

THESIS FOR THE DEGREE OF DOCTOR OF PHILOSOPHY (Ph.D.)

Health impact assessment as a tool for healthy public policy

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DOCTORAL SCHOOL OF HEALTH SCIENCES

DEBRECEN, 2011

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1. Introduction

1.1. Why values matter in policy making

Humans have been preoccupied with the nature of good life since Aristotle¹, and societies throughout time gave different implicit or explicit definitions for it. The question of good life and the societal values captured by it are not merely philosophical since the answers greatly influence how societies are organised. In his pioneering work, Milton Rokeach defined value as ‘an enduring belief that a specific mode of conduct or end-state of existence is personally or socially preferable to an opposite or converse mode of conduct or end-state of existence’². Values also determine the nature and extent of social change that can be possible considering culture, politics and human relations in a society; hence values are of utmost importance for public policy making.

As modern societies became more prosperous and knowledge-based, ways of living deemed to be desirable by individual and the society have changed. Today as social, geographic, economic and cultural mobility are on the rise, values have been in an extraordinary period of flux and dynamism³. Fortunately, the nature of good life and the inherent values of various societies can be investigated in greater detail in our time than ever before using vast amounts of data. One of the largest body of relevant data derives from the World Values Survey (WVS)⁴, a worldwide research project of sociocultural and political changes carried out in five waves since 1981. Value changes for post-industrial societies had been predicted as early as 1971, and a large body of evidence from the WVS proves that these changes have indeed been occurring. While older cohorts predominantly prioritise materialist values, emphasising economic and physical security, younger birth cohorts exhibit post-materialist values, emphasising autonomy and self-expression⁵. According to Inglehart, economic factors play a fundamental role under conditions of economic scarcity but this ceases to be so as scarcity diminishes⁶. People in post-industrial societies want to have a voice on different areas of life such as work, living environment and government decisions influencing their lives as well. They require access to health and social care, and protection from health risks and diseases and aspire to greater equity and solidarity, being increasingly intolerant of social exclusion – even if individually they may be unwilling to act on these values⁷.

1.2. The conceptualization of health as a value

Health has been recognised since time immemorial to greatly affect people's well-being and functioning. Up until the 19th century, health problems have been dominated by communicable diseases that were considered to be strongly related to the divine realm thought of as punishments for the wickedness of mankind⁸. Health as a state in which human functioning is optimal became the object of scientific investigation from the medieval ages, but the tools and concepts by which the human body's functions and causes of its then most frequent maladies – infectious diseases – could be scientifically investigated became widely available only by the second half of the 19th century. That century saw the rise of public health and medicine that became particularly fast during the 20th century. Increasing scientific knowledge about disease and health contributed to the development of ethical, legal and political issues on health. The first modern definition of health – still in use – was composed after the 2nd World War by the newly formed World Health Organization (WHO) in 1946⁹. Health as not only the lack of disease but 'a state of complete physical, mental and social well-being', upheld a target which, reflecting the optimism of the post-war era, was useful at the time, but proved to be idealistic and of very limited practical value later on¹⁰. This definition, nevertheless, expressed a conceptual shift from health understood as a physiological/biological state to health as a right including mental and social phenomena as well. Conceptualization of health as a value was helped by the recognition that decisions in medical care are not purely technical or financial ones, but heavily involve issues of value¹¹. The rise of health economics has brought with it the development of various measures of health and well-being such as quality of life that enabled measurement of the consequences of alternative decisions, which, in turn, facilitated the incorporation of health as an issue into policy making. The Lalonde-report of 1974¹² is considered the first policy document which widened the perspective of health policy well beyond medical care onto other fields equally if not more important such as human biology, the environment and lifestyle. The report has been widely credited with launching a new public health movement that broadened the focus of public health and formulated its major principles in the Ottawa Charter for Health Promotion in 1986¹³. The Charter advocates health as a means and also as an end of political and societal activity, thereby reinforcing its value.

1.3. Promoting social responsibility for health

The answer for what constitutes 'well-being', that is, the measurable aspect of health, is of fundamental importance from the viewpoint of societal organisation and governance. Limits of individual and social responsibility for health have been debated for a long time^{14,15}. On one hand, given the evidence on the relationship between health behaviour, disease burden and health care costs, it is economically and medically sensible to hold individuals responsible for their health-related choices¹⁶. On the other hand, factors such as the living environment, genetics, poverty and the lack of social capital render healthy choices of the individuals more difficult. If health is the foundation of well-being, that is, a state in which biologically possible and chosen goals can be achieved¹⁷, then public policies must provide conditions conducive to health for the majority.

These conditions can be identified by uncovering the determinants of health. The seminal Lalonde report listed three major groups of health determinants such as the social and economic environment, the physical environment, and characteristics and behaviours of the individuals¹⁸. Since then, a vast number of publications identified additional determinants of health¹⁹. Recently, much information has been published about the social determinants of health such as employment, education, nurturing childhood environment, socially supportive environment including social capital and psychosocial working conditions^{20,21,22}.

Policy making outside of the health sector with the explicit aim of influencing determinants of health has a relatively short history, mostly in the field of occupational and environmental health, and chemical substances (tobacco, alcohol, drugs)¹⁹ but its significance has been on the rise in developed countries. This is due to the recognition that health care alone is not capable of producing health, and many health determinants, belonging to other government sectors like education, industry, trade, agriculture or research and development are beyond the jurisdiction of health care policy making. Therefore, health as a fundamental aspect should be considered by all sectors when formulating policy¹⁹.

The first international document in which healthy public policy was recommended as the first action to promote health was the closing document of the first international conference of health promotion¹³ organised by the WHO. The second international health promotion conference in 1988 expanded the concept of healthy public policy as one that is characterised by an explicit concern for health and equity in all areas of policy and by accountability for health impact^{23,24}. Thus, as it was defined by Milio, healthy public policies

improve the conditions under which people live: secure, safe, adequate, and sustainable livelihoods, lifestyles, and environments, including housing, education, nutrition, information exchange, child care, transportation, and necessary community and personal social and health services²⁵.

Health as a political issue was codified at European level in 1997 in Article 152 of the Amsterdam Treaty: 'A high level of health protection shall be ensured in connection with the formulation and implementation of all Community policies and all Community measures'²⁶. The Finnish Presidency of the EU further underlined the importance of healthy public policy and popularised it in the principle of Health in All Policies in 2006²⁷.

Intersectoral responsibility for health was also envisaged by the World Health Organization in the concept of health stewardship in health policy that called for the careful and responsible management of the well-being of the population by setting the direction for both public and private sectors and ensuring that the health system contributes to the socially desired intrinsic goals²⁸. In this spirit, the Tallinn Charter on Health Systems for Health and Wealth adopted by the 53 Member States of the WHO European Region in 2008 reaffirmed that an investment in health is also an investment in human development and prosperity. The Charter also stressed the leading role of health ministries in promoting of health considerations in policies and advocating their effective implementation across sectors²⁹.

The Nairobi Call to Action²⁴, closing document of the latest international conference of health promotion in 2009, emphasised the importance of making health promotion principles integral to the health policy and development agenda. It called for government processes pleading the 'whole of government approach' to ensure more coherence among a government's missions both horizontally (cross-government) and vertically (across levels of government)³⁰ as they touch on population health and well-being.

Healthy public policy, like any policies, must incorporate fundamental values such as evidence-based decision making, civil participation, accountability, equity, subsidiarity and sustainability, and should also be sensitive to financial constraints. In addition, it has some features that make it distinct from ordinary policy making: it should rest on multidisciplinary evidence, has to deal with a great number of stakeholders with manifold and typically opposing interests, and must be implemented by intersectorial actions. As usual, devil is in

the details, so difficulties start here: these manifold requirements create situations for decision makers that are virtually impossible to solve without the aid of decision making techniques and tools. Impact assessment is a valuable tool that assists decision makers to develop evidence-based policy.

1.4. Impact assessment as a tool for policy making

According to the International Association for Impact Assessment, impact assessment is the process of identifying the future consequences of a current or proposed action. The ‘impact’ is the difference between what would happen with the action and what would happen without it³¹. Choosing which impacts are to be identified will define what kind of impact assessment one performs. If one aims to identify the impacts on the environment, an environmental impact assessment should be done; if the focus lies on socioeconomic consequences, a regulatory impact assessment will be performed; if the focus lies on public health impacts, a health impact assessment will be carried out³².

The process of impact assessment – while fostering transparent and coherent decision-making – is strongly linked to the principle of evidence-based decision making. Policymaking is a highly complex process that is often difficult to predict or influence. The role of research based evidence is often minimal, and even when it is used by policymakers, they are greatly influenced by cognitive and institutional features of the policy process³³. In addition, policymakers are able to pay attention to only a few sources of information at a time. Analytic tools and impact assessment techniques may facilitate the uptake of information, bridging between science and policy-making supporting the concept of ‘better regulation’. Impact assessment can also have an important role in meaningfully involving stakeholders, interacting with lay people and experts, agreeing about the policy problem, alternative solutions and their effects³⁴.

Ex-ante Impact Assessment (also known as regulatory impact assessment (RIA) or policy impact assessment (PIA)) was first introduced among OECD countries and has been recognised by the European Union as a primary means of examining and measuring the likely benefits, costs and effects of policies and regulations. Using impact assessment, policy-makers can estimate the potential quantitative and qualitative outcomes of the policy identify those who are likely at risk or benefit from the regulation³⁵. RIA decrease the

possibility of regulatory failure, arising from regulating when there is no need for doing so, or failing to act when there is a clear need³⁶.

While impact assessment processes fail to consider health and environment in a linked and inclusive perspective, this emerging need led to the refinement and application of new tools of environmental health impact assessment (EHIA), strategic environment assessment (SEA), integrated impact assessment (IIA), and health impact assessment supported by international and EU level organisations. Overall, there is increased recognition of the value of impact assessment methods that link sectors and disciplines more inclusively, which criteria is fulfilled by HIA.

This thesis investigates whether and how health impact assessment, a decision making tool for healthy public policies, can support decision making in the field of housing policies for disadvantaged populations. The thesis examined this question by conducting health impact assessments and evaluations on housing interventions aimed at marginalised Roma communities. Based on these case studies, conclusions were drawn on the applicability of health impact assessment in this context, its methodological challenges, and policy implications.

2. Literature review

2.1. Health impact assessment as a tool for making policies conducive to health

2.1.1. Values and origins of HIA

Health policy making is often based on the analysis of consequences. The right choice is viewed as the one that produces the most gain, for example, the largest reduction in terms of burden of disease³⁷. This argument was first markedly presented by the utilitarian philosopher, Jeremy Bentham who stated that the impact of decisions should be measured on well-being, and good policies cause ‘the greatest good for the largest number of people’, also known as the greatest happiness principle³⁸.

As noted previously, the major determinants of health are outside of the scope of the health sector; policies made in other sectors have as great or even greater potential to improve or deteriorate health and well-being of the population. Health impact assessment is specifically concerned with the potential health consequences of policies, programmes or projects be

they planned in any governmental sector. According to the most common definition of HIA developed by the World Health Organization European Centre for Health Policy and presented in the Gothenburg Consensus Paper, 'health impact assessment is a combination of procedures, methods, and tools by which a policy, programme, or project may be judged as to its potential effects on the health of a population, and the distribution of those effects within the population'³⁹. Health impact assessment identifies actions that can enhance positive effects and reduce or eliminate negative ones and provides predictions on expected changes in the health of the population and is based upon four core values³⁹.

In **democracy**, the right of individuals is emphasised to participate in the formulation, implementation and evaluation of policies in a transparent and accountable manner. This participative approach calls for the involvement of all stakeholders in the preliminary policy process. Stakeholders may be identified by formal position (e.g. representatives of administrative bodies), by control of relevant resources (e.g. financing body), power to hinder or block implementation (e.g. lobby groups, implementers), or by stakes in the issue (e.g. proponents or beneficiaries of the policy)⁴⁰. The value of **equity** highlights the importance of assessing not only aggregate effects of the policy, but the distribution of impacts (direct or indirect) within the population with particular attention to vulnerable groups.

Consideration of both short and long term impacts follows from the value of **sustainable development**. Economic development, ecosystem degradation, poverty and ill health have traditionally been addressed by sectors from a crisis management and curative perspective⁴¹ whereas HIA offers a multisectoral and preventive approach.

Ethical use of evidence requires that assessments should be based on qualitative and/or quantitative evidences gained by rigorous scientific methods. Since both the policies investigated by HIA and the determinants of health through which these policies influence health are often outside the area of public health and medicine, expertise must frequently be drawn from other disciplines⁴².

Each HIA rests on a particular model of health, and approaches to HIA reflect these models⁴³. The development of health impact assessments followed two basic directions. Those resting on the biomedical model tend to be quantitative and largely based on risk assessment methods of epidemiology and toxicology, whereas HIAs based on the biopsychosocial (or

socio-economic) model of health tend to rely more on social sciences using qualitative, participatory approaches to utilise stakeholder knowledge. The previous one is also referred to as 'tight' or 'narrow' perspective HIA, as opposed to the latter which is called 'broad' perspective HIA. HIA with a tight perspective may be considered rational, and has its roots in environmental impact assessment, while HIA with a broad perspective is more of incremental nature, designed for use with policy proposals⁴⁴. A third origin for HIA with an emphasis on health equity as a specific issue has been identified by some authors^{43,45} as 'health inequalities impact assessments' or 'health equity impact assessment'; this would ensure the prioritization of the potential impacts of a proposal on health equity before implementation⁴⁶. Reflecting their common roots, health impact assessment shares certain concepts and methods with risk assessment, environmental impact assessment, strategic environmental assessment, social impact assessment, and economic assessments. HIA is incorporated in some countries in environmental HIA, human impact assessment or other forms of integrated impact assessment. Strategic environmental assessment is also being transformed to a more extensive consideration of health, acknowledging that the social determinants of health are underrepresented in the process of SEA⁴⁷.

2.1.2. The levels, process and timing of HIA

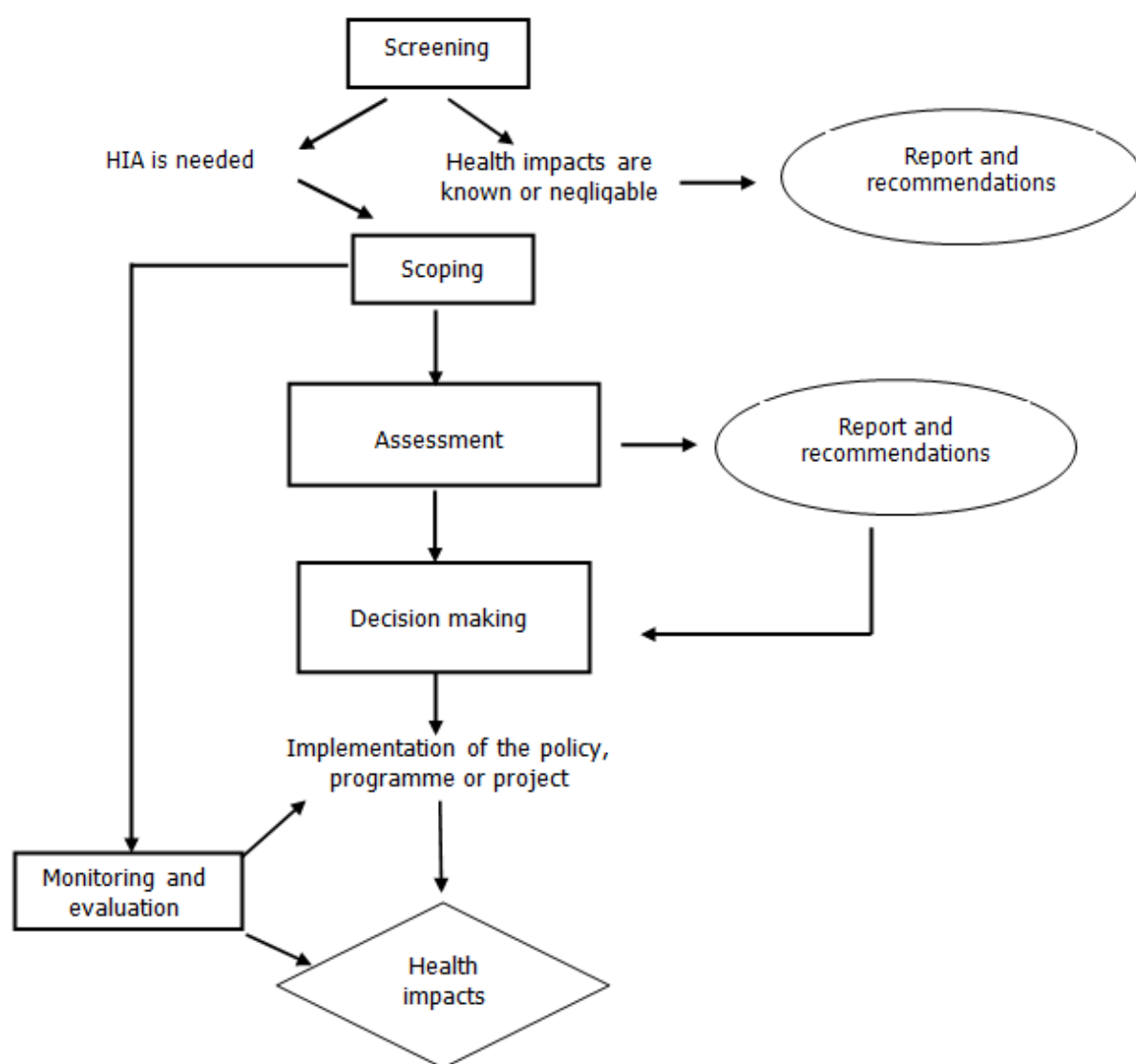
HIA is a relatively new tool with no single internationally agreed methodology but a recommended framework that can be carried out regarding decisions taken by those with responsibility for a particular area at various **levels** of governance (intergovernmental, governmental or regional/municipal policies), strategies, programmes or projects.

