SELF-EVALUATION REPORT
for the accreditation of curriculum

2625 (7509903) Public health (Master studies)

Approved by:

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Preface

The present self-evaluation report of the Department of Public Health supplements the main report of the Faculty of Medicine for the accreditation of curricula by the Ministry of Education and Research in 2008. Since the Master of Public Health Programme has been developed and run by the Department of Public Health, the Department (academic staff) holds an opinion that the present report is a necessary source of more detailed information. General rules and procedures common in both the University and the Faculty are described in the main report. The academic staff of the Department of Public Health comprised of 15 persons at the time of preparing the self-evaluation report. Starting from February 2008, all academic staff participated in regular meetings, dedicated to the self-assessment. It was decided that each staff member should contribute to the writing and provide input for the self-assessment report. Each chapter of the report was assigned to a staff member, who prepared preliminary drafts and presented these on meetings. Collecting supplementary information from external stakeholders, students and alumni was organised and carried out by the Programme Coordinator. The report was finalised and edited on the basis of the information collected and opinions presented.

The process of preparing the self-assessment report proved to be fruitful and served the purpose of being a well-structured audit.

List of academic staff involved in conducting self-assessment

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1. INTRODUCTION

1.1 Department of Public Health

Creation and history

Department of Hygiene was established at the University of Tartu in 1895. The same year also marks the beginning of systematic teaching, training and research activities in the field of public health in Estonia.

In 1918, Estonia declared its independence; the national university in Tartu was opened in December 1919. Several prominent Estonian scientists returned from Soviet Russia and started working at the University of Tartu. Among them was Professor Alexander Rammul who became the head of the chair of hygiene and worked here for 20 years. His main areas of research were water, communal and food hygiene. He initiated and supervised an extensive medico-geographical (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 and relate them to diseases and mortality. Attention was paid to housing, nutrition, drinking water, lifestyle, social activities, health status, prevalence of chronic and mental diseases etc.

During the first decade after the World War II, the academic staff of the department changed frequently and research work came to an entire standstill. A revival in public health research was noticed at the end of 1950s when Professor Mihkel Kask was rehabilitated and returned to the chair. He played an outstanding role in the development of public health (particularly health promotion) in Estonia. Through his work he aimed at achieving healthy individuals not suffering from illnesses. After the death of Professor Kask (1968), his work was continued under the supervision of his followers, Associate Professor Malev Uibo (1968-1979) and Professor Arnold Jannus (1979-1990). Traditionally the research activities were mainly concentrated on local public health problems such as drinking water quality, public water supply and sanitary protection of water resources, nutrition of pre-school children and their provision with vitamins, working conditions and health of workers in some industrial enterprises.

During the Soviet time, public health services were provided by stations of sanitary-epidemiology, later called health protection services. The staff working in the field of public health in Estonia had received a four- or five-year training in specialised institutions, called Institutes or Faculties of Sanitary-epidemiology either in St. Petersburg, Moscow or elsewhere outside of Estonia. Until the year 1991, annually 10 to 15 student positions at these institutions were filled by separate calls for students coming from Estonia.

Thus, no professional training of public health was carried out in Estonia during the Soviet time (1940-1991) and the teaching and training activities of the Department of Hygiene were aimed at and limited to teaching of public health disciplines to the undergraduate students of medicine, dentistry and pharmacy.
History of recent reorganisation

After Estonia regained its independence in 1991, the Department of Hygiene was completely reorganised into the Department of Public Health. The importance of preventive medicine, including a population-based approach, was recognised. The proportion of public health subjects was doubled in the curriculum of medical students. At the same time, the number of the staff at of the Department of Public Health doubled as well.

Further changes were brought about in 1996 at the time when Prof. Astrid Saava headed the Department. In the framework of the Estonian Health Project financed by the World Bank, 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 a number of its members to complete their Master’s degrees in Public Health (7 persons) abroad.

Up to the 1990s, the research at the department was limited to studying environmental factors and lifestyle. In the last ten years, the area of research has been expanding to other fields of public health, such as epidemiology, health economics and health care management. Moreover, research in public health has become both interdisciplinary and international and the number of research projects that are planned and performed with this perspective, has constantly been increasing.


Throughout the 1990-s, discussions on establishing training for health professionals in preventive and/or public health medicine were going on, supported by the World Bank’s Estonian Health Project. In 1997-1999, several working groups were created by the Ministry of Social Affairs to give advice on how to organise professional training of public health in Estonia. One of the major driving forces in these working groups was the Health Protection Inspectorate, which was running short of staff as no respective training was provided anywhere in Estonia. Finally, a development plan on public health education was presented and endorsed by the Ministry of Social Affairs. This plan proposed a two-year Master of Public Health (MPH) programme as the main format of training of future specialists in the field of public health. The Department of Public Health of the University of Tartu became the responsible institution for this training. In 1998, the Department was headed by the Raul Kiivet who, being the professor of health care management, was instrumental in many developments in the Estonian public health system.

The first programme of Master of Sciences in Public Health (MScPH) was established in 1998 and the first Master’s thesis defended in the year 2000.

