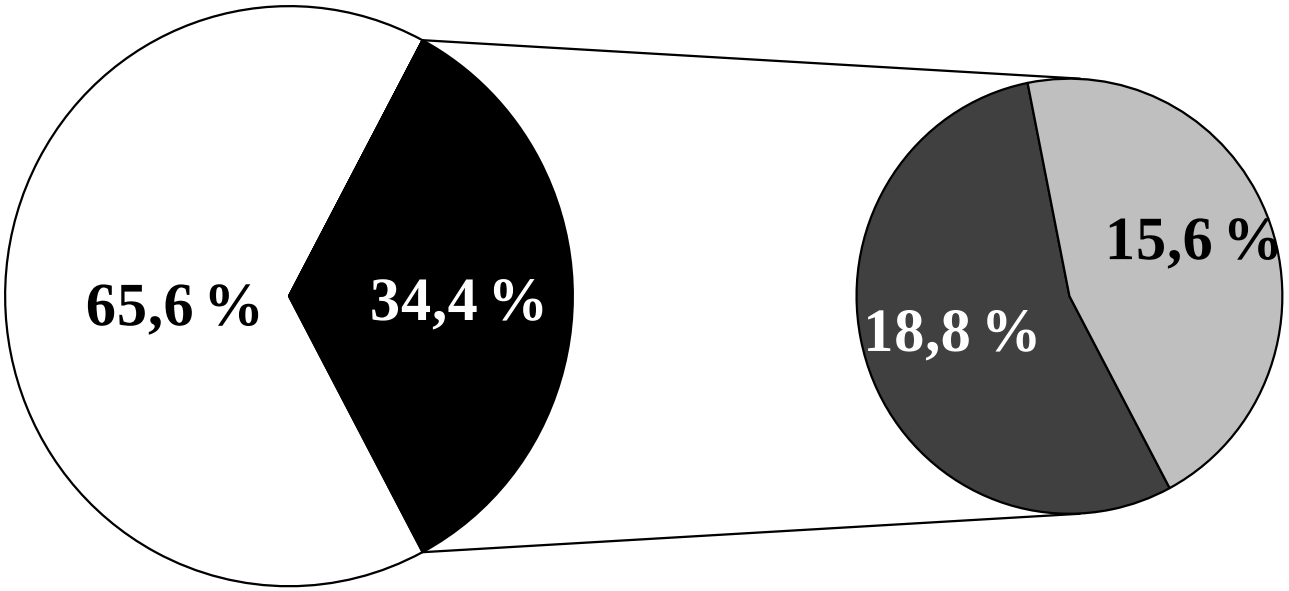
THE SEX AND AGE DISTRIBUTION OF EXAMINED CHILDREN FROM POLESIE AND IVANKOV DICTRICTS WITH DIAGNOSED EVRS (IN % TO THE NUMBER OF CHILDREN IN THE RELEVANT AGE GROUPS).



*Note: * - p <0,05 compared with the age group of 3-6 years.*

Bandazhevsky Yu.I. Assessment of the cardiovascular system in children from Polesie and Ivankov districts / Yu.I. Bandazhevsky, N.F. Dubovaya, G.S. Bandazhevskaya et al. // Scientific and practical collection «Chernobyl: ecology and health» / General adition by prof. Yu.I. Bandazhevsky. – Ivankov: PI Coordination and Analytical Center «Ecology and health», - Dnipropetrovsk: Serednyak T.K., 2015. - Issue 2. – P. 22-35.

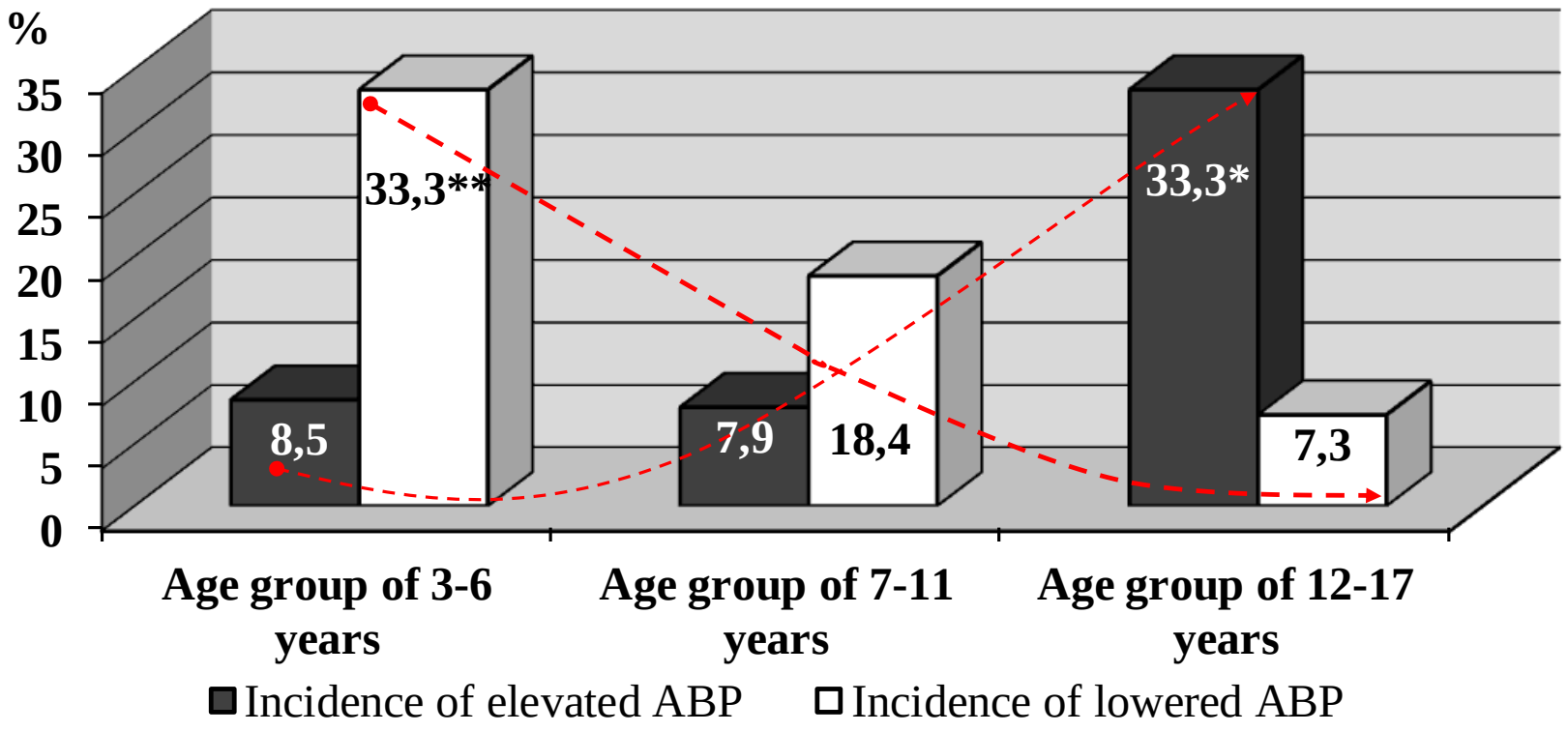
DISTRIBUTION OF THE EXAMINED CHILDREN FROM IVANKOV AND POLESIE DISTRICTS BY ABP LEVELS, %



- ABP within the norm values
- ABP with deviations from the norm
- ABP above the age norm
- ABP below the age norm

Bandazhevsky Yu.I. Assessment of the cardiovascular system in children from Polesie and Ivankov districts / Yu.I. Bandazhevsky, N.F. Dubovaya, G.S. Bandazhevskaya et al. // Scientific and practical collection «Chernobyl: ecology and health» / General adition by prof. Yu.I. Bandazhevsky. – Ivankov: PI Coordination and Analytical Center «Ecology and health», - Dnipropetrovsk: Serednyak T.K., 2015. - Issue 2. – P. 22-35.

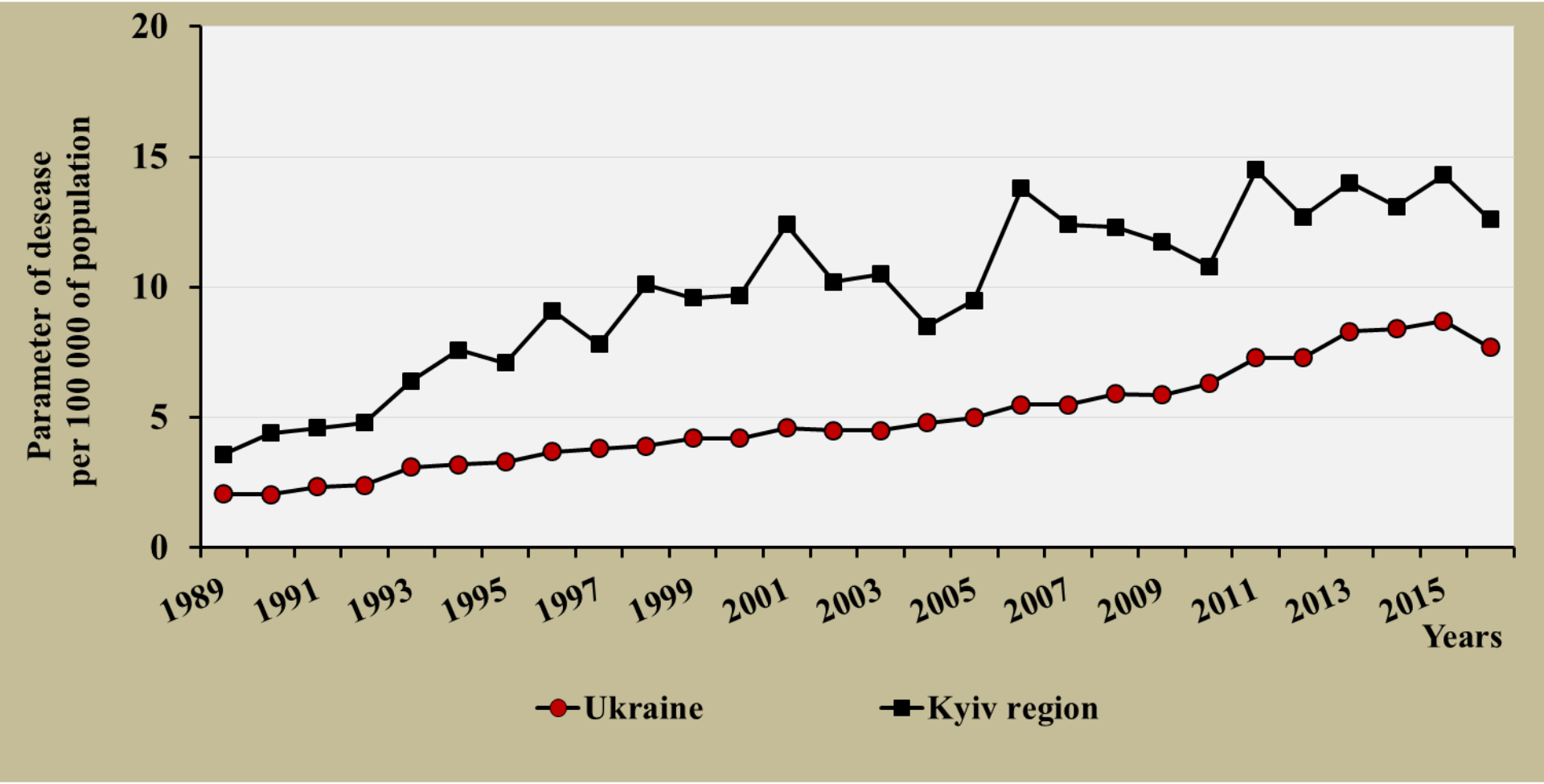
THE AGE DISTRIBUTION OF EXAMINED CHILDREN WITH ELEVATED AND LOWERED ARTERIAL BLOOD PRESSURE (IN % OF THE TOTAL NUMBER OF CHILDREN IN THE AGE GROUP)



Note: * - p <0,05 compared with the age group of 3-6 years;
** - p <0,05 compared with the age group 7-11 years and 12-17 years.

Bandazhevsky Yu.I. Assessment of the cardiovascular system in children from Polesie and Ivankov districts / Yu.I. Bandazhevsky, N.F. Dubovaya, G.S. Bandazhevskaya et al. // Scientific and practical collection «Chernobyl: ecology and health» / General adition by prof. Yu.I. Bandazhevsky. – Ivankov: PI Coordination and Analytical Center «Ecology and health», - Dnipropetrovsk: Serednyak T.K., 2015. - Issue 2. – P. 22-35.

MORBIDITY OF THYROID CANCER IN THE POPULATION OF THE KYIV REGION (PER 100 000 OF POPULATION)

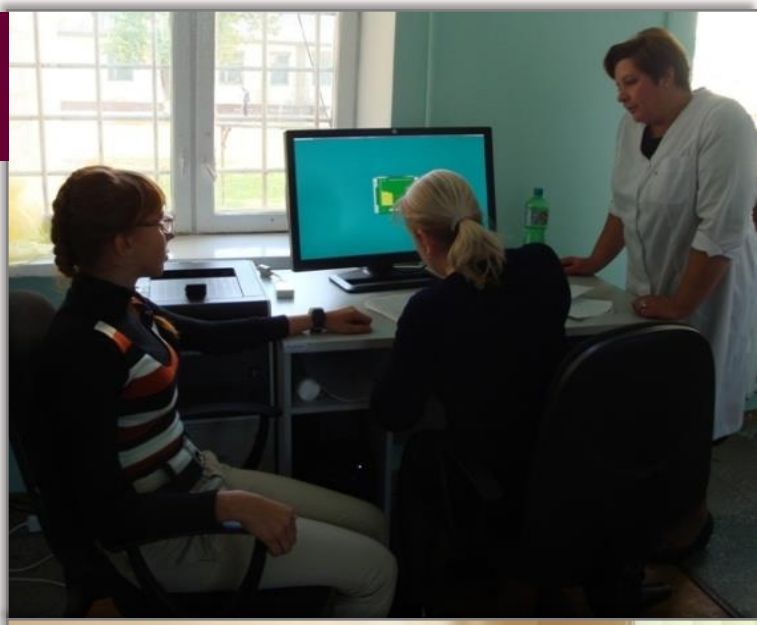


Source: National Cancer Registry of Ukraine.

Bandazhevsky Yu. I., Dubovaya N. F. (2017)

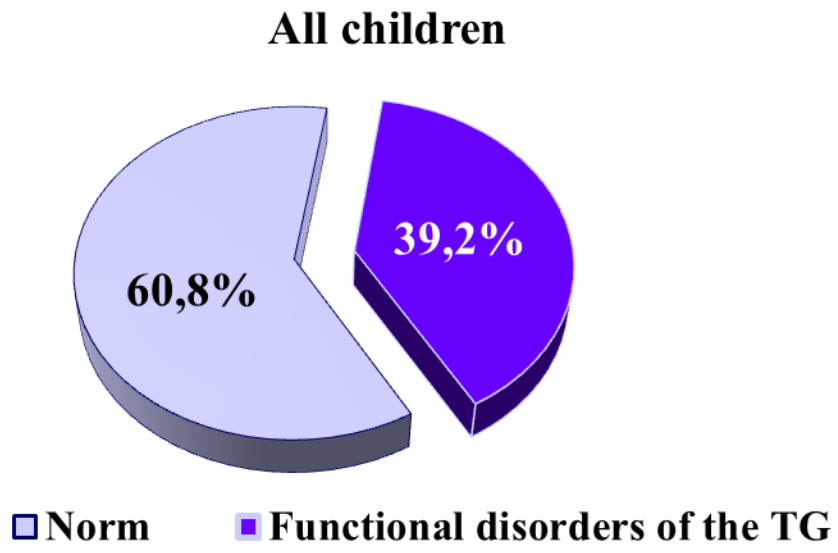
MONITORING OF CHILDREN'S HEALTH (2013-2017)

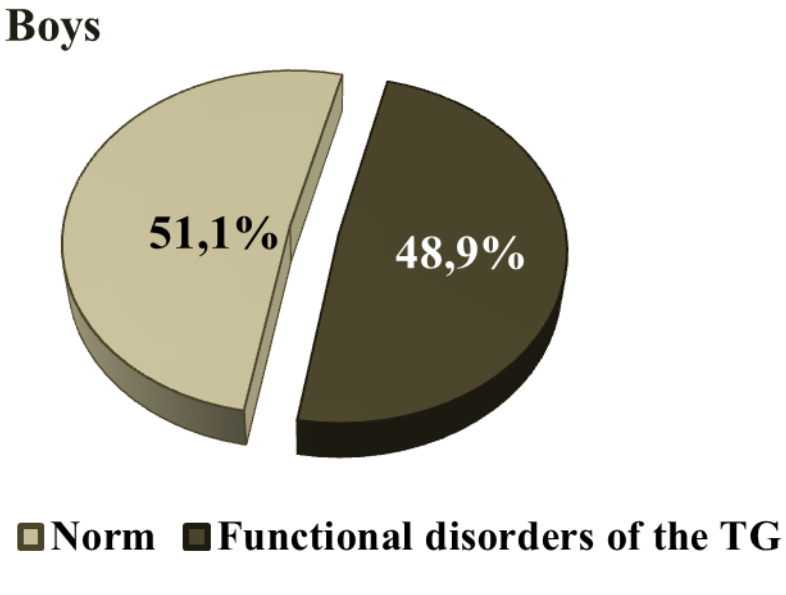
■ The preliminary analysis of children health results has showed that a significant part of children exhibits reduced indices of physical development, cardiac abnormalities (**81,9 %** of the examined children according to data of the electrocardiographic examination), metabolism disorders, and in some cases, hyperplastic processes in the thyroid gland **(6,7 %)**.