Generally, policy level HIAs relate to a course of action adopted and pursued by a government or organisation in order to achieve a stated goal. HIAs of policies may have a broader scope of potential impacts, take more time, affect more people, involve more stakeholders, and tend to be more complex. Programme level HIAs usually deal with the way in which policy is implemented by a set of homogeneous interventions grouped together to attain global objectives. Project level HIAs are usually related to an indivisible intervention delimited in terms of schedule and budget such as industrial development projects but can also be carried out for scientific or social purposes. They usually focus on well-defined geographic regions and communities for which it is easier to collect baseline data, involve stakeholders and identify and assess health impacts. However, HIA of projects aiming at

specific strata or groups of the population may face lack of health data, or evidence for health impacts. Results of HIAs of projects may need to be disseminated to smaller but more intensely interested groups of stakeholders concerned about their neighbourhoods than results of HIAs of policies⁴⁸.

The **process** of HIA is composed of several steps in a defined sequence: screening, scoping, appraisal, decision making, evaluation and monitoring^{39,49,50,51} presented in Figure 1.

Figure 1 The process of health impact assessment⁵²



Screening is the first essential step to decide whether there is a potential link between the planned policy, programme or project and health, and what aspects of health of the affected population and its subgroups they might affect. Screening is performed by deliberating

informed opinion and evidence already available. If screening indicates a negligible potential health impact, either positive or negative, or if the expected health impact is well known, this is reported and made available for appraisal by the decision-makers and those affected by the proposed decision without further steps. If screening indicates a need for more information, scoping should follow.

Scoping aims to establish the foundations of HIA. Decides on the potential direct and indirect health effects and the circle of affected groups of the proposed policy, programme or project that need to be further considered; the stakeholders to be involved as well as the methods, resources and timeframe for the HIA. During scoping, decision should be made for the type of subsequent appraisal and for the way of evaluation.

Appraisal

Scoping is followed by appraisal during which the actual health impacts are estimated based on various sources of information using various methods of analysis. Appraisal itself may fall into one of three broad categories: rapid health impact appraisal, health impact analysis or standard HIA, and health impact review or comprehensive HIA.

The **rapid or mini** HIA is a systematic assessment of the health impact of a policy, programme or project by a number of experts, decision-makers and representatives of those potentially affected by the proposed policy that is typically carried out with minimal resources and in a short time span. It is based on exchange of the existing knowledge of the involved participants, including knowledge gained from previous similar exercises and research.

During **intermediate or standard** HIA, a more in-depth examination of a policy, programme or project is carried out including its potential impact on health and of the opportunities to adjust the policy, programme or project to ensure a more positive impact on health. Review of the available evidence, exploration of the opinions, experience and expectations of those who may be affected are included and, if needed, production and analysis of new data. Standard HIA requires a broad range of multidisciplinary expertise, and a combination of various methodologies. Resources and time needed for implementation are necessarily greater than those of a rapid appraisal.

The **comprehensive or maxi** HIA is a more thorough, extensive exercise than either a rapid or intermediate HIA, involving the full range of stakeholders, an extensive literature search, secondary analysis of existing data and the collection of new data.

Report and recommendation

The results of the appraisal including all potential impacts are reported along with options for enhancing the positive and minimizing the negative impacts. The report should be made public for all those who have legitimate interest in the decision, and their opinions on the report should be heard. This may lead to the revision of the draft report by additional information and reappraisal prior to the release of a final report.

Decision making

The final essential step is to act on the results of the HIA. Decision makers are expected to review the results and recommendations of the HIA, make choices about how they should be taken forward, and adjust the proposal in such a way so as to maximise positive and minimise negative health impacts.

Monitoring and evaluation

Although a specific HIA may end with decision making, three types of follow-up can be considered. First, **process evaluation** investigates how the HIA was carried out in terms of the use of resources, stakeholder involvement, communication, quality etc. **Impact evaluation** examines whether the recommendations of the HIA were accepted and implemented by the decision makers. **Monitoring and outcome evaluation** considers the outcomes of an implemented decision after HIA enabling the comparison of predicted and actual impacts in order to inform upcoming HIAs (and decisions).

The **timing** of a HIA affects the likelihood of influencing the decision. HIA ideally is carried out early in the policy process when the policy has already been clearly defined but still open to modification. The timeframe influences the depth and extent of the HIA⁵¹. Timing of HIA can be classified in the following ways⁴⁴:

A **prospective** HIA is conducted in the planning phase, before the implementation of the policy, programme or project.

A **concurrent** HIA is carried out while the policy, programme or project is being implemented. The aim is to identify adverse impacts at the time of occurrence that enables prompt action to be taken.

A **retrospective** HIA is carried out on a proposal that has already been implemented. It aims to identify the actual impacts on health outcomes after implementation. There are debates on whether concurrent and retrospective assessment of projects and policies should be considered HIA or evaluation. Kemm argues against the use of the term 'concurrent' or 'retrospective' HIA on the ground that HIA seeks to inform decision making, which is impossible in the latter cases^{44,45}. However, several HIA guidelines^{48,50,51} use these terms on the conceptual basis that evaluation focuses on the extent to which a proposal's objectives were achieved, whereas retrospective HIA is more comprehensive, assessing impacts on health and its wide determinants even if changing these was not included in the project goals. HIA in any timing can contribute to the evidence base of public health, may inform similar future proposals, and provides conclusions for action.

2.1.3. Legal and administrative frameworks for implementing HIA into decision making

The recommendations of international organisations, the European Union and national level regulations identified HIA as a basic tool to support healthy public policy^{53,54,55}. At global level consensus on the use of health impact and health equity impact assessment was expressed first in 1997 by the Jakarta Declaration on Leading Health Promotion into the 21st Century⁵⁶, followed by the seminal Gothenburg Consensus Paper³⁹, the Bangkok Charter for Health Promotion⁵⁷ and the Report of the Commission on Social Determinants of Health⁵⁸. Other policy documents and declarations at Regional levels have also strongly promoted this view, including, for example, the WHO Health for all Update 2005⁵⁹, the European Council conclusions on Health in All Policies⁶⁰, the Rome declaration⁶¹ and the recent Community strategy 'Together for Health: a strategy approach for EU 2008-2013'⁶².

Since the mid 1990s, several governments stressed their willingness to take into account the impact of their actions on health^{63,64,65}. Studies on health impact assessment were conducted⁶⁶, and many impact studies were carried out at the local level. Sweden, the Netherlands, Australia, New Zealand have also undertaken similar initiatives⁶⁷. In Canada, British-Columbia began to conduct impact studies on health in the early 1990s. Some municipalities of the Healthy Cities network of approximately 1100 cities and towns in Europe conducted HIAs at the local level, recognizing the importance of systematic assessment of the health impact of municipal policies⁶⁸. The latest evidence for the need of

HIA at local level is included in the Liege statement made by mayors and representatives of European cities on Health 2020, the new European health policy of the European Regional Office of the WHO, which calls for specific tools to promote effective governance for health, among them health impact assessment^{43,69}.

Implementation and institutionalization of HIA widely differs in countries around the globe. HIAs for projects and policies may be required by laws or regulations independently, as part of other impact assessment, or may be conducted on a voluntary basis⁷⁰. A recent typology of health impact assessment introduced by Harris-Roxas⁴⁵ differentiates four main types of HIA. Mandated HIAs are carried out to fulfil a statutory or regulatory obligation using standardised procedure based on robust scientific methods. Decision-support HIAs are usually undertaken voluntarily by or in partnership with the organisation responsible for formulating the policy, programme or project to be assessed. Advocacy HIAs are undertaken by organisations and groups without direct influence in order to influence decision-making. Community-led HIAs are conducted by communities in order to support their health-related concerns and to influence the decision-making process.

If no legal framework exists, voluntary and ad-hoc application of HIA influenced by political and administrative interest increases the risk of producing opportunistic or biased HIAs. The possible approach of implementing and institutionalizing HIA should be deliberated by each country according to its domestic political, administrative and economic environment. Legal requirements for environmental or regulatory impact assessment in many countries already include health impacts as a compulsory element although the practice is often of poor quality⁷¹.

The following example represents different ways of implementation of policy level HIAs. **Canada** has a long history of HIAs at the policy and project level, various initiatives were taken by the provinces on the use of health impact assessment. British Columbia province in Canada was one of the first to institutionalise HIA integrated into environmental impact assessment in 1994 with the aim of assessing the impact of central governmental policies. However, its effectiveness could not be proven because implementation suffered due to the lack of political will, and health impact assessment ceased to be applied at policy level. Nevertheless, the Canadian Handbook on Health Impact Assessment⁷² issued by the federal

government in 2004 have become the methodological guide for several later environmental health impact assessments, initiated by private and civil organisations as well⁷³.

HIA in the **Netherlands** has been developing in two different directions. One approach is to conduct environmental HIA, the other approach focuses on the broad range of the determinants of health and carried out screening of policies, programmes and projects for health relevance on a similarly broad range of policy fields. HIA was formally introduced in 1995 in the White Paper 'Healthy and Sound' by the Minister of Health, Welfare and Sports. The budgets of different ministries, coalition agreements, and reports from governmental advisory boards were screened for health relevance⁷⁴. However, due to lacking evidence for its effectiveness, the Ministry took a less ambitious position towards HIA, and supports to a greater extent of HIAs at local level⁷⁵.

The Ministry of Health in the **United Kingdom** called for the application of HIA in a White Paper (parliamentary paper enunciating government policy) titled Saving Lives: Our Healthier Nation in 1999. In 2004, the government formally introduced HIA as a mandatory practice for all new legislations by including health as a component. In 2007, impact assessment (IA) replaced RIA and HIA meaning that health and well-being are designed into national policy³⁰.

HIA has been relatively underdeveloped in Central and Eastern Europe (along some countries of Western Europe)^{70,76}. England, Wales, the Netherlands and Finland are among those European countries that carried out the most HIA⁷⁰. Experience with HIA outside of Europe is also considerable: Australia, New Zealand and Thailand published different guidelines and completed HIAs at national, regional and local levels^{73,77,78}. In the United States, HIA have been developing under the influence of EIA, and interest has been on the rise. A recent study⁴⁸ identified 27 HIAs carried out by public health organisations, academic institutes and independent experts from 1999-2007. A law was passed in 2006 by the US Congress that requires performing a HIA for certain types of federal projects⁷⁹.

2.1.4. Health impact assessment in Hungary

Over the past two decades, a number of policy proposals and draft bills in Hungary could have been preceded by assessments of their possible health implications, including the abolition of price subsidies, the introduction and modification of VAT, as well as industrial location and urban development issues. In the current practice, Health Committee of the

National Assembly has a short debate on the impact of relevant legislative drafts from a health perspective. In a few cases, policy level HIA was commissioned by the former Ministry of Health from the budget of the Public Health Programme, or was carried out for research purposes. No one HIA was initiated outside of the health sector. A systemic impact assessment is missing from the everyday political practice and health considerations rarely and insignificantly influence other sector related parliamentary decisions⁸⁰.

As noted previously, the investigation of health impacts at policy level in many countries is incorporated in mandatory impact assessment processes without the need for a new legal and institutional framework. However, increased emphasis on health in integrated impact assessment approaches can only be ensured by systematic practice. Current legal prerequisites of impact assessment techniques in Hungary are described below indicating their advocacy potential for health.

Regulatory impact assessment

RIA was institutionalised in 1987 in Hungary⁸¹. There has been legal obligation to assess social and economic impacts of legislative proposals prospectively and to monitor consequences after implementation both in the short and long term. The legislators must be informed about the results and conclusions of the assessment. However, neither ex ante nor ex post RIA has been systematically enforced in the Hungarian public administration⁸², legislative drafts are only formally assessed, and impact assessment in several cases was not carried out.

According to the recent Act on Legislation⁸³, social, economic, environmental, administrative and health impacts of legislative proposals should be assessed prospectively offering a chance to improve the quality of law-making and put health higher on the decision-making agenda.

Environmental impact assessment

Since the mid-'80s significant results have been achieved in the area of environmental impact assessment in the frame of National Environmental Health Action Plan in Hungary⁸⁴ which served as a basis for current practice. Environmental impacts of legislative drafts and national or regional measures that potentially affect the environment or human health should be evaluated⁸⁵. Since 2005, national plans and programmes along with EU co-financed development policies should undergo a strategic environmental assessment⁸⁶ in

line with the directive of the European Union⁸⁷. Assessments are carried out by licensed experts of public agencies, academic institutes or private businesses. Prior to submitting the assessment to the decision-making body, they are sent to the National Council of Environmental Protection for evaluation. A law may be declared unconstitutional in case of passing without the position of the Council which consists of representatives of economic advocacy groups, academic institutes and NGOs to ensure wide social and scientific base for environmental protection. Legislation on environmental and strategic environmental impact assessment requires the evaluation of health consequences⁸⁸ by involving public health administrative bodies in the process. However, the evaluation of health impacts is usually partial and limited to effects on the physical environment, indicating different advocacy potentials of environment and health issues.

Health impact assessment practice in Hungary

In spite of the lack of explicit legal prerequisite of HIA at policy level, and inefficient frameworks for other impact assessments from a health point of view, a number of health professionals - officers and experts – took proactive steps to introduce HIA in Hungary. Case studies were initiated and conducted by the public and academic sector, local governments and private companies as well.

Table 1 summarises the HIAs conducted in Hungary between 2005 and 2010 in which the Faculty of Public Health of the University of Debrecen (FPHUD) took a leading role. The author participated in six (shown in blue) of the 11 HIAs in the table of which the dissertation presents those linked to Roma initiatives.

Table 1 Completed HIA case studies in Hungary (blue highlights HIAs in which the candidate participated)

Object	Level	HIA type	Timing	Contracting party	Contractor
<i>Amendment of the Act on the Protection of Non-Smokers, 2009</i>	national	comprehensive	prospective	Ministry of Health	academic (FPHUD)
<i>Quality wine production in Hungary, 2008 (Ádám et al., 2009)</i>	national	comprehensive	concurrent	EU FP6 research project	academic (FPHUD)
<i>Spa and wellness centre construction at Csepel, 2008</i>	local	standard (integrated into EIA)	prospective	Local District Government of Csepel	private (Mediconsult Ltd)
<i>Biotechnology plant construction at Debrecen, 2008</i>	local	comprehensive (integrated into EIA)	prospective	Gedeon Richter Ltd.	academic (FPHUD)
<i>Roma housing policies in Central Eastern Europe, 2008 (Molnár et al., 2011)</i> <i>Roma housing project at Hencida, 2007;2010 (Molnár et al., 2010)</i>	inter-national	comprehensive	concurrent	EU FP6 research project	academic (FPHUD)
<i>Roma housing project at Debrecen, 2007 (Kósa et al., 2007)</i>	local	rapid	prospective	research project	academic (FPHUD)
<i>'Panel Programme' to reduce energy use of existing residential buildings & environmental reconstruction, 2007</i>	local	comprehensive	concurrent	Ministry of Health	public&private (National Institute of Health Development, Mediconsult Ltd, Metropolitan Research Institute Ltd)
<i>Cement factory construction at Nyergesújfalu, 2007</i>	local	comprehensive (integrated into EIA)	prospective	Holcim Ltd	academic (FPHUD)
<i>Plate glass factory construction at Mosonmagyaróvár, 2007</i>	local	comprehensive (integrated into EIA)	prospective	Glas Trösch Euroholding AG & Co. KGaA	academic (FPHUD)
<i>Accessibility programme, 2005</i>	national	comprehensive	concurrent	Ministry of Health	public (National Institute of Health Development)

2.2. Housing as a prerequisite of health

As a physical setting, the residential environment is critical for human well-being. Most of the work time is spent in indoor places similarly to most of the leisure time at home or close by in our neighbourhood. Adequate living conditions are among the most significant factors contributing to quality of life⁸⁹ the importance of which is reflected in international and European declarations and national constitutions recognizing housing as a human right. In 1948 the United Nations included the right to housing in the Universal Declaration of Human Rights in its Article 25: 'Everyone has the right to a standard of living adequate for the health

and well-being of oneself and one's family, including food, clothing, housing and medical care and necessary social services'⁹⁰. The revised European Social Charter contains specific provisions on the right to housing⁹¹. Recommendations on the implementation of this right was recently issued by the Council of Europe specifying that an adequate dwelling must be structurally and legally secure, safe from a sanitary and health point of view and in possession of all basic amenities. Housing conditions should also comply with requirements on size, surroundings and the location of the dwelling in relation to work, school and social services⁹². Access to adequate housing may be a precondition for the enjoyment of several human rights, including the rights to health⁹³.

The scientific evidence that adequate housing is related to health and that low quality of housing is associated with higher environmental risks and worse health status dates back to 1842, the publication year of the Chadwick Report⁹⁴. Since then a large body of evidence was collected on the health benefits of decent housing⁹⁵, also defined as a prerequisite of health¹³. The importance of housing in terms of health was underlined by the recent report of the Commission on Social Determinants of Health⁵⁸ in its first recommendation according to which improvement of daily living conditions reduces health inequalities.

Health can be influenced by a wide range of housing-related factors. Housing policy from a wider social perspective is concerned with affordability and access to housing, the allocation of dwellings, social housing, and provision of temporary accommodation for homeless people, housing tenure, housing investment and urban planning. Satisfying housing needs on a national scale is an important indicator of overall quality of life and development of society⁹⁶. The socio-ecological aspects of the local environment include features such as spatial composition, neighbourhood safety and social capital, access to local infrastructure and facilities (such as health and social services, recreational areas, parks etc.), as well as ecological characteristics (quality of air and water, noise levels, access to green areas). From an individual perspective, housing conditions can be measured in terms of the quality of indoor environment and threats to health and structural hazards such as cold and damp housing, rodents and parasites, indoor air quality, noise, asbestos, lead and moulds.

Specific risk groups can be identified considering the gap between demand and supply of affordable housing such as low income groups, single persons, elderly and disabled people, migrant and ethnic people, and homeless.

Social status and low income in particular are strongly linked to substandard housing and increased exposure to environmental risks at home or at the residential location outdoors^{97,98,99}. Poor housing conditions are associated with a wide range of health risks including infectious diseases, chronic illnesses, injuries, poor nutrition and mental disorders¹⁰⁰. Sustained experience of housing deprivation over time further increases the probability of ill health that may negatively affect an individual's housing opportunities.