The curriculum of the Master of Public Health (MPH) was developed in close cooperation between the academics and professionals during 1999-2000. The first group of ten MPH students started in September 2000 and graduated in 2002. This was the first time in the history that public health specialists were trained in Estonia. Up to date (13.06.2008), 70 master of public health students have graduated from these two programmes. With input from students, graduates, and community public health professionals, we have further developed the MPH curriculum and new specialty modules (health promotion, epidemiology) were developed in 2007 and 2008.
In parallel to training of future specialists in the field of public health, the Department has taken an active role in continuous education of the existing workforce in public health and health care services. In the recent years, several courses have been organized, some of these in English with an international faculty and students from other Baltic states within the BrimHealth framework (funded by EC, programme of Community action in the field of PH). The project “Vocational training in public health” led by the Department of Public Health has was been launched in 2006 in order to create a system of vocational training to support lifelong learning of public health professionals and decision makers at all levels of the health sector in Estonia under the auspices of European Union Social Fund structural funds measure 1.1 (Educational System Supporting the Flexibility and Employability of the Labour Force and Providing Opportunities of Lifelong Learning for All). In 2007, the Department received a grant from EEA / Norwegian Financial Mechanism “Capacity building for disease surveillance and health monitoring in Estonia”. The purpose of the project is to increase the capacity for disease control and create a critical mass of specialists in epidemiology to ensure adequate health information collection and an analysis for making evidence-based health policy decisions. Two main activities of the project are (1) developing a two-year Master's programme in public health focusing on epidemiology, and (2) establishing and staffing unit of health information analysis for research and consultancy in order to support planning and decision making and to follow the implementation of health programmes and interventions.

Organisational structure of the Department

The Department of Public Health is a structural unit of the Faculty of Medicine and it has five Chairs (see Figure 1):

Figure 1. Organisational structure of the Department and its component units
Staff of the Department of Public Health consists of 25 persons including 9 teaching positions (1 professor, 3 senior lecturers, 4 lecturers and 1 assistant), 4 research positions, 3 administrative and 8 technical positions.

Additionally, the employment contracts with one professor, one senior lecturer and one researcher are temporarily suspended due to invitations to work abroad (WHO and University of Cambridge) and locally (Faculty of Social Sciences). The working contracts with University of Tartu of two persons (one professor and associate professor) are temporarily suspended. One person (technical position – statistician) is currently on maternity leave. One professor retired and was awarded the title of professor emeritus in 2003. She continues supervision of current doctoral and master projects.

The Department has one visiting professor from the National Institute for Health Development (the head of the Department of Epidemiology and Biostatistics). He mainly teaches and supervises doctoral and master students, but is also involved in collaborative research projects. One visiting lecturer (the head of the National Institute for Health Development is mainly involved in teaching at under- and post-graduate levels.

Annex 2: Academic and administrative staff of the Department of Public Health.

1.2 Teaching curricula and numbers of students enrolled

The Department of Public Health is responsible for the Master of Public Health programme, for several obligatory and elective courses offered to the students of the Faculty of Medicine, students of other faculties of the University and to those at post-graduate level. The teaching load of public health disciplines for the future physicians and dentists totals 2600 hours of classroom teaching and accounts approximately 80% of the teaching workload of the staff.

1) Master of Public Health programme (since 2000; 7-15 students annually) – full-time, two years, 120 ECTS credits, professional training, thesis accounts for one fourth of studies.
   Number of students currently enrolled: 26 (18.03.2008)

2) Specialist medical training (residency) in Occupational Health (2-5 trainees annually) – full-time, four years. The Department is the coordinating body for this programme; it organizes teaching and training of non-clinical disciplines.
   Number of residents currently enrolled: 10

3) Obligatory courses to the students of medicine and dentistry (200 students per course annually):
   - Medical Theory and Ethics, 1.5 ECTS credits;
   - History of Medicine; 2.5 ECTS credits;
   - Epidemiology and Biostatistics, 4.5 ECTS credits;
   - Health Promotion and Medical Sociology, 6 ECTS credits;
   - Environmental and Occupational Health, 44.5 ECTS credits;
   - Health Care Management and Health Economics, 6 ECTS credits.
4) PhD students in medicine (25 students per course annually):
- Modern Epidemiology, 4.5 ECTS credits;
- Applied Biostatistics, 6 ECTS credits;
- Bioethics, 3 ECTS credits.

5) Elective courses to the students of the Faculty of Medicine and to the students of other faculties of the University – annually 8-10 courses, in total for 200-300 students, are organized and carried out by the staff of the Department.

6) Continuous professional education in public health:
The initiative was launched in 2006 in order to create a system of vocational training to support life-long learning of public health professionals and decision makers at all levels in the health sector in Estonia. The courses have been held for two years.

1.3 Process of self-evaluation at the Department

The purposes of both the self-evaluation and the report are to enhance the institutional capacity improvement and change through self-reflection.

I. Participants: (i) Department staff; (ii) Faculty leaders; (iii) Students; (iv) Alumina; (v) University authorities; (vi) External stakeholders from the Ministry of Social Affairs (the head of the Public Health Department Dr. Ülla-Karin Nurm), Health Protection Inspectorate (Dr. Kuulo Kutsar and Irina Dontsenko), Estonian Health Insurance Fund (Dr. Kristiina Kahur);

II. Activities: (i) Information collection (incl. feedback and consultations); (ii) Written text preparation; (iii) Discussions.

