The Chernobyl State Registry

REPUBLICAN RESEARCH CENTER FOR
RADIATION MEDICINE AND HUMAN ECOLOGY

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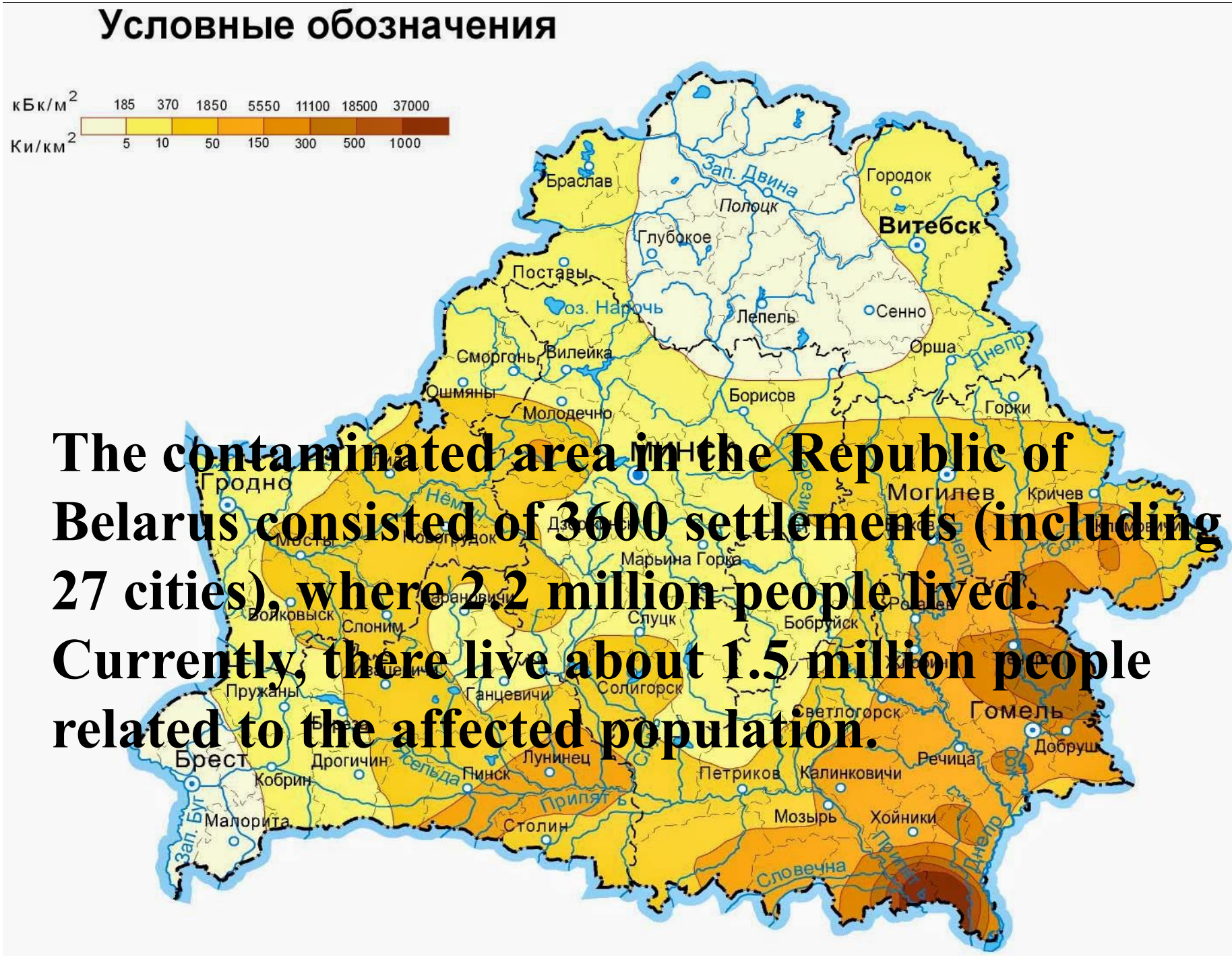


The contaminated area in the Republic of Belarus consisted of 3600 settlements (including 27 cities), where 2.2 million people lived. Currently, there live about 1.5 million people related to the affected population.

