RESEARCH AND DEVELOPMENT AT THE DEPARTMENT OF PUBLIC HEALTH UNIVERSITY OF TARTU

SELF-ASSESSMENT REPORT
1998-2003
# TABLE OF CONTENTS

1. GENERAL INFORMATION .......................................................................................... 3  
   1.1. Historic background .......................................................................................... 3  
   1.2. Main directions of research .............................................................................. 5  
   1.3. Structure of the department ............................................................................. 6  
   1.4. Administration of research activities at the department ................................. 8  
   1.5. General data on financing ................................................................................ 8  
   1.7. Developmental strategy and future plans ......................................................... 9  
   1.8. Workspace and equipment .............................................................................. 12  
   1.9. Scientific collections ....................................................................................... 13  

2. BEST PUBLICATIONS .......................................................................................... 13  

3. ‘TARGET FINANCED’ PROJECTS ..................................................................... 15  

4. RESEARCH GRANTS .......................................................................................... 17  
   4.1. Grants from the Estonian Science Foundation .............................................. 17  
   4.2. Grants from abroad ......................................................................................... 27  

5. RESULTS OF APPLIED RESEARCH ................................................................ 28  

6. DEVELOPMENT ................................................................................................. 35  

7. SUMMARY OF ORGANIZATION OF SCIENTIFIC EVENTS AND  
   RECEIVED RECOGNITIONS .............................................................................. 39  
   7.1. Conferences and seminars organized ............................................................. 39  
   7.2. Awards, honours ........................................................................................... 41  

8. COLLABORATION WITH OTHER SCIENTIFIC INSTITUTIONS IN ESTONIA  
............................................................................................................................... 41  

9. PARTICIPATION IN INTERNATIONAL COLLABORATIVE PROJECTS ......... 43  

10. DOCTORAL AND MASTER’S THESESES DEFENDED ................................. 45  
    10.1. Doctoral Theses ............................................................................................ 45  
    10.2. Master’s Theses ......................................................................................... 46  

11. CURRENT DOCTORAL AND MASTER PROJECTS ......................................... 47  
    11.1. Doctoral Projects ....................................................................................... 47  
    11.2. Master Projects .......................................................................................... 48  

12. PRINCIPAL INVESTIGATORS AND GRANT HOLDERS (CV’S) ............... 51  
    Raul-Allan Kiivet ............................................................................................... 51  
    Maarike Harro ................................................................................................... 53  
    Krista Fisher ....................................................................................................... 66  
    Aidula-Taie Kaasik ............................................................................................. 69  
    Astrid Saava ...................................................................................................... 71  
    Kersti Meesaar .................................................................................................. 75  
    Eda Merisalu ..................................................................................................... 79  
    Argo Soon .......................................................................................................... 82  
    Anneli Uusküla ................................................................................................. 86  

13. MAIN INVESTIGATORS OTHER THAN GRANT HOLDERS (CV’S) ............ 89  
    Kersti Pärna ....................................................................................................... 89  
    Diva Eensoo ....................................................................................................... 93
1. GENERAL INFORMATION

1.1. Historic background

University of Tartu and its medical faculty (founded by Swedish King Gustav II Adolph in 1632) has been the only institution where medical students were trained and research carried out in Estonia. Therefore, public health (formerly named hygiene) research has the same long history as the university.

It is noteworthy to mention that the first research in medicine in Estonia belonged to the field of public health. This study was initiated by Professor Johannes Raicus, a former professor of medicine at Uppsala University in Sweden. He was a staunch supporter of the views of Paracelsus and endeavoured to study the natural conditions of living and remedies used in popular medicine. In the period of founding University of Tartu Johannes Raicus had been invited to the Tartu Gymnasium and he was to occupy the post of professor of medicine at the university. However, he died before the latter was opened. Under his supervision Petrus Turdinus wrote the disputation in 1631, which dealt with the soil and water in the vicinity of Tartu, and also with natural acids and the effect of birth sap. The professor of medicine Lars Micerander, evidently influenced to study the natural conditions in Livonia by the Swedish medical scholar Urban Hjärne, started looking for springs of mineral water in Estonia and, on 5 August 1691, he discovered two springs in the vicinity of Helme (South Estonia). Chemical analyses showed that it was good ferrous water, which also contained sulphur and some acids. Professor Micander studied the effect of this water by drinking it and bathing in it and he could be considered as the first user of balneology in the Baltic region.

After reopening in 1802 the University of Tartu had overtaken the experience of leading German universities and the fact that several outstanding scholars educated there had found their way to Tartu was one of the essential preconditions for the rise of science here. University of Tartu was becoming one of the main transmission channels of progressive West European science to Russia. Public health research developed rapidly after the setting up of a separate chair of state medicine (1842), which had to draw together personal hygiene and medical policy (i.e. public health subjects) and also forensic medicine. The professor of the new chair H.G. Samson Von Himmelstiern conducted a survey of eye diseases among the rural population of Livonia in 1856-1859. This was the first epidemiological study on blind and people suffering from eye diseases in Russia. In connection with an epidemic of cholera in Tartu in 1871 Professor C.V.R. Weyrich studied the sanitary conditions there thoroughly and worked out necessary measures to improve them. Professor B.E.O. Körber, who was formerly known as a marine hygiene researcher, improved his knowledge in Berlin by Professor Robert Koch after coming to Tartu. He organised the Institute (Laboratory) of Hygiene at the Tartu University in 1889 and began using bacteriological methods in hygiene. Under his supervision series of studies on the water, soil, air and milk were carried out. On the basis of these studies Professor Körber showed that drinking water was the main transmission route of cholera epidemics in Tartu in the 1890s. Professor Körber was a supporter of the statistical approach in public health research. He wrote two reports on hygienic and demographic conditions in Tartu. He also published a survey on the demography of several parishes in the Tartu district. He and his students formed the first local school of demographers.
Between the years 1889 and 1895 University of Tartu underwent the Russification-reform that mainly consisted of a partial application of the provisions of the 1884 all-Russian university statute, an enforcement of a number of restrictive regulations and a transition from German to Russian as the language of instruction and teaching. It was mainly achieved by employing professors of Russian nationality. Following the pattern of Russian universities and after considering the increased amount of research done in the field of hygiene a special chair (professorship) in hygiene was established in 1895. The first most intensive research period at the chair belonged to Professor Grigori Khlopin, who became later to a well-known Russian hygienist. During his staying at Tartu (1896-1903) he was engaged in fruitful scientific research in the field of environmental health: water, housing and food hygiene. He paid much attention to the sanitary protection of water bodies. Under his supervision Alexander Rammul carried out a study of the River Emajõgi as a possible source for a public water supply in Tartu. A. Melkert studied pollution of the River Emajõgi due municipal and industrial wastewater downstream of Tartu. Experimental studies on the toxicity of oil in water were performed. Besides students, several doctors and pharmacists joined the studies. One doctoral and 11 master degree theses were completed. The majority of the studies were published in three volumes of Proceedings of the Laboratory of Hygiene, Universitas Jurjevensis. Following professors J. Shepilevski and N. Gamaleja were bacteriologists and paid special attention to the elaboration of measures for fighting infectious diseases, investigating the morphology of micro-organisms and the self-purification processes of natural bodies of water resulting from the life activities of protozoa. A study on sanitary conditions of dug wells and their water quality in Tartu was carried out in 1915-1916, but the results left unpublished due the outbreak of First World War.

In 1918, Estonia was declared its independence and the national university was opened in December 1919. Several prominent Estonian scientists returned from Soviet Russia and started working in University of Tartu. Among them was Professor Alexander Rammul, who became head of the chair of hygiene and worked here for 20 years. His main areas of research had been water, communal and food hygiene. He initiated and supervised an extensive medicogeographical (sanitary-topographical) study of Estonia, which comprised all counties of the country. The task was to describe the living conditions of people and other public health aspects. Attention was paid to housing, baths, nutrition, drinking water, lifestyle, social activities, health status, prevalence of chronic and mental diseases, etc. The aim of the study was to find out to what extent morbidity and mortality and general health status depended on lifestyle, habits, a supply of food and good water, living conditions and other factors. The study was prepared very thoroughly. Special questionnaires were composed. The researchers (over 80 local doctors and medical students) were trained. Field studies started in 1922 and finished in 1930. The results were published in 11 volumes by county in 1928-1938 (in total over 1000 pages). The next study - mentally ill people in Tartu County - was carried out in 1927-1931. A survey of the water quality of the public water supply and private dug wells, schools and railway stations was compiled. During this period three doctoral theses (P. Põdder, M. Kask and S. Lind), four master degree theses and 11 competitive student's papers were compiled.

The Second World War and post-war years were a hard period for the university and for the Department of Hygiene on particular. Professor Rammul escaped abroad, M. Kask was repressed and sent out to Kazahstan and other teachers were dismissed. In the end of the war only one laboratory assistant remained at the department. During the first decade after the war the academic staff of the department changed frequently and research work came to an entire standstill. A revival in public health research was noticed from the end of 1950s when
Professor Mihkel Kask was rehabilitated and returned to the chair. M. Kask played an outstanding role in the development of public health (particularly health promotion) in Estonia. His dream was a healthy individual, not a treated and recovered one. After the death of Professor Kask (1968) his work was continued under the supervision of his followers Associate Professor M. Uibo (1968-1979) and Professor A. Jannus (1979-1990). Traditionally the research was mainly concentrated on local public health problems such as drinking water quality, the public water supply and sanitary protection of water resources (M. Kask, A. Saava, V. Kiik, I. Vahula and A. Tammepeu), nutrition of pre-school children and their provision with vitamins (M. Uibo and M. Niit), work conditions and health at some industrial enterprises (A. Jannus, J. Reinaru and L. Tanning). During these years history of medicine (V. Kalnin) was also developed. One Doctor of Medicine (habilitatus) and nine PhD degree theses were compiled and defended. Scientific conferences were organised and proceedings were published regularly.

After Estonia regained its independence in 1991 the Department of Hygiene was completely reorganised and renamed the Department of Public Health. The importance of preventive medicine, including a population-based approach, was recognised. The impact of public health was doubled in the curriculum of medical students and staff in the Department of Public Health doubled as well. Further changes were brought about in 1996 when, under the support of the World Bank Estonia Health Project new Chairs of Health Promotion, Epidemiology and Biostatistics and Health Economics were established in addition to the existing Chairs of Health Care Management and Environmental and Occupational Health. The Department also set about improving the qualifications of its staff by employing better-qualified staff and enabling them to complete their Masters in Public Health (5 persons) abroad. On postgraduate level new curricula of Master of Public Health and Master of Sciences in Public Health were developed in 1999-2000 and the first group of students started in September 2000. This is the first time public health specialists will be trained in Estonia since 1940. Up to the 1990s environmental factors and lifestyle were dominant topics of research, but during recent ten years the area of research has enlarged to other fields of new public health: epidemiology, health economics and health care management. Research in public health became both interdisciplinary and international and the number of research projects, which are planned and performed with this perspective, has been constantly increasing. Three doctoral (Maarike Sallo, Eve Pihl and Kaire Innos) and 13 master theses have been completed; two reports about public health in Estonia have published. Both national and international scientific conferences are organized regularly.

1.2. Main directions of research

- Longitudinal development of risky behaviour and risk factors for non-communicable and communicable diseases in children and youth;
- causal association between personality, biological markers and risky behaviour;
- epidemiology and prevention of injuries;
- epidemiology of HIV and sexually transmitted diseases in Estonia;
- indoor air quality and its health consequences;
- drinking water quality and its impact on health;
- data quality of disease registers;
- methodology for analysis of medical data;
- public health aspects of pharmacoepidemiology and pharmacoeconomics;
- patient satisfaction and quality of treatment in health care institutions;
needs assessment for health care services;
economic evaluation of medical services and health programmes.

1.3. Structure of the department

Department of Public Health is a structural unit of the Faculty of Medicine. The Department has five Chairs, currently named as Epidemiology and Biostatistics, Environmental and Occupational Health, Health Promotion, Health Care Management, and Health Economics. Staff of the Department of Public Health consists of 25 persons including 10 teaching (2 professors, 4 associate professors, and 4 senior assistants), and 4 research positions (incl. 2 extraordinary), 6 administrative and 5 technical positions. Three persons (one senior assistant, one research associate and one secretary) are currently on maternity leave. The number of researchers and senior researchers depends on the amount of the target research and grant funding. One professor become status of professor emeritus and continues supervision of current doctoral and master projects. One associate professor (Maarike Harro) was appointed director of newly established National Institute of Health Development since July 2003, but she also continues her research activities and supervision of doctoral and master students at the Department of Public Health, University of Tartu. Detailed personnel information is given in table 1. Department of Public Health has one guest professor, Mati Rahu, who is working as head of Department of Epidemiology and Biostatistics in National Institute of Health Development (formerly Institute of Experimental and Clinical Medicine). He is mainly teaching and supervising doctoral and master students but also participates in collaborative research projects.

Table 1. Academic and administrative personnel

<table>
<thead>
<tr>
<th>No</th>
<th>Name</th>
<th>Title</th>
<th>Load</th>
<th>Area</th>
<th>Gender</th>
<th>Year of Birth</th>
<th>Scientific degree</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>Raul-Allan Kiivet</td>
<td>Professor</td>
<td>1,0</td>
<td>Health Care Management</td>
<td>male</td>
<td>1961</td>
<td>PhD</td>
</tr>
<tr>
<td>2.</td>
<td>Astrid Saava</td>
<td>Professor (emeritus since Aug 2003)</td>
<td>1,0</td>
<td>Environmental and Occupational Health</td>
<td>female</td>
<td>1938</td>
<td>Dr.Sci¹</td>
</tr>
<tr>
<td>3.</td>
<td>Krista Fischer</td>
<td>Associate Professor</td>
<td>1,0</td>
<td>Biostatistics</td>
<td>female</td>
<td>1970</td>
<td>PhD</td>
</tr>
<tr>
<td>4.</td>
<td>Maarike Harro²</td>
<td>Associate Professor</td>
<td>1,0</td>
<td>Health Promotion</td>
<td>female</td>
<td>1960</td>
<td>PhD</td>
</tr>
<tr>
<td>5.</td>
<td>Kersti Meiesaar</td>
<td>Associate Professor</td>
<td>1,0</td>
<td>Health Economics</td>
<td>female</td>
<td>1950</td>
<td>Cand. Sci¹ (Econ)</td>
</tr>
<tr>
<td>6.</td>
<td>Eda Merisalu</td>
<td>Associate Professor</td>
<td>1,0</td>
<td>Environmental and Occupational Health</td>
<td>female</td>
<td>1955</td>
<td>PhD</td>
</tr>
<tr>
<td>7.</td>
<td>Aidula-Taie Kaasik</td>
<td>Research Associate</td>
<td>0,75</td>
<td>Health Promotion</td>
<td>female</td>
<td>1934</td>
<td>Cand. Sci¹</td>
</tr>
</tbody>
</table>

¹ Dr. Sci, and Cand. Sci are degrees of the former Soviet Union which correspond to a Dr.Med and PhD, respectively
² since July 2003 in the National Institute for Health Development
<table>
<thead>
<tr>
<th>No.</th>
<th>Name</th>
<th>Position</th>
<th>Department</th>
<th>Gender</th>
<th>Year</th>
<th>Degree</th>
</tr>
</thead>
<tbody>
<tr>
<td>8.</td>
<td>Anneli Uusküla</td>
<td>Research Associate (extraord)</td>
<td>Epidemiology and Biostatistics</td>
<td>female</td>
<td>1967</td>
<td>PhD</td>
</tr>
<tr>
<td>9.</td>
<td>Diva Eensoo³</td>
<td>Research Associate</td>
<td>Health Care Management</td>
<td>female</td>
<td>1963</td>
<td>MScPH</td>
</tr>
<tr>
<td>10.</td>
<td>Liis Rooväli</td>
<td>Research Associate (extraord)</td>
<td>Health Care Management</td>
<td>female</td>
<td>1968</td>
<td>MScPH</td>
</tr>
<tr>
<td>11.</td>
<td>Kersti Pärna</td>
<td>Senior Assistant</td>
<td>Health Promotion</td>
<td>female</td>
<td>1960</td>
<td>MPH</td>
</tr>
<tr>
<td>12.</td>
<td>Argo Soon</td>
<td>Senior Assistant</td>
<td>Environmental and Occupational Health</td>
<td>male</td>
<td>1965</td>
<td>MPH</td>
</tr>
<tr>
<td>13.</td>
<td>Kaja Pölluste</td>
<td>Senior Assistant</td>
<td>Health Care Management</td>
<td>female</td>
<td>1967</td>
<td>MPH</td>
</tr>
<tr>
<td>14.</td>
<td>Katrin Lang³</td>
<td>Senior Assistant</td>
<td>Epidemiology and Biostatistics</td>
<td>female</td>
<td>1963</td>
<td>MPH</td>
</tr>
<tr>
<td>15.</td>
<td>Ene Indermitte</td>
<td>Research Associate, Since 2003</td>
<td>Occupational Health</td>
<td>female</td>
<td>1967</td>
<td>MPH</td>
</tr>
<tr>
<td>16.</td>
<td>Heiki Annuk</td>
<td>Project Manager</td>
<td>Occupational Health</td>
<td>male</td>
<td>1969</td>
<td>MD</td>
</tr>
<tr>
<td>17.</td>
<td>Aare Floren</td>
<td>Project Manager</td>
<td>Laboratory of Working Environment</td>
<td>male</td>
<td>1977</td>
<td>BSc (Physics)</td>
</tr>
<tr>
<td>18.</td>
<td>Kristjan Aruoja</td>
<td>Project Manager</td>
<td>Laboratory of Working Environment</td>
<td>male</td>
<td>1977</td>
<td>BSc (Physics)</td>
</tr>
<tr>
<td>19.</td>
<td>Monika Jürgenson</td>
<td>Project Manager</td>
<td>Laboratory of Working Environment</td>
<td>female</td>
<td>1972</td>
<td>BSc (Chem)</td>
</tr>
<tr>
<td>20.</td>
<td>Kaido Pölluste</td>
<td>IT Specialist</td>
<td></td>
<td>male</td>
<td>1961</td>
<td></td>
</tr>
<tr>
<td>21.</td>
<td>Merike Koppel</td>
<td>Secretary</td>
<td></td>
<td>female</td>
<td>1977</td>
<td></td>
</tr>
<tr>
<td>22.</td>
<td>Kaili Reinumägi³</td>
<td>Secretary</td>
<td></td>
<td>female</td>
<td>1972</td>
<td></td>
</tr>
<tr>
<td>23.</td>
<td>Ludmilla Jakobson</td>
<td>Senior Lab. Assistant</td>
<td></td>
<td>Female</td>
<td>1954</td>
<td></td>
</tr>
<tr>
<td>24.</td>
<td>Endla Anni</td>
<td>Lab. Assistant</td>
<td></td>
<td>female</td>
<td>1941</td>
<td></td>
</tr>
</tbody>
</table>

³ currently on maternity leave
There are also 48 postgraduate students involved into activities of Department of Public Health: 11 of them are PhD students (9 in Public Health, 1 in Neuroscience and 1 in Pharmacy) and 37 are master degree students (12 of them are taking the Master of Science and 25 the Master of Public Health course).