The chairperson (Anneli Uusküla), process coordinator (Ene Indermitte) and writing steering committee (Andres Soosaar, Kersti Pärna, Kersti Meiesaar, Ene Indermitte, Katrin Lang) were nominated.

Responsibilities of the chairperson were planning and coordinating the work of the self-evaluation group, providing opportunities for discussion within the institution and acting as a contact person between the self-evaluation team and the Faculty of Medicine and University authorities.

Responsibilities of the process coordinator were monitoring the process of self-evaluation for timeliness and rigorous adherence to the proposed evaluation format, feedback data collection from programme alumina and compiling the final draft of the self-evaluation report.

Responsibilities of the writing steering committee were writing certain chapters of the self-evaluation report, attending meetings organized on a regular basis (twice a month since February 2008) and keeping electronic contact keeping with parties involved. In the process of self-evaluation, a SWOT analysis was undertaken.

Approval: (i) Discussion and defence; (ii) Approval.
2. MISSION AND EDUCATIONAL POLICY

2.1 Institutional goals and educational policy of the Department

The **mission** of the Department of Public Health is to improve health and prevent disease in Estonian populations by acquiring, disseminating and applying public health knowledge. This mission is realized by following a **set of objectives**:

1. To train and teach future professionals in public health through Master’s and Doctoral programmes and residency training.
2. To contribute to training of medical professions.
3. To conduct basic and applied research for identification, analysis and intervention of health-related problems among Estonian populations.
4. To achieve a balance between teaching and research.
5. To provide service and consultancy in public health.
6. To encourage multidisciplinary and interdisciplinary approach.
7. To develop strong external relationships to public health practitioners and programmes in the community.
8. To strive for international co-operation in training and research.

The Department of Public Health strongly follows modern trends in evidence-based medicine and public health to work very seriously not only with diseases, but to focus also on different branches of health sciences. On the one hand, the objectives reflect the importance of education and training of public health, on the other, the department stresses the importance of deep cooperation between education, research, professional activities, social demand and policy making in public health at both national and international level. Strong orientation to research is an important feature of the activities and development of the department, especially in Estonian context, because of the small number of good quality public health research institutions in the country. At the same time, the themes of research are often related to more topical issues of public health and medicine in Estonia, which, in its turn, confirms stronger networking of different stakeholders in public health. The most important partners of the Department are National Institute for Health Development, Estonian Health Insurance Fund, Ministry of Social Affairs and Health Protection Inspectorate.

Educational policy of the department primarily follows the main principles of academic education of the University of Tartu, but special importance is attached to the following principles:

- Interdisciplinarity of studies in the sense of both courses in a curriculum and a different background and competence of master students themselves.
- Increasing the variety of forms of learning either for full time students or single courses and workshops for working public health professionals.
- Further specialization in master level education according to a programme that involves the specialty modules of public health:, health care management, environmental health, health promotion and epidemiology.

- Flexibility and individual approach in study setup, especially in the Master of Public Health programme to provide a way of learning most suitable for both a student and the Department.

- Importance of giving an international dimension to the studies in the Department that would include the harmonization of the curricula and courses with European best practices and educational mobility of the faculty and students.

- Implementation of the elements of Problem Based Learning into the teaching activities of courses and workshops.

- Careful monitoring of study process through feedback and quality management.

2.2 Management of Master of Public Health Programme

The Objectives of the Master Programme in public health is to provide knowledge, skills and experience for expert decision-making, implementation of decisions, management and independent research and promotion in the fields of health care and public health. Successful attainment of these objectives needs, in addition to ordinary classroom teaching, also permanent support to the Programme according to the above-mentioned principles. The management of the Programme is carefully thought and led institutionally by the Programme Committee and personally by the head of the Department and the coordinating manager. The Programme Committee holds regular meetings to monitor and modify the activities of the Programme if necessary. There is also an interdisciplinary Public Health Sciences Thesis Committee to the Programme, which serves as an important source of advice and feedback to improve the quality of studies.

2.3 Process of Curriculum Development

Opening a curriculum is regulated by the Curriculum Statutes of the University of Tartu; the procedure involves three stages of institutional approval. Opening a curriculum typically requires the adoption of a draft curriculum with annexes by the Council of the Faculty together with an application for the registration of the curriculum.

Every project of a curriculum is reviewed by the Education Committee of the University Council. The Education Committee shall:

- Give recommendations for the improvement and amendment of the curriculum to be opened;

- Request the opinion of other faculties concerned if necessary;

- Makes one of the following proposals:
  – Advises the University Council to approve the curriculum;
  – Advises the faculty to amend the curriculum;
  – Advises not to open the curriculum.
If the council approves the curriculum, it will be entered into the Register of the Curricula and into the Register of Curricula of the Estonian Ministry of Education and Research.

In addition to the university curriculum management, the MPH Curriculum development has specifically developed relationships and cooperation with other public health stakeholders in Estonia since its planning in the late 1990s. Domestic and international partners of the Department have been invited and actively contributed to this development. The MPH Programme Committee has regular meetings to monitor and modify, in case of need, the activities of the Programme.