- In 1991 in the Republic of Belarus there was passed the law "On legal regime of the territories affected by radioactive contamination as a result of the Chernobyl accident" which defines the concept of national radiation environmental disaster. There were established the guidelines and performed the zoning of the contaminated territory of the republic according to the degree of radiation danger.

- The area of the radioactive contamination is a part of the territory of the Republic of Belarus, on which, as a result of the Chernobyl accident, the long-term contamination of the environment with the radioactive materials occurred with the soil contamination density of Cesium-137, Strontium – 90 or Plutonium – 238, 239, 240 radionuclides relatively 1,0; 0,15; 0,01Ci/km2 or more; also the area of the radioactive contamination includes other territories, on which the average annual effective exposure dose of the population can exceed (the natural and technogenic background) 1,0 mSv per year, and territories, on which it is impossible to produce the production that contains more radionuclides than the republican allowance levels provide.

Areas of radioactive contamination

The territories are subdivided into the following areas depending on the density of soil radionuclides contamination and severity of radiation impact (value of effective dose) on the population:

Evacuation area (exclusion area) is the territory around the Chernobyl power plant, from which in 1986 the population was evacuated according to the existed radiation safety criteria (30 km area and the territory, from which the supplementary resettlement was conducted due to the density of soil contamination more than 3 Ci/km2 for Strontium – 90 radionuclides and more than 0.1 Ci/km2 for Plutonium-238, 239,240);

The area of the primary resettlement is the area with the density of soil contamination with the radionuclides of Cesium – 137 more than 40 Ci/km2 or with the radionuclides of Strontium – 90 or Plutonium-238,239,240 more than conformably 3.0 and 0.1 Ci/km2 and more.

Areas of radioactive contamination

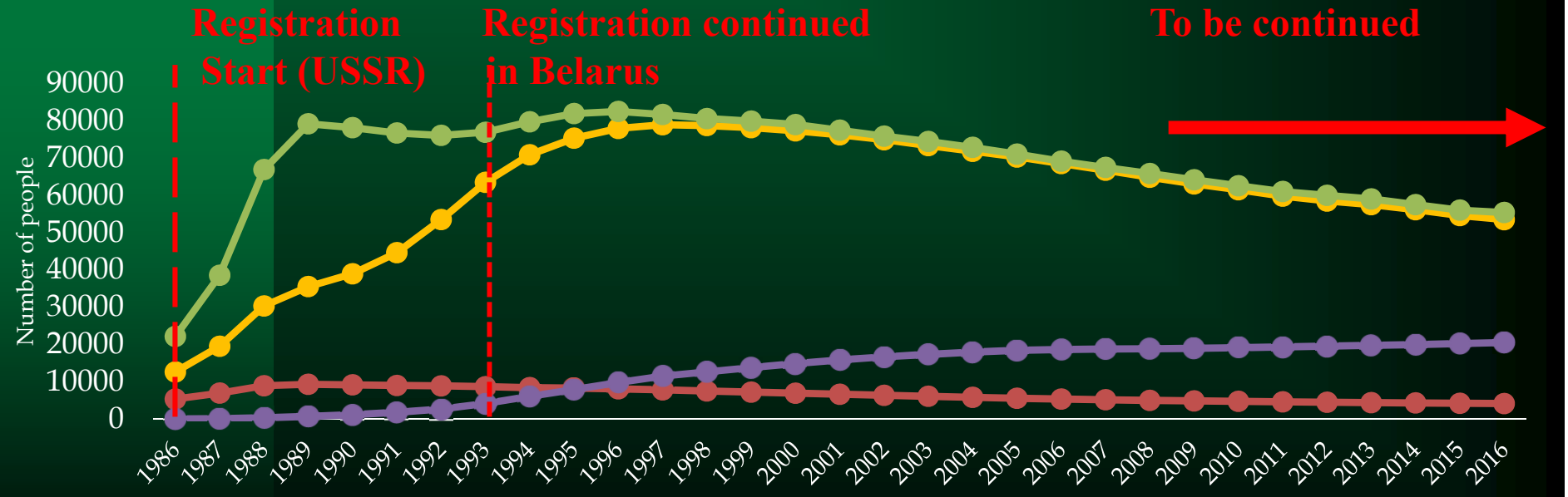
The area of the subsequent resettlement is the territory with the density of soil contamination with the radionuclides of Cesium-137 from 15 to 40 Ci/km2 or with Strontium – 90 from 2 to 3 Ci/km2 or Plutonium – 238,239,240 from 0.05 to 0.1 Ci/km2, on which the average annual effective exposure dose of the population can exceed (the natural and technogenic background) 5 mSv per year and other territories with the lower density of contamination with the mentioned above radionuclides where the average annual effective exposure dose of the population can exceed 5 mSv per year;