Review of the evidence also suggests that interventions in the field of housing have plausible beneficial effects on inequalities and on the health of disadvantaged groups^{101,102,103,104}. However, due to the currently germinating evaluation practice, only limited examples of best practices and information on the effectiveness of certain categories of housing interventions are available.

Evidence has special importance for the European Roma community that constitutes the largest ethnic minority of the EU. The majority of Roma people in Central and Eastern European countries have been experiencing great difficulties in terms of adequate housing – among others – due to the high costs of housing relative to their income and the low availability of social housing that results in considerably worse living conditions of Roma compared to the country average, and their segregation in many neighbourhoods¹⁰⁵. A large proportion of Roma have been identified as living in colonies or settlements, that is, segregated habitats characterised by severely substandard conditions^{106,107}. This situation poses great challenges to their integration, and is destructive to the social cohesion and well-being of European societies.

The situation of Roma in the European Union, particularly for CEE countries moved high on the political agenda when the acceptance of the Copenhagen criteria of the EU¹⁰⁸ mandated the protection of the rights of minorities for all accession countries. All CEE countries had made serious efforts to this aim, and the problems related to Roma has been addressed by numerous international and EU-level documents aimed at the protection of minority rights, equal opportunities and efforts to improve their situation. Recognition of this problem led to the major European initiative 'Decade of Roma Inclusion' with originally 9, now 12 participating countries for the period of 2005-2015 bringing together governments, intergovernmental and nongovernmental organisations as well as Romani civil society. The social inclusion of Roma is to be achieved through four priority areas including housing,

education, employment, and health¹⁰⁹. EU-level interest in the plight of Roma has been included in the EU 2020 Flagship Initiative: 'European platform against poverty and social exclusion'¹¹⁰ that aims to ensure economic, social and territorial cohesion, building on the current European year for combating poverty and social exclusion so as to raise awareness and recognise the fundamental rights of people experiencing poverty and social exclusion, enabling them to live in dignity and take an active part in society. The recently accepted European Roma Strategy¹¹¹, priority of the Hungarian presidency, spells out the same four crucial areas – education, employment, healthcare and housing – through which Roma integration should be achieved. New windows of opportunity have also opened at the EU level objective to link social and cohesion policy by opening up the Structural Funds for housing interventions in favour of marginalised communities to reach their social and territorial inclusion. These measures are in coherence with the statement of 5th Cohesion Report 'Housing is one of the main determinants of people's well-being'¹¹². Advancement in these crucial areas should contribute not only to economic development¹¹³ but to improved population health of which these areas are major determinants¹¹⁴.

Member States with a sizeable number of Roma have recognised the need for specific housing initiatives to ensure equal opportunities and foster social inclusion. They have adopted specific action plans for Roma consisting of legislative and accompanying administrative acts, though in most Member States the National Action Plans (NAPs) on Social Inclusion have tended to ignore the significance of this issue or have not accorded high priority to it¹¹⁵. In its report on the second round of NAPs (2003–2005), the Commission urged the Member States to pay particular attention to six policy objectives two of which had relevance for the social aspects of housing: increasing the access of the most vulnerable people and those most at risk of social exclusion to decent housing, quality health and lifelong learning opportunities; and, reducing poverty and social exclusion of immigrants and ethnic minorities. The 2009 Joint Report on Social Protection and Social Inclusion acknowledged better recognition of the challenges of social inclusion and actions taken by Member States, whereas stressed the lack of comprehensive policy framework¹¹⁶. The latest draft Report focuses on drawing lessons from Europe's response to the economic crisis which aggravated poverty in many aspects such as housing exclusion and deprivation. It calls for integrated housing strategies as an integral part of post-crisis policies, displayed by effective governance with strong cooperation between all involved¹¹⁷.

Half of the Decade of Roma Inclusion has already passed, justifying a close look at the achievements of the initiative as well as of actions at national level. The question of whether the measures taken by these countries have indeed been efficient remains unanswered in many aspects. A gap between commitments and implementation as well as lack of monitoring and evaluation of policies and programmes were noted by the International Steering Committee¹¹⁸. Even progress reviews of the Decade of Roma Inclusion investigated whether there are measures, programmes and policies in place, not whether they work¹¹⁹. Non-availability of data and insufficient knowledge base as well as the need for thorough information and evaluation were also stressed at EU level^{116,117}.

2.3. Housing and health of marginalised Roma in Central and Eastern Europe

Scientific studies of Roma are hindered by a number of issues such as methodological problems the most serious being the definition of who is Roma and who is not; and ethical problems, namely historically based distrust of Roma towards 'official' data collection and means to overcome it¹²⁰.

Nevertheless, a number of studies described serious inequalities in health status between Roma and non-Roma^{121,122,123}. The reasons are many, including worse environmental conditions, unhealthy lifestyles (such as high levels of smoking and poor nutrition) and substantial obstacles to obtaining effective care (such as bureaucratic barriers to enrolling in statutory health insurance schemes and outright discrimination)^{124,125,126,127}. Explanatory factors also include wider socio-economic determinants of health which social exclusion, poverty, unemployment, low educational level as well as ethnicity, discrimination and racism contributing to various degrees^{128,129,130,131,132,133}. Housing and settlement issues are closely related with all of these areas and are of particular significance for Roma.

The limited financial means of Roma usually preclude access to market-based housing, and considerable shortage of social housing in countries where their proportion is highest is an additional barrier to adequate living conditions. It follows that many of them are forced to use makeshift housing that is substandard or unacceptable, legally insecure, and, in many cases, segregated. Poverty and discrimination may be compounded by loss or lack of official personal identification documents that prevents access to other services as well^{105,134}.

The following sections present housing and health conditions in four Central Eastern European countries, the selection of which was based on them being participants of an EU-funded project (Health Impact Assessment in New Member States and Accession Countries, HIA-NMAC). One workgroup of the project – led by the Faculty of Public Health of the University of Debrecen – planned to collect HIA experiences in these countries, and carried out a comparative analysis of HIAs of housing initiatives aimed at Roma communities.

Bulgaria

370,000 Roma live in the country according to census but estimates of minority advocacy groups put the numbers at 500-800 000^{135,136}. They are dispersed evenly throughout Bulgaria, more than half of them living in so-called mahalas or ghetto-like neighbourhoods of extremely substandard living conditions in urban centres. Most of the rest live in poor, isolated Roma villages scattered all over the country. Housing in segregated Roma neighbourhoods is one of the greatest social problems in Bulgaria. Illegal construction accounts for up to 80% of all construction in urban neighbourhoods and has been rising as a result of Roma migrating from rural areas to big cities. Illegal connection to electricity, water mains and sewage system has been widespread in these areas¹³⁷. Housing conditions in terms of hygiene and sanitation are poorest in the rural areas. According to the results of a national representative survey, 30% of rural households live in buildings that need urgent repair of the sewage system, roofs, electricity network, etc. In addition, one out of five households resides in a dwelling unit that is in extremely poor condition, in danger of becoming uninhabitable unless repaired within the next 4 to 5 years¹³⁸.

Life expectancy for the Roma in Bulgaria is on average 5 to 6 years lower compared to other ethnic groups. Roma infant mortality is twice the national average. Studies also mention higher rates of infectious diseases, tuberculosis, and certain chronic conditions, such as cardiovascular diseases, diabetes or hypertension^{136,139}. According to surveys, the percentage of uninsured Roma ranges between 40-90%¹³⁰.

Lithuania

2,571 Roma lived in Lithuania in 2001 according to census data, representing 0.07 percent of the total population of Lithuania. However, estimates of the Minority Rights Group set the number of Roma living in Lithuania at 3,000-4,000¹⁴⁰. They live in many different parts of the country, but large communities can be found in Vilnius, Kaunas, Šiauliai and Panevėžys.

According to the – so far unaccepted – draft of the National Programme on Roma Integration into Lithuanian Society 2010-2012, data on Roma housing quality in the country are not available. The Roma settlement in the Kirtimai area of the capital (Vilnius) is home to the largest Roma community with 511 inhabitants, 146 of them being children. They live in 99 illegally constructed buildings on municipality-owned land which do not meet basic construction standards. Dwellings are poor and overcrowded, there are no paved roads, and due to the absence of sewage system in this area, water in the public pumps often becomes non-potable after heavy rains¹⁴⁰. A shortage of social housing prevented the municipality from solving the housing problem of the community, in spite of recommendations of the European Commission against Racism and Intolerance¹⁴¹.

Data on the health status of the Kirtimai community and of the Roma population in general are lacking. According to general practitioners, higher morbidity due to bronchitis, bronchial asthma, gastritis and scabies can be observed for children under 3 years of age. Morbidity of Roma children in other respect is not substantially different from the morbidity of children of other ethnic groups, though their self-reported health status was found to be worse than that of the majority (personal communication, general practitioner of Kirtimai colony).

Slovakia

The last census recorded a little less than 90 thousand Roma in the country, whereas minority organisations estimate the country's Roma population at 420,000 to 500,000 Roma, accounting for 8 to 10 percent of the population¹⁴². A socio-graphic mapping of Romany communities in Slovakia was commissioned by the government in 2003 to gain reliable data on the Roma communities, and identify and assess their needs. The mapping revealed that whilst Roma were integrated in approximately 50% of all 1575 identified Roma settlement units, the remaining 787 settlements were considered non-integrated communities. Of these, a further 149 settlements were classified as segregated, that is, located at the edge or outside of villages and towns with no access to running water and with the percentage of illegal dwellings in excess of 20%¹⁴³.

Previous studies suggest unfavourable health status of the Roma population compared to the majority¹⁴⁴. According to a latest survey on the living conditions of Roma in Slovakia occurrence of respiratory, nervous and mental system diseases, as well as infectious, urinary and genital system diseases were found to have higher prevalence among Roma¹⁴⁵.

Hungary

As opposed to the 190 thousand Roma who identified themselves in the last census in 2001, estimates put their numbers at 520-650 thousand¹⁴⁶. Their situation, as in other CEE countries, substantially deteriorated after the political changes of 1990 with many of them having become unemployed and subsequently suffered losses in their standard of living¹³⁵. The Hungarian government passed an Act on the protection of minorities in 1993, the year of the Copenhagen criteria, and 3 different governments created 3 mid-term strategies for the integration of Roma between 1997 and 2004^{147,148,149}. As one task of the 1999 strategy, a survey of segregated habitats was commissioned by the Ministry of Environmental Health and carried out by the Faculty of Public Health of the University of Debrecen with a network of Roma field workers between 2000 and 2005. This revealed that approximately 134 000 Hungarians lived in 758 substandard, segregated habitats (colonies) mostly in the north-eastern part of the country, and 94% of all colonies were populated dominantly by Roma. The most frequent environmental problems in these colonies were found to be lack of sewage and gas mains, garbage deposits, waterlogged soil, and lack of water mains¹⁰⁷. Another environmental survey carried out by the National Public Health Service in 2003-2004 identified – in remarkable concert with the other survey described above – 767 Gipsy colonies on 530 settlements with 138 000 inhabitants in Hungary. The hygienic situation was deemed to be unacceptable at most of them due to hygienically neglected dwellings, the occurrence of rodents and unvaccinated stray dogs, lack of piped water in 26% of colonies, and illegal waste deposits and animal carcass deposits at more than 10% of the colonies¹⁵⁰. As to their health status, 10% more of those over the age of 44 years who lived in colonies reported their health as bad or very bad compared to those in the lowest income quartile of the non-Roma general population¹³¹. Of those who used any health services, Roma living in colonies experienced some discrimination 8 times more often than those of the general population¹³¹. Hungary also joined the Decade of Roma Integration in 2005 and launched a housing programme in the same year for colony-dwelling Roma by inviting 9 villages with colonies to apply to a governmental tender.

3. Aims of the research

Considering the unfavourable health status of the Hungarian population compared to the EU average, and the alarming extent of regional and social inequalities in Hungary^{151,152}, improving the health of the population by efficiently tackling social and economic determinants of health inequalities should be fundamental for sustainable economic and human development. HIAs could be helpful for making decisions to improve health inequities. However, as it was shown above, HIA has no tradition in the country, and its legislative basis is insufficient and not properly enforced. Health impact assessment could be an appropriate tool to systematically explore probable health consequences of initiatives and implemented practices building on which future policies can be modified to optimise the health gains of populations according to the Health in All Policies approach. However, no published health impact assessment was identified in the literature that specifically targeted Roma people.

The overall aim of the author was to test the applicability of HIA in the field of housing for disadvantaged population groups, primarily Roma.

The research questions included the following:

1. What are the potential and observed impacts of housing interventions at national and local level aiming at Roma?
2. Is health impact assessment on Roma housing policies feasible and relevant?
3. What are the policy implications of promoting health through housing programmes aiming at vulnerable groups?
4. What are the essential elements of planning and implementing sustainable housing projects?
5. What are the strengths and weaknesses of HIA and its potential future on the agenda of Hungarian governance?

4. Methods

4.1. Basic principles: values and model of health

Our HIAs were based on the model of health presented in the Ottawa Charter of Health Promotion according to which health is the process of enabling people to increase control over and to improve their health resting on prerequisites such as shelter, education, food, income, stable eco-system, sustainable resources, social justice and equity among others¹³.

All presented HIAs were carried out respecting the four key values of HIA^{39,153}.

- The value of democracy was observed by involving all relevant stakeholders in the HIAs.
- The value of equity was realised by multidisciplinary and intersectoral approach so that various experts from different areas were involved, and references were made on how the policy alternatives would affect the target population.
- The principle of sustainable development was taken into account by considering short and long-term impacts of policy alternatives in every case where evidence allowed for it.
- The ethical use of evidence was ensured by overviewing a combination of qualitative and quantitative evidences from the published literature, from administrative data, and from information obtained from stakeholders.

4.2. The process of health impact assessment

The process of health impact assessment was described in detail in the Introduction. Here only those details or specifics are described which are different from that of the general process.

Screening

To accomplish screening, a tool developed by our own workgroup was used. The structure of the screening tool was based on the tool published by the Institute of Public Health in Ireland⁵¹ that had been used by the workgroup in the HIA of an industrial development. The Irish tool was extended by elements of a checklist developed by the Netherlands School of Public Health¹⁵⁴, as well as additional information about health determinants and the workgroup's own experiences. This new tool was developed and first tested in the HIA on the legislation of quality wine production¹⁵⁵.

Scoping

Steering groups involving researchers, stakeholders, and decision makers were formed during the scoping step to set boundaries of the assessment and to formulate Terms of Reference for the HIAs. The groups consisted of academic researchers with expertise in HIA and relevant scientific areas as environmental health, epidemiology, health promotion, sociology, general medicine and law, as well as previous experience and knowledge on disadvantaged Roma communities.

Assessment

Several methods were used to gather and analyse evidence. The *community profile* helped to identify socio-economic, environmental and health characteristics of the affected population and establish a baseline against which potential future health impacts can be assessed. The community profile included the following dimensions: general attributes of the population (size, density, distribution, age and sex distribution, ethnicity), health status of the population (disability and morbidity data, health behaviour indicators), levels of education, employment/unemployment status, environmental conditions (settlement structure, housing, transport, public utilities), and access and quality of services.

Analysis the proposal of the policy/programme/project included the review of the policy and supporting documents and the analysis of legal, political, economic and cultural context of the proposal.

Review of the literature aimed at searching for evidence on the health impacts of similar proposals from the scientific and grey literature and HIA evidence base.

Participatory, qualitative approaches were used to gather evidence from the experience, knowledge, opinions and perceptions of the community. Methods used to involve community members and major stakeholders included field work, focus groups, workshops, interviews and questionnaire surveys. These approaches provided an in depth view on the determinants of health affected by the proposal, enabled to understand pathways and prioritise impacts.

Decision making

Decision making took place only in case of one prospective assessment aiming to influence local decision making to postpone eviction of a Roma community and find alternative housing solutions to tackle their situation.

Evaluation

Evaluation was carried out in addition to one retrospective local HIA (Hencida). In addition, independent evaluation of another local housing project (Kiskunhalas) took place in order to strengthen evidence on the impacts of housing development aiming at Roma.

4.3. Methods of health impact assessment on Roma housing initiatives

4.3.1. HIA of housing policies and programmes in Central and Eastern European countries

Context of HIAs

Health impact assessments were carried out in the frame of an EU-funded project titled 'Health Impact Assessment in New Member States and Pre-Accession Countries' (HIA-NMAC). The project was launched in 2005 with the aim of collecting information and building capacity related to HIA for new member states of the EU. One workgroup – led by the School of Public Health University of Debrecen – was specifically charged with the aim of conducting pilot studies on the applicability of health impact assessment in planning programmes for vulnerable populations. Four HIA case studies from 4 Central Eastern European countries (Bulgaria, Hungary, Lithuania and Slovakia three of which have also been involved in the Decade of Roma Inclusion with the exception of Lithuania) were carried out in order to integrate experiences with HIA related to Roma housing policies and programmes in these countries.

Sources and methods of data collection

Health impact assessments were carried out by the research teams of the participating countries. The leader of this work-package was the School of Public Health of the University of Debrecen. The author participated in coordinating research, leading project meetings, preparing methodological guidance, summarizing results and preparing the project report. Methods of the assessment used in the case studies are summarised in Table 2. Methods of the local HIA in Hungary (Hencida) are detailed later, in an individual chapter.