Research and teaching staff of Department of Public Health belong to The Estonian Centre of Behavioural and Health Sciences (CBHS). The CBHS was established in 2001 in the process of selection of Estonian Centres of Excellence, with an aim to ensure appropriate conditions for research to the already available competence in these disciplines in Estonia, to guarantee further development and word class standards through a co-ordinated research network and integrated graduate study programs, and to bring together theoretical and applied research with special emphasis on multidisciplinary approach. The main directions of research at CBHS are the processes of perception and cognition, the structure of personality and its biological and cultural underpinnings, the convergent influence of personality and environment on behaviour and health, child development and assessment and promotion of children's health, assessment of persistence of individual differences and their neurobiological modelling, the physiological, psychological and social determinants of health, and longitudinal and multilevel assessment of health impacts. CBHS consists of 10 research groups, 2 of them (Biostatistics and Health Care Research Group and Health Behaviour Research Group) come from the Department of Public Health.

1.4. Administration of research activities at the department

Principal investigators of grants and projects have full rights for disposal of funds and also the responsibility for the final outcome of their projects. Head of the department acts as a coordinator of different projects. Once a week there is a meeting of a department in order to follow the advancement of research projects and postgraduate students.

1.5. General data on financing

Infrastructure costs are financed by the University of Tartu on the basis of overhead system. Office costs are partially supported by the Department.

Table 2. Financing of research activities at Department of Public Health

<table>
<thead>
<tr>
<th>Year</th>
<th>Target financed projects</th>
<th>PhD students</th>
<th>Grants</th>
<th>Applied projects</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>No</td>
<td>Sum (EEK)</td>
<td>No</td>
<td>Sum (EEK)</td>
</tr>
<tr>
<td>1998</td>
<td>0</td>
<td>-</td>
<td>0</td>
<td>-</td>
</tr>
<tr>
<td>1999</td>
<td>1</td>
<td>330 000</td>
<td>4</td>
<td>90 250</td>
</tr>
<tr>
<td>2000</td>
<td>1</td>
<td>297 000</td>
<td>4</td>
<td>64 400</td>
</tr>
<tr>
<td>2001</td>
<td>1</td>
<td>300 000</td>
<td>7</td>
<td>100 000</td>
</tr>
<tr>
<td>2002</td>
<td>2</td>
<td>645 000</td>
<td>7</td>
<td>100 000</td>
</tr>
<tr>
<td>2003</td>
<td>2</td>
<td>680 000</td>
<td>5</td>
<td>50 000</td>
</tr>
</tbody>
</table>

1 incl. 1 postdoctoral target financed project
During 1998-2000 World Bank Estonia Health Project funded salaries of the staff of three Chairs: the Chairs of Health Promotion, Epidemiology & Biostatistics and Health Economics (total amount 1 873 465 EEK). With the financial support of the World Bank project, the Department has also been able to establish the library of Department, subscribe scientific journals and finance the training of personnel in Estonia and abroad.


Table 3. Quantitative data about the publications of the members of the department

<table>
<thead>
<tr>
<th>Year</th>
<th>Articles in peer-reviewed journals or books</th>
<th>Incl. CC Articles</th>
<th>Other scientific papers¹</th>
<th>Monographs Published in Estonia</th>
<th>Monographs Published abroad</th>
<th>Scientific Papers in Estonian</th>
<th>Total</th>
<th>Published conference abstracts</th>
</tr>
</thead>
<tbody>
<tr>
<td>1998</td>
<td>5</td>
<td>5</td>
<td>2</td>
<td>2</td>
<td>1</td>
<td>9</td>
<td>33</td>
<td>31</td>
</tr>
<tr>
<td>1999</td>
<td>10</td>
<td>8</td>
<td>3</td>
<td>1</td>
<td>1</td>
<td>2</td>
<td>31</td>
<td>66</td>
</tr>
<tr>
<td>2000</td>
<td>5</td>
<td>4</td>
<td>4</td>
<td>1</td>
<td>1</td>
<td>9</td>
<td>32</td>
<td>63</td>
</tr>
<tr>
<td>2001</td>
<td>4</td>
<td>3</td>
<td>1</td>
<td>1</td>
<td>0</td>
<td>10</td>
<td>31</td>
<td>38</td>
</tr>
<tr>
<td>2002</td>
<td>6</td>
<td>6</td>
<td>5</td>
<td>4</td>
<td>1</td>
<td>16</td>
<td>48</td>
<td>25</td>
</tr>
<tr>
<td>2003</td>
<td>15</td>
<td>15</td>
<td>0</td>
<td>3</td>
<td>1</td>
<td>3</td>
<td>36</td>
<td></td>
</tr>
</tbody>
</table>

¹ international papers

Data regarding the year 2003 are as of September 1st.

1.7. Developmental strategy and future plans

Management of the Department is based on the Developmental Plans of the Chairs, which are prepared for a three-year period. The Board of Medical Faculty has already approved plans of Chair of Health Promotion and Chair of Health Economics for years 2003-2005. The strategy also necessitates more intensive search for funding research and extensive collaboration with colleagues in Estonia and abroad.

Research development plans of the Department of Public Health are herein illustrated as presented in the joint application with National Health Development Institute for target financing to Estonian Ministry of Education for years 2004-2008 under the title “Evaluation of health determinants and efficacy of health interventions in Estonia”. Proposal is a continuation of current (1999-2003) target financed project “Connections between health status and utilization of health care resources in Estonia – gender and age differences and dependence an social status and subsistence”.

The overall goal of studies is to initiate systematic investigations of the health of nation and to monitor the health developments. Health monitoring with the help of personalized data from health registers enables to evaluate the influence of health determinants, the efficacy of health care services, and the effectiveness of political decisions and health interventions in Estonia.
The research will be carried out in eight main areas:
- longitudinal studies of the health of adolescents in international comparison
- health monitoring of a representative sample of the Estonian adult population;
- the epidemiology of HIV and sexually transmitted diseases in Estonia;
- efficacy of HIV prevention;
- evaluation of efficacy of health programmes and interventions;
- access and quality of medical care;
- socio-economical determinants of health;
- health in working environment.

Examples of future research plans

1. The health of adolescents in Estonia in international comparison
   Participation in the European Youth Heart Study will continue. Risk factors for chronic
   diseases and its possible determinants will be followed in a group of 9- and 15-year-old
   adolescents in longitudinal study. The database consisting info on 1167 youth and their
   parents includes self-administered questionnaires on health behaviour, socio-economic status,
   presence and frequency of health problems and diet interviews. Physical activity and fitness,
   anthropological and vital measurements will be recorded. Follow-up study will be performed
   after every 3 years.

2. Comprehensive health monitoring of a representative sample of the Estonian adult
   population.
   Until now, no such regular survey has been conducted. It is planned to study the health of a
   representative sample (at least 4000) of the Estonian population, combining interview
   methodology (health behaviour and quality of life) with objective measurements of physical
   activity and fitness. In 2004-05 a detailed protocol will be developed in coherence with the
   EU Health Indicator System, and study personnel will be trained.

3. The epidemiology of HIV and sexually transmitted diseases in Estonia.
   HIV and sexually transmitted diseases are a rapidly growing problem in Estonia, but its
   epidemiology has been addressed poorly. HIV epidemic is concentrated among injecting drug
   users in Estonia, but there is no reliable data on either the prevalence of HIV or injecting drug
   use in the population. Thus specific studies connected to needle exchange programme and
   capture-recapture methodology will be carried out. Collaboration is planned with Johns
   Hopkins University from US.

   A large-scale programme to combat the HIV epidemic has been launched in 2003 in Estonia,
   partially financed by the Global Fund. In order to evaluate the efficacy of this programme, the
   pre-start situation has to be mapped. The number of persons in risk (injecting drug users,
   homosexual, sex workers) and the extent of use of protective measures by them has to be
   evaluated. After two years follow-up studies will be performed to measure the difference in
   knowldege and behaviour.

5. Evaluation of efficacy of health programmes and interventions, political decisions.
   From among the programmatic national measures and political decisions in the field of health
   promotion it is planned to continue to analyse the efficacy of:
- delivery of free school lunches to children from deprived families;
- health promoting school movement to the health development of school-children;
- sexual health education among schoolchildren:
- effectiveness of media campaigns on the knowledge and beliefs of people;
- effectiveness of tackling inequalities in health and health behaviour;
- the influence of parental salary on the natural increase of Estonian population.

There is lack of data about the distribution of health and disease among the population of Estonia, but this is essential knowledge for proper planning and provision of health care services. On the basis of data on the use of health care services, medical statistics and questionnaire surveys it is planned to continue studies:
- on relationship between health status and health service use;
- analysing the cost of health care services in relation to health effects gained;
- on cost-effectiveness of health care services;
- on health-related quality of life and patient satisfaction;

7. Socio-economic determinants of health.
Health questionnaires and interviews with social and economic studies will be linked to disease registers and statistical databases to follow socio-economic determinants of health. More in-depth analysis is needed in order to study the causal relationship. The attention will be paid on the development of socio-economic determinants that negatively influence health and that can be modified (dropping out of school, longstanding unemployment, health illiteracy).

8. Health in working environment.
The health impact of contemporary working environment is poorly understood. Office conditions, i.e. indoor air, ergonomics of working with computers and mental stress are examples of factors which influence the perceived health of workers. The occupational environment laboratory in the Department of Public Health is well equipped and the staff has gained experience to perform studies in this area. The goal is to link objective measurements of chemical, physical and microbiological environmental health determinants to the perceived health and health behavior and to the use of medical services by populations under study.

Priority measures for development

Studies performed so far at the Department have highlighted the need to integrate a variety of methodologies into the research process, which requires the collaboration of specialists with different educational and scientific background. This has already been formalized in the framework of Estonian Centre of Behavioral and Health Sciences. As well, close and intensive collaboration with the National Institute of Health Development in Tallinn is foreseen, as Maarike Harro, Associate Professor of Health Promotion, has been elected its director this summer.

International collaboration will be another area to develop in the future. Participation in the applications to the EU 6th framework and in the EU Public Health Programme are essential. Until now one small-scale research project in the area of ageing and health has been approved, where Department will act as a partner, and several other applications are under inspection or are in the preparatory phase.
Research at the Department of Public Health has been intimately related to postgraduate research training. This is seen as priority area for the future as well. The papers published and theses defended so far by the postgraduate students demonstrate the capability of future research staff and the potential to advance research in the field of public health further.

1.8. **Workspace and equipment**

Department of Public Health was located in 3 different places until 1999. In the second half of 1999 the new building of Biomedicum was completed and Department together with pre-clinical institutions moved to this building. It has strong impact for the quality and quantity of scientific collaboration between different Chairs of Department of Public Health and also with other departments of the Medical Faculty located in the Biomedicum.

Department of Public Health is locating in the left wing of the 4th floor of Biomedicum. There are 5 well-equipped scientific laboratories: laboratory for health measurements, biochemical laboratory, laboratory of working environment, laboratory for physical measurements and laboratory for microdialysis.

Laboratory for health measurements has equipment for anthropometrical measurements, treadmill, a gas-analysator to measure oxygen uptake using a direct method, 22 CSA accelerometers together with the software to measure physical activity, 11 sport testers POLAR VANTAGE with the software to measure heart rate, and blood pressure monitor DINAMAP and bicycle MONARK 839E.

Department of Public Health has during the last few years put a lot of effort to develop the laboratory of occupational environment. The laboratory has obtained the equipment and methodology for conducting measurements of physical, chemical and microbiological risk factors in working and living environment:
- atom adsorption spectrometer and gas chromatograph for chemical analysis;
- HPLC system for biochemical measurements;
- noise and vibration analyser, environment and air analysis equipment;
- incubators and laminar flow for microbiology.

The occupational environment laboratory is passing the accreditation process in 2003 by the Estonian Accreditation Centre. Accreditation certificate will give full rights to perform risk analysis in occupational environment in any settings. Thus practical advice will be connected to applied research in order to provide basis to more in-depth research on working and indoor environment.

The staff is well equipped with personal computers. The Department of Public Health subscribes several scientific journals, many necessary journals are available at the University library and current issues are deposed for one month at the Library of the Biomedicum. Monthly notice regarding incoming journals is sent by the librarian by e-mail to all personnel. Staff of Department has also online access to full-texts of many scientific journals through the Tartu University Library.
1.9. Scientific collections

Department of Public Health has its own library. There are more than two thousand books, handbooks, international and national scientific journals in the library. The library was established with the financial support of the World Bank Estonia Health Project. There is a separate room for the library in the Department. Graduate and postgraduate students and the staff of the Department intensively use library.

2. BEST PUBLICATIONS

This following list includes one research paper per each of the core teaching and research staff of the Department of Public Health, in the order of appearance in Table 1. The papers are selected according to subjective preference of authors (underlined).


The following is a list of 12 other outstanding research papers, published by postgraduate students and staff members, but not listed above.


3. “TARGET FINANCED” PROJECTS

**TARTH0820 CONNECTIONS BETWEEN HEALTH STATUS AND UTILIZATION OF HEALTH CARE RESOURCES IN ESTONIA – GENDER AND AGE DIFFERENCES AND DEPENDENCE ON SOCIAL STATUS AND SUBSISTENCE (1999-2003)**

Principal investigator: Raul Kiivet

Investigators: Maarika Harro, Kersti Meiesaar, Krista Fischer, Diva Eensoo, Liis Rooväli, Liis Merenäkk, Kersti Pärna

Financing used: 1 857 000 EEK

Relations between personality traits, physical activity and risky behaviour in frames of health studies were analysed. Correlations between lower conscientiousness and risky behaviour (smoking, illegal drug use, alcohol consumption, and unprotected sex) and drop out from the school were found. The relations between platelet monoamine oxidase (the genetic marker of health behaviour influencing factor) and sex, age, puberty stage, personality traits and health behaviour were descried. Socio-economic status of the family has influence to the prevalence of acute illnesses, mood disorders and possibilities to take regularly physical activity among children. In the frames of international “European Youth Heart Study” a longitudinal study was started four years ago. The repeated measurements have been carried out for the older age group.

Studies of hospital utilization showed that hospital use decreased significantly with increasing travel time from place of residency to the nearest hospital. The accessibility of hospital care is most problematic for elderly. For economic evaluation of primary health care reform the indicator system was developed. Studies on asthma treatment revealed the correspondence to the evidence based standards. Questionnaires of self-perceived health were used to measure the need for health care services. Education is one of the most important socio-economic factor influencing health in Estonia. Lower education has relations with lower income and social status, but the influence on health appears earlier.

Master theses defended:

2. Liis Merenäkk. Alcohol and illicit drug consumption in relation to platelet monoamine oxidase activity and personality traits in schoolchildren. MSc thesis defended at University of Tartu, June 3rd, 2002.

Publications:

TREATMENT OF THE SEXUALLY TRANSMITTED DISEASES IN ESTONIA: CONSISTENCY WITH THE EVIDENCE BASED MEDICINE PRINCIPLES
Postdoctoral student: Anneli Uuskiikala
Financing: 395 000 EEK

Physicians have a vital role in interrupting the spread of sexually transmitted diseases (STD) through early diagnosis and appropriate treatment. In order to promote consistent quality case management, guidelines based on evidence are prepared and advertised by the health authorities such as the WHO, IUSTI, and the CDC. Objectives of the study was to define the
schedule of antibiotic treatment that Estonian doctors use to treat STDs, and to determine if the treatments used corresponds to evidence-based medicine treatment principles.

Study was based on abstracted data from Estonian Health Insurance Fund’s Pharmaceuticals reimbursement database 2000 and 2001. The overwhelming majority of outpatient STD treatments are prescribed either by gynecologists (60%) or by dermatovenerologists (29%). General practitioners treat 8% of STDs.

In 11% of cases the drug prescribed to treat STD was inconsistent with guideline recommendation; in addition to that, in 9% of cases the drug was chosen accurately but the treatment dose was too low, therefore at least 20% of cases treatment could be considered inappropriate. Educational efforts are needed to increase physician’s awareness of evidence-base approach for STD management and treatment.

Master thesis (M.S. Epi) defended at School of Public Health, State University of New York, April 17th, 2003.

4. RESEARCH GRANTS

4.1. Grants from the Estonian Science Foundation

ESF grant 2406 (1996-1999)
Principal investigator: Taie Kaasik
Investigators: Katrin Lang, Reet Uring (psychologist, Tartu Department of the Open Education Union), Maie Thetloff (MSc, Central Health Insurance Fund of Estonia), Mare Oder (student of nursing-science).
Finances used: 248 000 EEK

The study population consisted of 452 students aged 17-32 occasionally selected from all faculties of the University of Tartu. An ad hoc complex psychosocial and health questionnaire was used.

The results showed that only 1.8% of the students were considered to be as “healthy”. Eye and teeth diseases including refraction pathology were the most common health problems followed by the problems related to the nervous system and digestive system. The students considered their own health as ”rather good”. There were more recreational and competitive sportsmen among the students of 1990-ies than 1980-ies. Physical activity was in close positive relationship with better health indices. Smoking was less spread among the students in comparison with the working youth of the same age, but was almost at the same level as in 1980-ies. Both students of 1990-ies and 1980-ies had dominantly irregular lifestyle that was closely related to health disorders. On the basis of results can be concluded that physical activity and regular lifestyle should be advocated as an important tool for health promotion among undergraduates.