The area with the right to resettlement is the territory with the density of soil contamination with the Cesium -137 from 5 to 15 Ci/km2, or Strontium-90 from 0,5 to 2 Ci/km2 or Plutonium 238,239,240 from 0.02 to 0.05 Ci/km2, on which the average annual effective exposure dose of the population can exceed (the natural and technogenic background) 1 mSv per year and other territories with the lower density of contamination with the mentioned above radionuclides where the average annual effective exposure dose of the population can exceed 1 mSv per year;

Areas of radioactive contamination

The residential area with the periodic radiation control is the territory with the density of soil contamination with the Cesium -137 from 1 to 5 Ci/km2, or Strontium-90 from 0.15 to 0.5 Ci/km2 or Plutonium 238,239,240 from 0.01 to 0.02 Ci/km2, on which the average annual effective exposure dose of the population should not exceed 1 mSv per year.

- The USSR Chernobyl register was created in 1986.
- In May 1993 it was transformed to the Belarusian Chernobyl State register of the persons who were affected by radiation.



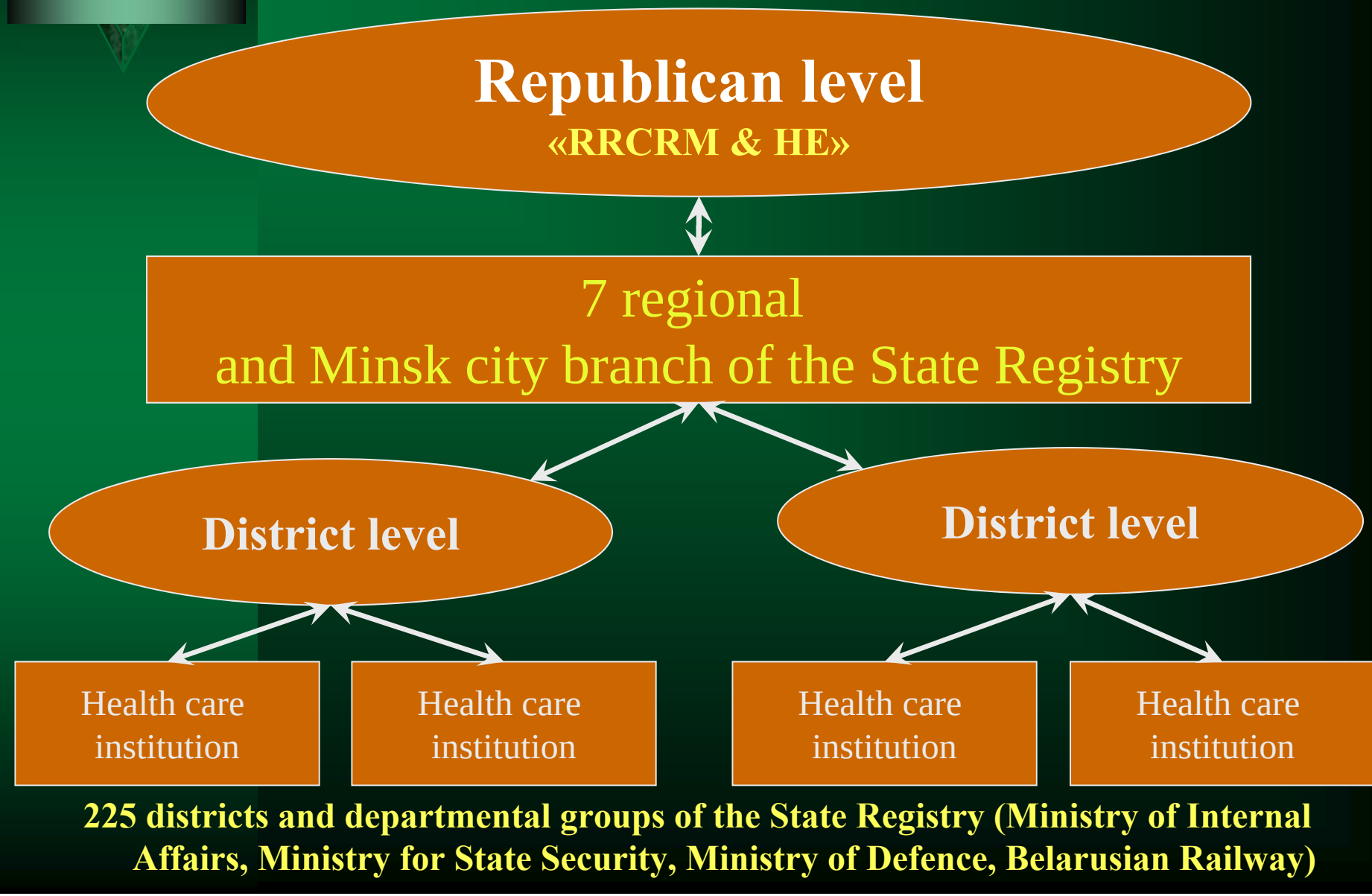
Purpose of the State Registry of persons affected due to the Chernobyl accident