Table 2 Applied methods of HIA in the participating CEE countries

Intervention	HIA type	HIA timing	Data collection techniques	Interviewees / informants
National housing programme (Bulgaria)	Standard	Concurrent	Structured interviews (7 topics) Focus groups Document review	Representatives of national Roma NGOs, Ministry of Regional Development and Public Works, Ministry of Labour and Social Policy, Ministry of Finance, Ministry of Health, Sofia municipality, health professionals (15 persons) Roma representatives of civil organisations, workers of Sofia municipality, members of the Association of the Municipalities in Bulgaria HIAs on previous housing projects, policy documents on the programme, literature on housing and health
National housing policy in (Slovakia)	Standard	Concurrent	Interview Focus group Document review	Members of the National Council (parliament) of Slovakia, public health experts of the Faculty of Health Care and Social Work of Trnava University, experts of the Regional Institute of Public Health of Trnava Region, Roma representatives of national Roma organisations Health professionals, Roma representatives of local Roma organisations HIAs on previous housing projects, policy documents on the programme, literature on housing and health
Municipal housing programme (Vilnius, Lithuania)	Standard	Concurrent	Field visit Interview Questionnaire (29 items) Document review	Vilnius Kirtimai Roma Community Centre; Kirtimai community Experts of the Department of National Minorities and Lithuanians Living Abroad under the Government of Lithuania; president of the Roma NGO 'Gypsy Fire'; leaders of Vilnius Municipality and relevant departments and divisions responsible for the Programme implementation; Centre of Ethnic Studies, Institute for Social Research; Human Rights Monitoring Institute; Lithuanian Children Fund; Ombudsperson of the Office of Equal Opportunities Families with small children living in Kirtimai HIAs on previous housing projects, policy documents on the programme, literature on housing and health
Local housing project (Hencida, Hungary)	Comprehensive (standard + evaluation)	Retrospective	Field visit Interview Questionnaire (42 items) Document review	Hencida, Hajdú-Bihar county Mayor of Hencida, president of Hencida Roma self government, coordinator of the project, vice director of the local school, field workers of the local child help service and the local family help service, director of the kindergarten, general practitioner of the village, district nurse, 5 members of beneficiary Roma families Adult members of 17 beneficiary families HIAs on previous housing projects, policy documents on the programme, literature on housing and health

4.3.2. HIA of a housing project versus eviction of a Roma community in Debrecen

Context of HIA

The HIA was initiated by the research team of the School of Public Health of the University of Debrecen who became involved in this process during an environmental survey of Roma colonies in Hungary between 2000 and 2005. Two colonies in the second largest city of the country (Debrecen) were identified; the first identified community comprised 70 people (including 25 children) who were invited to enter a pilot community development project. Two years into the project, the local government – owning the houses in which the community had been squatting for more than a decade – filed and won a lawsuit that would permit eviction of the community from these buildings. They would then be placed on a waiting list for subsidised social housing although with no guarantee of when this would be available or whether the community would remain intact. The HIA was launched following the commencement of the legal procedure for eviction in 2005 to investigate the possible impact of two possible scenarios: eviction of the community or implementation of a housing project. The HIA was embedded within the community development project involving a broad partnership that included the School of Public Health of the University of Debrecen, several statutory agencies and non-governmental organisations, and the Roma community itself.

Sources and methods of data collection

Data collection was iterative, with qualitative and quantitative data collected during visits to the community, focus groups and in semi-structured interviews with community members and professionals. Workshops were conducted with members of the Roma community, who were fully involved in the design of the project; public health professionals working in the area, statutory and non-statutory support organisations (local family help service and child protection service), and teachers in the kindergarten and school attended by children from the community. The general practitioner caring for the community and the local government area representative were also interviewed.

Quantitative data on community members were collected by means of interviews, with questions on demography, education, employment, income, health behaviour and health status. The questions, adapted for face-to-face administration to address the needs of

illiterate community members were based on items from the Hungarian National Health Behaviour Survey and included the Beck Depression Scale and Antonovsky's Sense of Coherence scale. Qualitative data were collected by means of in-depth interviews, community meetings, focus groups, participatory observation and thought experiments (e.g. drawing of life scenes) that would yield insights into the community's opinions on potential changes in their lives in the event of different future scenarios.

4.3.3. HIA and evaluation of a housing project in Hencida

Context of HIA

In the framework of the previously described HIA-NMAC project, the Hungarian case study investigated the health impact of a national housing programme for Roma at one location (Hencida). The retrospective HIA was carried out after the end of the housing project in Hencida in 2007. Outcome evaluation of the Hencida project was carried out 4 years after the end of the project and 3 years after the above described retrospective HIA, in order to assess long term health impacts of the project, and judge the accuracy of the predictions of the HIA.

Sources and methods of data collection

Retrospective health impact assessment

Structured and in-depth interviews were conducted in person and in some cases by telephone to assess health consequences of the local project. Information was collected from stakeholders such as the mayor and members of the municipal government; the president and members of the local Roma self-government representing the local Roma community; the director of the local school which Roma children of the village attend; the general practitioner and district child nurse of the district primary health care office that services all inhabitants of the village; professionals of the family and child help services of the village; and the local project coordinator delegated by the Ministry responsible for implementation. Questions were related to short-term impacts of the project as well as management issues, that is, the process of project planning, capacity building, budgeting, involvement of the Roma community and communication between stakeholders. The interviews provided new qualitative information on the actual situation even for local stakeholders since ethnicity is not registered either in school, health or social care.

Additional data was gathered from different sources such as documents on the national programme and the local project in Hencida; policy documents and research papers on Roma were also reviewed. Evidence on the health impact of housing was reviewed in the scientific as well as grey literature from previous HIAs on housing development.

Outcome evaluation

Structured interviews with stakeholders were carried out repeatedly; in addition, the mentor responsible for implementation delegated by the Ministry and the regional public health official of the National Public Health Service were also interviewed. Questions were focused on long term impacts and sustainability of the project four years after the implementation. Quantitative data were elicited from the GP and the district child nurse, professionals of the village family and child help services, the directors of the school and kindergarten, as well as the mayor. With the exception of data on disability pension, no baseline data from 2005 on the health status of the beneficiaries could be elicited from the project documentation or the GP.

An environmental survey was carried out to assess physical changes of the colony and its houses. The survey tool was identical to the one used in a previous environmental health survey of segregated habitats that was carried out at Hencida in 2001¹⁰⁷.

A questionnaire survey was conducted to gather information from the beneficiary families who were relocated from their previous dwellings. Adult members of nine of the 12 families were questioned. One family dropped out of the project, two families were not found in their homes three times during the field research, due to fears from 'officials' as reported by neighbours. The questionnaire consisted of 42 questions on socio-economic, living and housing conditions and health status. Respondents had to assess their situation before and after the project. Five Roma beneficiaries living at 5 different streets whose houses were renovated outside were also questioned.

Additional data were gathered from documents on the national programme and from the governmental evaluation of the project in Hencida. National databases were used to gain basic demographic and socio-economic data on the inhabitants of the village.

4.3.4. Evaluation of a housing project in Kiskunhalas

Context of evaluation

The housing project was initiated by the head of the Family Help Service of Kiskunhalas, a small town of 30,000 inhabitants approximately 10% of whom belong to the Roma minority. The project was implemented in 1996-97 with the aim of building affordable houses for the most disadvantaged families with small children. Evaluation of the housing project was launched by the researchers of the School of Public Health who learned about the project at a field visit in 2005. Long term evaluation of the project was carried out in 2010 with the additional aim of identifying those factors that were responsible for the success of the housing initiative. Results of the evaluation contribute to the evidence base of HIAs regarding impact of housing projects for vulnerable populations.

Sources and methods of data collection

Evaluation of the project was carried out in two phases. An in-depth interview was carried out in 2005 with the initiator and coordinator of the project, the head of the local Family Help Service who has also been coordinator of a community development project involving the beneficiaries ever since. Houses and families were also visited to collect information from beneficiaries and gain personal impressions on the housing development. Another interview with the coordinator of the project was conducted in 2010, and all remaining 17 of the 20 original beneficiary families were approached to ask them to participate in semi-structured interviews. Questions focused on socio-economic, living and housing conditions, as well as long term impacts and sustainability of the project aiming to gain quantitative and qualitative data. Adult members of 10 of the 17 families consented to participate. A third in-depth interview was conducted with the coordinator, and beneficiary families were interviewed in Kiskunhalas in 2011. Additional data were gathered from project documentations and media reports.

A summary of methods used for the assessment of local housing projects are presented in Table 3.

Table 3 Types of assessments used in the various local HIAs and evaluation

Policy/Intervention	Assessment			
	Type	Timing	Method of appraisal	Data collection techniques
Eviction versus housing for a deprived Roma community, Debrecen 2006	Rapid appraisal	Prospective	Qualitative	Field visit Physical examination Beck Depression Scale & Antonovsky's Sense of Coherence Interview (stakeholders, beneficiaries)
Roma housing project in Hencida 2007, 2010	Comprehensive HIA	Retrospective	Qualitative	Field visit Interview (stakeholders, Roma representatives)
	Evaluation		Qualitative and quantitative	Environmental survey Interview (stakeholders, beneficiaries) Questionnaire survey (beneficiaries)
Roma housing project in Kiskunhalas 2010-2011	Evaluation	Retrospective	Qualitative and quantitative	Field visit Interview (stakeholders) Questionnaire survey (beneficiaries)

5. Results

5.1. Health impact assessment and evaluation of Roma housing initiatives aiming at Roma

5.1.1. HIA of housing policies and programmes in Central and Eastern European countries

Policy description

Two of the countries (Bulgaria and Slovakia) participating in the HIA-NMAC project carried out concurrent HIAs of ongoing national level housing policies and programmes, whereas Lithuania – not having a national housing policy for Roma - completed a concurrent HIA of a programme at municipality level. Hungary launched a comprehensive national programme in the framework of the Decade of Roma Inclusion to improve the quality of life in segregated Roma habitats in 2005. The Hungarian case study included a retrospective HIA and evaluation of this programme at one location (Hencida), the results of which are presented later in an individual chapter, and here only characteristics of the national programme are discussed. Description of the national level policies and programmes are summarised in Table 4.

Table 4 Description of the national policies/programmes

Programme / Responsible agency	Aims	Beneficiaries (No. of communities & people)	Duration	Budget
'National Programme for Improvement of the Living Conditions of Roma in the Republic of Bulgaria' ¹⁵⁶ (Bulgarian Council of Ministers 2004)	<ul style="list-style-type: none"> • Infrastructure developments in Roma neighbourhoods • Finding alternative locations for some settlements • Building new low-income housing from the state budget (30,065 new houses) • Changing the spatial development of segregated Roma areas. 	412,500 people (approximately 85,900 households), living in 100 neighbourhoods in 88 towns.	2005-2015	600,300,000 euro
'Long-term Housing Concept for Marginalised Groups of the Population and its financing Model' ¹⁵⁷ (Government of the Slovak Republic 2005).	<ul style="list-style-type: none"> • Construction of low income housing • Facilitation of renovation, • Legalisation of existing settlements & clarification of property issues 	Roma people in Slovakia	2005-2015	360,000,000 euro
'Programme for Vilnius Roma Community and Maintenance of Territories near the Tribe and Safety Insurance and Reduction of Roma Segregation' ¹⁵⁸ (Council of Vilnius City Municipality, 2005).	<ul style="list-style-type: none"> • Ensure safety of territories at the Vilnius Kirtimai community and around it • Reduction of Roma segregation • Prevention of drug and psychotropic substance abuse 	511 persons (Kirtimai community)	2005-2010	636,730 euro
'Housing and social integration programme of Roma colonies' ¹⁵⁹ (Hungarian Ministry of Youth, Family, Social Affairs and Equal Opportunities, 2006)	<ul style="list-style-type: none"> • Improve housing conditions • Improve access to educational, social and health care of Roma living in colonies in nine rural settlements 	Roma communities of 9 settlements (11.415 inhabitants) invited to apply for funding 4.492 Roma people of 1.012 colony households	2005-2006	2,615,000 euro

Screening was carried out to investigate features of the chosen programmes debating the probability, direction and magnitude of health impacts on Roma communities in terms of main health determinants. The preliminary analysis of programmes identified three main categories of interventions, namely, administrative measures, housing development and supplementary measures targeting lifestyle, employment, education and access to services as described in Table 5.

Table 5 Results of screening: Actions and measures of national programmes in light of their health impacts

	BGR	LTU	HUN	SVK	Probability of health impact ¹	Direction and magnitude of health impact ²
Administrative measures						
Legalisation of existing settlements	✓			✓	possible	+
Clarification of property issues			✓	✓	possible	+
Preparation of detailed layout plans for the subsequent housing construction	✓	✓			possible	+
Designation of lots for housing constructions				✓	possible	+
Definition of principles concerning allocation of dwellings				✓	definite	+++/-
Infrastructural development						
Construction of new dwellings (rental housing, social housing)	✓	✓	✓	✓	definite	+++/-
Renovation of existing dwellings	✓	✓	✓	✓	definite	+++/-
Construction/development of technical infrastructure	✓	✓	✓	✓	definite	+++/-
Supplementary measures						
Education and training		✓	✓		definite	+++
Complete and partial employment		✓	✓		definite	++
Health care, social care and support	✓	✓			definite	+
Prevention of crime, drug and psychotropic substance abuse		✓			probable	++

¹Likelihood (definite/probable / possible / speculative)

²Direction (*positive / negative*)

Magnitude/severity (low, medium, high = +, ++, +++/-,--,---)

As a result of screening, administrative measures built on clearly defined principles concerning allocation of dwellings and selection of beneficiaries were considered as a precondition for housing developments with indirect positive impacts on health determinants. In addition, infrastructural developments were predicted to have direct positive effects on health with some uncertain consequences, such as the impact of increased expenses, worthy of further assessment. Supplementary measures aimed at the improvement of various socio-economic, lifestyle and other determinants were expected to enhance the positive health effects.

Due to differences in selected policies in terms of measures and administration levels, a quite broad spectrum of determinants was designated for detailed assessment by the participants. The main categories of determinants for risk appraisal were identified to be indoor and outdoor conditions, socio-economic determinants, access to and quality of health services, and lifestyle.

Appraisal of health impacts

Lifestyle

Case studies have not found explicit connection between improved living conditions and change of risk behaviour, such as smoking or alcohol consumption though alcohol abuse was reported as widely distributed in the Kirtimai community of Vilnius. Due to targeted measures aiming at the reduction of drug use in case of the Lithuanian policy, drug abuse and related health consequences will probably change for the better. Certain beneficial health effects on nutrition can be predicted due to better cooking and storage conditions. Coping with stress is predicted to improve due to adequate living conditions, which consequently results in advanced mental health^{100,103}.

Socio-economic environment

Individuals of higher socio-economic status are healthier and live longer than those of lower status. This holds true regardless of whether income or education are used as indicators of socioeconomic status^{58,160,161}. Therefore, any intervention that has an impact on education, income or employment is likely to have an indirect impact on health.

Education. Inhabitants of segregated settlements are much less likely to have completed primary and especially secondary education due to the above mentioned geographical isolation and difficulties in accessing urban centres, low quality segregated schools with inadequately qualified staff, and other factors, for example difficulties doing homework because of lack of electricity, crowdedness, etc¹⁶². In the Lithuanian HIA, the social environment of Roma children, namely the unemployment and illiteracy of parents, big families and poor living conditions were identified as main factors which hinder school progress of children. School attendance is expected to be improved among children with easy access to school. Performance can be predicted to improve if conditions for studying at home improve based on earlier studies showing positive relationship between housing conditions and improved intellectual capacity in childhood¹⁶³.

Employment. Adults living in segregated housing sites have difficulties to find work locally, fewer opportunities to learn about potential work, and limited access to public transport to get to work. There are even examples of employer discrimination based on the permanent address of the candidate, that is, the rejection of people who live in certain neighbourhoods

as a group¹⁶⁴. Improved housing may improve access to urban centres and more frequent use of means of public transport through which increased employment and probable improvements in health may be predicted. In addition, work opportunities can be created during the housing project for adult beneficiaries.

Income. Increased income has an indirect positive impact on health. However, income is necessarily linked to employment and should be taken into account when selecting beneficiaries for housing projects. Household maintenance requires a certain level of disposable income: the higher the quality of the home with more utilities, the higher the expenses. Improvement in housing may bring negative consequences for very severely deprived and/or unemployed families with very low income as housing expenses are predicted to increase after a housing development project¹⁰³. Sustained improvements in health can be expected only if the income of beneficiary households is commensurate with the increased expenses of home maintenance.

Social network and inclusion. Discrimination and racial harassment against the Roma community fundamentally determine their well-being in housing development projects. Desegregation and inclusion might be facilitated either by relocating Roma families to neighbourhoods in which the majority of inhabitants are non-Roma, or by encouraging non-Roma to move to areas with predominantly Roma people¹⁶⁴. Housing projects are expected to have positive impact on occurrence and fear of crime with important benefits for mental health, physical functioning and quality of life^{165,166,167}. Housing development potentially results in numerous additional beneficial health effects through strengthened social network and emotional safety, which may reduce stress¹⁶⁸. Improved conditions of leisure and recreation were also found to have beneficial effects on coping with stress¹⁶⁹. All these factors may lead to improved mental health and a greater sense of security and belonging, which increase the social capital of the community resulting in lower rates of ill health and mortality^{170,171}. However, in case of relocation to a new area, mental health can also deteriorate if the accompanying stress and loss of community are not addressed by the establishment of new social ties¹⁷².

Physical environment

Indoor conditions. Improved housing conditions have important benefits on health status. Bulgarian and Slovakian stakeholders identified improved physical environment as having the greatest potential impact on health status of the population. Housing circumstances along with territorial safety were listed in Lithuania as major issues. Adequate indoor air quality, temperature and lack of dampness have positive health consequences in terms of cardiovascular, malignant and respiratory diseases, particularly among children and elderly people^{172,173,174}. Decreased crowdedness, elimination of rodents and parasites may contribute to a decreased rate of infectious and allergic diseases, as well as improved mental health^{175,176}. Improved housing design is expected to improve safety and decrease the number of accidents at home. Burns were mentioned as a frequent type of injury in Lithuania, and housing with central or well-constructed local heating as a main concern for beneficiaries. Indoor electricity and safe domestic appliances may reduce burn accidents due to the use of inflammable substances for cooking and lighting¹⁷⁷.

