The Situation of HIA Implementation in the Czech Republic
HIA and technological support via GIS

Jana LOOSOVA - Jiri SMIDA
Regional Public Health Authority Liberec, Czech Republic
Technical University of Liberec, Czech Republic
Agenda

1. Simplification of epidemiological surveillance
   - The Czech Republic as an example of a Central European country and its state of HIA implementation

2. Geoinformation technologies and GIS methods as a potential way of an effective HIA implementation
Implementation at the national level
HIA in SEA in the Czech Republic

● Incl. proper legislation
● Since 2004...
● HIA is a part of SEA (Act no. 100/2001 Sb., according to Act. no. 93/2004 Sb.)
● Responsibility: The Ministry of Health is an authorized body and issues a certificate (as amended by the Decree no. 353/2004 Sb.)

● But... the question is how functional it is?
The SEA in Czechia: Advantages/Disadvantages

- Ensures public involvement
- Diverse approaches - using HRA, epidemiological approaches, qualitative assessment of health impacts, comparison with the objectives of other conceptions
- Includes conceptions that focus only on environmental issues
- A conception must be created before the health aspects can be evaluated (a feedback is missing, HIA has no back influence on the content of conceptions)
HIA in the Czech Republic: Timeline

- **Czech legislative framework**
  - several SEA with HIA, but with different quality

- **WHO workshop**
  - to open discussion on options and ways to improve the implementation of HIA in the Czech Republic.
  - Introduction to HIA method, overview of current situation, presentation of case studies, overview of available sources of data, discussion

- **The first expert group on the HIA implementation**
  - established under the support of the National Institute of Public Health in Prague and Ministry of Health of the Czech Republic for the REAL implementation of HIA philosophy in Czechia

- **BCA project 2018/2019**
  - HIA checklist for policy concepts as a tool for regional public health offices, overview of HIA indicators at the national and regional level, structure for a detailed HIA assessment manual
2017: The First working group for HIA

Suggested steps for broader implementation:

1. Establishing priorities and tools of implementation,
2. Process of implementation,
3. Feedback and the change of the approach of HIA implementation.
Conditions for deeper implementation: priorities and tools

Prioritization of HIA implementation objectives in terms of priority and the factor of limitation:

1. implementation in legislation,
2. creating manuals,
3. the use of tools (e.g. software, checklists) and methodologies,
4. setting up a communication platform (e.g. website), incl. reviving the HIA database,
5. sustainability of HIA - an unbeatable level of quality, education and revision of indicators.
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Health and GIS
Health and GIS: our experience

Our experience with the use of GIS in health issues begins in 2011 based on cooperation between the Regional Public Health Authority and the Technical University of Liberec:
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- outbreaks and epidemiology
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- imission models
- noise monitoring
- outbreaks and epidemiology
- conferences
And finally a HIA example:

HIA – Plan of the waste management in the Liberec region 2016 -2025

Is using GIS only for screening part of HIA enough?
GIS and HIA

What role can GIS/GIT play in the HIA method?
### The steps of HIA and the potential of GIS methods

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<th>Scoping</th>
<th>Assessment</th>
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<tr>
<td>01</td>
<td>● to assess existing conditions  &lt;br&gt; ● to identify landscape characteristics  &lt;br&gt; ● to identify disparities &amp; stressors  &lt;br&gt; ● to identify determinants</td>
<td>● selection of potential HIA focus area  &lt;br&gt; ● to identify subpopulations  &lt;br&gt; ● to describe health status and wellbeing</td>
<td>● to identify human stressors  &lt;br&gt; ● to analyse data → to compare indicators  &lt;br&gt; ● to describe health impacts</td>
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<td>02</td>
<td>Tools: DATA  MAPS VIEWER</td>
<td>Tools: mobile GIS crowdsourcing</td>
<td>Tools: analytical methods and tools</td>
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### The steps of HIA and the potential of GIS methods

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| 04   | Recommendations          | - to synthesize information obtained from the GIS analysis  
|      |                          | - to suggest and evaluate scenarios  
|      |                          | - to identify limitations of the data  
|      |                          | - to visualize outputs                                                                 | DATA  
|      |                          |                                                                                          | MAPS  
|      |                          |                                                                                          | REPORTS |
| 05   | Reporting               | - to share outputs with the audience (effectively, immediately, scalable...)               | Web Maps  
|      |                          |                                                                                          | Storry Maps |
| 06   | Monitoring & Evaluation | - to continuously collect, manage and analyze data                                          | WebGIS |
Discussion

What role can GIS/GIT play in the HIA method?
Is it right to look at GIS as a suitable tool and method to make HIA more effective?
Discussion 2

Is it right to think of **spatial planning** institutions and processes as the right way (the preferred partner) for immediate steps in HIA implementation?

GIS is a **fully adopted** and standard method and tool for spatial planning.
The relation between urban planning and health

While planners and public health professionals have viewed their roles in the community differently,...

practitioners and academics are beginning to uncover the ties between the two fields as it is becoming increasingly clear...

that decisions about the built-up environment may influence certain public health concerns and vice versa.

A community’s comprehensive plan update process

opportunity to rethink the organization and focus on the plan, the communities have the opportunity to integrate a health

in Czechia this approach is effective, but it depends on the power of the community in the area

Corrective/selective amendments

this approach is a strategic way to update or add to existing comprehensive plan content, without revising the entire document

in Czechia this is usable for special studies in a small area

Revised Codes or Ordinances

the approach is focused more on the change the legislation

health is a part of urban planning legislation, but without a methodology

Separate Health-related Plans

we have a health policy at national and regional level, but without focus on urban planning, however HIA is included

Approaches to integrating health into the urban/landscape planning
Discussion 2

Is it right to think of spatial planning as the right way for immediate steps in HIA implementation?
Discussion 2

A

1. Yes, spatial planning has sources of valuable and detailed data on the territory (the basis is valid legislation).
2. Yes, the spatial planning in the Czech Republic is the process in which communities are actively involved (as opposed to SEA where this is not common).
3. Yes, spatial planning needs HIA methods. And HIA needs spatial planning methods / processes.
Discussion 3

Q: What are the **barriers** of GIS implementation into HIA?
Discussion 3

- the technical state of data and databases
- human resources
- time and money
- politics and politicians
- education
- absence of an platform for changing experience
Conclusions

1. HIA needs geographic data, methods, and visualization. GIS is the right way for rapid effectivity.
2. GIS is a fully adopted and standard method and tool for spatial planning.
3. Integrating health into spatial planning is right and necessary, and beneficial for the HIA (and vice versa).
Conclusions

Based on presented principles, we formulated 3-year long research and applied for a grant from the Czech Technological Agency (TAČR).

*Spatial aspects of health as a result of natural and socioeconomic determinants: HIA and urban planning.*
Thank you for your attention

jana.loosova@khslibc.cz | jiri.smida@tul.cz

https://healthgis.tul.cz