Publication:
Dissertation advised:

ESF grant 2484 (1996-1998)
MOLD FUNGI IN WORKING AND LIVING ROOMS IN ESTONIA AND THEIR INFLUENCE ON HUMAN HEALTH
Principal investigator: Argo Soon
Finances used: 195 000 EEK

Main purpose of the study was to describe indoor environment and indoor air quality in Estonia. Occupants of 5 office buildings in Tartu formed the study population of a questionnaire-based cross-sectional study. Though only 12.5% of people studied assessed their home building being in good condition, they generally were satisfied with indoor environment at home. At work, there were most common complaints about stuffy air (~60%), dry air and poor illumination (both ~45%). About 40% assessed work environment as too dusty and also noisy. The prevalence of sick building syndrome (defined as set of unspecific symptoms that occur in relation to certain room or building) symptoms was emerging being highest for unexplainable fatigue (62.8%), dizziness (64.1%) and headache (54.7%). Results of objective measurements demonstrated poorer indoor environment conditions in Tartu than those in Finland. Concentration was higher in Tartu offices for CO$_2$, volatile organic compounds and airborne particulate; also the illumination was rather poor in libraries in Tartu. That study demonstrated an existing problem regarding indoor environment in Estonia. In order to evaluate those health risks more precisely and to work out effective measures for prevention, additional studies and deeper analysis of collected data are needed.

Publications related to the grant

Master thesis defended:

ESF grant 2396 (1996-1998)
BIOAVAILIBILITY AND CLINICAL EFFICACY OF ANTITUBERCULOSIS DRUGS
Principal investigator: Raul Kiivet
Investigators: Rein Pähkla (PhD, Department of Pharmacology), Heinart Sillastu PhD, Annika Krüüner and Manfred Danilovits (Tartu University Lung Clinic)
Financed used: 326 000 EEK
The incidence of tuberculosis doubled during 1992-1997 in Estonia, creating a situation which can be considered as epidemiological dangerous. Since tuberculosis is a curable disease it is important to identify the reasons for the spread of tuberculosis in Estonia, where no HIV positive person has so far been infected with tuberculosis. The current grant assessed the quality and bioavailability of rifampicin, evaluated the efficacy of tuberculosis treatment on the basis of microbiological testing, compared the outcome of treatment in different disease states, and evaluated the quality and costs of tuberculosis treatment. The research revealed the bioavailability of three rifampicin preparations was sufficient. Underuse of microbiological testing as well deficiencies in the organization and continuity of treatment were underlined as main shortages of the treatment. The results have been published in scientific papers and were used to develop and implement the National Programme Against Tuberculosis for Estonia.

**Publications:**

**ESF grant 2969 (1997-2000)**
**PSYCHO-SOCIAL WORK ENVIRONMENT AND HEALTH OF TEACHERS IN ESTONIA**
Principal investigator: Eda Merisalu
Investigators: Astrid Saava, Maie Thetloff (MSc, Health Insurance Fund)
Funding used: 410 000 EEK

The study was carried out using anonymous survey by random sample of teachers in schools in Estonia. Modified C.Cooper’s stress-questionnaire, Maslach’ burnout questionnaire and health questionnaires by Bru and Mykletun were used. Continuous shortage of time, working equipment and tools, lack of autonomy and competency were the most important organisational risk factors. Pupils’ violent behaviour, conflict between working and personal life, communication problems with colleagues and administration were the most important psychosocial risk factors. There was mild level of burnout found among teachers in Estonia. Relations between risk factors, working ability and health complains were found.

**Publication:**

**ESF grant 3079 (1997-2000)**
**MEDICINES IN ESTONIA (INCL. ADDICTIVE DRUGS): INFORMATION, USE AND POSSIBILITIES FOR INTERVENTION**
Principal investigator: Raul Kiivet
Investigators: Jaanus Harro, Anneli Zirkel and Ly Rootslane
Contemporary world is characterized by increasing use of chemicals, including pharmaceuticals, the trend of the last years has also been the increasing use of non-prescription medicines and the use of medicines without instructions from medical profession (i.e. self-medication). The hypothesis for this study was, that the prescription and use of medicines and non-medical use of addictive drugs is related to the availability of information, and that this practice can be influenced by targeted and comprehensive educational interventions.

In the condition of limited finances the studies were carried out on two aspects. The actual drug consumption of Estonia in total and the prescription of medicines by physicians were assessed (drug consumption in hospitals). The preferences and the extent of the self-medication was studied. The information sources for decision making in case of non-prescription medicines used by patients were identified using the questionnaire. The research revealed that the use of medicines differentiates by hospitals and by years. The total consumption of the medicines and the list of preferred medicinal products may be different. The higher turnover of medicinal products in one hospital dose not be related to the higher drug consumption, but depends on the choice of medicinal product. On the basis of the questionnaire performed for studying the general knowledge of population the following was found: The most of patients thought they have adequate information about the administration time of the medicines and about the storage conditions. The patients needed more information about doses of medicinal products, alternative medicinal products, drug interactions etc.

Publications:

Master thesis defended:
Anneli Zirkel. Drug and alternative medicine usage among Estonian population. MSc thesis defended at University of Tartu, June 03rd, 2002.
ESF grant 3277 (1998-2001)
GENETIC PRECONDITIONS, PERSONALITY TRAITS, LIVING CONDITIONS AND LIFESTYLE INFLUENCING THE DEVELOPMENT OF RISK FACTORS OF HEART AND ATHEROSCLEROTIC DISEASES IN 9-16 YEARS OLD CHILDREN. THE EUROPEAN YOUTH HEART STUDY (EYHS) I
Principal investigator: Maarike Harro
Investigators: Diva Eensoo, Jaana Alep, Liis Merenäkk, Inga Villa, Krystiine Liiv
Funding used: 641 000 EEK

The aim of the study was to establish a network of European research teams in the field of cardio-vascular disease (CVD) risk factors and predisposing influences in children and adolescents, and to look for causal relationships using a longitudinal study-design. EYHS I was performed in 1998/99 in 583 children (9 years of age) and 593 adolescents (mean age 15 years). A large set of variables associated with the development of risk for CVD was measured including lifestyle, biochemistry, physiological, psychological, familial, socioeconomical and health related factors. The study gave an excellent possibility for the group to build up a team who is able to perform largescale studies with children and adolescents using internationally accepted methodologies, quality control measures and cooperation. The large data base and blood bank that was formed has been a pool for several under and post graduate students to perform their analysis and learn to publish.

Publications:
3. Harro, J. Vansteelandt, S., Fischer, K. Harro, M. Both low and high activity of platelet monoamine oxidase increases the probability of becoming a smoker. European Neuropsychopharmacology (in press)

Master theses defended:
2. Liis Merenäkk. Alcohol and illicit drug consumption in relation to platelet monoamine oxidase activity and personality traits in schoolchildren. MSc thesis defended at University of Tartu, June 3rd, 2002.
ESF grant 3900 (1999-2002)
HEALTH ECONOMIC EVALUATION OF PRIMARY CARE REFORM
Principal investigator: Kersti Meiesaar
Investigators: Agris Koppel, Katrin Sihver, Andrus Metsa, Heidi-Ingrid Maaroos (PhD, Department of Family Medicine, University of Tartu), Margus Lember (PhD, Clinics of Internal Medicine, Tartu University Clinics) Maie Thetloff (MSc, Health Insurance Fund)

Financing used: 370 000 EEK

Since 1998 January 1st the new primary care financing system (capitation) was introduced. Analysis of the performance of the new payment system and possibilities for improvements were necessary. We carried out the comparative efficiency analysis between family doctors working according the new payment and salaried doctors in policlinics in representative samples.

The original system of indicators for evaluation of primary health care reform is worked out and probated on the data of Estonia for period 1997-2001. This system could be used in planning, evaluation and management of primary health care reforms in countries where the reforms of primary health care are in stage of planning or early implementation. The another result of this scientific project is about economic impact of remuneration system of primary health care doctors on their medical activity decisions. These results could be also used as a tool for planning and management of primary health care reforms.

Publications:

ESF grant 3979 (1999-2001)
THE SICK BUILDING SYNDROME IN OFFICE WORKERS IN ESTONIA
Principal investigator: Argo Soon
Investigator: Ene Indermitte
Financing used: 325 000 EEK

A cross-sectional study using self-administered questionnaire based was done in order to describe sick building syndrome in Estonian office buildings, and to compare it between different types of buildings regarding those’ maintenance facilities. Additional data were gathered during walk-through survey and from building managers. Several physical parameters and TVOC and formaldehyde content were measured in indoor air. Air samples for microbial growths were taken. Results showed wide range of symptoms and signs of discomfort, varying between units in spite of uniform conditions and similar job-tasks. Physical parameters showed remarkable variations within the building but few of them were related to symptoms. TVOC and formaldehyde concentrations were on the negligible level. The indoor air fungal spore concentration remained within recommended level. Bivariate and multivariate statistical analyses revealed that least healthy are rooms with only mechanical ventilation and with no opportunity to open windows. In order to decrease symptom
occurrence in occupants, workplaces without opportunity to open windows should be avoided.

**Publication:**

**ESF grant 4430 (2000-2002)**
THE PSYCHO-SOCIAL BACKGROUND, WORKING HISTORY CONDITIONS, JOB SATISFACTION, VIEWS ON EDUCATION AND PERSONAL VALUES OF ESTONIAN JUNIOR PHYSICIANS
Principal investigator: Astrid Saava
Investigator: Alar Sepp
Financing used: 250 000 EEK

The aims of the study were to evaluate the psycho-social background, life situation and working history of junior physicians in Estonia, as well their views on undergraduate education, job satisfaction, future plans, professional and social identity and changes taken place in these issues during last five years.

The study is based on a self-completed questionnaire survey among sample (n=722) of medical doctors graduated in 1982-1996 and registered in Estonia in 2000. Those physicians born on even-numbered days and located (having address) were taken as a sample. The response rate was 66.8%, mean age of the respondents was 37.7 years and 78.9% of them were female. 77.9% of respondents worked in health care system (50.7% in hospitals and 49.3% in primary health care), 2% within research and teaching institutions.

Respondents were satisfied with the teaching they had had for hospital work, the training for primary health care work was seen as inadequate. Far too little attention was given to teaching of administrational and management issues. Most frequently reported dissatisfaction items were scarcity of resources, fear of failure or mistakes and mental strain in work. Family life, succeeding with studies and work and health were the most important values for young Estonian physicians.

Results of the study could be used by changing the curricula’s in the university and improving the working conditions of physicians.

**Publications:**

**Doctoral thesis:**
Alar Sepp has under preparation the Doctoral thesis, which will be defended as a monograph at University of Tampere.
To differentiate the individual health care needs, the validated questionnaires SF-36 and EuroQol were used. Postal survey among patients being hospitalized in Tartu University Clinics due different chronic conditions (gastroenterological, rheumatic, pulmonological, cardiac) was carried out. The results were compared with general population data. Patients with rheumatoid arthritis had the lowest perceived health due their physical condition and social problems connected with it.

Analysis between relations of health care services use and socio-economic (SES) status revealed that population groups with lower SES utilize less health care services, e.g. people with lower education utilize less specialist and dental care than people with higher education. Also regional differences were found: rural people use less specialist and dental care but more primary health care than urban inhabitants do. There is almost 25% difference in hospital utilization between counties in Estonia.

The effect of travel time to the hospital utilization was studied. Hospitalization and readmission rates of municipality residents declined up to fifty percent with increasing travel time to the nearest hospital.

Publications:

Master thesis defended:
The aim of the project is to extend existing methods and develop new methodology for the analysis of medical data, when the data does not contain complete information on quantities of interest. There are at least two general cases that one can consider as the problem of incomplete information. Missing information can lead to bias and cause problems for causal inference. The methodology of structural mean models leads to unbiased estimates in the presence of selectivity and is developed for placebo-controlled trials. The plan is to extend that methodology for more general cases: trials comparing two active treatments, trials with repeated measurements and observational epidemiological studies. In the last case the plan is to use also the results from econometrics, mainly instrumental variables estimators.

Besides estimation methodology, it is necessary to develop tools for model diagnostics in all contexts mentioned above. This is the least developed aspect up to now in the analysis of incomplete data and causal inference. The aim is to develop appropriate test-statistics and investigate their theoretical properties together with some graphical tools.

Publications:
3. Harro J, Fischer K, Vansteelandt S, Harro M. Both low and high activities of platelet monoamine oxidase increase the probability of becoming a smoker. European Neuropsychopharmacology (in press).

ESF grant 5209 (2002-2005)
LONGITUDINAL STUDY ON DEVELOPMENT OF CARDIO-VASCULAR RISK FACTORS IN CHILDREN AND YOUTH. EUROPEAN YOUTH HEART STUDY II
Principal investigator: Maarika Harro
Investigators: Diva Eensoo, Liis Merenäkk, Inga Villa, Jaana Alep, Imbi Jaks, Reelika Kiivit
Funding used: 2002 100 000 EEK
2003 105 000 EEK

This study is the first follow-up for older group of participants of EYHS. At the moment of the study the participants were 18 years old. The number of adolescents who participated was 401 (68%). The study of drop-outs gave us interesting results concerning the association between dropping out of school and personality. The data of the follow-up study has been
already actively used and we have started to publish it. The analysis and publication of the data is in progress at the moment.

Publication:
Liiv K, Harro M, Fischer K. The influence of personality traits on the tracking of smoking behavior in adolescents (submitted to Preventive Medicine in March 2003)

Master thesis defended:

ESF grant 5218 (2002-2005)  
STRUCTURE OF INJURY DEATHS IN ESTONIA, AND THEIR SOCIO-ECONOMIC, AGE, GENDER, ETHNIC, HEALTH AND LIFE-STYLE ASPECTS AMONG CHILDREN AND ADULTS UNDER AGE 65  
Principal investigator: Aidula-Taie Kaasik.  
Investigators: Ilona Dríkkit (MD, forensic pathologist, Estonian Bureau of forensic Medicine), Marika Väli (PhD, Chair of Forensic Medicine at the Department of Pathological Anatomy and Forensic Medicine of the University of Tartu), Lenno Uusküla (MA, Faculty of Economics of the University of Tartu).  
Financing:  
2002: 140 000EEK  
2003: 140 000EEK  
This is a study of cause-specific injury victims aged 0-64 years, in Estonia in 2000-2002. The aim is to disclose relationships between certain types of injury deaths and victims’ age, gender, nationality, family status, income and lifestyle, and to calculate years of life lost. An ad hoc questionnaire is used. The respondents are family members or friends of the victims. A part of the indices are gathered from the archival papers of the Departments of the Estonian Bureau of Forensic Medicine. The preliminary results showed that the risk of fatal injury is higher among the lower social classes, lonely persons, unemployed and heavy drinkers. Low social status of family is conducive to fatal injury in childhood. There are differences between characteristics of victims of different types of injuries. The study continues.

Publication:  

Defended dissertation:  

ESF grant 5451 (2003-2006)  
DETERMINANTS OF DROPPING OUT OF SCHOOL IN ESTONIA  
Principal investigator: Maarike Harro  
Investigator: Seila Mündi, Juta Voist  
Financing in 2003: 100 000 EEK
The project was started in 2003. Every year more than 2000 adolescents drop out of school in Estonia. The problem has been notified but there is a lack of information about the causes of this problem. The project aims to study the determinants of dropping out of basic school (before grade 9) using a longitudinal design. We have worked out the questionnaires and study plans. The data collection will start in November 2003.

**ESF grant 5526 (2003-2004) SURVEY OF SYRINGERS USED BY INTRAVENOUS DRUG USERS: DETERMINING HBV, HCV AND HIV**
Principal investigator: Anneli Uusküla
Financing in 2003: 115 000 EEK

HIV infection associated with injecting drug use has been reported worldwide, and is established as the major cause of rapidly increased rates of HIV infection in several countries throughout East- Europe. In the newly independent states of the former Soviet Union Republics large-scale HIV epidemics have been observed from 1995 onward, after injecting drug use (IDU) communities. The study is conducted to determine the acceptability and feasibility of utilizing used syringes for HIV, HCV, and HBV; to estimate the prevalence of HIV, HCV, and HBV among IDUs utilizing the needle exchange program and to ascertain risk factors for becoming infected and infecting others. Residual blood extracted from syringes handed in by study participants for needle exchange will be tested for contamination. Blood will be drawn from study subjects for comparison of infection status with syringes. Two surveys will be administered to obtain information to further understand the prevalence and transmission factors of HIV, HCV, and HBV among subgroups of the study sample.

4.2. Grants from abroad

**EVALUATION OF EFFICACY AND COST OF SCHIZOPHRENIA TREATMENT IN FOUR EUROPEAN COUNTRIES**
Scientific co-ordinator: Raul Kiivet
Investigator: Peeter Jaanson
Funding used: 631 655 EEK

The general aim of the project was to evaluate the efficacy and safety of treatment and to quantify the utilization of healthcare resources in the treatment of schizophrenia in different healthcare systems. Additional objectives were to guide neuroleptic drug treatment with the help of developing new methods for therapeutic drug monitoring and for prediction of adverse effects and interactions of neuroleptics, which occur mainly because of pharmacogenetic variability in drug metabolism.

- The prescription and other treatment practices of psychiatrists varied considerably and the variability among psychiatrists in one hospital was larger than between different countries;
- Use of health care resources, necessary to achieve the alleviation of disease symptoms and the stabilisation of the patients, was variable;
- The recognition of adverse effects and events of pharmacotherapy is low among psychiatrists and this should be taken into account for further educational interventions;
- development and evaluation of clinical pharmacological methods as tools for individualised antipsychotic therapy, and for assessment of the quality of antipsychotic treatment at patient level;
- We developed new methodologies to determine the plasma concentrations of clozapine, risperidone, fluoxetine and thioridazine for therapeutic drug monitoring.

Publications:

From the cooperation two PhD theses and one MSc thesis have arisen. Peeter Jaanson from Tartu, Estonia will defend his Master of Science Thesis in autumn 2003, at Karolinska Institute, Stockholm.

5. RESULTS OF APPLIED RESEARCH

LARTH05899 Ministry of Social Affairs (2000)
TALLINN PRIMARY CARE PROJECT
Principal investigator: Raul Kiivet
Investigators: Agris Koppel, Kaja Pölluste, Krista Fischer, Mari Aaremäe and Ekke Nääb (Department of Public Health, University of Tartu), Ruth Kälta and Margus Lember (Department of Family Medicine, University of Tartu), and Kaie Kerem (Tallinn Technical University).
Funding used: 440 000 EEK

The project was initiated and supported by the World Bank, but run and steered by the Social and Health Authorities of the City of Tallinn. The different alternatives for organizing Family Doctors Practices are experimented where autonomy and entrepreneurship are important.
The aim of the project was to evaluate and compare the different arrangements of organizing family doctors practices. The evaluation was conducted by the Department of Economics, Tallinn Technical University, responsible for the economic and financial analysis of the practice’s performance, Department of Public Health, responsible for analysis of health care utilization, and Department of Family Medicine, University of Tartu, responsible for analysis of doctors activities and public opinions to family doctors. The analysis is based on the year after the new payment mechanism (pilot project) was introduced.