Outdoor conditions. Segregated and/or substandard housing complexes, in many cases, can be recognised by their unsightly characteristics featured by illegal waste dumps, abandoned cars, or broken windows^{178,179}. Properly designed housing projects address these problems as well: soil and water quality will be improved due to decreased industrial pollution, whereas human and animal contamination will decrease due to installation of public sanitation and sewage draining systems. Rehabilitation of urban centres or removal of communities from industrial areas may have beneficial impact on air pollution and road traffic accidents. Community respondents of the Lithuanian HIA wanted to get houses on the outskirts of Vilnius, which provides a better quality of living environment, increased level of safety and health with its planned settlement structure with safer road network and green spaces

Access to and quality of services

One reason, among others, for the inadequate access of Roma to health care is their geographical isolation and/or lack of proper roads on the margins of urban settlements or in remote rural areas¹³⁰. Positive impact on the access to health services subsequent to housing development can be due to easier contact with helping agencies, more frequent contact with GPs, and improved conditions for house calls. Improved physical access to urban

centres will facilitate access to other public services as well, such as educational and administrative facilities, fire service, police, etc. In Lithuania, Roma children more often rated their health as poor contrary to other Vilnius school children, though there were no differences between Roma and non-Roma children in terms of the frequency of seeking primary care. However, housing improvement alone may not increase health care access as cultural factors also play a significant role¹⁸⁰. Many mothers in the Kirtimai community treat their children by traditional methods distrusting medical care such as intravenous injections, cardiogram and medical equipments. Pregnant Roma women try to avoid hospitals for delivery. A specific concern on compensation of household fuel expenses was also raised by the Lithuanian HIAs. Though monetary support is provided by law for families with low income, only 14 families of the Kirtimai Roma population have received compensation for fuel, while the majority of them could not provide the legally required documents (including the proof of tenureship and certification of property in the Land Register).

In summary, the concurrent HIAs of housing interventions aimed at Roma at the strategic or programme level in 3 Central-Eastern European countries demonstrated numerous positive and some negative health effects. Positive impacts were predicted in terms of indoor and outdoor living spaces as well as access to services. Positive impacts were estimated regarding socio-economic determinants such as employment, education, social networks, and housing satisfaction. Uncertain (positive or negative) effects were predicted only for housing tenure, expenses, and social networks.

5.1.2. HIA of a housing project versus eviction of a Roma community in Debrecen

Community profile

Debrecen is the second largest city of Hungary with approximately 208 000 inhabitants¹⁸¹ of which 8–9% is estimated to belong to the Roma minority¹⁸². The community in question consists of 15 families (70 people, all identifying themselves as Roma) living in a segregated location in one of the industrial zones of the city. In total 29 (42%) members of the community are male and 25 (36%) are <18 years of age. Over half (53%) of the adults served at least one term in jail. Ten of the families constitute an extended family network, and three others are more distant relatives. There are some internal conflicts, related to heavy alcohol consumption by some members and usury.

The houses in which the families are squatting (one of the 15 families are legal tenants) are owned by the municipality and once served as temporary dwellings for workers in a nearby, now defunct brick factory. The community moved into the derelict houses several years ago (in the case of one family, 20 years ago), and the buildings have long been registered as each individual's permanent address by the city authorities. Until September 2005, the municipality had made no attempt to reclaim the houses or evacuate the community from these dwellings.

The settlement can be found in an undeveloped industrial zone and lacks paved roads. It was difficult to move around after rain because of the deep mud. Of the 15 families, 13 have more than 4 members. In total, 13 families live in houses with one room and 2 in houses with two rooms. The buildings are uninsulated, leaking and often damp. Their whitewashed walls are repainted occasionally by their inhabitants. There are no door-locks. Only the tenant family has an electricity supply, none have piped water; instead, water is obtained from a communal pump. The area has no sewage system, and there is no rubbish collection. The entire area is infested with rodents and insects, and characterised by rubbish deposits scattered among animal shelters (pigsty, henhouse, kennel) that are adjacent to the houses.

Only 65% of the adults completed primary school (8 years of education), and 31% of those aged over 14 years are functionally illiterate. No-one in the community is in permanent employment but some do obtain temporary jobs. Many derive some income from scavenging for scrap metal and cardboard. All families receive social benefits, but 50% have a family income (average family size five people) of less than 55 euro/month (average monthly income for the mainstream population in Hungary is 655 euro).

Statistical tests of significance are of little value because of the small numbers involved, but the health of the community compares in all respects extremely unfavourably with that of the majority Hungarian population. Furthermore, it is relatively poor even when compared with other Roma colonies: 28% of adults have longstanding limiting health problems compared with 21% of those in a representative survey of Roma colony dwellers in Hungary¹⁰⁷. There is a high frequency of childhood illnesses, especially respiratory, gastrointestinal and skin infections. Injuries are common, including scalding and rodent bites (two children in the past year). In all, 88% of adults smoke, again, much higher than those

living in Roma colonies in general, where the total prevalence was found to be 62%, 50% of adult community members are depressed according to the BDS, compared with 27.3% in the Hungarian population¹⁸³.

Description of alternative scenarios

The HIA aimed to investigate the health effects of a proposal by a local government to evict a Roma community from their dwellings. This was a highly contested move on many grounds. One of these was a concern about health. On the one hand, the housing was seriously substandard with few facilities, so it was argued that any realistic alternative would contribute to better health. On the other hand, there were concerns that eviction would disrupt social networks that support this community. Furthermore, any alternative would not necessarily be better for health.

In consultation with the community and relevant officials, two possible future scenarios were identified. The first, eviction, involved simply removing the community from its current buildings and, owing to a shortage of social housing in the city, placing families on the waiting list for social housing (henceforth labelled “eviction”). However, this would also be expected to lead to some of the children being taken into care, at least temporarily, while their families would become homeless. The second envisaged the creation of a new housing project either on the same site or elsewhere, that would maintain the coherence of the community (henceforth labelled “housing project”). However, the latter would obviously be more expensive, requiring a combination of bank loans for eligible families with small children as well as contributions by the city government, the national government and private funders. Thus, it was considered important to inform the debate by comparing the health impacts of each approach.

Appraisal of health impacts

The HIA identified numerous positive health effects and some uncertain and probable negative effects of the proposed housing project versus eviction. The findings reflect a substantial consensus among those consulted, and are consistent with the research evidence. Interventions to improve housing frequently do result in health improvements, although the precise contribution of better housing, which is often only one part of a regeneration intervention, cannot always be established with certainty¹⁸⁴. The potential

effects on health of the two scenarios (eviction and implementation of a housing project) are presented in Table 6.

The HIA also provides evidence that, save in exceptional circumstances such as the appearance of significant funding that would make possible greatly improved alternative accommodation, eviction offers no concrete benefits for the health of the community involved. The only significant beneficiary is the city government which, by evicting this community, can reclaim its property and will be able to transfer much or all of the cost of its social support to other municipalities or to the national government. However, eviction would maintain or even aggravate disadvantage of the Roma community, now and potentially in future generations. Table 7 presents the expected consequences of the two scenarios for the various organisations with an interest in this issue.

Table 6 Assessment of the impact of the two alternatives (eviction or housing project) on the community

Effects of eviction		Effects of housing project
Health status and health behaviour		
Positive effects	Nutrition: improved for children taken into social care	Nutrition: improved because of better cooking and storage conditions Chronic diseases: halt or slow down the progress of respiratory diseases Acute diseases: decreasing prevalence of respiratory and gastrointestinal diseases Injuries: decreased incidence Mental health: improved
Uncertain /negative effects	Chronic functional limitations: uncertain Smoking, alcohol consumption: no change Nutrition: deterioration for families becoming homeless Acute diseases and injuries: no change or increase related to unfavourable indoor conditions Chronic diseases: increasing severity Mental health: Adults and children in families: increased stress, impaired mental health, social isolation; increased risk of aggressive/antisocial behaviour Children taken into social care: increased stress, possible attempts of escape from social care; school performance may deteriorate for some	Chronic functional limitations: no change BMI, smoking, alcohol consumption: no change
Physical environment		
Positive effects	Improved housing conditions for children taken into social care	Indoor conditions: improved air quality, reduced damp, mould and dust mite allergens; disappearance of rodents and parasites; increased temperature and warmth; decreased overcrowding; indoor access to electricity, water
Uncertain /negative effects	Risks related to homelessness if no accommodation is found Increase in overcrowding if families move in with relatives, probably in rural areas Housing conditions most likely will be similar or worse than at present	Outdoor conditions: access to housing, rubbish deposit, animal shelters is uncertain

Effects of eviction		Effects of housing project
Socioeconomic conditions		
Positive effects	Education: increased chance to finish primary school for some children taken into social care	Education: increased chance to finish primary school, vocational training/higher education for school-leavers Employment: increased chance Income: increased probability of finding permanent work Social network: increased sense of community if families are relocated together
Uncertain /negative effects	Education: reduced chance for children of families becoming homeless or having to relocate to another city/village Social network: breakup of families from which children are taken into social care; breakup of community, reduced social support Criminality: increased Employment: decreased chance for finding even temporary employment Income: reduced in families from which children are taken into social care and in families becoming homeless with no address	Literacy: no change Social network: community can break up if not all families benefit from housing; racial discrimination might be experienced depending on the new social environment; loss of Roma traditions upon assimilation/integration into the majority Criminality: uncertain Expenses: increased related to housing overheads

Table 7 Assessment of the impact of the alternatives of eviction or housing project on the agencies involved

	Effects of eviction	Effects of housing project
Support organisations		
Local public health service	Community project comes to an end, environmental health danger eliminated	Continued work with community; environmental health danger eliminated
Local primary school	50% of children will leave school	Children stay in school
Local kindergarten	100% of children will leave kindergarten	Children stay in kindergarten
Family help service	Community leaves, other families will be taken up for care	Will continue service
Child help service	Community leaves, other families will be taken up for care	Will continue service
Decision makers		
National government		
Services	None	None
Benefits	None	None
Shortcomings	None	None
Direct expenses	52 000 euro per year (calculated by using expenses of social care and social benefit for 13 children in social care)	Overhead support payment 3300 euro/year to 15 families
Indirect expenses	40% of children do not finish primary school, half of them will have children and will be living on benefits	10% of children do not finish primary school, half of them will have children and will require benefits
Municipal government		
Services	Service and benefits must be provided to persons in worse mental and physical condition, probably by other municipal governments at other locations	Service provision and benefits maintained
Benefits	Repossession of territory, possible income from sale to developers	Project can be used for evaluating effectiveness; can provide model for other communities
Shortcomings	Hostility from the evicted community; loss of children and associated financing of local school and kindergarten	Project can serve as precedent for other communities; request for social housing from other disadvantaged groups
Direct expenses	Costs of eviction (~1300 euro)	Social benefit to 15 families (25 215 euro/year); overhead support payment to 15 families (396 euro/year)
Indirect expenses	40% of children do not finish primary school, half of them will have children, will require benefits	10% of children do not finish primary school, half of them will have children and will require benefits

5.1.3. HIA and evaluation of a housing project in Hencida

Policy background

Hungary has various governmental decrees aiming at the integration of Roma since 1997. A programme on Housing and Social Integration was adopted in 2005 reflecting the country's commitment to the Decade of Roma Inclusion¹⁵⁹. The objectives of the programme were twofold: to improve housing conditions and social integration through improved access to

education, employment, social services and health care for those living in segregated areas. The first step of the programme was implemented through a governmental call for tenders inviting nine rural municipalities to apply which had large colonies in appalling conditions, Hencida being one of them.

Community profile

The village of Hencida is located in a North-Eastern county of Hungary in the Berettyóújfalu district, a highly disadvantaged area of Hungary in terms of socio-economic development. The village has 1325 inhabitants; the dependency ratio is more than 45%, well above the county average. The unemployment rate is 14%, nearly double the national average (among men 63%), of whom more than 26% are skilled workers and 74% are unskilled. This village was chosen for our case study based on previous results of an environmental survey of segregated habitats of Roma in Hungary that identified Hencida's Roma colony as one of the most disadvantaged based on the severity of unfavourable environmental and housing conditions¹⁰⁷. 2 segregated colonies existed within the village of 1318 inhabitants in 2001, giving home to 6.6-7.5% of the local population, all Roma.

Project description

The municipal government was invited to propose and won a project with a budget of 224,000 euro to improve the conditions of the colonies and the quality of life of its inhabitants in 2005. The municipal government planned and carried out the project supported by a mentor and a project coordinator delegated by the Ministry of Social Affairs for the duration of the project. Roma were included in the project through the representative of the Roma self-government during the planning of the project. 12 families who had lived in life-threatening conditions were relocated to other houses 10 of which were existing houses purchased and remodelled from the project budget, whereas 2 new houses were built from the owners' money and project support. Selection of the beneficiaries for relocation was based on two principles: living in a house of life-threatening conditions, and families be legally documented owners of their house. Property rights to the remodelled houses were based on barter contracts (8 houses) or rental contracts (4 houses). In addition, 46 families had their houses renovated, mainly from the outside. Water pumps were installed in the gardens of 10 houses. Public places were renovated, fifty trees were planted. Streets were restored and pavements were built in 1.2 km length. Drainage ditches

were constructed and existing ones were cleaned. Information technology infrastructure was developed in the primary school. 84% of the Hencida project budget was spent on housing approximately half of which was used for remodelling 46 houses, the other half for relocation of 12 families and rehabilitation of the settlement. 8.2% of the budget was allocated for management; 6.2% of the budget was spent on employment expenses mainly covering the employment of Roma public workers. 1.6% of the project budget was allocated to the local school for improving information technology. Subsequent to the project, a school integration programme was implemented and financed by the Roma Education Fund including several activities: assigning mentors to pupils, after school programmes, day-school and increased school supplies.

Appraisal of health impacts (HIA)

Lifestyle

No connection between improved living conditions and changes in risk behaviours such as smoking or alcohol consumption could be proven. Better cooking and storage conditions did not result in unequivocal improvement in nutrition. Roma representatives in Hencida reported decreased stress and improved self-esteem among beneficiaries which may indirectly improve their mental health.

Socio-economic determinants

Housing tenure and satisfaction. Secure status in terms of housing ownership or tenancy was perceived by the beneficiaries, promoting improvement of mental health for both parents and children.

Social networks. The selection of beneficiaries and property issues (who gets what and why others not) generated substantial debate and dissatisfaction among participating Roma families as well, deteriorating family and social relationships. Even the president of the Roma self-government was heavily lobbying for including one of his family members as beneficiary which led to the exclusion of this family from the project. Some non-Roma citizens in Hencida complained that Roma undeservedly benefited from the project. Positive impact on the occurrence and fear of crime notably benefiting mental health, physical functioning and quality of life was not reported.

Education. School attendance and performance improved in the short term among Roma children, supporting the positive relationship between housing conditions and better cognitive capacity in childhood.

Employment, income, expenses. In terms of income, adult male beneficiaries were employed resulting in increased income during the housing project but their employment was terminated at the end of the project.

Outdoor conditions

Soil and water quality possibly improved due to removal of garbage deposits and weeds from public places. The beneficial effects of public sanitation and sewerage could not be predicted since this was neither available nor planned anywhere in the village. Safer roads and beautified green spaces with trees provided a better living environment and increased levels of safety.

Indoor conditions

Improved indoor air quality, better cooking facilities, reduced dampness, allergens and crowding, instalment of running water and covered cesspools as well as increased privacy could be predicted to improve health status and decrease the number of home accidents. However, this latter prediction was not supported: two children of a family living in a renovated house were heavily burnt one of whom died because of inefficient child supervision while using the stove.

Access to and quality of health services

Positive impact on access to health services such as more frequent contacts with general practitioners and improved conditions for house calls did not happen after the improvements to homes according to the interviews after the end of the project.

Outcome evaluation

Long term effects and sustainability of the results of the housing project were evaluated 4 years after the end of the project. Previous results of the environmental survey from 2001 made it possible to compare changes in terms of environmental and housing conditions of the Roma colonies. Basic demographic and environmental characteristics of the community of Hencida are summarised in Table 8.

Table 8 Demographic and environmental characteristics of the population of Hencida

	2001	2010
Demographic and environmental characteristics		
Number of inhabitants	1318	1325
Number of Roma	88 (6.6%) ¹ 51-100 (7.5%) ²	600 ³ (45%)
Number of Roma colonies	1 colony in severely substandard condition	Roma moved to inner streets of the village before the start of the project. Roma houses are now scattered in the village and can be found in every streets (4 streets: mainly Roma dwellers)
Number of houses	31	108
Water mains	Not available at the colony	Available for all
Electricity	Available at the colony	Available for all
Gas mains	Not available at the colony	Available in 70% of the village houses
Sewerage	Not available in the village or at the colony	Not available in the village
Garbage deposit	4 designated, 13 illegal sites at the colony	No designated deposit in the village
Carcass deposit	1 deposit near the colony	No designated deposit in the village
Waterlogged area	Several streets in the colony	One street in the village
Access to paved road in 30 minutes	Accessible	Paved roads except 2 streets
Access to public telephone	Accessible	Wired telephone system/high speed internet in the village
Housing conditions		
Houses	Built wall without insulation	Built wall without insulation (adobe) 30% Built wall with insulation 70%
Piped water	Not available at the colony	Accessible in some gardens
Electricity	Available in the houses	Available in the houses
Heating	Heated stove in one room	Heated stove in one room
Toilet	Outhouse	Outhouse

¹ census² according to the Roma minority self government³ according to the local government

Table 9 presents the long-term outcomes of the 12 relocated families of Hencida. Major impact of the housing project seems to be on education inasmuch as the number of persons completing primary school increased. However, it is uncertain to what extent this can be attributed to the housing project itself or to secular trends. School attendance enhanced during the project but shortly after the termination of the school integration programme, irregular attendance of the primary school became a key problem in a family of eleven members resulting in an administrative legal case. Two school-age children of this family were withheld in school to repeat the year due to truancy.

In order to increase the employment of Roma people in the project, a Roma building contractor without reference work in social housing was charged with constructing houses

and roads. However, beneficiaries' employment was terminated at the end of the project so there was no major long term impact on their employment status or income. Overhead expenses related to the relocation increased. Several negative impacts on social network could have been identified. Serious debates have been raging within the Roma and non-Roma communities alike regarding the merit of the selected families and why others were left out. Of the 12 families selected for relocation, one family sold their house without permission from the local government (a condition for inclusion), and heads of two other selected families were sentenced to prison because of robbery and violence.

