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**SOCIAL EXCLUSION RISK:
RATINGS OF RUSSIAN REGIONS**

Working Paper WP2/2015/02

Series WP2
Quantitative Analysis
of Russian Economy

Moscow 2015

Editor of the Series WP2
«Quantitative Analysis of Russian Economy»

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Social Exclusion Risk: Ratings of Russian Regions [Electronic resource] : Working paper WP2/2015/02 / V. S. Danilin, N. I. Isaev, A. K. Kapustin, E. B. Mezentseva, S. N. Smirnov ; National Research University Higher School of Economics. – Electronic text data (4,3 Mb). – Moscow : Higher School of Economics Publ. House, 2015. – 110 p. – (Series WP2 «Quantitative Analysis of Russian Economy»).

The authors of the paper suggested an original methodology for measuring social exclusion risks and scope of social exclusion in regions of the Russian Federation. Regional ratings for specific groups of population and dimensions of social exclusion risks presented in this paper may have socialpolicy implications.

JEL Classification: C 82

Key words: social exclusion, group at social exclusion risk, regional rating

The paper was prepared written in accordance with the Program «The Foundation of the National Research University «Higher School of Economics» for development of applied studies».

**Препринты Национального исследовательского университета
«Высшая школа экономики» размещаются по адресу: <http://www.hse.ru/org/hse/wp>**

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1. INTRODUCTION

The concept of social exclusion is currently regarded by researchers in social sciences as a multi-dimensional phenomenon which covers a number of interrelated aspects at a time. It normally involves exclusion from economic life, social services, public life, and social networks.

In European countries, measures to identify and address social exclusion became a major part of social and economic policies in the second half of the 1990s. In 2010, the European Union adopted «Strategy for Smart, Sustainable and Inclusive Growth» for the period until 2020. The Strategy identified clear and quantifiable parameters for reducing the number of the socially excluded in the EU countries.

However, no consensus is yet reached at the international level as to the definition of the concept of social exclusion as to the methodology to measure it. The European Union, World Bank, OECD and UN agencies are still using different indicators for assessing poverty, deprivation and social exclusion.

A vast majority of experts believe that the main cause of this state of things has its roots in the multi-dimensional character and operationalization complexity of the concept itself. It is this circumstance that puts an obstacle to addressing the urgent objective of measuring the level of social exclusion.

In the Russian Federation, the category of social exclusion is rather a theoretical concept than a specific instrument for transforming and implementing social policies. Most Russian studies are discussing the problems of measuring social exclusion at the national level or among specific socially vulnerable population groups. At the same time, an aspect deserving special attention while analyzing social exclusion is precisely its spatial dimension which ensures comparability between different regions in terms of the level of social exclusion of their population. However, no such studies have been conducted in the Russian Federation until recently.

This study is designed to fill the existing gap.

The main purpose of our study is to assess quantitatively the social exclusion phenomenon at regional level.

The study is focused on the following objectives:

- to operationalize the concepts of social exclusion and social exclusion risk to make possible their subsequent measurement;
- to derive a clear and measurable identifier
- of social exclusion risk manifestation;
- to develop a methodological framework and intrinsic algorithms to measure social exclusion risk for the considered regions of the Russian Federation;

- to propose a set of indicators to assess social exclusion risk at the regional level suitable to the existing statistical sources;
- to construct partial and integral regional ratings of the social exclusion risk;
- to visualize the outcomes of the study for better understanding of the real situation by government officials responsible for decision-making in the social policy area.

The findings of the study could be used by federal and regional executive authorities responsible for developing specific measures in the social policy area.

2. SOCIAL EXCLUSION: LITERATURE REVIEW

2.1. Defining the Phenomenon

The phenomenon of the social exclusion has a long history. At the onset, the concept was based on different assessments of the social and economic factors such as poverty, deprivation and discrimination.

Since then the understanding of the phenomenon of social exclusion has been evolving. Nowadays the concept is currently considered in the academic literature as a complex multi-dimensional category depending on a range of risks, the extent they affect the population, and the number of deprivations, both in absolute and relative terms.

As a baseline concept of social exclusion as a multi-dimensional category the definition given by the Interagency Commission for Social Exclusion under the Vice Prime Minister of the United Kingdom in 1997 would be assumed:

«...a shorthand term for what can happen when people or areas suffer from a combination of linked problems such as unemployment, poor skills, low incomes, poor housing, high crime environments, bad health and family breakdown»¹.

Institutions such as the Center for the Analysis of Social Exclusion at the London School of Economics and the Social Exclusion Task Force under the UK Government has contributed significantly to both development of the conceptual framework and operationalization of social exclusion. The latter proposed to regard social exclusion as:

¹ Cited by Ruth Levitas, Christina Pantazis, Eldin Fahmy, David Gordon, Eva Lloyd and Demi Patsios (2007). *The Multi-Dimensional Analysis of Social Exclusion* / Department of Sociology and School for Social Policy Townsend Centre for the International Study of Poverty and Bristol Institute for Public Affairs University of Bristol. January 2007. P. 19.

«...the problem field determined by the link between low income position, bad labour market position and disadvantages concerning non-monetary aspects of life»².

The deliberations of the Social Exclusion Task Force contain more focused approaches to the definition of social exclusion which allow to shift the accent to specific socially vulnerable «population groups including children under guardianship, persons with mental abnormalities and teenage girls affected by a higher risk of pregnancy, and also to a need to prevent adverse situations and arrange for anticipating interventions»³, and target groups such as disadvantaged families.

Tsakloglou and Papadopoulos⁴, relying on previous studies of Room (1995), Atkinson (1998)⁵, Sen (2000)⁶ and Atkinson et al. (2002)⁷, proposed to reach a consensus with relation to the content of social exclusion on the basis of the following key features:

(a) Multi-dimensional nature: this assumes a number of deprivations based on a wide range of livings standards. These deprivations are normally related not only to an individual but also to regional groups of population (in other words, a lack of economic resources at the individual level is combined with low living standards in the local community/region).

(b) Dynamic nature: individuals experience social exclusion not only as a result of their current situation but also because they stand for a poor chance to improve their situation in the future.

(c) Relative nature: one could speak of social exclusion only as applied to specific society at a specific period of time.

(d) Institutional nature: social exclusion is out of reach of the personal responsibility of an individual.

(e) Social nature: this assumes a rupture in relationships between a person and the rest of society, inadequate involvement in social life, inadequate social integration and a lack of power.

The concept of social exclusion as a multi-dimensional phenomenon has been developed by an economist and Nobel Prize winner Amartya Sen (1999)⁸.

² Social Exclusion Task Force (2006) Reaching out: An action plan on social exclusion. London: Cabinet Office. P. 33.

³ Ibid. P. 95

⁴ Tsakloglou P., Papadopoulos F. (2002) Aggregate level and determining factors of social exclusion in twelve European countries // Journal of European Social Policy. 12 (211). P. 2–16.

⁵ Atkinson A. (1998) Social Exclusion, Poverty and Unemployment' // Exclusion, Employment and Opportunity / A. Atkinson, J. Hills (eds.). CASE Paper No. 4. Centre for Analysis of Social Exclusion. London: LSE.

⁶ Sen A. (2000) Social exclusion: Concept, application and scrutiny // Social Development Papers No. 1. Office of Environment and Social Development, Asian Development Bank, Manila, Philippines.

⁷ Atkinson A., Cantillon B., Marlier E., Nolan B. (2002) Social indicators: The EU and social inclusion. Oxford: Oxford University Press.

⁸ Sen A. (1999) Development and Freedom. Oxford: Oxford University Press.

In turn, Miliband (2006) recommended to regard social exclusion as a three-level phenomenon which embraces wide, deep and concentrated social exclusion⁹. Wide social exclusion is a situation where large population groups experience deprivation as manifested by a single indicator or a small number of ones. The category of concentrated social exclusion applies to situations where deprivation is concentrated in specific geographic regions. Finally, deep social exclusion is a situation where population groups are affected by multiple and interdependent deprivation.

The widely accepted version of the definition was proposed in the Regional Report on Social Exclusion published by the UNDP in 2011:

«...social exclusion is a multi-dimensional phenomenon, covering the three interlinked dimensions of social exclusion: exclusion from economic life, exclusion from social services, and exclusion from civic life»¹⁰.

Overall, the definitions of social exclusion referred to in the foreign literature could be classified on the following bases.

1. The extent of accounting for the multiple-factor nature of social exclusion.

A. Single-factor definitions.

1.1. Single-factor definitions that are based primarily on the concept of poverty or regard social exclusion as an organic part of domain «social exclusion and poverty».

1.2. Single-factor definitions that rely primarily on the concept of paid work.

B. Multiple-factor definitions

1.3. Multiple-factor definitions where the accent is primarily made on insufficient means of subsistence (both physical and non-physical).

1.4. Multiple-factor definitions that take into account as insufficient means of subsistence as a low involvement into social life.

1.5. Multiple-factor definitions where the accent is primarily made on social activity and inclusion into social life.

2. Characterizing social exclusion as a state or process.

3. Extent of affecting different population groups and manifestation forms.

3.1. Universality approach where social exclusion as a category can be studied in relation to broad population groups or population as a whole.

3.2. Selective approach where social exclusion is considered in relation to specific groups of the population believed to be the most vulnerable.

⁹ Miliband D. (2006) Social exclusion: The next steps forward, London: ODPM.

¹⁰ UNDP (2011) Regional Social Exclusion Report: Beyond transition, towards inclusive societies. URL: <http://hdr.undp.org/en/reports/regional/europethecis/RBEC HDR 2011 EN.pdf>.

A summary of the most frequently used definitions according to the above stated criteria of the concept of social exclusion can be seen in Annex A.

Obviously, the list of possible characterizations is not exhausted by the above mentioned criteria. Moreover, a majority of definitions of social exclusion would match more than one criterion, only to be susceptible to come under multiple classification units.

A majority of definitions of social exclusion in the Russian literature reveal the same basic approaches to and factors explaining the emergence and evolution of social exclusion that are described in the studies made by Russian scholars (see Table 1).

Table 1. Examples of definitions of social exclusion in Russian research papers

No	Definition	Reference source
1	«By social exclusion we understand a multi-dimensional cumulative process that disrupts social relationships between individuals or groups, preventing their participation in social life...»	Astoyants M.S. Sotsialnoye sirotstvo: usloviya, dinamika i mehanizmy ekskluzii (sotsiokulturnaya interpretatsiya). Azov: OOO AzovPechat, 2009. P. 36
2	«In its most versatile form, social exclusion could be qualified as a situation of violation of the rights to be protected by regulations of any level (international and regional conventions endorsed and ratified by Russia, federal and regional laws and regulations, local – municipal – regulations)»	Puchkov O.E., Borodkin F.M. Normativno-pravovaya baza viyavleniya sotsialnyh ekskluziy i uchastiya v ih preodolenii organizatsiy Tretiego sektora (analiticheskaya zapiska) http://wildfield.ru/socpart/soc000.htm
3	«... social exclusion is a process of shaping social expulsion as a result of a number of exogenous and endogenous factors (lack of means, fewer opportunities, restricted or refused access to medical and social assistance, changes to perception and motivation, development of complexes) which manifests itself in a rupture of social relationships, refusal to participate in different kinds of social networking and use social integration mechanisms, resulting in its extreme point in social isolation of the individual»	Donkan E.M. Sotsialnaya ekskluzia detey-invalidov v obshestve: fenomen invalidnosti // Vestnik TOGU. 2009. No. 2 (13). P. 277–282
4	«Social exclusion is the result of a number of risk factors, and its implications accumulated over time when a person is no longer able to overcome the situation due to limited resources available to him...»	Chernenko T.V. Integrirovannaya starost: praktiki sotsialnogo uchastia. Disertatsia na soiskanie uchenoy stepeni kandidata sotsiologicheskikh nauk. Saratov, 2005 http://www.disserr.com/contents/125942.html
5	«Social exclusion assumes a lack or negation of resources and rights available to a number of communities which results in their inability to take part in social life that affects the living standards of socially excluded persons and negatively impact the society as a whole»	Makeeva T.V. Egzistentsialniy aspect problemy sotsialnoy iskluchennosti sovremennoy molodezhi http://yspu.org/images/

The practices for overcoming social exclusion both in the Russian Federation and other countries include two core components: a regulatory framework to ensure inclusion and practical

steps to assist the population affected by social exclusion. However, the proportion of these two components varies depending on a particular country. In developed economies, the main focus is made on preventing the conditions which foment social exclusion itself. In Russia, the public perception is invariably focused on expectation of measures of state paternalism which require considerable budget funds to assist those in need. In this situation approaches to the inclusion promoting methods are focused primarily on specific assistance to those excluded from society.

Russian experts are mainly engaged in studies to assess the magnitude of social exclusion as identified by one of the attributes of being excluded from the community and also to develop mechanisms and practices for implementing social inclusion.

Both foreign and Russian studies have practically no canonical definition of social exclusion which would be free of intrinsic contradictions, something that allows those writing on the subject to bring their own understanding of the phenomenon to the research they conduct and new components to the meaning of the concept, only to increase the universal nature and social importance of the phenomenon itself. One could eventually believe that the whole population of a country (region) is at risk and that one would only need to add a driver (natural disaster, political turmoil, epidemic, mass unemployment etc.) to materialize the risk of social inclusion¹¹.

Many Russian researches that treats social exclusion in a broader sense of this word considers this phenomenon at a macro-level from the perspective of society and focus on the actual lack of access to inclusion¹². Thus, the Russian society is some kind of social space centered on those members who constitute the core (elite), that is, have the totality of socially recognized rights and an access to resources which allow them to lead a way of life believed to be decent. The next concentric circle around the core represents those who for this reason or other are discriminated against in terms of implementation of specific rights. Finally, at the margins of social space are those who are subject to multiple discrimination and who have practically lost the most of their social linkages. It is this part of the social space that, according to the model's author, is actually associated with the «socially excluded» group.

We believe that a model of this kind that reflects the structure of society is a well-studied and described hierarchical social model which dates back to the ancient Egypt and is represented by polar coordinates rather than traditional Cartesian ones. The core structural principle within the framework of this model assumes that the lower the hierarchical level (the farther it is from the center of the circumference), the fewer social resources are accessible. Studies of this kind are largely focused on discriminatory mechanisms at work within a society.

¹¹ Tikhonova N.E. Fenomen sotsialnoy ekskluzii v usloviyah Rossii // Mir Rossii. Vol. XII. 2003. No. 1. P. 36–84.

¹² Ibid.

Processes and outcomes of social exclusion have been recently subject to numerous researches in the Russian social science. Moreover, these studies consider social exclusion in a narrow sense of this word at a micro-level when analyzing the situation of those affected by the phenomenon. The focus is largely on how the real life's situation of the excluded is specifically manifested as compared to other members of society. This approach is based on identifying and analyzing different types of generally acceptable social and personal participation, from which an individual is excluded for this or another reason, and discovering those multi-dimensional deprivations which affect certain categories of the population.

These deprivations are identified in the studies based on the outcomes of sociological surveys. The fact that someone is affected by social exclusion is based either on self-perception of the respondent and self-identification of his or her place in the system of social relationships and institutions.

Many Russian experts, especially those making practical attempts to assess the level of social exclusion among the identified population groups, believe that one should develop the most comprehensive idea of social exclusion by combining the macro- and micro-approaches. In these studies, social exclusion is treated as a restriction on social activities of an individual or group up to their expulsion from public life due to an barrier they face in implementing social and civil rights, and as a result of inadequate satisfaction of social needs because of a lack of access to economic, political, social and cultural resources¹³.

According to this understanding, the socially excluded comprise the categories of the most disadvantaged and deprived individuals. This approach allows researchers of social exclusion to identify *a priori* those population groups which are affected by economic, social and other deprivation to the maximum extent and, therefore, run the highest risk of social exclusion. Russian researchers involved in assessing quantitative parameters of exclusion usually identify the following population groups which constitute a «nutrient medium» for expansion of exclusion as a social phenomenon¹⁴:

- those living below the subsistence minimum;
- long-term unemployed;
- disabled and single old age individuals;
- disabled children;

¹³ See for example, Goncharova N.P. Risk socialnoy ekskluzii na regional'nom rynke truda: metodologiya issledovaniya i rezul'taty aprobacii // Nauchnyje Trudy Don NTU. Seriya ekonomicheskaya. 2013. No. 4 (46).

¹⁴ See, for example, Yeflova M.Yu. Sotsialnaya ekskluzia VICH-infitsirovannyh v Rossii // Vestnik Voennogo universiteta. 2011.No. 3 (27). P. 129–134, Stepanova E., Yeflova M. Sotsialnaya ekskluzia zakluchennyh i ekszakluchennyh v Rossii // Vlast. 2012. No. 1. P. 85–89, Cherepanova M.I. Sotsialnaya ekskluzia kak odin iz faktorov suitsidalnyh riskov sredi lits pozhilovo i starcheskogo vozrasta // Mir nauki, kul'turi, obrazovaniya. 2012. No. 6 (37). P. 425–429, Donkan E.M. Sotsialnaya ekskluzia detey-invalidov v obshestve: fenomen invalidnosti // Vestnik TOGU. 2009. No. 2 (13). P. 277–282.

- orphaned children;
- abandoned and neglected children;
- persons of no fixed abode;
- individuals affected by socially dangerous diseases;
- released prison inmates;
- other groups of individuals (matching the criteria of specific authors).

In most publications, these population groups are considered to be at risk. Many authors believe that being part of a risk group does not exclude an individual from the community but will considerably increase the risk of social exclusion for him or her as compared to the rest of the population.

2.2. Approaches to measurement

To measure the multi-dimensional nature of social exclusion phenomenon various sets of primary and secondary indicators to estimate social exclusion have been proposed at the international and national level. Examples of these sets of indicators are given in Annex B.

The objective of assessing the magnitude of social exclusion is addressed as part of many projects called to identify the ways of overcoming poverty and social deprivation. All researchers normally follow one and the same path starting with defining the main categories of hardship experienced by the population. Then they look for partial indicators which characterize the scope of these hardships. The values of these indicators usually can be found in all-national and regional statistical data or as a result of surveys carried out on a regular basis. Finally an integral indicator of social exclusion of the population at the national or regional level is derived.

The World Bank, European Union agencies, OECD and United Nations use different measures and indicators to characterize the absolute and relative level of poverty, deprivation, inequality and social exclusion.

The latest proposals on how to measure social exclusion were made at the Conference of European Statisticians held in December of 2013 under the auspices of the United Nations Economic Commission for Europe¹⁵. Based on the studies of comparative exclusion of the population in a number of East European countries and CIS member states as proposed by the UNDP regional office in Bratislava, three domains of social exclusion were identified (social, economic and political), with each one being described using eight partial indicators. Each of 24 indicators characterizes a specific form of deprivation. Under this methodology, the percentage of those experiencing at least nine deprivations is determined as a share of the population affected by social exclusion.

¹⁵ Measuring Intersecting Inequalities through the Social Exclusion Index: A Proposal for Europe and Central Asia // Seminar «The Way Forward in Poverty Measurement». 2–4 December 2013. Geneva, Switzerland Item 4 of the Provisional Agenda. Session 3: Interlinkages between Poverty, Inequality, Vulnerability and Social Inclusion. Working paper 22, 25 November 2013.

The report contains only a verbal description of the estimation algorithm being used. Given below is our formalized transcription of this algorithm.

To produce an integral indicator which allows to perform cross-country comparisons, it is proposed to use the Index of Social Exclusion (ISE):

$$ISE_i = \delta_i \times \rho_i ,$$

where: δ_i is a share of socially excluded population of country i ;

ρ_i is a deprivation intensity population of country i ;

δ_i is calculated by the following formula:

$$\delta_i = \frac{n_i (\leq 9)}{N_i} ,$$

where: $n_i (\leq 9)$ is socially excluded population of country i (all those who experience 9 or more hardships);

N_i is the total population of country i ;

ρ_i is calculated by the following formula:

$$\rho_i = \bar{d}_i / 24 ,$$

where: \bar{d}_i is an average number of hardships per individual representing a socially excluded group.

\bar{d}_i is calculated by the following formula:

$$\bar{d}_i = \frac{n_i (9) \times 9 + n_i (10) \times 10 + \dots + n_i (24) \times 24}{n_i (\leq 9)} ,$$

where: $n_i (9), n_i (10), \dots, n_i (24)$ is a population of country i experiencing, respectively 9, 10, ... and 24 hardships.

Another project implemented in Italy in 2004 provides one more example of calculating a comprehensive social exclusion indicator to perform cross-regional comparisons. This study was based on the UN-developed up to 2010 methodology for estimating the Human Development Index (HDI)¹⁶.

In this project partial indicators are to be calculated for three domains of social exclusion (economic, social and humanitarian) through the use of the relative normalization procedure. Partial indicator is normalized as a ratio of difference between its actual value and its estimated minimum value to the range of variation between the maximum and minimum values. The index of social exclusion is calculated as an arithmetic mean of the three partial indicators.

¹⁶ Stranges Manuela. Social exclusion in the Italian regions: a synthetic approach of measurement. Paper presented for the Quetelet Seminar 2007 Poverty Dynamics and Vulnerability. Measures and Explanations in Demography and Social Sciences. Université Catholique de Louvain, Belgium. November 27–30, 2007 Session: Young Researchers Workshops.

The detailed approaches for measuring the social exclusion among young people at the municipal level are presented in the report of the National Center for Social and Economic Modeling (NATSEM)¹⁷ of the Canberra University¹⁸. The authors of the research formulated 17 deprivation characteristics which should have a strong impact on social exclusion. Each of the primary characteristics was measured by a non-dimensional indicator with values ranging from 0 to 1. Each value represented a share of the socially excluded young people corresponding to the specific deprivation characteristic.

17 deprivation characteristics were grouped into 6 vectors (domains) namely:

- social and economic background;
- youth participation;
- bad education;
- family care obligations;
- availability of health care services;
- housing conditions.

The principal components method was used to verify the composition and assign weights to aggregate values of deprivation characteristics within each domain. The value of the integral index of social exclusion among young people was estimated as the arithmetic mean of considered characteristics within six domains.

In studies performed by Russian researchers, the problem of measuring social exclusion is usually addressed as part of the surveys of socially vulnerable population groups (groups at risk). To a large extent, the resulting outcomes depend not so much on the methods used to measure partial indicators and obtain an aggregated index (for the group to be studied), but how the phenomenon of social exclusion is viewed by a researcher.

A pioneer attempt to estimate the magnitude of social exclusion was made by a well-known Russian scholar N.E. Tikhonova. In her work based on the all-Russia representative survey she proposed an integral index comprising three indicators¹⁹:

- 1) monthly average per capita income below median income for the region of residence;
- 2) self-perception of being incapable to change and adverse the vital situation;
- 3) self-perception that whatever is happening around is not fair.

An individual who had at least two out of three mentioned characteristics was considered as socially excluded. Derived outcomes have shown that in 2001 more than 40 percent of the population in Russia were either socially excluded or closed to being excluded.

¹⁷ The National Centre for Social and Economic Modelling.

¹⁸ Abello A., Cassells R., Daly A., D'Souza G., Miranti R. Youth Social Exclusion in Australian Communities: A New Index. NATSEM Working Paper 14/25. The National Centre for Social and Economic Modelling; Canberra. June 2014.

¹⁹ Tikhonova N.E. Fenomen socialnoy ekskluzii v usloviyah Rossii // Mir Rossii. Vol. XII. 2003. No. 1. P. 36–84.

Attempts to operationalize the concept of social exclusion and develop a model for measuring the extent of exclusion were made in the project «Society Benefiting Older Generations» implemented by the Center for Methodologies of Federative Studies (Russian Academy of the National Economy and Public Administration), Autonomous Non-Profit Organization «Social Validation», and Moscow Higher School of Social and Economic Sciences²⁰.

All calculations were based on survey of the elderly population in the Ivanovo Region (Russia). The researchers identified four principal dimensions of social exclusion namely: family, social environment, employment, and social activity. Exclusion indices were specifically developed for each dimension.

To derive an index for particular dimension a number of questions were asked to respondents. The scores produced by the answers were added up to obtain indices for each dimensions. In turn an integral indicator as a sum of partial indices was calculated.

The following conclusions could be made from an analysis of the algorithms used for measuring the level of social exclusion:

1) integral indices of social exclusion obtained through implementation of a variety of methodologies for integrating partial indicators of deprivation are usually abstract non-dimensional values that are not suitable for any meaningful decision-making purposes;

2) the values of partial indicators in most cases don't reflect the deprivation dimensions most hazardous from a perspective of exclusion of the population since their values often depends on the number of questions proposed to respondents;

3) the used methodologies do not have any canonical definition (not even conventionally agreed at the level of the expert community) of the concept to identify whether the risk of social exclusion has been materialized.

In this situation, any individual research which purports to focus on country and regional comparisons between levels of social exclusion of the population will come up with an original distribution whose validity is impossible to substantiate.

3. SOCIAL EXCLUSION: THE PROPOSED CONCEPTUAL FRAMEWORK

Re-examining the «flourishing» field of definitions for the phenomenon of social exclusion in scientific literature presents for a researcher a difficult task to pick up a proper one. By the term of «a proper one» let us consider a definition that allows unambiguously understand what a practical analyst is up to. To meet this challenge, there is need to put some sound «filters»

²⁰ Saponov D.I., Smolkin A.A. Socialnaya ekskluzia pozilyh: krazrobotke modeli izmerenia // Monitoring obschestvennogo mneniya. Sentyabr – Oktyabr 2012. No. 5. P. 83–94.

to avoid the well-known problem of redundancy implying the unnecessary duplication of meanings.

Complying with the aforesaid we stand for an axiomatic approach determining that:

Social Exclusion cannot be identified with such a phenomenon as $\left\{ \begin{array}{l} \textit{Deprivation} \\ \textit{or} \\ \textit{Discrimination} \\ \textit{neither} \\ \textit{Poverty} \end{array} \right.$

Otherwise, the notion of the Social Exclusion will be simply redundant or, logically speaking, would lead to well-known problem of so-called vicious circle, when the cause and effect form an undistinguishable mix.

On the one hand, that sort of reasoning enables to discard the majority of definitions of Social Exclusion relying on one-way concepts of deprivation, discrimination or poverty. On the other hand, it rests upon a strong current of thought in social sciences that stresses the relational aspect of discussed phenomenon, pointing out that the inability of an individual to interact effectively in society with others is a basic constitutive component of Social Exclusion. In other words, the core aspect of Social Exclusion relies upon ability of an individual to maintain vital human/social relations within his/her surrounding usual environment.

This leads us directly to a concept of so called *interpersonal social relationships* of an individual within society he/she lives in. This concept, well-developed in social and psychological sciences, identifies five basic communications of an individual with:

- (1) family/household members;
- (2) friends/acquaintances;
- (3) colleagues/work associates;
- (4) authorities/officials;
- (5) neighborhood/community.

Founded on above stated grouping of interpersonal relationships, one can say that the **Social Exclusion** *is a phenomenon identified with a rupture of vitally interpersonal social relationships between a person and members of its usual social environment he/she lives in.*

To be more specific, there is need to develop a set of derivative operational definitions of basic concepts directly connected to the above defined phenomenon of Social Exclusion. Consequently, the following variety of definitions is proposed.

Social Exclusion Risk (SER): the possibility that an event of social exclusion might happen to an individual.

Social Exclusion Risk Occurrence/Materialization (SERO): an existential situation in which an individual is deliberately or accidentally excluded/prevented from at least three of five basic interpersonal relationships within his/her usual environment.

Group at Social Exclusion Risk (GSER): the subset of individuals who belong to a *socially vulnerable group* and are highly exposed to the SER.

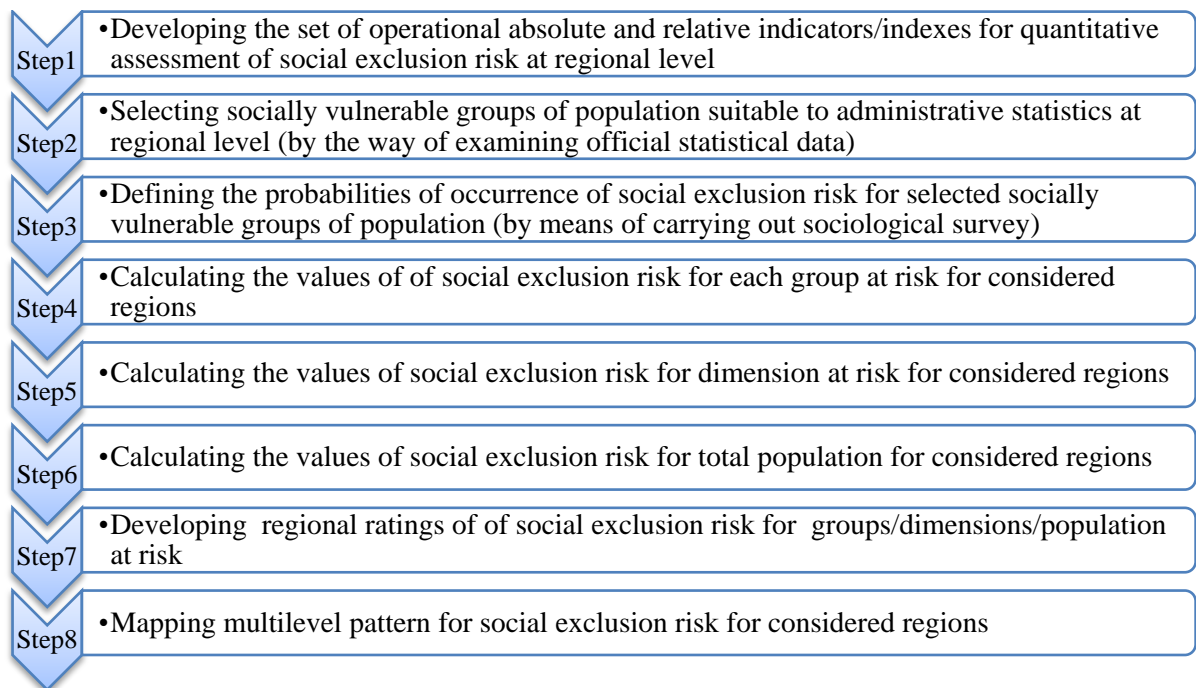
Socially Vulnerable Group (SVG): the set of individuals incapable to withstand adverse impacts from multiple social stressors to which they are exposed.

Dimension at Social Exclusion Risk (DSER): the set of GSERs defined according to *drivers of social exclusion*.

Drivers of Social Exclusion (DSE): the set of factors (social, economic, demographic, etc.) facilitating the state of social exclusion.

Population at Social Exclusion Risk (PSER): all individuals that belong to all considered GSERs or DSERs.

The formulated set of concepts and their definitions allows us to accomplish the following algorithm that involves the eight steps to achieve our goals, as depicted below:



The mentioned steps constitute practical framework to ensure the achievements of established goals, which outputs and outcomes will be presented in the following parts of our research.

4. MEASURING SOCIAL EXCLUSION RISK AT REGIONAL LEVEL

The proposed approach to measure social exclusion phenomenon (hereinafter referred as SE) is based on the classic risk theory which tells us that the risk of any nature may be assessed weighting a value at risk by a probability of its materialization. To adapt this notion to our field of interest, let us establish some operational assumptions usable for further analysis, namely:

- an initial unit of analysis will be an individual exposed to the social exclusion risk

(hereinafter referred as SER). In this context a value of SER will be simply equal to an individual probability of being social excluded;

- pursuant to the proposed definition of the SE stated in the part 3 of our research, a probability of being social excluded for an individual will be appraised as the probability of being at least excluded from the three of the total of five basic interpersonal relationships within his/her usual environment;
- since calculating the above stated probabilities for each individual seems an impossible task to accomplish, there will be a need to group individuals in accordance with average estimation of probability of being socially excluded for specific set of population;
- as follows, a basic unit of our analysis will constitute the Group of population at SER for which the numbers of involved persons and the probabilities of occurrences of SE can be measured.

Thereby, *the gross value of the SER* for a group i of population for a region j ($GVSER_{ij}$) maybe assessed through the following elemental expression:

$$GVSER_{ij} = G_{ij} \times P_i, \quad (1)$$

where:

G_{ij} is a number of persons forming part of the specific group of population i ($i=1, 2, \dots, n$) at SER for considered region j ($j = 1, 2, \dots, m$);

P_i is a probability of the occurrence of the SE for persons who belong to considered group i of population at SER.

Taking into account the need to compare different regions, it is necessary to normalize the gross value per 100000 persons of regional population, using the following equation:

$$VSER_{ij} = (G_{ij} \times P_i) \times \frac{10^5}{Pop_j}, \quad (2)$$

where:

$VSER_{ij}$ is a value of the SER normalized per 100000 persons for considered group i at risk of the SER and for considered region j ;

Pop_j is the total population of considered region j ;

G_{ij} and P_i are defined in equation 1.

Thus, the basic indicator of the SER for a region j can be quantitatively defined as the expected number of socially excluded persons per 100000 of regional population.

There is no problem to assess the thirist term (G_{ij}) of the equation (2), provided that an effective selection of groups at SER at regional level is done by the way of examining relevant official statistical data (see paragraph 5.1 for details).

In turn, for an estimation of the values of probabilities of occurrence of SE for individuals who belong to specific socially vulnerable group of population, it is necessary to carry out corresponding sociological survey (for particulars of our expert survey see paragraph 5.2 of this research).

Considering expert opinions, and taking into account the stated above operational definition of SE phenomenon, the assessment of probability of SE for considered group i of population at SER implies to perform two following iteration.