28 Family Doctors Practices were grouped as salaried doctors and entrepreneurs. The distribution and contents of bills by providers do not show any clear differences between the two groups. Overall there are small differences in the services provided and workload. There are also small differences in the utilization on in-patient care, indicating that neither group has used the possibility of transferring the workload to hospitals. Also for the use of ambulance services no significant differences were found. The conclusion is that the risk of abusing incentives and payment mechanisms has not been put to use.

A survey among 219 family doctors in Tallinn region found that working satisfaction was much higher among the contracted doctors than salaried doctors.

A questionnaire was sent to 1506 patients (respond rate of 38%). A higher percentage of answers were found for elderly and patients with a high consumption of health services. Patients listed at doctors working as independent entrepreneurs show a higher satisfaction with the changes taking place in the primary health care sector. The same results are shown for accessibility and willingness to visit their doctors in case their own child is ill.

As a result of the project we provided the City authorities tools for monitoring and further developing Primary Care.
about low-fluor areas, so the preventive programmes for addictive fluor administration to children could be performed.


**HYGIENIC AND CULTURAL HABITS AND HEALTH OF RESIDENTS OF SOUTH-ESTONIA**

Principal investigator: **Argo Soon**.

Investigators: Ene Indermitte, Kersti Pärna

Funding: 627 603 EEK

The project was intended to work out valid methodology for comprehensive surveys of living conditions and how these can be related to human health. Another purpose of the study was to identify risk factors to our health in living environment.

The factors investigated included indoor/outdoor air temperature and relative humidity at time when home was visited; the content of viable fungi indoors and outdoors were collected by a slit-sampler; simultaneously, air samples for living and total number of airborne microbes was taken on a filter using a Dräger pump; dust samples for dust mite allergen analysis were collected form mattresses (be analysed in London in frames of the European Community Respiratory Health Survey); dust samples from floors for endotoxine analysis and air samples for volatile organic compounds were taken in bedrooms; the visual inspection of the building and apartment was done according to standardized protocol; the subjects were interviewed by a standardised questionnaire about symptoms of allergy, sick building syndrome and their daily activities and habits that may contribute to current health status (smoking, alcohol consumption, physical activity, etc.). Part of the study population overlapped with one surveyed in frames of European Community Respiratory Health Survey; thus there are also data about clinical investigations available. Data are still in analysis process, thus no publications available with expection of one conference proceeding.

**LARTH05199/2 National Program of Public Health (1999-2001)**

**APPROBATION OF QUESTIONNAIRES TO ASSESS FAMILIAL AGGREGATION, SOCIO-ECONOMIC STATUS, BELIEFS RELATED WITH HEALTH, HEALTH BEHAVIOUR AND SUBJECTIVE HEALTH**

Project manager: **Maarike Harro**

The aim of the project was to translate, put together and approbate questionnaires needed to study different determinants of health. Every determinant was studied twice or three times. The results of different studies and different questions to study same indicators were compared. After that the questions were modified. The outcome of this project consisted of questionnaires and suggestions for researchers who plan to carry out such studies in children and adolescents.

**Publications:**

LARTH0479 National Program of Public Health (1999-2001)
EXTERNAL CAUSES OF DEATHS AND AFFECTING THOSE FACTORS
Principal investigator: Taie Kaasik
Investigators: Alar Sepp (MD, Assistant, Department of Public Health, University Tartu), Ilona Drikkit (forensic pathologist, Estonian Bureau of Forensic Medicine), Marika Väli (PhD, Chair of Forensic Medicine at the Department of Pathological Anatomy and Forensic Medicine of the University of Tartu), Enno Kross (retired anaesthesiologist, leader of the project “Tartu, a Safe Community”).
Co-operative work with Estonian Bureau of Forensic Medicine, project “Tartu – a Safe Community”, Civil Defence Unit of Tartu, Tartu Police, and local government.
Support obtained: 380 203 EEK

The aim of the project was to analyse causes and factors contributing to high rates of injury mortality in Estonia, and to elaborate prepositions and suggestions for injury prevention. For this purpose, 1) public injury mortality data in 1989-1998 were analysed, 2) indices about dead persons (died in 2000) were gathered from the autopsy protocols and questionnaires sent to the relatives of injury victims.
The results of the study showed that social and economic factors, e.g. unemployment, loneliness, as well as (over) consumption of alcohol were important influencing factors for injuries. Among children, risk for fatal injury was higher among oys who lived in cities in economically non-insured families with many children. Unfamiliar and/or unsafe environment, dangerous objects in yard (pile of logs, trucks), and drugs were the main risks for fatal injuries of children.
The results were used by the project leader in writing an overview of injuries and suggestions for prevention for the local government of city Tartu in 2000 (56pp.and appendices), brochures on injury prevention issued by the Estonian Health Education Centre in 2001: 1) Injury prevention among infants and small children; 2) Injury prevention in pre-school children, and 3) Injury prevention and safety promotion in elderly, and in lectures and discussions in numerous injury prevention and safety promotion counties’ workshops.

LARTH00400 National Program of Public Health (2000)
ECONOMIC CONSEQUENCES OF SMOKING IN ESTONIA
Principal investigator: Raul Kiivet
Investigators: Annely Taal (Institute of Economics, University of Tartu) The-wei Hu (Professor of Health Economics, University of California)
Funding: 274 940 EEK

The objectives of this project were to evaluate economic impact of tobacco consumption on medical care cost and productivity loss, to estimate the effect of price (and taxacion) on cigarette consumption, to estimate the impact of additional cigarette tax on government revenue and to estimate the effect of additional cigarette tax on cigarette bootlegging and smuggling in Estonia.
52% of males and 23% of females among working population counted themselves as daily smokers in 1994 in Estonia. The number of daily smokers has decreased 10% among males and 15% among females during the years 1994-1998. Smokers spend 7% from their income to cigarettes. Mortality due to diseases caused by smoking made up for 19% from all deaths in 1998. Total costs of treatment of diseases caused by smoking paid by Sickness Fund were 193 million crowns, which made up 7% from total health care services budget. Morbidity, mortality and disability due to smoking related diseases produced 404 million crowns decrease in productivity and deficit in taxes in 1998. Nearly the same amount of money, 537 million crowns, was collected by tobacco excise. Besides 21 million crowns was spent on pensions for lost of breadwinner to dependants of dead smokers, 118 million crowns on support due to lost of income due smoking related illness periods and 75 million crowns on disability pensions due to smoking related diseases. Thus smoking loads economically both individuals and the whole society. Price elastic on demand for cigarettes in –0.34 in Estonia, i.e. 10% increase in price decreases the consumption by 3.4%.

The results of this study were used to support excise tax increase policies by the Estonian government.

**LSOPH01030 Estonian Road Administration (2001)**

PERSONALITY FACTORS INFLUENCING DRIVING DRUNK A CAR AND THEIR CONNECTIONS TO THE MONOAMINOXIDASE (MAO) ACTIVITY.

Principal investigator: Jaanus Harro (PhD, Department of Psychology, University of Tartu)
Investigator: Diva Eensoo, Maarike Harro

The main purpose of the study was to test the hypothesis that personality factors and MAO activity differs between persons drove drunk a car and control group. The study group consisted from 193 males, halt by police due to driving drunk and the control group from 217 males, selected from driving licence database. Study group has significantly higher impulsivity and risk scores than control group. Study group has significantly lower MAO activity than control group both by smokers and non-smokers. Thus biological impulsivity marker supports the fact that impulsivity has an impact by driving drunk. There were no differences in other personality factors studied.

Publication:

**SARTH02045 Estonian Health Insurance Fund (2002)**

SMOKING HABITS AND ATTITUDES TOWARDS SMOKING AMONG PHYSICIANS IN ESTONIA

Principal investigator: Kersti Pärna
Investigators: Kaja Rahu and Mati Rahu (PhD, Department of Epidemiology and Biostatistics, Institute of Experimental and Clinical Medicine)

The study focuses on smoking habits and attitudes towards smoking among Estonian physicians.
Among 2667 physicians, the current smoking prevalence was 24.9% for males and 10.8% for females; 42.4% of male and 72.4% of female doctors have never smoked. Current smoking was more frequent in younger compared to older doctors. Smoking prevalence among physicians was below the levels reported for the general population and for the highest educational bracket of the total population in Estonia. Non-smoking physicians had more unfavourable views towards smoking than those who smoked. Non-smoking physicians were more active in asking patients about smoking habits than those who smoked. About half of the doctors’ thought they had sufficient knowledge about the smoking cessation methods. Significantly more non-smokers compared to smokers agreed that smoking prevention should constitute a part of the normal training for health professionals. More than two thirds of physicians agreed that health professional should receive special training on how to help patients who wish to stop smoking. Most physicians, especially those, who smoked, failed to perceive their role as an example to the general population concerning smoking behaviour.

The findings of the present study provided valuable information on smoking-related behaviour and patterns among Estonian physicians. Future regular studies will enable the researches to assess the impact of legislation and the changing climate of opinion on the smoking behaviour of doctors and their approach to the smoking patients.

SARTH02060 Estonian Ministry of Social Affairs (2002)
ROLE OF ALCOHOL AND DRUGS IN INJURY MORTALITY IN ESTONIA, AND THEIR ECONOMIC AND SOCIAL PRICE
Principal investigator: Taie Kaasik
Investigators: Ilona Drikkit, forensic pathologist, Estonian Bureau of forensic Medicine), Marika Väli (PhD, Chair of Forensic Medicine at the Department of Pathological Anatomy and Forensic Medicine of the University of Tartu), Lenno Üusküla (MA student, Faculty of Economics of the University of Tartu)
Co-operative work with Estonian Bureau of Forensic Medicine, project “Tartu – a Safe Community”, Civil Defence Unit of Tartu, Tartu Police, and local government.
Support obtained: 2002: 181 068 EEK
2003: 182 249 EEK

The aim of the project is to study contribution of alcohol and drugs to special types of injury mortality, to disclose age and sex groups most affected by alcohol during fatal injury event, and to estimate losses for society.

Data about injury victims (died in 2001 and 2002) are gathered from the autopsy protocols, and questionnaires sent to the relatives of injury victims.

More than a half of the victims were intoxicated while receiving a fatal injury. Alcohol intoxication, CO intoxication, drowning and traffic accidents were the most frequent causes among accidental injuries. About a half of suicide and about 2/3 of homicide victims were drunk during the event.

Intoxication, suffocation due to aspiration of the content of stomach, fall, homicide and hypothermia were the causes of injury death among drug users. The number of persons intoxicated by drug during the fatal event was 12 times smaller in comparison with those under the influence of alcohol but the first ones were significantly younger. The loss of life-years and working years and consequently cost of injury deaths seems to be high. The study continues.

The preliminary results of the study have been used in lectures and discussions by project personnel at several workshops and seminars on injury prevention and alcohol, e.g. of injury
prevention county groups, Estonian Temperance Society, and at an Estonian-Finnish meeting on alcohol at the Ministry of Social Affairs.

**World AIDS Foundation, grant WAF 252 (01-028)**

**HIV/STD RISK REDUCTION IN ESTONIA**

Principal investigator: **Tracey Wilson** (PhD, State University of New York, Department of Preventive Medicine and Community Health)

Investigator: Anneli Uusküla

Rapidly increasing rates of STD and HIV in Estonia require immediate efforts to promote risk reduction. We are conducting a small scale, pretest-posttest randomized controlled trial to test the efficacy of Phase I - Phase II behavioural intervention (in promoting safer sexual/drug use behaviours) among IDUs (injection drug users) to obtain preliminary estimates of the efficacy of this intervention in promoting safer sexual/drug use behaviours. So far 187 IDUs have been enrolled, 63 of those were HIV positive at the time of enrolment.

**World Health Organisation programme (2002)**

**THE EFFECTIVENESS OF HEALTH PROMOTING SCHOOLS IN ESTONIA**

Principal investigator: **Maarike Harro**

The study was planned and performed by Maarike Harro and the Group of Health Behaviour together with the representative of WHO in Estonia, Department of Sport Pedagogy and Pedagogy of the University of Tartu, Department of Psychology in the Pedagogical University of Tallinn, and representatives of Health Promoting Schools. The number of participating students was 2607 and teachers 260. The participants were from 48 schools from 13 counties of Estonia. It was found that in Health Promoting Schools more teachers for health education had received special training, the lessons of health education were more interesting for the children, Children had received more knowledge in these lessons, and they made healthy choices more frequently in school’s café. The opinion of students was considered more frequently in health Promoting schools if compared with reference schools. The results of the study have been published in a report “The Effectiveness of Health Promoting Schools in Estonia 1993-2002”.

**World Health Organisation programme (2003)**

**TACKLING ECONOMIC INEQUALITIES IN PRIMARY SCHOOL-CHILDREN BY FREE SCHOOL MILK AND HOT LUNCH PROGRAMMES**

Principal investigator: **Maarike Harro**

Investigator: Juta Voist

This study aimed to describe the effectiveness of free School Milk and Hot Lunch Programmes on the dietary habits of the child and economic differences of the families. 654 primary school children, heir parents and teachers filled in self-administered questionnaires about their milk product consumption at home and for the child at school. Schools from the counties with higher mean income were compared with those with lower mean income. Children from schools participating in free School Milk Programme were compared with those not participating. Children from poorer families were compared with those from richer families. The data of this project is currently under analysis and publication. WHO is planning
to prepare a case-story in a special book describing successful cases about tackling inequalities in health.

**National Programme to prevent HIV and AIDS**  
**BEHAVIOUR RELATED TO HIV INFECTION IN 10- TO 29-YEARS-OLD CHILDREN AND ADOLESCENTS OF ESTONIA**  
Principal investigator: Maarike Harro  
Investigators: Liilia Lõhmus, Aire Trummal (National Institute for Health Development); Kristi Rüütel (undergraduate student, Faculty of Medicine)

This study aimed to assess knowledge and beliefs about HIV and AIDS, risky sexual behaviours, access to condoms, and information concerning HIV. The study was performed with 6467 young people, including 1622 children aged 10 to 13-years; 2418 adolescents aged 14 to 18, and 2427 young people aged 19 to 29 years from all counties of Estonia. From participants 76% were Estonian speaking and 22% Russian-speaking, 2% were others. School students were studied in the classroom, older participants received an anonymous questionnaire by mail. The results of the study showed a lower knowledge in men if compared with women, in older participants if compared with 14 to 18-years old adolescents, and in participants from Ida-Viru County if compared with other regions of Estonia. The number of registered HIV-positive persons is the highest in Ida-Viru county. Persons with risky sexual behaviour were more frequently Estonian-speaking males from Tallinn, with lower education, and unemployed. This study also showed that there is a remarkable stigma concerning HIV positives and their rehabilitation in Estonia. Young people were also in difficulties to find possibilities for HIV testing and counselling. The study gave us a good insight of problems related with the prevention of HIV and AIDS. Thus, National Programme preventing HIV and AIDS and the programme financed by Global Fund will give us an excellent baseline and ideas about in which subgroups and among what targets the situation has to be improved.

6. DEVELOPMENT

**World Health Organisation 1998**  
**COUNTRY CASE STUDY ON THE EFFECTS OF REMUNERATION INCENTIVES ON PROVIDER PRACTICE (ESTONIA)**  
Project manager: Kersti Meiesaar

Changes in macroeconominc restructuring, reforms in health policies, health care financing, supply of health care services, organizational forms of providers and provider payment mechanisms during 1990ties were described.

**Central Sick Fund foundation for Health Promoting programmes (1999)**  
**HANDBOOK FOR MEASUREMENTS OF PHYSICAL ACTIVITY AND PHYSICAL ABILITY**  
Project manager: Maarike Harro

Purpose of the project was to compile the handbook for measurement of physical activity and physical ability, describe the situation of physical activity among children in Estonia and to
suggest possibilities for its increasing. Teachers, pupils, public health specialists and health researchers belong to the target group.

The handbook (Harro M. *Laste ja noorukite kehalise aktiivsuse ning kehalise võimekuse mõõtmise käsiraamat*. Tartu, 2001) as a result of the project was published.

**Central Sick Fund, Public Health Development Council (1998-1999)**

**WORK STRESS AND MANAGEMENT OF IT IN SCHOOLS IN ESTONIA**

Project manager: **Eda Merisalu**

During the project the results of the grant from Estonian Science Foundation “Psycho-social work environment and health of teachers in Estonia” were presented to teachers, school managers and municipality administrators. The presumptions and conditions of development the work stress, the possibilities to avoid stress and suggestions for individual and organizational stress management were given. Results were presented in seminars carried on in 10 counties in Estonia. Also the book about results of the study was published (Merisalu E. *Eesti õpetajate tööstress ja tervis*, Tartu, 2000).

**Central Sick Fund. Public Health Development Council (1999)**

**DATABASE OF HEALTH PROMOTION PROJECTS FINANCED BY HEALTH INSURANCE**

Project manager: **Raul Kiivet**

Investigator: Inga Dorofejeva

The aim of the project was to produce electronic database including health promotion projects financed by health insurance during 1995-1998 and to collect results of those projects. The electronically database including 608 different local and national projects was produced. The data structure of the database: project code, project name, project manager and institution with contact address and e-mail, area of activities, funds applied and funds received, activities planned and activities performed, evaluation of the project.


**EVALUATION OF NATIONAL HEALTH PROMOTION PROJECTS**

Project manager: **Raul Kiivet**

Project team: Maarike Harro, Jaana Alep, Liis Nirk, Kaja Pölluste, Marina Kaarna.

The five random national health promotion project (The Heart Project, Rye Bread in Our Table, Knowledge about Hepatitis B to Everybody in Estonia, Dancing and Health, and Producing of Bulletins of Different Allergens) were under evaluation. Project content, intelligibility, performance, meeting the target group, appropriateness of methodology, quality, outcomes and use of finances were evaluated. The general remarks were that after reducing applied funding, reduced budget, reduced activities, changed quality and success indicators were never asked. Most project goals were so general that there was no possibility to evaluate if goals were met or not. Planned activities were often presented as goals. The internal evaluation of projects was poor due lack of funding or this was not found necessary at all.
The purpose of the project was to develop the record of performance for hospitals, to find suitable quality indicators for evaluation the structure, input, process and outcome of hospital activities, which afford to compare effectiveness and quality of different hospitals in Estonia. In preliminary phase of the project indicators and indicator systems of other countries were studied. The developed draft record of performance was tested in two different pilot hospitals after what the amendments of the record were made.