Indoor conditions improved right after the project; though these improvements were not sustained. The interviewees claimed to have carried out repair works on their houses, but the researchers visiting the families saw deteriorated plaster-works and cracked walls in most of the houses; roofs with missing tiles, missing chimney in one and missing fences in another house. The presence of rodents was reported by one family. Though crowdedness seemed to have improved in the new locations, most families keep heating only one room and still tend to gather in that room during wintertime. According to majority stakeholders, Roma could not preserve the condition of their houses due to the lack of commitment and knowledge of how to do it. What can be known is that the building contractor offering the lowest budget had been chosen by the village-self government for building and construction works. This contractor later on was reported to employ project workers in other profit-oriented ventures and enter into secret deals with the families so as not to provide the housing quality he was supposed to produce. Quality control of the construction work was carried out but no written track of it was found. An official investigation against this contractor was reported to be currently ongoing. Based on the available information, it is impossible to decide to what extent the above listed problems could be attributed to low quality building materials and work procedures and/or to improper maintenance.

Most beneficiary families reported no change in the frequency of seeking medical care. Two families attributed their less frequent visits to the GP to their children growing up; whereas two other families with newly diagnosed hypertensive members reported an increased number of visits. Most families had their children vaccinated with the mandatory vaccines for children (occasionally with delays) except for one family.

Table 9 Evaluation of the long-term outcomes of the 12 relocated families of Hencida

Before the project (2005)		After the project (2009-2010)
Demographic characteristics		
Number of families	12	11 (one family was dropped out from the project)
Number of people	69	61 (4 births, 1 death, relocation)
Ethnicity	Roma	Roma
Age distribution	65% under 18 years (45 children) 35% under 60 years (24 adults)	68% under 18 years (42 children) 32% under 60 years (19 adults)
Lifestyle		
Nutrition	<ul style="list-style-type: none"> Inadequate conditions for cooking and storage, lack of kitchen, unsafe cooking stoves Improper diet: low consumption of vegetables, consumption of carbohydrate rich food, junk food, undernutrition 	<ul style="list-style-type: none"> Kitchen, cooking possibilities, oven, pantry are available No change in terms of quantity and quality of nutrition
Risk behaviour	<ul style="list-style-type: none"> At least one smoker per household 	<ul style="list-style-type: none"> At least one smoker per household Excessive alcohol consumption of the adults was reported in case of one family
Socioeconomic conditions		
Housing tenure and satisfaction	<ul style="list-style-type: none"> 12 families are threatened with homelessness Property owned by the families (precondition of participation in the project) 	<ul style="list-style-type: none"> 10 houses were demolished and owners were relocated. Debt was taken over on 2 newly built houses. Property owned by 7 beneficiary families, 4 families have rental contracts; the property of 1 left house is under legal consideration. 6 families: moderate satisfaction 3 families: it would had been better to stay at their previous dwellings
Education	<ul style="list-style-type: none"> 67% of adults completed less than 8 years of primary school 1 person completed vocational school School attendance in primary school is irregular in one family 	<ul style="list-style-type: none"> 60% of adults completed less than 8 years of primary school 32% of adults completed 8 years 1 person completed secondary school, 1 person completed vocational school School attendance in primary school is irregular in two families 2 persons were enrolled to vocational school but dropped out.
Employment	<ul style="list-style-type: none"> 4 persons (2 women and 2 men) with permanent job 3 women on maternity leave 2 persons (1 woman, 1 man) receiving disabled pension 90%: 60-80 euro/month/person 	<ul style="list-style-type: none"> 3 persons (2 women and 1man) permanently employed 2 women employed by the local government as temporary public workers 3 women on maternity leave 1 person receiving disability pension 87%: 50-100 euro/month/person

	Before the project (2005)	After the project (2009-2010)
Income	<ul style="list-style-type: none"> 10%: 140 euro/month/person 1 washing machine, 1 television and 1 bicycle in each household 	<ul style="list-style-type: none"> 13%: 100 euro/month/person Every family is eligible for regular social assistance (one or two family members) Family allowance is provided after underage/school children in 8 families, two mothers are eligible for maternal leave payment and two for nursing assistance for caring a disabled child. 1 washing machine and 1 bicycle can be found in every household as at the start of the project. Two families reported 3 televisions/household
Housing expenses	<ul style="list-style-type: none"> Mean: 10-30 euro 	<ul style="list-style-type: none"> Mean: 50-70 euro
Social network	<ul style="list-style-type: none"> Mutual support in the Roma community Traditions, cultural beliefs and attitudes Quarrels on property issues Moderate discrimination against Roma surrounded by the non Roma community 	<ul style="list-style-type: none"> Increasing inequalities among Roma – stratification, improved attitude to non Roma Quarrels mainly among relatives, Internal debates among Roma on the eligibility criteria and the amount of support Increased fear and dissatisfaction of non Roma inhabitants
Criminalization	<ul style="list-style-type: none"> No adults had or has been in jail 	<ul style="list-style-type: none"> 2 persons were in jail (robbery and violence)
Indoor environment		
Housing conditions	<ul style="list-style-type: none"> Lack of public utilities, insulation, drainage, running water; 90% of houses have electricity Dwellings are built with adobe walls, 12 in life threatening conditions Crowdedness: 6 families: 4 or more members/room 	<ul style="list-style-type: none"> Electricity in all houses; running water has not been installed in 4 of 12 houses Village houses built from adobe, 2 new houses built from bricks; two rooms, kitchen, pantry, painted wall; 5 houses with bathroom Decreased crowdedness: 2 families: 4 or more members/room
Health status and health service usage		
Disability	<ul style="list-style-type: none"> 50% limitation of 2 persons (1 woman, 1man) 	<ul style="list-style-type: none"> 50% limitation of 2 persons (1 woman, 1man)
Chronic diseases	<ul style="list-style-type: none"> Cardiovascular: 3 (hypertension: 2, thrombosis: 1, varicosity: 1) Neuropsychiatric: 5 mentally retarded children, 2 with epilepsy, 1 with brain tumour Musculoskeletal: 2 (lumbar hernia) 	<ul style="list-style-type: none"> Cardiovascular: 5 (hypertension: 4, thrombosis:1, varicosity:1) Neuropsychiatric: 3 mentally retarded children, 2 with epilepsy, 1 with brain tumour – the 2 other were taken into social care Musculoskeletal: 2 (lumbar hernia)
Infections	<ul style="list-style-type: none"> scabies, lice and impetigo due to poor personal hygiene in children of 3 families 	<ul style="list-style-type: none"> scabies, lice, and impetigo due to poor personal hygiene in children of 2 families
Injuries	<ul style="list-style-type: none"> Scalding: 1 child 	<ul style="list-style-type: none"> Fracture: 2 adults, 2 children Bicycle accident: 1 children
First visit for prenatal care	<ul style="list-style-type: none"> No data 	<ul style="list-style-type: none"> 30% before the 24th week of pregnancy, 50% between the 24th-30th weeks, 20% after the 30th week
Cervical screening	<ul style="list-style-type: none"> During prenatal care or delivery 	<ul style="list-style-type: none"> During prenatal care or delivery

Comparison of the retrospective HIA with the outcome evaluation regarding health outcomes

The predicted health outcomes of the HIA were mostly supported by the evaluation of the project four years after its completion. Improved schooling, improved in- and outdoor conditions, increased costs related to housing, and no change in employment or health behaviour (smoking or alcohol consumption) occurred among the beneficiaries of this project. Better indoor conditions, as predicted, do not necessarily result in fewer home accidents or better access to health and social care. In contrast to our HIA, improved housing did not lead to lesser crowding or improved privacy.

As it was predicted in our HIA, no unequivocally positive change in social relations was observed as a result of the project. Social network, housing and neighbourhood satisfaction deteriorated markedly. Internal strives within the Roma community centred on the principles of distributing resources and choosing beneficiaries. Disagreements between the Roma and non-Roma communities originated from similar causes since the non-Roma also questioned the principles of selecting beneficiaries, and remained unconvinced of the justification of the positive discriminatory intervention. Roma families would have preferred new locations in mostly non-Roma neighbourhoods that were opposed by their prospective neighbours. Most of the relocated families moved into neighbourhoods that were primarily inhabited by Roma.

In summary, while the housing project eliminated life-threatening conditions for the relocated beneficiaries and provided safe shelters for them, no unequivocal health improvements could be documented. In other words, it is uncertain whether any improvement in health status happened. Moderate improvements in the incidence of infectious diseases or mental health status might have occurred that could have been proven by comparing properly documented before-after data but not by retrospective data due to recall bias. If there was really no improvement in health that might have been due to various reasons such as insufficient increase in the quality of housing, no change in lifestyle, or increased stress due to social strives because of the disputed selection principles of the project.

5.1.4. Evaluation of a local housing project in Kiskunhalas

Context of evaluation

Policy background

After the political changes of 1989, employment opportunities in the town of Kiskunhalas of approximately 30,000 inhabitants shrunk, leading to an increase in unemployment mostly among employees with less schooling doing physical work, many of them Roma. Loss of employment also meant loss of housing partly due to an inability to pay the rent and bills, partly due to the municipal government's decision to sell out the social housing stock of the city at discounted prices to tenants. However, even these prices were beyond the means of most families with unemployed heads. Due to the sell-out, only 300 social housing units of the former 1,400 units remained in city property, with 6-8 units becoming available per year while the number of families applying for them increased to 70-100 per year. A governmental scheme (residential construction allowance) provided non-refundable credit until 2009 to purchase real estate for disadvantaged families with children, but access to it was virtually impossible for the most deprived of families because a certain percentage of the desired credit had to be proven to be possessed in the form of cash or real estate.

The head of the Family Help Service of the city had noticed deteriorating housing conditions especially in families with unemployed parents and small children as well as the increasing need for social housing. She initiated a project with the aim of providing decent housing for the most disadvantaged families with small children.

Community profile

According to the selection criteria of participation resident families of the city could apply if they were eligible for social housing and governmental residential construction allowance, had at least three children attending school, were willing to personally participate in the building process and collaborate with the Family Help Service; and accepted a ban of sale on the houses until the adulthood of the youngest child. In order to avoid potential racial tensions evoked by positive discrimination, non-Roma families fulfilling the previously mentioned conditions were also selected to participate. Applicant families were ranked based on their community involvement and non-truancy of their school-age children.

Altogether 12 Roma and 8 non-Roma families were selected into the project out of approximately 80 applicants.

Project description

A steering group was established including the head of the Family Help Service, representatives of the municipal government and the local Roma minority government which devised the conditions for participation, and oversaw the project. The municipal government sold building plots to 16 families for a symbolic amount; 4 families constructed houses on land they purchased or their families owned. An NGO – established in order to apply for additional funding – received 21,700 euro from the Cooperating Netherlands Foundations for Central and Eastern Europe that was distributed evenly to all participant families. They were also eligible for the above mentioned governmental residential construction allowance which amounted to 730 euro after the first child, 3,730 euro after the second and the third child in 1998. The unit cost of the project was 120 euro/sqm in contrast to the then accepted 300-370 euro/sqm (costs are for 1997). All financial transactions were processed by a 3-member team comprised by the representative of the municipal government, 1 representative of the Roma and 1 representative of the non-Roma beneficiary families.

Building plans for double houses were created by a volunteer architect. The municipal government provided permits, technical support and inspection during the project, as well as social workers who kept in touch with the beneficiaries. Beneficiary families themselves decided on the allocation of building sites and their neighbours in the double houses. The building material was adobe brick, a traditional building material with excellent heat-insulating features that most Roma families knew how to produce (adobe brick making used to be a traditional occupation among Roma in Hungary). Preparation of the adobe bricks by two work-communities recruited from the participating families considerably reduced building costs, provided work opportunity, and an opportunity to strengthen the building community. Special care was taken to secure the waterproof nature of the foundations and roofs with full success (seeping water from above or below constitutes the only danger for an adobe wall). In order to further reduce costs, all other new building materials were purchased in bulk the quality of which was checked and documented by a building expert delegated by the municipal government. An expert assessed the quality of construction

halfway through the project at the request of the project manager. Houses were completed in 1997.

Upon prior agreement with the families, the interiors of all houses were finished to the minimum level for which an inhabitancy permit could be obtained. Families purchased furnace for central heating and further interior decorations (inlaid floor, wall tile, paved tile, etc.). No furniture was provided except sink in the kitchen, washbasin and bathtub in the bathroom, and toilet bowl. All houses have a ground space of 71 sqm including 2 bedrooms, kitchen and living room in one space, pantry, bathroom, and WC, with electricity, running water, sanitation, and a receptacle for a furnace powering a central heating system. Individually replaceable gas tanks were designed for cooking use. The lofts of the houses were constructed in a way that allowed for future construction of 3 bedrooms and a bathroom in the attics in case of need.

Assessment of impacts

Only indicators that were available before and after the project were included for comparison (Table 10).

Table 10 Housing and socio-economic conditions of the beneficiary families before and 15 years after the housing project

Indicator	1996	2011
Mean number of bathrooms per family	0.6	1.0
Mean number of living and bedrooms per family	1.4	3.4
Mean number of persons per household ¹	7.1	5
Mean number of persons per room ¹	5.07	1.47
No. of persons with maturity exam	0	6
Of those, no. of persons with college degree	0	1
Of those, no. of persons in college	0	2
% of adults employed ¹	50	20
Mean number of vehicle (bike/motorbike/car) per household ¹	0	0.3
Mean number of adults per family entitled to social benefits ¹	0.4	0.7
Mean number of persons per family entitled to free medication ¹	0.5	0.6
% of families considering their economic situation as bad or very bad ¹	30	40

¹: Data are based on interviews with 10 consenting families of 17 in 2010. The rest of the data were provided by the Family Help Service. Indicators signalling improvement are in bold.

Comfort level increased, while crowdedness decreased among beneficiaries. All 20 houses built during the project still stand in good overall conditions. 17 out of the 20 families who

entered the project in 1996 still live in their houses. 7 attics were fitted and furnished out of 20 in the past years from the private funds of families living in those houses. Improvement in education level has been an unequivocally favourable outcome, whereas employment deteriorated. Possessions expanded as reflected by a numerical increase in vehicles, and by the fully furnished interiors.

All families finished the interior decoration of their houses. All houses are properly equipped with as many beds as persons, at least one dining table, chairs, curtains, and in most houses, at least one desk for school-age children. Floors are tiled, walls are well-kept, painted or covered by colourful wallpapers. All houses have a central furnace fuelled by coal or wood that heats the entire house and allows adjustment of temperature to available funds as heating is the major expense during winter. Families gave account of improved subjective health reflected by less visits to the family doctor, but this could not be supported by quantitative data.

The long-term evaluation of the project provides proof for the direct positive effect of housing on education along with the improvement in housing comfort and crowdedness. Based on the available data, no firm conclusion can be drawn as to how much educational improvement can be attributed to secular trends. Nevertheless, since even focused educational policies and programmes fail to have an impact because of the lack of adequate policy frameworks and negative incentives built into education systems^{185,186}, there is a strong reason to believe that the positive educational outcomes can be attributed to the project. Decreased employment can be attributed partly to the downsizing of the local chicken slaughterhouse that used to employ Roma in considerable numbers, and partly to some becoming retired, others losing jobs due to the recession that has occurred in the past years in Hungary and elsewhere. Loss of work and increased household costs explain the increased number of families whose economic situation worsened. Unfortunately, no data could be gathered regarding the health status of the beneficiaries before the project so the probable positive health impacts of the project could only be based on the interviews.

Positive experiences during and after the project

Community involvement was a crucial factor during the project and helped overcome all difficulties, such as when several thousand freshly made adobe bricks were ruined by a

sudden shower and had to be remade by the community. No disagreements over financial transactions happened because the allocation of funds was clear for all beneficiaries, and transactions involved community representatives from the beginning. Most families kept the conditions they agreed to before the project, and enjoyed an obvious increase of living standards. They keep their houses in high regard; their children go to school, and quantitative data prove that housing improvement had a major impact on the education of the children of the participating families. Whereas no person with a higher degree could be found in the community before the project, now 3 such persons (1 with a completed degree) live in the community (all of them Roma). Collaboration with the municipal government and the family help service has been exemplary and ongoing. The families report feeling safe in their neighbourhood, and one Roma man described his relationship with his neighbours 'as if they were family.' Another man reported his relationship with his neighbours to be quite good, as 'we built [the houses] together.' The non-Roma families have not experienced such cohesion, one woman claimed that her relationship was 'minimal,' and that since they all 'work and have no time,' they simply 'see each other in the street.'

Negative experiences during and after the project

Chosen families became the subject of greed at the beginning of the project. One family whose income was less than the others and could not 'keep up' with the others in terms of finishing their house pulled out of the project and moved back to their hut. Another family was chosen to fill their place from the waiting list of 25 families. One family sold its house when it was completed because the head of the household got a job in a nearby city and the entire family moved there. Despite its right of pre-emption, the local government did not purchase this house though its price was 32% below the market price. However, the selling family purchased another house from this sale. In one family the mother died during construction and the father stepped back. The house was completed for another family. Three divorces occurred in the community since the completion of the project. In one case, the parent caring for the children remained in the houses; in two other cases the parents purchased separate apartments from the sale of the houses. Sadly, the only college graduate (a young female) could not find a job since her graduation (in the past year). The housing project has had a reverse effect on the financial situation of the inhabitants. Many describe their current material situation as either 'bad or 'very bad' – whereas the families described

their pre-1998 situation as 'satisfactory.' Many families also reported the cost of utilities to be exorbitant. The winter of 2009-2010 was quite cold relative to past years, and the homes require a steady supply of firewood for heating. In recent years, the cost of natural gas has sky-rocketed. Water prices and electricity have also increased substantially. Families often cannot afford the whole month's bill and are being helped by the local Red Cross aided by the (former) project coordinator.

6. Conclusions

6.1. Summary of impacts of housing interventions at different levels aiming at Roma

Predictions and observations of our completed prospective, concurrent and retrospective HIAs were compared as related to different determinants of health and are presented in Table 11.