In the first place, there is need to derive mean values of expert estimates, using the following formula:

$$\bar{p}_{ir} = \frac{\sum_k^K p_{irk}}{K}, \quad (3)$$

where:

\bar{p}_{ir} is a mean probability that an individual who belongs to a group i of population at SER ($i = 1, 2, \dots, n$) could be excluded from a considered basic interpersonal relationship r ($r = 1, 2, \dots, 5$);

p_{irk} is a probability given by an expert k ($k = 1, 2, \dots, K$) that the event, just described above, might happen.

In the second place, knowing derived mean probabilities, it is possible to calculate the required values of probabilities of occurrence of SE for considered group at SER through the following expression:

$$P_i = \frac{(\bar{p}_{i1} \times \bar{p}_{i2} \times \bar{p}_{i3}) + (\bar{p}_{i1} \times \bar{p}_{i2} \times \bar{p}_{i4}) + (\bar{p}_{i1} \times \bar{p}_{i2} \times \bar{p}_{i5}) + \dots + (\bar{p}_{i3} \times \bar{p}_{i4} \times \bar{p}_{i5})}{C_{r=5}^3} \quad (4)$$

where:

P_i is a probability for an individual who belongs to a group i at SER of being excluded at least from the three of the total of five basic interpersonal social relationships within his/her usual environment;

$C_{r=5}^3$ is the number of all possible combinations composed of 3 elements out of the set of 5 elements (the last number represents considered number of basic interpersonal relationships r).

As one can see, $C_{r=5}^3 = \frac{5!}{3! \times (5-3)!} = 10$.

Formally speaking, an estimated value of P_i is the mathematical expectation of subjective probabilities of SER given by interviewed experts for considered group of population. To yield the values of subjective probabilities, the following conversion scheme is proposed:

Semantic scale for exclusion from a considered basic interpersonal social relationship r (type of 5 digit Likert) “Do you agree with the following statement?”	Discrete probability scale (p_{irk})
Agree	1
Rather agree	0.75
Difficult to say	0.5
Rather don't agree	0.25
Don't agree	0

Given the values of social exclusion risk for considered groups of population, it is possible to develop *an integral absolute indicator of SER* ($ISER_j$) for each region j ; the latter can be calculated through the following formula:

$$ISER_j = \frac{10^5}{N_j} \times \sum_i^n (G_{ij} \times P_i), \quad (5)$$

where N_j , G_{ij} and P_i are determined in equations (1)–(4).

Note that the derived value of $ISER_j$ does not correspond to cumulative numbers of socially excluded persons forming part of considered groups of population, as far as $G_{1j} \cap G_{2j}, \dots, \cap G_{mj}$. In other words, an individual may belong simultaneously to n groups of persons at social exclusion risk.

Thereby, we can quantitatively define the integral indicator of SER for a region j as a number of expected cases of social exclusion per 100000 of regional population.

The same approach is valid for calculating values of SER for different dimensions of SE, as far as a dimension by definition includes individuals that form part of different group of population at risk.

The proposed indicators of the SER differ substantially from widespread approaches to measuring social exclusion phenomenon by the percentage of deprived population or by the quantity of persons suffering from determined number of deprivations. Suggested method makes also possible to avoid the hard solvable problem of weighting different dimensions of social exclusion (social, economic, human, etc.).

In addition to mentioned above absolute indicators of the SER, we propose some derivative indexes that allow carrying out more specific comparative interregional analysis. These indexes are based on well-known for statisticians Z-scores and, applied to the field of social exclusion, may be calculated using the following equation:

$$Z_j = \frac{(ASER_j - \overline{ASER})}{SD_{ASER}}, \quad (6)$$

where:

Z_j is a relative degree of social exclusion risk for region j ;

$ASER_j$ is a value of absolute indicator of SER for population/dimension/group for region j ;

\overline{ASER} is a mean value of the same indicator of SER for population/dimension/group for m regions considered;

SD_{ASER} is a standard deviation of the value of absolute indicator of RSE for population/dimension/group for m regions considered.

It's natural that positive values of Z-scores will always correspond to relative worse situation pertinent to social exclusion for total population/dimension/group in region j and vice-versa. By using the Z-scores it's possible to compare regions according to relative severity of the risk of social exclusion. For that purpose the following conversion scheme for different scales is proposed:

Metric scale (value of Z-score for population/ dimension/group at SER for region j)	Semantic scale (relative degree of SER for population/dimension/group for region j)	Color scale (for mapping)
$2.0 \leq Z_j$	Very high	
$1.0 \leq Z_j < 2.0$	High	
$-1.0 \leq Z_j < 1.0$	Medium	
$-2.0 \leq Z_j < -1.0$	Low	
$Z_j \leq -2.0$	Very low	

The semantic scale makes it possible to classify regions in accordance with the degree of the SER at different levels, while the color one grants an opportunity to produce regional mapping of the SER.

Moreover, counting the number of groups of population with very high and high values of relative degree of the SER for a region j enables to develop an additional indicator, which may be called as *relative scope of SER*.

In addition to described indicators, a simple measure to highlight regional differentiation was developed. To get it an absolute value of SER for a group of population for a given region was divided by a correspondent mean value for all considered regions, multiplying the derived output by 100. Relative indexes extracted in this way will serve exclusively for graphic representation of cross-regional differences.

In summary, we propose the following basic set of indicators for measuring social exclusion risk of at regional level (see Fig. 1).

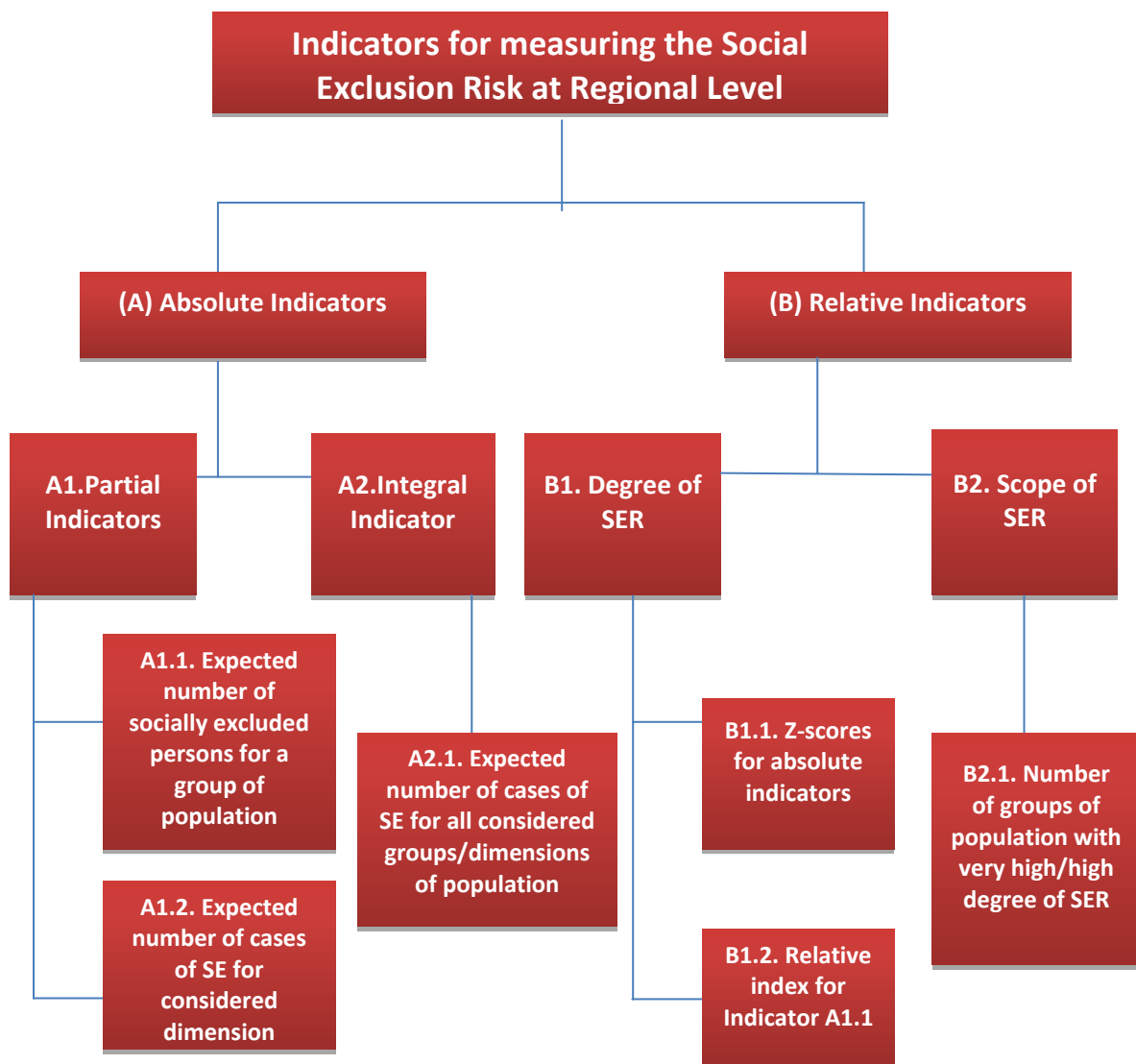


Fig. 1. A proposed set of indicators for quantitative assessment of social exclusion risk

The developed set of absolute and relative measures allows carrying out quantitative cross-regional analysis as of the magnitude as of degree and scope of the social exclusion risk. The outputs and outcomes of this examination will be demonstrated in the part 6 of the presented study.

5. DATA SOURCE

In this part we are implementing steps 2 and 3 shown in the scheme presented in part 3, particularly:

- selecting socially vulnerable population groups which can be identified at regional level by official statistical data;
- identifying the probabilities of the social exclusion risk occurrence for the selected socially vulnerable population groups on the basis of an expert survey.

5.1. Official statistics

Based on findings by Russian scholars dealing with problems of social exclusion, the following socially vulnerable groups were initially identified:

- (1) low-income persons;
- (2) unemployed persons;
- (3) socially vulnerable persons under age of 18;
- (4) disabled persons;
- (5) persons in need for social care;
- (6) persons experiencing serious health problems;
- (7) persons prone to a delinquent behavior.

Then in order to find an indicator which could characterize quantitatively each of the mentioned categories the available statistical data produced yearly in Russian Federation on regional level were scrutinized. As a result 29 primary indicators have been selected.

Then the above mentioned indicators were filtered. In this process the following were applied:

A) an indicator must reflect the average annual or end-of-year number of people in the socially vulnerable group (I_t) taking into account inflows (X_t) and outflows (Y_t) of individuals over the reporting year (t):

$$I_t = I_{t-1} + X_t - Y_t$$

B) an indicator was excluded if $I_t = 0$ for at least three regions;

C) if several indicators were available, than the most adequate has been selected.

In total 15 out of 29 indicators were rejected (see Table 2).

Table 2. Not-considered indicators

No.	Groups/Indicators	Elimination criteria
	<i>Group 2. Unemployed persons</i>	
1	Number of registered unemployed persons	C
2	Number of unemployed persons – recipients of unemployment benefit	C
	<i>Group 3. Socially vulnerable persons under age of 18</i>	
3	Number of residents of correctional boarding schools for orphans and abandoned	B
4	Number of identified homeless and neglected persons	A
	<i>Group 4. Disabled persons</i>	
5	Total number of disabled persons	C
	<i>Group 5. Persons in need for social care</i>	
6	Number of single aged persons in nursery homes	B
7	Number of aged persons served by specialized social units of medical care at home	B
8	Actual number of visitors of homes for temporary residence under social care centers	A+B

No.	Groups/Indicators	Elimination criteria
9	Actual number of visitors of homes for day dwelling under social care centers	A+B
10	Number of persons served over the year by social care units for persons of no fixed abode	A+B
	<i>Group 6. Persons experiencing serious health problems</i>	
11	Number of patients primary registered with the diagnosis of active tuberculosis	A
12	Number of patients primary registered with the diagnosis of malignant neoplasm	A
13	Number of patients primary registered with the diagnosis of syphilis	A
14	Number of patients primary registered with the diagnosis of psychic and behavioral disorder	A
	<i>Group 7. Persons prone to a delinquent behavior</i>	
15	Number of persons that committed crimes including those under age of 18	A+B

Finally we selected 14 primary indicators which characterize above mentioned socially vulnerable groups of population. That was the base for constructing 7 derivative, and 2 indicators were selected directly from official data. These indicators define the number of the population in 9 socially vulnerable groups (see Table 3).

Statistical data for measurement social exclusion risk concerning those groups at regional level are presented in the following profiles:

- indicator;
- data source;
- calculation algorithm (if necessary);
- web link.

With the purpose of implementing the calculation procedures proposed in part 4, the groups at risk of social exclusion were classified into three dimensions shown in Fig. 2.

Table 3. Statistical data for measurement social exclusion risk by groups of population at regional level

No	Group at social exclusion risk	Indicator/no of persons	Data source	Algorithm	Web-site
1	Low-income persons	Population with money income below the subsistence minimum level	Rosstat Survey «Household Income, Expenditures and Consumption»	(Share of population with money income below the subsistence minimum level) ¹ x (Total permanent population) ²	¹ http://www.fedstat.ru/indicator/data.do?id=33460&referrerType=0&referrerId=1292869 ² http://www.fedstat.ru/indicator/data.do?id=31556&referrerType=0&referrerId=1292836
2	Long-term unemployed	Unemployed seeking for a job no less than 12 months	Rosstat «Employment Survey»	(Total number of unemployed according to WLO) ¹ x (Share of unemployed seeking for a job no less than 12 months in total number of unemployed according to WLO) ²	¹ http://www.fedstat.ru/indicator/data.do?id=33414&referrerType=0&referrerId=1293224 ² http://www.gks.ru/wps/wcm/connect/rosstat_main/rosstat/ru/statistics/publications/catalog/doc_1140097038766
3	Residents of homes for orphans & abandoned	Total number of residents of homes for orphans and abandoned	Federal statistical form № D-13 «Data on homes for orphans and abandoned». Approved by Rosstat (Directive No 12, 14.01.2013). Section 3 «Data on inmates, number of groups and vacancies» (row 01, column 7)	Direct assessment	http://www.fedstat.ru/indicator/data.do?id=37464&referrerType=0&referrerId=946978
4	Aged & disabled inpatients of nursery homes	Total number of aged and disabled inpatients in nursery homes and persons in waiting list to become inpatients of such homes	Federal statistical form № 3-social care «Data on nursery homes for aged and disabled (adults and kids)». Approved by Rosstat (Directive No 196, 11.09.2009). Section «Data on nursery homes for aged and disabled (adults and kids), number and structure of inpatients» (row 11, column 4, row 51, column 4)	(Number of aged and disabled inpatients in nursery homes) ¹ + (Number of aged and disabled in waiting list to become inpatients of nursery homes) ²	¹ http://www.fedstat.ru/indicator/data.do?id=41603&referrerType=0&referrerId=1633191 ² http://www.fedstat.ru/indicator/data.do?id=41599&referrerType=0&referrerId=1633191

No	Group at social exclusion risk	Indicator/no of persons	Data source	Algorithm	Web-site
5	Aged and disabled in need for social care at home	Total number of aged and disabled receiving social care at home and in waiting list to receive social care at home	Federal statistical form № 6-social care «Data on social care of aged and disabled». Approved by Rosstat (Directive No 196, 11.09.2009). Section 1 «Centers and departments for social care at home» (row 03, column 4, row 23, column 4)	(Number of aged and disabled who received social care at home) ¹ + (Number of aged and disabled in waiting list to receive social care at home) ²	¹ http://www.fedstat.ru/indicator/data.do?id=41592&referrerType=0&referrerId=1633193 ² http://www.fedstat.ru/indicator/data.do?id=41591&referrerType=0&referrerId=1633193
6	Disabled under age of 18 living with family	Number of disabled (0–17 years) outpatients of medical centers	Federal official statistical form No. 19 «Data on disabled kids». Approved by Rosstat (Directive No 483, 31.12.2010). Section 1 «Contingents of disabled kids» (rows 09 and 10, column 4).	Direct assessment	http://www.fedstat.ru/indicator/data.do?id=41687&referrerType=0&referrerId=946896
7	Alcohol addicts	Total number of heavy drinkers with harmful outcomes	Federal state budget establishment «National Scientific Drug Abuse Center» under the Ministry for Public Health of the Russian Federation. «Basic indicators of the drug abuse control in Russian Federation». Tables 16.3 and 16.7	(Number of reported alcohol addicts) + (Number of reported heavy drinkers with harmful outcomes)	http://nncn.ru/11_19.html
8	Drug addicts	Total number of drug addicts and drug consumers with harmful outcomes	Federal state budget establishment «National Scientific Drug Abuse Center» under the Ministry for Public Health of the Russian Federation. «Basic indicators of the drug abuse control in Russian Federation». Tables 16.4 and 16.8	(Number of reported drug addicts) + (Number of reported drug consumers with harmful outcomes)	http://nncn.ru/11_19.html
9	HIV infected persons	Number of HIV infected persons in the regions of Russian Federation	«Federal Scientific and Methodological Center for the Prevention and Control of AIDS» under the Ministry for Public Health of the Russian Federation. Sections of site «Statisticals» (up to 2012) or «News» (2013). Table	(Reported number of HIV infected persons in the regions of Russian Federation) ¹ – (Number of HIV infected belonging to injection drug users) ²	¹ http://hivrussia.ru/stat/index.shtml or http://hivrussia.ru/news/index.shtml ² http://nncn.ru/11_19.html

No	Group at social exclusion risk	Indicator/no of persons	Data source	Algorithm	Web-site
			<p>«Number of follow-up HIV infected persons – citizens of Russian Federation (column 2). Federal state budget establishment «National Scientific Drug Abuse Center» under the Ministry for Public Health of the Russian Federation. «Basic indicators of the drug abuse control in Russian Federation». Table 18.2</p>		

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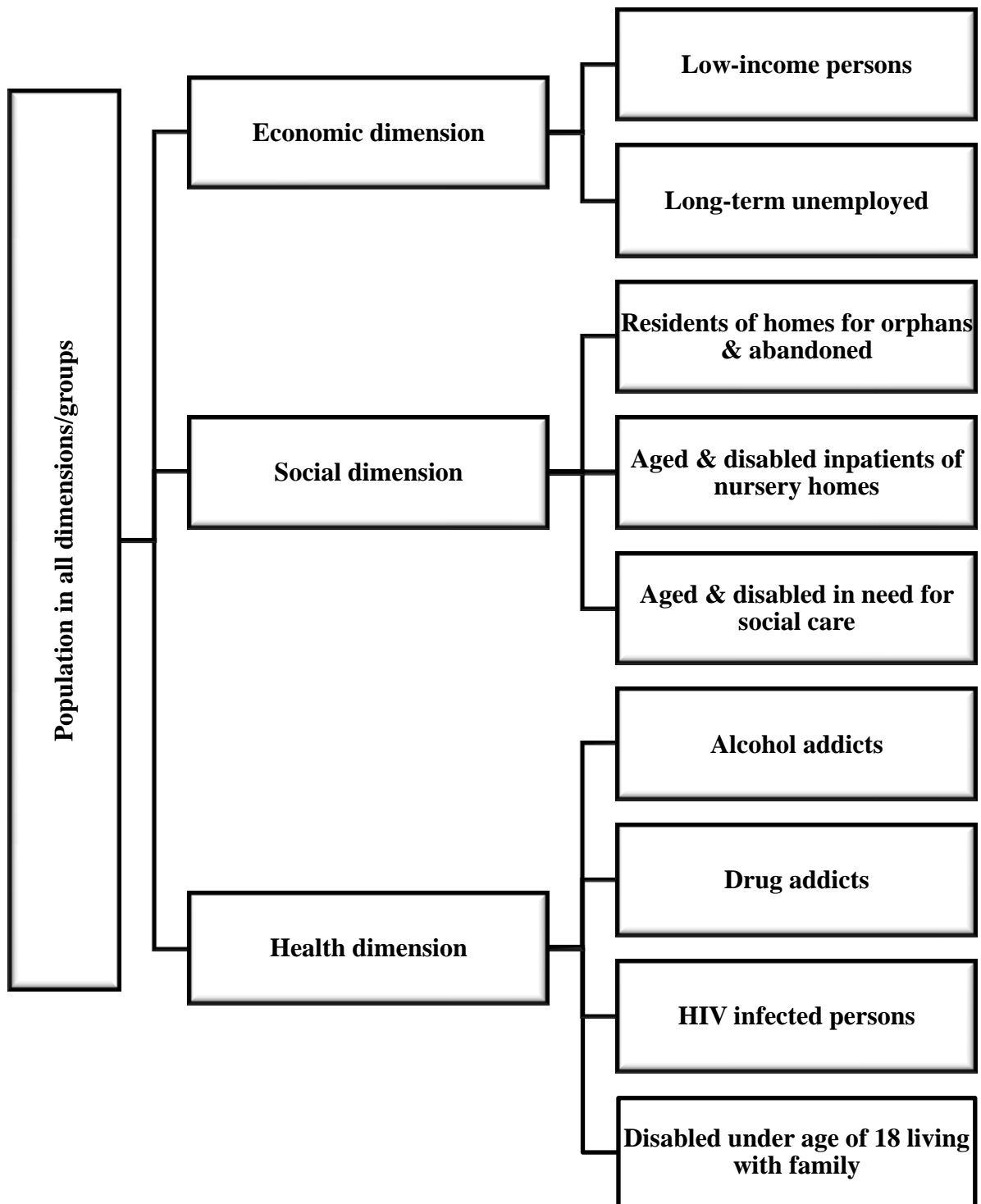


Fig. 2. Sets of population at social exclusion risk

The analysis of availability of statistical data at the regional level allowed to perform the calculations for 81 regions of Russian Federation (except the Republic of Ingushetia, Nenets Autonomous Area, Republic of Crimea, and the Federal city Sevastopol).

5.2. Expert survey

In order to identify the probabilities of occurrence of the social exclusion risk for each of the nine population groups selected in section 5.1, we developed tools for expert survey which included the following:

- a questionnaire (see Annex C);
- instructions for filing questionnaire;
- expert selection principles.

The experts we selected were specialists and practitioners in the area of social policies, social science, economics and psychology.

In accordance with the basic interpersonal social relationships identified in part 3, the respondents were proposed to answer five questions for each of the nine groups at risk of social exclusion.

The questions were formulated in the following form: «Do you agree with the following statement: An individual belonging to a considered group would have serious problems while communicating with...». Respondents were proposed to express what extent they agree with these assertions. For this purpose, a five-level Likert scale was used (1 – «Agree», 2 – «Rather agree», 3 – «Difficult to say», 4 – «Rather don't agree» and 5 – «Don't agree»).

The survey was conducted in August 2014 through the use of questionnaires to be filled by 47 experts themselves. The principal characteristics of the experts were as follows:

a) gender:

male – 16 persons or 34,0 percent;

female – 31 persons or 66,0 percent;

b) age:

under 29 years – 13 persons or 27,7 percent;

30–39 years – 4 persons or 8,5 percent;

40–49 years – 5 persons or 10,6 percent;

50–59 years – 18 persons or 38,3 percent;

over 60 years – 7 persons or 14,9 percent.

c) education:

doctorate degree – 3 persons or 6,4 percent;

PhD degree – 15 persons or 31,9 percent;

higher education – 26 persons or 55,3 percent;

general secondary or vocational secondary education – 3 persons or 6,4 percent.

The results of statistical processing of the available dataset are shown in part 6.

6. OUTPUTS AND OUTCOMES

This part presents the main results closely related to objectives of our research we are driving at. Firstly, by using expert survey outputs, the expected values of probabilities of social exclusion risk occurrences for selected groups of population were calculated. Secondly, by

applying the derived probabilities and knowing the number of persons at risk for considered group of population, the values of various indicators of social exclusion risk at regional level were evaluated.

6.1. Derived probabilities of social exclusion risk occurrence

In compliance with the equation (3) specified in the part 4 of our study, and based on expert survey, which particulars has been outlined in the part 5, the values of probabilities of rupture of basic interpersonal social relations for each group of socially vulnerable population were quantified. The products of this estimation are shown in Table 3.

Table 3. Expert survey: the values of mean probabilities (\bar{p}_{ir}) * that members of specified group might be excluded from considered basic interpersonal social relationship

Group of socially vulnerable population <i>i</i>	Interpersonal social communication <i>r</i> with				
	Family/ household members	Friends/ Acquaintances	Colleagues/ Work associates	Authorities/ Officials	Neighborhood / Community
Disabled under age of 18 living with family	0,431 (0,043)	0,569 (0,047)	0,585 (0,046)	0,564 (0,043)	0,282 (0,041)
Alcohol addicts	0,926 (0,020)	0,628 (0,049)	0,755 (0,042)	0,830 (0,031)	0,883 (0,029)
Drug addicts	0,899 (0,024)	0,649 (0,046)	0,739 (0,037)	0,819 (0,031)	0,926 (0,021)
HIV infected persons	0,601 (0,039)	0,564 (0,045)	0,548 (0,043)	0,585 (0,045)	0,691 (0,044)
Residents of homes for orphans & abandoned	0,848 (0,038)	0,585 (0,048)	0,489 (0,041)	0,697 (0,044)	0,426 (0,053)
Aged&Disabled in need for social care at home	0,553 (0,045)	0,612 (0,049)	0,477 (0,054)	0,574 (0,039)	0,261 (0,039)
Aged & Disabled inpatients of nursery homes	0,761 (0,042)	0,734 (0,049)	0,652 (0,050)	0,622 (0,046)	0,298 (0,043)
Long-term unemployed	0,644 (0,035)	0,367 (0,045)	0,462 (0,058)	0,532 (0,048)	0,420 (0,040)
Low-income persons	0,399 (0,045)	0,378 (0,039)	0,431 (0,047)	0,532 (0,048)	0,351 (0,042)

* The values of standard errors for mean probabilities are shown in brackets.

Taking into account the mean probabilities for each type of interpersonal social communication, the required values of probabilities of occurrence of social exclusion risk for persons belonging to considered group of population were appraised through the expression (4) that has been developed in the part 4 of our research. The output of this iteration is depicted in Fig. 3.

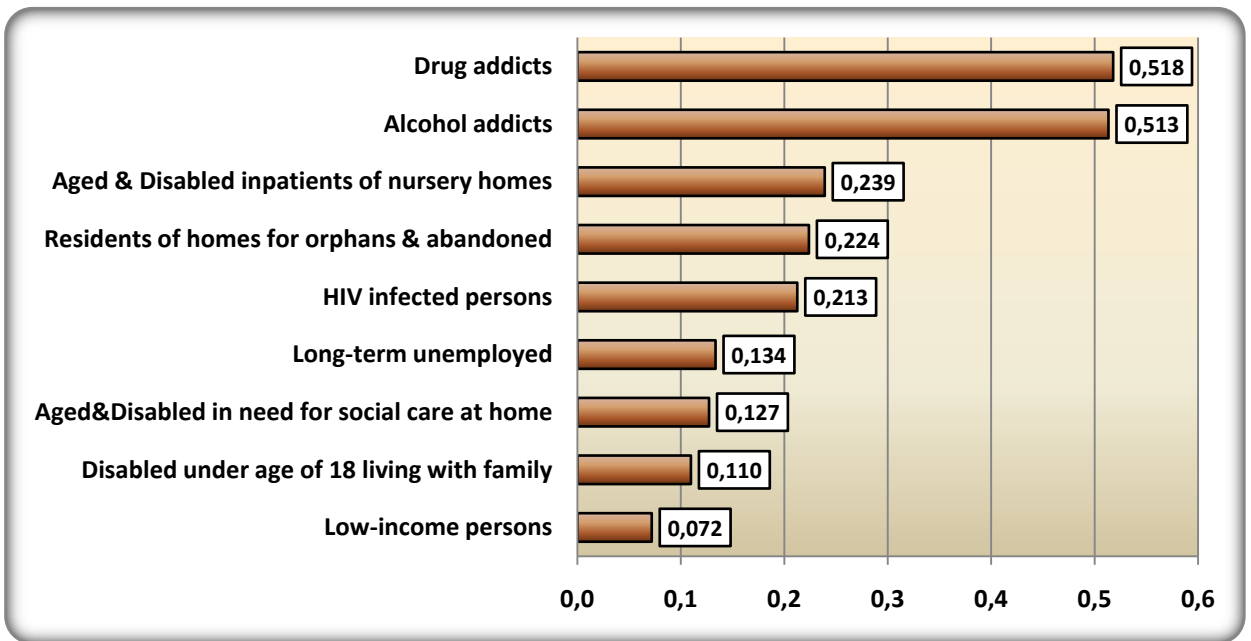


Fig. 3. Expert survey: Assessed probabilities of social exclusion risk occurrence for individuals belonging to considered group of population

As one can see, a range of the values of assessed probabilities of social exclusion varies considerably among considered socially vulnerable groups of population, from the highest values for drug and alcohol addicts to the lowest ones for low-income persons.

6.2. Regional ratings for groups of population and dimensions

Before developing regional ratings of social exclusion risk (hereinafter referred as the SER) the appropriate data have been constructed. This procedure has been carried out using outputs of the expert survey, and was based on the Russian official statistical sources of information at regional level (see part 5 for details).

In the first place, in accordance with algorithms presented in part 3, the values of absolute and relative social exclusion risk indicators pertaining to each considered group of socially vulnerable population were calculated. In the second place, on the ground of the above-derived figures, the correspondent values for considered dimension and groups of population have been assessed and stored in databank.

As follows, the outcomes presented below were arranged around the three basic dimensions of social exclusion risk, namely:

- Health dimension;
- Social dimension;
- Economic dimension.

In turn, each dimension has been analyzed through its constitutive elements (groups of people carrying SER) including the following steps:

- specifying frequency distribution and basic statistics of the values of SER;
- grouping of regions according to degree of its SER;
- sorting out regions characterized by very high/high degree of SER;
- discussing some relevant figures pertaining to the latter.

6.2.1. Health dimension

The considered dimension included four socially vulnerable groups of population such as: (1) Disabled under age of 18 living with family; (2) Alcohol addicts; (3) Drug addicts and (4) HIV infected persons.

Disabled under age of 18 living with family

Frequency distribution of the values of SER for this group in 2012 for considered number of 81 Russian regions is presented below (see Fig. 4).

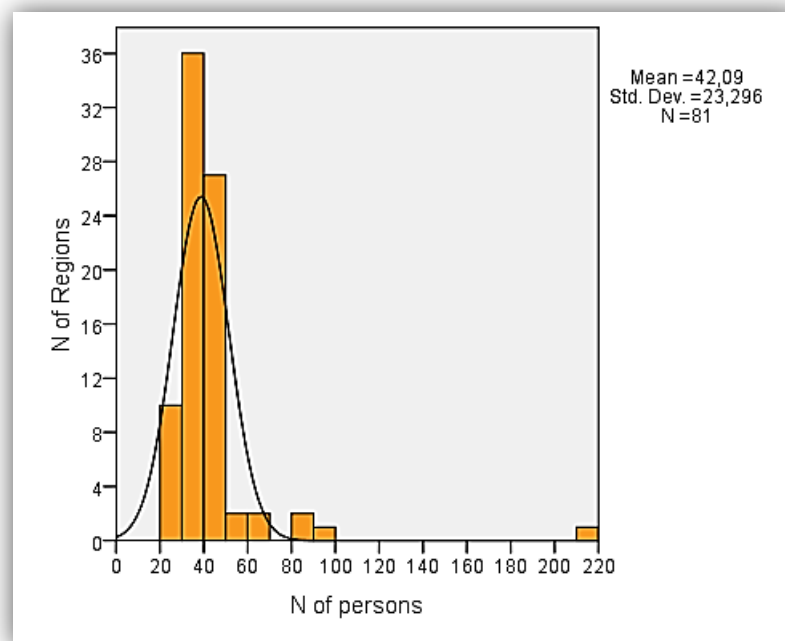


Fig. 4. The Russian Federation: Regional distribution of expected number of socially excluded persons per 100000 of population for the group of Disabled under age of 18 living with family, 2012

One can see that in 2012 the majority of regions was situated within a “band” of the absolute SER values varying between 30 and 50 persons per 100000 of regional population. Consequently, the presented distribution was highly asymmetrical with the Skewness value equal to 5,719. As a result, in this year only five regions were characterized by very high/high degree of SER, while the rest of them, consisting of 76 regions, had the medium degree of social exclusion risk.

The ratio between the highest value of the SER, equal to 217 of the expected number of socially excluded persons for this group (Chechen Republic), and the lowest one, equal to 25 ones (Voronezh Region), was 9:1.

A set of the most risky regions conforming to SER for considered group of population is shown in Table 4.

Table 4. Russian regions highly exposed to the social exclusion risk: Disabled under age of 18 living with family, 2012

N	Region of the Russian Federation	Measures of social exclusion risk		
		Absolute indicator*	Relative index**	Degree
1	Chechen Republic	217	7,55	Very high
2	Republic of Daghestan	95	2,29	Very high
3	Republic of Tuva	87	1,93	High
4	Republic of Kalmykia	83	1,78	High
5	Republic of Sakha (Yakutia)	69	1,18	High

*Expected number of socially excluded persons per 100000 of population; **Z-score for an absolute indicator.

Such a regional representation would have been determined by two factors. On the one hand, all thereby identified regions, save the Republic of Kalmykia, had in 2012 an overrepresented weight for the group of youth generation due to the high observable birth rates. On the other hand, the very high relative index of SER for Chechen Republic suggests that the large number of kids with disabilities might be an outcome of antiterrorist operations that have been carried out on the ground of this region.