The purpose of the book was to provide an overview of health in Estonia and to describe more important trends in the past decade on the basis of existing statistical data and surveys. The book describes the most pertinent demographic variables, data on morbidity, trends in health determinants during the 90’s, recent developments in the health care sector, socio-economic impacts on health and recommended further information.


The purpose of the project was to compile and publish the information series, which presents the role of most important environmental factors to population health, describes possible health hazards and the possibilities to avoid them. The target group was Estonian population, especially teachers and youth. As result of the project 4 brochures (“The safety of food”, “Wastes and health”, “Computer and health” and “Caution! Tick”) were published.
SARTH01017 Estonian Health Insurance Foundation (2001-2002)
TRANSLATION AND COMPLEMENTATION OF THE BOOK “THEORY IN NUTSHELL. A GUIDE TO HEALTH PROMOTION THEORY”
Project manager: Maarike Harro


SARTH01040 Central Sick Fund (2001-2002)
INITIATING STRESS-MANAGEMENT PROGRAMS IN JOBS REQUIRING COMMUNICATION (HEALTH CARE, MEDICINE)
Project manager: Eda Merisalu

During the project the results of the grant from Estonian Science Foundation “Psycho-social work environment and health of teachers in Estonia” were presented to school managers and municipality administrators in Võru, Lääne, Saare and Hiiu counties. The presumptions and conditions of development the work stress, the possibilities to avoid stress and suggestions for individual and organizational stress management were given.
For presentation of the research results carried out for bachelor studies in nursing science and stress-management programs the information seminars for nurses in Estonian hospitals were organized.

VARTH LEONARDO DA VINCI Program, University of Turku (1999-2001)
“PRO HEALTHY LIFE” INTERACTIVE CD-ROM IN ENVIRONMENTAL HEALTH FOR PROFESSIONALS AND DECISION MAKERS
Project manager: Astrin Saava
Project team: Eda Merisalu, Argo Soon, Ene Indermitte
Financing used: 10 500 Euros

Purpose of the project was modernisation of teaching of environmental health, producing interactive teaching materials for universities, promoting self-studying activities using modern teaching technology, activation of distance learning processes. Students, health and environment protection specialists and decision-makers belong to the target group.
During joint project of Finnish, Swedish and Estonian Universities the interactive CD-ROM in English, Finnish and Estonian was produced. Safety, risk analysis and risk management of potential health hazards in air, water and food in three different level are particularized. Part of teaching material is presented like computer game.

NATIONAL BURDEN OF DISEASES STUDY
Project manager: Raul Kiivet
Investigators: Taavi Lai, Kaire Vals, Alex Baburin (National Institute of Health Development)

The aim of the study is to measure burden of disease in Estonia. The study consists of several subprojects that are intended to evaluate the suitability of internationally used methodologies
in Estonian settings as well as evaluating the quality of several data sources along with evaluating their suitability for burden of disease calculations.

SARTH 03039 Estonian Health Insurance Fund foundation for Health Promoting programmes (2003)
HANDBOOK FOR MEASUREMENTS OF PHYSICAL ACTIVITY AND PHYSICAL ABILITY
Project manager: Maarike Harro

The purpose of this project is to give out a second edition with adding the most recent data and to translate the book into Russian language.
The project is in progress.

SARTH 03040 Estonian Health Insurance Fund foundation for Health Promoting programmes (2003-2005)
TACLIRG HIV-INFECTION IN ESTONIA
Project manager: Maarike Harro
Team: Reelika Kiivit, Anu Harjo, Kristi Rüütel

The aims of the project are
- to train and supervise peer-educators for sex education. 30 university students will be educated as teachers of sexual education, after what students will give a seminar by their selves to school children. These classes will be discussed later together with supervisors.
- to study drug dependent children and adolescents inorder to describe their behaviour and the history of substance use. This part of the project involves also councelling of drug-dependent children, their parents and teachers.
- The third part of this project involves empowerment of key persond and decision-makers in Tartu concerning development a rehabilitation centre for drug dependent persons.

7. SUMMARY OF ORGANIZATION OF SCIENTIFIC EVENTS AND RECEIVED RECOGNITIONS

7.1. Conferences and seminars organized

Table 4. Conferences and seminars organized by Department of Public Health, University of Tartu

<table>
<thead>
<tr>
<th>Year</th>
<th>Event</th>
<th>Date</th>
<th>Location</th>
<th>Faculty members involved</th>
</tr>
</thead>
<tbody>
<tr>
<td>Year</td>
<td>Event Description</td>
<td>Date</td>
<td>Location</td>
<td>Speakers</td>
</tr>
<tr>
<td>-------</td>
<td>----------------------------------------------------------------------------------</td>
<td>--------------</td>
<td>----------------</td>
<td>---------------------------------</td>
</tr>
<tr>
<td>1999</td>
<td>3rd national scientific conference “Health Promotion in Estonia”</td>
<td>24.-25.03.1999</td>
<td>Tartu, Estonia</td>
<td>Jaanus Harro, Maarike Harro</td>
</tr>
<tr>
<td>1999</td>
<td>International seminar “Challenges for health systems in next millennium”</td>
<td>01.09.1999</td>
<td>Tartu, Estonia</td>
<td>Raul Kiivet</td>
</tr>
<tr>
<td></td>
<td>(opening the Biomedicum)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2000</td>
<td>4th national scientific conference “Health Promotion in Estonia”</td>
<td>22.-23.03.2000</td>
<td>Tartu, Estonia</td>
<td>Maarike Harro</td>
</tr>
<tr>
<td>2001</td>
<td>5th national scientific conference “Health Promotion in Estonia”</td>
<td>21.-22.03.2001</td>
<td>Tartu, Estonia</td>
<td>Maarike Harro</td>
</tr>
<tr>
<td>2001</td>
<td>Workshop of the project “Pro Healthy Life” of The 5th Framework Leonardo da Vinci program</td>
<td>27.-29.04.2001</td>
<td>Tartu, Estonia</td>
<td>Astrid Saava, Ene Indermitte</td>
</tr>
<tr>
<td>2001</td>
<td>BRIMHEALTH Course “Health Policy, Planning and Management”</td>
<td>28.05-04.06.2001</td>
<td>Tartu, Estonia</td>
<td>Kaja Põlluste, Raul Kiivet</td>
</tr>
<tr>
<td>2001</td>
<td>Workshop of Finnish-Estonian Occupational Health Twinning Project</td>
<td>05.06.2001</td>
<td>Tartu, Estonia</td>
<td>Eda Merisalu, Argo Soon</td>
</tr>
<tr>
<td>2002</td>
<td>6th national scientific conference “Health Promotion in Estonia”</td>
<td>22.-23.03.2002</td>
<td>Tartu, Estonia</td>
<td>Maarike Harro</td>
</tr>
<tr>
<td></td>
<td></td>
<td>28.-29.08.2002</td>
<td>Tartu, Estonia</td>
<td></td>
</tr>
<tr>
<td>2002</td>
<td>NorFa Course “Statistical Practice in Epidemiology” (SPE 2002)</td>
<td>07.-14.05.2002</td>
<td>Tartu, Estonia</td>
<td>Krista Fischer</td>
</tr>
<tr>
<td>2002</td>
<td>BRIMHEALTH Course “Health Policy, Planning and Management”</td>
<td>03.-14.06.2002</td>
<td>Tartu, Estonia</td>
<td>Kaja Pölluste, Raul Kiivet</td>
</tr>
<tr>
<td>2002</td>
<td>Advanced Nordic-Baltic Course on Safety Promotion and Injury Prevention</td>
<td>17.-22.08.2002</td>
<td>Toila, Estonia</td>
<td>Aidula-Taie Kaasik</td>
</tr>
</tbody>
</table>
7.2. Awards, honours

- Argo Soon. Third Prize for defended master theses in 1997 from the Academy of Estonian Science.
- Maarike Harro. Honorary University Fellow in the School of Postgraduate Medicine and Health Sciences in the University of Exeter, UK, 2000.
- Liis Merenäkk. Second Prize for defended master theses in 2001 from the Ministry of Education.

8. COLLABORATION WITH OTHER SCIENTIFIC INSTITUTIONS IN ESTONIA

Table 5. National collaboration

<table>
<thead>
<tr>
<th>Contact persons in Department of Public Health</th>
<th>Partner</th>
<th>Area of collaboration</th>
</tr>
</thead>
<tbody>
<tr>
<td>Maarike Harro, Diva Eensoo, Raul Kiivet</td>
<td>Department of Psychology</td>
<td>Research</td>
</tr>
<tr>
<td>Raul Kiivet</td>
<td>Department of Pharmacology</td>
<td>Research</td>
</tr>
<tr>
<td>Raul Kiivet</td>
<td>Department of Psychiatry</td>
<td>Research</td>
</tr>
<tr>
<td>Kersti Meiesaar, Raul Kiivet, Kaja Põlluste, Astrid Saava</td>
<td>Department of Family Medicine</td>
<td>Research, applied research, developmental projects</td>
</tr>
<tr>
<td>Maarike Harro</td>
<td>Department of Sports</td>
<td>Research</td>
</tr>
</tbody>
</table>

Inside the University of Tartu
<table>
<thead>
<tr>
<th>Name</th>
<th>Department</th>
<th>Position</th>
</tr>
</thead>
<tbody>
<tr>
<td>Maarike Harro, Jaana Alep</td>
<td>Department of Sociology</td>
<td>Research</td>
</tr>
<tr>
<td>Krista Fischer</td>
<td>Department of Mathematics</td>
<td>Research, teaching</td>
</tr>
<tr>
<td>Eda Merisalu, Argo Soon, Aare Floren, Kristjan Aruojja, Monika Jürgenson</td>
<td>Department of Physics and Chemistry</td>
<td>Research, research methodology, teaching, supervision of MPH projects</td>
</tr>
<tr>
<td>Aidula-Taie Kaasik, Kersti Meiesaar, Raul Kiivet</td>
<td>Department of Economics</td>
<td>Research</td>
</tr>
<tr>
<td>Raul Kiivet, Maarike Harro, Krista Fisher</td>
<td>Estonian Centre of Behavioural and Health Sciences</td>
<td>Research, PhD studies</td>
</tr>
<tr>
<td>Aidula-Taie Kaasik</td>
<td>Chair of Forensic Medicine</td>
<td>Research</td>
</tr>
<tr>
<td>Eda Merisalu</td>
<td>Department for Nursing Science</td>
<td>Teaching, supervision of BSc projects</td>
</tr>
<tr>
<td>Raul Kiivet</td>
<td>Tartu University Lung Clinic</td>
<td>Research</td>
</tr>
<tr>
<td>Argo Soon, Ene Indermitte</td>
<td>Clinic for Internal Medicine</td>
<td>Research (international)</td>
</tr>
<tr>
<td>Astrid Saava</td>
<td>Clinic for Stomatology</td>
<td>Applied research</td>
</tr>
</tbody>
</table>

**Outside the University of Tartu**

<table>
<thead>
<tr>
<th>Name</th>
<th>Department</th>
<th>Position</th>
</tr>
</thead>
<tbody>
<tr>
<td>Maarike Harro</td>
<td>The National Institute of Health Development (NIHD)</td>
<td>Research</td>
</tr>
<tr>
<td>Maarike Harro</td>
<td>Estonian-Swedish Institute of Suicidology</td>
<td>Research</td>
</tr>
<tr>
<td>Maarike Harro</td>
<td>Department of Psychology in Tallinn Pedagogical University</td>
<td>Research</td>
</tr>
<tr>
<td>Kersti Pärna, Katrin Lang</td>
<td>Department of Epidemiology (NIHD)</td>
<td>Research, PhD supervision</td>
</tr>
<tr>
<td>Argo Soon, Ene Indermitte</td>
<td>Department of Lung Diseases (Institute for Experimental and Medicine)</td>
<td>Research</td>
</tr>
<tr>
<td>Raul Kiivet, Kersti Meiesaar, Anneli Uusküla, Liis Rooväli</td>
<td>Estonian Health Insurance Fund</td>
<td>Research, applied research, developmental projects</td>
</tr>
<tr>
<td>Astrid Saava, Ene Indermitte, Raul Kiivet</td>
<td>Health Protection Inspectorate</td>
<td>Research, teaching, supervision of MPH projects</td>
</tr>
<tr>
<td>Eda Merisalu, Argo Soon, Heiki Annuk</td>
<td>Center for Occupational Health</td>
<td>Research, postgraduate training</td>
</tr>
<tr>
<td>Aidula-Taie Kaasik</td>
<td>Estonian Bureau of Forensic Medicine</td>
<td>Research</td>
</tr>
<tr>
<td>Anneli Uusküla</td>
<td>Prevention Centre for AIDS</td>
<td>Research, applied research</td>
</tr>
</tbody>
</table>

Much of energy and time of the staff is spent on various consultancies and developmental activities on national (governmental) level. This provides contacts, experience and thus opportunities for further development.
### 9. PARTICIPATION IN INTERNATIONAL COLLABORATIVE PROJECTS

#### Table 5. Participation in international collaborative projects

<table>
<thead>
<tr>
<th>Project</th>
<th>Partners</th>
<th>Financing source</th>
<th>Financing received</th>
</tr>
</thead>
<tbody>
<tr>
<td>European Youth Heart Study (since 1998)</td>
<td>University of Bristol (Dr. Chris Riddoch)</td>
<td>No extra funding</td>
<td></td>
</tr>
<tr>
<td>&quot;Evaluation of efficacy and cost of schizophrenia treatment in four European countries&quot; (1998-2002)</td>
<td>University of Extremadura, Unit of Research and Psychopharmacology; University of Debrecen, Department of Psychiatry; Karolinska Institute, Division of Clinical Pharmacology</td>
<td>European Commission</td>
<td>631 655 EEK</td>
</tr>
<tr>
<td>Study “Deaths on 20-49 years old males in 1999: causes of death and connections with alcohol use” (2000-2002)</td>
<td>The London School of Hygiene and Tropical Medicine, Department of Epidemiology and Public Health (Prof David Leon)</td>
<td>WHO</td>
<td>30 000 EEK</td>
</tr>
<tr>
<td>Study “Children traumas in Baltic region using Estonia as an example” (2000-2002)</td>
<td>The London School of Hygiene and Tropical Medicine, Department of Epidemiology and Public Health (Dr Ilona Koupilova)</td>
<td>WHO</td>
<td>40 000 EEK</td>
</tr>
<tr>
<td>“Pro Healthy Life” development of interactive CD-ROM in Environmental Health for Professionals and Decision Makers</td>
<td>University of Turku, Centre of Complementary Education; Karolinska Institutet, Department of Environmental Health</td>
<td>University of Turku, <strong>LEONARDO DA VINCI</strong> programme</td>
<td>10 500 Euros</td>
</tr>
<tr>
<td>European Community Respiratory Health Study</td>
<td>University of Uppsala, The London School of Hygiene and Tropical Medicine</td>
<td>No extra Funding</td>
<td></td>
</tr>
<tr>
<td>HIV/STD risk reduction in Estonia</td>
<td>State University of NewYork, Department of Preventive Medicine and Community Health</td>
<td>World AIDS Foundation</td>
<td></td>
</tr>
<tr>
<td>Coordination of the programme BRIMHEALTH by the University of Tartu (1999-2002)</td>
<td>Nordic School of Public Health, Kaunas Medical University, Latvian School of Public Health, Jagellonian University in Krakow, Institute of Postgraduate</td>
<td>Nordic Concil of Ministries, OSI</td>
<td>991 728 EEK</td>
</tr>
</tbody>
</table>
Table 6. Visits abroad

<table>
<thead>
<tr>
<th>Year</th>
<th>Visited organization</th>
<th>Visitor</th>
<th>Purpose</th>
</tr>
</thead>
<tbody>
<tr>
<td>1998</td>
<td>STAKES (National Research and Development Centre for Welfare and Health), University of Kuopio</td>
<td>Kersti Meiesaar</td>
<td>Scientific collaboration</td>
</tr>
<tr>
<td>1998</td>
<td>University of Uppsala, Department of Neuroscience</td>
<td>Maarike Harro</td>
<td>Scientific work</td>
</tr>
<tr>
<td>1998</td>
<td>Karolinska Institutet, Department of Social Medicine</td>
<td>Taie Kaasik</td>
<td>Scientific work</td>
</tr>
<tr>
<td>1998</td>
<td>The London School of Hygiene and Tropical Medicine, Department of Epidemiology and Public Health</td>
<td>Katrin Lang</td>
<td>PhD studies in Epidemiology</td>
</tr>
<tr>
<td>1998</td>
<td>The London School of Hygiene and Tropical Medicine, Department of Epidemiology</td>
<td>Raul Kiivet</td>
<td>Lecture</td>
</tr>
<tr>
<td>1998</td>
<td>University of Stavanger, Norway</td>
<td>Eda Merisalu</td>
<td>Scientific collaboration</td>
</tr>
<tr>
<td>1998</td>
<td>University of Tampere, Department of Medicine</td>
<td>Alar Sepp</td>
<td>Scientific work</td>
</tr>
<tr>
<td>1999</td>
<td>STAKES (National Research and Development Centre for Welfare and Health)</td>
<td>Kersti Meiesaar</td>
<td>Scientific collaboration</td>
</tr>
<tr>
<td>1999</td>
<td>University of Tampere, Department of Medicine</td>
<td>Alar Sepp</td>
<td>Scientific work</td>
</tr>
<tr>
<td>1999</td>
<td>University of Uppsala, Department of Neuroscience</td>
<td>Maarike Harro</td>
<td>Scientific work</td>
</tr>
<tr>
<td>1999</td>
<td>University of Stavanger, Norway</td>
<td>Eda Merisalu</td>
<td>Scientific collaboration</td>
</tr>
<tr>
<td>2000</td>
<td>University of Kuopio</td>
<td>Ene Indermitte</td>
<td>Scientific research</td>
</tr>
<tr>
<td>2000</td>
<td>Karolinska Institutet, Department of Environmental Health</td>
<td>Astrid Saava Argo Soon</td>
<td>Development of teaching tool (CD-ROM)</td>
</tr>
<tr>
<td>2000</td>
<td>University of Turku, Centre of</td>
<td>Astrid Saava</td>
<td>Development of teaching</td>
</tr>
<tr>
<td>Complementary Education</td>
<td>Argo Soon, Ene Indermitte</td>
<td>tool (CD-ROM)</td>
<td></td>
</tr>
<tr>
<td>-------------------------</td>
<td>---------------------------</td>
<td>---------------</td>
<td></td>
</tr>
<tr>
<td>2000 Canadian Institute of Health Economics</td>
<td>Kersti Meiesaar, Agris Koppel</td>
<td>Training in Health Technology Assessment</td>
<td></td>
</tr>
<tr>
<td>2000 The Netherlands Institute of Primary Health Care</td>
<td>Kersti Meiesaar, Andrus Metsa</td>
<td>Collaboration in evaluation of primary health care reform</td>
<td></td>
</tr>
<tr>
<td>2000 Finnish Institute of Occupational Health</td>
<td>Argo Soon</td>
<td>Scientific collaboration</td>
<td></td>
</tr>
<tr>
<td>2000 The London School of Hygiene and Tropical Medicine, Department of Epidemiology</td>
<td>Katrin Lang</td>
<td>PhD studies in Epidemiology</td>
<td></td>
</tr>
<tr>
<td>2000 University of Exeter (UK), Department of Sport Sciences</td>
<td>Maarike Harro</td>
<td>Development of collaboration</td>
<td></td>
</tr>
<tr>
<td>2000 National School of Public Health, Rennes (France)</td>
<td>Raul Kiivet</td>
<td>Collaboration in public health education methodology</td>
<td></td>
</tr>
<tr>
<td>2001 University of Uppsala, Department of Neuroscience</td>
<td>Maarike Harro</td>
<td>Scientific research</td>
<td></td>
</tr>
<tr>
<td>2001 STAKES, National Research and Development Centre for Welfare and Health, Finnish Office for health Care Technology Assessment</td>
<td>Kersti Meiesaar, Tatjana Leosko</td>
<td>Preparation of collaboration, working in scientific library</td>
<td></td>
</tr>
<tr>
<td>2002 University of Uppsala, Department of Neuroscience</td>
<td>Maarike Harro</td>
<td>Scientific research</td>
<td></td>
</tr>
<tr>
<td>2002 Karolinska Institutet, Unit of Preventive Nutrition</td>
<td>Maarike Harro, Inga Villa</td>
<td>Scientific collaboration</td>
<td></td>
</tr>
<tr>
<td>2002 Norwegian University of Sport and Physical Education, Department of Sport Medicine</td>
<td>Maarike Harro, Reelika Kiivit</td>
<td>Scientific collaboration</td>
<td></td>
</tr>
<tr>
<td>2003 Karolinska Institutet, Unit of Preventive Nutrition</td>
<td>Maarike Harro, Inga Villa</td>
<td>Scientific collaboration</td>
<td></td>
</tr>
</tbody>
</table>