- Radiation affected population monitoring (Health, Doses, Migration);
- Obtaining the reliable data on the medical and biological effects of the Chernobyl accident;
- Provision of information to support dispensary examination, planning and carrying out therapeutic measures.

The objectives of the State Registry

- Maintenance of a personalized automated records of persons affected by the accident;
- Dynamic replenishment of necessary information about the persons affected by the accident;
- Development of normative-legal acts for the medical monitoring of the various categories of the affected citizens.

Structure of the State Registry



225 districts and departmental groups of the State Registry (Ministry of Internal Affairs, Ministry for State Security, Ministry of Defence, Belarusian Railway)

7 Groups of Primary Registration (GPR)

- **1 GPR - persons who participated in the liquidation of the Chernobyl accident and its consequences, divided into two subgroups**
- **2 GPR – persons evacuated or who left the areas of evacuation on their own in 1986;**
- **3 GPR – people living or working in the areas of primary and subsequent resettlement, as well as those who were resettled or who left these areas after the accident on their own;**
- **4 GPR - persons born from people of 1-3groups, except for children belonging to the 2 and 3 groups;**
- **5 GPR - people living or working in areas with the right of resettlement and of periodic radiation monitoring, as well as residents of other settlements, where the average equivalent radiation dose exceeds 1 mSv per year.**
- **6 GPR - persons who participated in the liquidation or affected by the accidents and their consequences at other nuclear facilities of civil or military purposes, as well as the victims of these accidents or as a result of trials, tests or other work related to nuclear facilities, including nuclear weapons;**
- **7 GPR – disabled people due to the Chernobyl NPP accident from the number of people who have no status "affected due to the Chernobyl NPP accident", as well as children and adolescents upon detection of diseases of blood-forming organs (acute leukemia), thyroid gland (adenoma, cancer) and malignant tumors if they are not assigned to other groups of primary accounting.**

3 Groups of Increased Radiation Risk (GIRR)

- **GIRR (A) – persons specified in groups 1 and 2 of the primary accounting, who were within the evacuation area in 1986. Their number in the database is - 72,975 people.**
- **GIRR (B) – persons mentioned in groups 3 and 5 of the primary accounting, from 0 (received prenatal irradiation) to 18 years at the time of the Chernobyl accident (1968-1986 birth years), the number – 175.840 people.**
- **GIRR (C) – persons with repeatedly for 2 years or more the excess of internal radiation dose of 1 mSv / year, the number is 8016 people.**

Number of Records in the Chernobyl State Registry

	Total Number	Under Observation
1GPR	99 693	55 425
2GPR	13 101	4 310
3GPR	139 470	56 593
4GPR	28 487	19 963
5GPR	540 278	443 626
6GPR	1 208	420
7GPR	3 465	1 392
GIRR A	72 975	38 950
GIRR B	175 840	160 280

The information in the database for each person included in the State Registry

- registration information (full name, date of birth, group of accounting, risk group, passport data, place of residence, identification data of the certificate of the affected person, the benefits article according to the Law, information about presence in area, information about parents (for children included in the State Registry), as well all changes of registration data.
- data on radiation doses (more than 100 thousand doses of bone marrow, over 119 thousand of absorbed thyroid doses and over 221 thousand of individualized accumulated radiation doses);
- medical information (data on all diagnoses of diseases and injuries, illnesses connection with the accident at Chernobyl, information on disability, on the annual amount of dispensary examination, on removal, cause of death, group of dispensary follow-up, need and conducted treatment.