Alcohol addicts

Frequency distribution of the values of SER in 2012 for considered group of population is presented below in Fig. 5.

The significant number of Russian regions belonged in this year to the domain for which absolute values of the SER oscillated between 600 and 1200 persons per 100000 of population. The depicted distribution demonstrated right-handed curve with Skewness value that amounted to 1,311.

The ratio of the highest value of the SER, equal to 2683 of the expected number of socially excluded persons for this group (Tyumen Region), to the lowest one, equal to 168 ones (Chechen Republic), was 16:1.

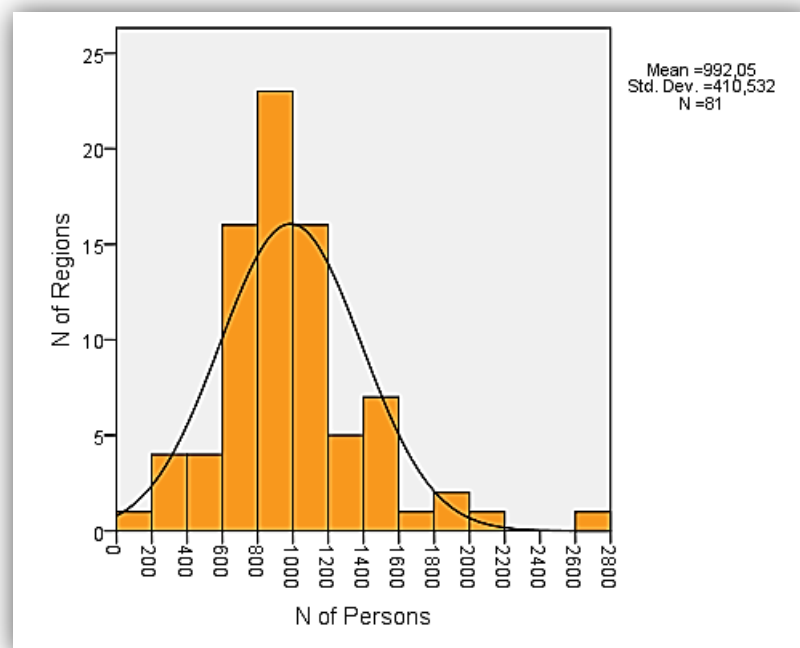


Fig. 5. The Russian Federation: Regional distribution of expected number of socially excluded persons per 100000 of population for the group of Alcohol addicts, 2012

The regional distribution of the values of SER for considered socially vulnerable group of population demonstrated that:

- 12 regions belonged to the category of highly exposed to SER;
- 7 regions registered the low relative values of SER;
- 1 region have shown the very low relative degree of SER;
- the rest of 61 regions remained in the “neutral” domain characterized by medium degree of SER.

A set of the most risky regions conforming to SER for considered group of population is shown in Table 5.

Table 5. Russian regions highly exposed to the social exclusion risk: Alcohol addicts

N	Region of the Russian Federation	Measures of social exclusion risk		
		Absolute indicator*	Relative index**	Degree
1	Tyumen Region	2683	4,15	Very high
2	Chukotka Autonomous Area	2158	2,86	Very high
3	Magadan Region	1964	2,38	Very High
4	Ivanovo Region	1851	2,11	Very High
5	Kamchatka Territory	1776	1,92	High
6	Sakhalin Region	1585	1,45	High
7	Samara Region	1543	1,35	High
8	Chuvash Republic	1517	1,29	High
9	Republic of Adygea	1458	1,14	High
10	Nizhny Novgorod Region	1432	1,08	High
11	Bryansk Region	1424	1,06	High
12	Kirov Region	1407	1,02	High

*Expected number of socially excluded persons per 100000 of population; **Z-score for an absolute indicator.

The preliminary analysis have shown that the degree of social exclusion for this cohort of population didn't generally correspond to so called «depressive» or «backward» regions, save the cases of the Republic of Adygea and the Kamchatka Territory. Quite the contrary, the alcoholization phenomenon affected as industrially developed regions of Privolzhsky (Volga) Federal District, as the resource-based regions of Siberian and Far East Federal Districts with relative high per capita income.

Drug addicts

Frequency distribution of the values of SER in 2012 for this group of population is presented below (see Fig. 6).

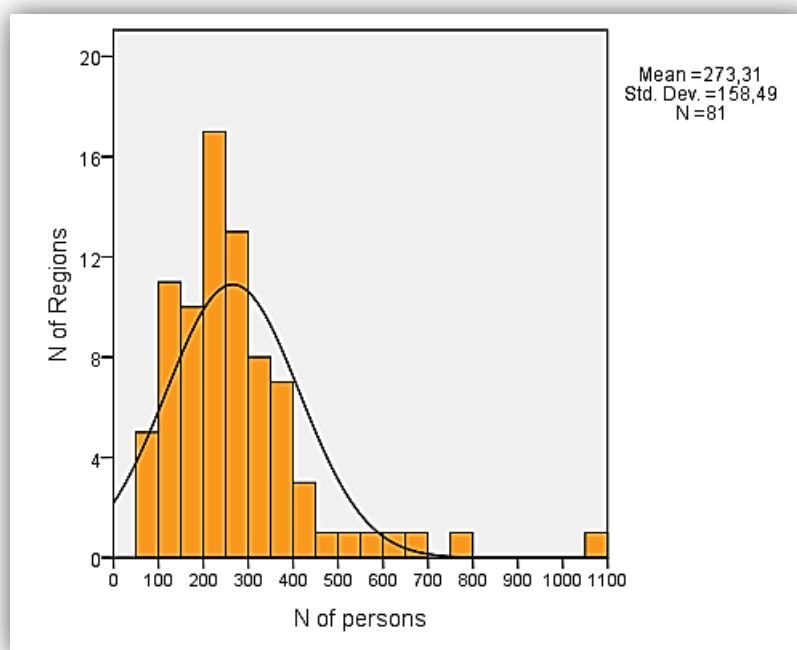


Fig. 6. The Russian Federation: Regional distribution of expected number of socially excluded persons per 100000 of population for the group of Drug addicts, 2012

The Fig. 6 demonstrates asymmetrical right-handed curve (Skewness value equal to 2,229) with seven strongly expressed regional “outbursts”.

The ratio between the highest value of the SER (Samara Region), equal to 1054 of the expected number of socially excluded persons per 100000 of regional population for this group, to the lowest one, equal to the 71 ones (Republic of Buryatia), was 15:1.

The regional breakdown of the values of SER for the group of drug addicts indicated that in 2012:

- 7 regions belonged to the category of highly exposed to SER;
- 6 regions registered low relative values of SER;
- the remaining 68 regions have been characterized by medium values of SER.

A list of the most risky regions in accordance with SER for considered group of population is shown in Table 6.

Table 6. Russian regions highly exposed to the social exclusion risk: Drug addicts

N	Region of the Russian Federation	Measures of social exclusion risk		
		Absolute indicator*	Relative index**	Degree
1	Samara Region	1054	4,95	Very high
2	Kurgan Region	767	3,13	Very high
3	Chuvash Republic	656	2,43	Very High
4	Republic of Adygea	620	2,20	Very High
5	Astrakhan Region	593	2,03	Very High
6	Kemerovo Region	521	1,58	High
7	Orenburg Region	496	1,41	High

*Expected number of socially excluded persons per 100000 of population; **Z-score for an absolute indicator.

The above presented set of subjects of the Russian Federation highly exposed to the SER included, on the one hand, the frontier regions (the Orenburg, the Kurgan and the Astrakhan Regions) and, on the other hand, comprised regions well suited to narcotraffic routs.

HIV infected persons

Frequency distribution of the values of SER in 2012 for considered group of population is presented in Fig. 7.

The depicted in Fig. 7 distribution is asymmetrical and right-handed (with Skewness value equal to 1,539). The significant number of Russian regions demonstrated in this year the values of the SER varying from 4 to 40 numbers of persons per 100000 of regional population.

The ratio of the highest value of the SER (Irkutsk Region), equal to the number of 302 persons for this group, to the lowest one, equal to the 4 ones (Republic of Tuva), was an alarming 75:1.

In 2012 the distribution of Russian regions by the values of the SER for the group of HIV infected persons was the following:

- 12 regions belonged to the category of highly exposed to the SER;
- none of the regions registered the low values of the SER;
- the remaining 69 regions have been characterized by medium degree of the SER.

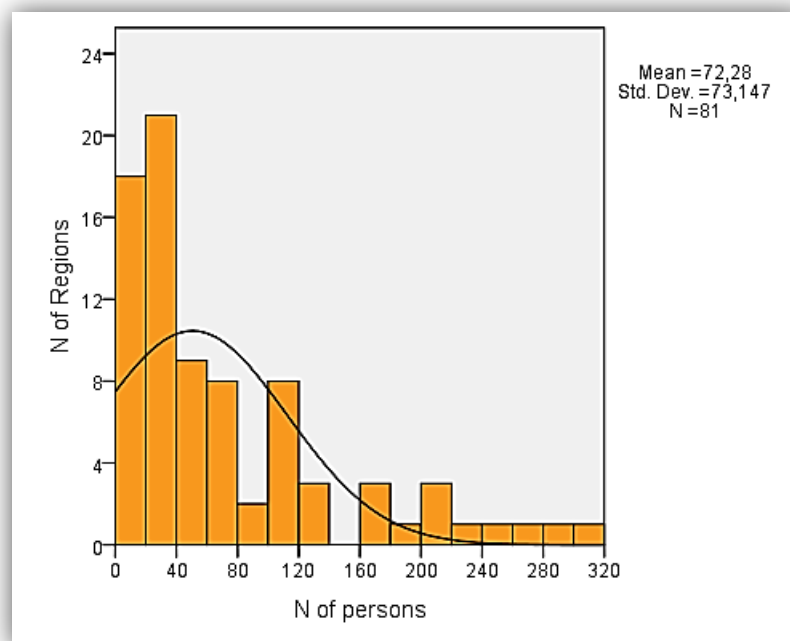


Fig. 7. The Russian Federation: Regional distribution of expected number of socially excluded persons per 100000 of population for the group of HIV infected, 2012

A list of the more exposed to the SER regions for considered group of population is shown in Table 7.

Table 7. Russian regions highly exposed to the social exclusion risk: HIV infected persons

N	Region of the Russian Federation	Measures of social exclusion risk		
		Absolute indicator*	Relative index**	Degree
1	Irkutsk Region	302	3,17	Very high
2	Samara Region	293	3,03	Very high
3	Sverdlovsk Region	269	2,71	Very High
4	Orenburg Region	254	2,50	Very High
5	Leningrad Region	236	2,26	Very High
6	Kemerovo Region	206	1,84	High
7	Khanty-Mansi Autonomous Area	205	1,82	High
8	St. Petersburg	203	1,80	High
9	Ulyanovsk Region	190	1,61	High
10	Tyumen Region	178	1,45	High
11	Kaliningrad Region	164	1,26	High
12	Chelyabinsk Region	160	1,21	High

*Expected number of socially excluded persons per 100000 of population; **Z-score for an absolute indicator.

Examining the presented list of highly exposed to SER subjects of the Russian Federation, it is evident that the propagation of HIV infection mainly affected regions with high values of GRP per capita (as the industrial developed centers, as well the resource-based ones). In addition, the frontier location of considered territory has been playing the important role in this respect.

Health Dimension: Summary

Integral frequency distribution of the values of SER in 2012 for considered dimension is presented in Fig. 8.

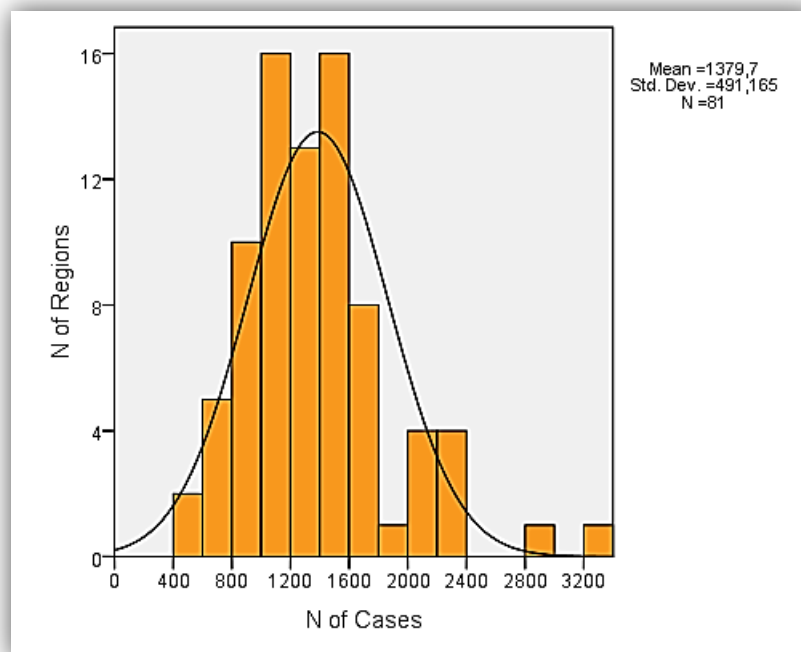


Fig. 8. The Russian Federation: Regional distribution of expected number of cases of social exclusion per 100000 of population for the Health dimension, 2012

It was characterized by pronounced bimodal curve with two peaks of expected number of social exclusion cases per 100000 of population within corresponding intervals of 1000–1200 and of 1400–1600 that encompassed 32 Russian regions.

As expected, it was right-handed skewed type of distribution curve, having the value of Skewness totaled 1,170, and the mean value of SER equal to 1380 was slightly above the median value of 1342.

In 2012 the distribution of Russian regions by the values of the SER for Health dimension revealed the following figures:

- 10 regions belonged to the category of highly exposed to the SER;
- 8 regions registered the low values of the SER;
- the remaining 63 regions have been characterized by medium values of the SER.

A list of the 10 more exposed to the SER regions for considered dimension is shown in Table 8.

Table 8. Russian regions highly exposed to social exclusion risk: Health dimension

N	Region of the Russian Federation	Measures of social exclusion risk		
		Absolute indicator*	Relative index**	Degree
1	Tyumen Region	3241	3,81	Very high
2	Samara Region	2921	3,16	Very high
3	Chukotka Autonomous Area	2368	2,03	Very High
4	Chuvash Republic	2238	1,76	High
5	Kurgan Region	2220	1,72	High
6	Magadan Region	2214	1,71	High
7	Ivanovo Region	2188	1,66	High
8	Republic of Adygea	2134	1,54	High
9	Sakhalin Region	2022	1,32	High
10	Kamchatka Territory	2018	1,31	High

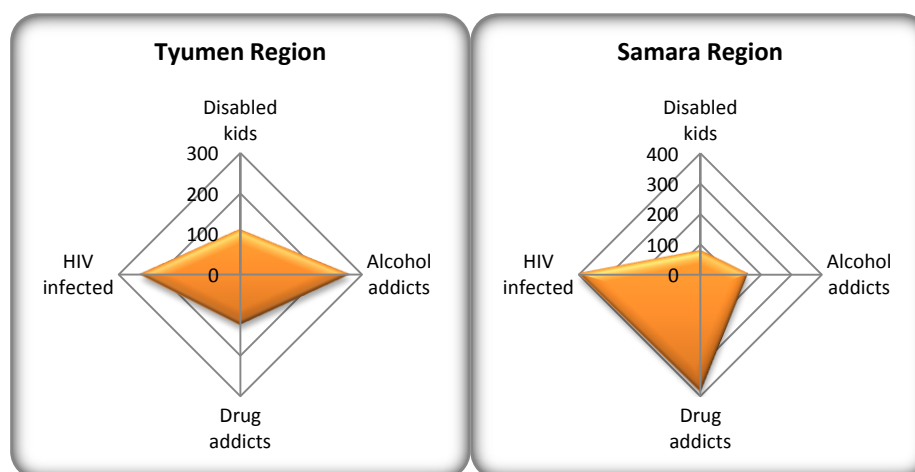
*Expected number of cases of social exclusion per 100000 of population; **Z-score for an absolute indicator.

The highly exposed to SER regions in that dimension were hugely differentiated by the combination of the values of relative significance of SER for each group of population at risk.

To derive an index for measuring interregional differentiation, an absolute value of SER for considered group of population for a given region was divided by the correspondent mean value for all of the 81 subjects of the Russian Federation, and then multiplying the derived output by 100.

Note that, unlike the relative indexes used for measuring the degrees of social exclusion risk, and which values are expressed in Z-scores, relative figures extracted in this way will serve exclusively for visualization of interregional differences. Besides that, the graphic outputs would undoubtedly facilitate a visual understating of the multidimensional character of social exclusion phenomenon by various stakeholders at national and regional levels.

The graphical illustration of above stated approach in relation to the four most risky regions for the considered dimension is presented in Fig. 9–12.



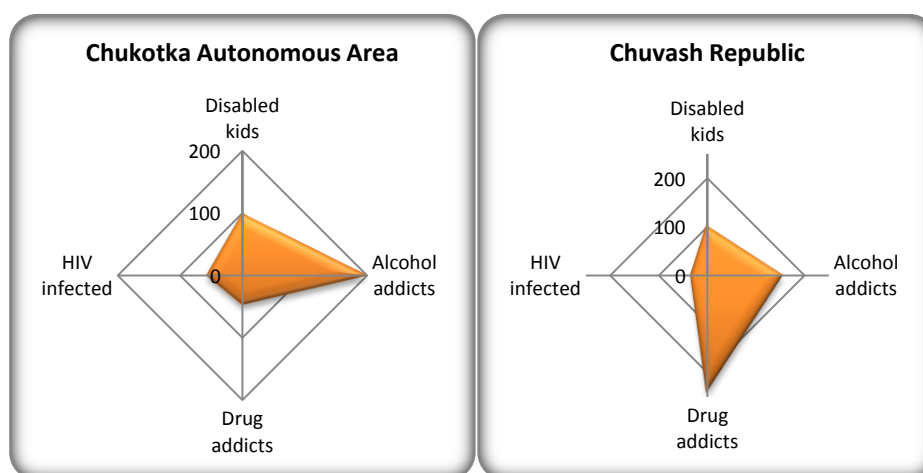


Fig. 9–12. The top 4 Russian regions exposed to SER in the Health dimension: Indexes by constituent groups of population (the mean value for 81 Russian regions = 100)

It is clear that the said regions in 2012 differed substantially in combinations of the values of relative indexes for various groups of population. The presented pictures unequivocally allow us to categorize the mentioned regions as pertaining to four different types regarding the main drivers of social exclusion phenomenon.

The same was also true for the rest of the most risky regions. For example, against all of the considered 81 Russian regions, the Magadan and the Ivanovo Regions (sixth and seventh position in the Social dimension rating) were notable for very high relative level of alcoholization, while the Kurgan Region and the Republic of Adygea (fifth and eighth position respectively) were distinguished by the huge relative level of illicit drug abuse.

Along with cross-regional comparisons based on relative indexes, there is a need to assess a contribution of each group at risk to the value of integral indicator of SER for a given region. For all of the 81 Russian regions, the main contribution to the value of expected number of socially excluded was made by the group of alcohol addicts. In 2012, on the average, this group of population accounted for 71 out of 100 expected cases of social exclusion for the considered dimension. In this respect the «leading» positions were occupied by four subjects of the Russian Federation, namely: the Chukotka Autonomous Area (91% of the value of SER explained), the Magadan Region (89%), the Kamchatka Territory (88%), and the Tambov Region (88%). Note that only the latter didn't belong to the set of regions highly exposed to SER in the considered dimension.

The second in importance group of population in Health dimension was related to the set of drug abuse persons. On the average, this group determined 20 out of 100 expected cases of SE for the considered dimension. The short list of regions with the highest shares in this respect involved the Samara Region (36%), the Republic of Daghestan and the Kurgan Region (35% both), the Kemerovo and Astrakhan Regions (33% both).

The third contributor to the value of SER in Health dimension, have been related to the

group of HIV infected. On the average for all of the 81 Russian regions, this group contributed only to 6 out of 100 expected cases of SE. The marked exceptions were registered for the following regions: St. Petersburg (30%), the Sverdlovsk Region (26%), the Irkutsk Region (19%), and the Republic of Buryatia (17%).

The last group of population that included kids with disabilities living with families played the minor role: its contribution to the average value of absolute indicator of SER for this dimension was equal to 4%. The salient exceptions in this respect were registered in the Chechen Republic (39%) and in the Republic of Daghestan (13%).

5.2.2. Social dimension

This dimension includes three socially vulnerable groups of population such as:

(1) Residents of homes for Orphans & Abandoned; (2) Aged & Disabled people in need for social care at home; (3) Aged & Disabled inpatients of nursery homes

Residents of homes for Orphans & Abandoned

Frequency distribution of absolute values of SER for considered group of population by the 81 Russian regions in 2012 is presented in Fig. 13.

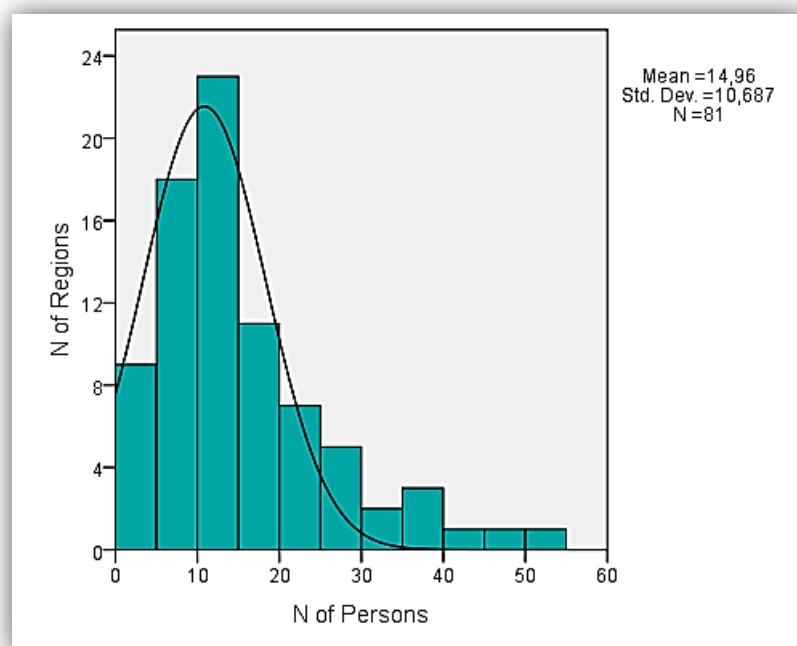


Fig. 13. The Russian Federation: Regional distribution of expected number of socially excluded persons per 100000 of population for the group of Residents of homes for Orphans & Abandoned, 2012

As one can see, the significant number of Russian regions belonged in this year to the domain for which the absolute values of the SER varied between 5 and 15 persons per 100000 of population. The depicted distribution demonstrated right-handed curve with Skewness value that amounted to 1,446.

The highest value of SER was equal to the 54 of the expected number of socially

excluded persons for this group (Jewish Autonomous Region), while the lowest one was equal to the 1 (Chechen Republic).

In 2012 the distribution of Russian regions by the values of the SER for considered group of population revealed the following figures:

- 11 regions belonged to the category of highly exposed to SER;
- 9 regions registered low values of SER;
- the rest of 61 regions have been characterized by medium degree of SER.

A list of the more exposed to SER due to the orphanage phenomenon regions is shown in the Table 9.

As one can see, the majority of the problem regions for considered group of population, save the Pskov region and the Komi Republic, belonged to the Far East and Siberian Federal Districts of the Russian Federation. The causes of detected concentration are unclear and needed to be verified in further researches.

Table 9. Russian regions highly exposed to social exclusion risk: Residents of homes for Orphans & Abandoned

N	Region of the Russian Federation	Measures of social exclusion risk		
		Absolute indicator*	Relative index**	Degree
1	Jewish Autonomous Region	54	3,74	Very high
2	Trans-Baikal Territory	47	3,02	Very high
3	Amur Region	42	2,52	Very High
4	Magadan Region	39	2,24	Very High
5	Kemerovo Region	37	2,08	Very High
6	Irkutsk Region	36	1,95	High
7	Khabarovsk Territory	31	1,55	High
8	Pskov Region	30	1,42	High
9	Kamchatka Territory	29	1,34	High
10	Chukotka Autonomous Area	28	1,25	High
11	Komi Republic	26	1,05	High

*Expected number of socially excluded persons per 100000 of population; **Z-score for an absolute indicator.

Aged & Disabled people in need for social care at home

Frequency distribution of absolute values of SER for considered group of population by the 81 Russian regions is presented in Fig. 14.

The depicted distribution is a quasi-normal though right-handed (with Skewness value equal to 0,713) and the mean value of SER equal to 109,7 that was slightly above the median value of 102.

The ratio of the highest value of the SER (Rostov Region), equal to 241 expected number of socially excluded per 100000 of population, to the lowest one, equal to the 21 (Khanty-Mansi Autonomous Area – Yugra), was 11,5:1.

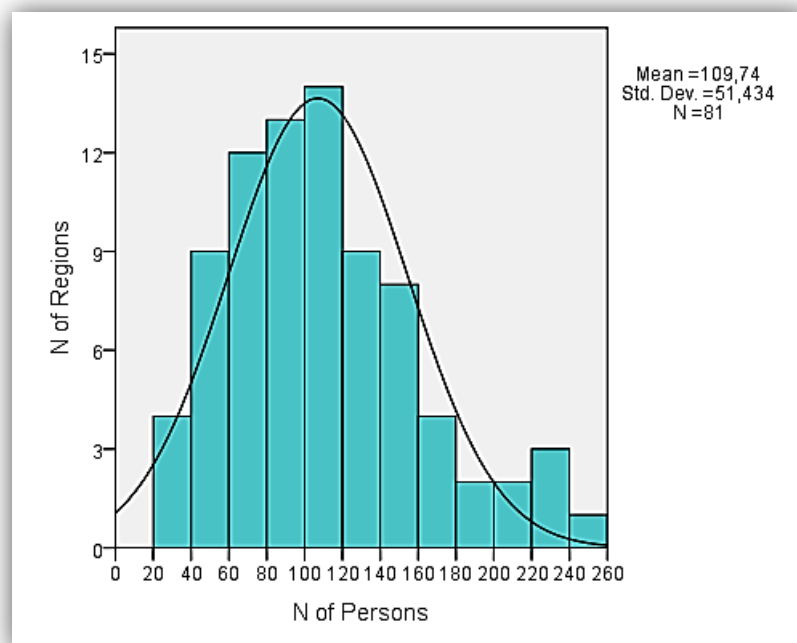


Fig. 14. The Russian Federation: Regional distribution of expected number of socially excluded persons per 100000 of population for the group of Aged & Disabled in need of social care at home, 2012

The regional distribution of the values of SER for considered socially vulnerable group of population demonstrated that:

- 12 regions belonged to the category of highly exposed to SER;
- 12 regions registered the low relative values of SER;
- the rest of 57 regions have been characterized by medium degree of SER.

The listing of the more exposed to the SER regions is shown in Table 10.

Table 10. Russian regions highly exposed to social exclusion risk: Aged & Disabled in need for social care at home

N	Region of the Russian Federation	Measures of social exclusion risk		
		Absolute indicator*	Relative index**	Degree
1	Rostov Region	241	2,56	Very high
2	Tambov Region	235	2,44	Very high
3	Saratov Region	234	2,42	Very High
4	Samara Region	223	2,22	Very High
5	Lipetsk Region	219	2,14	Very High
6	Kurgan Region	203	1,83	High
7	Orenburg Region	193	1,62	High
8	Omsk Region	191	1,59	High
9	Chechen Republic	178	1,35	High
10	Penza Region	173	1,25	High
11	Yaroslavl Region	173	1,24	High
12	Kemerovo Region	166	1,10	High

*Expected number of socially excluded persons per 100000 of population; **Z-score for an absolute indicator.

Unlike the distribution for Orphans & Abandoned, the presented list did not include any of the subjects of the Russian Federation forming part of the Far East Federal District. As one can see, the majority of presented regions, save the Chechen Republic, were distinguished by high share of aging population.

Aged & Disabled inpatients of nursery homes

Frequency distribution of absolute values of SER for considered group of population by the 81 Russian regions is presented in Fig. 15.

As for the previous group, the derived distribution is a quasi-normal (though right-handed) with Skewness value equal to 0,428 and the mean value of SER equal to 57 that was near to the median value of 53.

The ratio of the highest value of the SER that amounted to the expected number of 124 socially excluded persons (per 100000 of population) for the Republic of Khakassia, to the lowest one, equal to the only three for the Chechen Republic, was 41:1.

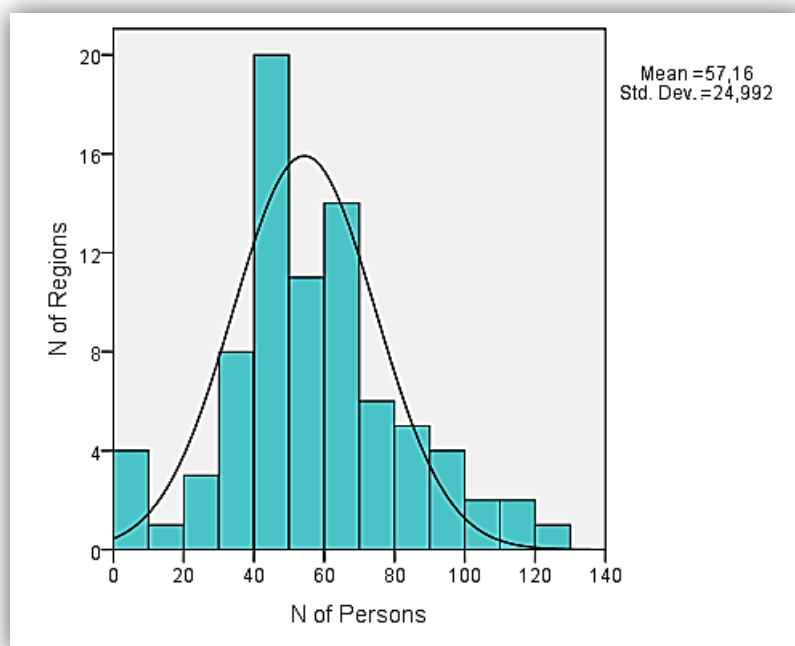


Fig. 15. The Russian Federation: Regional distribution of expected number of socially excluded persons per 100000 of population for the group of Aged & Disabled inpatients of nursery homes, 2012

In 2012 the distribution of Russian regions by the values of the SER for considered group of population revealed the following figures:

- 14 regions belonged to the category of highly exposed to SER;
- 9 regions registered the low and very low values of SER;
- the rest of 58 regions have been characterized by medium degree of SER.

A list of the more exposed to the SER regions for considered group of population is shown in Table 11.

Table 11. Regions highly exposed to social exclusion risk: Aged & Disabled inpatients of nursery homes

N	Region of the Russian Federation	Measures of social exclusion risk		
		Absolute indicator*	Relative index**	Degree
1	Republic of Khakassia	124	2,68	Very high
2	Pskov Region	119	2,50	Very high
3	Jewish Autonomous Region	118	2,46	Very High
4	Magadan Region	107	2,01	Very High
5	Sakhalin Region	100	1,74	High
6	Vologda Region	96	1,57	High
7	Novgorod Region	96	1,57	High
8	Smolensk Region	95	1,53	High
9	Tver Region	91	1,35	High
10	Komi Republic	89	1,27	High
11	Ivanovo Region	89	1,27	High
12	Republic of Tuva	84	1,07	High
13	Kirov Region	83	1,03	High
14	Kostroma Region	82	1,00	High

*Expected number of socially excluded persons per 100000 of population; **Z-score for absolute indicator.

Social Dimension: Summary

Integral frequency distribution of the values of SER in 2012 for considered dimension is presented in Fig. 16.

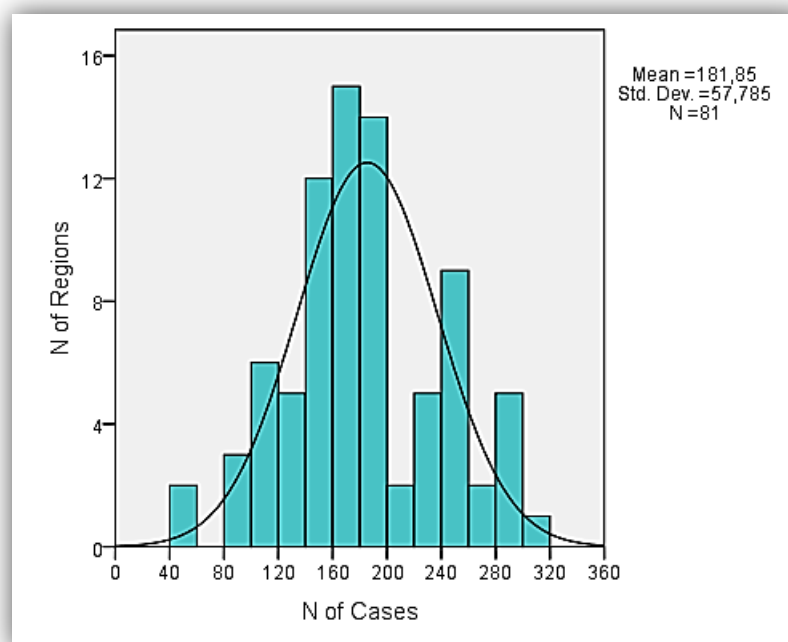


Fig. 16. The Russian Federation: Regional distribution of expected number of cases of social exclusion per 100000 of population for the Social dimension, 2012

As expected, this distribution was slightly asymmetrical (Skewness = 0,162) with the mean value (181) almost identical to the median one (179).