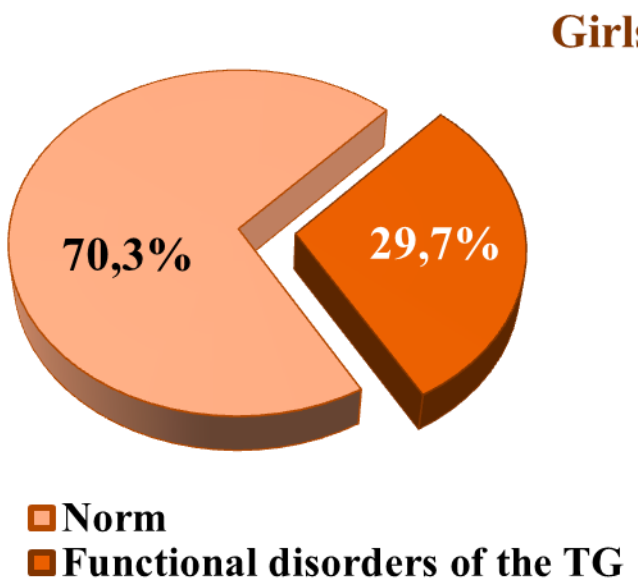


«Development, training and coordination of health-related projects»

FUNCTIONAL DISTURBANCES OF THE THYROID GLAND IN CHILDREN OF IVANKOV AND POLESSIE DISTRICTS

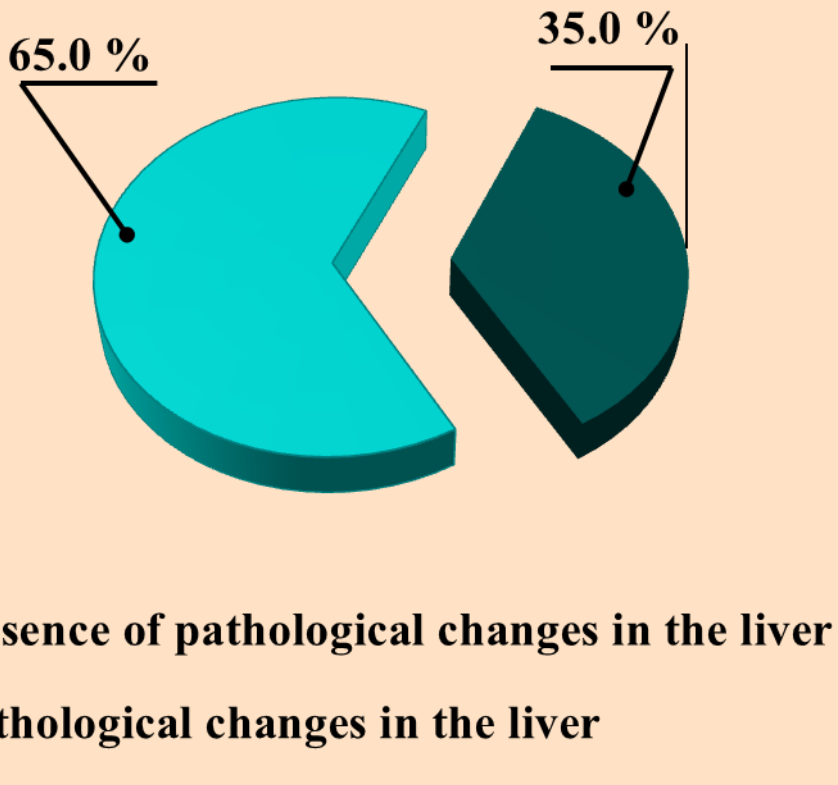






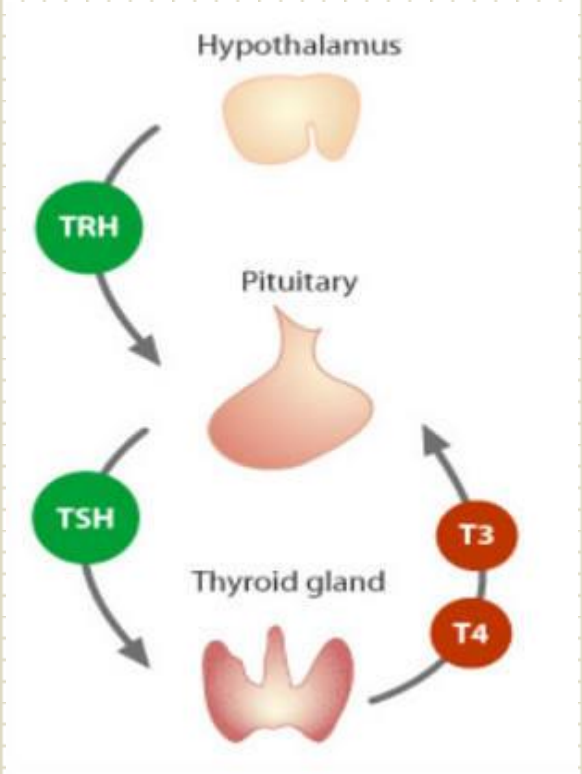
Bandazhevsky Yu. I., Dubovaya N. F. (2017)

PATHOLOGICAL CHANGES IN THE LIVER OF CHILDREN ACCORDING TO ULTRASOUND DIAGNOSIS

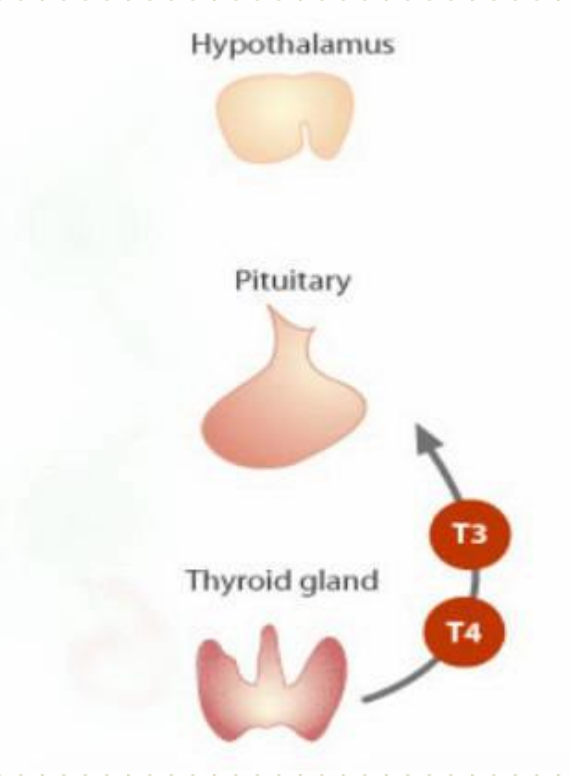


Bandazhevsky Yu. I., Dubovaya N. F. (2017)