10. DOCTORAL AND MASTER’S THESES DEFENDED

10.1. Doctoral Theses

<table>
<thead>
<tr>
<th>No</th>
<th>Name</th>
<th>Year of Birth</th>
<th>Date of Defence</th>
<th>Title</th>
<th>Supervisor</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>Eve Pihl</td>
<td>1964</td>
<td>April 23, 1999</td>
<td>Cardiovascular risk factors in middle-aged former athletes</td>
<td>Toivo Jürimäe(^1), Taie Kaasik</td>
</tr>
<tr>
<td>2.</td>
<td>Kaire Innos</td>
<td>1970</td>
<td>Sept 06, 2000</td>
<td>Epidemiological resources in Estonia: data sources, their quality and the feasibility of cohort studies</td>
<td>Mati Rahu(^2)</td>
</tr>
</tbody>
</table>

\(^1\)Institute of Sports Pedagogy, University of Tartu

\(^2\)Institute of Physical Education and Sports, University of Tartu
### 10.2. Master’s Theses

<table>
<thead>
<tr>
<th>No</th>
<th>Name</th>
<th>Year of Birth</th>
<th>Date of Defence</th>
<th>Title</th>
<th>Supervisor</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Diva Eensoo (MSc)</td>
<td>1963</td>
<td>May 23, 2000</td>
<td>Association of physical activity with mental health and personality.</td>
<td>Jaanus Harro&lt;sup&gt;1&lt;/sup&gt;</td>
</tr>
<tr>
<td>2</td>
<td>Karin Lilienberg (MSc)</td>
<td>1961</td>
<td>June 03, 2002</td>
<td>The anthropometrical data and their relation to plasma lipids and arterial blood pressure in the studies of Tallinn schoolchildren in 1984–86 and 1998–99.</td>
<td>Merileid Saava&lt;sup&gt;2&lt;/sup&gt;</td>
</tr>
<tr>
<td>3</td>
<td>Liis Merenäkk (MSc)</td>
<td>1973</td>
<td>June 03, 2002</td>
<td>Alcohol and illicit drug consumption in relation to platelet monoamine oxidase activity and personality traits in schoolchildren.</td>
<td>Maarike Harro, Jaanus Harro</td>
</tr>
<tr>
<td>4</td>
<td>Anneli Zirkel (MSc)</td>
<td>1972</td>
<td>June 03, 2002</td>
<td>Drug and alternative medicine usage among Estonian population.</td>
<td>Jaanus Harro</td>
</tr>
<tr>
<td>5</td>
<td>Valentina Orav (MPH)</td>
<td>1966</td>
<td>June 17, 2002</td>
<td>The characterisation of sanitary conditions and quality of water in swimming pools in Tartu city.</td>
<td>Astrid Saava</td>
</tr>
<tr>
<td>6</td>
<td>Katrin Kiisk (MPH)</td>
<td>1973</td>
<td>April 10, 2003</td>
<td>Managing changes in aspects of organizational culture, role of leaders and evaluation of alternatives by transferring Lung Clinic of University of Tartu to another building as an example.</td>
<td>Raul Kiivet</td>
</tr>
<tr>
<td>7</td>
<td>Mare Remm (MPH)</td>
<td>1954</td>
<td>June 9, 2003</td>
<td>Prevalence of helminthiases among the children of kindergartens in Tartu region and the factors affecting it.</td>
<td>Astrid Saava, Matti Maimets&lt;sup&gt;3&lt;/sup&gt;</td>
</tr>
<tr>
<td>8</td>
<td>Liis Rooväli (MSc)</td>
<td>1968</td>
<td>June 9, 2003</td>
<td>Accessibility and utilization of inpatient care in Estonia: demographic variations and effect of distance</td>
<td>Raul Kiivet</td>
</tr>
<tr>
<td>9</td>
<td>Krystiine Liiv (MSc)</td>
<td>1975</td>
<td>June 9, 2003</td>
<td>Association between smoking and personality in adolescents.</td>
<td>Maarike Harro</td>
</tr>
</tbody>
</table>
13. Mihhail Muzotsin (MPH)  

<table>
<thead>
<tr>
<th>No</th>
<th>Title of Project</th>
<th>Name of the student</th>
<th>Year of Birth</th>
<th>Supervisor</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Adolescents’ health and health related behaviour in different living conditions and socio-economic circumstances</td>
<td>Jaana Alep</td>
<td>1968</td>
<td>Jaanus Harro</td>
</tr>
<tr>
<td>2</td>
<td>Analysis of indicators of primary health care reform</td>
<td>Agris Koppel</td>
<td>1974</td>
<td>Kersti Meiesaar</td>
</tr>
<tr>
<td>3</td>
<td>Analysis of financing primary health care</td>
<td>Katrin Sihver</td>
<td>1970</td>
<td>Kersti Meiesaar</td>
</tr>
<tr>
<td>4</td>
<td>Possible health hazards of drinking water in Estonia</td>
<td>Andrei Antonov</td>
<td>1966</td>
<td>Astrid Saava</td>
</tr>
<tr>
<td>5</td>
<td>The influence of physical activity, nutritional habits and socio-cultural factors to adolescents’ health and body composition: an international comparison</td>
<td>Inga Villa</td>
<td>1968</td>
<td>Maarrike Harro</td>
</tr>
<tr>
<td>6</td>
<td>Factors influencing utilization of health care services in Estonia</td>
<td>Jarno Habicht</td>
<td>1976</td>
<td>Raul Kiivet</td>
</tr>
<tr>
<td>7</td>
<td>Needs assessment in health care</td>
<td>Taavi Lai</td>
<td>1974</td>
<td>Raul Kiivet</td>
</tr>
<tr>
<td>8</td>
<td>Cost-effectiveness of rheumatoid arthritis treatment in Estonia</td>
<td>Kadri Kangro</td>
<td>1979</td>
<td>Kersti Meiesaar</td>
</tr>
<tr>
<td>9</td>
<td>Evaluation of causal effect of health promotion programs</td>
<td>Heti Pisarev</td>
<td>1976</td>
<td>Krista Fischer</td>
</tr>
<tr>
<td>10</td>
<td>Personality and biological factors influencing substance use</td>
<td>Liis Merenäkk(^1)</td>
<td>1973</td>
<td>Jaanus Harro, Maarrike Harro</td>
</tr>
<tr>
<td>11</td>
<td>Factors influencing drug utilisation</td>
<td>Ly Rootslane(^2)</td>
<td>1971</td>
<td>Raul Kiivet</td>
</tr>
</tbody>
</table>

\(^1\)doctoral project in Neuroscience  
\(^2\)doctoral project in Pharmacy
### 11.2. Master Projects

#### 11.2.1. Master of Science in Public Health projects

<table>
<thead>
<tr>
<th>No</th>
<th>Title of Project</th>
<th>Name of the student</th>
<th>Year of Birth</th>
<th>Supervisor</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Epidemiology and risk factors of helminthiases among 3-10 years old children in Tartu region</td>
<td>Iris Mõttus</td>
<td>1977</td>
<td>Matti Maimets</td>
</tr>
<tr>
<td>2</td>
<td>Prevalence of symptoms of respiratory diseases in Tartu</td>
<td>Jana Talvik</td>
<td>1974</td>
<td>Raul Kiivet</td>
</tr>
<tr>
<td>3</td>
<td>Influence of military services to soldiers health</td>
<td>Oleg Novikov</td>
<td>1971</td>
<td>Raul Kiivet</td>
</tr>
<tr>
<td>4</td>
<td>Toxicity of lead to solder and plumbing workers health</td>
<td>Monika Jürgenson</td>
<td>1972</td>
<td>Eda Merisalu, Kaja Orupõld</td>
</tr>
<tr>
<td>5</td>
<td>Concentration of aerosol particles depending on physical parameters of indoor environment</td>
<td>Kristjan Aruoja</td>
<td>1977</td>
<td>Argo Soon, Aadu Mirme</td>
</tr>
<tr>
<td>6</td>
<td>Psychological, biological, social and economic factors influencing alcohol and illegal drugs in adolescents</td>
<td>Imbi Jaks</td>
<td>1970</td>
<td>Maarike Harro</td>
</tr>
<tr>
<td>7</td>
<td>Risky sexual behaviour of adolescents and factors influencing it</td>
<td>Reelika Kiivit</td>
<td>1978</td>
<td>Maarike Harro</td>
</tr>
<tr>
<td>8</td>
<td>Analysis of demand for specialist health care</td>
<td>Virge Pall</td>
<td>1969</td>
<td>Kersti Meiesaar</td>
</tr>
<tr>
<td>9</td>
<td>Causes for interruptions in hormone replacement treatment, a randomised trial</td>
<td>Sigrid Vorobjov</td>
<td>1974</td>
<td>Mati Rahu</td>
</tr>
<tr>
<td>10</td>
<td>Changes in drug trade</td>
<td>Katrin Kõiv</td>
<td>1979</td>
<td>Raul Kiivet</td>
</tr>
<tr>
<td>11</td>
<td>Changes in drug accessibility</td>
<td>Tanel Siimon</td>
<td>1980</td>
<td>Raul Kiivet</td>
</tr>
<tr>
<td>12</td>
<td>Role of free school milk and hot lunch programmes to elimination of socio-economic differences among Estonian schoolchildren</td>
<td>Juta Voist</td>
<td>1979</td>
<td>Maarike Harro</td>
</tr>
</tbody>
</table>

#### 11.2.2. Master of Public Health projects

<table>
<thead>
<tr>
<th>No</th>
<th>Title of Project</th>
<th>Name of the student</th>
<th>Year of Birth</th>
<th>Supervisor</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>The changes in supply of health care services due to financial incentives</td>
<td>Kristiina Kahrur</td>
<td>1971</td>
<td>Raul Kiivet</td>
</tr>
<tr>
<td>2</td>
<td>The structure of occupational diseases in Tartu region and its relations to working environment</td>
<td>Kristina Kesküla</td>
<td>1967</td>
<td>Astrid Saava, Eda Merisalu</td>
</tr>
<tr>
<td>3</td>
<td>The challenges of running the Estonian</td>
<td>Krista Kruuv</td>
<td>1971</td>
<td>Raul Kiivet</td>
</tr>
<tr>
<td></td>
<td>Title</td>
<td>Author</td>
<td>Year</td>
<td>Co-author</td>
</tr>
<tr>
<td>---</td>
<td>----------------------------------------------------------------------</td>
<td>------------------------------</td>
<td>-------</td>
<td>----------------------------</td>
</tr>
<tr>
<td>4</td>
<td>Changes in prevalence of communicable diseases in Estonia</td>
<td>Elena Novikova</td>
<td>1968</td>
<td>Astrid Saava</td>
</tr>
<tr>
<td>5</td>
<td>Analysis of medical specialties development projects</td>
<td>Tiia Pertel</td>
<td></td>
<td>Raul Kiivet</td>
</tr>
<tr>
<td>6</td>
<td>Introduction of HACCP-system in restaurants</td>
<td>Kai Raska</td>
<td>1959</td>
<td>Astrid Saava, Rein Rannamäe</td>
</tr>
<tr>
<td>7</td>
<td>The registration of health care professionals and the problems appearing</td>
<td>Pille Saar</td>
<td>1973</td>
<td>Raul Kiivet</td>
</tr>
<tr>
<td>8</td>
<td>Health protection activities for the drinking water of Viru-Peipsi catchments area</td>
<td>Leena Albreht</td>
<td>1968</td>
<td>Astrid Saava</td>
</tr>
<tr>
<td>9</td>
<td>Influence of noise to workers health</td>
<td>Jüri Noorlind</td>
<td>1959</td>
<td>Astrid Saava</td>
</tr>
<tr>
<td>10</td>
<td>The immunoprophylaxis of rabies in Tartu region</td>
<td>Urve Eek</td>
<td>1958</td>
<td>Astrid Saava, Kuulo Kutsar</td>
</tr>
<tr>
<td>11</td>
<td>Assessment of patient radiation doses and radiation risks</td>
<td>Irina Filippova</td>
<td>1965</td>
<td>Antti Servomaa</td>
</tr>
<tr>
<td>12</td>
<td>School environment factors influencing the pupils health</td>
<td>Marina Karro</td>
<td>1959</td>
<td>Astrid Saava, Heino Lutsoja</td>
</tr>
<tr>
<td>14</td>
<td>Sanitary conditions in Pärnu bay in 2002 in comparison to year 1980</td>
<td>Svetlana Rudenko</td>
<td>1963</td>
<td>Astrid Saava</td>
</tr>
<tr>
<td>16</td>
<td>Calculation of disability adjusted life years (DALY) in Estonia</td>
<td>Kaire Vals</td>
<td>1979</td>
<td>Raul Kiivet</td>
</tr>
<tr>
<td>17</td>
<td>Hospital environment factors influencing the health of nursing personnel and self-aid to prevent those health risks</td>
<td>Helika Hermlin</td>
<td>1978</td>
<td>Argo Soon</td>
</tr>
<tr>
<td>18</td>
<td>Working environment factors influencing the health of family doctor</td>
<td>Eleri Lapsaniit</td>
<td>1970</td>
<td>Eda Merisalu</td>
</tr>
<tr>
<td>19</td>
<td>Awareness of breast cancer screening program among 45-59 years old Estonian women</td>
<td>Lya Mägi</td>
<td>1962</td>
<td>Mare Lintrop, Sulev Ulp</td>
</tr>
<tr>
<td>20</td>
<td>Factors influencing the pupils drop out from school</td>
<td>Šeila Mündi</td>
<td>1981</td>
<td>Maarike Harro</td>
</tr>
<tr>
<td>22</td>
<td>Decline in air quality due heavy metals and population health hazards connected with more intensive use of peat for heating purposes in Tartu city</td>
<td>Hans Orru</td>
<td>1980</td>
<td>Eda Merisalu</td>
</tr>
<tr>
<td>23</td>
<td>Factors influencing health behaviour of hypertensive patients</td>
<td>Sirje Sammul</td>
<td>1970</td>
<td>Raul Kiivet</td>
</tr>
<tr>
<td>24</td>
<td>Indoor air of kindergartens and schools</td>
<td>Kristi Vahur</td>
<td>1981</td>
<td>Argo Soon</td>
</tr>
<tr>
<td></td>
<td>in Tartu city and health disorders related</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>---</td>
<td>------------------------------------------</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>25.</td>
<td>Dealing the problems of allergic children and their parents, necessity for continuous counselling in South-Estonian region and description of different functions and outputs of allergy cabinets</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Katrin Vijar 1975 Kaja Pölluste</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
12. PRINCIPAL INVESTIGATORS AND GRANT HOLDERS (CV’S)

Raul-Allan Kiivet

CURRICULUM VITAE

1. Name Raul-Allan Kiivet
2. Position Professor of Health Care Management
3. Date of birth 30.11.1960
4. Education University of Tartu, 1985, MD (cum laude), Faculty of Medicine
5. Research and professional experience
   since 1996 Professor of Health Care Management, Department of Public Health
   1993–1996 Associate Professor in Clinical Pharmacology, Dept of Pharmacology, University of Tartu
   1987–1993 Assistant Professor in Clinical Pharmacology, Department of Pharmacology
6. Academic degrees
   Doctor of Medical Sciences (PhD), Karolinska Institute, Stockholm, 1999
   Candidate of Medical Sciences (PhD) University of Tartu, 1988.
7. Honors, awards –
8. Research-administrative experience
   since 2001 Estonian Academy of Sciences, Member of Council of Public Health
   since 2000 Estonian Science Foundation, Member of Expert Committee in Medicine
   since 2000 Public Health Sciences Thesis Committee, Chairman, University of Tartu
9. Dissertations advised
   In 1997 Ly Rootslane and Kaidi Vendla were awarded Master of Science in Pharmacy (degree by the Faculty of Medicine, University of Tartu)
   In 2003 Katrin Kiisk and Liis Rooväli were awarded Master of Science in Public Health (degree by the Public Health Sciences Thesis Committee, University of Tartu)
10. Current research areas
    Health economics and pharmacoepidemiology (since 1995)
    Clinical pharmacogenetics and pharmacokinetics (since 1990)
11. Current grant funding
    Reserach topic TARTH 0820 (1999-2003) "Health status and use of medical services – influence of age, gender, social and economis status"
ESF grant 5458 (2003) “Access to drugs in result of drug reimbursement reform”

12. Publications

Peer-reviewed articles during last 5 years:

Maarike Harro

CURRICULUM VITAE

1. Name: Maarike Harro (since 1997 Sallo)
2. Date of Birth: December 22, 1960 in Tartu

3. Position:
   Present
   July 2003 - Director of the National Institute for Health Development in Estonia (Tallinn)
   Previous
   2000- Associate Professor (Docent), Head of the Chair of Health Promotion, Department of Public Health, University of Tartu (position stopped from July 2003 until August 2004)
   1998-2000 Senior lecturer, Department of Public Health
   1990-1998 Lecturer, Department of Public Health
   1990-1996 Postgraduate student in the Department of Public Health

4. Education:
   1988 Residenture in pediatrics, Tartu Clinical Children’s Hospital
   1987 Medical Doctor, Tartu University, cum laude.
   1979 Tartu Secondary School No2.

