



Food and water security issues in Russia I: food security in the general population of the Russian Arctic, Siberia and the Far East, 2000-2011.

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Abstract: Problems related to food security in Russian Arctic (dietary imbalance, predominance of carbohydrates, shortage of milk products, vegetables and fruits, deficit of vitamins and microelements, chemical, infectious and parasitic food contamination) have been defined in the literature. But no standard protocol of food security assessment has been used in the majority of studies.

Our aim was to obtain food security indicators, identified within an Arctic collaboration, for selected regions of the Russian Arctic, Siberia and the Far East, and to compare food safety in these territories.

In 18 regions of the Russian Arctic, Siberia and the Far East, the following indicators of food security were analyzed: food costs, food consumption, and chemical and biological food contamination for the period 2000-2011.

Food costs in the regions are high, comprising 23-43% of household income. Only 4 out of 10 food groups (fish products, cereals, sugar, plant oil) are consumed in sufficient amounts. The consumption of milk products, eggs, vegetables, potatoes, fruits (and berries) is severely low in a majority of the selected regions. There are high levels of biological contamination of food in many regions. The biological and chemical contamination situation is alarming, especially in Chukotka. Only 7 food pollutants are under regular control; among pesticides, only DDT. Evenki AO and Magadan Oblast have reached peak values in food contaminants compared with other regions. Mercury in local fish has not been analyzed in the majority of the regions. In 3 regions, no monitoring of DDT occurs. Aflatoxins have not been analyzed in 5 regions. Nitrates had the highest percentage in excess of the hygienic threshold in all regions. Excesses of other pollutants in different regions were episodic and as a rule not high.

Improvement of the food supply and food accessibility in the regions of the Russian Arctic, Siberia and the Far East is of utmost importance. Both quantitative and qualitative control of chemical and biological contaminants in food is insufficient and demands radical enhancement aimed at improving food security.

Notes: Cites: *Vopr Pitan.* 2000;69(1-2):32-410943002
Cites: *Vopr Pitan.* 2001;70(2):13-711494664
Cites: *Gig Sanit.* 2004 Jul-Aug;(4):15-815318602
Cites: *Med Parazitol (Mosk).* 1996 Jan-Mar;(1):52-48700016
Cites: *Med Tr Prom Ekol.* 1996;(6):16-98925227
Cites: *Gig Sanit.* 2005 Mar-Apr;(2):37-4115915898
Cites: *Gig Sanit.* 2008 May-Jun;(3):14-518590141
Cites: *Vopr Pitan.* 2008;77(3):64-718669334
Cites: *Vopr Pitan.* 2008;77(5):65-819048893
Cites: *Vopr Pitan.* 2009;78(1):54-819348284
Cites: *Vopr Pitan.* 2009;78(5):31-420120967
Cites: *Gig Sanit.* 2010 Jul-Aug;(4):43-620873385
Cites: *Parazitologija.* 2010 Jul-Aug;44(4):336-4221061592
Cites: *Parazitologija.* 2010 Sep-Oct;44(5):406-1821309146
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