Overview of HAV, HBV and HCV surveillance systems and results in Lithuania

IRMA Čaplinskienė

Head of HIV/AIDS/STI and Hepatitis Surveillance, Centre for Communicable Diseases and AIDS; National ECDC contact for hepatitis /STI/ HIV; Member of the ECDC hepatitis B and C network; Member of the International AIDS Society Scientific Board

SAULIUS Čaplinskas

Director, Centre for Communicable Diseases and AIDS; Professor Mykolas Romeris university, Vilnius

saulius@ulac.lt
irma@ulac.lt
Incidence data – LR Legal Acts

• LR MoH, 24/12/2002, Order No. 673 „On approval of procedure for compulsive epidemiological registration, obligatory content of information about objects for epidemiological registration and mandatory information submission“

• LR MoH 10/02/2005, Order No. V-109 „On adoption of forms for communicable diseases statistical reporting and accounting“

Reporting on communicable diseases to the National Information System of Communicable Diseases and their Agents

Case identification (doctor)  Case data by primary diagnosis

PH centres

Case data

Centre for Communicable Diseases and AIDS

Communication by phone, mail, fax, email

Case based data

Feedback

Ministry of Health

TESSy, WHO

State Food and Veterinary Service

Source: UIAC
Communicable diseases (CD) cases and Incidence rate in Lithuania, 2007-2014

Source: UIAC
The structure of communicable diseases in Lithuania, 2014

Air borne diseases 95.76%

Acute intestinal diseases 2.38%

Viral hepatitis 0.02%

Parasitoses 1.49%

STI/HIV 0.13%

TB 0.13%

Other 0.08%

N= 762 588

Source: UIAC
Communicable Diseases in Lithuania in 2014

Since the beginning of 2011, Lithuania has been running a National Information System on communicable diseases and infectious agents (hereinafter - ULISMS). Pursuant to national law, 82 communicable diseases are designated as compulsory notifiable in Lithuania. ULISMS collects and stores the information on individual cases of communicable diseases and on the agents of communicable diseases, provided by the professionals of territorial health care institutions and by public health microbiology laboratories, respectively.

Morbidity from communicable diseases among Lithuanian population in the morbidity structure accounts for about 10-20% of all recorded diseases in the country. In 2014, 762,587 communicable diseases were registered in ULISMS, of which airborne infections account for the major part (99%) in the morbidity structure with 99.5% of acute upper respiratory tract infections and influenza. The remaining part of the diseases in the morbidity structure was as follows: intestinal infections accounted for 2.3%, parasitic diseases accounted for 0.25%, pulmonary tuberculosis accounted for 0.12%, sexually transmitted infections and HIV accounted for 0.01%, viral hepatitis accounted for 0.02%, and other infectious diseases accounted for 1.18%.
Acute Viral Hepatitis in Lithuania

2014
N=134

2010
N=204

Source:

UIAC
Incidence rate of acute viral hepatitis C and B (VHC and VHB) in Lithuania, 1990 – 2014

Source: Centre for Communicable Diseases and AIDS
Incidence rate of acute viral hepatitis A (VHA) in Lithuania, 1990 – 2014

Source: UIAC
Incidence rate of acute VHA, VHB and VHC in Lithuania, 2005 – 2014

Source:

Outbreak in Marijampole

Outbreak in Vilnius

Rate per 100 000 population

Years


VHA VHB VHC
## HCV and HBV infection trends

### Registered cases in Lithuanian HC institutions in 2014

**VHC cases**
- **34 acute**
  - in 2013 - 59; 2012 - 40; 2011 - 43; 2010 - 41
- **46 chronic**
- **0,11 - acute VHC morbidity rate of (cases/10 000 pop.)**
  - in 2013 - 0,2;
  - 2012 - 0,13;
  - 2011 - 0,13

**VHB cases**
- **26 acute**
  - in 2013 – 35; 2012 - 23; 2011 - 60; 2010 – 73
- **3 chronic**
- **0,089 - acute VHB morbidity rate of (cases/10 000 pop.)**
  - in 2013 - 0,12;
  - 2012 - 0,07;
  - 2011 - 0,19

**Source:** [UIAC]
Distribution of acute HCV and HBV cases by age groups and gender in Lithuania, 2014

Source: www.ulac.lt
HAV incidence by age groups in Lithuania, 2013-2014

Source: UIAC
HAV infection place in Lithuania, 2013 – 2014 (patient survey data)

2013
- Unknown: 41%
- Household: 34%
- Other: 11%
- Abroad: 14%

2014
- Unknown: 35%
- Household: 18%
- Other: 6%
- Abroad: 41%

Annually repeating countries: Turkey, Egypt, Philippines

Source: UIAC
Number of vaccinations with HA vaccine in Lithuania, 2013 - 2015

Source: UIAC
Children’s vaccination against VHB in Lithuania

- The **newborns** have been vaccinated against hepatitis B **since 1998**.
- **Since 2002** vaccination against hepatitis B of the **12 years-olds**, who’s vaccination was **finished in 2010**, has been included into children’s preventative vaccination schedule because generation of the 12 years-olds, who (as newborns) have been vaccinated since 1998, grew up.

