Development of Health Technology Assessment (HTA) in Lithuania

Prof. Dr. Gediminas Ėrniauskas
Vilnius Mykolas Romeris University
Vilnius
29.11.2012
Objectives

- To reflect “golden standard” in HTA

- To assess current status of HTA in Lithuania

- To provide examples how international comparisons are helping to assess impact of technological change in health

- To provide an example of a public health project “Ending road wars” with quite outstanding health and economic results
Terms

INAHTA Health Technology Assessment (HTA) Glossary

• **Health technology**: Any intervention that may be used to promote health, to prevent, diagnose or treat disease or for rehabilitation or long-term care. This includes the pharmaceuticals, devices, procedures and organizational systems used in health care.

• **Health technology assessment (HTA)**: the systematic evaluation of properties, effects, and/or impacts of health care technology. It may address the direct, intended consequences of technologies as well as their indirect, unintended consequences. Its main purpose is to inform technology-related policymaking in health care. HTA is conducted by interdisciplinary groups using explicit analytical frameworks drawing from a variety of methods.
HTA basic steps

• Identify assessment topics
• Specify the assessment problem
• Determine focus of assessment
• Retrieve evidence
• Collect new primary data (as appropriate)
• Appraise/interpret evidence
• Integrate/synthesize evidence
• Formulate findings and recommendations
• Disseminate findings and recommendations
• Monitor impact

HTA 101: Introduction to Health Technology Assessment, C. S. Goodman
HTA is a multi-disciplinary field of analysis

Doctors and professionals in social science, while usually suspicions of each other, need mutual exchange of professional expertise

<table>
<thead>
<tr>
<th></th>
<th>Inputs of medical profession</th>
<th>Inputs of professionals in social science</th>
</tr>
</thead>
<tbody>
<tr>
<td>Development of medical science and practices</td>
<td>XX</td>
<td>X</td>
</tr>
<tr>
<td>Identify assessment topics</td>
<td>X</td>
<td>XX</td>
</tr>
<tr>
<td>Retrieve evidence and new primary data</td>
<td>XX</td>
<td>X</td>
</tr>
<tr>
<td>Appraise/interpret evidence</td>
<td>XX</td>
<td>XX</td>
</tr>
<tr>
<td>Formulate findings and recommendations</td>
<td>XX</td>
<td>XX</td>
</tr>
<tr>
<td>Disseminate findings and recommendations</td>
<td>X</td>
<td>XX</td>
</tr>
</tbody>
</table>
History of HTA in Lithuania (1990 - 2000)

- Studding international practice and initial debates -1990 -1992

- First and the only book on HTA - 1993

- Assessment and approval of health technologies have been endorsed by article 45 of the “Law on the Health System” - 1994

- Priority setting according to QUALY (Quality Adjusted Life Years) based assessment of Alternative technologies has been foreseen by the national health strategy “Lithuanian Health Programme” - 1998
History of HTA in Lithuania (2001 - 2012)

- Elements of HTA introduced into curriculum of medical universities - 2001
- Clinical guidelines (e.g. for diabetes, glaucoma, breast cancer) approved by the Ministry of Health - 2002
- Introducing pharmacoeconomics into decision making (e.g. positive list) - 2003
- Introducing projects appraisals (e.g. NPV) in to investment planning - 2005
- Public institution responsible for HTA (State Health Care Accreditation Agency) nominated - 2011
What has been achieved in HTA?

• History of academic research .... with limited outputs

• Principles of HTA are reflected in decision making (positive lists, clinical guidelines, contracting of services) .... In quite fragmented manner

• The managerial practice is bit behind “progressive” law makers
“Lithuanian Health Programme 2020” and HTA

Task 18. Implementation of health technologies with scientifically-proven effectiveness in clinical practice as the basis for the development of healthcare

- Establishment of a centre that collects and disseminates data from international centers for HTA and adapts it to Lithuanian conditions. This health technology evaluation centre has to be independent from common clinical and academic practices.

- Conclusions of HTA have to be integrated in to development of positive lists for pharmaceuticals and health services reimbursed by public funds.

- National clinical protocols/guidelines have to incorporate results of HTA.
Dissemination of good international practice in Lithuania
Lithuania is in line with good practices in care of infants
..... and management of asthma
Lots of opportunities in managing social diseases

[Graph showing SDR, Tuberculosis, per 100000 for Lithuania and EU27 from 1995 to 2010. The graph indicates a decrease in SDR over the years.]
Ending road wars: Lithuanian experience
The background

- For many years Lithuania was one of the regional “leaders” what regards casualties on the roads

- Talks were talked, billions invested in to quality of roads, policemen equipped with speed meters but there was no change

**SDR, Transport accidents, per 100000**

*Source: WHO, HFO database*
The trigger for the decisive action

• On 7th November 2007 a drunken policeman driving a car managed to kill 3 school children age 10 and escaped from the scene

• The first reaction of the public was to lynch the bastard on the spot. The government managed to calm the public, proposed measures to tackle the problem and has implemented foreseen activities
Implemented measures

• More training for future drivers and 2 year probation period for young drivers

• Intensive public awareness campaign

• Shifting some of investments from construction of highways towards "low priority" investments such as roundabouts on crossroads, speed bumps

• Increase of fines for speeding and non-sober driving
Health outcomes

Persons killed in traffic accidents

- 2006: 899
- 2007: 877
- 2008: 600
- 2009: 457
- 2010: 372
- 2011: 362
Avoided deaths, traffic accidents (2007-2011)

Deaths avoided, by age, percent

- 759; 46%
- 395; 24%
- 425; 25%
- 85; 5%

- 0-24
- 25-49
- 50-75
- 75+
Years saved, traffic accidents (2007-2011)

Life years in working age saved, thousand

- 23,4; 56%
- 13,0; 32%
- 5,0; 12%

Legend:
- Blue: 0-19
- Red: 20-49
- Green: 50-65
## Development in 2007-2011, traffic accidents: social gains for 2012

<table>
<thead>
<tr>
<th>Category</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>All deaths avoided in 2007-2011</td>
<td>1717</td>
</tr>
<tr>
<td>Deaths in working age avoided in 2007-2011</td>
<td>1133</td>
</tr>
<tr>
<td>All disability avoided in 2007-2011</td>
<td>1545</td>
</tr>
<tr>
<td>Disability in working age avoided in 2007-2011</td>
<td>1020</td>
</tr>
<tr>
<td>Injuries avoided (2011 in comparison to 2007)</td>
<td>4124</td>
</tr>
</tbody>
</table>
Development in 2007-2011, traffic accidents: Economic gains for 2012, million litas, percent

- GDP created because of avoided deaths in working age: 6.9 million litas, 4%
- GDP created because of avoided disability in working age: 8.2 million litas, 5%
- Social security benefits saved because of avoided disability: 8.6 million litas, 5%
- Medical costs saved because of avoided disability: 6.9 million litas, 4%
- Medical costs saved because of avoided injuries: 8.2 million litas, 5%

NPV of the project is about 300 million euro
Conclusions

• Over the last 20 years Health Technology Assessment (HTA) has emerged as an important tool driving evidence based health services in teaching, clinical practice and health policy

• Lithuania has contributed to HTA global process by incorporating its elements in to decisions on market authorization, development of positive and negative lists, pricing, reimbursement, investment planning

• Principles of HTA have to be framed in institutions responsible for indicating and promoting usage of most efficient technologies in health promotion, disease prevention, cure

• Success stories emerging in Lithuania (e.g. ending “road wars”) is encouragement for actors working for clinical excellence, cost effectiveness of health care systems, well being of its residents.
Thank YOU!