The Department is also a member of ASPHER (Association of Schools of Public Health in the European Region) since 1998. The teaching and development of the Department was evaluated by ASPHER Peer-Review team in 1999 and 2004 and the Department has improved its teaching content and quality assurance system according to the recommendations markedly.

3. PROGRAMME

Master of Public Health programme has been operating in the Department of Public Health since 2000. At this time, the Department of Public Health was responsible for two Master's programmes: Master of Science in Public Health and Master of Public Health. The current curriculum of Master of Public Health (MPH) was introduced in 2005 when the two Master's programmes were merged. The tradition of the best European schools of public health is followed in the development of the current MPH programme to ensure that the education is internationally acceptable and meets European and international standards (e.g. European Master of Public Health programme ASPHER, European Master in Health Promotion).

The MPH programme is a full-time, two-year (80 CP=120 ECTS) programme oriented to professional training where independent project work and thesis account for one-fourth of studies. Independent research leads to the compilation of Master's thesis that is defended at a public disputation. The topic for the research project is chosen according to the preferences of the student in agreement with the aims of the curriculum. Persons who have completed the full curriculum and defended the Master's thesis are awarded a degree of Master of Science in Health Sciences (public health).

Curriculum provides the qualification meeting the requirements set by the Standard of Higher Education. Curriculum of the Master's Programme is conditionally accredited (Ministry of Education and Research, May 2004).

3.1 Structure of the curriculum of Master of Public Health

Master's programme comprises studies (60 CP) and independent research work (20 CP). The studies consist of:

a. compulsory studies (56 CP, 70% of total workload)
   – core module (32 CP, 40%)
   – specialty module (24 CP, 30%)

b. optional studies (4 CP, 5% of total workload).
Independent research work (20 CP, 25% of the total workload) leads to the compilation of Master's thesis.

Annex 3: Curriculum of Master of Public Health

Master's students are instructed in the general principles and methods of public health with the possibility to specialise in one public health discipline. The curriculum has 4 options for specialisation: Health Care Management, Health Promotion, Environmental Health and Epidemiology. Each year only one specialty module is open for admission. The specialisation track for every year is decided in cooperation with the Ministry of Social Affairs proceeding from the need for a certain type of specialists. In the years 2000–2003, it was Environmental Health, in 2000 and 2004–2006 Health Care Management, in 2007 Health Promotion and in 2008 Epidemiology.

3.2 Aims and learning outcomes of the curriculum

During 2007-2008, the programme committee has further developed the programme in order it conformed to the principles of student-centred learning process. The aims and learning outcomes of each module and subject have been elaborated by the academic staff involved in teaching students in the in Master's programme.

I Master of Public Health programme

The aim of the MPH programme is to provide knowledge, skills and experience for expert decision-making, implementation of decisions, management and independent research and development work in the fields of health care and public health. The completion of the programme allows further education through PhD studies, especially in health sciences.

Learning outcomes of the curriculum of MPH
Student:
- understands the main determinants of the development of health
- knows different health systems and patterns guiding the field of public health
- knows how to search/find, collect, review and analyse different health related data in order to make evidence-based decisions.
- possesses the principles and methods for conducting different studies in the field of public health
- is able to plan and conduct scientific and applied studies
- is able to employ his/her knowledge in decision-making processes and is able to work as a specialist in different areas of public health.

II Core module of the MPH programme

The aim of the core module of the curriculum is to provide the students with an overview of the main areas of Public Health and the necessary background to be able to follow more specialized courses and complete their Master’s thesis.

Learning outcomes of the core module
Student:
- understands the main determinants of the development of health
knows different health systems and patterns guiding the field of public health
possesses principles and methods of conducting different studies in the field of public health.

III Specialty modules of the MPH programme

a) Environmental Health (admission open in 2000/01; 2001/02; 2002/03; 2003/04)

The aim of the module is to provide the knowledge and skills in environmental and occupational health and health protection that are required in qualified professional activities. The module gives necessary methodological preparation for risk assessment and risk prevention.

Learning outcomes of the module.
After the completion of the module, the student:
– knows risk factors in occupational and living environments and their impact on health
– values environment as an important health determinant
– knows the main principles and methods in risk assessment and can apply them in research
– knows strategies and legislation in environmental and occupational health
– is able to apply the measures of risk prevention and remediation in practice.

b) Health Care Management (admission open in 2000/01; 2004/05; 2005/06; 2006/07)

The module aims to provide students with a professional education and training in the principles and practice of health management and health promotion.

Learning outcomes of the module.
After the completion of the module, the student:
– understands different health systems and health policies and can make evidence-based decisions for their better management in terminology of economical sciences; can analyse main economical processes
– can deal with essential aspects of labour and medical law
– has basic knowledge about health economics, financial accounting, management accounting and internal reporting in health care organisations and are able to specify the main elements of cost accounting and costing methods in health care organisations
– knows the structure and functioning of Estonian Public Administration, Public Service Act, deals with topics of central and local government
– can identify problems of social work, social policy and health psychology and solve them in real life
– can identify different theories and methods of health promotion and translate them into actions for the promotion of positive health and best practice in health promotion.

c) Health Promotion (admission open in 2007)

