Water and Health Challenges in Lithuania

Ilona Drulyte
Head of Nutrition Unit
National Food and Veterinary Risk Assessment Institute
Lithuania
Responsibilities (1)

- **Ministry of Health**: legislation for drinking water, bathing water and indoor water; derogations for drinking water; official control of indoor water

- **State Food and Veterinary Service**: official control of drinking water

- **Ministry of Environment**: groundwater resources, wastewater, legislation for water supply and wastewater treatment services
Responsibilities (2)

- **Municipalities**: organization and coordination of water supply and wastewater treatment services, bathing water monitoring

- **State Commission for Prices and Energy Control**: coordination of prices of water supply and wastewater treatment services

- **State Consumer Rights Protection Authority**: protection of consumer rights
Sector of drinking water

Republic of Lithuania
Government

Ministry of Health
Ministry of Environment
State Food and Veterinary Service
Municipalities
Consumers
Suppliers
Available resources of groundwater - 3172.1 thou m3/d

Volume of water exploited in 2009 - 385.8 thou m3/d

Resources of drinking water

Lithuanian Geological Survey http://www.lgt.lt
FROM BORE TO TAP

TREATMENT
SUPPLY
MONITORING

SAFE AND OF
A GOOD QUALITY
WATER
FOR
CONSUMERS

PUMP BORES

RESTRICTION
OF ECONOMIC
ACTIVITY

PRESERVATION
LIQUIDATION
OF BORES

SSGZ
Public water supply

• Groundwater
• No major effects of environmental pollution
• Compliant to microbiological criteria
• Compliant to toxic (chemical) parameters (with exception of some areas in north-western part of Lithuania with high fluoride concentration)
• Concerns related to indicators: iron, manganese, in some regions – ammonia, sulphate, chlorine
• Small water supplies
Drinking water suppliers

No of drinking water suppliers 324
No of water supply zones (WSZ) 1811

- 92% supply on average up to 100 m³ drinking water per day
- 4% supply on average from 101 to 1000 m³ drinking water per day
- 4% supply more than 1000 m³ drinking water per day or serve publicly supplied water to population over 5000

01-01-2012
General information on “big” WSZ

- Total population:
  - 2008: 3,358,000
  - 2009: 3,339,000
  - 2010: 3,286,000

- Population serviced by WSZ:
  - 2008: 1,948,122
  - 2009: 1,968,281
  - 2010: 1,956,735

- Volume of water supplied by WSZ m3/d:
  - 2008: 340,441
  - 2009: 312,678
  - 2010: 267,855

- Percentage of total population that use water from WSZ:
  - 2008: 58%
  - 2009: 59%
  - 2010: 65%

The chart shows the increase in percentage of population using WSZ water from 2008 to 2010.
Non-compliances at “big” WSZ 2008-2010

The 2008-2010 report to the EC (> 1000 m³ or serve population over 5000)

WISE information system

http://cdr.eionet.europa.eu/lt/eu/dwd
Fluoride

- 103 WSZ affected population - 78 718:
  - 2 % of LTU population;
  - 3 % of population consuming public supplied drinking water

Fig. 24. Fluoride in PUD groundwater body

Lithuanian Geological Survey http://www.lgt.lt
Iron (Fe)

>3 mg/l

Lithuanian Geological Survey http://www.lgt.lt
Preparation and submission of reports on drinking water

Suppliers of drinking water → Territorial State Food and Veterinary Services → State Food and Veterinary Service

→ European Commission
→ Consumers
→ Ministry of Health
Individual water supply

• Used by approximately 25% of the population
• Concerns for dug wells: microbiological and chemical (NO2, NO3) contamination
  ▪ Monitoring not required
  ▪ Wells - traditionally important in the rural household
Main problems of small public supplies in Lithuania

- Resources
- Staff
- Exploitation hygiene
- Monitoring
- Insufficient treatment
- Distribution network
Water reform in Lithuania

- Leader – Ministry of Environment
- Idea – concentration of management and financial resources
- Development of public supplied drinking water (up to 95% of population till 2015)
- Enlargement of water supply companies (1 per region or municipality)
Policy in the field of drinking water

- Enlargement of water companies and development of public supply network
- Implementation of water safety plans is highly appreciated but has no legal obligation
- To concentrate on monitoring
- Free of charge laboratory analysis of drinking water from dug wells (individual supply) for families with babies up to 6 months
To sum up:

• Lithuania is a country with big fresh groundwater resources
• Public supply of drinking water is based on groundwater

BUT

• 25% of population is not connected to public drinking water supply
• A lot of small supplies
• Consumer awareness?