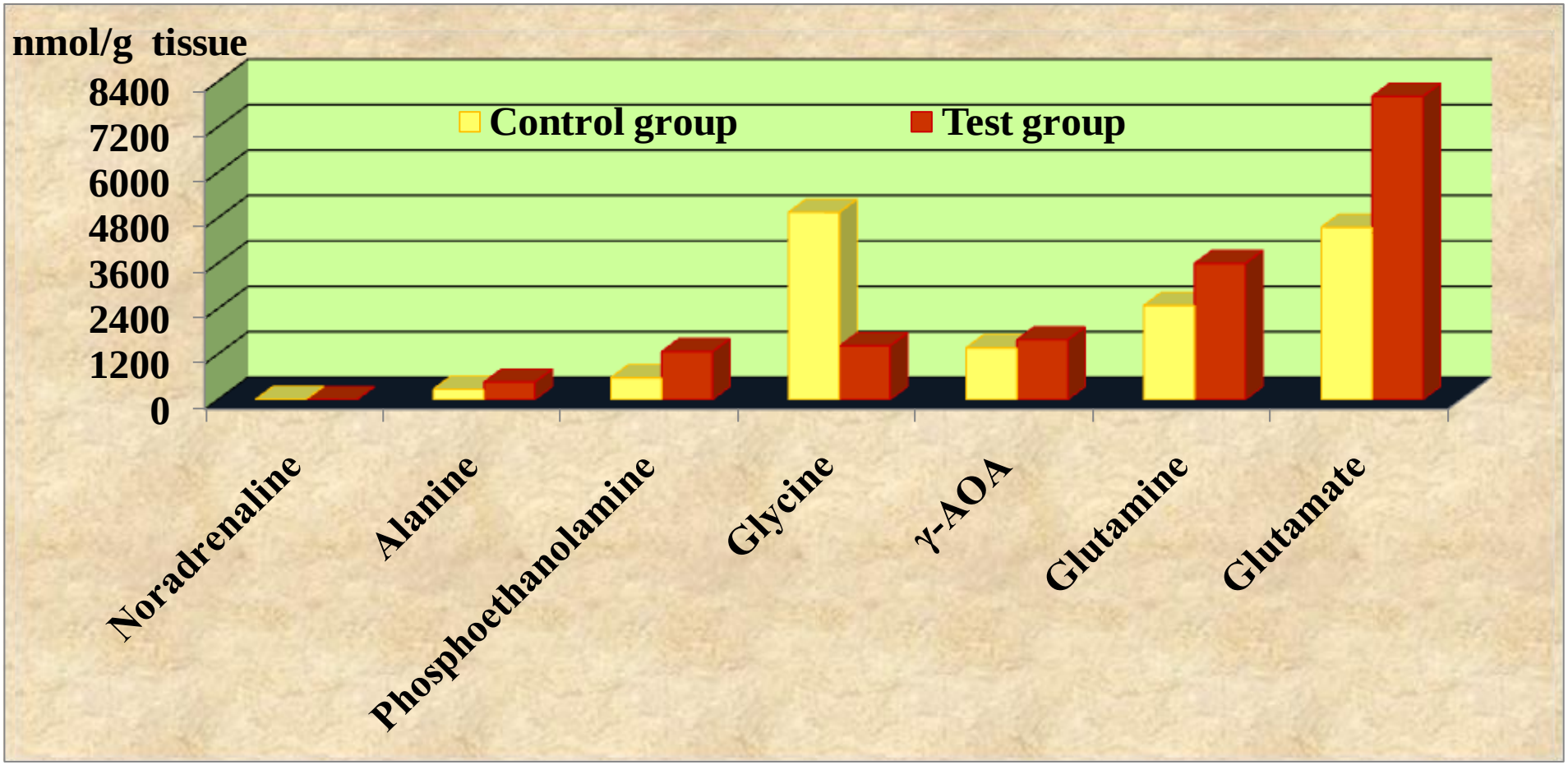
NORMAL



IN CASE OF DEVELOPMENT HYPOTHALAMIC SYNDROME

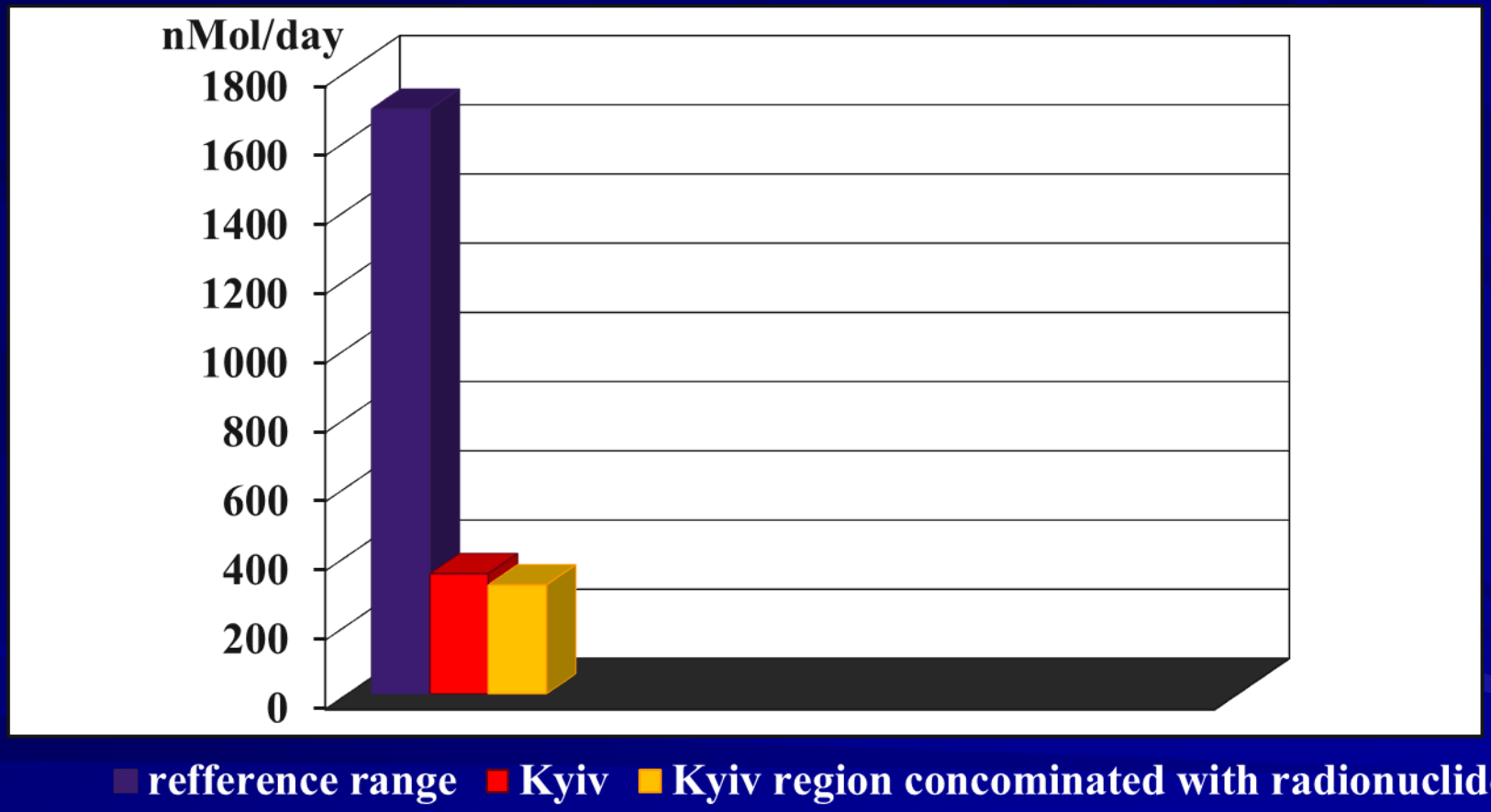


THE CONTENT OF NEUROACTIVE COMPOUNDS IN CEREBRAL HEMISPHERES OF RATS AFTER 28 DAYS OF INTAKE OF RADIONUCLIDES WITH FOOD*



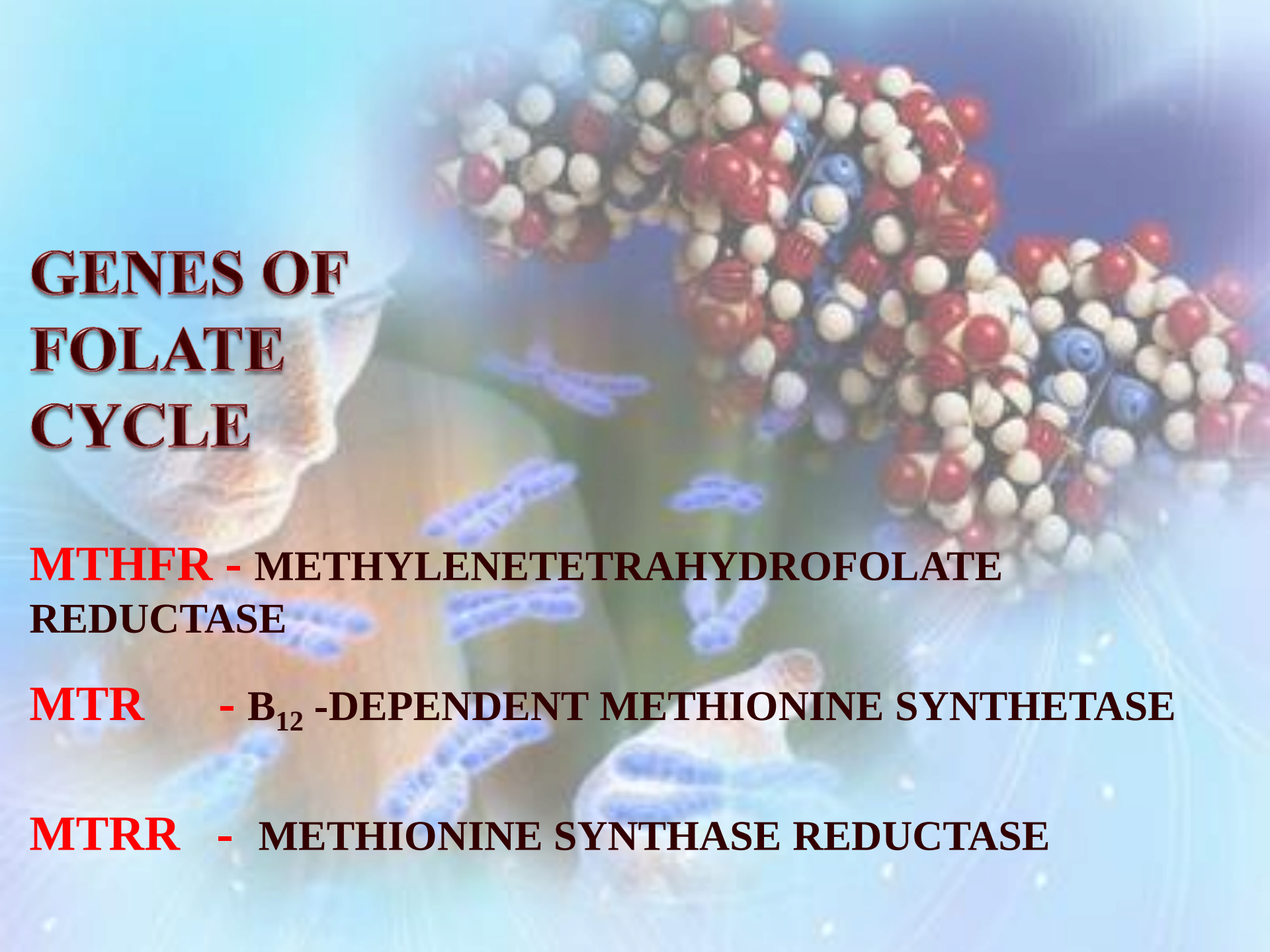
*Lelevich V.V., Doroshenko E.M. Effect of Incorporated Radionuclides upon the in the Neuromediators Brain of Rats // Clinical and Experimental Aspects of the Effect of Incorporated Radionuclides upon the Organism / Yu.I. Bandazhevsky et al.: Ed. by Yu.I. Bandazhevsky, V.V. Lelevich. – Gomel, 1995. – P. 60-72.

INDICATORS OF DOPAMINE (NMOL/DAY) IN ADOLESCENTS IN KYIV AND ELSEWHERE IN THE KYIV REGION CONTAMINATED WITH RADIONUCLIDES



Dr. Viktoriia Pylypenko (2017)

GENETIC CHANGES AND METABOLISM



GENES OF FOLATE CYCLE

MTHFR - METHYLENETETRAHYDROFOLATE REDUCTASE

MTR - B_{12} -DEPENDENT METHIONINE SYNTHETASE

MTRR - METHIONINE SYNTHASE REDUCTASE

RECORDED POLYMORPHISMS

MTHFR : A 1298 C

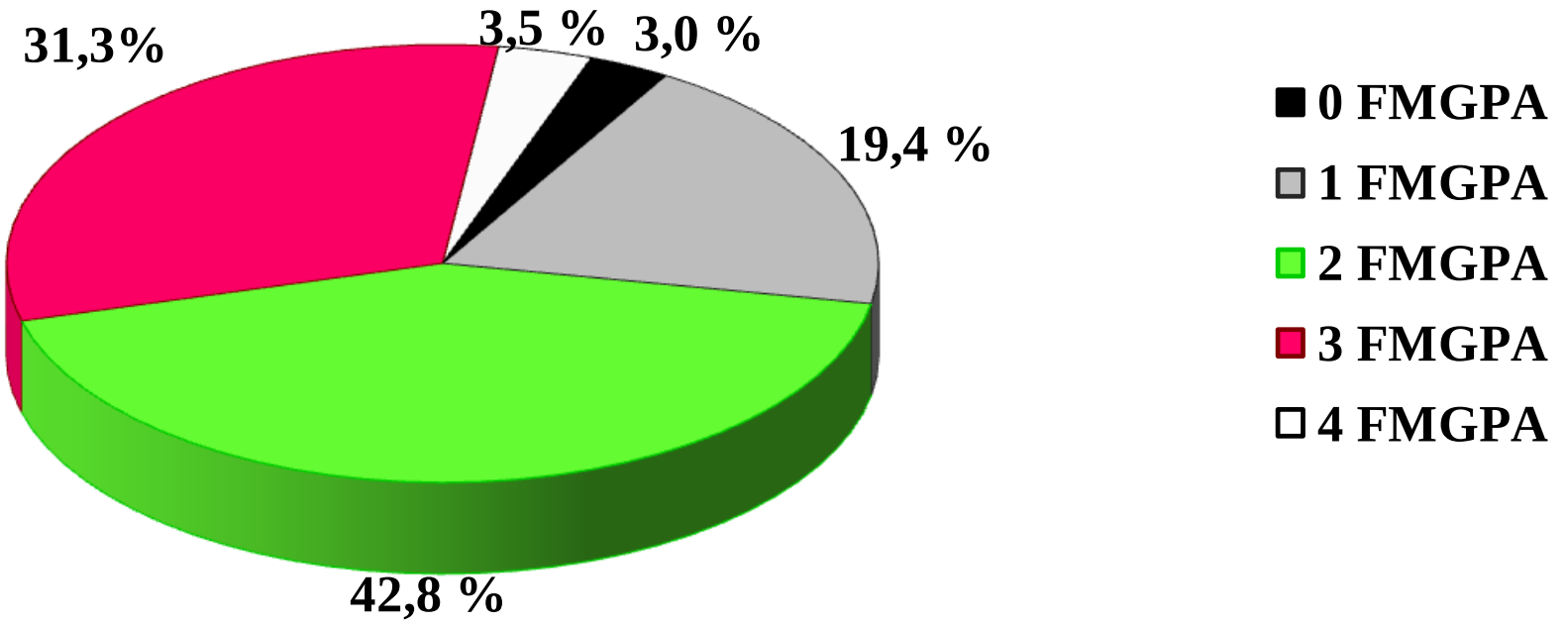
MTHFR : C 677 T

MTR : A 2756 G

MTRR : A 66 G

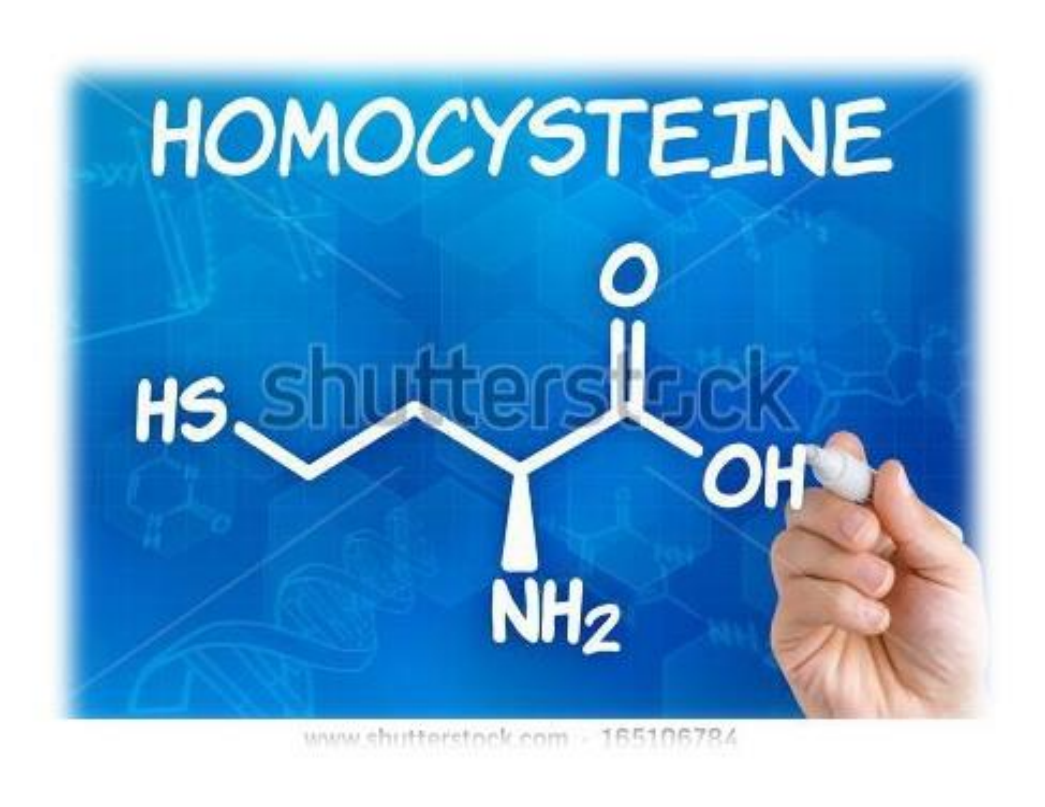
THE FREQUENCY OF FOLATE METABOLISM GENE POLYMORPHIC ALLELES (FMGPA) IN EXAMINED CHILDREN, (%)

Boys and girls



Bandazheuski Yu.I., Dubovaya N.F. Folate Metabolism Gene Polymorphisms and Homocysteinemia in Children from Families Continuously Living in an Area Affected by the Chernobyl Nuclear Power Plant Accident // Scientific and practical collection «Chernobyl: ecology and health» / General adition by prof. Yu.I. Bandazhevsky. – Ivankov: PI Coordination and Analytical Center «Ecology and health», - Dnipropetrovsk: Serednyak T.K., 2015. - Issue 3. – P. 16-25.