In 2012 the distribution of Russian regions by the values of the SER for Social dimension has demonstrated that:

- 17 regions belonged to the category of highly exposed to SER;
- 11 regions registered the low values of SER;
- 2 regions registered the very low values of SER;
- the other 51 regions have been characterized by medium degree of SER.

A list of the more exposed to the SER regions for considered dimension is shown in the Table 12.

Table 12. Regions highly exposed to social exclusion risk: Social dimension

N	Region of the Russian Federation	Measures of social exclusion risk		
		Absolute indicator*	Relative index**	Degree
1	Pskov Region	308	2,19	Very high
2	Tambov Region	296	1,98	High
3	Kurgan Region	294	1,96	High
4	Saratov Region	291	1,90	High
5	Rostov Region	286	1,81	High
6	Lipetsk Region	284	1,77	High
7	Samara Region	271	1,55	High
8	Omsk Region	270	1,53	High
9	Yaroslavl Region	258	1,33	High
10	Jewish Autonomous Region	257	1,31	High
11	Novgorod Region	257	1,31	High
12	Kemerovo Region	256	1,29	High
13	Magadan Region	251	1,21	High
14	Orel Region	242	1,05	High
15	Smolensk Region	242	1,05	High
16	Kostroma Region	242	1,04	High
17	Orenburg Region	242	1,04	High

*Expected number of cases of social exclusion per 100000 of population; **Z-score for absolute indicator.

The presented list included great variety of Russian regions, from economically developed ones (e.g. the Samara, the Lipetsk, and the Yaroslavl regions) to backward and depressive ones (e.g. the Jewish Autonomous Region and the Kurgan Region). The main distinguishing feature for considered regions was that almost the majority of them have been characterized by high relative share of aging population.

In 2012 the highly exposed to SER regions were differentiated subject to relative indexes of social exclusion for each group of population belonging to Social dimension. This phenomenon for the four of the most risky regions is depicted below (see Fig. 16–19).

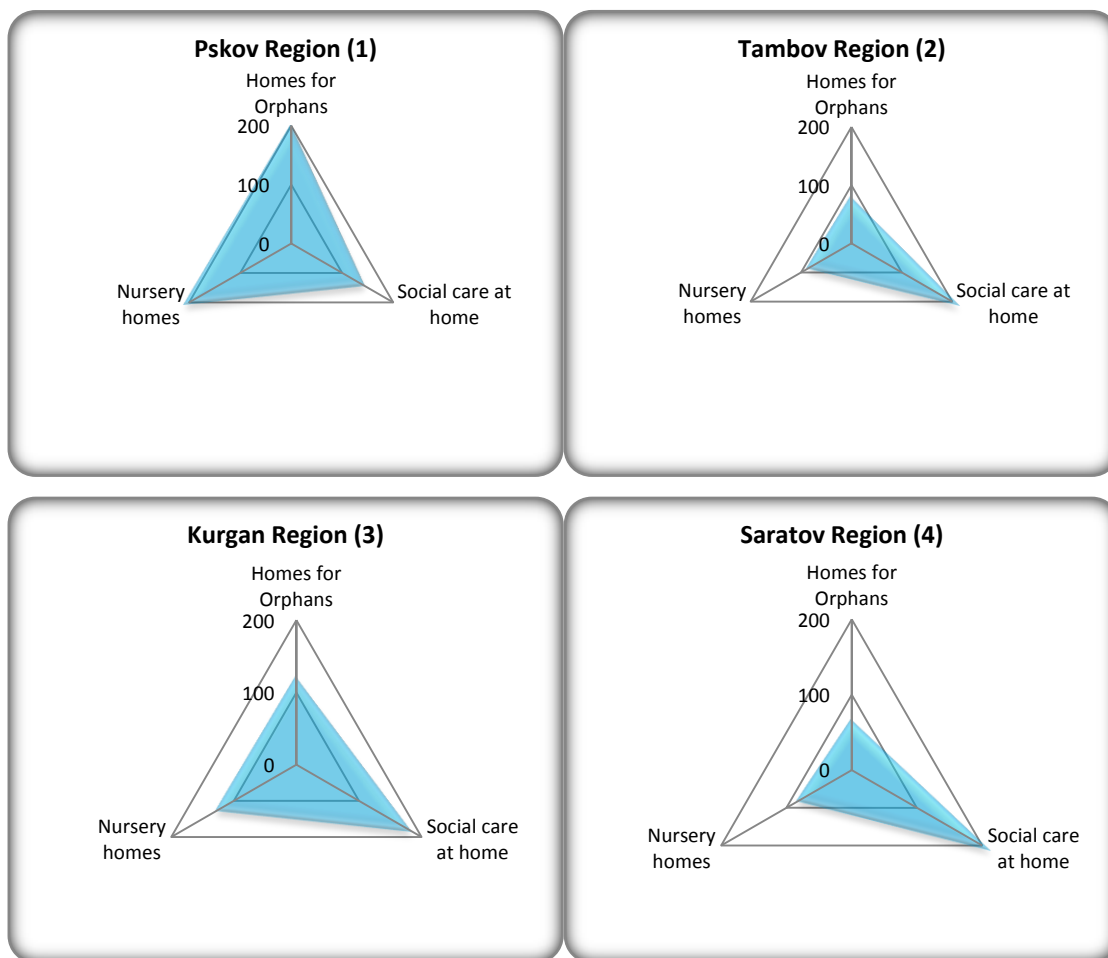


Fig. 16–19. The top 4 Russian regions exposed to SER in the Social dimension: Indexes by constituent groups of population (the mean value for 81 Russian regions = 100)

The above mentioned regions have demonstrated in 2012 different combinations of relative indexes of SER for each socially vulnerable group. Against the set of 81 subjects of the Russian Federation, the Pskov Region was distinguished by the very high values of SER, as for the residents of homes for orphans and abandoned, as for the inpatients of nursery homes, while the Tambov and the Saratov regions were notable for social exclusion concerning persons in need for social care at home. In turn, the values of SER for the Kurgan Region exceeded average values for all three considered group of population for the total of Russian regions.

The same was also true for the rest of the most risky regions. For example, the Rostov, the Lipetsk and the Samara regions (fifth, sixth and seventh position in the Social dimension rating in 2012) stood out for the high relative indexes of SER for persons in need of social care at home. The Omsk and the Yaroslavl regions (eighth and ninth position respectively) were distinguished by the high relative indexes of SER, as for the same group of population, as for the inpatients of nursery home, while the Jewish Autonomous Region (tenth position) demonstrated relative indexes that were almost identical to the one that have been observed for the Pskov Region.

In addition to interregional comparison of relative indexes, the assessment of a contribution of each group at risk to the value of integral indicator of SER for a given region has been carried out for the Social dimension.

Derived outputs revealed that in 2012 a group that made the greater contribution to social exclusion involved individuals who belonged to the set of aged/disabled persons in need of social care at home. On the average the alluded group accounted for 59 out of 100 expected cases of social exclusion.

The highest values of the share for this group (equal and over 80%) were demonstrated by seven subjects of the Russian Federation, namely: the Chechen Republic (98% of the value of SE explained), the Republic of Daghestan (90%), the Karachayev-Circassian Republic (89%), the Rostov, the Saratov, the Samara and the Orenburg regions (84%, 82%, 80% and 80% respectively).

The second in importance group determining the value of SER in considered dimension was related to the aged and disabled inpatients of nursery homes. On average, this group accounted for 32 out of 100 expected cases of SE. The list of regions with the highest shares (more than 50% of the expected value of SER) comprised: the Republic of Khakassia (69%), the Sakhalin Region (57%), the Vologda Region (56%), the Republic of Tuva (53%), the Tyumen Region and the Republic of Sakha (51% both).

The less quantitatively important group included orphans and abandoned kids resided in public institutions. On the average, this group contributed only to 9 out of 100 expected cases of SE for the considered dimension in 2012. The relevant exceptions were registered for some Siberian and Far East regions, namely: the Yamal-Nenets Autonomous Area (26%), the Kamchatka Territory (25%), the Irkutsk and the Amur regions and the Trans-Baikal Territory (23% for each of the three mentioned regions).

5.2.3. Economic dimension

This dimension includes two socially vulnerable groups of population, namely: (1) Long-term unemployed and (2) Low-income persons.

Long-term unemployed

Frequency distribution of the absolute values of SER for considered group of population by the 81 Russian regions is presented in Fig. 20.

The mentioned figure demonstrates asymmetrical right-handed curve (Skewness value equal to 2,190) with several standing out regional cases that have been characterized by very high/high levels of SER.

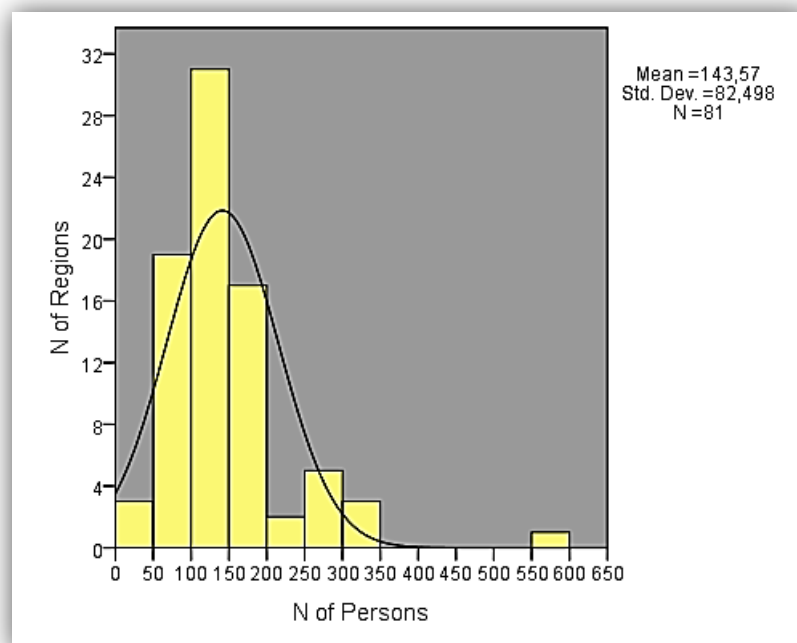


Fig. 20. The Russian Federation: Regional distribution of expected number of socially excluded persons per 100000 of population for the group of Long-term unemployed, 2012

The ratio between the highest value of SER (Republic of Tuva), equal to 564 of the expected number of socially excluded persons per 100000 of regional population, to the lowest one, equal to the 8 ones (Moscow), was a notably high 70:1.

The regional breakdown of the values of the SER for the group of long-term unemployed indicated that in 2012:

- 11 regions belonged to the category of highly exposed to SER;
- 5 regions registered the low relative values of SER;
- the remaining 65 regions have been characterized by medium values of SER.

A list of the more exposed to the SER regions for considered group of population is presented below (see Table 13).

Table 13. Russian regions highly exposed to social exclusion risk: Long-term unemployed

N	Region of the Russian Federation	Measures of social exclusion risk		
		Absolute indicator*	Relative index**	Degree
1	Republic of Tuva	564	5,13	Very high
2	Republic of Kalmykia	347	2,49	Very high
3	Karachayevo-Circassian Republic	326	2,23	Very high
4	Republic of Daghestan	306	1,98	High
5	Jewish Autonomous Region	297	1,87	High
6	Chechen Republic	296	1,86	High
7	Trans-Baikal Territory	285	1,72	High
8	Altai Republic	268	1,52	High

N	Region of the Russian Federation	Measures of social exclusion risk		
		Absolute indicator*	Relative index**	Degree
9	Kabardino-Balkarian Republic	256	1,37	High
10	Sakhalin Region	235	1,11	High
11	Republic of Adygea	226	1,00	High

*Expected number of socially excluded persons per 100000 of population; **Z-score for absolute indicator.

Unsurprisingly, the presented above list included well-known backward and depressive Russian regions that have been characterized by low values of per capita income and inadequate economic structure.

Low-income persons

Frequency distribution of absolute values of SER for considered group of population by the 81 Russian regions is presented in Fig. 21.

The significant number of Russian regions belonged in this year to the domain for which the absolute values of the SER oscillated between 500 and 1200 persons per 100000 of population. The depicted distribution demonstrated right-handed curve with Skewness value that amounted to 1,326.

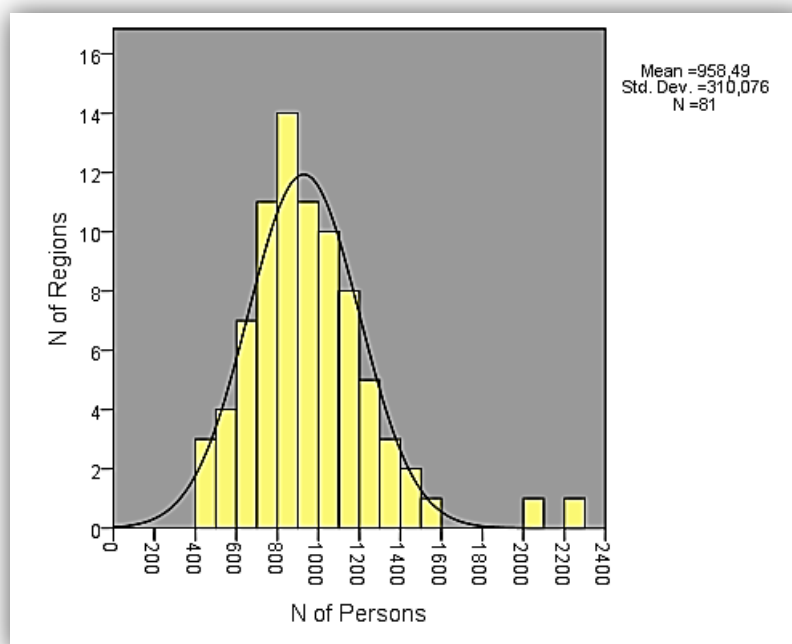


Fig. 21. The Russian Federation: Regional distribution of expected number of socially excluded persons per 100000 of population for the group of Low-income persons, 2012

The ratio of the highest value of the SER, equal to 2224 of the expected number of socially excluded persons (Tyumen Region), to the lowest one, equal to 467 ones (Belgorod Region), was approximately 5:1.

A list of the more exposed to the SER regions for considered group of population is shown in Table 14.

Table 14. Russian regions highly exposed to social exclusion risk: Low-income persons

N	Region of the Russian Federation	Measures of social exclusion risk		
		Absolute indicator*	Relative index**	Degree
1	Republic of Kalmykia	2214	4,07	Very high
2	Republic of Tuva	2020	3,44	Very high
3	Chechen Republic	1567	1,98	High
4	Altai Territory	1474	1,67	High
5	Republic of Mari El	1438	1,56	High
6	Jewish Autonomous Region	1387	1,39	High
7	Republic of Buryatia	1351	1,28	High
8	Altai Republic	1337	1,23	High
9	Kamchatka Territory	1294	1,09	High
10	Republic of Mordovia	1294	1,09	High
11	Trans-Baikal Territory	1287	1,07	High

*Expected number of socially excluded persons per 100000 of population; **Z-score for absolute indicator.

Six out of eleven regions included in this list belonged at the same time to the regions highly exposed to SER for the group of long-term unemployed.

Economic Dimension: Summary

Frequency distribution of absolute values of SER for considered dimension by the 81 Russian regions is presented in Fig. 22.

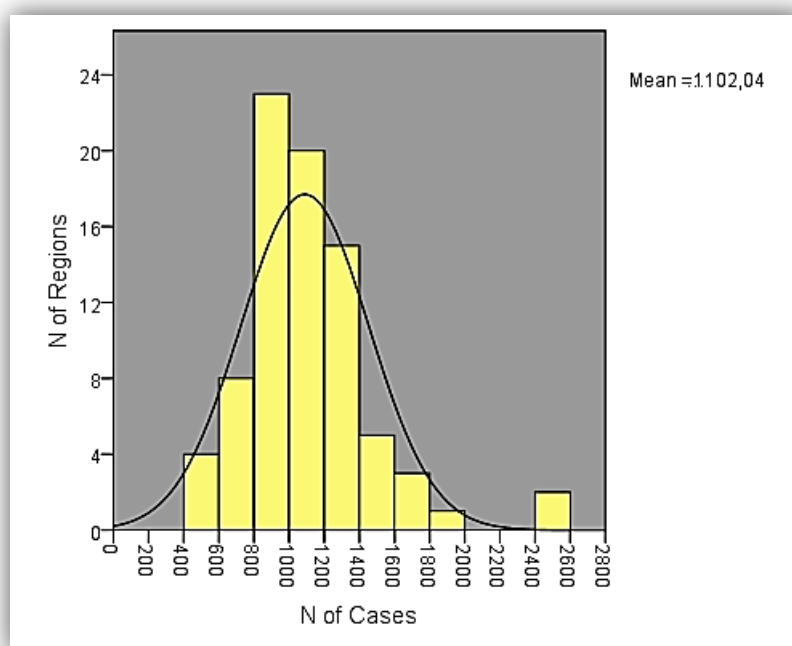


Fig. 22. The Russian Federation: Regional distribution of expected number of cases of social exclusion per 100000 of population for the Economic dimension, 2012

As expected, the distribution for Economic dimension was asymmetrical (Skewness = 1,634) with the mean value (1102) that was slightly above the median one (1045).

In 2012 the distribution of Russian regions by the values of the SER for Economic dimension revealed that:

- 10 regions belonged to the category of highly exposed to the SER;
- 11 regions registered the low values of the SER;
- the other 60 regions have been characterized by medium values of the SER.

A list of the more exposed to the SER regions is shown in the Table 15.

Table 15. Russian regions highly exposed to social exclusion risk: Economic dimension

N	Region of the Russian Federation	Measures of social exclusion risk		
		Absolute indicator*	Relative index**	Degree
1	Republic of Tuva	2584	4,05	Very high
2	Republic of Kalmykia	2561	3,99	Very High
3	Chechen Republic	1863	2,08	Very High
4	Jewish Autonomous Region	1685	1,59	High
5	Altai Territory	1648	1,49	High
6	Altai Republic	1605	1,37	High
7	Republic of Mari El	1592	1,34	High
8	Trans-Baikal Territory	1572	1,28	High
9	Republic of Buryatia	1494	1,07	High
10	Karachayevo-Circassian Republic	1483	1,04	High

*Expected number of cases of social exclusion per 100000 of population; **Z-score for absolute indicator.

Logically, the derived list presented a mix of regions previously detected as risky for the group of long-term unemployed and for the group of low-income persons.

In 2012 the highly exposed to SER regions were differentiated subject to relative indexes of social exclusion. This phenomenon is demonstrated below in Fig. 23.

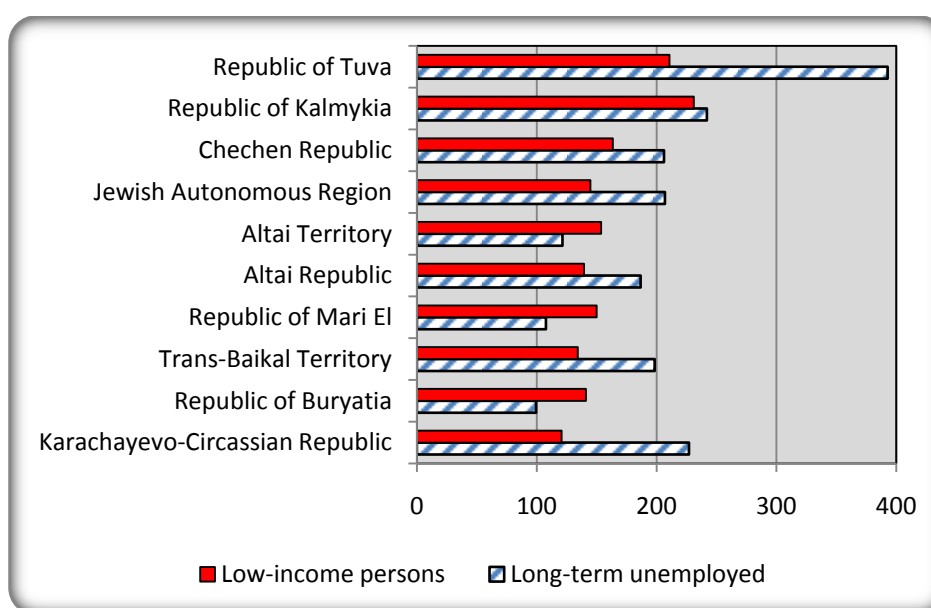


Fig. 23. Russian regions highly exposed to SER in the Economic dimension: Indexes by constituent groups of population (the mean value for 81 Russian regions = 100)

The above depicted regions demonstrated in 2012 different combinations of relative indexes of SER for the two constituent socially vulnerable groups. Against the set of 81 subjects of the Russian Federation, 6 regions were distinguished by the high values of relative indexes (200 and more) for the group of long-term unemployed, including two of them that have also demonstrated very high figures for the group of low income persons. In turn, only 3 out of 10 considered regions have been characterized in this year by relative indexes for low-income persons that were higher than the ones for long-term unemployed.

In addition to cross-regional comparison of relative indexes, the assessment of a contribution of each of the two groups to the value of integral indicator of SER for a given region has been carried out. Extracted outputs demonstrated that in 2012, for all of the 81 analyzed Russian regions, the main contribution to social exclusion was attributed to the group of low-income persons. On the average this group accounted for 87 out of 100 expected cases of social exclusion.

The highest values of contribution by the group of low-income persons (equal and more than 95%) were demonstrated by four subjects of the Russian Federation, such as: the Moscow (99% of the value explained), St. Petersburg (96%), the Leningrad Region (96%), and the Krasnoyarsk Territory (95%).

Naturally, on average, the group of long-term unemployed accounted for the rest of contribution (13%). The list of regions with the highest shares (more than 20%) was headed by the Republic of Daghestan (37%) followed by the Sakhalin Region, the Karachayevo-Circassian Republic, the Republic of Tuva, and the Republic of Adygea (22% each of them).

6.2. Integral regional ratings

According to methodological approach outlined in part 4 of the presented research, an integral indicator of SER for a given region constitutes the sum of expected cases of social exclusion pertaining to each of the three considered dimension, e.g. Health, Social and Economic ones.

Frequency distribution of absolute values of SER for all mentioned dimensions by the 81 Russian regions is presented in Fig. 24.

The derived basic Statistics for this bimodal distribution were as follows:

Mean value = 2663,6

Median value = 2608,0

Standard Deviation = 604,2

Skewness = 0,570

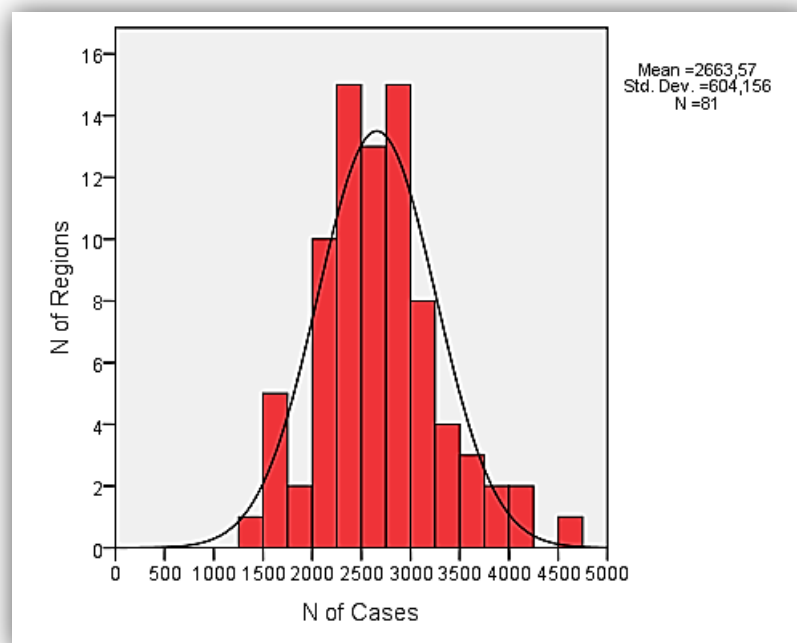


Fig. 24. The Russian Federation: Regional distribution of expected number of cases of social exclusion per 100000 of population for the all dimensions, 2012

The ratio of the higher value of SER (for Tyumen Region equal to the number of 4503 expected cases of social exclusion) to the lowest one (for the St. Petersburg equal to 1496) was only 3:1.

In 2012 the distribution of Russian regions by the values of integral indicator of SER demonstrated that:

- 11 regions belonged to the category of highly exposed to SER;
- 10 regions registered the low values of SER;
- the remaining 60 regions have been characterized by medium degree of SER.

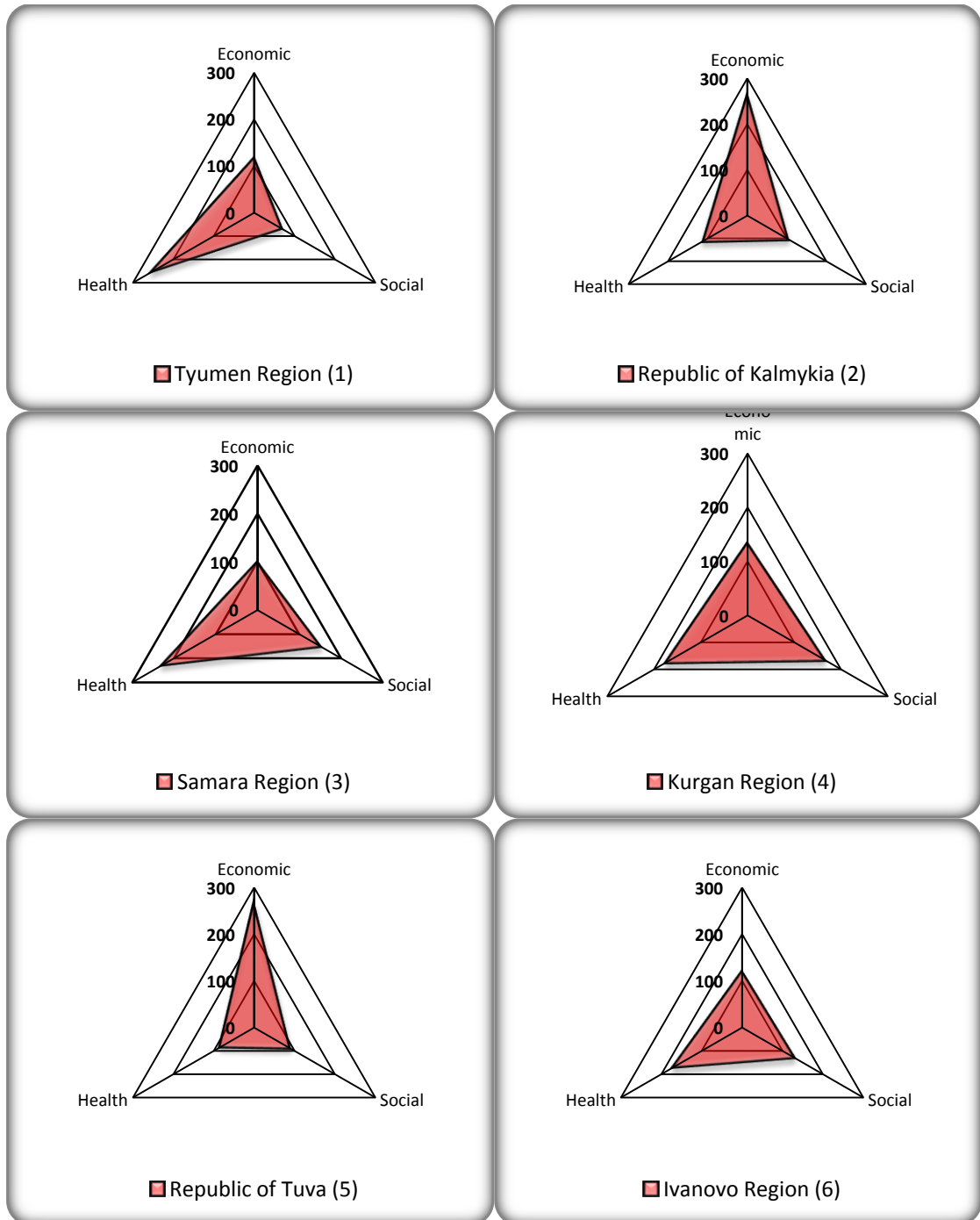
A list of the more exposed to SER regions for all considered dimension is shown in Table 16.

Table 16. Russian regions highly exposed to social exclusion risk: All dimensions

N	Region of the Russian Federation	Measures of social exclusion risk		
		Absolute indicator*	Relative index**	Degree
1	Tyumen Region	4 503	3,06	Very high
2	Republic of Kalmykia	4 167	2,50	Very High
3	Samara Region	4 149	2,47	Very High
4	Kurgan Region	3 814	1,92	High
5	Republic of Tuva	3 799	1,89	High
6	Ivanovo Region	3 582	1,53	High
7	Chuvash Republic	3 566	1,50	High
8	Kamchatka Territory	3 518	1,42	High
9	Republic of Adygea	3 388	1,21	High
10	Magadan Region	3 363	1,16	High
11	Chukotka Autonomous Area	3 264	1,00	High

*Expected number of cases of social exclusion per 100000 of population; **Z-score for absolute indicator.

Following the logic that have been applied to each of the three early considered dimensions, the highly exposed to SER regions were analyzed subject to its relative indexes of social exclusion. The outputs of this development for 8 of the most risky regions is presented below (see Fig. 25–32).



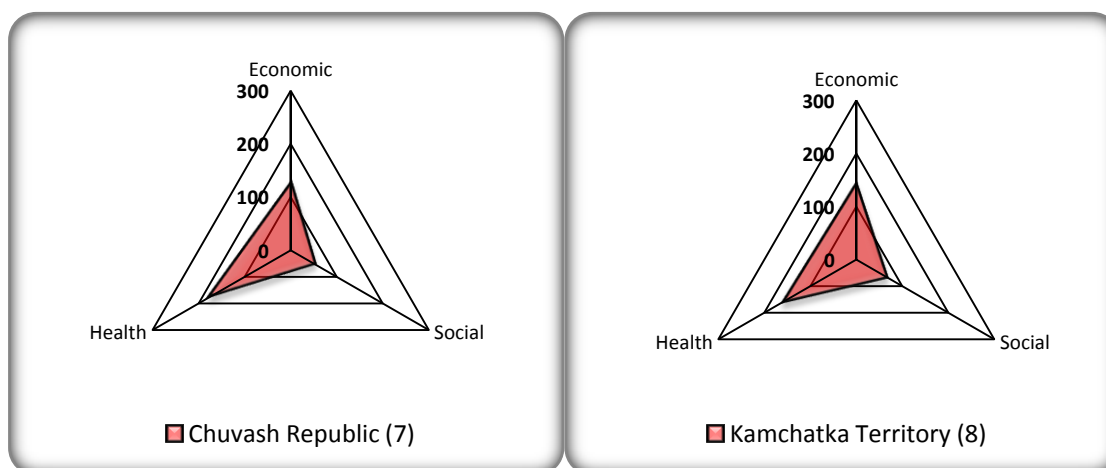


Fig. 25–32. The top 8 Russian regions exposed to SER in all dimensions: Indexes by constituent dimension of population (the mean value for 81 Russian regions = 100)

As one can see, the selected top 8 regions demonstrated in 2012 different combinations of relative indexes of SER that implied formation of a unique or common pattern of social exclusion phenomenon for a given region. For example, some developed regions (e.g. the Samara and the Tyumen) were characterized by high degree of SER due to unfavorable figures relating to Health dimension. In turn, for underdeveloped regions, such as the Republic of Kalmykia or the Republic of Tuva, the high degree of SER was determined by pure economic conditions. At the same time, other considered regions had a mix of various determinants of SER.

Interregional comparison of relative indexes presents valuable but not complete picture in describing integral figures related to social exclusion at the regional level. An aspect of quantitative contribution of each of the considered dimension to integral value of SER can't also be disregarded.










































Developed outputs demonstrated that in 2012 the main contribution to the integral value of SER was made by Health dimension. On the average, the latter accounted for 53 out of 100 expected cases of social exclusion. The highest values for that dimension (70% and more) have been displayed by four subjects of the Russian Federation, namely: the Yamal-Nenets Autonomous and the Chukotka Autonomous Areas (73% each other), and the Tyumen and the Samara Regions (72% and 70% respectively).

The Economic dimension was the second in importance to determining the value of integral indicator of SER. In 2012, this dimension accounted for 40 out of 100 expected cases of SE. The highest shares in this respect (more than 60%) were shown by such regions as: the Chechen Republic (72%), the Republic of Tuva (68%), the Republic of Buryatia (65%), the Republic of Kalmykia, the Kabardino-Balkarian Republic and the Altai Republic (61% for each).

The last in quantity but not least in quality, Social dimension played the minor role in determining the overall value of SER. On the average, this dimension accounted only for 7 out of 100 expected cases of SER. The relative high values (more than 12%) were registered for the three subjects of the Russian Federation namely: the Yaroslavl (13%), the Tambov (13%) and the Rostov (12%) regions.

In conclusion, an attempt to categorize Russian regions according to the scope of social exclusion has been made. A short list of regions having three or more high exposed to SER groups of population is shown in Table 17 (for details see the full list presented in Annex E).