The aim of the health promotion module is to provide professional knowledge and skills in health promotion that are required in qualified professional activities. After completing this module, students are able to participate in health promotion practice and research, and to use the findings of research to improve the quality and effectiveness of health promotion action.
Learning outcomes of the module.
After the completion of the module, the student:
- has knowledge in health promotion concepts and principles and are able to apply the acquired knowledge in practice
- is acquainted with theories and models of health promotion and is capable to apply theories in research and interventions
- knows the main health promotion and disease prevention strategies and methods and is skilful in utilizing these in different population groups, domains, institutions and context
- has overview of the health policy development processes and knows the main principles of administration
- is familiar with the impact of globalisation to population health
- is capable to critically and systematically evaluate the development of the new knowledge and best practices in health promotion.

d) Epidemiology (admission open in 2008)

The aim of the epidemiology module is to provide in-depth knowledge and skills in epidemiology that are required in qualified professional activities. Passing the module gives necessary preparation in planning, undertaking and analysing the results of studies related to health and disease.

Learning outcomes of the module.
After the completion of the module, the student:
- knows and can apply study designs in health sciences
- has mastered statistical modelling and data analysis and is able to use them, is able to interpret the results of the studies
- knows how to find and critically assess evidence-based information in health related issues and health services assessment
- knows the epidemiology of communicable and non-communicable diseases.

IV Optional studies

The aim of optional studies is to give the students an opportunity to develop knowledge and skills, and satisfy their interests through freely chosen subjects.

Learning outcomes.
Students have knowledge, skills and experience in the field of optional subjects. Optional studies can be chosen from other curricula of the University or from those of other Universities.

Annex 4: Course descriptions of the MPH curriculum

3.3 Expected areas of activities of graduates

Graduates of the programme can be employed as specialists, analysts, senior inspectors or heads of the departments in the Ministry of Social Affairs, Estonian Health Insurance Fund, Health Protection Inspectorate, hospitals, Statistics Estonia or local governments. Graduates can find employment in research or higher education institutions as researchers or teachers.
The programme allows further education through PhD studies, especially in health sciences (in more detail see 5.3).

3.4 Admission and graduation criteria

Admission criteria: Bachelor's degree or an equivalent level of education in medicine, biology, health sciences, social sciences, mathematics/mathematical statistics or economics. Additional competition requirements are specified in the admission regulations (in more detail see 5.1).

Graduation criteria: Fulfilment of the core module and one specialty module is compulsory. Optional subjects can be chosen from other curricula of the University or from those of other Universities. For completing the Master’s thesis, an independent research or development project is compulsory. The topic for the research project is chosen according to the preferences of the student in agreement with the aims of the curriculum. Master’s thesis is defended at a public disputation. The written decision adopted by the Public Health Sciences Thesis Committee is submitted to the Office of Academic Affairs of the University and it serves as a basis for issuing the Master's Diploma.

3.5 Strengths and weaknesses of the programme

Strengths
– according to the previous accreditation (2004), two Master of Public Health Programmes were merged into one programme that enables to better address the learning outcomes
– harmonization of curricula and courses with European best practices
– according to the previous accreditation, Public Health Ethics and Research Methodology were included in the core module
– interdisciplinarity of studies in the sense of courses in curriculum
– two new specialty modules (Health Promotion 2007, Epidemiology 2008) in the MPH programme

Weaknesses:
– only one specialty module of Master’s programme per year due to scarce resources
– shortage of competent staff in some areas
– a limited number of research-oriented specialists in public health available in Estonia
– not strongly established coherence with institutions practising in public health

Action plan to develop the strengths further and to remedy weaknesses
– perspective development of Master’s programme
– involve visiting lecturers from partner institutions in Estonia and Europe
– seek for additional finances
– start with activities to establish coherence with institutions practising in public health
4. TEACHING AND LEARNING PRACTICE

4.1 General characteristics of teaching

The goal of teaching and learning process is to support attaining the objectives of the curricula, successful studies and flexible and reasonable choices for Master’s students.

At the University of Tartu, one credit point (1.5 ECTS) equals one study week or 40 student study hours. At the postgraduate/Master’s level one credit usually consists of 8 – 12 contact teaching hours and 32 – 28 hours of individual studies.

During the last years, the number of contact teaching hours in the MPH programme has been increased from 8 to 12 hours. Feedback from teachers and students approves this change as a substantial and very positive one.

The core subjects of public health are taught during the first year of studies. The second year is dedicated to teaching specialty subjects and writing a Master’s thesis. One semester comprises of 20 study weeks and the study load per one semester is on average 20 credits (30 ECTS).

Direct contact teaching (lectures and seminars) is organised in blocks of 2-3 intensive days per week. Usually there are 2-3 blocks in a month. Independent work takes place at a time suitable for the student. In the course of independent work, the students draw up reports or analyses and do reading. The amount of independent work in a written form is 3-10 items a semester. Such organization of study process enables also persons actively employed to participate in the Master’s programme and is highly appreciated by the students.

There is a list of textbooks for each subject in the curriculum. Most core subjects are based on Oxford Textbook in Public Health (Fourth edition, Edited by R. Detels, J. McEwen, R. Beaglehole, H. Tanaka, Oxford University Press, 2002). Textbooks in Estonian are available in nine subjects. The other courses use acknowledged textbooks in English or chapters of textbooks. In every subject the teachers have compiled materials for lectures and seminars, which are available to the students via electronic study information system (SIS).