FORMULA OF HOMOCYSTEINE - $C_4H_9NO_2S$

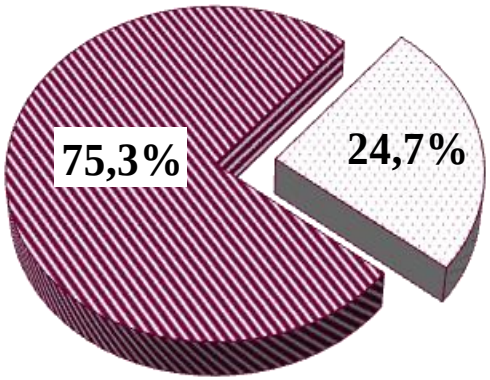


HYPERHOMOCYSTEINEMIA AT CHILDREN –
> 10.0 micromol/l

HYPERHOMOCYSTEINEMIA IS INFRINGEMENT METABOLISM METHIONINE AND FOLATE CYCLE FUNCTIONING

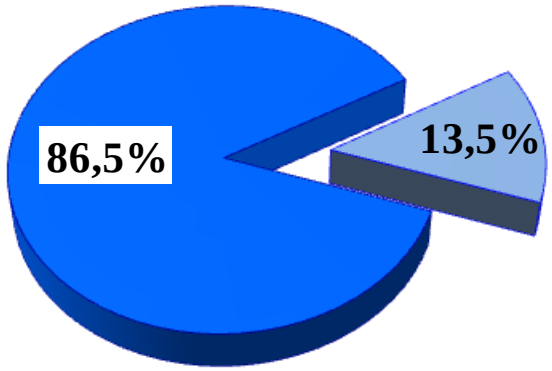
HYPERGOMOCYSTEINEMIA IN CHILDREN OF THE IVANKOV AND POLESIE DISTRICTS

Among all the children studied



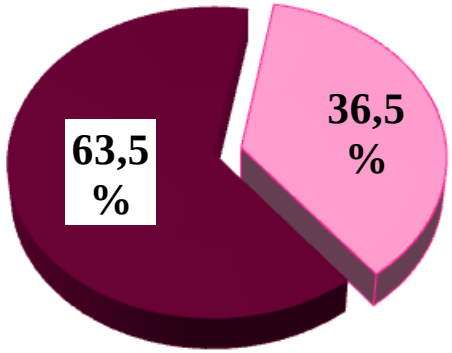
Norm
Hyperhomocysteinemia

Boys



Norm
Hyperhomocysteinemia

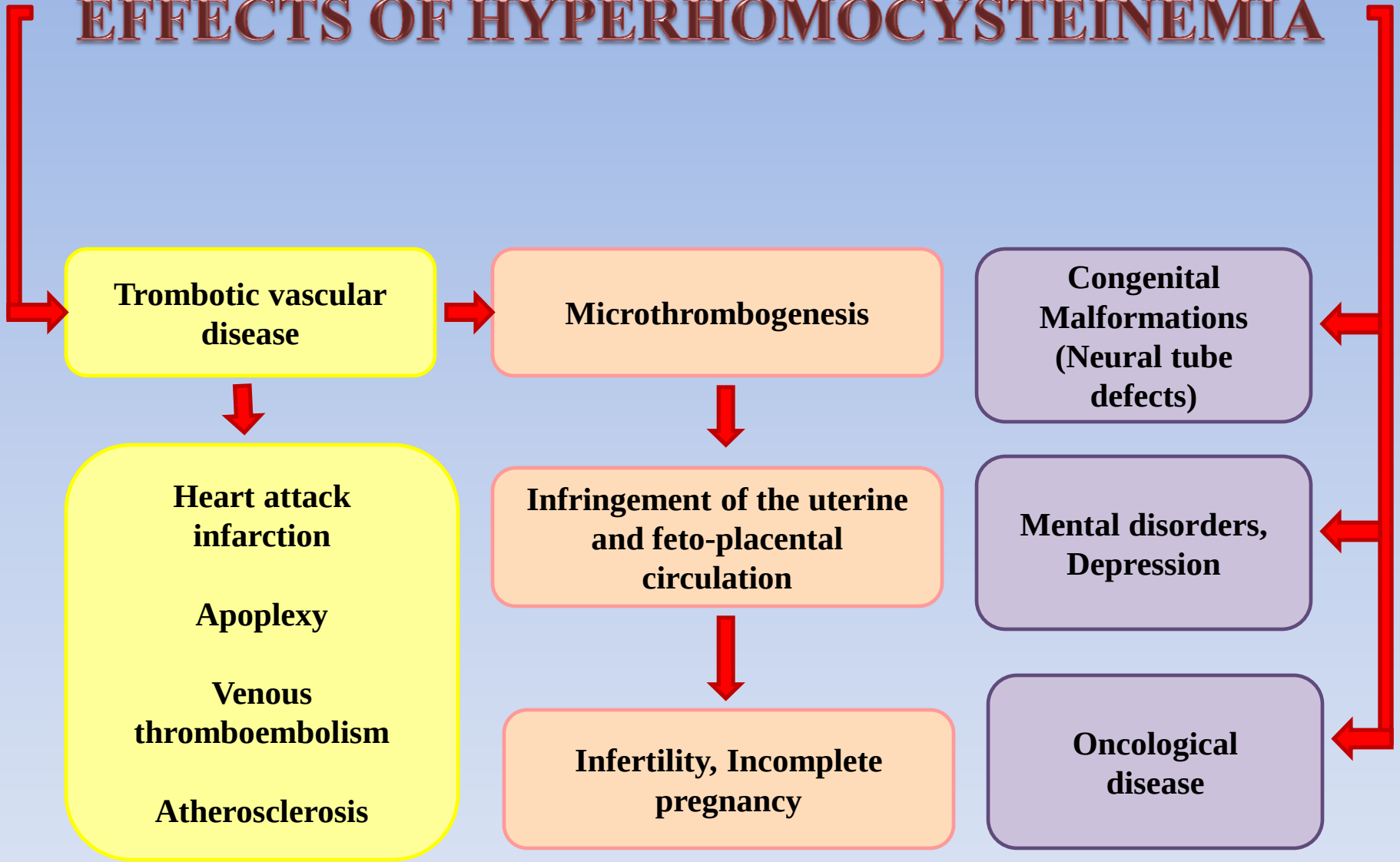
Girls



Norm
Hyperhomocysteinemia

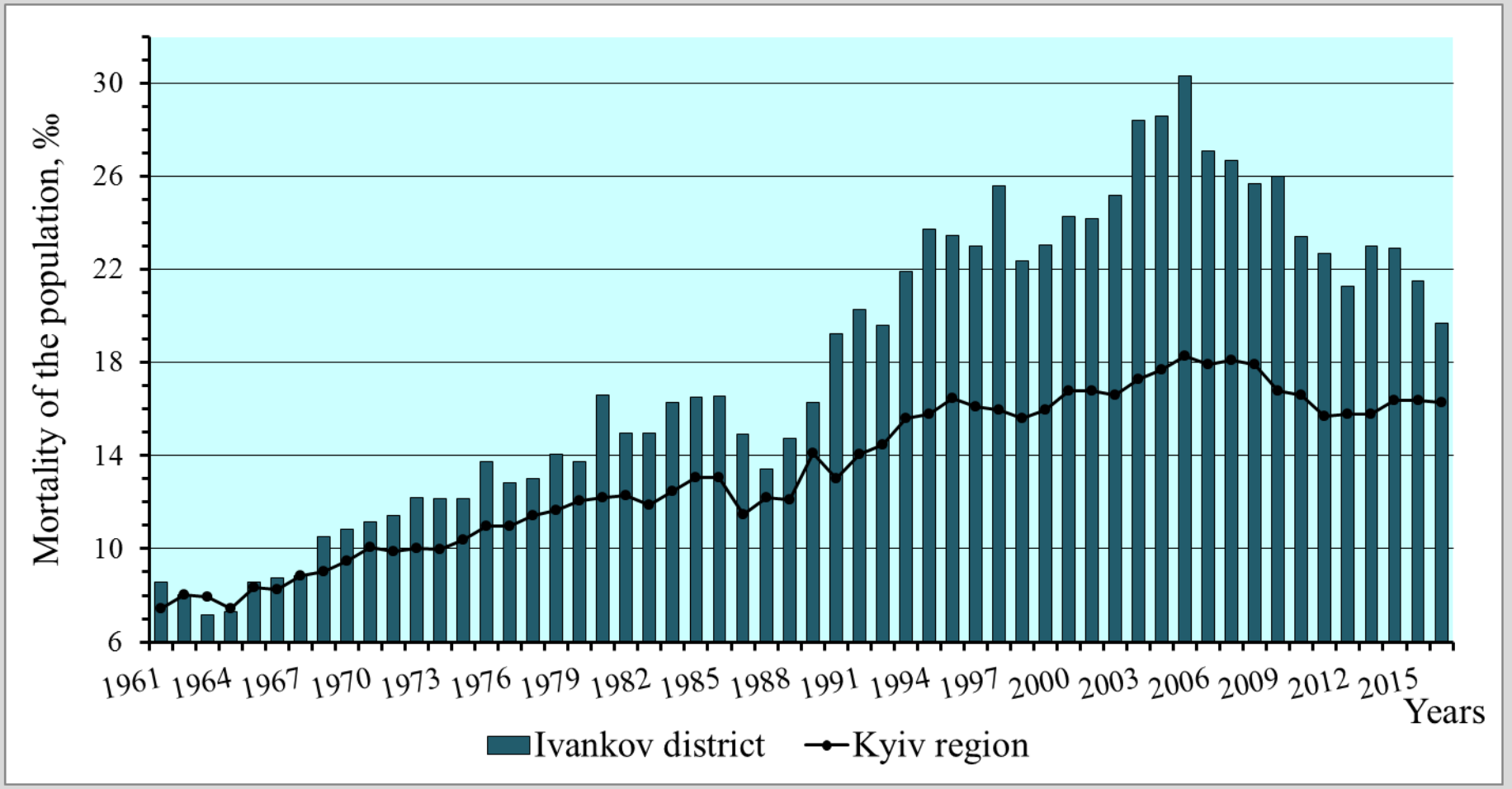
Bandazhevsky Yu. I., Dubovaya N. F. (2017)

EFFECTS OF HYPERHOMOCYSTEINEMIA



Bandazhevsky Yu. I., Dubovaya N. F. (2017)

INDICATORS OF GENERAL MORTALITY RATE (PER 1000 OF POPULATION) IN THE IVANKOV DISTRICT AND THE KYIV REGION (1961-2016)

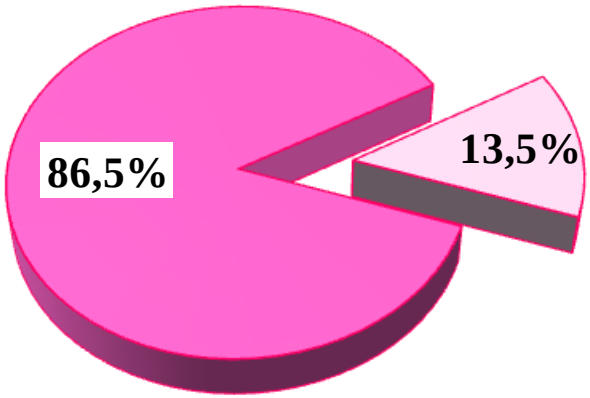


***Source:** Data from the State Department of Statistics of Ukraine.*

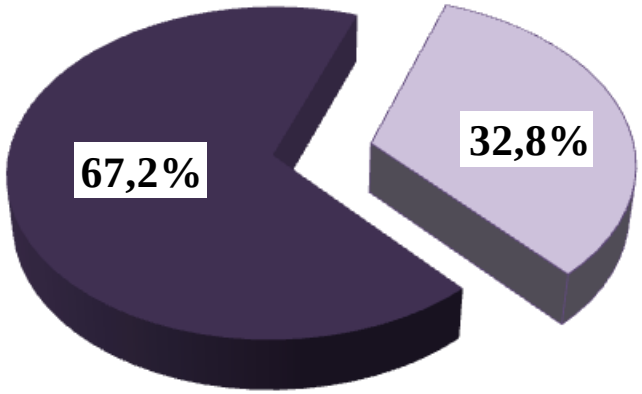
Bandazhevsky Yu. I., Dubovaya N. F. (2017)

HYPERGOMOCYSTEINEMIA IN GIRLS WITH GENETIC POLYMORPHISM MTHFR: C 677 T

MTHFR : 677 TT

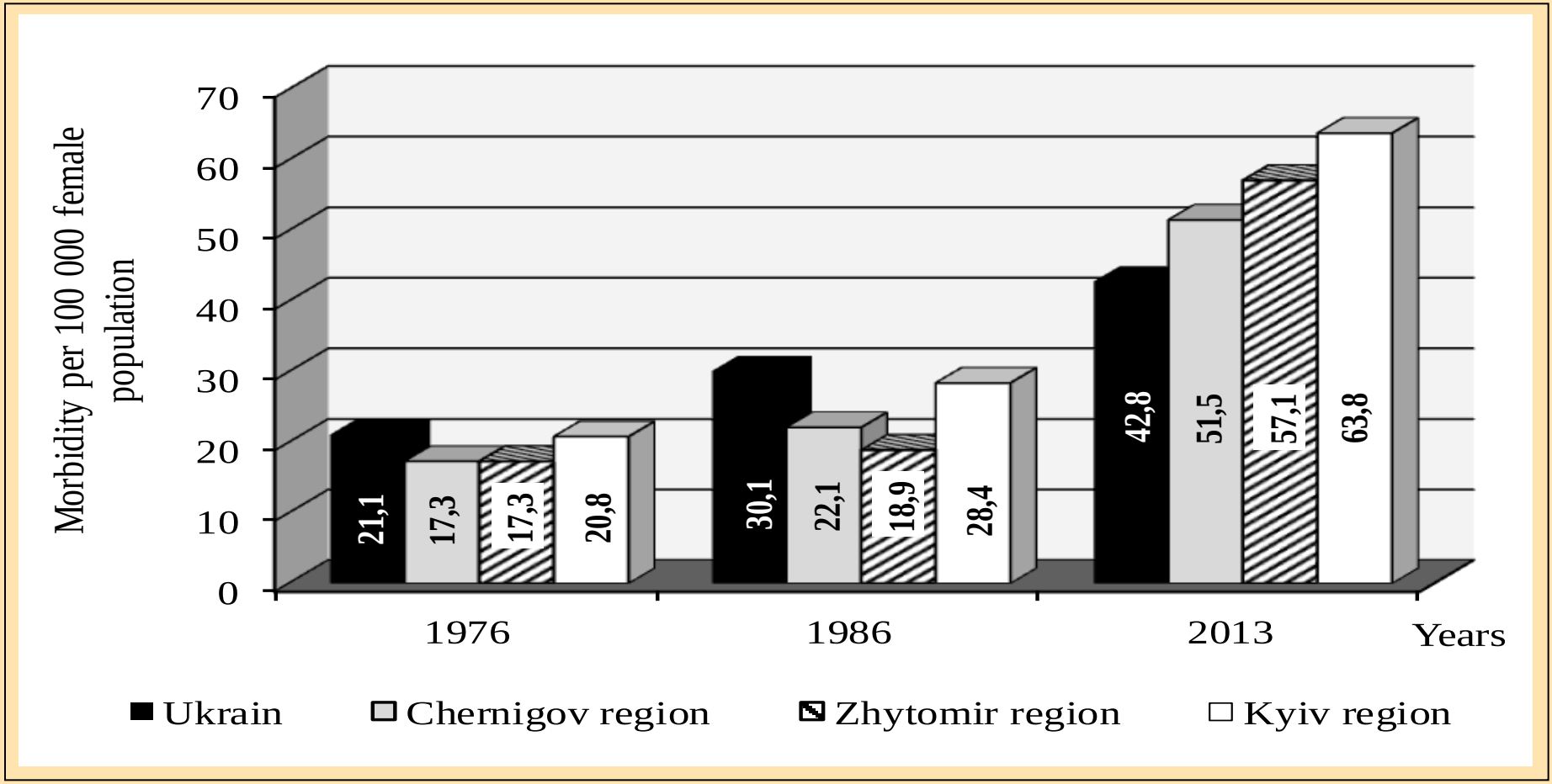


MTHFR : 677 CT



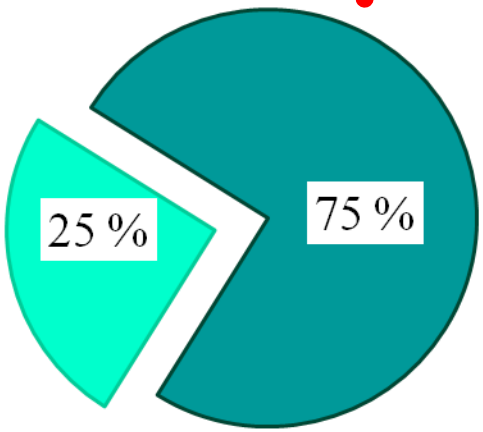
Bandazhevsky Yu. I., Dubovaya N. F. (2017)

STANDARDIZED (ON THE WORLD POPULATION STANDARD) MORBIDITY INDICATORS OF BREAST CANCER IN UKRAINE AND IN RADIOACTIVE CONTAMINATED REGIONS

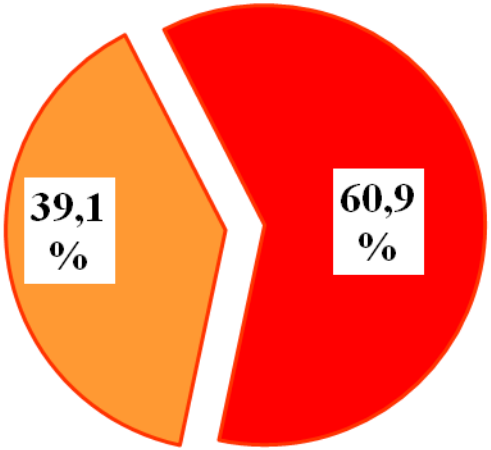


***Source:** Fedorenko Z.P. The risk of developing breast cancer in women of younger age groups in Ukraine / Z.P. Fedorenko, L.O. Gulak, E.L. Pea, A.Yu. Ryzhov, L.B. Kutsenko // Environment & health. - 2016. - №. 1. - P. 36-41.*

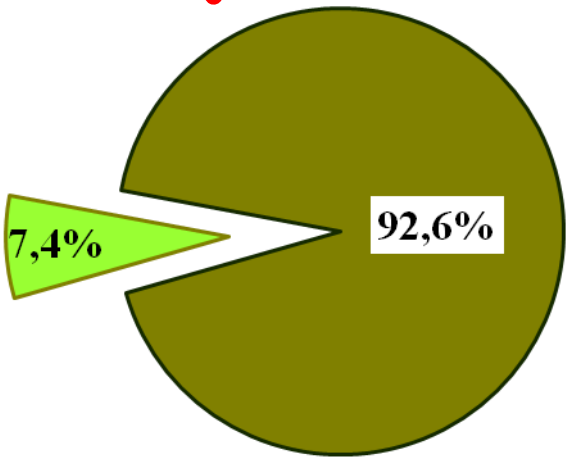
HYPERHOMOCYSTEINEMIA (ALL CHILDREN)



- The absence of specific activity with hyperhomocysteinemia Cs-137 in the body 6.8-140.29 Bq/kg
- Hyperhomocysteinemia in specific activity of Cs-137 in the body 6.8-140.29 Bq/kg



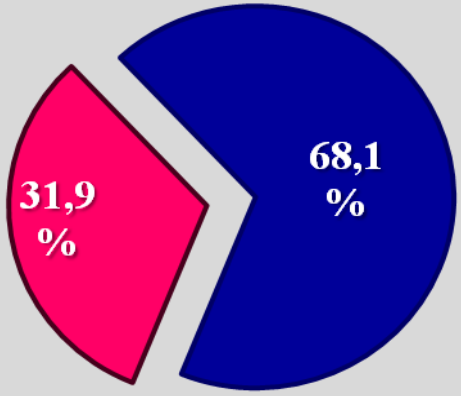
- The absence of hyperhomocysteinemia at infringement of the thyroid
- Hyperhomocysteinemia at infringement of the thyroid



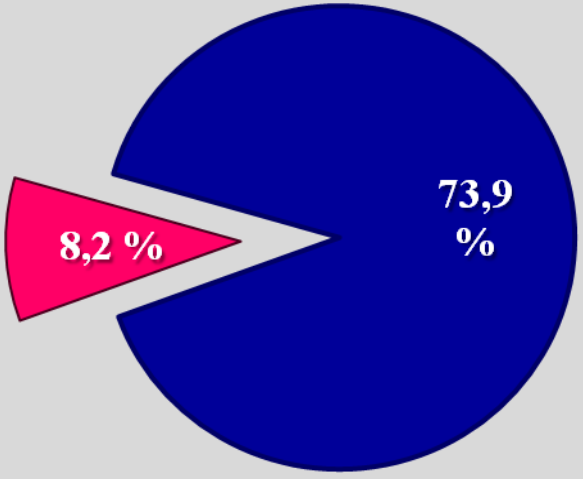
- The absence of hyperhomocysteinemia with a deficiency of folic acid
- Hyperhomocysteinemia with a deficiency of folic acid

Bandazhevsky Yu. I., Dubovaya N. F. (2017)

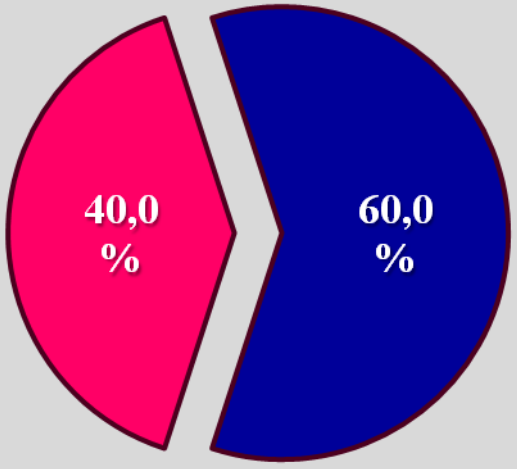
ISTRIBUTION BY SEX CASES HYPERHOMOCYSTEINEMIA AMONG CHILDREN WITH THE ABUSES INVESTIGATED PARAMETERS