Table 17. Scope of social exclusion risk for selected Russian Regions, 2012

Region/ Integral rank	Disabled kids under age of 18	Alcohol addicts	Drug addicts	HIV infected	Orphans & abandoned kids	In need for social care at home	Inpatients of nursery homes	Long-term unemployed	Low-income persons
Samara Region/3									
Republic of Tuva/5									
Jewish Autonomous Region/21									
Kemerovo Region/35									
Chechen Republic/43									
Magadan Region/10									
Republic of Kalmykia/2									
Republic of Adygea/9									
Orenburg Region/17									
Trans- Baikal Territory/24									
Kamchatka Territory/8									
Sakhalin Region/12									



Very high degree of Social Exclusion Risk



High degree of Social Exclusion Risk

As one can see, the above presented list differ significantly in respect to membership of the most risky regions, according to its absolute values of SER shown in Table 16.

On the one hand, 5 out of 11 Russian regions highly exposed to SER in conformity with its integral values were missing due to small lot of corresponding groups of population at risk. The Tyumen Region (1st position in total rating), the Kurgan Region (4th) and the Ivanovo Region (6th), as the Chuvash Republic (7th) and the Chukotka Autonomous Area (11th) had in 2012 only two groups of population highly exposed to SER.

On the other hand, a huge scope of social exclusion has been demonstrated by a number of Russian regions with relatively low absolute values of integral SER. The Chechen Republic (43th position in total rating), the Trans-Baikal Territory (24th), the Jewish Autonomous Region (21th), the Orenburg Region (17th) and the Sakhalin Region (12th), having three or more high exposed to SER groups of population, presented a remarkable example.

Moreover, some of the least risky regions in 2012 had a one group of population highly exposed to SER. For example, St. Petersburg (81st or the best position in integral rating) and the Sverdlovsk Region (74th) were notable for relative high degree of HIV infected persons, while the Republic of Daghestan (77th) was distinguished by the number of long-term unemployed and disabled under age of 18 living with family.

Following the above stated approach, it is possible to develop an alternative grouping of Russian regions in accordance with the number of cohorts of population highly exposed to SER (see Fig. 33).

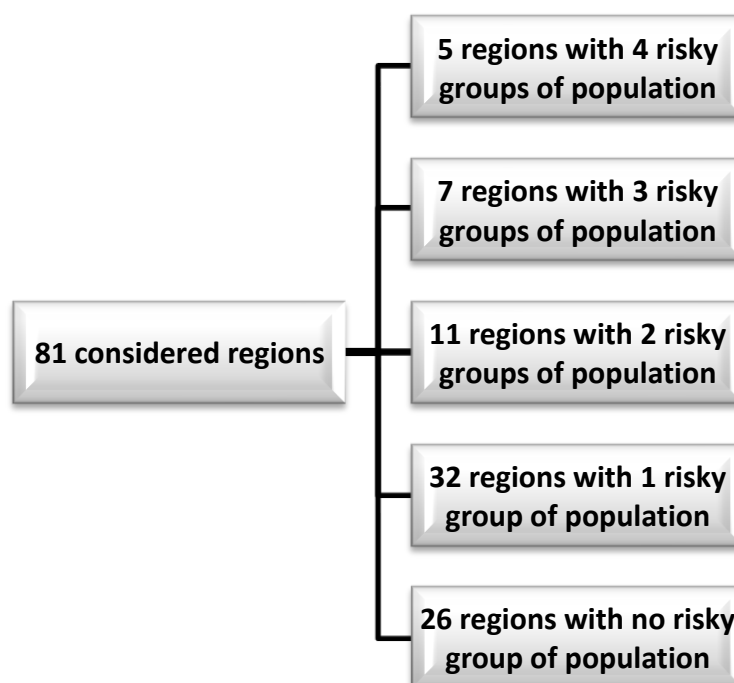


Fig. 33. Scope of Social Exclusion Risk: Breakdown of Russian regions according to the number of groups of population highly exposed to SER, 2012

In total, the performed analysis allows us to distinguish different though overlapping sets of Russian regions. On the one hand, in accordance with the values of integral indicator, there were 11 regions belonged to a category of highly exposed to SER, and the 10 ones belonged to a group of lowly exposed to SER, while the rest of 60 regions have been marked as a group having medium degree of SER.

On the other hand, in compliance with the scope of social exclusion risk, there were 12 regions with 3 or more risky groups of population, and only 26 out of 81 regions belonged to a group of relatively risky-free ones, while the remaining 43 regions have been characterized by various degree of scope for considered phenomenon.

7. CONCLUSION

The concept of social exclusion is widely used in the studies of both foreign and Russian researchers and experts. A review of these studies shows that interpretation of this phenomenon has evolved. While in the early 1970s social exclusion was primarily associated with poverty, later a vast majority of experts came to recognize that this phenomenon has multi-dimensional nature.

The multi-dimensional nature of the phenomenon makes it problematic to measure the level of social exclusion, without which no social policy focused at reducing the number of those excluded could be designed. To address the measurement problem, approaches based on composite index of social exclusion using various methods of pooling together different primary indicators. Usually these primary indicators have been classified according to such drivers of social exclusion as economic, social and humanitarian.

This study has proposed an alternative interpretation of social exclusion as an individual's inability to maintain vitally important social relationships in his/her usual environment. Of these, five main relationships with members of a family/household, friends and acquaintances, fellow workers, representatives of government agencies and local community are considered. In this context we understand social exclusion risk occurrence as an existential situation in which an individual is deliberately or accidentally excluded/prevented from at least three of these five basic interpersonal relationships.

To assess value of social exclusion risk nine socially vulnerable groups were selected, namely:

- low-income persons;
- long-term unemployed;
- residents of homes for orphans & abandoned;
- aged & disabled inpatients of nursery homes;

- aged and disabled in need for social care at home;
- disabled under age of 18 living with family;
- alcohol addicts;
- drug addicts;
- HIV infected persons.

Those groups were identified depending on whether the official statistical data for calculations at regional level were available. For this purpose, suitable indicators which provided the most adequate description of the size of the groups at risk were developed. Besides the groups were classified into three dimensions in accordance with the drivers of social exclusion, namely economic, social and health dimensions.

Association of an individual with a socially vulnerable group does not necessary mean that he or she is socially excluded. So for each group we derived a probability of occurrence of social exclusion risk.

These probabilities were assessed on the basis of the results of an expert survey carried out by questioning scholars in the fields of social policy, social science, economics and psychology.

Using the number of persons in socially vulnerable groups and corresponding probabilities we calculated a set of absolute and relative measures of social exclusion risk for 81 regions of the Russian Federation, such as integral indicators for whole regional populations and partial ones for nine groups at risk and three dimensions as relative indices measured by so-called Z-scores. As a result ratings of the Russian regions across variety of indicators were derived.

The calculations demonstrated that in 2012 eleven regions of the Russian Federation (Tyumen Region, Republic of Kalmykia, Samara Region, Kurgan Region, Republic of Tuva, Ivanovo Region, Republic of Chuvashia, Kamchatka Region, Republic of Adygeya, Magadan Region and Chukotka Autonomous Area) were among the regions with an extremely high and high integral social exclusion risk.

Z-scores also have been used to measure a scope of social exclusion equal to a number of highly exposed to social exclusion groups of population for each region. The calculations revealed that in 2012 twelve regions of the Russian Federation (Samara Region, Republic of Tuva, Jewish Autonomous Region, Kemerovo Region, Chechen Republic, Magadan Region, Republic of Kalmykia, Republic of Adygeya, Orenburg Region, Trans-Baikal Territory, Kamchatka Territory and Sakhalin Region) had more than three risky groups.

The ratings of the Russian regions constructed on the basis of partial and integral risks of social exclusion should provide an important message for the authorities at the federal and regional levels on the importance of the respective risks of social exclusion in a particular region

as compared to other regions and the country as a whole. Thus, the results of this research provides a scientific based approach for developing and adopting specific measures in the area of social policies to reduce the degree and scope of social exclusion both at regional level and across specific dimensions and groups of population at risk.

SOCIAL EXCLUSION: TYPOLOGY OF DEFINITIONS

No	Typology criteria/definition	Sources
1	<i>By number of factors</i>	
	A. Single factor	
1.1	Single factor based on poverty	
	Lack of income, access to good-quality health, education and housing, and the quality of the local environment all affect people's well-being. Our view of poverty covers all these aspects. Poverty ... [exists] when people are denied opportunities to work, to learn, to live healthy and secure lives, and to live out their retirement years in security	DSS (Department of Social Security) (1999) Opportunity for All: Tackling poverty and social exclusion, Cm 4445, London: The Stationery Office. P. 23.
	Lack of income and productive resources to ensure sustainable livelihoods; hunger and malnutrition; ill-health; limited or lack of access to services; increased morbidity from illness; homelessness and inadequate housing; unsafe environments and social discrimination and exclusion. It is also characterized by lack of participation in decision making and in civil, social and cultural life	UN (United Nations) (1995) The Copenhagen Declaration and Programme of Action: World Summit for Social Development, 6–12 March 1995, UN Department of Publications
	The notion of poverty <...> is where people lack many of the opportunities that are available to the average citizen. Low income and limited expenditure, especially on essentials, will be indicative of this, but the report also includes many indicators of things that researchers have been found to be disproportionately associated with low income, for example, certain forms of ill-health and restricted access to services. This broad concept of poverty coincides with the emerging concept of social exclusion. In the context of this report, this means that indicators connected with long term lack of paid work, or poor educational qualifications, can be included alongside more readily understood aspects of poverty	Ruth Levitas, Christina Pantazis, Eldin Fahmy, David Gordon, Eva Lloyd and Demi Patsios (2007). The Multi-Dimensional Analysis of Social Exclusion / Department of Sociology and School for Social Policy Townsend Centre for the International Study of Poverty and Bristol Institute for Public Affairs University of Bristol. January 2007. P. 21. Guy Palmer, Tom MacInnes, Peter Kenway. Monitoring poverty and social exclusion 2006. Published 4th Dec 2006
	The notion of poverty that has guided the development of this report is where people lack many of the opportunities that are available to the average citizen.... This broad concept of poverty coincides with the emerging concept of social exclusion	Monitoring Poverty and Social Exclusion: Labour's Inheritance Published 15th Dec 1998 Authors: Catherine Howarth, Peter Kenway, Guy Palmer, Cathy Street Category: Income and Poverty. http://npi.org.uk/publications/income-and-poverty/monitoring-poverty-and-social-exclusion-labours-inheritance/
1.2	Single factor based on employment	
	The dominant model both in the EU and in the UK has been a social integrationist approach (SID), in which employment is central. In this model, paid work is seen as important not just as the most effective route out of material poverty but as an integrating factor in its own right. Bhalla and Lapeyre (1997) suggest that there are three main categories of the social aspects of social exclusion: access to social services (such as health and education); access to the labour market (precariousness of employment, as distinct from low pay); and the opportunity for social participation. But they stress the importance of the precariousness of the labour market	Bhalla A.S., Lapeyre F. (1997) Social exclusion: towards an analytical and operational framework // Development and Change. Vol. 28. P. 413–433

No	Typology criteria/definition	Sources
	and unemployment in relation to economic and social respects	
	B. Multiple factor	
1.3	Based mainly on lack of tangible either intangible resources	
	... a shorthand term for what can happen when people or areas suffer from a combination of linked problems such as unemployment, poor skills, low incomes, poor housing, high crime environments, bad health and family breakdown	SEU (Social Exclusion Unit) (1997) Social Exclusion Unit: Purpose, work priorities and working methods, London: SEU
	Social exclusion is multi-causal, relational, and it includes less tangible aspects than poverty such as the loss of status, power, self-esteem and expectations.... We might also add here that another important aspect of exclusion is political exclusion and the inability to influence decision making, which can be affected by a lack of resources, including time, telephones, transport and articulacy	Oppenheim C. (1998) An inclusive society: Strategies for tackling poverty, London: IPPR. DfT (Department for Transport) (nd) Social exclusion and the provision of public transport. (цит по Ruth Levitas, Christina Pantazis, Eldin Fahmy, David Gordon, Eva Lloyd and Demi Patsios (2007). The Multi-Dimensional Analysis of Social Exclusion / Department of Sociology and School for Social Policy Townsend Centre for the International Study of Poverty and Bristol Institute for Public Affairs University of Bristol. 2007 (January). P. 24
	One widely cited social policy expert cites seven dimensions to social exclusion itself (Percy-Smith, 2000:9): - economic (for example, long-term unemployment, workless households, income poverty) - social (for example, homelessness, crime, disaffected youth) - political (for example, disempowerment, lack of political rights, alienation from/lack of confidence in political processes) - neighbourhood (for example, decaying housing stock, environmental degradation) - individual (for example, mental and physical ill-health, educational under-achievement) - spatial (for example, concentration/marginalisation of vulnerable groups). - group (concentration of the above characteristics in particular groups: elderly, disabled, ethnic minorities)	Percy-Smith J. (2000) Policy responses to social exclusion: Towards inclusion?, Oxford: Oxford University Press
1.4	Based on lack of resources and involvement in social life	
	A lack or denial of access to the kinds of social relations, social customs and activities in which the great majority of people in British society engage. In current usage, social exclusion is often regarded as a 'process' rather than a 'state' and this helps in being constructively precise in deciding its relationship to poverty	Gordon D., Adelman L., Ashworth K., Bradshaw J., Levitas R., Middleton S., Pantazis C., Patsios D., Payne S., Townsend P., Williams J. (2000) Poverty and social exclusion in Britain, York: Joseph Rowntree Foundation
	Social exclusion is a broader concept than poverty, encompassing not only low material means but the inability to participate effectively in economic, social, political and cultural life and in some characterisations	Duffy K. (2005) Social exclusion and human dignity in Europe, Council of Europe

No	Typology criteria/definition	Sources
	alienation and distance from mainstream society Social exclusion is a complex and multi-dimensional process. It involves the lack or denial of resources, rights, goods and services, and the inability to participate in the normal relationships and activities, available to the majority of people in a society, whether in economic, social, cultural or political arenas. It affects both the quality of life of individuals and the equity and cohesion of society as a whole	Ruth Levitas, Christina Pantazis, Eldin Fahmy, David Gordon, Eva Lloyd and Demi Patsios (2007). The Multi-Dimensional Analysis of Social Exclusion / Department of Sociology and School for Social Policy Townsend Centre for the International Study of Poverty and Bristol Institute for Public Affairs University of Bristol. 2007 (January). P. 27
1.5	Based mainly on degree of social activity	
	An individual is socially excluded if (a) he or she is geographically resident in a society but (b) for reasons beyond his or her control, he or she cannot participate in the normal activities of citizens in that society, and (c) he or she would like to so participate	Burchardt T., Le Grand J., Piachaud D. (2002) Degrees of exclusion: developing a dynamic multidimensional measure // Understanding social exclusion / J. Hills, J. Le Grand D. Piachaud (eds.). Oxford: Oxford University Press. P. 30–43
	[Social exclusion is] ... Inadequate social participation, lack of social integration and lack of power	Room G. (ed) (1995) Beyond the threshold: The measurement and analysis of social exclusion, Bristol: The Policy Press
	...social exclusion is a multi-dimensional phenomenon, covering the three interlinked dimensions of social exclusion: exclusion from economic life, exclusion from social services, and exclusion from civic life. We considered social exclusion as the result of multiple and mutually reinforcing deprivations in some or all of these three dimensions. We departed from the traditional group-based approach, and looked on combination of individual characteristics (risks), drivers of exclusion, and local characteristics, which altogether leading to social exclusion outcome, which we measured using proposed Social Exclusion Index	UNDP (2011) Regional Social Exclusion Report: Beyond transition, towards inclusive societies. URL: http://hdr.undp.org/en/reports/regional/europethecis/RBEC HDR 2011 EN.pdf
2	<i>By defining social exclusion as dynamic phenomena</i>	
	Social exclusion is a process, which causes individuals or groups, who are geographically resident in a society, not to participate in the normal activities of citizens in that society	Scottish Executive (nd) The role of transport in social exclusion in urban Scotland, Edinburgh: Central Research Unit. Цит. по: Ruth Levitas, Christina Pantazis, Eldin Fahmy, David Gordon, Eva Lloyd and Demi Patsios (2007). The Multi-Dimensional Analysis of Social Exclusion. / Department of Sociology and School for Social Policy Townsend Centre for the International Study of Poverty and Bristol Institute for Public Affairs University of Bristol. January 2007
	Social exclusion occurs where different factors combine to trap individuals and areas in a spiral of disadvantage	DSS (Department of Social Security) (1999) Opportunity for All: Tackling poverty and social exclusion, Cm 4445, London: The Stationery Office
	The processes by which individuals and their communities become polarised, socially differentiated and unequal	ESRC (Economic and Social Research Council) (2004) (retrieved August)

No	Typology criteria/definition	Sources
	The dynamic process of being shut out from any of the social, economic, political and cultural systems which determine the social integration of a person in society	Walker A., Walker C. (eds) (1997) Britain divided: The growth of social exclusion in the 1980s and 1990s, London: CPAG
	An accumulation of confluent processes with successive ruptures arising from the heart of the economy, politics and society, which gradually distances and places persons, groups, communities and territories in a position of inferiority in relation to centres of power, resources and prevailing values	Estivill J. (2003) Concepts and strategies for combating social exclusion, Geneva: International Labour Office
3	<i>By scale and forms</i>	
3.1	Based on wide concept	
	Wide exclusion refers to the large number of people excluded on a single or small number of indicator(s)	Miliband D. (2006) Social exclusion: The next steps forward, London: ODPM
3.2	Based on selected approach	
	Concentrated exclusion refers to the geographic concentration of problems and to area exclusion. Deep exclusion refers to those excluded on multiple and overlapping dimensions	Miliband D. (2006) Social exclusion: The next steps forward, London: ODPM
	Social exclusion refers to specific socially vulnerable such as: orphans and abandoned children, psychotic persons, disabled, etc	Social Exclusion Task Force (2006) Reaching out: An action plan on social exclusion, London: Cabinet Office. P. 95

A COMPARISON OF SETS OF INDICATORS FOR MEASURING SOCIAL EXCLUSION AT INTERNATIONAL AND NATIONAL LEVELS

United Nations Development Program	European Union	Melbourne Institute of Applied Economic and Social Research, The University of Melbourne, Australia
<i>A. Material/Economic resources</i>		
<p><i>1. Inequality:</i> At-risk-of-poverty rate (60 percent of median equivalent expenditures in a country)</p>	<p><i>1. At-risk-of poverty rate:</i> Share of persons with an equivalised disposable income below 60% of the national median equivalised disposable income</p> <p><i>2. At-risk-of poverty threshold (illustrative values):</i> The value of the at-risk-of-poverty threshold (60% median national equivalised income) in PPS, Euro and national currency for two illustrative household types</p> <p><i>3. Income quintile share ratio (S80/S20):</i> Ratio of total income received by the 20% of the country's population with the highest income (top quintile) to that received by the 20% of the country's population with the lowest income (lowest quintile)</p> <p><i>4. Persistent at-risk-of poverty rate:</i> Share of persons with an equivalised disposable income below the at-risk-of poverty threshold in the current year and in at least two of the preceding three years</p> <p><i>5. Relative median poverty risk gap:</i> Difference between the median equivalised income of persons below the at-risk-of poverty threshold and the threshold itself, expressed as a percentage of the at-risk-of poverty threshold</p>	<p><i>Material resources:</i></p> <ul style="list-style-type: none"> • Proportion of persons in relative income poverty, defined as household annual disposable income adjusted for household composition using the OECD equivalence scale (equivalent income) is below 60% of median equivalent income • Analogous to income, an 'inadequate wealth' standard could be adopted as wealth less than 60% of median wealth
<p><i>2. Subjective basic needs:</i> In the past 12 months the household has not been able to afford three meals a day, or pay bills regularly, or keep the home</p>	X	X

United Nations Development Program	European Union	Melbourne Institute of Applied Economic and Social Research, The University of Melbourne, Australia
adequately warm, or buy new clothes and shoes		
<p>3. <i>Employment:</i> Being unemployed or a discouraged worker</p>	<p>6. <i>Regional cohesion:</i> Coefficient of variation of employment rates at NUTS (Nomenclature of Territorial Units for Statistics) level 2.</p> <p>7. <i>Long term unemployment rate:</i> Total long-term unemployed population (≥ 12 months; ILO definition) as a proportion of total active population aged 15 years or more</p> <p>8a. <i>Population living in jobless households (children):</i> Proportion of children (aged 0–17 years) living in jobless households, expressed as a share of all children</p> <p>8b. <i>Population living in jobless households (prime-age Adults):</i> Proportion of all people aged 18–59 years who live in a jobless household as a proportion of all people in the same age group. Students aged 18–24 years who live in households composed solely of students are not counted in neither numerator nor denominator</p>	<p><i>Employment:</i></p> <ul style="list-style-type: none"> • Proportion of persons in employment • Long-term unemployment rate. • Proportion of employees with leave entitlements. • Proportion of the population continuously in receipt of income support for 12 months or more
<p>4. <i>Financial services:</i> Lack of access to a bank account on one's own name</p>	X	X
<p>5. <i>Material deprivation housing:</i> The household cannot afford a bed for every member of the household</p>	X	X
<p>6. <i>Material deprivation amenities:</i></p>	X	X

United Nations Development Program	European Union	Melbourne Institute of Applied Economic and Social Research, The University of Melbourne, Australia
Household needs a washing machine, freezer or microwave but cannot afford one		
7. <i>Material deprivation ICT:</i> Household needs a computer or internet but cannot afford one		<i>Social:</i> <ul style="list-style-type: none"> • Proportion of households with Internet access at home
<i>B. Access to social services/Quality of life</i>		
8. <i>Overcrowding:</i> Household with less than 6 sq m per person	X	X
9. <i>Public utilities:</i> Household with no running water or sewerage system	X	<i>Community:</i> <ul style="list-style-type: none"> • Proportion of the adult population who have difficulty accessing service providers. • Proportion of the population who rate their neighbourhood services as poor.
10. <i>Public utilities:</i> Household heats with wood or with no heating device	X	<i>Community:</i> <ul style="list-style-type: none"> • Proportion of the adult population who have difficulty accessing service providers. • . Proportion of the population who rate their neighbourhood services as poor.
	X	<i>Personal safety:</i> <ul style="list-style-type: none"> • The proportion of persons who feel unsafe walking alone in their area after dark • Proportion of persons who were victim of a violent crime in the last 12 months
11. <i>Education:</i> Low educational achievements (basic schooling) and early school leavers	9. <i>Early school leavers not in education or training:</i> Share of persons aged 18 to 24 who have only lower secondary education (their highest level of education or training attained is 0, 1 or 2 according to the 1997 International Standard Classification of Education – ISCED 97) and have not received education or training in the four weeks preceding the survey	<i>Education and skills:</i> <ul style="list-style-type: none"> • Proportion of Year 9 students reaching reading, language and maths national benchmarks. • Proportion of the population with Year 10 or below as highest educational attainment.

United Nations Development Program	European Union	Melbourne Institute of Applied Economic and Social Research, The University of Melbourne, Australia
	10. <i>Low reading literacy performance of pupils:</i> Share of 15 year old pupils who are at level 1 or below of the PISA combined reading literacy score	
12. <i>Education:</i> Household could not afford to buy school materials for every child in the past 12 months	X	X
13. <i>Education:</i> Household with young children not in school or pre-school	X	X
14. <i>Health care:</i> Household could not afford medication or dental checks for every child in the past 12 months	X	X
15. <i>Health care:</i> Medical needs not being met by the health care system	X	X
	11. <i>Life expectancy:</i> Number of years a person aged 0, 1 and 60 may be expected to live 12. <i>Self-defined health status by income level:</i> Proportion of the population aged 16 years and over in the bottom and top quintile of the equivalized income distribution who classify themselves as in a bad or very bad state of health	<i>Health and disability:</i> <ul style="list-style-type: none"> • Proportion of the population with a mental illness or experiencing psychological distress. • Proportion of the population with a disability • Proportion of the population for whom self-assessed health status is poor or very poor.
16. <i>Social infrastructure:</i> Lack of opportunities to attend events due to distance (lack of transportation)	X	<i>Community:</i> <ol style="list-style-type: none"> 1. Proportion of the adult population who own a car or have access to regular public transport within walking distance of home

United Nations Development Program	European Union	Melbourne Institute of Applied Economic and Social Research, The University of Melbourne, Australia
<i>C. Participation in civic and social life and networks</i>		
17. <i>Social capital:</i> Rare or infrequent social contact with family or relatives	X	<i>Social:</i> <ul style="list-style-type: none"> • Proportion who report that they do not have anyone to help out or talk to when in difficulty
18. <i>Social capital:</i> Rare social contact with friends		<i>Social:</i> <ul style="list-style-type: none"> • Proportion who report that they do not have anyone to help out or talk to when in difficulty
19. <i>Social capital:</i> Lack of support networks that could help in the event of emergency	X	X
20. <i>Social participation:</i> In the past 12 months the household has not been able to afford inviting friends or family for a meal or drink at least once a month	X	X
21. <i>Social participation:</i> The household has not been able to afford to buy books, cinema or theatre tickets in the past 12 months	X	X
22. <i>Civic participation:</i> Inability to vote due to lack of eligibility or distance to polling station	X	<i>Community:</i> <ul style="list-style-type: none"> • Proportion of eligible persons enrolled to vote
23. <i>Civic participation:</i> No participation/membership in associations, teams or clubs	X	<i>Social:</i> <ul style="list-style-type: none"> • Proportion of the population that regularly participates in a social activity
24. <i>Civic participation:</i> No participation in political/civic activities	X	<i>Community:</i> <ul style="list-style-type: none"> • Proportion of persons who regularly participate in organized voluntary work

United Nations Development Program	European Union	Melbourne Institute of Applied Economic and Social Research, The University of Melbourne, Australia
		<p><i>Personal safety:</i></p> <ul style="list-style-type: none"> • Proportion of persons who reported that they were a victim of discrimination <p><i>Social:</i></p> <ul style="list-style-type: none"> • Proportion of the population in prison or youth detention centers

Source: compiled and developed on the basis of following materials:

- Measuring intersecting inequalities through the Social Exclusion Index: A proposal for Europe and Central Asia. Prepared by the UNDP1 and EU Fundamental Rights Agency. United Nations Economic Commission for Europe conference of european statisticians. Seminar «The way forward in poverty measurement».2–4 December 2013, Geneva, Switzerland.Item 4 of the provisional agenda.Session 3: Interlinkages between poverty, inequality, vulnerability and social inclusion;
- Continuity of indicators between end-ECHP and start-SILC. Algorithms to compute cross-sectional indicators of poverty and social inclusion adopted under the open method of coordination.European Comission Eurostat. Directorate D: Single Market, Employment and Social statistics. Unit D-2: Living conditions and social protection. 5th August 2005;
- Rosanna Scutella, Roger Wilkins and Michael Horn. Measuring Poverty and Social Exclusion in Australia: A Proposed Multidimensional Framework for Identifying Socio-Economic Disadvantage. Melbourne Institute Working Paper Series Working Paper No. 4/09.

**National Research University
«Higher School of Economics»
Institute for Social Policy and Social and Economic Programs**

Dear Colleagues!

Institute for Social Policy and Social and Economic Programs of the National Research University «Higher School of Economics» is carrying out a research concerning the evaluation of the interpersonal social communication for some groups of population in the Russian Federation.

It will take you a few minutes of time to answer the suggested questions. The opinions of experts dealing with social problems are very important for us. The survey will be anonymous and your personal data won't be disclosed.

Thank you for your cooperation!

Q 1. Do you agree with the following statement:	
«AN INDIVIDUAL BELONGING TO A CONSIDERED GROUP WOULD HAVE SERIOUS PROBLEMS WHILE COMMUNICATING WITH FAMILY/HOUSE HOLD MEMBERS»	
1 – Agree	
2 – Rather agree	
3 – Difficult to say	
4 – Rather don't agree	
5 – Don't agree	
<i>Group of population</i>	<i>Your opinion</i>
Residents of homes for orphans & abandoned	
Disabled under age of 18 living with family	
Alcohol addicts	
Drug addicts	
HIV infected persons (excluding drug addicts)	
Long-term unemployed	
Low-income persons	
Aged and disabled in need for social care at home	
Aged & disabled inpatients of nursery homes	

Q 2. Do you agree with the following statement:	
«AN INDIVIDUAL BELONGING TO A CONSIDERED GROUP COMMUNICATE MAINLY WITH FRIENDS/ACQUAINTANCES» 1 – Agree 2 – Rather agree 3 – Difficult to say 4 – Rather don't agree 5 – Don't agree	
<i>Group of population</i>	<i>Your opinion</i>
Residents of homes for orphans & abandoned	
Disabled under age of 18 living with family	
Alcohol addicts	
Drug addicts	
HIV infected persons (excluding drug addicts)	
Long-term unemployed	
Low-income persons	
Aged and disabled in need for social care at home	
Aged & disabled inpatients of nursery homes	

Q 3. Do you agree with the following statement:	
«AN INDIVIDUAL BELONGING TO A CONSIDERED GROUP WOULD HAVE SERIOUS PROBLEMS WHILE COMMUNICATING WITH THEIR COLLEAGUES/WORK ASSOCIATES)»	
1 – Agree 2 – Rather agree 3 – Difficult to say 4 – Rather don't agree 5 – Don't agree	
<i>Group of population</i>	<i>Your opinion</i>
Residents of homes for orphans & abandoned	
Disabled under age of 18 living with family	
Alcohol addicts	
Drug addicts	
HIV infected persons (excluding drug addicts)	
Long-term unemployed	
Low-income persons	
Aged and disabled in need for social care at home	
Aged & disabled inpatients of nursery homes	

Q 4. Do you agree with the following statement:	
«AN INDIVIDUAL BELONGING TO A CONSIDERED GROUP WOULD HAVE SERIOUS PROBLEMS WHILE COMMUNICATING WITH AUTHORITIES/OFFICIALS»	
1 – Agree	
2 – Rather agree	
3 – Difficult to say	
4 – Rather don't agree	
5 – Don't agree	
<i>Group of population</i>	<i>Your opinion</i>
Residents of homes for orphans & abandoned	
Disabled under age of 18 living with family	
Alcohol addicts	
Drug addicts	
HIV infected persons (excluding drug addicts)	
Long-term unemployed	
Low-income persons	
Aged and disabled in need for social care at home	
Aged & disabled inpatients of nursery homes	

Q 5. Do you agree with the following statement:	
«AN INDIVIDUAL BELONGING TO A CONSIDERED GROUP WOULD HAVE SERIOUS PROBLEMS WHILE COMMUNICATING WITH NEIGHBORHOOD/COMMUNITY» 1 – Agree 2 – Rather agree 3 – Difficult to say 4 – Rather don't agree 5 – Don't agree	
<i>Group of population</i>	<i>Your opinion</i>
Residents of homes for orphans & abandoned	
Disabled under age of 18 living with family	
Alcohol addicts	
Drug addicts	
HIV infected persons (excluding drug addicts)	
Long-term unemployed	
Low-income persons	
Aged and disabled in need for social care at home	
Aged & disabled inpatients of nursery homes	

Your gender (M, F) _____

Your age (number of full years) _____

Your education (mark an appropriate cell):

- doctorate degree
- PhD degree
- higher education
- general secondary or vocational secondary education

Thankyou!