5. Academic Degrees
   1997 Ph.D. (in medicine, Public Health), University of Tartu “Studies on habitual physical activity and aerobic fitness in 4 to 10 years old children”

6. Research and professional experiences:
   1993 Fellowship in the School of Public Health, University of Albany and in the New York State Department of Health, Albany, New York, USA

Courses and seminars during last 3 years
2000:
   (1) 21.02 - 01.06.2000 University of Sydney and Australian Centre for Health Promotion course Evaluation in health Promotion
   (2) 21.03.2000 Risky behaviour in school children, Society for health promotion, Estonia
   (3) 03.- 10.06.2000 University of Tampere School of Public Health seminar “Experimental epidemiological research on mental health promotion and prevention in psychiatry: A Nordic Research Course”, in Virrat, Finland
   (4) 23.- 24.11.2000 Effectiveness of projects and programs, Centre for Training in Public Health Estonia
2001:
(1) 15-19.01.2001 National Public Health Institute of Finland "International Visitor’s Programme of the North-Karelia Project in Finland” Helsinki and Joensuu, Finland
(2) 22-26.01.2001 WHO and National Public Health Institute of Finland "CINDI Winter School”, Helsinki, Finland
(3) 17-20.04.2001 University of Helsinki, Department of public Health Doctoral Programme in Public Health “Logistic regression” Helsinki, Finland (2,0 credits)
(4) 10-12.05.2001 “Abuse of children” international seminar organised by the Centre for counselling abused children, Tartu
(5) 28.05.-01.06.2001 University of Helsinki, Department of public Health Doctoral Programs in Public Health “Multilevel analysis in health service research” Helsinki, Finland
(6) 11-12.06.2001 University of Tampere School of Public Health, Doctoral Programs in Public Health "Frameworks for health promotion effectiveness” Tampere, Finland.

2002:
(1) 11-12.03.2002 Seminar “Poverty and deprivation” in Helsinki
(2) 07.05.2002 Early Career Symposium University of Helsinki
(3) 13-17.05.2002 Course organised by NIVA “Evaluation reated to occupational safety and health interventions, Copenhagen, Denmark
(4) 15-22.08.2002 “Advanced Nordic-Baltic course on safety promotion and injury prevention research” Toila, Estonia.
(5) 15-22.05.2002 Scientific work in the Unit of Preventive Nutrition, Karolinska Institute, Stockholm

2003:
(1) 30.06-05.07.2003 Scientific work in the Unit of Preventive Nutrition, Karolinska Institute, Stockholm (financed by the Swedish Institute)

7. Honors, awards
an Honorary University Fellow from 1 March-31 August 2000 in the School of Postgraduate Medicine and Health Sciences in the University of Exeter, UK

8. Research-administrative experiences
1996- Co-ordinator of the subprogram “Children’s Physical Activity” in the National Programme for Children Health Promotion
2000- Head of the Chair of Health Promotion, Department of Public Health
2001- Advisory board for Health Promotion projects in Estonian Sick Fund
2002- member of the Advisory Council for the President of Estonia in the area of social affairs (June to December 2003 the head of the Council)
2001- Head of the Group of Health Behaviour Studies in the Estonian Centre of Excellence in Behavioural and Health Sciences
2001- representative of Estonia in the COST A19 “Children’s Welfare - Children’s access to space and use of time”
2003- Expert for children’s nutrition in ILSI

Conferences and symposia organised:
9. Dissertations advised
Diva Eensoo. Association of physical activity with mental health and personality (in Estonian) Thesis for M.Sc. in Public Health, University of Tartu, 2000 (non-official co-supervisor with Jaanus Harro)

Liis Merenäkk Association of alcohol and drug use with personality and platelet MAO activity in school children. Thesis for M.Sc. in Public Health, University of Tartu, 2002 (co-supervisor with Jaanus Harro)

Krystiine Liiv Association of smoking with personality in school children: longitudinal analysis. Thesis for M.Sc. in Public Health, University of Tartu, 2003 (supervisor)

10. Current research areas
The influence of perceived and real socio-economic deprivation on the health and health related behaviour of children
1998/1999 European Youth Heart Study in Estonia – prevalence and interactions between risk factors of cardiovascular diseases in children (the first part of the longitudinal study)
2001/2002 The second wave of the European Youth Heart Study (second study among older group of participants).
Effectiveness of Health Promoting School program (1993-2002) in Estonia
2002 Effectiveness of Health Promoting media campaign in HIV prevention
2002 Determinants of behaviour associated with the transmission of HIV infection in 10- to 29-years old Estonian youth
2002 Health related behaviour in pregnant women of Estonia
The impact of free School Milk and Hot Lunch programmes on tackling economic inequalities in primary school children of Estonia
2003 Determinants of dropping out of school

11. Current grant funding
Estonian Science Foundation:
grant no 5209; 2002-2005 (in 2002 - 100 000 EEK, in 2003 – 105 000 EEK) "Longitudinal study of the development of risk factors for chronic heart diseases in children and adolescents: European Youth heart Study phase II”
grant no 5451; 2003-2006 (in 2003 - 100 000 EEK) “Determinants of dropping out of school”

Estonian Health Insurance Fund’ s special foundation for health promoting programmes

WHO
2003- 56 000 EEK, The impact of free School Milk and Hot Lunch programmes on tackling economic inequalities in primary school children of Estonia

Global Fund to fight AIDS, Tuberculosis and Malaria (starts from 1st of October 2003)

National Institute for Health Development (NIHD) is a primary recipient of funding for the programme “Scaling up the response to HIV in Estonia” (this intervention programme has an important component of monitoring and evaluation, that will be performed by NIHD) 2003 to 2004 - 3 900 000 USD.
12. List of publications

I Books and Book Chapters

In English:

In Estonian:

II Original Articles in International Peer-reviewed Journals

27. Harro, J. Vansteelandt, S., Fischer, K. Harro, M. Both low and high activity of platelet monoamine oxidase increases the probability of becoming a smoker European Neuropsychopharmacology (in press)
30. Liiv, K. Harro, M., Fischer, K. The influence of personality traits on the tracking of smoking behaviour in adolescents (submitted to Preventive Medicine in March 2003)

III Other Articles

Original articles in Estonia:

Original articles in Russian:

IV Congress Proceedings

V Congress Abstracts
20. Sallo, M. Assessment of habitual physical activity with a questionnaire: validation of the method. 100 Years of Independent Chair of Public Health at the University of Tartu. Conference; "Public Health - Past and Present". 1995, Tartu, pp.73-74.
35. M. Sallo, H. Rimm, J. Harro, K. Karelson, A.-M. Viru Personality characteristics, coping, and mood in young men with physically active or sedentary lifestyles. Biological Psychiatry (1997) 42: (1S) 255S
60. Harro, M., Alep, J., Eensoo, D., Merenäkk, L. Euroopa noorte südameuuring. Isiksuseomaduste, elukeskkonna ja eluviisi koosmõju südame ja veresoonete aterosklerootiliste haiguste mõned riskitegurite kujunemisele 15-16-aastastel noorukitel. Ravkindlustuse


76. Harro, M., Eensoo, D., Kiive, E., Merenäkk, L., Alep, J., Liiv, K., Harro, J. Platelet monoamine oxidase and psychoactive drug consumption in a random sample of Estonian


89. Liiv, K. Harro, M., Eensoo, D. Suitsetamise seos isiksuseomaduste ja ensüüm monoamiinoksüdaasi aktiivsusega koolilastel. Arstiteaduskonna päevade teesid, Eesti Arst, 2000; 79(9); 548.
Ebatervislike eluviis ja ülemääraselt riskiv käitumine: psühholoogilised ja 
106. Harro M., Alep J., Eensoo D. (2002). Different determinants of organised and non- 
organised physical activity in preadolescents and adolescents. International Journal of 
Behavioral Medicine, 9 Suppl, pp104-105.
Harro, J. (2002). Association between substance use, personality traits and platelet monoamine 
oxidase activity in preadolescents and adolescents. International Journal of Behavioral 
Medicine, 9 Suppl, p186.
of main risk factors for chronic diseases. International Journal of Behavioral Medicine, 9 
Suppl, p287.
13.05-12.06 läbiviidud HIV/AIDS ennetuskampaania “Positiivne case” efektiivsuse 
hindamine. Eesti Arst, 9, 560.
on provinud illegaalseid uimasteid. Eesti Arst, 9, 563.
Eesti Arst, 9, 595.
Krista Fisher

CURRICULUM VITAE

1. Name: Krista Fischer (maiden name: Krista Lapp)

2. Date of birth: August 5th, 1970

3. Position: Associate professor in Biostatistics, Department of Public Health, University of Tartu

4. Education:
   University of Tartu, 1999, Doctor of Philosophy in Mathematical Statistics
   Limburg University, Belgium, 1994, Master of Science in Biostatistics
   University of Tartu, 1994, graduated with diploma in Mathematical Statistics (Faculty of Mathematics)

5. Research and professional experience:
   since 2001 associate professor in biostatistics, Department of Public Health, University of Tartu
   1999-2001 post-doctoral researcher at the University of Ghent, Belgium
   1994-2000 researcher at the Institute of Mathematical Statistics, University of Tartu.

7. Academic Degrees
   Doctor of Philosophy in Mathematical Statistics (University of Tartu, 1999)
   Master of Science in Biostatistics (Limburg University, Belgium, 1994)

8. Honors, awards
   The Thomas Chalmers Student Scholarship Prize was awarded on Joint meeting of Society for Clinical Trials and International Society for Clinical Biostatistics (Boston, USA, July 1997)

9. Research-administrative experience
   - Belonging to the board of the Faculty of Mathematics, University of Tartu, in the academic year 1997/98.
   - Member of the International Biometric Society, International Society for Clinical Biostatistics and Estonian Statistical Society.
10. Dissertations advised
Heti Pisarev defended her Master’s Thesis “Structural nested mean models for repaeted measures” on February 23, 2001 and the degree “Master of Science in Mathematical Statistics” was conferred.

11. Current research areas
Medical statistics, analysis of noncompliance in clinical trials, causal inference, structural mean models, longitudinal data analysis, generalized linear models.

12. Current grant funding:
Estonian Science Foundation grant 5203 “Analysis of medical data with incomplete information” 2002-2005.

13. Publications:

I Monographs

II Peer-reviewed articles in international journals

III Other scientific publications


Aidula-Taie Kaasik

CURRICUMUM VITAE

1. Name: Taie Kaasik
2. Position: Senior Researcher (part-time)
3. Date of birth: 09.12.1934
4. Education: M.D., University of Tartu, Estonia (UT), 1960
   M.A. (social psychology), UT, 1980
5. Research and professional experience:
   - Lecturer, and Head of the Department at the Nurses’ School of Tartu, 1960-1980;
   - Research Associate at the Higher School Research Centre at UT, 1981-1990;
   - Lecturer, Department of Public Health, UT 1991-1992;
   - Assoc. Professor, Dept of Public Health, UT, 1993 -1997;
   - Researcher on injuries at Karolinska Institutet, Stockholm, Sweden during sabbatic semester in 1997.
   - Professor, Head of the Chair of Health Promotion, Dept of Public Health, UT, 1998-1999.
   - Project manager, Dept of Public Health, UT, 2000-2001
   - Part-time Senior Researcher, Dept of Public Health, UT, 2002 -
6. Academic degrees: Ph.D., University of Tartu, 1990
7. Honors, awards: none
8. Research-administrative experience:
   - Member of the Organising Committee of the NORFA Baltic Research Course on Injury Prevention and Safety Promotion held in Jurmala, Latvia, in 2000.
   - Member of the Executive Committee of the European Safe Community Network, since 1999.
   - Member of the International Safe Community Research Group at the WHO Collaborative Centre on Safe Communities at Karolinska Institutet, Stockholm, Sweden, since 1995.
   - Member of the International Stress and Anxiety Research Society.
   - Member of the Estonian Society of Physiologists.
   - Member of the Council of Trauma at the Estonian Health Development Institute.
9. Dissertations advised:
10. Current research area: Causes and circumstances of injuries in Estonia
11. Current grant funding:
2) Contract research work funded by the Ministry of Social Affairs: “Role of alcohol and illegal narcotics in injury mortality (in Estonia), and economic and social loss caused by those deaths”, 2002-2004.

12. Publications (peer-reviewed articles, monographs, other scientific publications, communications at international conferences and symposia, papers and other publications in Estonian)

Peer-reviewed articles in international journals:

Other publications:
Astrid Saava

CURRICULUM VITAE

1. **Family name:** SAAVA

2. **First name:** ASTRID

3. **Date of birth:** 25/02/1938

4. **Education:**
   Medical doctor, 1962, University of Tartu

   **Post graduate training:**
   - WHO Workshop on Human Exposure Assessment in Environmental Health, Sosnowies, Poland, 1996
   - WHO/CRE/COPERNICUS International Training Course on New Approaches to Teaching Environment and Health, Gotland, Sweden, 1995

5. **Research and professional Experience**
   - University of Tartu, *professor emeritus* 2003 - …...
   - University of Tartu, prof. of environm. and occupat. health 2000 - 2003
   - University of Tartu, professor of public health (PH) 1998 – 2000
   - University of Tartu, prof.of public health, head of Depart.of PH 1992 – 1998
   - University of Tartu, prof., head of Depart.of Hygiene 1990 – 1992
   - University of Tartu, prof.of hygiene 1987 – 1990
   - Tallinn Technical University, head of department 1974 – 1980
   - Tallinn Technical University, sen. researcher 1970 – 1974
   - University of Tartu, lecturer at Depart.of Hygiene 1962 - 1970

6. **Academic degrees**
   - Candidate of Med. Sci (PhD) 1967 University of Tartu
   - Doctor of Med. Sci 1974 University of Tartu

7. **Honors, awards**
   - 1998 Medal of Medical Faculty
   - 1988 Thanksgiving from the Ministry of Environment
   - 1988 Award of Excellence for the presentation “Public Health in the Newly Independent States of Europe” on the Silver Anniversary Jubilee 25th International Congress on Arts and Communicates, August 30 – September 6, 1998, New Orleans, Louisiana, USA
8. Research-administrative experience

<table>
<thead>
<tr>
<th>Position</th>
<th>Years</th>
</tr>
</thead>
<tbody>
<tr>
<td>Advisory Group member of BRIMHEALTH-Partnership</td>
<td>1994 - ....</td>
</tr>
<tr>
<td>Member of the Methods Task Team and the Baltic Sea sub-regional Team of GIWA (Global International Water Assessment)</td>
<td>2001 - ....</td>
</tr>
<tr>
<td>Member of the Leading Committee of the Public Health foundation (Rahvatervise sihtkapitali juhtkomitee liige)</td>
<td>1998 - ....</td>
</tr>
<tr>
<td>Member of the Committee on Medical Terminology</td>
<td>1990 - ....</td>
</tr>
<tr>
<td>President of the Tartu Association of Health Protection Specialists</td>
<td>1988 - ....</td>
</tr>
<tr>
<td>Member of the Committee on Nature Conversation of Estonian Academy of Sciences</td>
<td>1976 - ....</td>
</tr>
<tr>
<td>Public health advisor at the Ministry of Social Affairs</td>
<td>1996 - 2001</td>
</tr>
<tr>
<td>Performer of the LEONARDO da VINCI project “Pro Healthy Life – Interactive CD-ROM in Environmental Health for Professionals and Decision-makers”</td>
<td>1999 - 2001</td>
</tr>
<tr>
<td>Member of Governmental Commission of Sustainable Development</td>
<td>1996 - 1999</td>
</tr>
<tr>
<td>Member of the ad hoc Group of Experts on the Assessment of the State of the Baltic Sea</td>
<td>1978 - 1986</td>
</tr>
</tbody>
</table>

9. Dissertations advised (all MPH thesis)
1) Astrid Siilbek “Perinatal Mortality in Estonia in Comparison to Surrounding European Countries”, Utrecht, The Netherlands, 1997
2) Ene Tusti (Indermitte) “Tick-borne encephalitis in Estonia, Kuopio, Finland”, 1999
3) Valli Orav “Tartu linna sisejuladate tervisekaitseline olukord ja vee kvaliteet”, Tartu, 2002
4) Mare Remm “Helmintaaside esinemine Tartu piirkonna lastepäevakodude lastel ja seda mõjutavad tegurid”, Tartu, 2003
6) Tiit Rudov “Imuniseerimise järelevalve esinevad probleemid”, Tartu, 2003

10. Main research areas
- Public health aspects of using and protection of water resources in Estonia
- Public health development in Estonia
- Environmental health risks in Estonia

11. Current grant funding
Estonian Health Insurance Fond project “Mihkel Kask – 100. Dedication book and conference”
12. Main publications (total number about 250)


Künnis K., Saava A. *Some aspects of microbiology of the Gulf of Finland.* Limnologica (Berlin), v. 20, nr. 1, April 1990, 127-129.


Kersti Meiesaar

Curriculum Vitae

Name: KERSTI MEIESAAR

Date of birth: 25 of April 1950

Education: econometrics and statistics, Faculty of Economics, University of Tartu (1973)

Scientific degree: PhD in economics (1980)

Current position: Associate Professor of Health Economics, Head of Chair of Health Economics, Department of Public Health, Faculty of Medicine, University of Tartu.