The prospective and concurrent HIAs of housing interventions at the local (Debrecen) and national level (Bulgaria, Lithuania, Slovakia) explored numerous positive and some negative health effects according to the evidences available from the literature. Definite positive impacts were predicted in terms of indoor and outdoor living spaces as well as housing satisfaction. Positive or neutral impacts were estimated regarding socio-economic determinants such as employment, education, social networks, fear of crime and access to services. Uncertain (positive or negative) effects were predicted only for housing tenure, expenses and moving or relocation to a new area.

Table 11 Summary of health impacts of housing interventions

Assessment	Category of health determinant																												
	Lifestyle	Socio-economic environment													Physical environment										Access & quality of services				
															Outdoor conditions					Indoor conditions									
	Nutrition	Risk behaviour	Coping with stress	Income	Employment	Education	Social network	Crime & fear of crime	Recreation	Privacy	Housing tenure	Housing satisfaction	Neighbourhood satisfaction	Housing expenses	Moving & relocation	Air	Water	Soil	Built environment	Traffic	Indoor air	Dampness & mould	Temperature & warmth	Public utilities	Crowdedness	Rodents & parasites	Housing safety	Helper services	Health care
HIA Debrecen	Positive	No impact	Positive	Positive	Positive	Positive	Positive	Positive	Positive	Positive	Positive	Positive	Positive	Negative	Positive	Positive	Positive	Positive	Positive	Positive	Positive	Positive	Positive	Positive	Positive	Positive	Positive	Positive	Positive
HIA BGR, LTU, SVK	Positive	Positive	Positive	Positive	Positive	Positive	Positive	Positive	Positive	Positive	Negative	Positive	Positive	Negative	Positive	Positive	Positive	Positive	Positive	Positive	Positive	Positive	Positive	Positive	Positive	Positive	Positive	Positive	Positive
HIA Hencida	Positive	No impact	Positive	No impact	No impact	Positive	Negative	No impact	Positive	Positive	Positive	Positive	Positive	Negative	No impact	No impact	Positive	Positive	Positive	No impact	Positive	Positive	Positive	Positive	Positive	Positive	Positive	Positive	No impact
Evaluation Hencida	No impact	No impact	No impact	No impact	No impact	Positive	Negative	No impact	No impact	No impact	Positive	Negative	Negative	Negative	No impact	No impact	Positive	Positive	Positive	No impact	Positive	Positive	Positive	Positive	No impact	Positive	Negative	No impact	No impact
Evaluation Kiskunhalas	Positive	No impact	Positive	No impact	Negative	Positive	Positive	Positive	Positive	Positive	Positive	Positive	Positive	No impact	Positive	No impact	Positive	Positive	Positive	Positive	Positive	Positive	Positive	Positive	Positive	Positive	Positive	Positive	Positive

Positive impact
 Positive/no impact
 No impact
 Negative/no impact
 Negative impact



In contrast to the mostly positive predictions of the prospective and concurrent HIAs, the retrospective HIA conducted right after the implementation of the housing project in Hencida revealed equivocal impacts, moreover, profound negative effects were also explored mainly in terms of social network, housing expenses and safety.

Four years after the end of the Hencida project, outcome evaluation of the HIA uncovered the long term effects of the housing project including manifest negative consequences in terms of social network, housing and neighbourhood satisfaction, fear of crime, relocation. Unambiguous positive impacts could be established only in case of education and housing tenure.

Compared to the above results, the evaluation of the Kiskunhalas housing project resulted in numerous positive long term effects on nutrition, social network, housing satisfaction, indoor and outdoor conditions and access to family help services, among others. The single negative impact related to the decreased level of employment and subsequent loss of income among beneficiaries. Unequivocal improvements in terms of health could be proven neither in the Hencida nor in the Kiskunhalas case.

Predicted impacts of the prospective and concurrent HIAs both at the policy (Bulgaria, Lithuania, Slovakia) and local level (Debrecen) contrasted markedly with the observed impacts of implemented housing projects at the local level in Hungary, explored by evaluation. Prospective HIAs tended to predict many more positive impacts than actually achieved.

6.2. Strengths and limitations of the research

In terms of strengths, first, our HIAs fill a considerable gap in the literature since no previous HIA was found specifically dealing with Roma communities in the scientific literature in spite of the commitments made on the application of HIAs regarding housing¹⁸⁷ or other issues by a number of international entities^{58,59,60,61,62}. Second, the scope of the work was broader than usual inasmuch as it included one HIA on four countries with policies on Roma housing, attempting to reveal a complex interaction of ethnicity, community networks, housing and health. Third, conscious efforts were made to involve the Roma communities affected, not only through their representatives but directly as well. Extensive fieldwork in case of the local level HIAs made it possible for the researchers to get to know the communities well,

ensuring that their viewpoints and issues most important to them were adequately explored, providing an 'action research' aspect for the study. Our local level HIAs demonstrate that Roma communities can be full participants in health research rather than simply the passive subjects of it. Fourth, by including the full range of support organisations (statutory and non-statutory) in the local HIAs was it possible to incorporate a wealth of information from all stakeholders with, in many cases, conflicting interests. Fifth, our research investigated Roma groups at different locations in a perspective of more than a decade, and used different types of HIA in terms of timing, level and extensiveness. In addition, HIAs were completed with evaluation whenever it was possible, thereby strengthening the evidence base of impact assessments.

Like most HIAs, our prospective and concurrent assessments were limited by the speculative nature both of the characteristics of the policies/projects and of many of their predicted effects, the latter being aggravated by the scant research literature on the health impacts of housing projects for vulnerable, with none in Roma communities in central Europe. Baseline data at the launch of the examined local housing projects, if any, included only demographic, socio-economic and environmental data and no specific information on health. Consequently, evaluations rely on the information gained from the stakeholders and beneficiaries retrospectively. Another limitation was the lack of quantitative methods, ideally integrated into a comprehensive HIA along with qualitative evidence and methods¹⁸⁸. Decision makers favour quantitative estimates because these allow to consider effect size and to weigh health effects against each other so as to effectively assist the bargaining process¹⁸⁹. However, quantitative methods in practice are typically used to forecast health consequences of environmental exposures¹⁹⁰, and only few studies exist that apply quantitative epidemiological methods for the assessment of policy proposals^{42,189,191,192}. At last, our work and the collected information provides only a snapshot in time. Consequently, the assessments – just like most HIA – have an expiration date, making it even more pressing to act upon them.

6.3. Essential elements of planning and implementing sustainable housing projects for disadvantaged groups

As to improving housing for Roma, numerous stories circulate about its futile and unsustainable nature fuelling negative attitudes and discrimination in certain groups of the majority^{193,194}. The fact that governmental social housing projects are nonexistent or earlier financial schemes to support social housing (such as the governmental residential construction allowance in Hungary) were suspended reflects certain doubts on the policy makers' part as well. However, there are some examples for the feasibility of providing sustainable housing for disadvantaged Roma¹⁹⁵ including the Kiskunhalas project. Moreover, the Stepped Social Ascension theory of housing first put forward by Berescu et al in 2006¹⁹⁶ has captured some fundamental principles that must be followed to achieve sustainability in Roma housing. The theory suggests that objective improvement of living conditions, that is, the transition from destitute poverty to a safe and sanitary standard cannot be completed at once. Instead, it must be perpetuated step by step, with each step constituting a small, finite enhancement in surroundings. Such a gradual development must follow three distinct rules. First, no steps in gradual improvement can be skipped: failure and regression is guaranteed if a family is forced too far, too fast. The second rule concerns the progression from one step to the next: for a family to advance to the next housing strata, they must be able to observe its features, and see them as attainable, as, for example, in the form of houses in their immediate neighbourhood. Berescu refers to this effect as 'visibility.' The third rule is of consistent horizontal advancement: for a family to progress to the next level, they must at least keep if not improve their achieved standard of living without regressing. This provides a model for the children of the beneficiaries even though it might take generations for complete social accession to occur. Practically all of these principles were – well before the formulation of the theory – followed in the case of Kiskunhalas, and the long-term evaluation of the project – according to which 85% of the beneficiary families selected in 1996 in Kiskunhalas have kept their achieved housing standards by 2011, and more than one-third considerably improved it – fully supports the validity of the theory.

In light of the above, the following guideline can be provided along which housing policies and programmes may successfully address housing inequities which are summarised below.

1. Representatives of the beneficiaries along with all other stakeholders should be included in all bodies that make any decisions regarding the project (planning, selection of participants, allocation of building plots, size and arrangement of houses, etc.)
2. The individual and community capacities of the potential applicants (target group) should be incorporated into the project plan along with the principles of the Stepped Social Ascension.
3. Benefits provided by the project should be made public along with a timeline and budget.
4. Inclusion criteria should be based on socio-economic and/or demographic conditions rather than on ethnic identity in order to reduce tensions due to positive discrimination, should have at least the following points publicly acknowledged in a written and signed contract as follows:
 - a. voluntary participation in the building process and in continuous community development;
 - b. houses of the beneficiaries cannot be sold or rented to anyone else until the youngest child of the family becomes of age;
 - c. in case of divorce, the parent leaving the family renounces his/her part in the property to his/her children;
 - d. all beneficiary children of school-age must fulfil their obligation to attend school;
 - e. beneficiary families must collaborate with helping organisations (family help service, child care service, etc.), empowerment of the community should start before the project and should continue even after completing the housing project;
 - f. conditional: the organisation/institution donating building sites may have a pre-emptive right if it wishes so.
5. Financial dealings should be transparent from the beginning, and accountability should be ensured by including community representatives in all financial transactions as well.
6. Housing projects planned for vulnerable should be rigorously evaluated not only in terms of their impact on health but on its socio-economic determinants as well. Appropriate data should be collected before and after the project; a clear and detailed evaluation plan with indicators and baseline data should be a condition for funding.

6.4. Relevance of health impact assessment on Roma housing

As it was shown above, it is possible to provide sustainable housing for disadvantaged Roma, and health impact assessment of housing policies and projects aimed at Roma are feasible and relevant. Our multi-country analysis is a first attempt since no previous HIA was available on Roma housing in the literature. However, the predictive power of HIAs of housing policies aimed at Roma at the governmental level is equivocal at best in light of the available evaluations of these large-scale Roma housing programmes in Central-Eastern European Countries (Table 5).

The Bulgarian governmental housing programme failed to sustainably improve housing conditions for Roma^{197,198,199}. Evaluations showed that initiatives were not accompanied with economic integration, and centrally planned construction of dwellings increased segregation by the establishment of entirely Romani residential districts. Other sources described budget allocations for social housing in Romani communities as insufficient and accused the national and local governments in Bulgaria of mispending the funds for private commercial gains¹⁹⁷.

Implementation of the Slovak national housing concept was limited to small scale interventions; information on their effectiveness is available from NGOs^{200,201}. According to one study, while the housing development programme in general improved the living conditions of Roma, it maintained or even aggravated the segregation. The results also showed that in many cases the new dwellings lacked minimal technical infrastructure (shower-bath, heating system), etc., and were of poor quality in terms of used materials and construction²⁰⁰.

In 2009 the Mayor of Vilnius has established a working group to evaluate the effectiveness of the Roma housing programme under pressure due to several complaints filed by the Roma community to the Parliament of Lithuania. Main issues have been the lack of a designated municipal department that would be responsible for implementing the programme, and the lack of allocated resources to cover the provision of housing²⁰². At present, apartments are rented for 18 Roma families, whereas about 40 self-identified Roma families were included in the waiting list for social housing in Vilnius city (personal communication, Vilnius Municipality, 2011).

The Hungarian Roma housing programme should have been evaluated according to the framework and indicators specified in the Strategic Plan of the programme. However, the available governmental documents only give a narrative account of the programme instead of a proper evaluation. A 2008 report of the National Court of Auditors claimed the lack of rational use of resources dedicated to improving the situation of Roma²⁰³.

The predictive power of HIA at the local level was also low in certain dimensions, namely in terms of subjective satisfaction and sustainability of housing quality that became clear during the evaluation of the Hencida housing project in Hungary. This finding can be explained by multiple factors. First, the housing needs of ethnic minority groups are very different depending on the resources and expectations of the beneficiaries even within one community. Second, the distribution of social capital within Roma communities, including available social support, information channels, social credentials²⁰⁴, is of utmost importance not only due to its impact on health^{204,205}, but due to the predictable and inevitable occurrence of internal community strives about the questions of who gets what when and how – just as it has been well-recognised among majority groups²⁰⁶ – whenever external resources, especially free benefits become available in a deprived community. Insider information on the ‘bonding type’ of social capital (according to Kawachi et al²⁰⁴ or ‘horizontal social capital’ according to Lewandowski and Streich²⁰⁷) is a key element of planning. Lack of knowledge regarding the social capital of the beneficiary community leads to the omission of important stakeholders from planning and implementation, hinders the assessment of community capacity, makes proper planning close to impossible, and leads to a host of unforeseeable difficulties if the improperly planned project is nevertheless implemented. Most of the difficulties are due to internal strives leading to subjective dissatisfaction, breaks in social networks, neighbourhood dissatisfaction, and unsustainability of the achievements. The success of the Kiskunhalas project (without a HIA) can be attributed in large part to the fact that the selection of beneficiaries was based on an insider knowledge of the applicant families, and throughout the project the social capital of the beneficiaries had been progressively (though not consciously) strengthened by delegating power, continuous communication, discussion of decisions, meetings and an obligation to work together. Disregard for the same issues, and involving only community

representatives in the HIA can be held mostly responsible for its imprecision, and the underachievement of the project in the Hencida case.

In summary, HIA is a potentially useful tool for decision makers to plan Roma housing projects. However, considering the present evidence base on housing interventions, and the crucial importance of social capital as a determinant of health in deprived Roma communities, HIA can be recommended primarily when a specific policy with its concrete actions is investigated at the local, implementation level rather than at the strategic, national level^{45,75}.

6.5. Recommendations for health impact assessment on Roma housing at the local level

Taking together our results with information in the literature, a prospective HIA is useful to mitigate negative and enhance positive effects of housing projects for vulnerable groups if certain features specific for deprived communities are taken into account. The specific recommendations for health impact assessments related to Roma housing are summarised below. Observations of these recommendations – which are in concert with the recently formulated 10 common basic principles for Roma inclusion²⁰⁸ – increase the predictive power of HIA.

1. Involvement of the community should aim at the full participation and community empowerment in every phase of the HIA. Fieldwork is strongly recommended for establishing contact with the community and gaining reliable first-hand information that can increase trust and ensure their direct participation. The practical details of how the entire community (not only its function-bearing representatives!) can be fully involved should rest on knowing their resources – including their network, cultural differences within the community, literacy levels, hierarchy in the community etc. – that is, having information on their capacities, especially on bonding (or horizontal) social capital²⁰⁴.
2. Continuous engagement of the community should be ensured by a clear declaration of HIA goals, and regular communication on the achievements to the Roma community by strategies tailored to overcome potential communication barriers. Personal contact with the communities throughout the HIA is essential. This provides bridging capital, that is, resources through connections that cross socio-economic and ethnic boundaries.

3. Taking into consideration the majority opinion is at least as important as that of the ethnic community. Majority representatives and especially those directly affected by housing plans (potential neighbours) should be involved, and impacts on the majority population should also be thoroughly investigated during assessment.
4. Impact and outcome evaluation of every HIA on interventions planned for disadvantaged communities should be carried out in order to establish and enlarge the HIA evidence base and increase predictive power in relation to Roma communities.

The primary goal of HIA is to assist policymakers and thus to contribute to health oriented decision making. However, the incorporation of HIA in the decision-making process presents different challenges: it slows decision making, addresses an issue (health) that is not necessarily represents priority, requires intersectoral work^{209,210,211,212}. Table 12 gives a summary of the impacts of our HIAs on the decision making process.

Table 12 Dissemination of HIA results

Intervention	Dissemination		Impact on decision making
	Scientific	Media	
Eviction versus a housing project in Debrecen	Scientific publication, presentations	Written & electronic newspaper	Decision modified, no eviction
National housing programmes in CEE countries	EU project report Presentations at scientific meetings	Written newspaper	Ongoing programmes were not modified. Recommendations of the Lithuanian HIA were taken into account, in the course of drafting the Roma strategy of Vilnius
Housing and social integration programme in Hencida	EU project report Scientific publication, presentations	Written & electronic newspaper	Project finished
Housing project in Kiskunhalas	Scientific publication, presentations	Written & electronic newspaper	Project finished

Most of our HIAs were initiated by researchers on the basis of existing collaboration with the affected community (Debrecen, Hencida, Kiskunhalas), or of international research collaboration funded by the European Commission. Therefore, the HIAs not being initiated by decision makers, have not been integrated into the policy making process. Nevertheless,

the HIA on evacuation versus a housing project of a Roma community in Debrecen is a positive example because it has at least delayed action and evacuation of the community still has not happened, and negotiations have been ongoing to develop a housing project for the community. Evaluation of the Kiskunhalas is hoped to provide a positive example of housing that other communities could emulate. At the national level, the Lithuanian HIA had the chance to contribute to the review and amendment of the Vilnius Roma community programme 2005-2010.

6.6. Housing policy as an aid towards well-being: European perspective

According to the recent report of the Commission on Social Determinants of Health⁵⁸, unequal living conditions are the consequences of poor social policies and programmes, unfair economic arrangements, and bad politics. The situation of Roma, especially their housing problems have become a priority in recent years¹⁶² as it was reflected by the emergence of a European Platform for Roma Inclusion by 2008, based on the recognition that an exchange of good practice and cooperation was badly needed.

Social disadvantage of minorities has been recognised as due to a wide range of factors, but two main schools can be distinguished considering the primary or fundamental explanation. According to the sociological literature, minorities are disadvantaged primarily because of majority discrimination that results in reduced access to resources. The other school, based on mostly anthropological research identifies identifies major causes of exclusion as being inside of those excluded²¹³. In other words, the fundamental point of debate is whether exclusion – taking into account its usually multiple explanatory factors – is primarily due to the environment in which exclusion occurs, or it is primarily due to some internal features of the excluded group. This fundamental point of debate is not merely philosophical but highly practical since the answers for this question guide political actions. The first viewpoint reflects not only the viewpoint of current Hungarian and European policy documents²¹⁴ in relation to the objective of achieving social and economic cohesion, a major goal of the Community²¹⁵, but also the considerably larger scientific literature supporting this view from which it follows that exclusion can be solved by policy approaches developed by the majority. However, culturally sensitive policy making would require considerably more research-based insider information on how and to what extent Roma culture differs from

the majority and how this creates barriers to accessing opportunities. In order to avoid the mere rehashing of majority stereotypes and platitudes, such research should reflect the considerable diversity and heterogeneity of Roma; accordingly, urban and rural, those living in segregated or non-segregated circumstances, those with or without previous work experience, etc. should be separately studied as these factors correlate strongly with social exclusion.