4.2 Main teaching and learning methods and their implementation

The main emphasis of the MPH programme is on independent work and personal development of students. Active teaching serves the purpose of developing discussion and teamwork skills of students as well as guiding students through studies and supporting them in specialisation studies. The main teaching and learning methods in contact teaching are lectures, seminars and practical training. The share of lectures in contact teaching is approximately 50%. The main method used in seminars is discussion. Also teamwork is used to develop skills working in teams.

The teaching staff is actively developing their teaching skills and learning new teaching methods through educational courses. In the academic year 2007/2008, a problem-based learning approach was introduced. For example, in the course of Health Promotion, practical assignments and in-class discussions follow a problem-based learning approach: each student
gets a different problem to investigate that is mostly solved with the help of literature search. The findings are discussed in the class. The first web-based course (Environmental and Occupational Health) was also introduced in 2007/2008.

The main practical task for the students of MPH programme is to conduct research, on which their Master's thesis will be based on. Most of the topics involve independent data collection and analysis. Each student has a supervisor from among the staff of the Department who personally guides the student through the design and process of the compilation of Master’s thesis. The students have scheduled regular individual meetings with the supervisor and present at least twice a year their research design concepts, methodological issues and intermediate results in the framework of Master's seminars. A wide range of topics chosen for Master’s theses and a considerable workload for lecturers sometimes hinders finding competent supervisors and may, occasionally, also be a reason for the difference in the workload for lecturers (as to the number of supervised students). Engaging specialists from outside the University may offer a solution to the problem.

4.3 Organisation of teaching process

The Study Regulations of the University of Tartu form the basis of teaching process. The practical realisation of teaching process proceeds via electronic study information system (SIS), which is operating at the University since 2006. The system contains all documents concerning the management of studies (timetables, curricula, instructions for independent home work, list of textbooks etc) as well as lecture and seminar materials for distribution to students. The implementation of SIS is an efficient step towards student-centred system. In a situation where the role of independent studies is prevalent, this is a very remarkable progress.

In addition, the Department has a coordinating body (a programme coordinator) for the whole MPH curriculum, responsibilities of which include organizing studies, drawing up time-tables and acting as a contact person for both teachers and students. At the beginning of the Master’s studies, the students are instructed in rules and regulations of the studies by the programme coordinator. Every subject in the curriculum has a subject coordinator (a responsible lecturer) who is responsible for the content of the subject and it’s coherence with other subjects in the curriculum. At the beginning of every course, students are informed about the requirements to be fulfilled during the study period.

The main information about Master’s studies, including time-tables, is accessible via the Internet, on the homepage of the Department (www.arth.ut.ee).

4.4 Evaluation of learning aims

The main method of evaluation in the MPH programme is examination. A six-point scale (A-“excellent”, B-“very good”, C-“good”, D-“sufficient”, E-“fair”, F-“fail”) is used for performance rating. In addition, the assessment of learning aims is based on the pass/fail system (pass 51-75 % of the contents acquired). Study process is assessed also by different intermediate tests. Students’ reports or presentations about independent homework and discussions amongst audience during the seminars, also active feedback from teacher are employed.
To ensure the objectivity in evaluation, the uniform requirements for study process and independent homework as well as the criteria of similarity in appraisal of students are used.

The source for analysis of study process is the feedback given by students via electronic SIS after the end of a course in the form of an anonymous questionnaire. In the MPH studies also a special questionnaire, developed at the Department, is used to get more specific feedback about teaching and learning process.

Learning aims of the programme accomplished elsewhere can be assessed through the newly introduced system of RPSWE (Recognition of Previous Studies and Work Experience).

The assessment of Master’s theses takes place in the form of the public disputation, the thesis is graded on the six–point scale. Master’s theses are defended in front of a nine-member interdisciplinary Public Health Sciences Thesis Committee. The Committee is nominated by the Council of the University of Tartu and consists of 5 members from the Faculty of Medicine, 3 members from other Faculties of the University and 1 member from outside of the University:

Anneli Uusküla  PhD, professor of Epidemiology, Faculty of Medicine (Chairman)
Astrid Saava  PhD, professor emeritus, Faculty of Medicine
Katrin Lang  PhD, lector of epidemiology, Faculty of Medicine
Kersti Pärna  PhD, lector of health promotion, Faculty of Medicine
Ruth Kalda  PhD, senior lecturer of Family Medicine, Faculty of Medicine
Vahur Ööpik  PhD, professor of Sports Physiology, Faculty of Exercise and Sport Sciences
Toomas Tenno  PhD, professor of Environmental Chemistry, Faculty of Physics and Chemistry
Jaanus Harro  PhD, professor of Psychophysiology, Faculty of Social Sciences
Mati Rahu  PhD, professor of Epidemiology, National Institute for Health Development, Tallinn

The process of evaluation of the Master’s thesis has the following steps. The thesis has to be presented to the Committee for a preliminary review. In 4 weeks, the Committee decides, based on the referee’s (one of the teachers of the Department) and supervisor’s written opinions, whether the student is allowed to defend the thesis or has to resubmit it after revision. If the thesis is accepted by the committee, the date of the defence and an opponent will be appointed. The opponent has to be an acknowledged specialist in the research field of the thesis and hold an academic degree.