Table D-1. Social exclusion risk ratings of the Russian Regions in 2012:
Disabled under age of 18 living with family

Subject of the Russian Federation	Value ¹⁾	Index ²⁾	Rank	Subject of the Russian Federation	Value ¹⁾	Index ²⁾	Rank
Chechen Republic	217	7,55	1	Yamal-Nenets Autonomous Area	38	-0,19	42
Republic of Daghestan	95	2,29	2	Tver Region	37	-0,20	43
Republic of Tuva	87	1,93	3	Udmurtian Republic	37	-0,20	44
Republic of Kalmykia	83	1,78	4	Komi Republic	37	-0,23	45
Republic of Sakha	69	1,18	5	Kamchatka Territory	37	-0,24	46
Karachayevo-Circassian Republic	65	0,99	6	Krasnoyarsk Territory	36	-0,24	47
Altai Republic	56	0,62	7	Chelyabinsk Region	36	-0,25	48
Irkutsk Region	56	0,59	8	Belgorod Region	36	-0,25	49
Republic of North Ossetia–Alania	49	0,31	9	Krasnodar Territory	36	-0,26	50
Trans-Baikal Territory	47	0,21	10	Stavropol Territory	36	-0,26	51
Jewish Autonomous Region	47	0,21	11	Ivanovo Region	35	-0,29	52
Republic of Buryatia	47	0,20	12	Vladimir Region	35	-0,30	53
Kabardino-Balkarian Republic	47	0,19	13	Republic of Adygea	35	-0,31	54
Tyumen Region	46	0,16	14	Pskov Region	35	-0,32	55
Amur Region	46	0,15	15	Republic of Mordovia	35	-0,32	56
Astrakhan Region	44	0,08	16	Ryazan Region	34	-0,36	57
Kemerovo Region	43	0,06	17	Kaliningrad Region	34	-0,36	58
Orenburg Region	43	0,06	18	Kirov Region	33	-0,38	59
Ulyanovsk Region	43	0,04	19	Khanty-Mansi Autonomous Area	33	-0,38	60
Republic of Mari El	43	0,04	20	St. Petersburg	33	-0,41	61
Chuvash Republic	43	0,02	21	Bryansk Region	32	-0,43	62
Republic of Karelia	43	0,02	22	Tula Region	32	-0,43	63
Khabarovsk Territory	42	-0,01	23	Samara Region	32	-0,44	64
Chukotka Autonomous Area	41	-0,03	24	Primorye Territory	31	-0,50	65
Sakhalin Region	41	-0,05	25	Magadan Region	30	-0,51	66
Kursk Region	41	-0,05	26	Tomsk Region	30	-0,51	67
Kostroma Region	41	-0,06	27	Tambov Region	30	-0,53	68
Republic of Tatarstan	41	-0,06	28	Novosibirsk Region	30	-0,53	69
Nizhny Novgorod Region	41	-0,07	29	Rostov Region	30	-0,54	70
Republic of Khakassia	40	-0,07	30	Volgograd Region	30	-0,54	71
Vologda Region	40	-0,07	31	Penza Region	29	-0,57	72
Sverdlovsk Region	40	-0,08	32	Smolensk Region	29	-0,58	73
Orel Region	40	-0,08	33	Yaroslavl Region	28	-0,59	74
Altai Territory	40	-0,10	34	Moscow	28	-0,61	75
Omsk Region	40	-0,11	35	Kaluga Region	28	-0,61	76
Arkhangelsk Region	39	-0,12	36	Moscow Region	28	-0,62	77
Republic of Bashkortostan	39	-0,14	37	Saratov Region	27	-0,66	78
Novgorod Region	39	-0,14	38	Murmansk Region	26	-0,67	79
Kurgan Region	39	-0,14	39	Leningrad Region	26	-0,69	80
Lipetsk Region	39	-0,15	40	Voronezh Region	25	-0,72	81
Perm Territory	38	-0,16	41	All 81 regions	42	0	-

¹⁾ Expected number of social excluded persons per 100000 of regional population; ²⁾ Z-score of an absolute value

Regions highly exposed to social exclusion risk are highlighted in grey

Social Exclusion Risk Degree 2012:
Disabled under age of 18 living with family



Table D-2. Social exclusion risk ratings of the Russian Regions in 2012:
Alcohol addicts

Subject of the Russian Federation	Value ¹⁾	Index ²⁾	Rank	Subject of the Russian Federation	Value ¹⁾	Index ²⁾	Rank
Tyumen Region	2683	4,15	1	Amur Region	942	-0,12	42
Chukotka Autonomous Area	2158	2,86	2	Ulyanovsk Region	919	-0,18	43
Magadan Region	1964	2,38	3	Republic of Kalmykia	914	-0,19	44
Ivanovo Region	1851	2,11	4	Ryazan Region	905	-0,21	45
Kamchatka Territory	1776	1,92	5	Irkutsk Region	899	-0,23	46
Sakhalin Region	1585	1,45	6	Leningrad Region	890	-0,25	47
Samara Region	1543	1,35	7	Vologda Region	879	-0,28	48
Chuvash Republic	1517	1,29	8	Trans-Baikal Territory	862	-0,32	49
Republic of Adygea	1458	1,14	9	Khabarovsk Territory	849	-0,35	50
Nizhny Novgorod Region	1432	1,08	10	Udmurtian Republic	848	-0,35	51
Bryansk Region	1424	1,06	11	Jewish Autonomous Region	844	-0,36	52
Kirov Region	1407	1,02	12	Saratov Region	843	-0,36	53
Novgorod Region	1342	0,86	13	Republic of Tuva	827	-0,40	54
Kurgan Region	1328	0,82	14	Tomsk Region	806	-0,46	55
Lipetsk Region	1285	0,72	15	Kemerovo Region	803	-0,46	56
Republic of Sakha	1251	0,63	16	Khanty-Mansi Autonomous Area	775	-0,53	57
Kostroma Region	1237	0,60	17	Karachayevo-Circassian Republic	772	-0,54	58
Tver Region	1183	0,47	18	Kaluga Region	763	-0,56	59
Astrakhan Region	1159	0,41	19	Yaroslavl Region	763	-0,56	60
Arkhangelsk Region	1124	0,32	20	Republic of Karelia	754	-0,58	61
Republic of Mari El	1115	0,30	21	Kaliningrad Region	736	-0,63	62
Pskov Region	1102	0,27	22	Omsk Region	735	-0,63	63
Penza Region	1099	0,26	23	Volgograd Region	731	-0,64	64
Tula Region	1088	0,23	24	Altai Republic	722	-0,66	65
Vladimir Region	1061	0,17	25	Rostov Region	721	-0,66	66
Yamal-Nenets Autonomous Area	1058	0,16	26	Murmansk Region	712	-0,69	67
Smolensk Region	1047	0,14	27	Belgorod Region	706	-0,70	68
Tambov Region	1044	0,13	28	Novosibirsk Region	688	-0,74	69
Republic of Khakassia	1041	0,12	29	Krasnoyarsk Territory	648	-0,84	70
Chelyabinsk Region	1016	0,06	30	Krasnodar Territory	628	-0,89	71
Komi Republic	1010	0,04	31	Stavropol Territory	614	-0,93	72
Perm Territory	1004	0,03	32	Republic of Tatarstan	597	-0,97	73
Republic of Bashkortostan	1004	0,03	33	Sverdlovsk Region	520	-1,16	74
Orel Region	996	0,01	34	Kabardino-Balkarian Republic	487	-1,24	75
Voronezh Region	984	-0,02	35	Moscow	457	-1,31	76
Primorye Territory	978	-0,03	36	Republic of Buryatia	390	-1,48	77
Orenburg Region	975	-0,04	37	Republic of North Ossetia–Alania	388	-1,48	78
Altai Territory	973	-0,05	38	Republic of Daghestan	376	-1,51	79
Kursk Region	961	-0,08	39	St. Petersburg	317	-1,65	80
Republic of Mordovia	948	-0,11	40	Chechen Republic	168	-2,02	81
Moscow Region	947	-0,11	41	All 81 regions	992	0	-

¹⁾ Expected number of social excluded persons per 100000 of regional population; ²⁾ Z-score of an absolute value

Regions highly exposed to social exclusion risk are highlighted in grey

Social Exclusion Risk Degree 2012:
Alcohol addicts

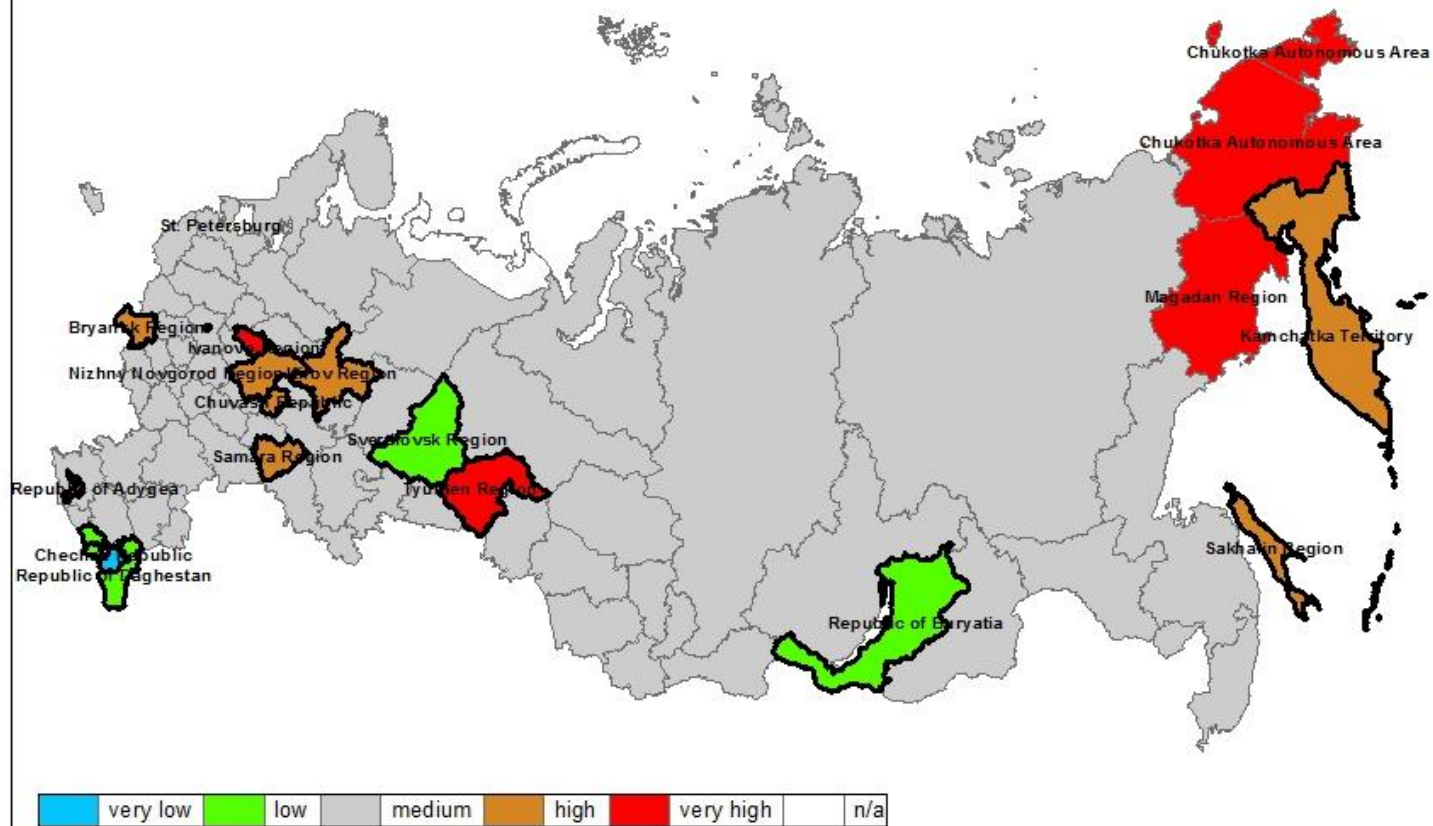


Table D-3. Social exclusion risk ratings of the Russian Regions in 2012:
Drug addicts

Subject of the Russian Federation	Value ¹⁾	Index ²⁾	Rank	Subject of the Russian Federation	Value ¹⁾	Index ²⁾	Rank
Samara Region	1054	4,95	1	Amur Region	235	-0,24	42
Kurgan Region	767	3,13	2	Nizhny Novgorod Region	233	-0,25	43
Chuvash Republic	656	2,43	3	Krasnodar Territory	232	-0,26	44
Republic of Adygea	620	2,20	4	Republic of Khakassia	227	-0,29	45
Astrakhan Region	593	2,03	5	Volgograd Region	226	-0,30	46
Kemerovo Region	521	1,58	6	Republic of Mordovia	224	-0,31	47
Orenburg Region	496	1,41	7	Kostroma Region	219	-0,34	48
Republic of Bashkortostan	410	0,86	8	Stavropol Territory	217	-0,36	49
Arkhangelsk Region	406	0,84	9	Sverdlovsk Region	217	-0,36	50
Republic of Kalmykia	405	0,83	10	Ulyanovsk Region	217	-0,36	51
Primorye Territory	396	0,78	11	Udmurtian Republic	214	-0,38	52
Sakhalin Region	379	0,67	12	Tula Region	209	-0,41	53
Penza Region	368	0,60	13	Belgorod Region	202	-0,45	54
Khanty-Mansi Autonomous Area	367	0,59	14	Kaliningrad Region	200	-0,47	55
Irkutsk Region	359	0,55	15	Kursk Region	198	-0,48	56
Karachayevo-Circassian Republic	354	0,51	16	Magadan Region	198	-0,48	57
Yamal-Nenets Autonomous Area	351	0,49	17	Kamchatka Territory	190	-0,53	58
Leningrad Region	346	0,46	18	Krasnoyarsk Territory	188	-0,54	59
Novosibirsk Region	344	0,45	19	Moscow	181	-0,59	60
Chelyabinsk Region	343	0,45	20	Ivanovo Region	176	-0,62	61
Tyumen Region	334	0,39	21	Rostov Region	172	-0,65	62
Altai Territory	325	0,33	22	Saratov Region	169	-0,67	63
Tomsk Region	324	0,32	23	Khabarovsk Territory	160	-0,72	64
Voronezh Region	322	0,31	24	Orel Region	153	-0,76	65
Novgorod Region	311	0,24	25	Chechen Republic	149	-0,79	66
Komi Republic	284	0,07	26	Kabardino-Balkarian Republic	149	-0,79	67
Omsk Region	283	0,06	27	Vladimir Region	144	-0,82	68
Murmansk Region	281	0,05	28	Republic of Tuva	140	-0,85	69
Moscow Region	281	0,05	29	Trans-Baikal Territory	135	-0,88	70
Kirov Region	277	0,02	30	Republic of Karelia	134	-0,89	71
Lipetsk Region	272	-0,01	31	St. Petersburg	133	-0,89	72
Pskov Region	271	-0,01	32	Jewish Autonomous Region	130	-0,91	73
Republic of Sakha	269	-0,02	33	Chukotka Autonomous Area	127	-0,93	74
Republic of Daghestan	264	-0,06	34	Altai Republic	120	-0,97	75
Perm Territory	260	-0,08	35	Kaluga Region	112	-1,02	76
Bryansk Region	260	-0,08	36	Ryazan Region	96	-1,13	77
Republic of Mari El	253	-0,13	37	Tambov Region	95	-1,13	78
Smolensk Region	252	-0,13	38	Republic of North Ossetia–Alania	90	-1,16	79
Vologda Region	242	-0,20	39	Yaroslavl Region	75	-1,26	80
Tver Region	241	-0,21	40	Republic of Buryatia	71	-1,29	81
Republic of Tatarstan	240	-0,21	41	All 81 regions	273	0	-

¹⁾ Expected number of social excluded persons per 100000 of regional population; ²⁾ Z-score of an absolute value

Regions highly exposed to social exclusion risk are highlighted in grey

Social Exclusion Risk Degree 2012: Drug addicts

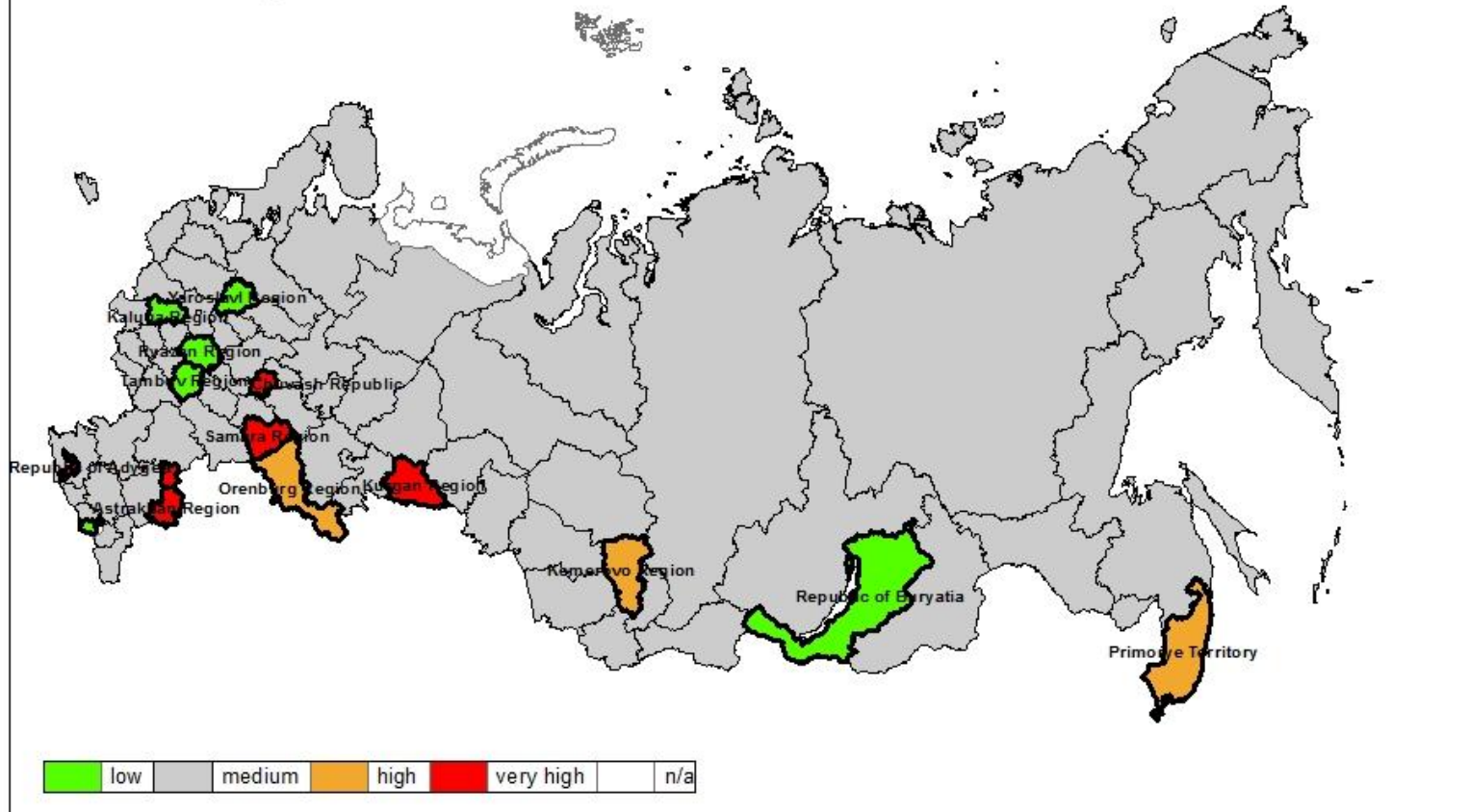


Table D-4. Social exclusion risk ratings of the Russian Regions in 2012:
HIV infected

Subject of the Russian Federation	Value ¹⁾	Index ²⁾	Rank	Subject of the Russian Federation	Value ¹⁾	Index ²⁾	Rank
Irkutsk Region	302	3,17	1	Komi Republic	41	-0,43	42
Samara Region	293	3,03	2	Orel Region	38	-0,48	43
Sverdlovsk Region	269	2,71	3	Republic of Karelia	37	-0,49	44
Orenburg Region	254	2,50	4	Rostov Region	33	-0,54	45
Leningrad Region	236	2,26	5	Smolensk Region	32	-0,56	46
Kemerovo Region	206	1,84	6	Penza Region	32	-0,56	47
Khanty-Mansi Autonomous Area	205	1,82	7	Bryansk Region	31	-0,56	48
St. Petersburg	203	1,80	8	Tomsk Region	31	-0,58	49
Ulyanovsk Region	190	1,61	9	Khabarovsk Territory	29	-0,59	50
Tyumen Region	178	1,45	10	Republic of Mari El	29	-0,59	51
Kaliningrad Region	164	1,26	11	Yaroslavl Region	29	-0,60	52
Chelyabinsk Region	160	1,21	12	Vologda Region	28	-0,60	53
Tver Region	138	0,90	13	Republic of North Ossetia–Alania	26	-0,63	54
Ivanovo Region	126	0,74	14	Republic of Mordovia	24	-0,66	55
Moscow Region	123	0,69	15	Tambov Region	23	-0,68	56
Perm Territory	117	0,62	16	Chuvash Republic	23	-0,68	57
Novosibirsk Region	110	0,52	17	Magadan Region	22	-0,69	58
Primorye Territory	109	0,50	18	Altai Republic	22	-0,69	59
Altai Territory	108	0,49	19	Republic of Sakha	22	-0,70	60
Krasnoyarsk Territory	106	0,47	20	Republic of Adygea	21	-0,71	61
Republic of Buryatia	105	0,45	21	Republic of Khakassia	21	-0,71	62
Murmansk Region	102	0,41	22	Pskov Region	21	-0,71	63
Saratov Region	101	0,39	23	Chechen Republic	19	-0,73	64
Tula Region	92	0,28	24	Republic of Kalmykia	19	-0,73	65
Kurgan Region	87	0,20	25	Sakhalin Region	17	-0,76	66
Trans-Baikal Territory	76	0,05	26	Kamchatka Territory	15	-0,78	67
Yamal-Nenets Autonomous Area	74	0,02	27	Kursk Region	15	-0,79	68
Republic of Bashkortostan	71	-0,02	28	Belgorod Region	14	-0,80	69
Volgograd Region	68	-0,06	29	Jewish Autonomous Region	14	-0,80	70
Republic of Tatarstan	66	-0,08	30	Kabardino-Balkarian Republic	14	-0,81	71
Moscow	66	-0,09	31	Astrakhan Region	11	-0,84	72
Nizhny Novgorod Region	63	-0,13	32	Arkhangelsk Region	11	-0,84	73
Udmurtian Republic	62	-0,14	33	Republic of Daghestan	11	-0,84	74
Novgorod Region	59	-0,18	34	Kirov Region	11	-0,84	75
Kostroma Region	54	-0,25	35	Amur Region	10	-0,86	76
Ryazan Region	53	-0,27	36	Lipetsk Region	10	-0,86	77
Omsk Region	47	-0,35	37	Voronezh Region	10	-0,86	78
Vladimir Region	46	-0,36	38	Karachayevo-Circassian Republic	9	-0,87	79
Krasnodar Territory	45	-0,38	39	Stavropol Territory	9	-0,87	80
Kaluga Region	42	-0,42	40	Republic of Tuva	4	-0,93	81
Chukotka Autonomous Area	41	-0,43	41	<i>All 81 regions</i>	72	0	-

¹⁾ Expected number of social excluded persons per 100000 of regional population; ²⁾ Z-score of an absolute value

Regions highly exposed to social exclusion risk are highlighted in grey

Social Exclusion Risk Degree 2012:
HIV infected

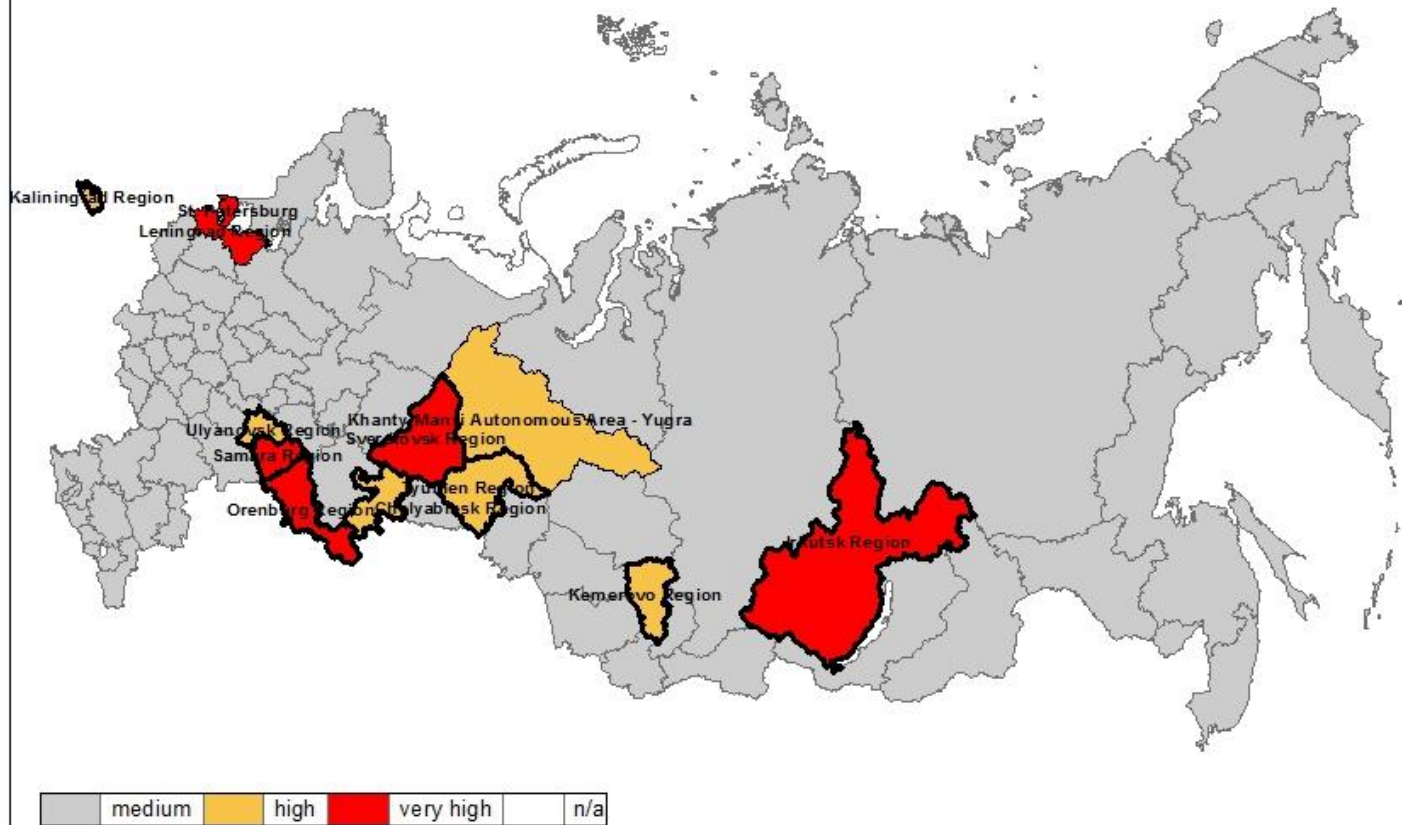


Table D-5. Social exclusion risk ratings of the Russian Regions in 2012:
Health dimension

Subject of the Russian Federation	Value ¹⁾	Index ²⁾	Rank	Subject of the Russian Federation	Value ¹⁾	Index ²⁾	Rank
Tyumen Region	3241	3,81	1	Republic of Khakassia	1329	-0,10	42
Samara Region	2921	3,16	2	Vladimir Region	1286	-0,19	43
Chukotka Autonomous Area	2368	2,03	3	Amur Region	1233	-0,30	44
Chuvash Republic	2238	1,76	4	Republic of Mordovia	1231	-0,31	45
Kurgan Region	2220	1,72	5	Orel Region	1228	-0,31	46
Magadan Region	2214	1,71	6	Kursk Region	1215	-0,34	47
Ivanovo Region	2188	1,66	7	Karachayevo-Circassian Republic	1200	-0,37	48
Republic of Adygea	2134	1,54	8	Tambov Region	1191	-0,39	49
Sakhalin Region	2022	1,32	9	Tomsk Region	1191	-0,39	50
Kamchatka Territory	2018	1,31	10	Vologda Region	1190	-0,39	51
Astrakhan Region	1808	0,88	11	Novosibirsk Region	1173	-0,42	52
Orenburg Region	1769	0,80	12	Udmurtian Republic	1161	-0,45	53
Nizhny Novgorod Region	1769	0,80	13	Saratov Region	1139	-0,49	54
Novgorod Region	1751	0,76	14	Kaliningrad Region	1133	-0,50	55
Bryansk Region	1748	0,75	15	Murmansk Region	1122	-0,53	56
Kirov Region	1728	0,71	16	Trans-Baikal Territory	1119	-0,53	57
Irkutsk Region	1616	0,49	17	Omsk Region	1104	-0,56	58
Republic of Sakha	1611	0,47	18	Ryazan Region	1087	-0,60	59
Lipetsk Region	1605	0,46	19	Khabarovsk Territory	1081	-0,61	60
Tver Region	1599	0,45	20	Republic of Tuva	1058	-0,66	61
Arkhangelsk Region	1581	0,41	21	Volgograd Region	1054	-0,67	62
Kemerovo Region	1574	0,40	22	Sverdlovsk Region	1047	-0,68	63
Chelyabinsk Region	1556	0,36	23	Jewish Autonomous Region	1035	-0,71	64
Kostroma Region	1551	0,35	24	Krasnoyarsk Territory	979	-0,82	65
Penza Region	1528	0,30	25	Republic of Karelia	967	-0,85	66
Republic of Bashkortostan	1523	0,29	26	Belgorod Region	959	-0,86	67
Yamal-Nenets Autonomous Area	1520	0,29	27	Rostov Region	956	-0,87	68
Primorye Territory	1513	0,27	28	Kaluga Region	945	-0,89	69
Leningrad Region	1498	0,24	29	Republic of Tatarstan	944	-0,89	70
Altai Territory	1445	0,13	30	Krasnodar Territory	940	-0,90	71
Republic of Mari El	1441	0,13	31	Altai Republic	920	-0,94	72
Pskov Region	1428	0,10	32	Yaroslavl Region	895	-0,99	73
Tula Region	1421	0,08	33	Stavropol Territory	876	-1,03	74
Republic of Kalmykia	1421	0,08	34	Republic of Daghestan	746	-1,30	75
Perm Territory	1420	0,08	35	Moscow	731	-1,33	76
Khanty-Mansi Autonomous Area	1380	0,00	36	Kabardino-Balkarian Republic	696	-1,40	77
Moscow Region	1378	0,00	37	St. Petersburg	686	-1,42	78
Komi Republic	1372	-0,02	38	Republic of Buryatia	613	-1,57	79
Ulyanovsk Region	1369	-0,02	39	Republic of North Ossetia–Alania	554	-1,69	80
Smolensk Region	1360	-0,04	40	Chechen Republic	553	-1,69	81
Voronezh Region	1342	-0,08	41	All 81 regions	1380	0	-

¹⁾ Expected number of social excluded persons per 100000 of regional population; ²⁾ Z-score of an absolute value

Regions highly exposed to social exclusion risk are highlighted in grey

Social Exclusion Risk Degree 2012:
Health dimension

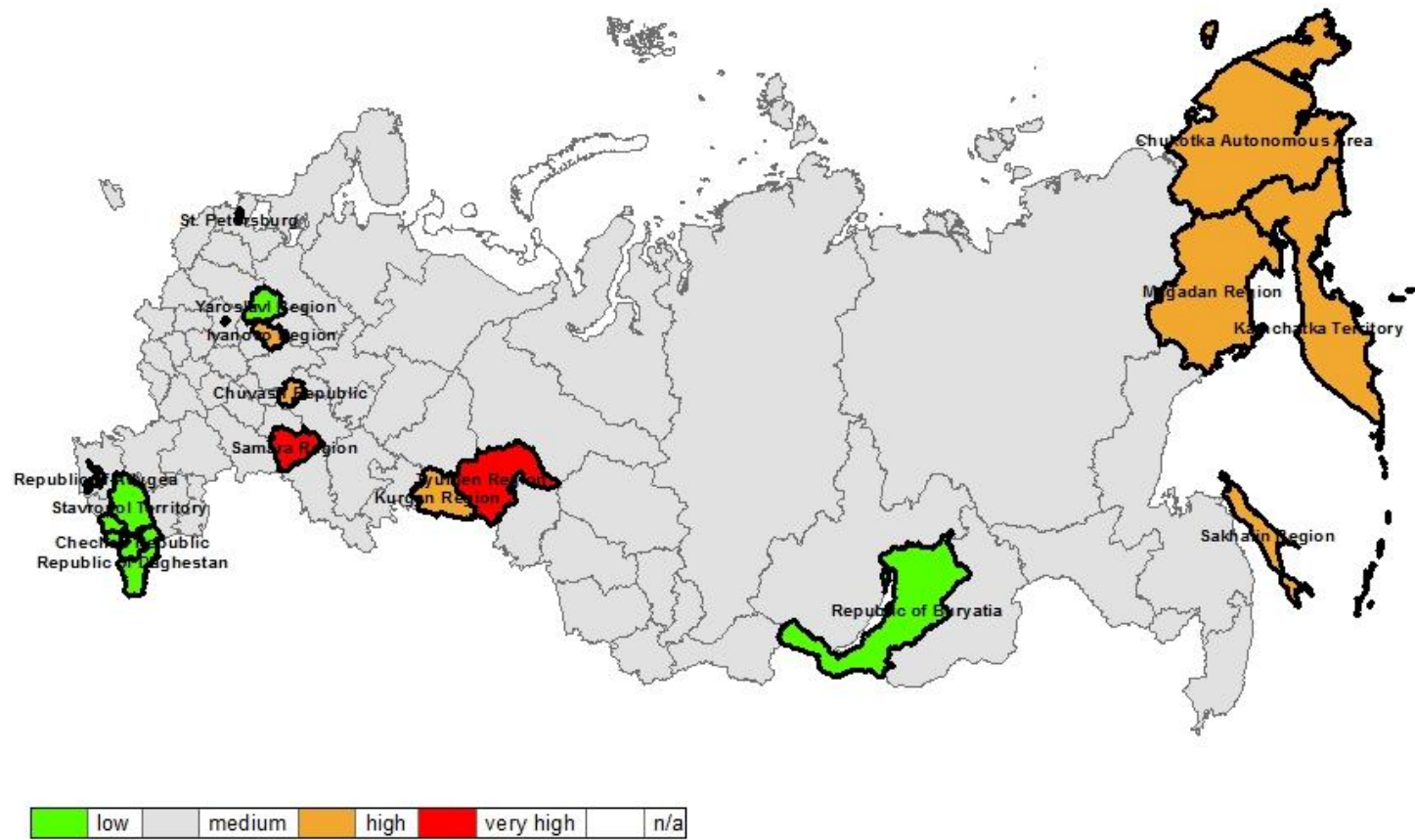


Table D-6. Social exclusion risk ratings of the Russian Regions in 2012:
Residents of homes for orphans and abandoned