Research and professional experience:
since 1996 Associate Professor, Department of Public Health, University of Tartu
1983-1995 Associate Professor, Institute of Economics, University of Tartu
1981-1983 Senior lecturer, Institute of Economics, University of Tartu
1978-1981 Assistant, Institute of Economics, University of Tartu
1975-1978 Aspirant, Institute of Economics, University of Tartu
1973-1975 Researcher, Institute of Economics, University of Tartu

Academic degrees:
Cand. Sci (Econ), 1980

Honors, awards: -

Research-administrative experience: -

Dissertations advised: -

Current research areas:
Evaluation of primary care reform, health technology assessment

Current research funding: -

Publications since 1996:
Total number of scientific publications 113, from those printed 89

Books and monographs

Peer-reviewed articles in international journals


Other international peer-reviewed articles:


Other international scientific articles


Scientific articles in Estonian:


Leoško T, Meiesaar K. Tervishoiuteenuste rahastamise ja hinnakujundamise võimalused. Eesti Arst 2001; 80(7):297-300


Other articles in Estonian:
Pölluste K, Meiesaar K. Programmide ja projektide hindamine. Tartu 2001, 23 lk

International conference abstracts:
National conference abstracts:

Other publications:
Eda Merisalu

CURRIVULUMM VITAE

1. First Name                              Eda
2. Surname                                 Merisalu
3. Institution                             Department of Public Health, TU
4. Position                                Associate professor
5. Date of birth                           06.01.1955
6. Education                              Faculty of Sports Medicine, University of Tartu, 1995
7. Research and professional experience
9. Dates and sites of earning the degrees
   1995, Kaunas Medical Academy, Lithuania
10. Honours/awards                         -
11. Research-administrative experience     ISIS member, 1997; SOP member 1999, member of the Board of the Dept of Nursing Sciences 1999; STAR member 2001
12. Supervised dissertations
    2003: Marika Salusaar. The role, competence and training of occupational health nurses in the European countries (bac.diss); Merle Varik. Satisfaction of older clients with living conditions and care quality in elderly houses of Tartu county (bac.diss); Ewa Roots. Work stress and burnout and heat indices among library workers (bac.diss); 2002: Kristi Toode. Work motivation determining factors among nurses of surgical and intense care units (bac.diss); Velli Roots. The role of nurse in the team work of care over Sclerosis multiplex patients (bac.diss); 2000: Pille Saar, Bac. diss. “Working environment, work stress and work

13. Current research program

Occupational and environmental health

14. Current grant funding

-

15. List of most important publications

International publications:

Publications in Estonian:

**Argo Soon**

CURRICULUM VITAE (CV)

1. **First Name** | Argo
2. **Surname** | Soon
3. **Institution** | Department of Public Health, University of Tartu
4. **Position** | Senior lecturer
5. **Date of birth** | 15.04.1965
6. **Education** | University of Tartu, Faculty of Medicine 1992

7. **Research and professional experience** | University of Tartu, Department of Public Health, lecturer 1992-1997 and senior lecturer since 1997

8. **Academic degree** | Master of Public Health

9. **Dates and sites of earning the degrees** | The Joseph H. and Belle R. Braun Hebrew University-Hadassah School of Public Health and Community Medicine, Jerusalem, Israel, 12.02.1997


11. **Research-administrative experience** | Member of Estonian Society of Toxicology; Member of Estonian Scientific Society of Health Protection; Member of International Society of Indoor Air Quality and Climate (ISIAQ), Member of the International Society of the Built Environment

12. **Supervised dissertations** | -

13. **Current research program** | Quality of indoor air and indoor environment, its influence on human health

14. **Current grant funding** | -

15. **List of publications**
I Monographs

II Scientific publications in international journals

III Scientific publications in Estonian journals

IV Peer-reviewed proceedings of conferences

V Chapters in monographs published in Estonia

VI Conference abstracts
Soon, A. Ruumiohü süündroom Jeruusalemma Hadassah- Klinikute kontoritöötajatel. Eesti Rohuteadlane ; Tartu; Kirj. AS Eesti Rohuteadlane; Ilm. 1997; Lisa, lk. 64-65
Soon, A. Mucous Membrane Irritation Symptoms among Hadassah Hospital Office Workers. Seventh International Symposium on Neurobehavioral Methods and Effects in Occupational and Environmental Health, June 20-23 1999, Stockholm, pg. 67
Soon, A. Comfort of indoor workers assessed by a questionnaire. 26th International Congress on Occupational Health, 27th –1st September 2000, Singapore, pg. 572

V Other publications and teaching aids
Soon, A. Töötingimuste uurimise skeem. Õppevahend töötervishoiu seminarideks. Tartu 1996
Soon, A. Joogivesi välitingimustes. Õppevahend keskkonnatervishoius Tartu 1997
E.Merisalu, A.Saava, A.Soon. Sissejuhatus töötervishoidu. Õppevahend töötervishoiu seminarideks. Tartu 1999
Soon, A. Arvuti ja tervis. Tartu, Elmatar 2000
Argo Soon. Kontoritöötajaid ohustab ruumiõhu sündroom. SL Õhtuleht, 08.01.2002
Anneli Uusküla

CURRICULUM VITAE

Name: ANNELI UUSKÜLA

Position: Researcher, Department of Public Health, University of Tartu
          Physician, Clinic of Dermatology, Foundation of Tartu University Clinics

Year of birth: 1967

Education:
2001-2002 State University of New York, University at Albany, School of Public Health,
          MS degree in epidemiology
1997-2001 Tartu University, Medical Doctorancy
1993-1997 Tartu University, Medical Residency in Dermatovenerology
1991-1993 Tartu University, Medical Internship
1985-1991 Tartu University, Medical Faculty

Professional experience:
2000 – since, physician, Clinic of Dermatology, Foundation of Tartu University Clinics
2001 – since, Researcher, Department of Public Health, University of Tartu
1999 – since, clinical expert for dermatovenerology, State Agency of Medicine

21.-25.07.1997, courses “Sexually transmitted Diseases: Public Health Issues, Practice and
          Policy”, State University of New York at Albany, USA.

Academic degree: M.S., Ph.D.

Honors, awards: -

Research-administrative experience:

Completed research support:
          “Epidemiology of Sexually Transmitted Diseases in Estonia, 1990-2000”.
          DARNH0494. “Sexual / health behavior and substance abuse patterns among patients with
          STD”.
          Research Program, #3 D43 TW00233-05S3, NHI. “Behavioral and Epidemiologic Factors
          related to Sexually Transmitted Disease Transmission in Estonia”.
          Product Development Team). “HSV Seroepidemiology study”.

86
Membership in scientific associations:

New York Academy of Sciences, since 1997
International Union Against Sexually Transmitted Infections
Estonian Society of Dermatovenerology (member of board)
Estonian Union Against Sexually Transmitted Infections (EUSTI, member of board):

Conferences and symposia organised:

4th Congress of Baltic Association of Dermatovenerology, 2003

Dissertations advised:

Current research areas and funding:

Ongoing Research support:


Publications:

Peer-reviewed articles:


Papers and other publications in Estonian language:

Monographs:

2001, Epidemiology of sexually transmitted diseases in Estonia in 1990 – 2000; PhD dissertation; Tartu University
13. MAIN INVESTIGATORS OTHER THAN GRANT HOLDERS (CV’S)

Kersti Pärna

CURRICULUM VITAE

Name: Kersti Pärna
Position: senior lecturer
Date of birth: 15.02.1960

Education:
MPH (1997) - “Smoking and associated factors among adolescents in Tallinn (Estonia)”, Department of General Practice and Community Health, University of Kuopio, Finland
MD (1984) - Department of Sports Medicine, Faculty of Medicine, University of Tartu, Estonia
1984-1985 postgraduate student of University of Tartu
1978-1984 Faculty of Medicine, University of Tartu

Professional experience:
since 1998 senior lecturer, Department of Public Health, University of Tartu
1992-1998 lecturer, Department of Public Health, University of Tartu
1984-1992 sports physician by basketball team of Estonia

Academic degrees:

Current research areas:
Socioeconomic differences in smoking

Publications:

I Monographies (1)

II Scientific articles in the international journals (7)


III Scientific articles in local journals (6)


IV Abstracts

International conferences (12)


Local conferences (20)
Pärna K, Harro M, Eensoo D, Alep J. Vererõhk Eesti 13-17 aastastel koolilastel
Diva Eensoo

CURRICULUM VITAE

1. Name     Diva Eensoo
2. Position Researcher, Department of Public Health, University of Tartu
3. Date of birth 14 of December 1963

4. Education
   1) The 1st Secondary School of Valga, graduated 1982
   2) University of Tartu, Faculty of Medicine, pharmacy 1982-1987
   3) University of Tartu, Master studies in biomedicine (Public Health) 1996-1998

5. Research and professional experience
   1987-2000 senior laboratory assistant in Department of Public Health, University of Tartu
   since 2000 researcher in Department of Public Health, University of Tartu

8. Academic degrees
   Master of Science in Public Health, University of Tartu, 2000

7. Honors, awards -

8. Research-administrative experience
   Estonian Society of Biological Psychiatry, member
   Scientific Health Protection Society of Tartu, member

9. Dissertations advised -

10. Current research areas
    Main topics are:
        - traffic behaviour, biological indicators, their association with personality traits and health-behaviour;
        - physical activity in association with mental health and personality traits;
        - family socio-economic status and health-related behaviour in children.

11. Current grant funding -

12. Publications

    Articles in peer-reviewed journals:


Liis Rooväli

CURRICULUM VITAE

1. Name LIIS ROOVÄLI (formerly Nirk)

2. Position Research Associate

3. Date of birth 25.08.1968

4. Education
   1999-2002 University of Tartu, Department of Public Health, MSci course in health care management
   1997-1999 University of Tartu, residency in health care management
   1992-1997 University of Tartu, internship as general physician
   1986-1992 University of Tartu, Department of Medicine
   1990-1991 Medical University of Lübeck, Four-month student exchange program

5. Research and professional experience
   1) Since 2001 Department of Public Health, University of Tartu, Research Associate;
   5) May-Nov. 1998 Estonian Ministry of Social Affairs, Danish Health Consult A/S "Hospital Assessment Project", Local consultant and project manager;
   6) 1992-1997 Hospital of Pelgulinna and Hospital of Maarjamõisa, intern;
   7) 1990-1992 Department of Arteficial Kidney of the Clinical Hospital of Tartu, nurse;
   8) 1984-1986 Central Hospital of Kingissepa District, hospital attendant.

International training courses:

1) The World Bank Institute and The Health Services Management Training Centre, Semmelweis University, Budapest: Advanced Flagship Course on Poverty, Equity and Health Systems (Aug 31st-Sept 5th, 2003; Budapest, Hungary);
2) Euro Summer School “The Baltic Sea Region 2010. Theories, Methods and Practicalities”, (May-July 2003; Greifswald, Germany);
3) Nordic School of Public Health: Qualitative and Quantitative Research Methods in Public Health (Oct 14-25th, 2002, Krakow, Poland);
4) The World Bank Institute and The Health Services Management Training Centre, Semmelweis University, Budapest: 4th Regional Flagship Course on Health Sector Reform and Sustainable Financing (June 17-28th, 2002, Budapest, Hungary);
5) NorFA Nordic Network for Biostatistics Research: Statistical Practice in Epidemiology (May 8-13th, 2002, Tartu, Estonia);
6) Nordic School of Public Health: Health Policy, Planning and Management (May 28 - June 8th, 2001, Tartu-Tallinn);
7) Nordic School of Public Health: Public Health Science, Part 2 (Apr 30 - May 11th, 2001, Kaunas);
8) Nordic School of Public Health: Managing change (Apr 17-27th, 2001, Göteborg);
9) Nordic School of Public Health: Public Health Science, Part 1 (Nov 6-17th, 2000, Kaunas);
10) Nordic School of Public Health: Health Care Management – Health care quality and health economics (May 15-25th, 2000, St. Petersburg);
11) University of Sydney: Estonian Health Promotion Program – Health Promotion Evaluation (Febr-June 2000, Tallinn);
12) Nordic School of Public Health: Action Orientation in Public Health Research (Nov 7-18th, 1999, Kaunas);

6. Academic degrees
MScPH (University of Tartu, 2003) Title of thesis: “Accessibility and utilization of inpatient care in Estonia: Demographic variations and effect of distance”

7. Honors, awards -

8. Research-administrative experience
1) Since 2002 member of the Centre of Behavioural and Health Sciences
2) Since 1998 member of Estonian College of Health Care Executives.

University of Tartu Jubilee Conference “Medicine, Ethics and Society” 25.-26.04.2002. (Member of organizing committee)

9. Dissertations advised -

10. Current research areas
- Analyzed Sick Fund’s and public sector's spending to illnesses.
- Surveyed performance of Estonian hospital network.
- Current research is mainly focused on health care services need, utilization and accessibility during the health system reforms.

11. Current grant funding –

12. Publications

I. Monographs
II. Peer-reviewed articles in international journals


III. Peer-reviewed articles in Estonian


IV. Conference abstracts


V. Other publications

Katrin Lang

CURRICULUM VITAE

1. Name: Katrin Lang
2. Position: senior teaching assistant
3. Date of birth: 04.05.63
4. Education: MD, University of Tartu, 1988
5. Research and professional experience:
since 1997 senior teaching assistant, Department of Public Health, University of Tartu
1992-1997 teaching assistant, Department of Public Health, University of Tartu
1989-1991 physician, Children’s Hospital, University of Tartu

Registered as a research student at the London School of Hygiene and Tropical Medicine, Department of Population Health, Epidemiology Unit since 1999.

7. Honors, awards: none
8. Research-administrative experience: none
9. Dissertations advised: none
10. Current research areas:
- quality of cancer registration data and public health implications in Estonia,
- alcohol related mortality in Estonia
11. Current grant funding: none
12. Publications:

Peer-reviewed articles:


Other scientific publications:

1. Lang K. Death Certification, Coding and Registration in Estonia. 2000; European Centre on Health of Societies in Transition, London School of Hygiene and Tropical Medicine. http://www.lshtm.ac.uk/centres/ecohost/projects.htm#death-estonia

Communications at international conferences and symposia:


Papers and other publications in Estonian:


Kaja Põlluste

CURRICULUM VITAE

1. Name: Kaja Põlluste
2. Position: Assistant Professor
3. Date of birth: 05.02.1967
4. Education:
   Medical doctor, University of Tartu, 1990
   Diploma of Public Health, Nordic School of Public Health, 1996
5. Research and professional experience:
   1990-2002 Assistant Professor, University of Tartu
   2002-2003 Assistant Professor (0,5), Project Manager (0,5), University of Tartu,
   Project Manager in the Ministry of Social Affairs of Estonia
   Since 01.01.2003 Assistant Professor (0,5), University of Tartu and expert of the Ministry
   of Social Affairs
6. Academic degrees:
   Master of Public Health, Nordic School of Public Health
   Since 2001 PhD student, Nordic school of Public Health
7. Honors, awards: No
8. Research-administrative experience
   Estonian College of Health Executives - member of board
   member of ASPHER expert group
9. Dissertations advised: No
10. Current research areas:
    Quality assurance in health care and evaluation of health systems
11. Current grant funding: No
12. Publications
    1. Põlluste K, Kalda R, Lember M. Primary health care system in transition: patients?
    2. Kalda R, Põlluste K, Lember M. Patient satisfaction with care is associated with personal
    3. Kalda R, Põlluste K, Lember M; Eesti elanikkonna hinnang esmatasandi tervishoius aset
Enen Indermitte

CURRICULUM VITAE

1. First name  Ene
2. Surname     Indermitte
3. Institution University of Tartu, Department of Public Health
4. Position    specialist
5. Date of Birth 21.04.1967
6. Education   University of Tartu, Diploma in Biology 1992
7. Research and professional experience
   - University of Tartu, Institute of Zoology and Hydrobiology, laboratory assistant, 1992-1998
   - University of Tartu, Department of Public Health, laboratory assistant, 1999-2000
   researcher 2000-2002
   specialist 2003-..
8. Academic degree Master of Public Health (MPH)
9. Dates and sites earning the degrees University of Kuopio, Finland 1999
10. Administrative experience
    - Coordinator of Public Health Master Program since 2003
    - Development of laboratory of work environment (microbiology unit) – accreditation process ongoing
11. Teaching experience Teaching in the Chair of Environmental and occupational health in Medical Faculty
    - undergraduate level since 2000
    - master program level since 2002
12. Research interests Health risks in work and living environment;
    Methods for measurement of biological risk factors in the environment
13. Current research program Participation in:
14. List of publications

International articles


International conferences (abstracts)


Articles in Estonian publications


National conferences (abstracts)


Books

Other
SUMMARY IN ESTONIAN


Instituudis töötab 10 õppejõudu (2 professorit, 4 dotsenti ja 4 vanemassistenti) ja 4 teadurit (neist 2 erakorralist), 6 administratiivset ja 5 tehnilist töötajat. Teadustöösse on haaratud 11 doktor anti ja 37 magistranti. Tervishoiu instituudi töötajate baasil on moodustatud 2 Eesti Käitumis- ja Terviseteaduste Keskuse töörühma: tervist mõjutava käitumise ja biostatistika ja terviseteenuste uurimistühim.

Instituudi teadustöö põhisuundadeks on riskiva tervisekäitumise ja nakkuslike (HIV) ning mittenakkuslike haiguste riskitegurite uurimine lastel ja noortel; isiksuseomaduste, bioloogiliste markerite ja riskiva käitumise vaheliste põhjuste seoste uurimine; traumade epidemioloogia ja nende vältimise võimalused; HIV ja teiste sugulisel teel levivate haiguste epidemioloogia; ruumiõhu kvaliteet ja selle mõju tervisele; joogivee kvaliteet ja sellega seonduvad tervis eriskid; haigusregistrite andmekvaliteet; meditsiiniliste andmete analüüsimetoodika; farmakoepidemioloogia ja farmakoökonoomika; patsiendi rahulolu ja ravikavalerted hindamine tervishoiuasutustes; vajaduste hindamine tervishoiuteenuste järel; tevishoiuteenuste ja –programmide majanduslik hindamine.


Eesti Teadusfordi grante oli instituudil viimase viie aasta jooksul 15, rahvusvahelisi grante 1.

Tervishoiu instituudis on viimase viie aasta jooksul publitseeritud 45 artiklit rahvusvahelise levikutga eelretsetseeritavates ajakirjades, kaitstud 2 doktori ja 13 magistritööd.