Lack of this information seriously hinders the planning of effective interventions aimed at Roma, and results in identical or at least remarkably similar (that is, culturally insensitive) interventions at the international and national level targeted to employment, housing, education and access to health care²¹⁴, without proof of being efficient. This problem was implicitly recognised by the Platform when it developed 10 common basic principles on Roma inclusion, calling for intercultural approach, transfer of evidence-based policies, and active participation of Roma²⁰⁸. The recently accepted Roma Framework Strategy¹¹¹ of the EU provides a framework for national strategies aimed at Roma integration, but leaves the development of national plans and the responsibility for implementation to member states. Based on our comparative analysis of four CEE countries, the unchallenged assumption seems to be that policy making at the national level should be responsible for Roma housing. However, based on the comparative analysis together with lessons learnt at the local level, the following recommendations can be made.

1. Improving health is not necessarily the primary or most important argument for housing initiatives for Roma. Increasing educational level, employment or removing indoor hazards might be sufficient justifications especially in light of these being major determinants of health. The health of disadvantaged populations, among them Roma, cannot be sustainably improved by a housing project alone though it is of primary importance; approaches addressing other major determinants of health, particularly employment and poverty and education should also be developed.
2. Based on our findings, application of the principle of subsidiarity for Roma housing should be strictly observed. That is, housing for Roma should be planned as close to the citizens (Roma people included) as possible. Successful and sustainable housing projects rest on the direct involvement of the beneficiary communities. The principles of

involvement can be properly designed only at the local level. Priority should be given to small-scale, model or pilot housing projects in communities in which the community dynamics, network, and social support (social capital) are uncovered. These projects could be expanded in the same community in phases, involving more and more beneficiaries if improvements in health and/or quality of life in previous phases can be proven. Ambitious, large-scale regional or national housing programmes should be based on experience from such pilot projects in the mid-term future.

3. Dedicated budgets aiming at Roma housing at the national level could provide the framework within which local projects can be developed and implemented. Funding should be distributed by open or restricted governmental calls for application after proper selection. Properly trained persons (mediators) providing help for interested communities should be made available to ensure bridging capital as it was tested in Hungary¹⁵⁹.

In light of these results, central governments are not well positioned to plan and implement nationwide Roma programmes and projects for housing due to lack of infrastructure, lack of support from the majority for positive discriminatory actions, lacking knowledge of local needs and capacities, a lack of interest in and accountability for systematic evaluation of interventions, and correspondingly, a lack of political will. In addition, central governments necessarily favour 'top-down' approaches for Roma development, which, by ignoring contextual factors and conditions, render the impact of their projects minimal²¹⁶.

6.7. Housing policy as an aid towards well-being: future prospects of HIA in Hungary

The development of HIA in Hungary is still a rather slow and conflicting process partly because of the economic recession and stagnation in Hungary that considerably narrowed intersectoral policy options with an explicit concern for health. However, there are potential windows of opportunity for a medium term positive development in this field.

Advocacy for HIA requires a critical analysis of the present situation. A SWOT analysis in Table 13 lists major factors that favour or hinder the integration of HIA into everyday policy-making. Strengths and weaknesses are considered from decision makers' point of view.

Table 13 SWOT analysis: applicability of health impact assessment in everyday governance practice

Strengths <ul style="list-style-type: none"> • Fair, accountable and standard procedure of considering possible health implications of policies, with increased level of autonomy • Continuous and systematic attention to health concerns • Increased pressure on policy makers to consider health consequences of their policies • Increased and improved quality of tackling whole of government issues from health perspective • Low-cost, easily manageable, knowledge based approach • Use of standardised checklists with a possibility of customization to different policy areas 	Weaknesses <ul style="list-style-type: none"> • Scant but growing evidence base and quantitative methods assessing causal relationships between policies, determinants and health effects • Mix of scientific and non-scientific elements in HIA, lack of clear standards • The use of checklists may provide restricted information on the subject affecting reliability of the results • HIA can delay policy process, if it points to potential negative effects of the proposal meaning necessary negotiations and revision of the proposal
Opportunities <ul style="list-style-type: none"> • Supporting international and EU environment (treaties, recommendations, projects aiming at capacity building and methodology development, better regulation concept of the EU) • Availability of adaptable methodologies and best practices at international level • Existing domestic legal frameworks for RIA, EIA and partially for project level HIA • Availability of the EU Structural Funds, elaboration of national development plans • New act on legislation prescribing the ex-ante assessment of health impacts High interest and motivation and strong commitment of public health training and research organisations to focus on HIA • Consensus building potential of HIA in the Hungarian political life 	Threats <ul style="list-style-type: none"> • Health as a soft/marginal interest and value • Long term health benefits explored by HIA might be out of consideration • Lack of horizontal mechanisms in policy making • Lack of bonding EU level legislation on the use of HIA • False assumption of positivist, rationalist approach in policy making • Exact legislative plan is needed in time, to carry out systematic and smooth operation of HIA • Limited communication and misunderstandings between policy makers and researchers

Health is an entitlement to which people have a basic right, as well as a significant contributor to economic growth, poverty reduction and social development. The health of vulnerable populations – particularly the poorest of the poor – is well-known to be much worse than that of the majority, decreasing their chances to contribute to the economy and putting a potentially avoidable burden on the health care system. The financial crisis has provoked an examination of the values that underpin societies, and has the potential to upscale the importance of health even in the majority as access to disease care is getting more difficult and more expensive, social safety nets are shrinking, and loss of work due to health reasons becomes a major concern. Integration of health policy into the ministry of human resources along with the cultural and social care sectors in 2010 under the new

Hungarian government created a wider opportunity for positioning health-promoting and disease-preventing actions to the front by intersectoral action. It remains to be seen whether and to what extent this will happen in the coming years.

Evidence based policy making is going to be more of a concern of Hungarian politicians as well, as issues of accountability become more prominent. Increasing public expectations on governance require decision makers to become more acquainted with HIA as a useful tool, but it also requires public health experts to develop a better understanding of the policy process. The technical means for setting up HIA are more or less given in the country. The critical issues to be sorted out are of political, administrative and legal nature but all of these fundamentally rest on values. Whether health is a value, and whether Hungarian society is willing to close the gap between those who have, and those who have not in line with the recommendations of the WHO Commission on Social Determinants of Health, that is, by improving daily living conditions and tackling the inequitable distribution of power, money and resources⁵⁸ will be tested in the coming years through our Roma minority. Times of economic hardship can always be blamed for not progressing, but not progressing also has a price²¹³. Our work will hopefully contribute to progress in decision making so that HIA in Hungary could 'change from something done by public health enthusiasts to something done by all competent policy makers'²¹⁷ in the benefit of everyone's well-being.

6.8. Main findings and conclusions

Main findings can be summarised according to the research questions as follows:

1. Housing interventions may improve the health of the Roma population by positively influencing the built and natural living environment, housing conditions, socio-economic determinants, and access to services, resulting in a decreased rate of chronic cardiovascular and respiratory diseases, infections, accidents and injuries and improved mental health. Negative impacts were only predicted in terms of housing expenses and maintenance of tenureship due to higher-quality homes. Though HIAs of national level strategies and programmes predicted mainly favourable health impacts, local level HIAs and evaluations revealed additional negative impacts in terms of social network, housing and neighbourhood satisfaction and housing safety.

2. Health impact assessment is a relevant decision making tool the application of which may mitigate negative effects of housing interventions and enhance positive ones. However, in order to increase their reliability, HIAs of Roma housing should be carried out at the local level according to the principle of subsidiarity and should maximise the involvement of stakeholders, particularly the direct participation of the involved community. The use of HIA is contingent on the importance that decision-makers attribute to it.

3. Sustainable improvement of housing conditions can be optimally targeted by complex interventions including measures on wider socio-economic determinants of health. Even in case of limited resources, improvement of employment and housing development should be linked at local level, adapted to local specificities, with the involvement of local communities, based on ex ante assessment.

4. Planning of local projects should be based on previous information on individual and community capacities of the potential beneficiaries. Representatives of the beneficiaries along with all other stakeholders should be included in all bodies that make any decisions from planning through implementation to evaluation of the project. Inclusion criteria should be publicly acknowledged based on socio-economic and/or demographic conditions rather than on ethnic identity in order to reduce tensions evoked by positive discrimination. Transparency and accountability should be ensured regarding financial dealings and quality standards. Housing projects planned for vulnerable groups, particularly Roma, should be rigorously evaluated and results disseminated not only in terms of their impact on health but on its socio-economic determinants as well. Successful projects may decrease negative attitudes towards the Roma from the majority, whereas failed projects do the opposite.

5. HIA can increase concerns for health as a value in decision making. Strengths also include its cost effectiveness and standardised methodology in those countries where it is integrated in the decision making process. Additional benefits include the added values generated by the participation of beneficiaries contributing their specific local knowledge and understanding, and the complex analysis of a scenario in which a diverse range of stakeholders should all be heard. Its participatory approach, when conducted properly, allows community concerns to surface and be resolved hereby preventing them to become major obstacles later in the process.

In terms of weakness, HIA requires time, capacity, and financial resources in the policy process, and consequentially, usually slows decision making. If not regulated legally, its application is opportunistic, depending on the understanding of actual decision makers.

The creation of the legal and institutional background for HIA along with quality standards is a condition for its smooth integration into governance practice that in Hungary – in spite of recent efforts – still has to happen. Nevertheless, until the legal framework for HIA will be put in place, rapid HIA as a feasible and cost-effective tool should be applied to facilitate the planning of local level housing projects for Roma people.

7. Summary

7.1. Summary

An outstanding feature of marginalised Roma communities of Central-Eastern European countries is their severely substandard living conditions which contribute to their worse health status compared to the majority. Several efforts have already been taken at the international and local level to tackle housing problems, but health consequences of the implemented measures in most cases have neither been assessed in the decision making process nor evaluated after implementation though health impact assessment as a tool could be applied to identify and optimise health effects of policies for disadvantaged populations.

The thesis investigated the applicability of HIA in relation to housing policies and projects aimed at vulnerable populations. Various approaches were used to assess health impacts of national housing interventions in an international context, and local level housing in prospective and retrospective timing along with the evaluation of a successful housing project that enabled the comparison of predicted and actual impacts of the programmes and projects.

National and strategic level HIAs pointed mainly to beneficial health effects of housing by improving indoor and outdoor conditions, access to services, and socioeconomic conditions. Negative impacts were predicted only in terms of maintenance expenses and housing tenure. In contrast to these results, retrospective HIA conducted right after the implementation of a housing project revealed equivocal impacts, moreover, unexpected and profound negative effects were also explored mainly in terms of social network, housing satisfaction and safety. Evaluation of a successful housing project for vulnerable people revealed positive and sustainable long-term impacts of a properly designed and implemented housing intervention. Based on the case studies recommendations are made on housing interventions subsequent to HIA, a useful tool to mitigate negative and enhance positive effects of housing interventions if certain specific features of deprived communities are taken into account. HIA should be carried out at local level, as close to the citizens as possible according to the principle of subsidiarity, and by using participatory approach directly involving beneficiaries. In this case HIA can effectively support decision-making and successful implementation contributing to the integration of Roma into majority populations.

7.2. Összefoglalás

A közép-kelet európai hátrányos helyzetű roma lakosság kedvezőtlen egészségi állapotának meghatározásában jelentős szerepe van a rossz lakhatási körülményeknek. Az utóbbi években uniós politikák és nemzetközi kezdeményezések is célul tűzték ki a romák társadalmi integrációját többek közt a lakáskörülményeik javítása révén. E programok kidolgozása során azonban jellemzően nem került sor az egészségi hatások vizsgálatára sem a döntéshozatali folyamat részeként, sem utólagos értékelés formájában. Az egészséghatás vizsgálatok (EHV) lehetővé tennék a hátrányos helyzetű lakosságot célzó intézkedések populációs egészséghatásainak feltárását és optimalizálását.

Jelen értekezés az egészséghatás vizsgálatok alkalmazhatóságát vizsgálta a hátrányos helyzetűeket érintő lakhatási politikák, programok és projektek esetében. A kutatás során országos roma lakhatási programok nemzetközi összehasonlítását, valamint helyi szintű lakhatási intervenciók előzetes és utólagos egészséghatás vizsgálatát és értékelését végeztük el, ami lehetővé tette az összevetést az egészséghatások előrejelzése és a már bevezetett projektek tényleges következményei értékelése között.

Az országos és stratégiai szintű prospektív egészséghatás vizsgálatok által előre jelzett egészséghatások többnyire kedvezőek, melyek a szélesebb lakókörnyezet és a lakáskörülmények, társadalmi-gazdasági helyzet, valamint a szolgáltatásokhoz való hozzáférés javulásán keresztül érvényesülhetnek. Esetleges negatív következmények ezen értékelések szerint csak a lakásfenntartás költségei és a lakástulajdon esetében várhatóak. Ezzel szemben egy hazai település lakosait célzó lakhatási projekt megvalósítása után közvetlenül elvégzett EHV eredményei negatív hatásokat tártak fel a lakhatással való elégedettség, a társas kapcsolatok és a lakásbiztonság terén is.

Egy magyar kisvárosban hátrányos helyzetű családok számára megvalósított lakhatási projekt több mint 10 év után elvégzett értékelése, bizonyítékot szolgáltatott arra, hogy lehetséges fenntartható, kedvező hosszú távú hatást nyújtó lakhatást biztosítani hátrányos helyzetű családok számára. Az egészséghatás vizsgálatok az utólagos értékelések lakhatási projektek tervezésére és ezek során az EHV alkalmazására vonatkozó ajánlások kidolgozását tették lehetővé. Az EHV elősegíti a lakhatási intervenciók kedvezőtlen hatásainak enyhítését, ha figyelembe veszi a hátrányos helyzetűek néhány releváns jellemzőjét. Az egészséghatás

vizsgálatot a szubszidiaritás elvének megfelelően helyi szinten, a lakossági részvételt maximalizálva, az érintett közösség közvetlen bevonásával kell elvégezni, támaszkodva a korábbi projektek során nyert bizonyítékokra. Ebben az esetben az EHV hatékonyan támogatja a döntéshozatalt és annak sikeres megvalósítását, elősegítve a romák integrációját.

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8.2. List of publications

Publications related to the thesis

Molnár Á, Ádám B, Antova T, Bosak L, Dimitrov P, Mileva H, Pekarcikova J, Zurlyte I, Gulis G, Ádány R, Kósa K. Health impact assessment of Roma housing policies in Central and Eastern Europe: a comparative analysis. *Environ Impact Assess Rev*, in press IF: 1,944

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Ádám B, **Molnár Á,** Bárdos H, Ádány R. Health impact assessment of quality wine production in Hungary. *Health Promot Int* 2009; 24(4):383-394. IF: 1,544

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Kósa K, Coons B, **Molnár Á.** Long-term success of a housing project for disadvantaged families with small children. Manuscript submitted.

Total impact factor of publications related to the thesis: 9,138

Conference presentations related to the thesis

Molnár Á, Makara P, Ádány R. Integrating health impact assessment in everyday governance practice in Hungary. European Public Health Conference 2010. *Eur J Pub Health* 2010;20 (Suppl. 1):202. (abstract)

Molnár Á, Ádám B, Gulis G, Ádány R, Kósa K. Egészség hatás vizsgálata és értékelés egy helyi szintű Roma lakhatási projekthez kapcsolódóan. (Health impact assessment and evaluation of a local level housing project). 4th National Conference of Public Health Training and Research Institutions, Szombathely, 2010. Népegészségügy 2010;88(3):189. (abstract)

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Ádám B, **Molnár Á**, Ádány R. Kvantitatív kockázatbecslés integrálása az egészséghatás vizsgálat folyamatába. (Integrating quantitative risk assessment into the process of health impact assessment). 5th National Conference of Public Health Training and Research Institutions, Szeged, 2011. Népegészségügy 2011;89(3):256. (abstract)

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Register Number: DEENKÉTK /216/2011.

Item Number:

Subject: Ph.D. List of Publications

Candidate: Ágnes Molnár

Neptun ID: L3LDYA

Doctoral School: Doctoral School of Health Sciences

List of publications related to the dissertation

1. **Molnár, Á.**, Ádám, B., Antova, T., Bosak, L., Dimitrov, P., Mileva, H., Pekarcikova, J., Zurlyte, I., Gulis, G., Ádány, R., Kósa, K.: Health impact assessment of Roma housing policies in Central and Eastern Europe: A comparative analysis.
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Total IF: 9,138

Total IF (publications related to the dissertation): 9,138

The Candidate's publication data submitted to the Publication Database of the University of Debrecen have been validated by Kenezy Life Sciences Library on the basis of Web of Science, Scopus and Journal Citation Report (Impact Factor) databases.

13 October, 2011



9. Keywords

health impact assessment, evaluation, housing, public policy, Roma

10. Acknowledgements

I would like to express my heartiest thanks to my supervisor Karolina Kósa, whose guidance, support and encouragement enabled me to develop an understanding of the subject and to complete this work. I would like to thank the Faculty of Public Health and its dean Professor Róza Ádány for giving me permission to commence this thesis, offering possibility to participate in research projects on the theme of health impact assessments and guiding me during my work. My sincere thanks are due to all of those who supported me in any respect during the completion of my research work. I am especially obliged to Balázs Ádám, Gabriel Gulish, Péter Makara, Barbara Coons and to the participants of the HIA-NMAC research project. Finally, I would like to express special thanks to my family for their constant support, patience and love.

11. Annex: publications related to the thesis