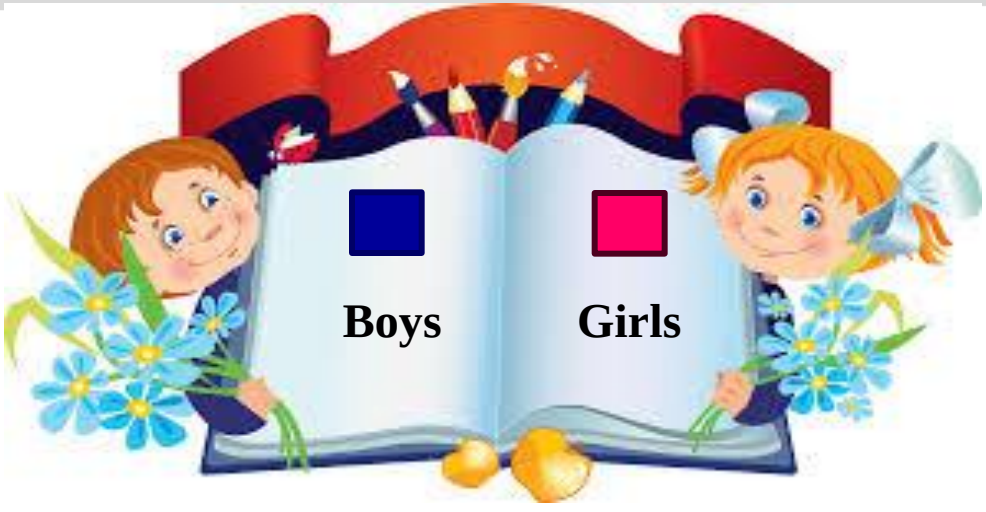
Specific activity in the body ^{137}Cs from 6,8 to 140,26 Bq/kg



Thyroid disorders

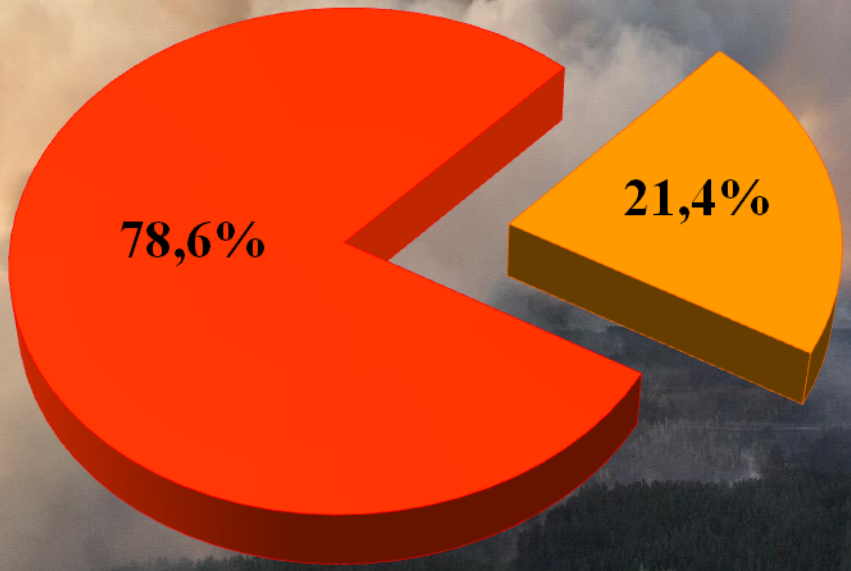


A disadvantage of folic acid in the body



Bandazhevsky Yu. I., Dubovaya N. F. (2017)

INCREASING OF FREQUENCY CHANGE OF HOMOCYSTEINE CHILDREN FROM IVANKOV AND POLESIE REGION BEFORE AND AFTER FIRES 2015



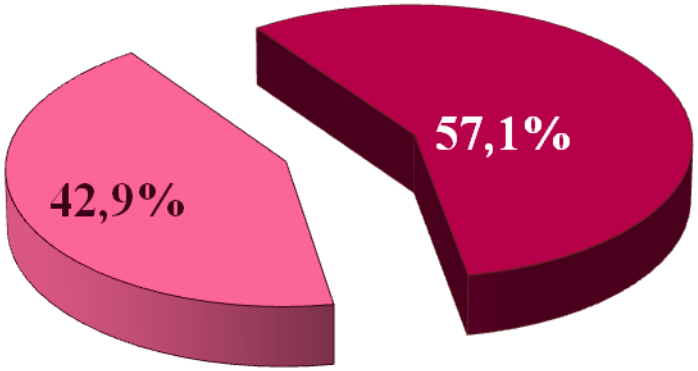
Of the 84 persons level of homocysteine increased after fires in 66 children.

- Increased of homocysteine in children after the fires in 2015
- The absence of increase of homocysteine

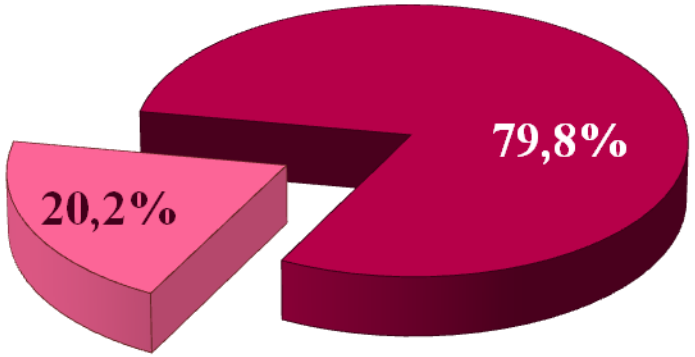
Bandazhevsky Yu. I., Dubovaya N. F. (2017)

HYPERHOMOCYSTEINEMIA IN EXAMINATION OF CHILDRE FROM POLESIE REGION

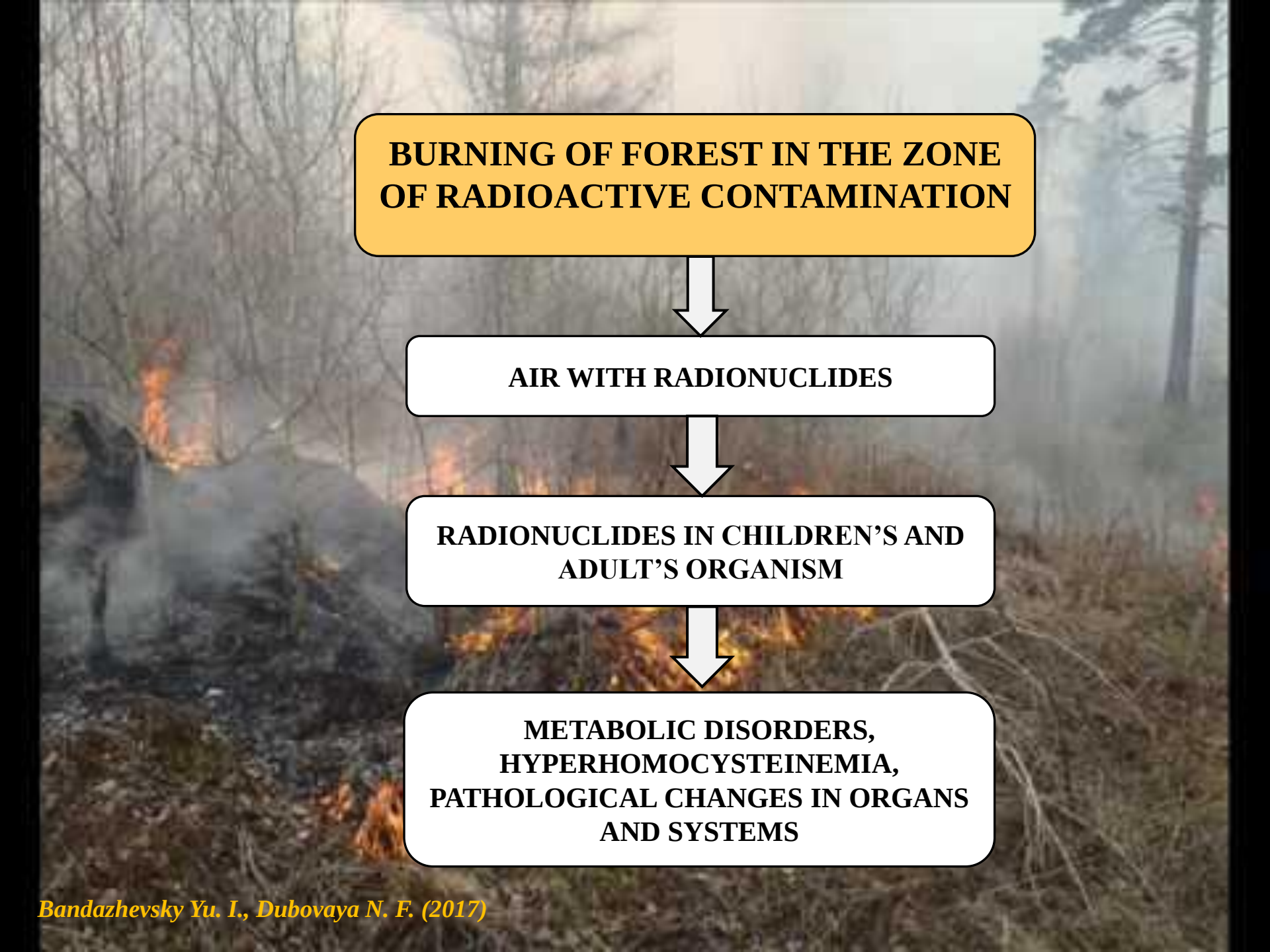
Examination of 02.04.2015



Examination of 18.12.2015

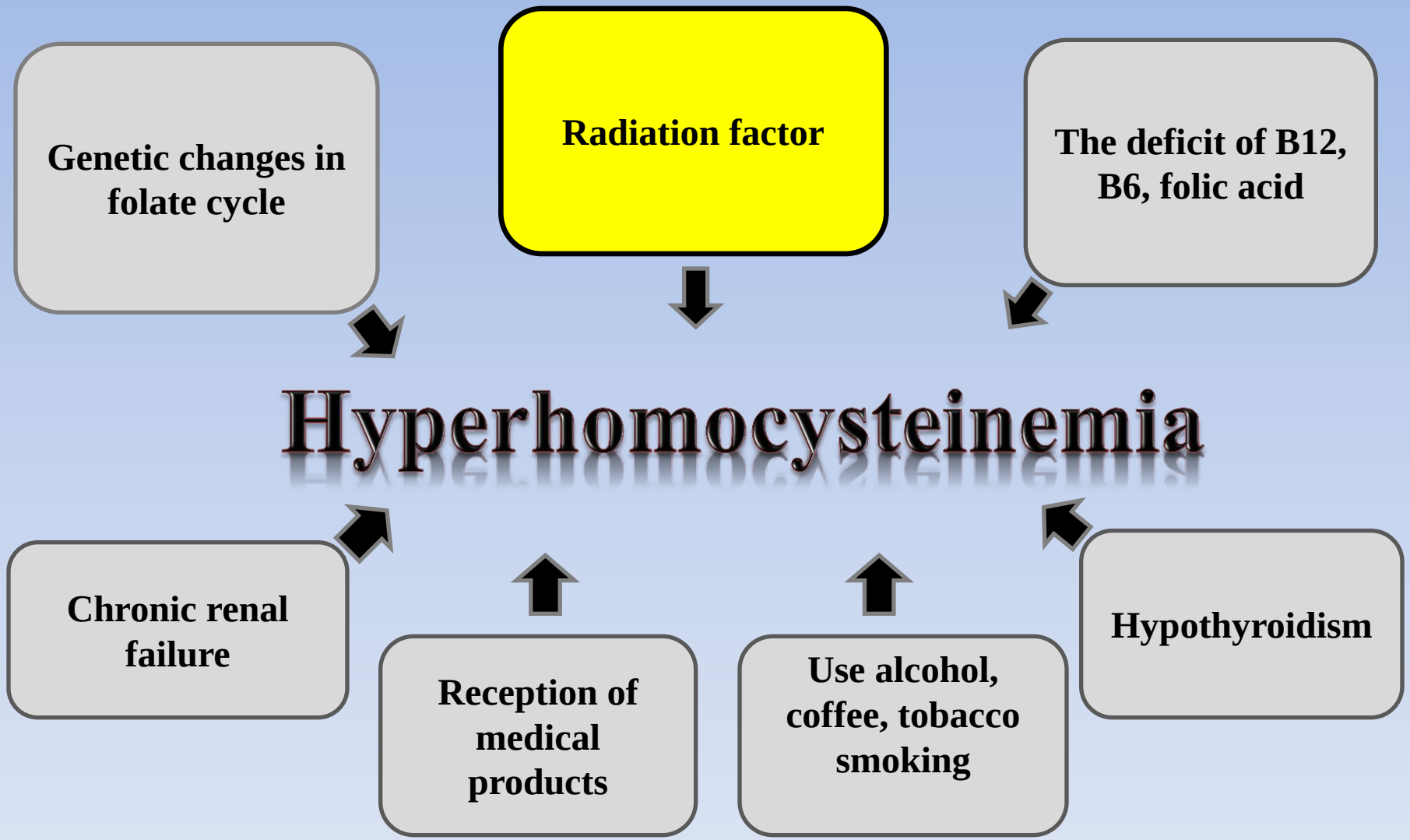


Bandazhevsky Yu. I., Dubovaya N. F. (2017)



Bandazhevsky Yu. I., Dubovaya N. F. (2017)

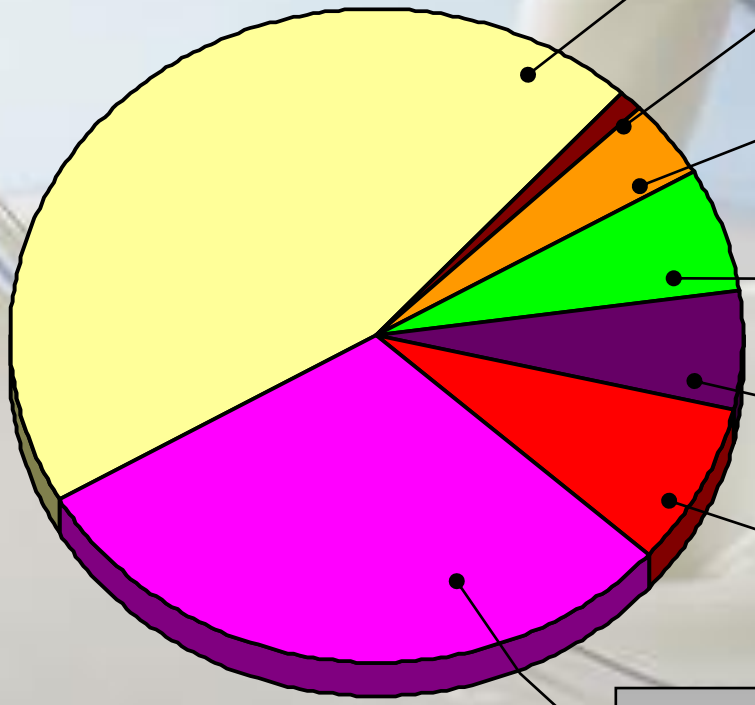
CAUSES OF HYPERHOMOCYSTEINEMIA



Bandazhevsky Yu. I., Dubovaya N. F. (2017)

THE INFORMATION AND CONSULTATION CENTER ON FOOD HYGIENE AT IVANKOV HOSPITAL - THE MAIN LINK IN THE PREVENTION OF DISEASES RELATED TO EXPOSURE TO RADIOACTIVITY