Compounds of the Registry

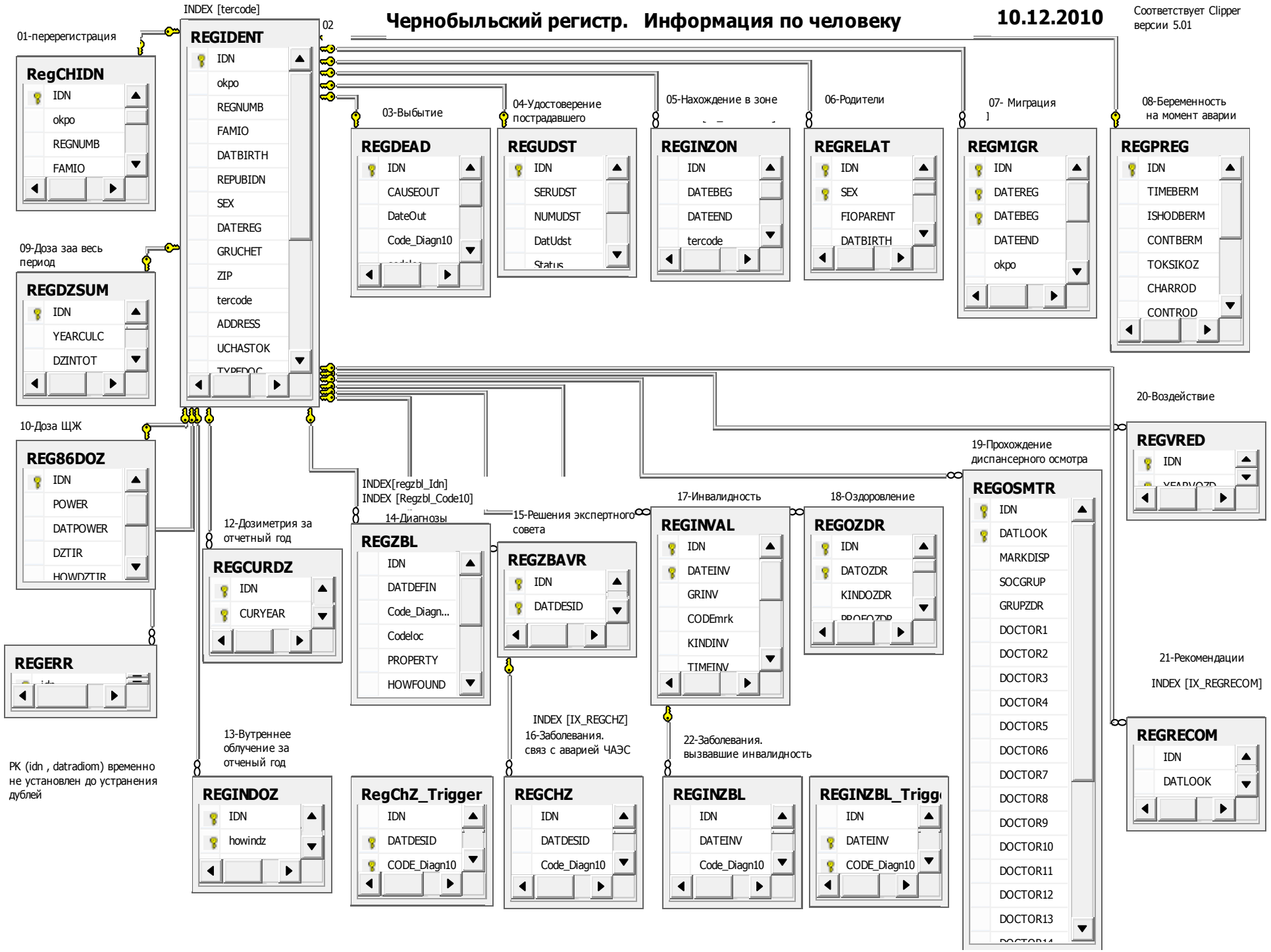
- **ADDRESS (Current address)**
- **PERSONAL INFORMATION FOR IDENTIFICATION (Names, Birth date, sex, GPR, GIRR, Personal number, Passport ID and ets.)**
- **LOCATION IN THE CONTAMINATED AREA (All movements within contaminated area by time)**
- **MIGRATION (Previous addresses)**
- **CHARACTER OF OCCUPATION IN CONTAMINATED AREAS (for liquidators)**
- **RELATIONSHIP (for offspring of affected people)**
- **INFORMATION ON LEAVING (Cause and Time, ICD10 code in case of death)**