*Source: UIAC*
Vaccination variation (%), 2010 as compared to 2009

- Hep.B, newborns: 0.01% increase
- BCG: -7% decrease
- DTaP, IPV, Hib 2 months: -28% decrease
- Diphteria, tetanus 15-16 years: 5% increase
- Hep. B 12 year-olds: -13% decrease

Source: ULAC
Hepatitis B vaccination (newborns)

<table>
<thead>
<tr>
<th>Year</th>
<th>Number of persons</th>
<th>Vaccinated.</th>
<th>Non-vaccinated</th>
<th>Vaccination coverage/%</th>
</tr>
</thead>
<tbody>
<tr>
<td>2002</td>
<td>27267</td>
<td>27158</td>
<td>109</td>
<td>99.6</td>
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<tr>
<td>2003</td>
<td>27459</td>
<td>27294</td>
<td>165</td>
<td>99.4</td>
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<tr>
<td>2004</td>
<td>27211</td>
<td>26803</td>
<td>408</td>
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<tr>
<td>2005</td>
<td>26299</td>
<td>26036</td>
<td>263</td>
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<tr>
<td>2006</td>
<td>26570</td>
<td>26411</td>
<td>159</td>
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<tr>
<td>2007</td>
<td>26724</td>
<td>26457</td>
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<td></td>
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<tr>
<td>2008</td>
<td>29407</td>
<td>29142</td>
<td>265</td>
<td></td>
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<tr>
<td>2009</td>
<td>29506</td>
<td>29211</td>
<td>295</td>
<td></td>
</tr>
<tr>
<td>2010</td>
<td>29461</td>
<td>28960</td>
<td>501</td>
<td>98.3</td>
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<tr>
<td>2011</td>
<td>29990</td>
<td>28707</td>
<td>1283</td>
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<td>2012</td>
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<td>1985</td>
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<tr>
<td>2013</td>
<td>25899</td>
<td>25311</td>
<td>588</td>
<td>97.7</td>
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<td>2014</td>
<td>27028</td>
<td>26319</td>
<td>709</td>
<td>97.4</td>
</tr>
</tbody>
</table>

Since 1998

Non vaccinated 6 997

Source:
Prevalence of HBV infection

- **HBV markers** are found in **30%** of global population
- **1 mill. new infections** occur annually in Europe
- In EU countries **VHB incidence is decreasing**
- **HBsAg prevalence** varies from **0,1% to 7%** in general population in EU countries

**HBsAg prevalence levels:**
- <2% - low,
- 2-7% - moderate,
- >8% - high

*Source: World Health Organization, ecdc*
Figure 1: Number of reported acute hepatitis B cases per 100,000 population in EU/EEA countries, 2012

Reported acute HBV per 100,000 population

EU/EEA total 0.8

Figure 2: Number of reported chronic hepatitis B cases per 100,000 population in EU/EEA countries, 2012

Reported chronic HBV per 100,000 population

EU/EEA total 8.6

Prevalence of HCV infection

- **HCV markers** are found in 3% of global population
- 2 mill. new **HCV infections** worldwide each year
- About **30 000 new** hepatitis C cases are reported in EU and EEA countries each year.
- In EU countries **VHC incidence is decreasing**
- **Anti-HCV prevalence** varies from 0.4% to 3.5% in general population in EU countries

<table>
<thead>
<tr>
<th>Anti-HCV prevalence levels:</th>
</tr>
</thead>
<tbody>
<tr>
<td>≤1% - Low</td>
</tr>
<tr>
<td>&gt;1-≤2% - Medium</td>
</tr>
<tr>
<td>&gt;2% - High</td>
</tr>
</tbody>
</table>

**Source:**
- World Health Organization
- ECDC
Reported overall VHC per 100,000 population

EU/EEA total 7.8

Hepatitis A, countries or areas at risk

Reported overall VHA per 100 000 population

EU/EEA total 2.6

Lithuania 3.76

The risk of infection is based on the estimated prevalence rate of antibody to hepatitis A virus (anti-HAV)—a marker of previous HAV infection—among population. This marker is based on limited data and may not reflect current prevalence.

The boundaries and names shown and the designations used on this map do not imply the expression of any opinion whatsoever on the part of the World Health Organization concerning the legal status of any country, territory, city or area or of its authorities, or concerning the delimitation of its frontiers or boundaries. Dotted and dashed lines on maps represent approximate border lines for which there may not yet be full agreement.

Data Source: World Health Organization.
Map Production: Public Health Information and Geographic Information Systems (GIS) World Health Organization
Response to viral hepatitis in EU countries

Indicator categories:
- Prevention
- Screening
- Treatment availability
- National strategy/NGO activities
- Outcomes
Euro Hepatitis Index 2012

<table>
<thead>
<tr>
<th>Sub-discipline</th>
<th>Top country/countries</th>
<th>Top Scores</th>
<th>Maximum score</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Prevention</td>
<td>Germany, Ireland, Slovenia,</td>
<td>249</td>
<td>275</td>
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<tr>
<td></td>
<td>Switzerland</td>
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<tr>
<td>2. Case finding/Screening</td>
<td>France, Norway, Slovenia,</td>
<td>200</td>
<td>225</td>
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<td>Sweden</td>
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<td>3. Access to treatment/Process</td>
<td>France, Sweden</td>
<td>216</td>
<td>225</td>
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<tr>
<td>4. National Strategy/ Patient involvement and rights</td>
<td>France, Bulgaria, UK</td>
<td>97</td>
<td>125</td>
</tr>
<tr>
<td>5. Outcomes</td>
<td>France</td>
<td>150</td>
<td>150</td>
</tr>
</tbody>
</table>

Source: Health Consumer Powerhouse, Euro Hepatitis Index 2012 Report