THE CONTRIBUTION OF FOOD TO THE FORMATION OF INTERNAL EXPOSURE DOSES OF THE UKRAINE'S POPULATION



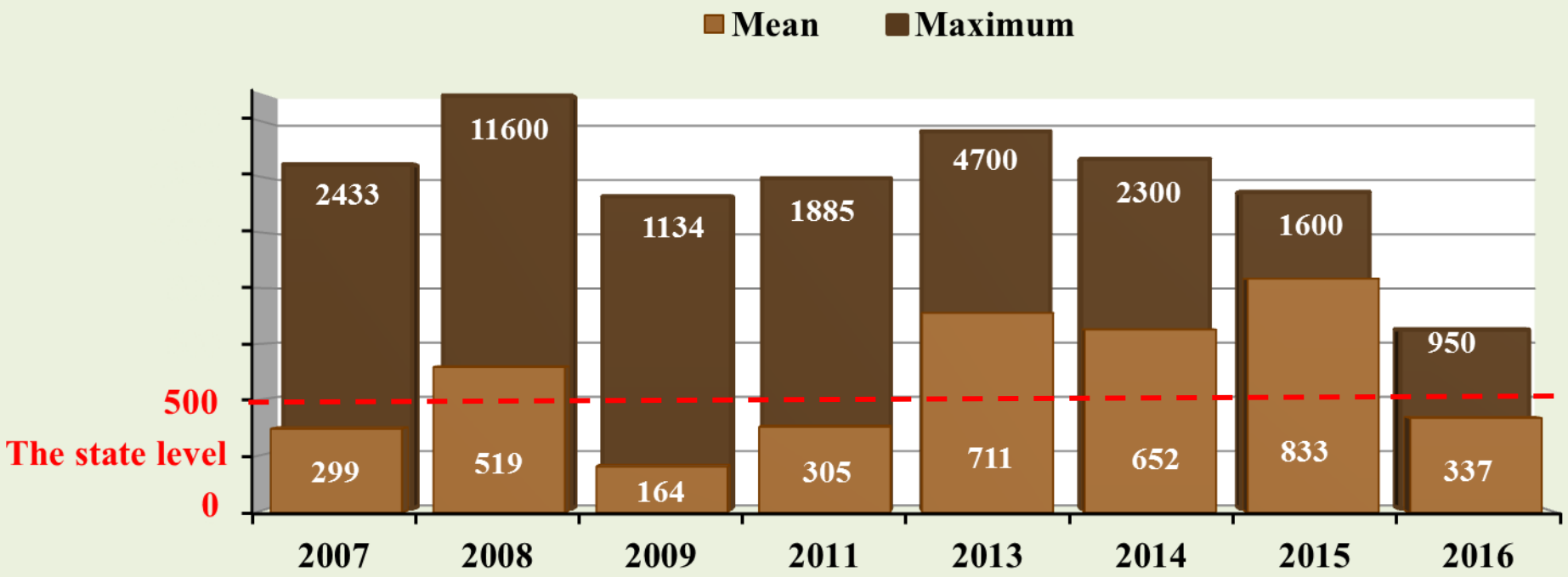
- Milk – 45 %
- Fish – 1%
- Bread, flour, cereals – 4 %
- Vegetables – 6 %
- Potatoes – 6 %
- Meat – 8 %
- Mushrooms and berries – 30 %

Bandazhevsky Yu. I., Dubovaya N. F. (2017)

Sale of mushrooms by local residents gathered in the forests of Ivankov district

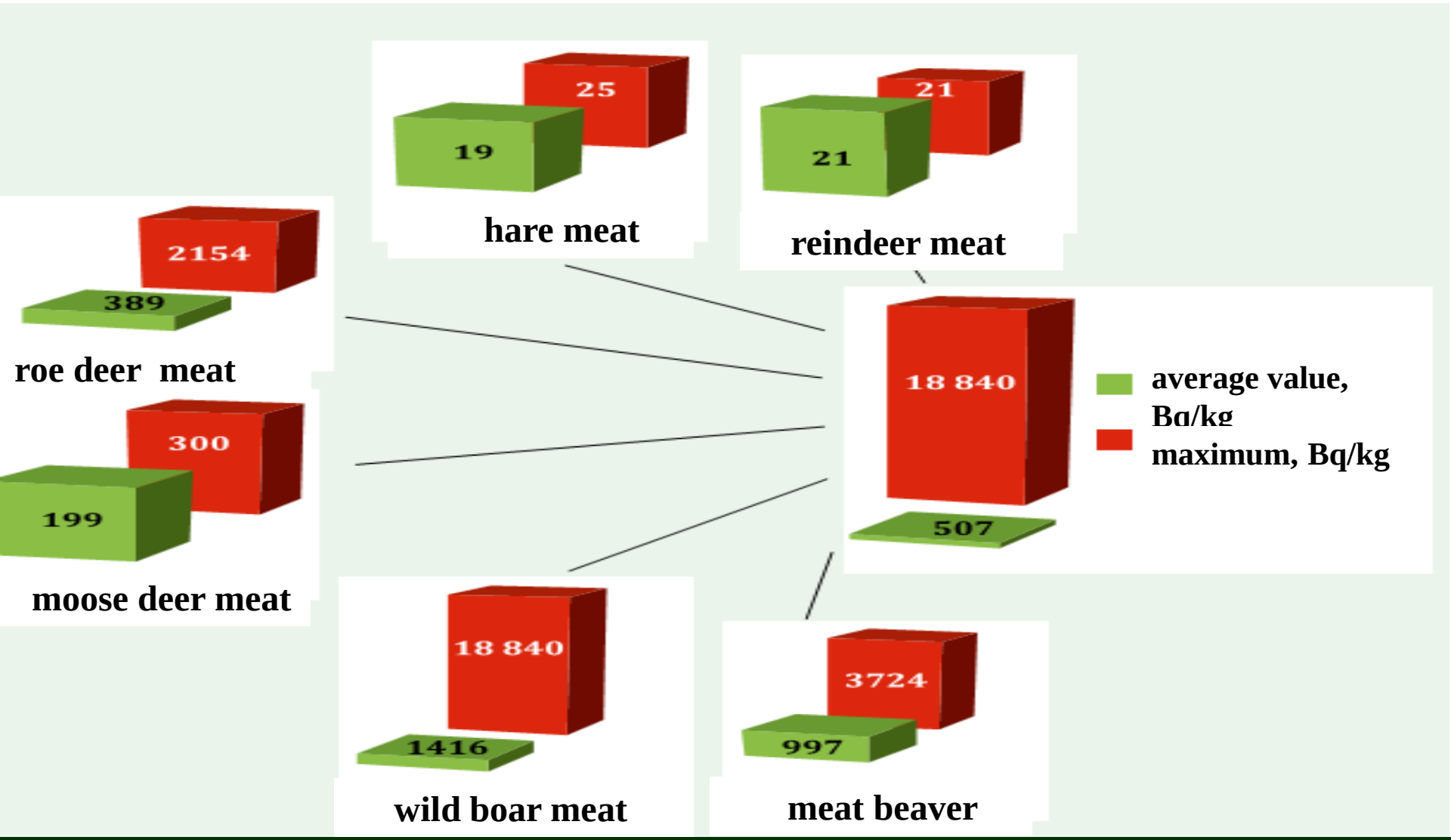
Bandazhevsky Yu. I., Dubovaya N. F. (2017)

CONTENTS OF ^{137}CS IN FRESH WILD MUSHROOMS IN IVANKOV DISTRICT OF KYIV REGION



Bandazhevsky Yu. I., Dubovaya N. F. (2017)

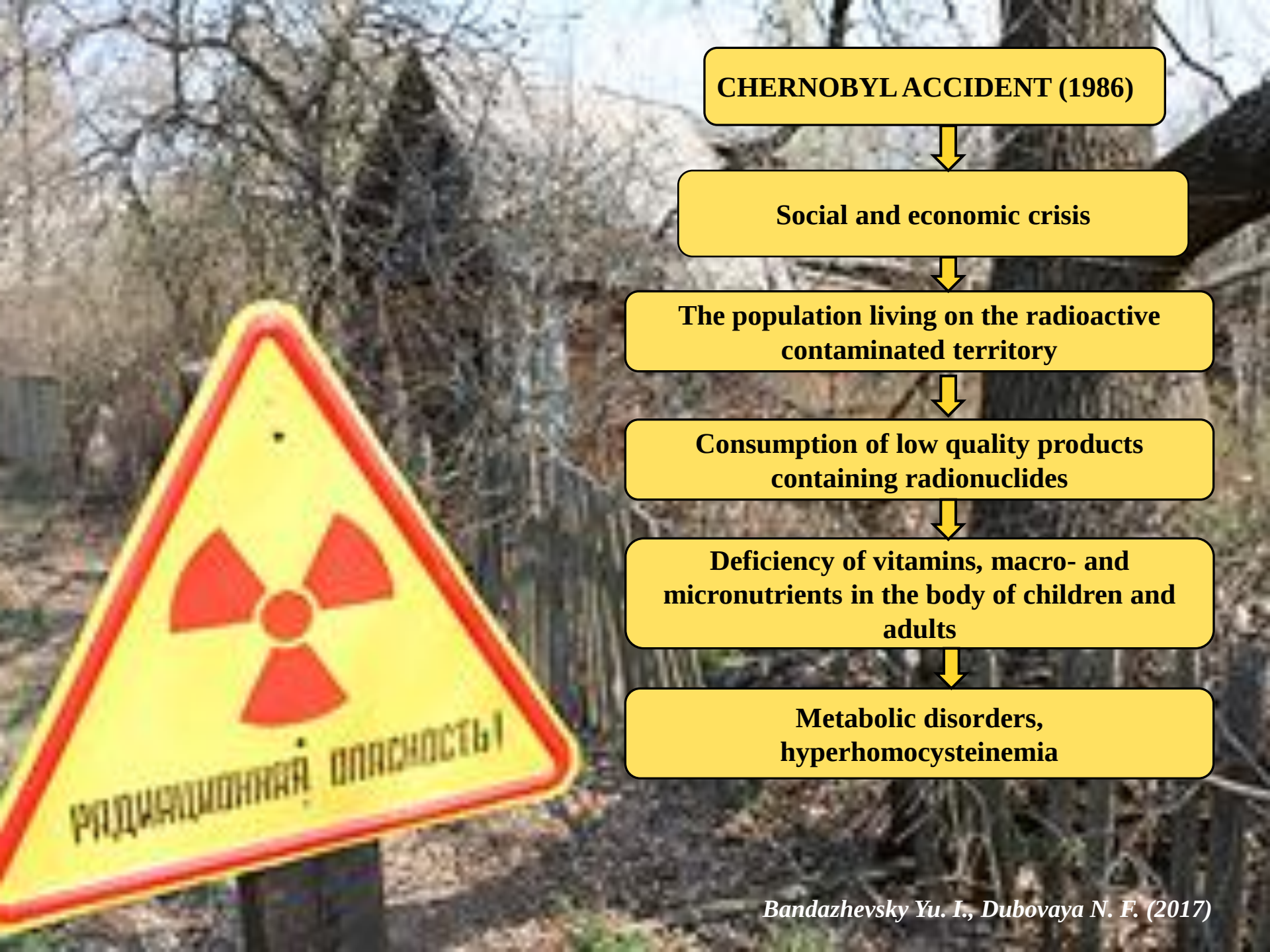
*THE AVERAGE AND MAXIMUM LEVELS OF CONTAMINATION CESIUM-137 BUSHMEAT, Bq/kg



*Domenkov V. Monitoring of subsidiary forest products / V. Domenkov, E. Sermaksheva, I. Rassokha // Forestry and hunting. - 2014. - № 8. - P. 31-35.

CONTENTS OF ^{137}CS IN MILK IN IVANKOV DISTRICT OF KIEV REGION

Bandazhevsky Yu. I., Dubovaya N. F. (2017)



CHERNOBYL ACCIDENT (1986)

↓

Social and economic crisis

↓

The population living on the radioactive contaminated territory

↓

Consumption of low quality products containing radionuclides

↓

Deficiency of vitamins, macro- and micronutrients in the body of children and adults

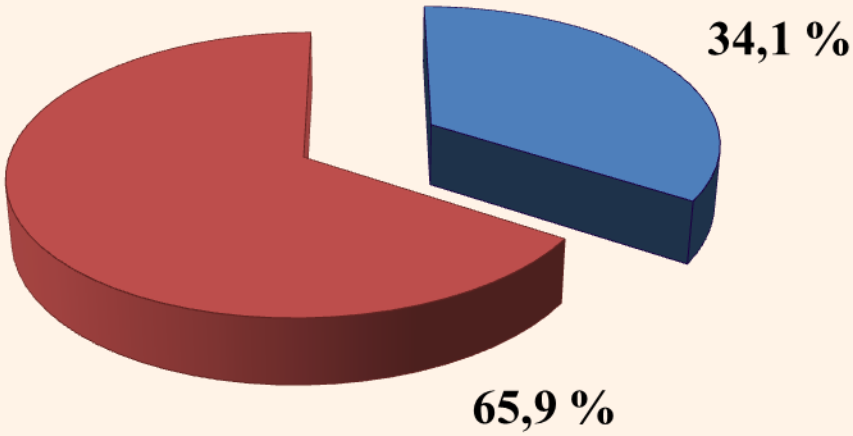
↓

Metabolic disorders, hyperhomocysteinemia

Bandazhevsky Yu. I., Dubovaya N. F. (2017)

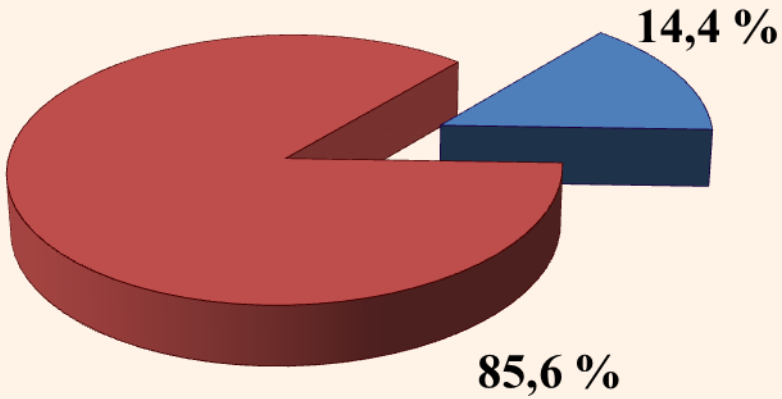
SPECIFIC ACTIVITY ^{137}Cs IN THE CHILD'S BODY (POLESIE AND IVANKOV DISTRICTS)

POLESIE DISTRICT



- % of children with the level of Cs-137 [6.08-307.2] Bq/kg in the body
- % of children with the level of Cs-137 below 5.0 Bq/kg in the body

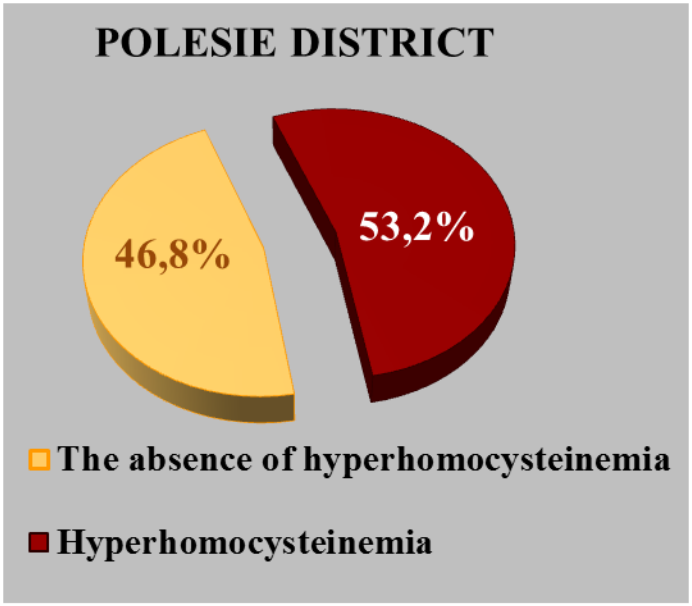
IVANKOV DISTRICT

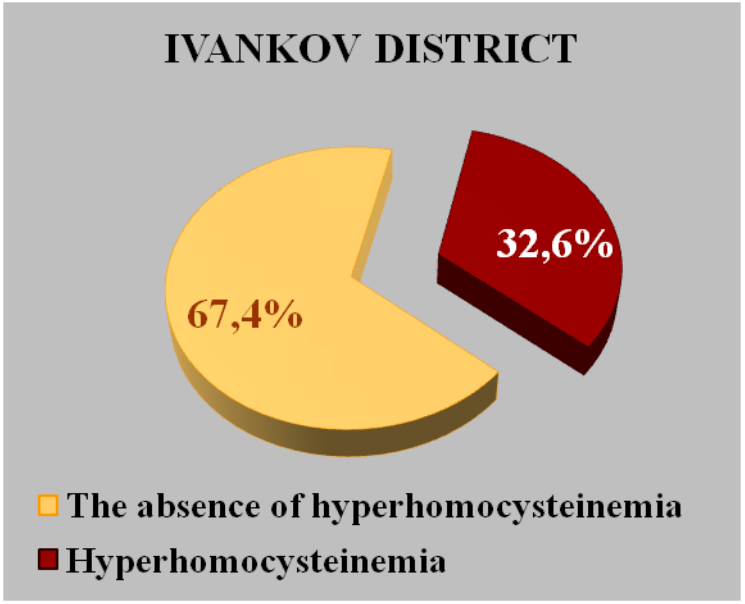


- % of children with the level of Cs-137 [6.64-90.71] Bq/kg in the body
- % of children with the level of Cs-137 below 5.0 Bq/kg in the body