At the public defence, the student presents the thesis and holds an open discussion with the opponent, followed by an open discussion with the rest of the Committee and also the public present at the defence. After the defence, a closed meeting of the Committee is held and the final grade decided by voting among the Committee members. Requirements for a Master’s project and the procedure for the defence of a Master’s thesis have been approved by the Public Health Sciences Thesis Committee and are available on the homepage of the Department (www.arth.ut.ee).

Annex: 5 List of Master’s theses defended in Public Health
4.5 Management of professional practice and aspects of professional qualification.

Several courses in the curriculum involve specific practical assignments that help to relate the theoretical concepts studied to the practice of public health. Each semester, study visits to different institutions, e.g. National Institute for Health Development, Health Protection Inspectorate and Services, Statistics Estonia, Ministry of Social Affairs, are organised. As yet, scarcity of resources and a lack of cooperation agreements have hindered the inclusion of longer periods of practical training into the curriculum.

There are professional standards established for health promotion specialists and health care managers. Aspects of professional qualifications are taken as a basis for the formulation of curricula objectives and learning outcomes. The European list of competencies for epidemiologists is taken into account while developing a new module to the curricula.

4.6 Strengths and weaknesses of teaching and learning practice

**Strengths**
- existence of different study forms in a study process and flexible organization of classroom teaching
- emphasis on independent work
- orientation to evidence-based scientific research
- increased methodological quality of Master’s theses through Master seminars
- interdisciplinary Public Health Sciences Thesis Committee
- newly introduced electronic study information system (SIS)

**Weaknesses**
- difficulties in the management of teaching process (lecturers mostly engaged in teaching students at undergraduate level)
- uneven level of basic training and efficiency of individual work by students
- uneven distribution of workload of supervisors (shortage or high workload)
- shortage of supervisors in new specialty areas, concerns about the rising generation of teachers

**Action plan to develop strengths further and to remedy weaknesses:**
- increase the availability of web-based teaching materials
- develop problem-based learning methods
- further development of the methods of independent work
- organise meetings of permanent staff with guest lecturers and different stakeholders on teaching methods and content
- obtain support from the project “Capacity building for disease surveillance and health monitoring in Estonia” (2007-2010)
- harmonize evaluation methods
- provide regular questionnaires for lecturers and students in accordance with the system of quality assurance
- motivate the writing of study materials in Estonian
5. STUDENTS

5.1 Organisation of admission and analysis of the applicants

The MPH programme is financed by the state and is free for the students. Because of a relatively small number of students and lack of resources, there is only one specialty track open for admission each year. The specialty track and the exact number of students are decided upon in cooperation with the Ministry of Social Affairs on the basis of the need for a certain type of specialists.

The admission criteria correspond to the MPH programme goals and allow the admittance of students with relatively diverse backgrounds. Persons eligible for the programme must have Bachelor's degree or an equivalent in medicine, health sciences, social sciences, economics, biology or mathematics. However, other fields of education would not be considered as a disadvantage. The second criterion is a presentation of the plan of a research project in the field of public health. The most recently added criterion is language proficiency in English because many study materials (textbooks, scientific literature) are available in English only and some lectures are planned to be conducted in English.

The number of applicants to the programme is not high but is sufficient to allow selection for most suitable candidates. The average competition rate is 1.7 applicants per place.

Table 1. Admission to the MPH programme in 2000-2007

<table>
<thead>
<tr>
<th>Year</th>
<th>2000</th>
<th>2001</th>
<th>2002</th>
<th>2003</th>
<th>2004</th>
<th>2005</th>
<th>2006</th>
<th>2007</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>No of applicants</td>
<td>16</td>
<td>9</td>
<td>16</td>
<td>20</td>
<td>23</td>
<td>18</td>
<td>17</td>
<td>15</td>
<td>134</td>
</tr>
<tr>
<td>No of admitted</td>
<td>10</td>
<td>7</td>
<td>7</td>
<td>10</td>
<td>15</td>
<td>10</td>
<td>12</td>
<td>9</td>
<td>80</td>
</tr>
<tr>
<td>Applicants per place</td>
<td>1.6</td>
<td>1.3</td>
<td>2.3</td>
<td>2.0</td>
<td>1.5</td>
<td>1.8</td>
<td>1.4</td>
<td>1.7</td>
<td>1.7</td>
</tr>
</tbody>
</table>

Educational background of the admitted students is diverse. Most of the students admitted in 2000-2003 had a medical background (medical doctors, hygienists, and nurses) and they were specialists working in the field of public health already. During the last three years, the proportion of students with non-medical backgrounds (biology, environmental technology, teacher of natural sciences, social science, psychology) and no working experience has increased.

The mean age of students is relatively high (33 years) and there are no male students currently in the programme. 5 male students have graduated the programme since 2003. The majority of students (92 %) are working in parallel with the studies.