Subject of the Russian Federation	Value ¹⁾	Index ²⁾	Rank	Subject of the Russian Federation	Value ¹⁾	Index ²⁾	Rank
Jewish Autonomous Region	54	3,74	1	Yamal-Nenets Autonomous Area	41	-0,42	42
Trans-Baikal Territory	47	3,02	2	Tambov Region	38	-0,46	43
Amur Region	42	2,52	3	Orenburg Region	37	-0,48	44
Magadan Region	39	2,24	4	Nizhny Novgorod Region	33	-0,53	45
Kemerovo Region	37	2,08	5	Republic of Bashkortostan	32	-0,55	46
Irkutsk Region	36	1,95	6	Murmansk Region	32	-0,55	47
Khabarovsk Territory	31	1,55	7	Tula Region	31	-0,56	48
Pskov Region	30	1,42	8	Bryansk Region	31	-0,57	49
Kamchatka Territory	29	1,34	9	Altai Territory	29	-0,59	50
Chukotka Autonomous Area	28	1,25	10	Leningrad Region	29	-0,59	51
Komi Republic	26	1,05	11	Saratov Region	29	-0,59	52
Sakhalin Region	25	0,95	12	Ryazan Region	28	-0,60	53
Primorye Territory	25	0,91	13	Republic of Mordovia	26	-0,63	54
Republic of Tuva	24	0,84	14	Volgograd Region	24	-0,66	55
Altai Republic	23	0,80	15	Stavropol Territory	23	-0,68	56
Arkhangelsk Region	23	0,73	16	Kaluga Region	23	-0,68	57
Kirov Region	23	0,73	17	Vladimir Region	22	-0,69	58
Vologda Region	20	0,47	18	Kostroma Region	22	-0,69	59
Ivanovo Region	20	0,44	19	Voronezh Region	22	-0,70	60
Chelyabinsk Region	20	0,43	20	Republic of Buryatia	21	-0,71	61
Orel Region	19	0,41	21	Republic of Kalmykia	21	-0,71	62
Udmurtian Republic	19	0,35	22	St. Petersburg	21	-0,71	63
Republic of Karelia	18	0,32	23	Kabardino-Balkarian Republic	19	-0,73	64
Kurgan Region	18	0,29	24	Rostov Region	19	-0,73	65
Kaliningrad Region	17	0,17	25	Samara Region	17	-0,77	66
Astrakhan Region	17	0,15	26	Khanty-Mansi Autonomous Area	15	-0,79	67
Republic of Khakassia	16	0,13	27	Republic of North Ossetia–Alania	15	-0,79	68
Novosibirsk Region	16	0,07	28	Moscow Region	14	-0,81	69
Krasnoyarsk Territory	15	0,05	29	Perm Territory	14	-0,81	70
Tver Region	15	-0,00	30	Krasnodar Territory	14	-0,82	71
Smolensk Region	15	-0,03	31	Republic of Adygea	11	-0,85	72
Kursk Region	14	-0,07	32	Republic of Daghestan	11	-0,85	73
Sverdlovsk Region	14	-0,07	33	Republic of Tatarstan	11	-0,85	74
Novgorod Region	14	-0,10	34	Chuvash Republic	11	-0,85	75
Ulyanovsk Region	14	-0,12	35	Moscow	10	-0,87	76
Republic of Sakha	14	-0,14	36	Penza Region	10	-0,87	77
Lipetsk Region	13	-0,16	37	Tyumen Region	10	-0,87	78
Yaroslavl Region	13	-0,18	38	Belgorod Region	9	-0,88	79
Omsk Region	13	-0,18	39	Karachayevo-Circassian Republic	9	-0,88	80
Tomsk Region	13	-0,23	40	Chechen Republic	4	-0,95	81
Republic of Mari El	12	-0,26	41	All 81 regions	15	0	-

¹⁾ Expected number of social excluded persons per 100000 of regional population; ²⁾ Z-score of an absolute value

Regions highly exposed to social exclusion risk are highlighted in grey

Social Exclusion Risk Degree 2012:
Residents of homes for orphans & abandoned

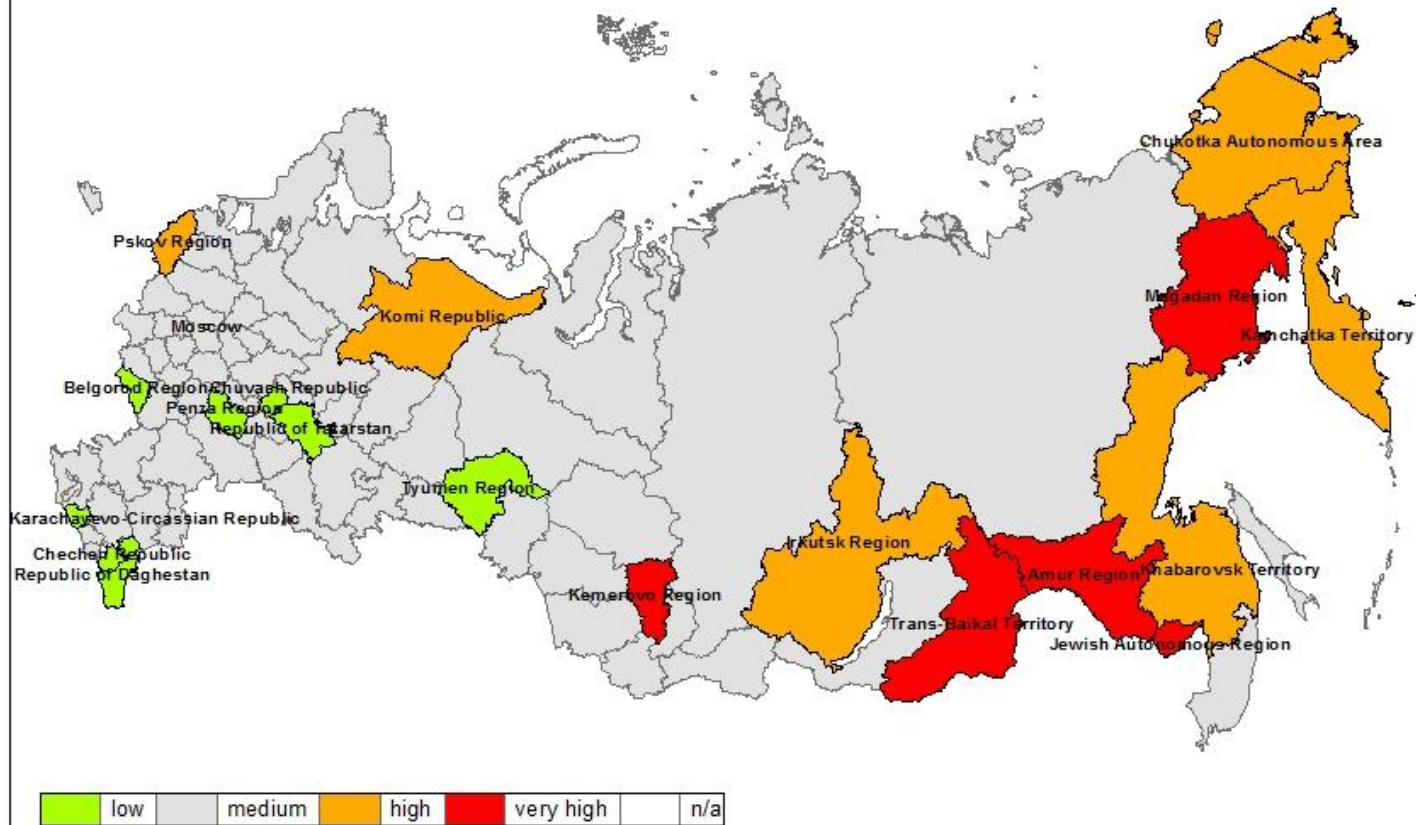


Table D-7. Social exclusion risk ratings of the Russian Regions in 2012:
Aged and disabled in need for social care at home

Subject of the Russian Federation	Value ¹⁾	Index ²⁾	Rank	Subject of the Russian Federation	Value ¹⁾	Index ²⁾	Rank
Rostov Region	241	2,56	1	Kaluga Region	101	-0,16	42
Tambov Region	235	2,44	2	Republic of Daghestan	101	-0,16	43
Saratov Region	234	2,42	3	Trans-Baikal Territory	98	-0,23	44
Samara Region	223	2,22	4	Republic of Karelia	98	-0,24	45
Lipetsk Region	219	2,14	5	Bryansk Region	96	-0,26	46
Kurgan Region	203	1,83	6	Republic of Mari El	95	-0,30	47
Orenburg Region	193	1,62	7	Republic of Bashkortostan	94	-0,31	48
Omsk Region	191	1,59	8	Moscow Region	90	-0,38	49
Chechen Republic	178	1,35	9	Perm Territory	87	-0,44	50
Penza Region	173	1,25	10	St. Petersburg	87	-0,44	51
Yaroslavl Region	173	1,24	11	Jewish Autonomous Region	85	-0,49	52
Kemerovo Region	166	1,10	12	Udmurtian Republic	81	-0,56	53
Pskov Region	158	0,95	13	Karachayevo-Circassian Republic	81	-0,57	54
Orel Region	156	0,91	14	Murmansk Region	80	-0,57	55
Republic of Adygea	156	0,91	15	Arkhangelsk Region	80	-0,58	56
Kostroma Region	152	0,82	16	Republic of Mordovia	79	-0,60	57
Belgorod Region	147	0,74	17	Leningrad Region	78	-0,63	58
Novgorod Region	147	0,73	18	Kaliningrad Region	74	-0,71	59
Moscow	142	0,64	19	Novosibirsk Region	72	-0,74	60
Krasnodar Territory	142	0,62	20	Amur Region	70	-0,79	61
Kursk Region	139	0,57	21	Vladimir Region	70	-0,79	62
Stavropol Territory	139	0,57	22	Altai Territory	68	-0,81	63
Smolensk Region	133	0,45	23	Kabardino-Balkarian Republic	68	-0,82	64
Kirov Region	129	0,37	24	Khabarovsk Territory	68	-0,82	65
Ryazan Region	127	0,33	25	Republic of Tatarstan	66	-0,85	66
Sverdlovsk Region	126	0,31	26	Republic of Sakha	62	-0,94	67
Chelyabinsk Region	124	0,28	27	Irkutsk Region	61	-0,95	68
Ivanovo Region	124	0,28	28	Primorye Territory	59	-0,98	69
Vologograd Region	123	0,26	29	Vologda Region	57	-1,04	70
Tula Region	119	0,19	30	Tyumen Region	57	-1,04	71
Tver Region	118	0,16	31	Ulyanovsk Region	53	-1,10	72
Nizhny Novgorod Region	118	0,15	32	Sakhalin Region	52	-1,13	73
Voronezh Region	114	0,08	33	Republic of Tuva	49	-1,18	74
Republic of Kalmykia	113	0,06	34	Chuvash Republic	46	-1,24	75
Republic of North Ossetia–Alania	110	0,00	35	Kamchatka Territory	42	-1,33	76
Astrakhan Region	109	-0,02	36	Republic of Khakassia	40	-1,36	77
Komi Republic	107	-0,05	37	Altai Republic	38	-1,39	78
Chukotka Autonomous Area	106	-0,07	38	Tomsk Region	38	-1,40	79
Magadan Region	106	-0,08	39	Yamal-Nenets Autonomous Area	27	-1,62	80
Krasnoyarsk Territory	105	-0,09	40	Khanty-Mansi Autonomous Area	21	-1,74	81
Republic of Buryatia	102	-0,14	41	All 81 regions	110	0	-

¹⁾ Expected number of social excluded persons per 100000 of regional population; ²⁾ Z-score of an absolute value

Regions highly exposed to social exclusion risk are highlighted in grey

Social Exclusion Risk Degree 2012:
Aged & Disabled in need for social care at home

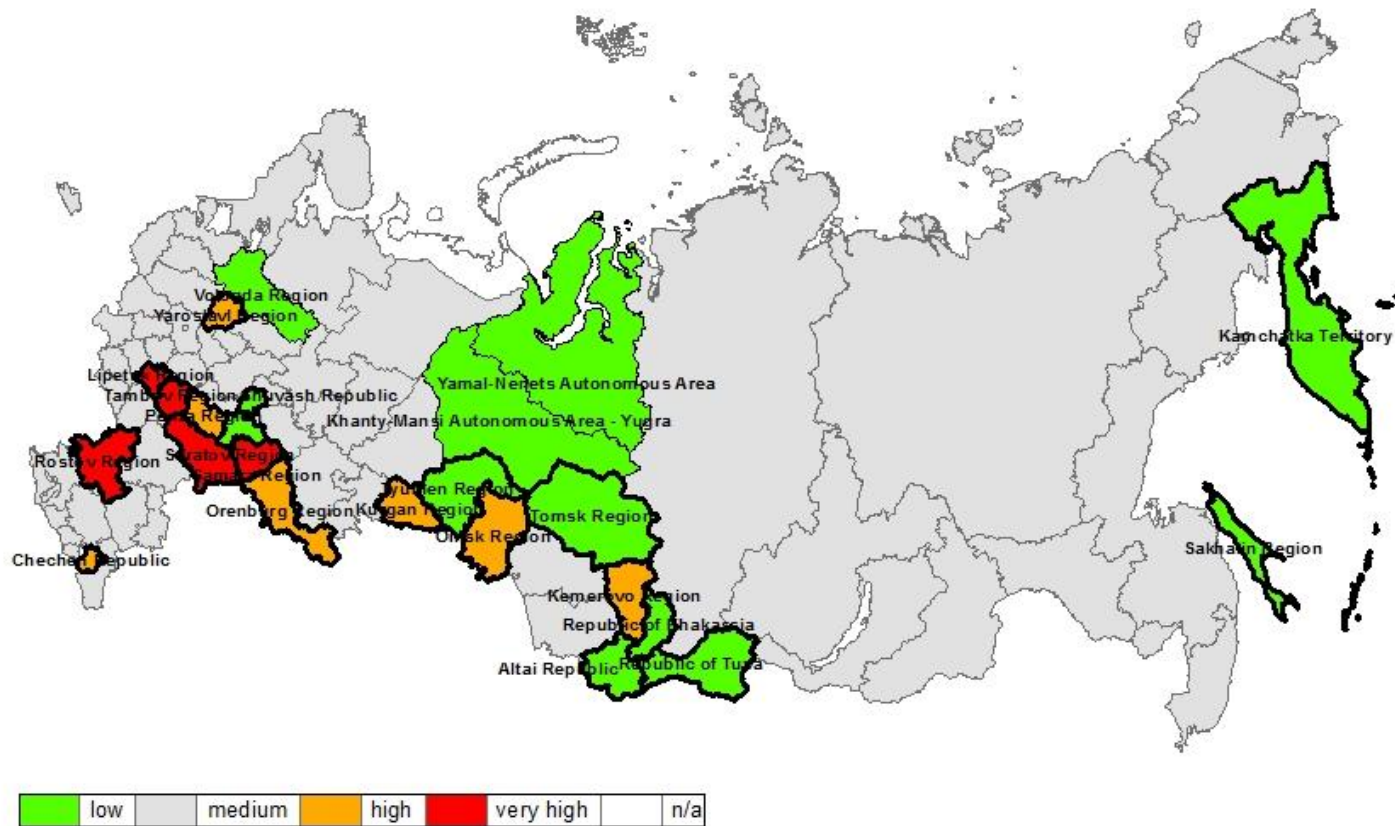


Table D-8. Social exclusion risk ratings of the Russian Regions in 2012:
Aged and disabled inpatients of nursery homes

Subject of the Russian Federation	Value ¹⁾	Index ²⁾	Rank	Subject of the Russian Federation	Value ¹⁾	Index ²⁾	Rank
Republic of Khakassia	124	2,68	1	Chukotka Autonomous Area	53	-0,16	42
Pskov Region	119	2,50	2	Penza Region	53	-0,19	43
Jewish Autonomous Region	118	2,46	3	Nizhny Novgorod Region	52	-0,19	44
Magadan Region	107	2,01	4	Lipetsk Region	51	-0,24	45
Sakhalin Region	100	1,74	5	Tomsk Region	49	-0,31	46
Vologda Region	96	1,57	6	Kaluga Region	49	-0,32	47
Novgorod Region	96	1,57	7	Tambov Region	49	-0,32	48
Smolensk Region	95	1,53	8	Republic of Adygea	49	-0,35	49
Tver Region	91	1,35	9	Volgograd Region	48	-0,37	50
Komi Republic	89	1,27	10	Kamchatka Territory	47	-0,39	51
Ivanovo Region	89	1,27	11	Saratov Region	47	-0,39	52
Republic of Tuva	84	1,07	12	Udmurtian Republic	47	-0,40	53
Kirov Region	83	1,03	13	Belgorod Region	47	-0,41	54
Kostroma Region	82	1,00	14	Tula Region	46	-0,45	55
Republic of Sakha	77	0,80	15	Altai Republic	44	-0,53	56
Republic of Karelia	75	0,73	16	Kabardino-Balkarian Republic	43	-0,56	57
Republic of Mari El	74	0,68	17	St. Petersburg	43	-0,58	58
Kurgan Region	73	0,64	18	Ryazan Region	43	-0,58	59
Yaroslavl Region	72	0,60	19	Novosibirsk Region	43	-0,59	60
Murmansk Region	70	0,50	20	Kursk Region	42	-0,62	61
Amur Region	68	0,45	21	Samara Region	42	-0,63	62
Orel Region	67	0,38	22	Chuvash Republic	42	-0,63	63
Vladimir Region	67	0,38	23	Ulyanovsk Region	41	-0,66	64
Republic of Buryatia	67	0,38	24	Sverdlovsk Region	40	-0,70	65
Omsk Region	66	0,35	25	Krasnodar Territory	39	-0,74	66
Khabarovsk Territory	65	0,30	26	Rostov Region	38	-0,76	67
Kaliningrad Region	64	0,29	27	Astrakhan Region	38	-0,76	68
Republic of Kalmykia	64	0,28	28	Orenburg Region	38	-0,78	69
Arkhangelsk Region	63	0,24	29	Stavropol Territory	37	-0,80	70
Trans-Baikal Territory	63	0,24	30	Republic of Bashkortostan	35	-0,89	71
Tyumen Region	63	0,22	31	Moscow	34	-0,91	72
Republic of Mordovia	62	0,20	32	Chelyabinsk Region	31	-1,06	73
Bryansk Region	62	0,18	33	Republic of Tatarstan	29	-1,14	74
Altai Territory	60	0,13	34	Moscow Region	27	-1,20	75
Leningrad Region	58	0,02	35	Republic of North Ossetia–Alania	26	-1,25	76
Voronezh Region	57	0,01	36	Khanty-Mansi Autonomous Area	14	-1,73	77
Krasnoyarsk Territory	57	-0,02	37	Yamal-Nenets Autonomous Area	8	-1,99	78
Primorye Territory	56	-0,03	38	Republic of Dagestan	8	-2,00	79
Irkutsk Region	56	-0,03	39	Karachayevo-Circassian Republic	7	-2,01	80
Perm Territory	56	-0,05	40	Chechen Republic	3	-2,17	81
Kemerovo Region	53	-0,15	41	All 81 regions	57	0	-

¹⁾ Expected number of social excluded persons per 100000 of regional population; ²⁾ Z-score of an absolute value

Regions highly exposed to social exclusion risk are highlighted in grey

Social Exclusion Risk Degree 2012: Aged & Disabled inpatients of nursery homes

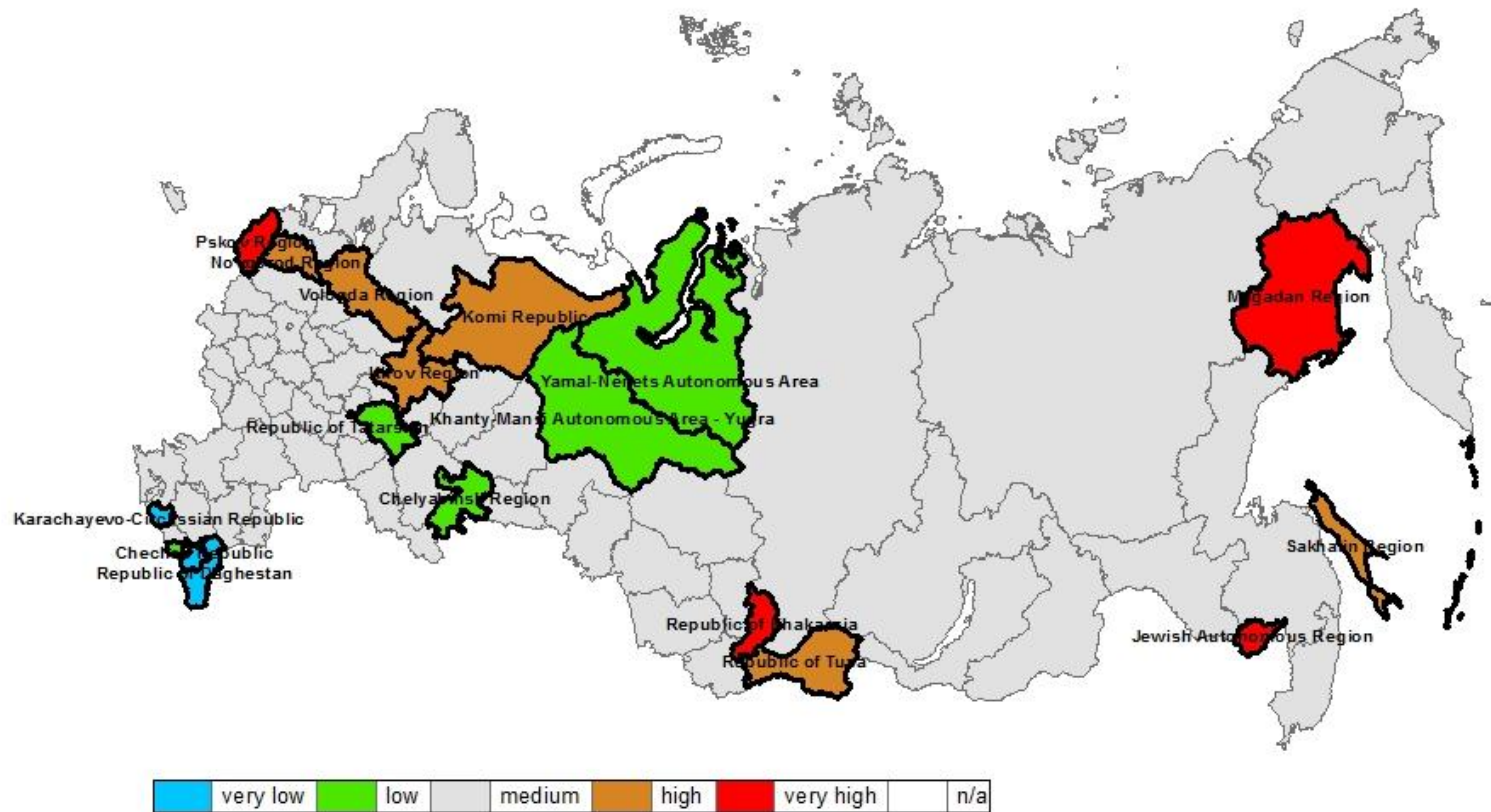


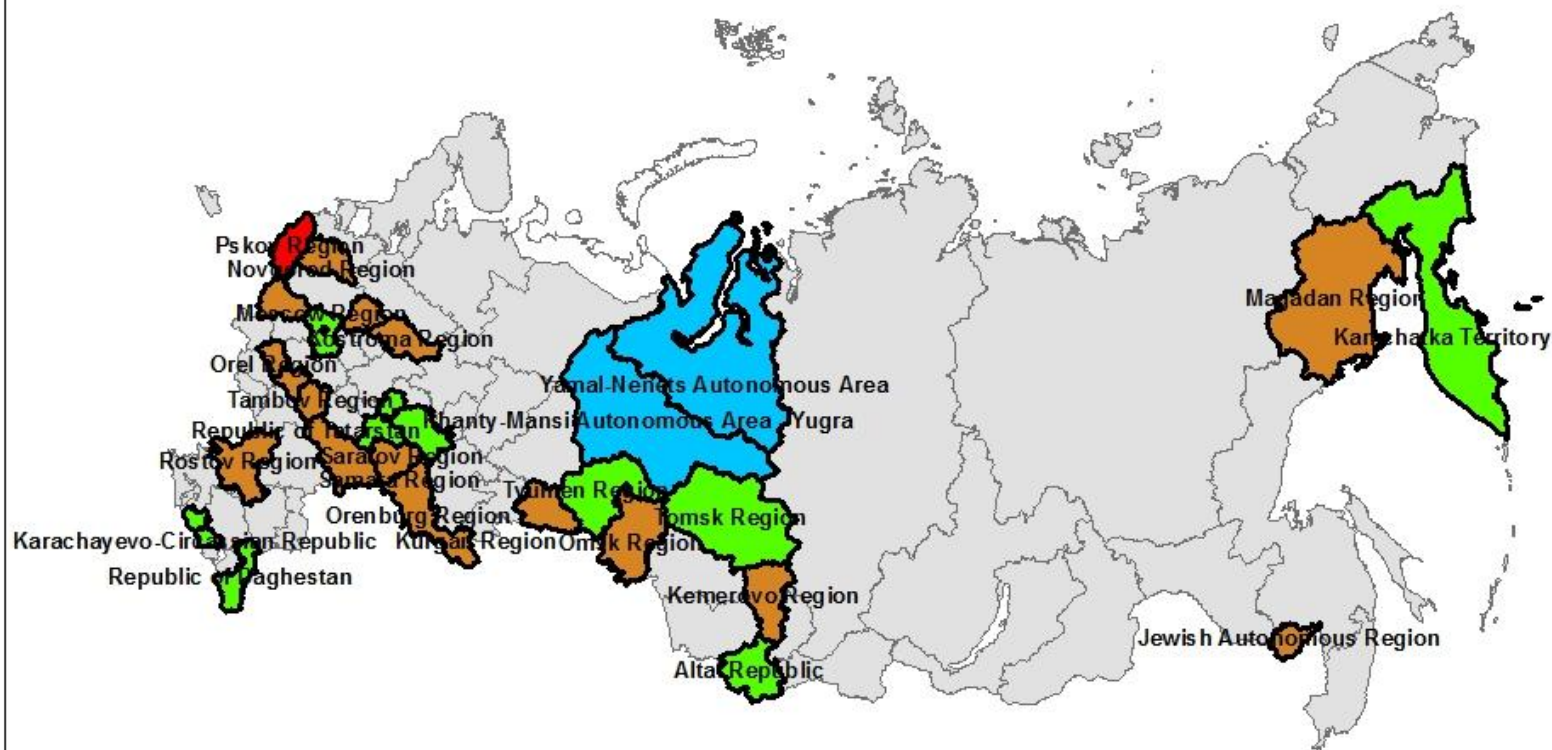
Table D-9. Social exclusion risk ratings of the Russian Regions in 2012:
Social dimension

Subject of the Russian Federation	Value ¹⁾	Index ²⁾	Rank	Subject of the Russian Federation	Value ¹⁾	Index ²⁾	Rank
Pskov Region	308	2,19	1	Chukotka Autonomous Area	177	-0,08	42
Tambov Region	296	1,98	2	Penza Region	177	-0,08	43
Kurgan Region	294	1,96	3	Nizhny Novgorod Region	177	-0,08	44
Saratov Region	291	1,90	4	Lipetsk Region	176	-0,10	45
Rostov Region	286	1,81	5	Tomsk Region	174	-0,13	46
Lipetsk Region	284	1,77	6	Kaluga Region	173	-0,16	47
Samara Region	271	1,55	7	Tambov Region	168	-0,24	48
Omsk Region	270	1,53	8	Republic of Adygea	166	-0,27	49
Yaroslavl Region	258	1,33	9	Volgograd Region	164	-0,32	50
Jewish Autonomous Region	257	1,31	10	Kamchatka Territory	164	-0,32	51
Novgorod Region	257	1,31	11	Saratov Region	160	-0,37	52
Kemerovo Region	256	1,29	12	Udmurtian Republic	160	-0,38	53
Magadan Region	251	1,21	13	Belgorod Region	157	-0,44	54
Orel Region	242	1,05	14	Tula Region	155	-0,47	55
Smolensk Region	242	1,05	15	Altai Republic	153	-0,50	56
Kostroma Region	242	1,04	16	Kabardino-Balkarian Republic	152	-0,51	57
Orenburg Region	242	1,04	17	St. Petersburg	151	-0,54	58
Kirov Region	234	0,91	18	Ryazan Region	149	-0,57	59
Ivanovo Region	232	0,87	19	Novosibirsk Region	147	-0,60	60
Penza Region	229	0,83	20	Kursk Region	145	-0,65	61
Tver Region	224	0,73	21	Samara Region	145	-0,65	62
Komi Republic	222	0,70	22	Chuvash Republic	142	-0,70	63
Republic of Adygea	209	0,48	23	Ulyanovsk Region	141	-0,72	64
Trans-Baikal Territory	208	0,45	24	Sverdlovsk Region	140	-0,73	65
Belgorod Region	197	0,27	25	Krasnodar Territory	139	-0,75	66
Kursk Region	195	0,22	26	Rostov Region	137	-0,77	67
Republic of Karelia	191	0,16	27	Astrakhan Region	130	-0,90	68
Chukotka Autonomous Area	188	0,10	28	Orenburg Region	124	-1,01	69
Krasnodar Territory	186	0,07	29	Stavropol Territory	122	-1,04	70
Stavropol Territory	185	0,06	30	Republic of Bashkortostan	119	-1,10	71
Republic of Kalmykia	184	0,04	31	Moscow	118	-1,11	72
Chechen Republic	183	0,02	32	Chelyabinsk Region	112	-1,21	73
Nizhny Novgorod Region	181	-0,02	33	Republic of Tatarstan	108	-1,29	74
Republic of Mari El	181	-0,02	34	Moscow Region	106	-1,32	75
Volgograd Region	180	-0,03	35	Republic of North Ossetia–Alania	100	-1,42	76
Moscow	180	-0,03	36	Khanty-Mansi Autonomous Area	99	-1,45	77
Republic of Khakassia	180	-0,03	37	Yamal-Nenets Autonomous Area	91	-1,58	78
Sverdlovsk Region	180	-0,04	38	Republic of Daghestan	91	-1,58	79
Voronezh Region	179	-0,04	39	Karachayevo-Circassian Republic	47	-2,36	80
Amur Region	179	-0,04	40	Chechen Republic	41	-2,45	81
Ryazan Region	179	-0,05	41	All 81 regions	182	0	-

¹⁾ Expected number of social excluded persons per 100000 of regional population; ²⁾ Z-score of an absolute value

Regions highly exposed to social exclusion risk are highlighted in grey

Social Exclusion Risk Degree in 2012:
Social dimension



Legend



Table D-10. Social exclusion risk ratings of the Russian Regions in 2012:
Long-term unemployed

Subject of the Russian Federation	Value ¹⁾	Index ²⁾	Rank	Subject of the Russian Federation	Value ¹⁾	Index ²⁾	Rank
Republic of Tuva	564	5,13	1	Stavropol Territory	126	-0,21	42
Republic of Kalmykia	347	2,49	2	Orenburg Region	124	-0,23	43
Karachayevo-Circassian Republic	326	2,23	3	Amur Region	124	-0,24	44
Republic of Daghestan	306	1,98	4	Novosibirsk Region	123	-0,25	45
Jewish Autonomous Region	297	1,87	5	Republic of Bashkortostan	122	-0,26	46
Chechen Republic	296	1,86	6	Udmurtian Republic	121	-0,27	47
Trans-Baikal Territory	285	1,72	7	Chelyabinsk Region	120	-0,29	48
Altai Republic	268	1,52	8	Tver Region	116	-0,34	49
Kabardino-Balkarian Republic	256	1,37	9	Volgograd Region	115	-0,34	50
Sakhalin Region	235	1,11	10	Rostov Region	114	-0,36	51
Republic of Adygea	226	1,00	11	Penza Region	114	-0,37	52
Primorye Territory	183	0,48	12	Tyumen Region	111	-0,40	53
Pskov Region	181	0,45	13	Sverdlovsk Region	108	-0,43	54
Altai Territory	174	0,38	14	Kirov Region	108	-0,44	55
Tomsk Region	172	0,34	15	Kursk Region	106	-0,46	56
Republic of Sakha	168	0,30	16	Omsk Region	105	-0,47	57
Republic of North Ossetia–Alania	168	0,29	17	Khanty-Mansi Autonomous Area	105	-0,47	58
Voronezh Region	165	0,26	18	Lipetsk Region	104	-0,48	59
Murmansk Region	164	0,25	19	Orel Region	97	-0,57	60
Kurgan Region	164	0,25	20	Ryazan Region	95	-0,59	61
Ivanovo Region	163	0,24	21	Krasnodar Territory	94	-0,61	62
Perm Territory	162	0,22	22	Vladimir Region	92	-0,63	63
Republic of Khakassia	162	0,22	23	Kamchatka Territory	87	-0,69	64
Saratov Region	162	0,22	24	Chuvash Republic	86	-0,70	65
Khabarovsk Territory	158	0,18	25	Magadan Region	85	-0,71	66
Republic of Karelia	157	0,16	26	Arkhangelsk Region	82	-0,75	67
Republic of Mari El	155	0,13	27	Republic of Tatarstan	81	-0,76	68
Irkutsk Region	152	0,11	28	Tula Region	79	-0,79	69
Smolensk Region	149	0,07	29	Nizhny Novgorod Region	76	-0,82	70
Kemerovo Region	148	0,05	30	Samara Region	72	-0,87	71
Republic of Mordovia	146	0,02	31	Novgorod Region	69	-0,90	72
Astrakhan Region	145	0,02	32	Yaroslavl Region	68	-0,92	73
Ulyanovsk Region	144	0,01	33	Krasnoyarsk Territory	66	-0,94	74
Tambov Region	144	0,01	34	Kaluga Region	66	-0,95	75
Republic of Buryatia	143	-0,01	35	Moscow Region	64	-0,97	76
Chukotka Autonomous Area	140	-0,04	36	Yamal-Nenets Autonomous Area	58	-1,04	77
Kaliningrad Region	136	-0,09	37	Belgorod Region	52	-1,11	78
Bryansk Region	133	-0,13	38	Leningrad Region	35	-1,33	79
Komi Republic	128	-0,19	39	St. Petersburg	26	-1,43	80
Vologda Region	127	-0,20	40	Moscow	8	-1,65	81
Kostroma Region	126	-0,21	41	All 81 regions	144	0	-