Bandazhevsky Yu. I., Dubovaya N. F. (2017)

INCIDENCE OF HYPERHOMOCYSTEINEMIA IN GROUPS EXAMINED CHILDREN

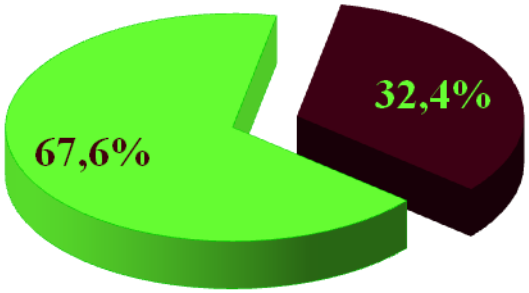




Bandazhevsky Yu. I., Dubovaya N. F. (2017)

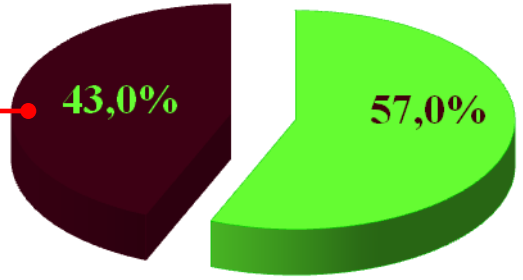
THE INCIDENCE OF THYROID DISORDERS IN THE GROUP OF SURVEYED CHILDREN

IVANKOV DISTRICT,
density of soil contamination
Cs-137 < 2 Ci/км²



P < 0,05

POLESIE DISTRICT,
density of soil contamination
Cs-137 < 2 Ci/км²

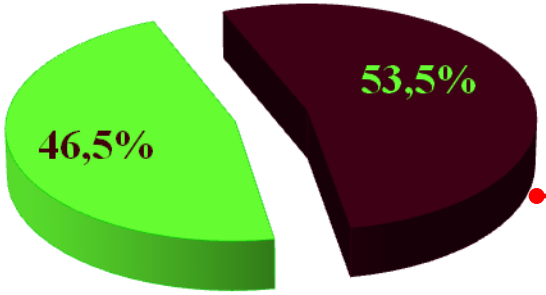


Without thyroid disorders

With thyroid disorders

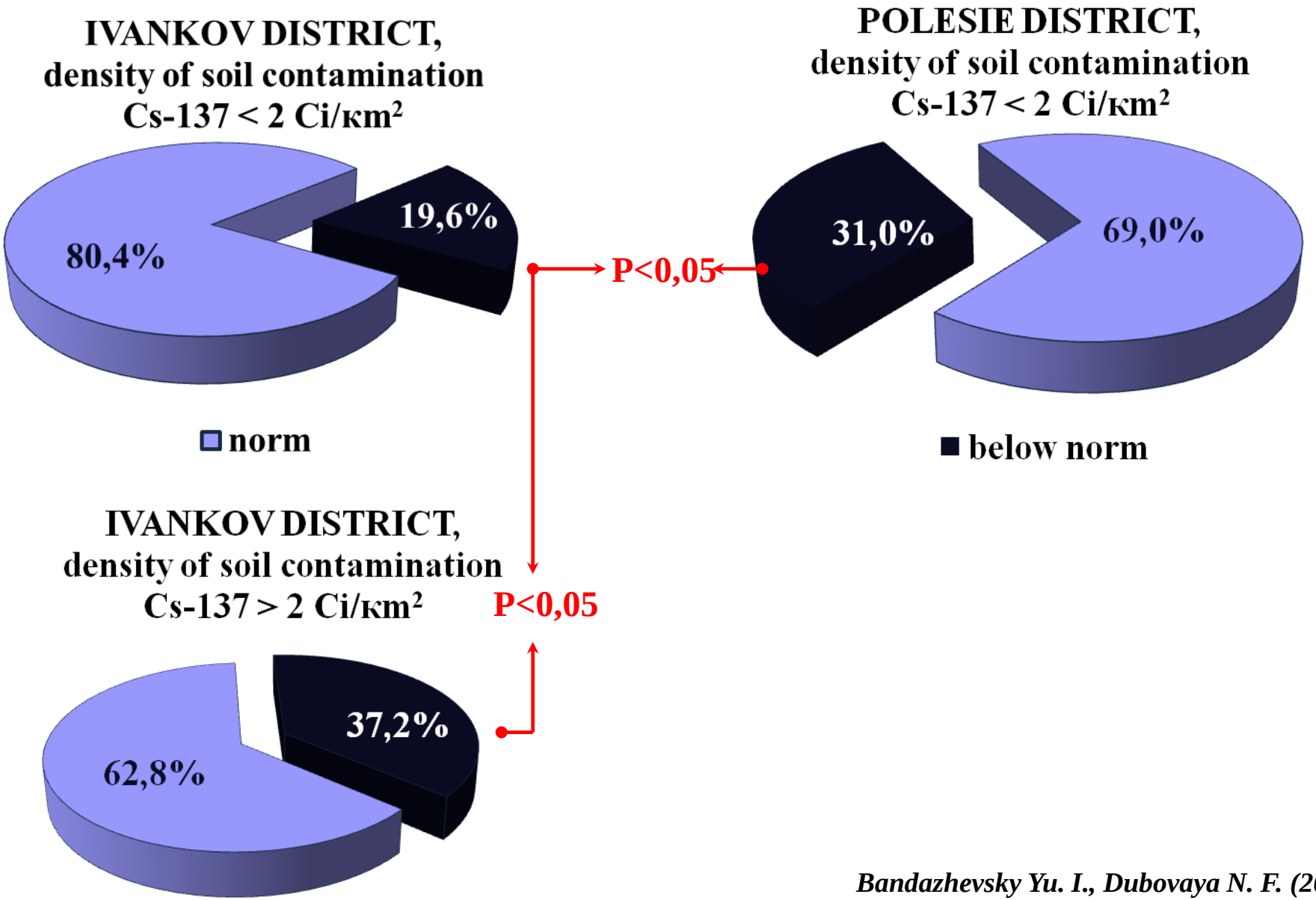
IVANKOV DISTRICT,
density of soil contamination
Cs-137 > 2 Ci/км²

P < 0,05



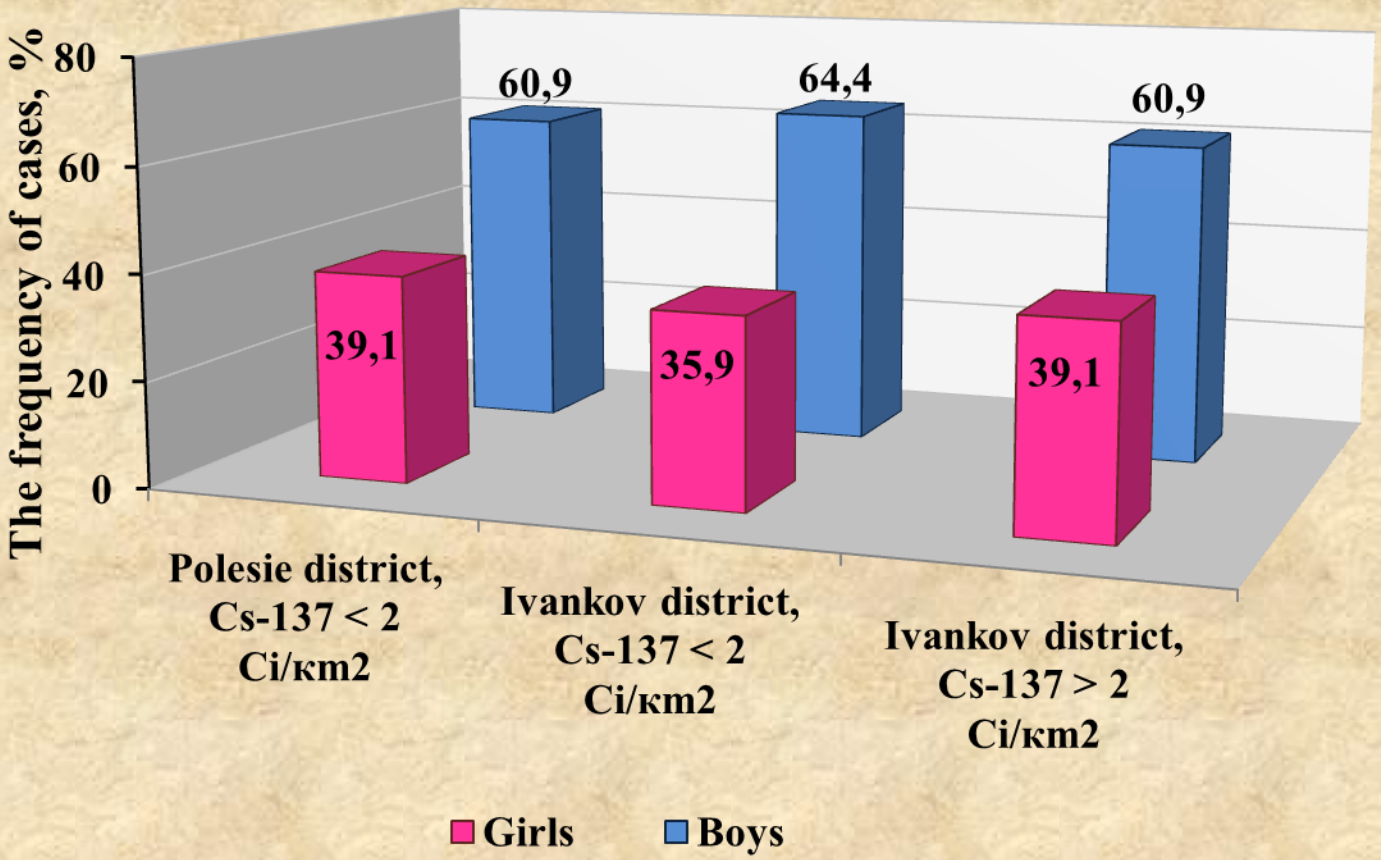
Bandazhevsky Yu. I., Dubovaya N. F. (2017)

THE INCIDENCE OF REDUCING THE CONCENTRATION OF T_4 IN BLOOD SERUM OF CHILDREN SURVEYED GROUP



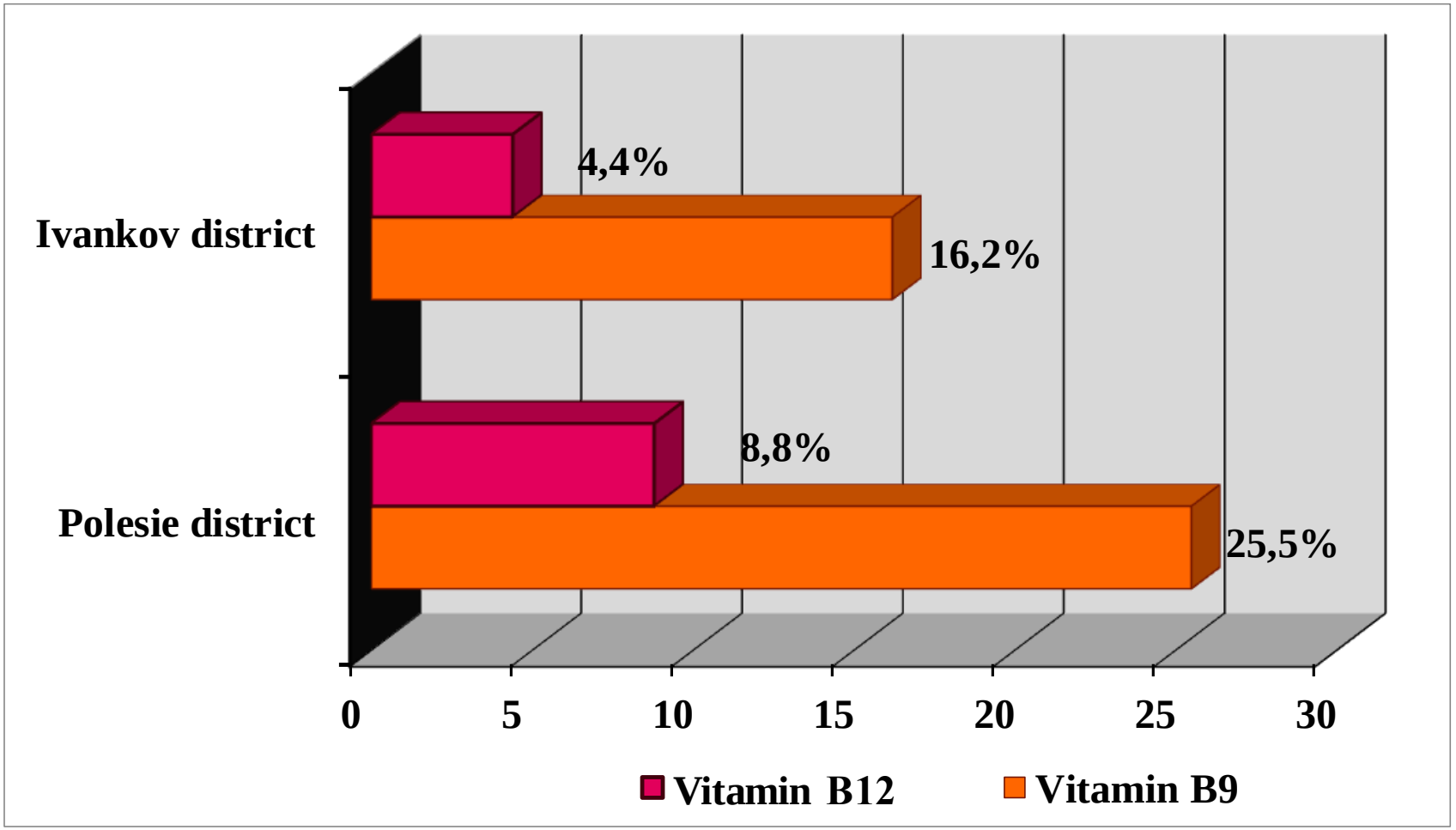
Bandazhevsky Yu. I., Dubovaya N. F. (2017)

DISTRIBUTION OF THYROID DISORDERS IN CHILDREN SURVEYED GROUPS BY SEX

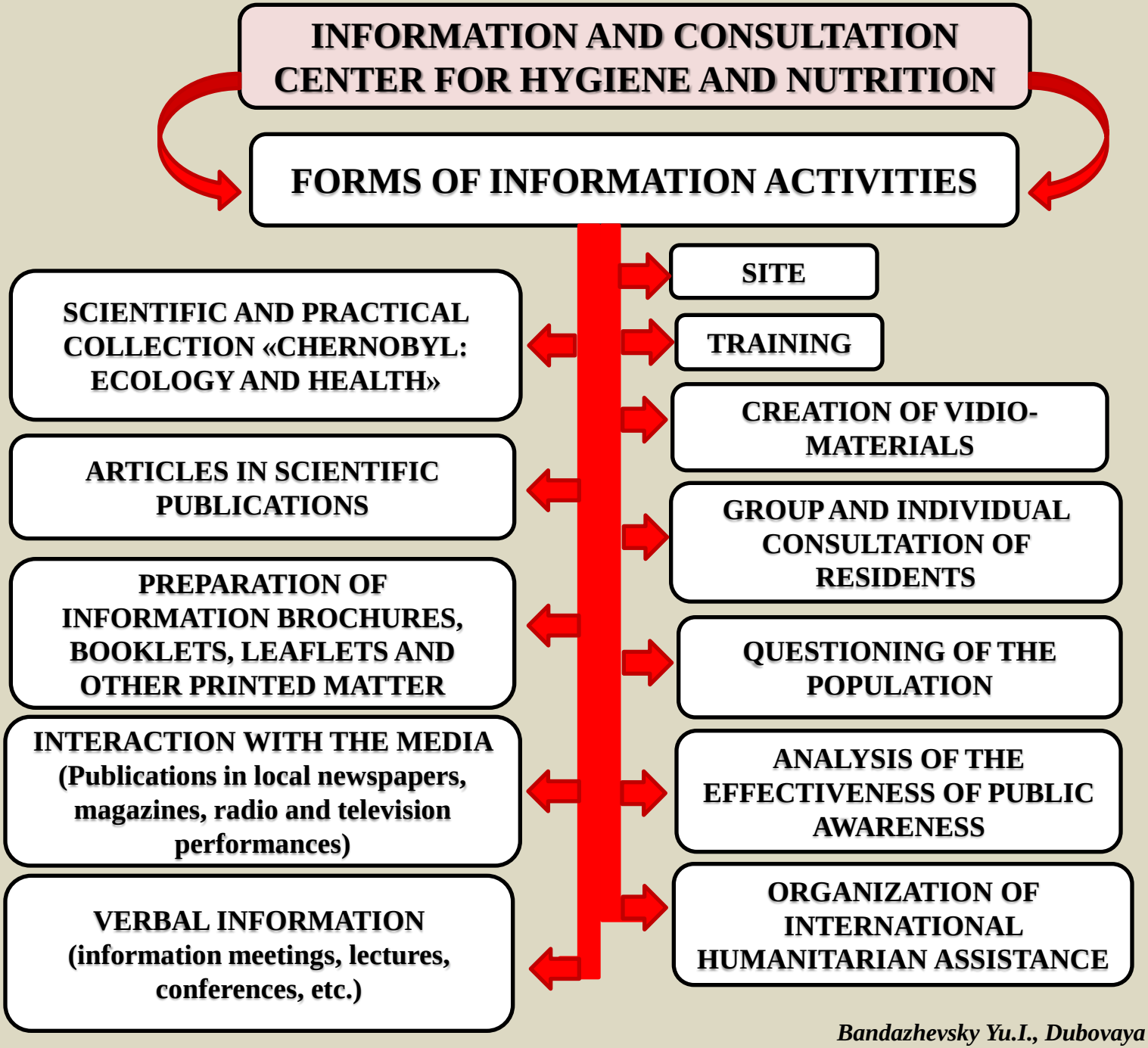


Bandazhevsky Yu. I., Dubovaya N. F. (2017)