Compounds of the Registry

- **INFORMATION ON LEAVING (Cause and Time, ICD10 code in case of death)**
- **DIAGNOSES (Results of every year medical examination, ICD10 code for the first detected and for chronical diseases by time)**
- **MEDICAL EXAMINATION (Check of mandatory medical examination passing)**
- **DOZIMETRY FOR ALL TIME**

I. **EXTERNAL IRRADIATION**
II. **INTERNAL IRRADIATION**
III. **DOZIMETRY OF THYROID GLAND**

- **ABILITY OF OBTAINING OF EPIDEMIOLOGICAL STATISTICS (Crude and Standardized incidence/mortality rates, absolute numbers and person-years within time)**
- **ABILITY TO CREATE GROUPS BY SPECIFIED DIFFERENT FACTORS FOR ANALITICAL INVESTIGATION**


Чернобыльский регистр. Информация по человеку
10.12.2010
Соответствует Clipper версии 5.01
INDEX [tercode]
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01-перерегистрация
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okpo
REGNUMB
FAMIO
REGIDENT
IDN
okpo
REGNUMB
FAMIO
DATBIRTH
REPUBIDN
SEX
DATEREG
GRUCHET
ZIP
tercode
ADDRESS
UCHASTOK
03-Выбытие
REGDEAD
IDN
CAUSEOUT
DateOut
Code_Diagn10
04-Удостоверение пострадавшего
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IDN
SERUDST
NUMUDST
DatUdst
Status
05-Нахождение в зоне
REGINZON
IDN
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DATEEND
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06-Родители
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IDN
SEX
FIOPARENT
DATBIRTH
07- Миграция
REGMIGR
IDN
DATEREG
DATEBEG
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okpo
08-Беременность на момент аварии
REGPREG
IDN
TIMEBERM
ISHODBERM
CONTBERM
TOKSIKOZ
CHARROD
CONTROD
09-Доза зaa весь период
REGDZSUM
IDN
YEARCULC
DZINTOT
10-Доза ЩЖ
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12-Дозиметрия за отчетный год
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HOWFOUND
15-Решения экспертного совета
REGZBAVR
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DATDESID
17-Инвалидность
REGINVAL
IDN
DATEINV
GRINV
CODEmrk
KINDINV
TIMEINV
18-Оздоровление
REGOZDR
IDN
DATOZDR
KINDOZDR
19-Прохождение диспансерного осмотра
REGOSMTR
IDN
DATLOOK
MARKDISP
SOCGRUP
GRUPZDR
DOCTOR1
DOCTOR2
DOCTOR3
DOCTOR4
DOCTOR5
DOCTOR6
DOCTOR7
DOCTOR8
DOCTOR9
DOCTOR10
DOCTOR11
DOCTOR12
DOCTOR13
20-Воздействие
REGVRED
IDN
21-Рекомендации
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REGRECOM
IDN
DATLOOK
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13-Вутреннее облучение за отченый год
REGINDOZ
IDN
howindz
RegChZ_Trigger
IDN
DATDESID
CODE_Diagn10
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16-Заболевания. связ с аварией ЧАЭС
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22-Заболевания. вызвавшие инвалидность
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REGINZBL_Trigg
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DATEINV
CODE_Diagn10

Promising directions of work

1. The formation of groups of high radiation risk among the affected population by various nosological forms using data from the State Registry and the results of dose reconstruction for the purpose of optimal medical approach to minimize the consequences of the accident.
2. Combining data of Registries of Russia, Ukraine and Belarus to more accurate assessment of the health effects of the Chernobyl accident;
3. Improvement of methods for dose reconstruction of individual organs and tissues, as well as accumulated radiation doses for the entire post-Chernobyl period;
4. Conducting radiation-epidemiological studies to establish a causal relationship of diseases in individuals who were under 18 years at the time of the Chernobyl accident.

Благодарю за внимание

THANK YOU FOR YOUR ATTENTION