¹⁾ Expected number of social excluded persons per 100000 of regional population; ²⁾ Z-score of an absolute value

Regions highly exposed to social exclusion risk are highlighted in grey

Social Exclusion Risk Degree 2012: Long-term unemployed

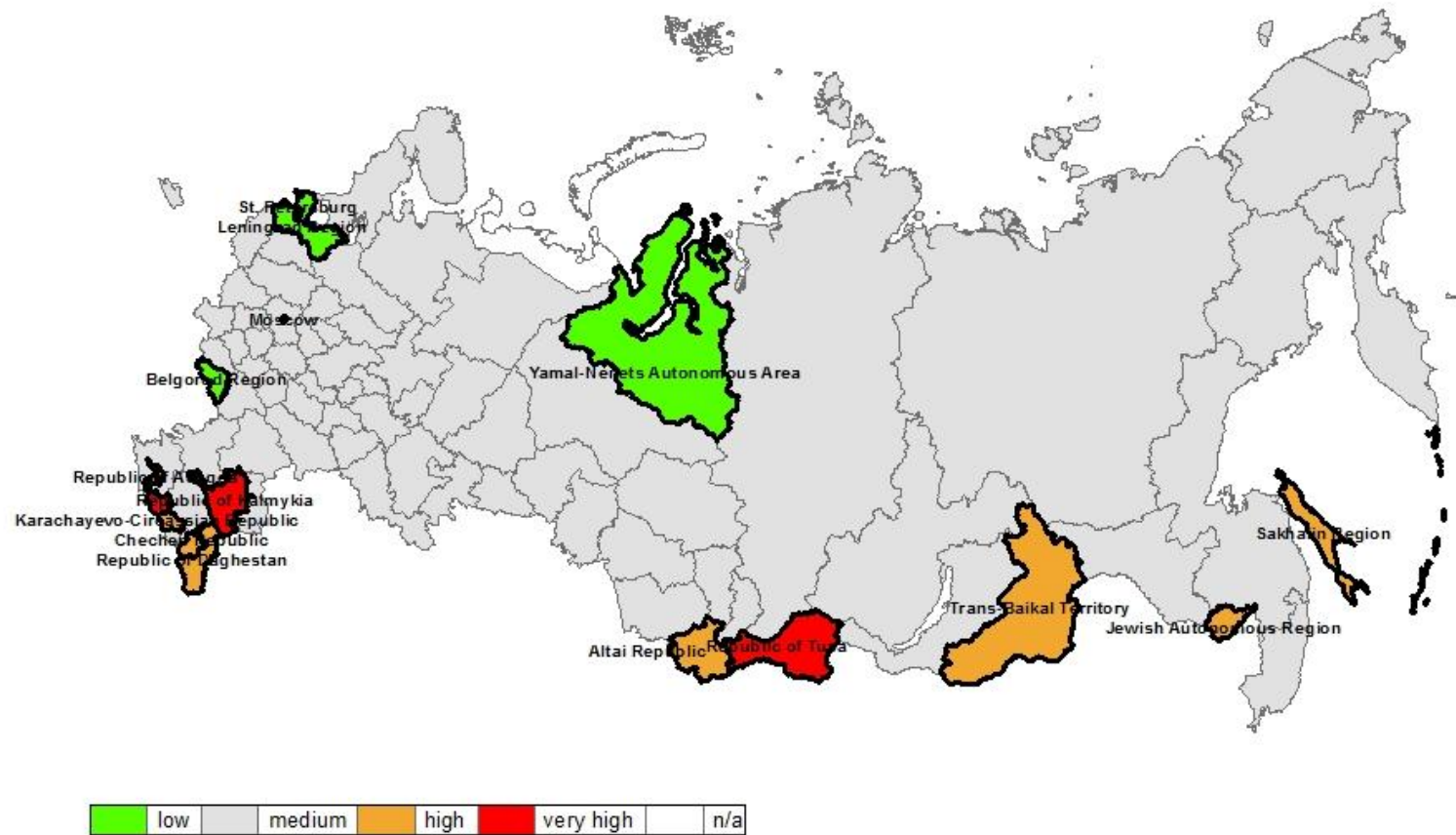


Table D-11. Social exclusion risk ratings of the Russian Regions in 2012:
Low-income persons

Subject of the Russian Federation	Value ¹⁾	Index ²⁾	Rank	Subject of the Russian Federation	Value ¹⁾	Index ²⁾	Rank
Republic of Kalmykia	2214	4,07	1	Kirov Region	906	-0,17	42
Republic of Tuva	2020	3,44	2	Astrakhan Region	899	-0,19	43
Chechen Republic	1567	1,98	3	Ryazan Region	899	-0,19	44
Altai Territory	1474	1,67	4	Samara Region	884	-0,24	45
Republic of Mari El	1438	1,56	5	Perm Territory	877	-0,26	46
Jewish Autonomous Region	1387	1,39	6	Leningrad Region	855	-0,33	47
Republic of Buryatia	1351	1,28	7	Krasnodar Territory	841	-0,38	48
Altai Republic	1337	1,23	8	Novgorod Region	834	-0,40	49
Kamchatka Territory	1294	1,09	9	Udmurtian Republic	820	-0,45	50
Republic of Mordovia	1294	1,09	10	Sakhalin Region	820	-0,45	51
Trans-Baikal Territory	1287	1,07	11	Republic of Adygea	820	-0,45	52
Irkutsk Region	1222	0,86	12	Tver Region	820	-0,45	53
Republic of Sakha	1215	0,83	13	Murmansk Region	812	-0,47	54
Tomsk Region	1179	0,72	14	Orel Region	812	-0,47	55
Amur Region	1179	0,72	15	Magadan Region	812	-0,47	56
Republic of Khakassia	1172	0,69	16	Omsk Region	791	-0,54	57
Karachayevo-Circassian Republic	1157	0,65	17	Yaroslavl Region	791	-0,54	58
Krasnoyarsk Territory	1157	0,65	18	Kaliningrad Region	784	-0,57	59
Chuvash Republic	1150	0,62	19	Kemerovo Region	776	-0,59	60
Saratov Region	1143	0,60	20	Bryansk Region	762	-0,64	61
Kurgan Region	1136	0,58	21	Nizhny Novgorod Region	748	-0,68	62
Pskov Region	1093	0,44	22	Republic of North Ossetia–Alania	748	-0,68	63
Kostroma Region	1093	0,44	23	Republic of Bashkortostan	740	-0,71	64
Vladimir Region	1085	0,41	24	Voronezh Region	740	-0,71	65
Smolensk Region	1071	0,37	25	Chelyabinsk Region	733	-0,73	66
Primorye Territory	1050	0,30	26	Khanty-Mansi Autonomous Area	712	-0,80	67
Kabardino-Balkarian Republic	1028	0,23	27	Moscow	697	-0,85	68
Khabarovsk Territory	1028	0,23	28	Tula Region	683	-0,89	69
Novosibirsk Region	1028	0,23	29	Tambov Region	676	-0,92	70
Tyumen Region	1028	0,23	30	St. Petersburg	647	-1,01	71
Stavropol Territory	1006	0,16	31	Kaluga Region	618	-1,10	72
Ivanovo Region	999	0,13	32	Sverdlovsk Region	611	-1,13	73
Republic of Karelia	978	0,06	33	Lipetsk Region	604	-1,15	74
Volgograd Region	978	0,06	34	Kursk Region	589	-1,20	75
Komi Republic	970	0,04	35	Chukotka Autonomous Area	568	-1,27	76
Ulyanovsk Region	963	0,02	36	Moscow Region	518	-1,43	77
Vologda Region	956	-0,01	37	Republic of Daghestan	510	-1,45	78
Penza Region	956	-0,01	38	Republic of Tatarstan	467	-1,59	79
Rostov Region	942	-0,05	39	Yamal-Nenets Autonomous Area	467	-1,59	80
Arkhangelsk Region	942	-0,05	40	Belgorod Region	467	-1,59	81
Orenburg Region	913	-0,15	41	All 81 regions	958	0	-

¹⁾ Expected number of social excluded persons per 100000 of regional population; ²⁾ Z-score of an absolute value

Regions highly exposed to social exclusion risk are highlighted in grey

Social Exclusion Risk Degree 2012:
Low-income persons

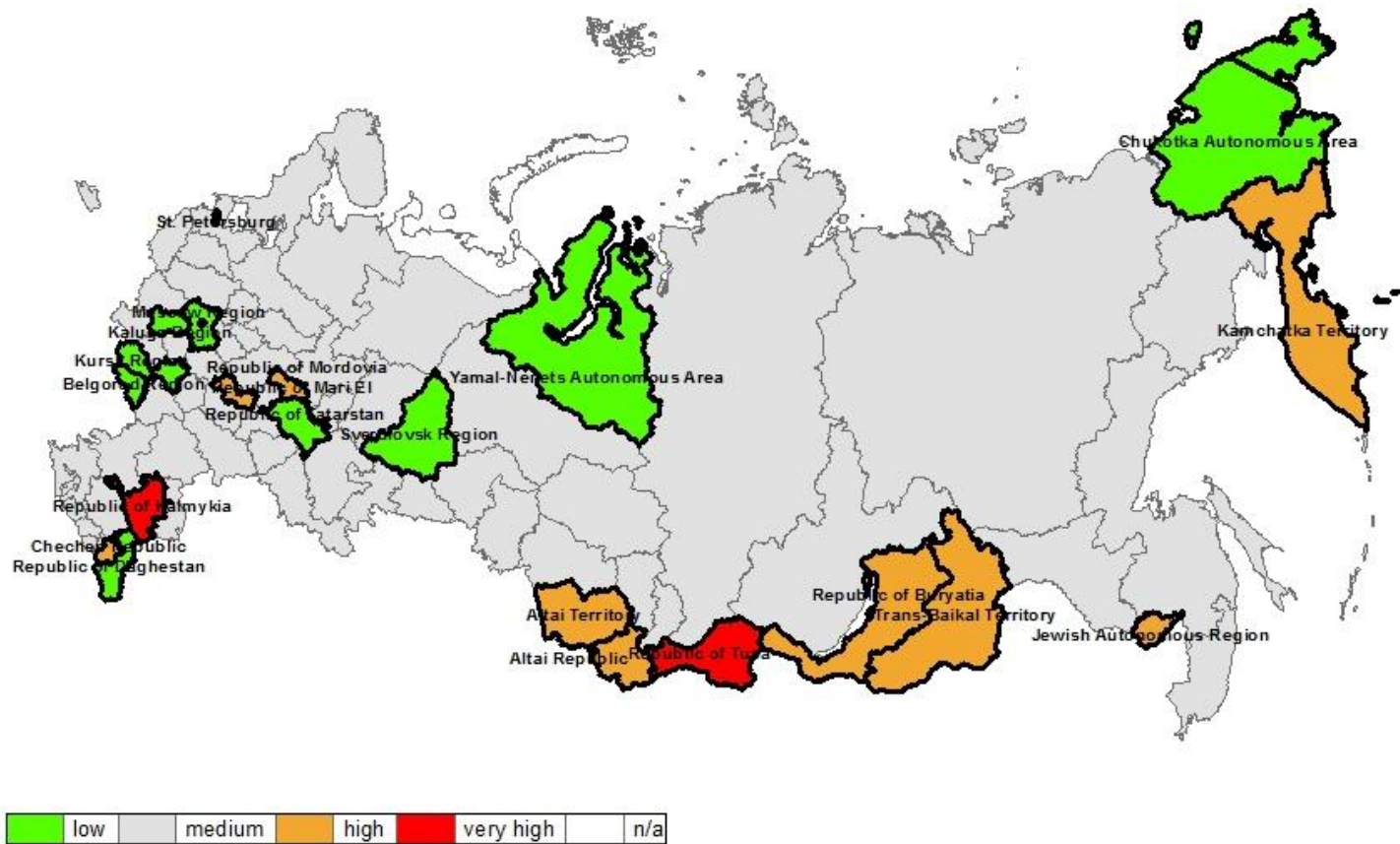


Table D-12. Social exclusion risk ratings of the Russian Regions in 2012:
Economic dimension

Subject of the Russian Federation	Value ¹⁾	Index ²⁾	Rank	Subject of the Russian Federation	Value ¹⁾	Index ²⁾	Rank
Republic of Tuva	2584	4,05	1	Astrakhan Region	1044	-0,16	42
Republic of Kalmykia	2561	3,99	2	Perm Territory	1039	-0,17	43
Chechen Republic	1863	2,08	3	Orenburg Region	1037	-0,18	44
Jewish Autonomous Region	1685	1,59	4	Arkhangelsk Region	1024	-0,21	45
Altai Territory	1648	1,49	5	Kirov Region	1013	-0,24	46
Altai Republic	1605	1,37	6	Ryazan Region	994	-0,30	47
Republic of Mari El	1592	1,34	7	Murmansk Region	976	-0,34	48
Trans-Baikal Territory	1572	1,28	8	Samara Region	957	-0,40	49
Republic of Buryatia	1494	1,07	9	Udmurtian Republic	941	-0,44	50
Karachayevo-Circassian Republic	1483	1,04	10	Tver Region	935	-0,46	51
Republic of Mordovia	1440	0,92	11	Krasnodar Territory	935	-0,46	52
Republic of Sakha	1383	0,77	12	Kemerovo Region	924	-0,49	53
Kamchatka Territory	1381	0,76	13	Kaliningrad Region	920	-0,50	54
Irkutsk Region	1374	0,74	14	Republic of North Ossetia–Alania	915	-0,51	55
Tomsk Region	1351	0,68	15	Orel Region	909	-0,53	56
Republic of Khakassia	1333	0,63	16	Voronezh Region	905	-0,54	57
Saratov Region	1305	0,55	17	Novgorod Region	903	-0,54	58
Amur Region	1303	0,55	18	Magadan Region	898	-0,56	59
Kurgan Region	1300	0,54	19	Omsk Region	896	-0,56	60
Kabardino-Balkarian Republic	1284	0,50	20	Bryansk Region	895	-0,57	61
Pskov Region	1273	0,47	21	Leningrad Region	890	-0,58	62
Chuvash Republic	1236	0,37	22	Republic of Bashkortostan	863	-0,65	63
Primorye Territory	1232	0,36	23	Yaroslavl Region	859	-0,66	64
Krasnoyarsk Territory	1224	0,33	24	Chelyabinsk Region	853	-0,68	65
Smolensk Region	1220	0,32	25	Nizhny Novgorod Region	824	-0,76	66
Kostroma Region	1219	0,32	26	Tambov Region	820	-0,77	67
Khabarovsk Territory	1186	0,23	27	Republic of Daghestan	817	-0,78	68
Vladimir Region	1177	0,21	28	Khanty-Mansi Autonomous Area	816	-0,78	69
Ivanovo Region	1162	0,16	29	Tula Region	762	-0,93	70
Novosibirsk Region	1151	0,13	30	Sverdlovsk Region	719	-1,05	71
Tyumen Region	1139	0,10	31	Lipetsk Region	708	-1,08	72
Republic of Karelia	1134	0,09	32	Chukotka Autonomous Area	708	-1,08	73
Stavropol Territory	1132	0,08	33	Moscow	705	-1,08	74
Ulyanovsk Region	1108	0,02	34	Kursk Region	695	-1,11	75
Komi Republic	1099	-0,01	35	Kaluga Region	684	-1,14	76
Volgograd Region	1093	-0,02	36	St. Petersburg	673	-1,17	77
Vologda Region	1083	-0,05	37	Moscow Region	581	-1,42	78
Penza Region	1070	-0,09	38	Republic of Tatarstan	548	-1,51	79
Rostov Region	1056	-0,13	39	Yamal-Nenets Autonomous Area	526	-1,57	80
Sakhalin Region	1054	-0,13	40	Belgorod Region	520	-1,59	81
Republic of Adygea	1045	-0,16	41	All 81 regions	1102	0	-

¹⁾ Expected number of social excluded persons per 100000 of regional population; ²⁾ Z-score of an absolute value

Regions highly exposed to social exclusion risk are highlighted in grey

Social Exclusion Risk Degree 2012:
Economic dimension

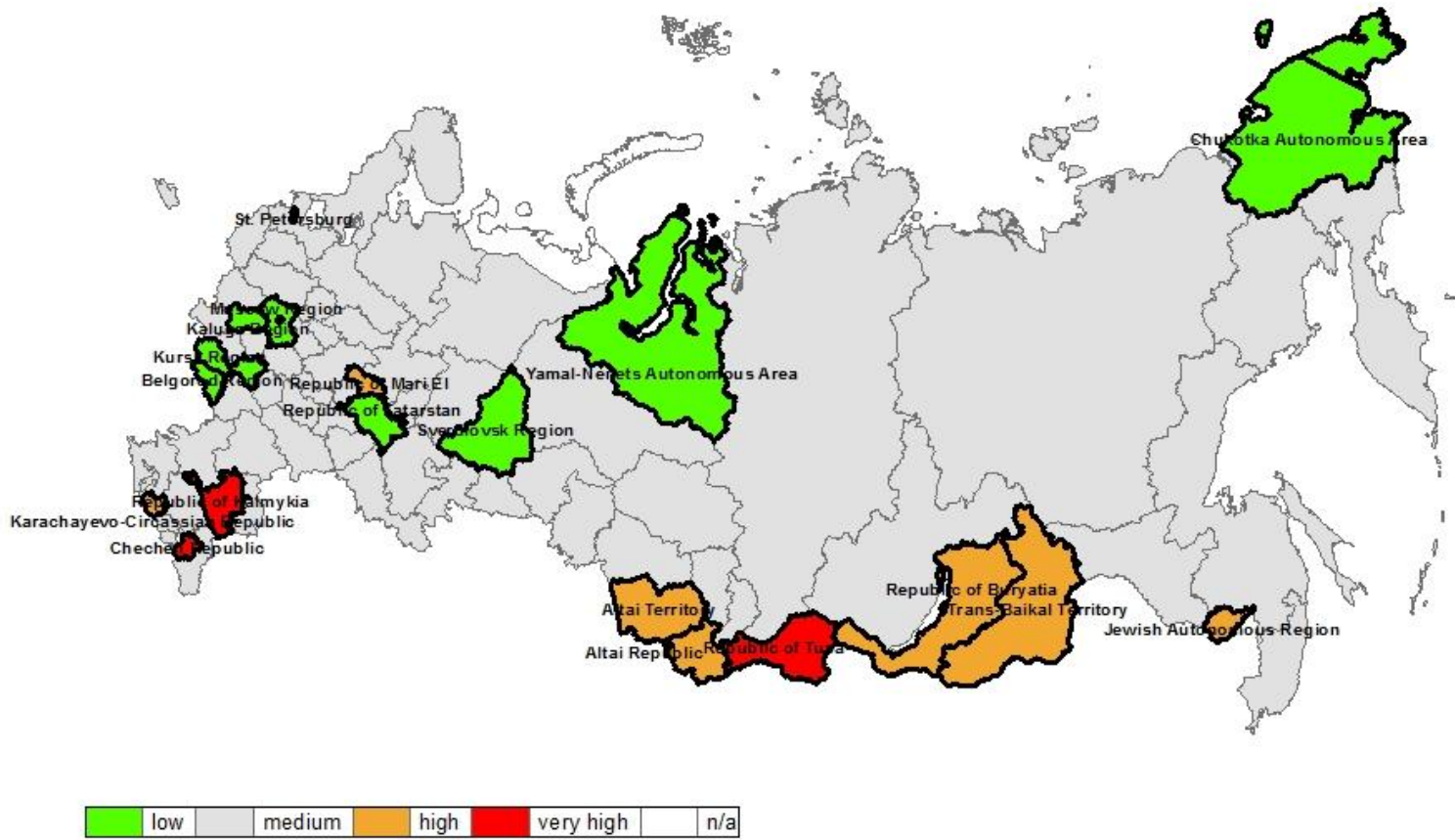


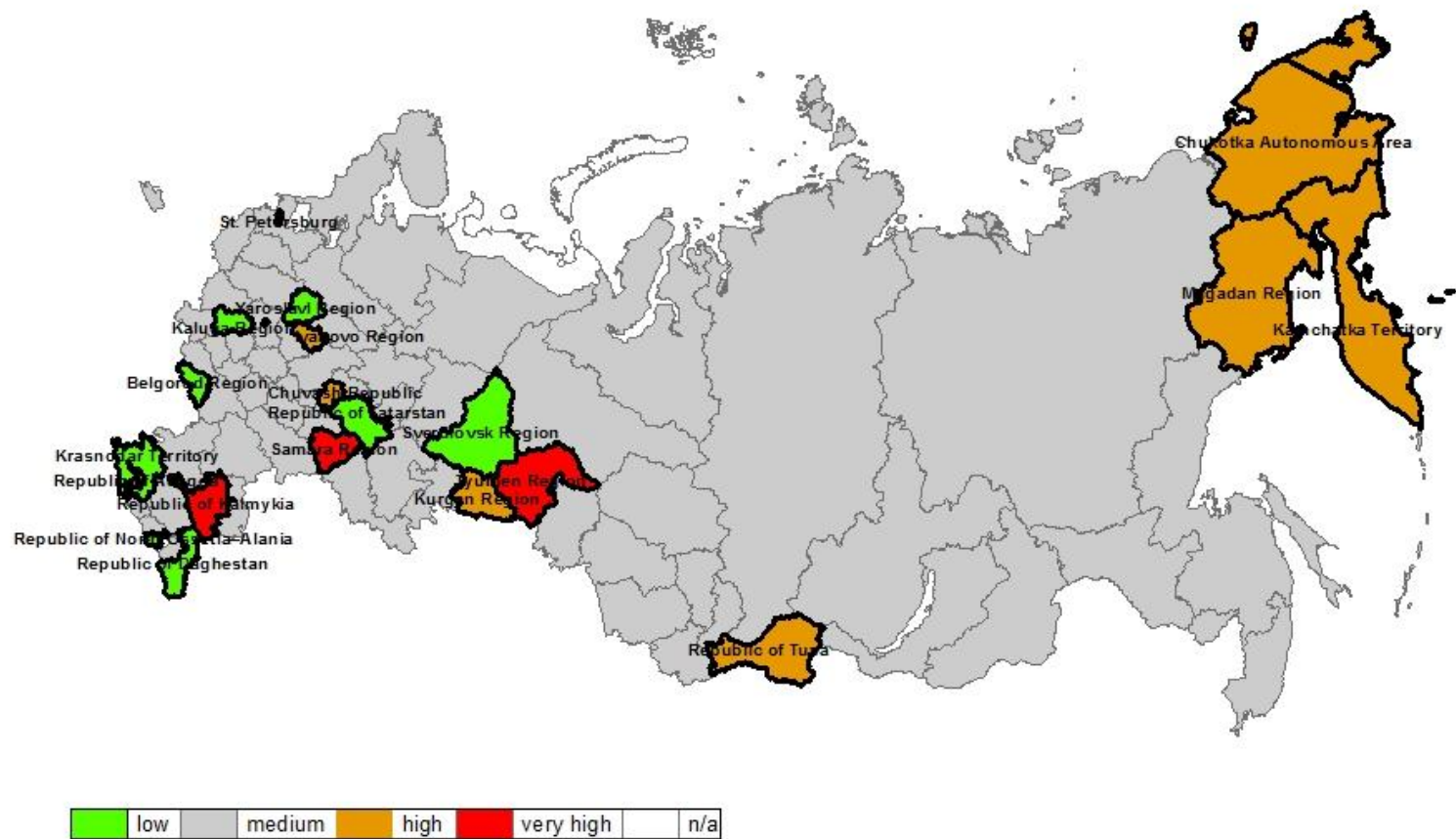
Table D-13. Social exclusion risk ratings of the Russian Regions in 2012:
Integral indicators

Subject of the Russian Federation	Value ¹⁾	Index ²⁾	Rank	Subject of the Russian Federation	Value ¹⁾	Index ²⁾	Rank
Tyumen Region	4 503	3,06	1	Perm Territory	2 607	-0,09	42
Republic of Kalmykia	4 167	2,50	2	Chechen Republic	2 599	-0,11	43
Samara Region	4 149	2,47	3	Lipetsk Region	2 596	-0,11	44
Kurgan Region	3 814	1,92	4	Ulyanovsk Region	2 584	-0,13	45
Republic of Tuva	3 799	1,89	5	Chelyabinsk Region	2 583	-0,13	46
Ivanovo Region	3 582	1,53	6	Leningrad Region	2 533	-0,22	47
Chuvash Republic	3 566	1,50	7	Republic of Bashkortostan	2 525	-0,23	48
Kamchatka Territory	3 518	1,42	8	Novosibirsk Region	2 453	-0,35	49
Republic of Adygea	3 388	1,21	9	Vologda Region	2 446	-0,36	50
Magadan Region	3 363	1,16	10	Khabarovsk Territory	2 431	-0,39	51
Chukotka Autonomous Area	3 264	1,00	11	Voronezh Region	2 426	-0,40	52
Sakhalin Region	3 253	0,98	12	Krasnoyarsk Territory	2 379	-0,47	53
Altai Territory	3 232	0,95	13	Orel Region	2 379	-0,47	54
Republic of Mari El	3 214	0,92	14	Tula Region	2 359	-0,51	55
Republic of Sakha	3 146	0,80	15	Volgograd Region	2 327	-0,56	56
Irkutsk Region	3 144	0,80	16	Tambov Region	2 307	-0,59	57
Orenburg Region	3 048	0,64	17	Rostov Region	2 298	-0,61	58
Astrakhan Region	3 015	0,59	18	Republic of Karelia	2 292	-0,62	59
Kostroma Region	3 011	0,58	19	Republic of Buryatia	2 284	-0,63	60
Pskov Region	3 009	0,58	20	Omsk Region	2 270	-0,66	61
Jewish Autonomous Region	2 977	0,52	21	Ryazan Region	2 260	-0,67	62
Kirov Region	2 976	0,52	22	Murmansk Region	2 259	-0,67	63
Novgorod Region	2 911	0,41	23	Udmurtian Republic	2 249	-0,69	64
Trans-Baikal Territory	2 899	0,39	24	Khanty-Mansi Autonomous Area	2 237	-0,71	65
Primorye Territory	2 886	0,37	25	Kaliningrad Region	2 208	-0,76	66
Republic of Khakassia	2 842	0,30	26	Stavropol Territory	2 193	-0,78	67
Penza Region	2 826	0,27	27	Kursk Region	2 105	-0,93	68
Smolensk Region	2 823	0,26	28	Kabardino-Balkarian Republic	2 098	-0,94	69
Republic of Mordovia	2 821	0,26	29	Yamal-Nenets Autonomous Area	2 093	-0,95	70
Bryansk Region	2 811	0,25	30	Moscow Region	2 083	-0,97	71
Karachayevo-Circassian Republic	2 774	0,18	31	Krasnodar Territory	2 061	-1,00	72
Nizhny Novgorod Region	2 773	0,18	32	Yaroslavl Region	2 013	-1,08	73
Arkhangelsk Region	2 771	0,18	33	Sverdlovsk Region	1 946	-1,20	74
Tver Region	2 758	0,16	34	Kaluga Region	1 789	-1,46	75
Kemerovo Region	2 754	0,15	35	Belgorod Region	1 676	-1,65	76
Saratov Region	2 735	0,12	36	Republic of Daghestan	1 675	-1,65	77
Amur Region	2 715	0,09	37	Moscow	1 617	-1,74	78
Komi Republic	2 693	0,05	38	Republic of North Ossetia–Alania	1 611	-1,75	79
Tomsk Region	2 642	-0,04	39	Republic of Tatarstan	1 591	-1,79	80
Altai Republic	2 631	-0,05	40	St. Petersburg	1 496	-1,94	81
Vladimir Region	2 608	-0,09	41	All 81 regions	2664	0	-























¹⁾ Expected number of social excluded persons per 100000 of regional population; ²⁾ Z-score of an absolute value




















Regions highly exposed to social exclusion risk are highlighted in grey

















Social Exclusion Risk Degree 2012:
Integral for all dimensions





























Scope of social exclusion: Regions having at least one group of population with very high/high degree of social exclusion risk










Subject of the Russian Federation	Integral rank ¹⁾	Disabled under age of 18 living with family	Alcohol addicts	Drug addicts	HIV infected	Residents of homes for orphans & abandoned	Aged & Disabled in need for social care at home	Aged & Disabled inpatients of nursery homes	Long-term unemployed	Low-income persons
Tyumen Region	1									
Republic of Kalmykia	2									
Samara Region	3									
Kurgan Region	4									
Republic of Tuva	5									
Ivanovo Region	6									
Chuvash Republic	7									
Kamchatka Territory	8									




Subject of the Russian Federation	Integral rank ¹⁾	Disabled under age of 18 living with family	Alcohol addicts	Drug addicts	HIV infected	Residents of homes for orphans & abandoned	Aged & Disabled in need for social care at home	Aged & Disabled inpatients of nursery homes	Long-term unemployed	Low-income persons
Republic of Adygea	9									
Magadan Region	10									
Chukotka Autonomous Area	11									
Sakhalin Region	12									
Altai Territory	13									
Republic of Mari El	14									
Republic of Sakha(Yakutia)	15									
Irkutsk Region	16									
Orenburg Region	17									

Subject of the Russian Federation	Integral rank ¹⁾	Disabled under age of 18 living with family	Alcohol addicts	Drug addicts	HIV infected	Residents of homes for orphans & abandoned	Aged & Disabled in need for social care at home	Aged & Disabled inpatients of nursery homes	Long-term unemployed	Low-income persons
Astrakhan Region	18									
Kostroma Region	19									
Pskov Region	20									
Jewish Autonomous Region	21									
Kirov Region	22									
Novgorod Region	23									
Trans-Baikal Territory	24									
Republic of Khakassia	26									
Penza Region	27									

Subject of the Russian Federation	Integral rank ¹⁾	Disabled under age of 18 living with family	Alcohol addicts	Drug addicts	HIV infected	Residents of homes for orphans & abandoned	Aged & Disabled in need for social care at home	Aged & Disabled inpatients of nursery homes	Long-term unemployed	Low-income persons
Smolensk Region	28									
Republic of Mordovia	29									
Bryansk Region	30									
Karachayevo–Circassian Republic	31									
Nizhny Novgorod Region	32									
Tver Region	34									
Kemerovo Region	35									
Saratov Region	36									
Amur Region	37									

Subject of the Russian Federation	Integral rank ¹⁾	Disabled under age of 18 living with family	Alcohol addicts	Drug addicts	HIV infected	Residents of homes for orphans & abandoned	Aged & Disabled in need for social care at home	Aged & Disabled inpatients of nursery homes	Long-term unemployed	Low-income persons
Komi Republic	38									
Altai Republic	40									
Chechen Republic	43									
Lipetsk Region	44									
Ulyanovsk Region	45									
Chelyabinsk Region	46									
Leningrad Region	47									
Vologda Region	50									
Khabarovsk Territory	51									

Subject of the Russian Federation	Integral rank ¹⁾	Disabled under age of 18 living with family	Alcohol addicts	Drug addicts	HIV infected	Residents of homes for orphans & abandoned	Aged & Disabled in need for social care at home	Aged & Disabled inpatients of nursery homes	Long-term unemployed	Low-income persons
Tambov Region	57									
Rostov Region	58									
Republic of Buryatia	60									
Omsk Region	61									
Khanty–Mansi Autonomous Area – Yugra	65									
Kaliningrad Region	66									
Kabardino–Balkarian Republic	69									
Yaroslavl Region	73									
Sverdlovsk Region	74									

Subject of the Russian Federation	Integral rank ¹⁾	Disabled under age of 18 living with family	Alcohol addicts	Drug addicts	HIV infected	Residents of homes for orphans & abandoned	Aged & Disabled in need for social care at home	Aged & Disabled inpatients of nursery homes	Long-term unemployed	Low-income persons
Republic of Daghestan	77									
St. Petersburg	81									

¹⁾ According to a value of the integral indicator of social exclusion risk.



Very high degree of Social Exclusion Risk



High degree of Social Exclusion Risk

Данилин, В. С., Исаев, Н. И., Капустин, А. К., Мезенцева, Е. Б., Смирнов, С. Н.

Риски социальной эксклюзии: рейтинги регионов России [Электронный ресурс] : препринт WP2/2015/02 / В. С. Данилин, Н. И. Исаев, А. К. Капустин, Е. Б. Мезенцева, С. Н. Смирнов ; Нац. исслед. ун-т «Высшая школа экономики». – Электрон. текст. дан. (4,3 МБ). – М. : Изд. дом Высшей школы экономики, 2015. – (Серия WP2 «Количественный анализ в экономике»). – 110 с. (на англ. яз.)

Предложена оригинальная методика измерения рисков социальной эксклюзии и ее глубины в регионах Российской Федерации. Региональные рейтинги для отдельных групп населения и измерений социальной эксклюзии могут иметь значение для принятия решений в области социальной политики.

Ключевые слова: социальная эксклюзия, региональный рейтинг

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Препринт WP2/2015/02
Серия WP2
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**Риски социальной эксклюзии:
рейтинги регионов России**