FREQUENCY OF CHILDREN WITH VITAMINS LEVEL IN BLOOD BELOW PHYSIOLOGICAL VALUES



Bandazhevsky Yu. I., Dubovaya N. F. (2017)



Bandazhevsky Yu.I., Dubovaya N.F., 2017

ABOUT THE PROJECT | PUBLICATIONS | EVENTS | ANNOUNCEMENTS | CONTACTS

HEALTH IN THE ZONE
CHERNOBYL

SITE
https://chernobyl-health.org

I THE NAME OF THE FUTURE

CREATING A MODERN MAP OF RADIOACTIVE CONTAMINATION OF IVANKIV DISTRICT

In the framework of the project for the first time, a modern map of radioactive contamination of Ivankov district on the basis of the analysis of soil samples and built contamination density map ^{90}Sr and ^{137}Cs study area (scale 1: 200,000, 1: 50,000).

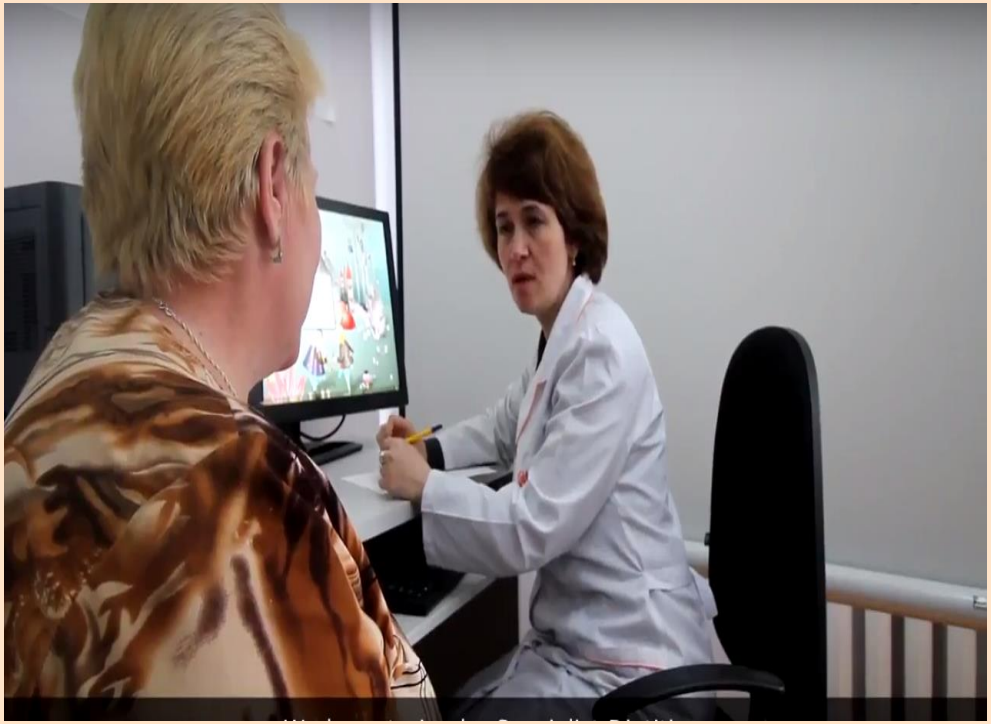
PROFESSOR YURI BANDAZHEVSKY: RADIATION IN BELARUS APPEARED LONG BEFORE THE CHERNOBYL

SCIENTIFIC-PRACTICAL REVIEW
CHERNOBYL: ECOLOGY AND HEALTH
ISSUE 1 - 6
Ivankiv 2014 - 2016
Dnipro "Sviednyak Plus" 2017

MODERN MAP OF
RADIOACTIVE CONTAMINATION
OF IVANKIV DISTRICT
2017

GUIDELINES FOR SAFE CONDUCT
contaminated areas
Mushroom NOTES
Ivankiv 2015

Interest for residents of contaminated areas
Nutrition population in the radioactive
contamination
Ivankiv 2015



INDIVIDUAL COUNSELING ON NUTRITION AT THE CENTER IS CARRIED OUT BY A NUTRITIONIST TRAINED UNDER THE PROJECT

СЕРТИФІКАТ СПЕЦІАЛІСТА

№ 10019

Видано

Васильєвій

Олені

Вячеславівні

04.2017

Національній медичній академії післядипломної освіти імені П.Л. Шупика МОЗ України

і наказом по НМАПО імені П.Л. Шупика

від 06. квітня 2017 р. за № 1407

Йому (їй) присвоєно (підтверджено), звання лікаря (провізора) - спеціаліста за спеціальністю

дієтологія

Дійсний до 06. квітня 2022 р.

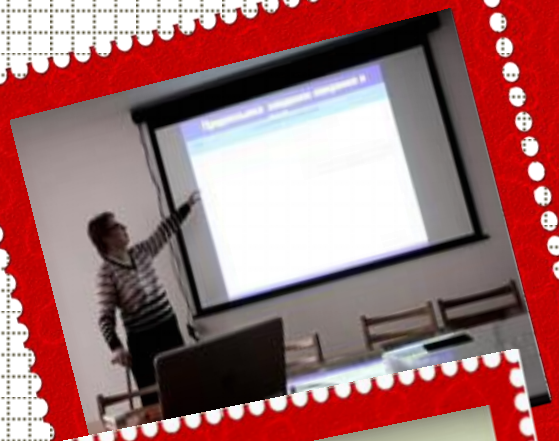
To a question!

Nutrition largely determines the state of human health.

Ukraine remains one of the few in Europe, where there is no national program aimed at solving the problems of nutrition of the population.

It is worth mentioning that in Ukraine there are less than 100 certified nutritionists.

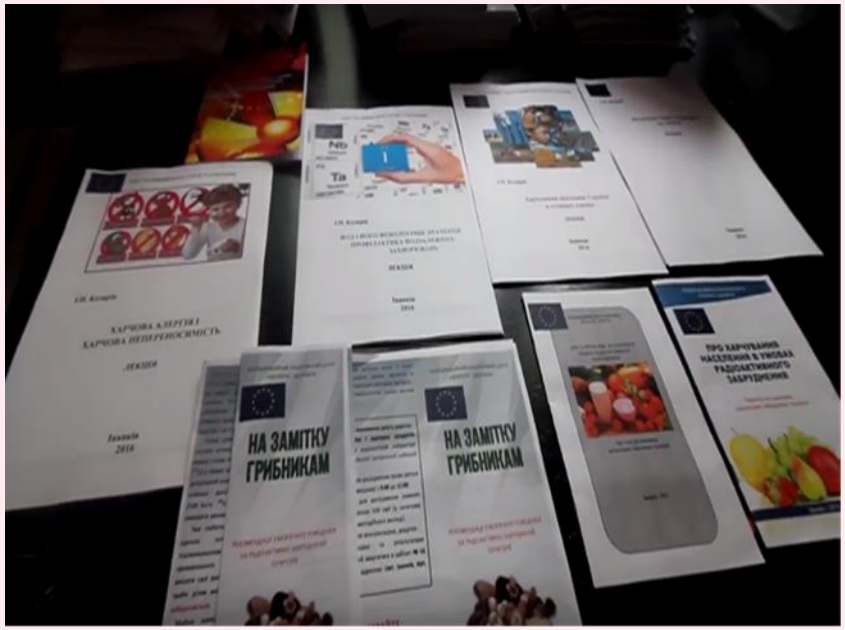
Bandazhevsky Yu.I., Dubovaya N.F., 2017



LECTURES ARE CONDUCTED BY EXPERTS OF THE PROJECT – DOCTORS OF MEDICAL SCIENCES

INFORMATION MATERIALS (PRINTED MATTER)

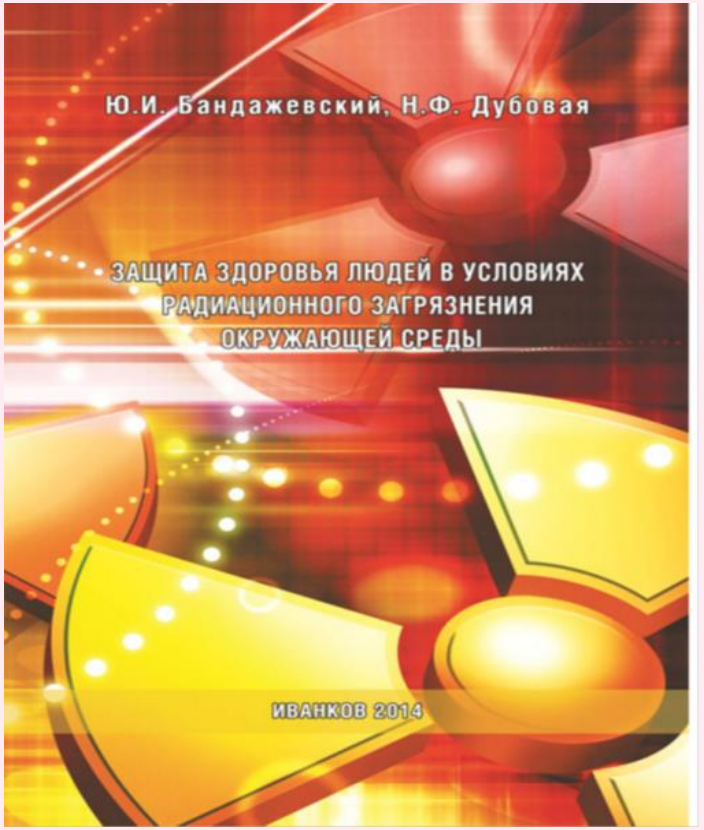
Scientific and practical collection «Chernobyl: Ecology and Health». Issue 1-6.



Recommendations for safe behavior in radioactively contaminated territories

Memos,

Lectures



Yu.I. Bandazhevsky, N.F. Dubovaya Protection of human health in terms of radiation pollution. – Ivankov: PI Coordination and Analytical Center «Ecology and health», - Dnipropetrovsk: Serednyak T.K., 2014. – 70 p. (ISBN 978-617-7257-08-9)

Bandazhevsky Yu.I., Dubovaya N.F., 2017

SCIENTIFIC PUBLICATIONS

The participants of the project published 71 scientific publications for the period 2013-2017.

Among them:

5 monographs (2 in Japan, 1 in Germany, 2 in Ukraine);

1 patent,

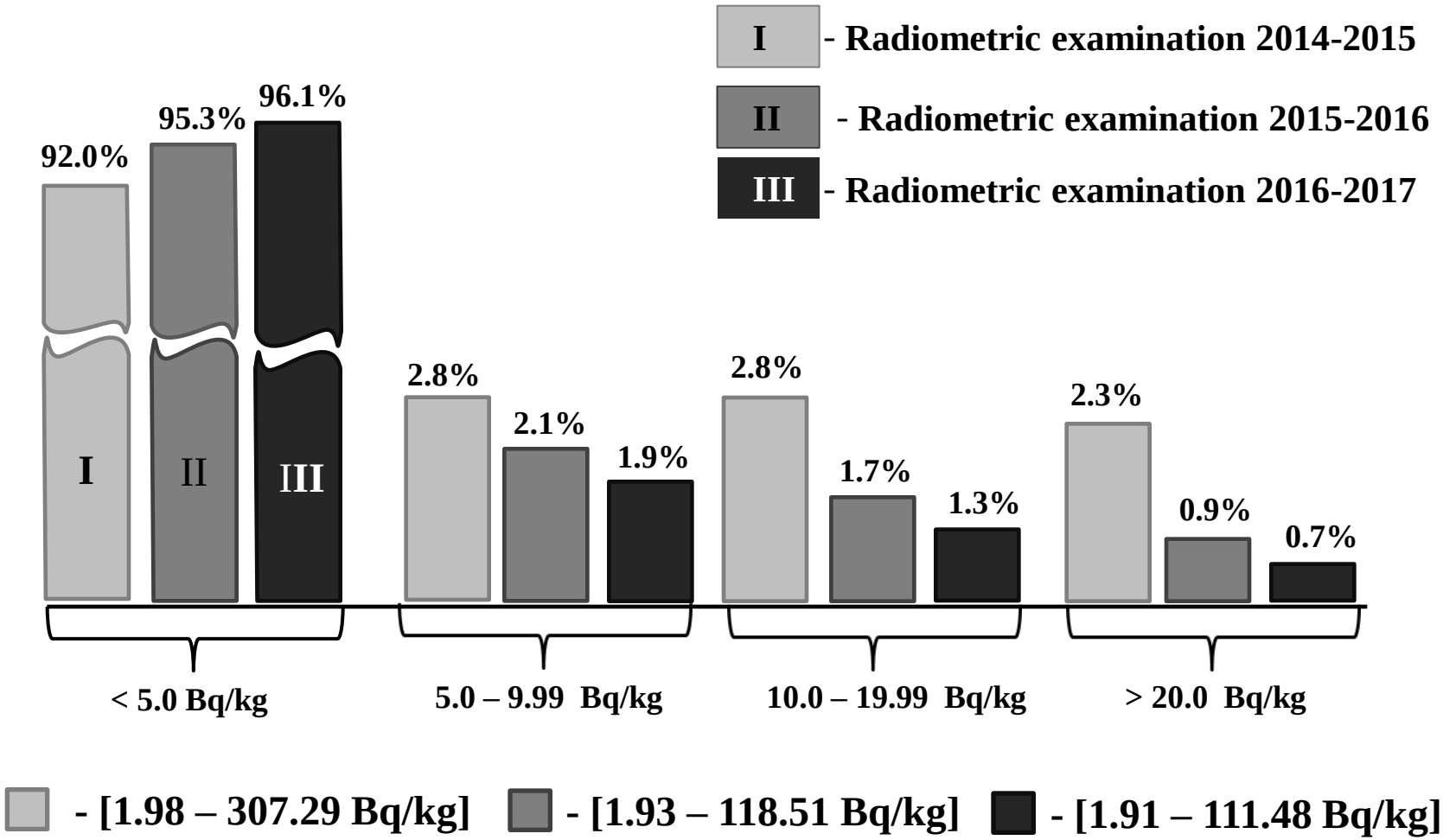
1 information sheet.

TO INFORM THE POPULATION OF IVANKIV AND POLESIE DISTRICTS, THE CENTER HAS PRODUCED VIDEO MATERIALS

Bandazhevsky Yu.I., Dubovaya N.F., 2017

Bandazhevsky Yu. I., Dubovaya N. F. (2017)

DISTRIBUTION OF CHILDREN WITH DIFFERENT LEVELS OF ^{137}Cs CONTENT IN THE ORGANISM (2014-2017)



Bandazhevsky Yu.I., Dubovaya N.F., 2017


THANK YOU FOR ATTENTION