5.2 Analysis of study load and advancement of students

The main emphasis in the programme is laid on independent studies and research work. Classroom teaching comprises about one-fourth of the workload. Every student has a supervisor appointed during the first semester whose main task is to support the student in
planning and making the research project and completing Master’s thesis. The supervisor also helps the student in other issues concerning studies at the Department. Access to consulting specialists (e.g. statistician) is usually arranged by supervisors. The programme coordinator is responsible for the planning and running of courses in the programme. The curricula as well as timetables of every subject are available to all students. If changes in timetables occur, the students are immediately informed by the coordinator. The examination conditions are fixed in general terms in a curriculum; the detailed conditions depend on the subject and teacher; deadlines are usually negotiable and flexible.

As many students are actively employed while taking the Master’s studies, the workload is sometimes high and causes delays in the studies or dropouts. The courses are organized in a way that most classroom teaching is scheduled on 2-3 days a week.

The drop-out rate was quite high at the beginning of the programme but has, by now, stabilized, being one or two persons per three years. Analysis of the dropouts has shown that the majority of the cessations are caused rather by economical reasons than a loss of interest or low quality of the programme.

The Department maintains a database on students, graduates and those who have interrupted studies temporarily. The latter are contacted regularly and encouraged to accomplish their studies.

Table 2. Advancement of studies in the MPH programme

<table>
<thead>
<tr>
<th>Year of admission</th>
<th>Specialty module</th>
<th>No of admitted students</th>
<th>Completed studies in time</th>
<th>Ceased studies temporarily</th>
<th>Failed the programme</th>
</tr>
</thead>
<tbody>
<tr>
<td>2000</td>
<td>Health Management</td>
<td>10</td>
<td>3</td>
<td>-</td>
<td>7</td>
</tr>
<tr>
<td>2001</td>
<td>Health Protection</td>
<td>7</td>
<td>6</td>
<td>-</td>
<td>1</td>
</tr>
<tr>
<td>2002</td>
<td>Health Protection</td>
<td>7</td>
<td>4</td>
<td>3</td>
<td>-</td>
</tr>
<tr>
<td>2003</td>
<td>Health Protection</td>
<td>10</td>
<td>8</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>2004</td>
<td>Health Management</td>
<td>15</td>
<td>7</td>
<td>8</td>
<td>-</td>
</tr>
<tr>
<td>2005</td>
<td>Health Management</td>
<td>10</td>
<td>8</td>
<td>2</td>
<td>-</td>
</tr>
<tr>
<td>2006</td>
<td>Health Management</td>
<td>12</td>
<td>5</td>
<td>7</td>
<td>Not applicable</td>
</tr>
<tr>
<td>2007</td>
<td>Health Promotion</td>
<td>9</td>
<td>Not applicable</td>
<td>Not applicable</td>
<td>Not applicable</td>
</tr>
</tbody>
</table>

5.3 Students employment opportunities

Graduates from the programme can be employed as specialists, analysts, senior inspectors or heads of the departments in the Ministry of Social Affairs, Estonian Health Insurance Fund, Health Protection Inspectorate, hospitals, Statistics Estonia or local authorities. Graduates can find employment in research or higher education institutions as researchers or teachers. The programme allows further education through PhD studies, especially in health sciences.

Assessment of the need for future specialists is carried out in a close cooperation with the main partners, namely the Ministry of Social Affairs, Health Insurance Fund, Health Protection Inspectorate and some other institutions that are all most interested in hiring well educated specialists. Also, several students applying for the programme are employees from these institutions.
The Department has been observing graduates for their following professional career and the quality of the MPH programme. The provided feedback has been positive and most of the graduates have been offered a salary rise of about 10% or a higher position by their employers after the completion of the studies. The Department has good contacts with graduates and some of them (proceeding from the field they work in) are invited to teach in the MPH programme.

5.4 Student involvement in the development of MPH programme

Opportunity to get involved in the decision-making process has increased gradually during the last years. Until 2003, the feedback was acquired by random personal contacts with students. The Master’s students have always been encouraged to make suggestions about the organisation of study process. Given suggestions and comments have been discussed among teaching staff and taken into consideration where possible.

By the end of 2003, a feedback questionnaire was developed in co-operation with the staff involved in the Master’s programme. The aim of the questionnaire was to get students’ feedback on the quality of the Master’s programme and on different aspects in the learning process and organisation of work.

5.5 Student-related strengths and weaknesses

Strengths:
- students’ multidisciplinary/different background and work experience
- small student groups allow the use of discussion and group work in the learning process and encourage teamwork
- possibility to get involved in ongoing research projects in the Department or use available /collected data

Weaknesses:
- uneven level of background knowledge and understanding of research methodology
- low level of knowledge in the English language
- working in parallel with studying may slow their studies and research

Plans to develop strengths further and remedy weaknesses:
- improve admission/selection criteria to level the background of students
- to improve supervision of students by introducing mentorship
- supervision of mentorship and learning process of students
- optional language courses
6. LEARNING ENVIRONMENT

Up to the year 1999, the Department of Public Health was located in three different places. In the second half of 1999, the new building of Biomedicum was completed and the Department together with the pre-clinical institutions of the Faculty of Medicine moved in. This has had a strong impact on the quality and quantity of educational activities and on scientific collaboration between different Chairs of the Department of Public Health and also with other departments located in the Biomedicum.

6.1 Teaching facilities and laboratories

The Department of Public Health is located in the left wing of the fourth floor of Biomedicum. The total area of the facilities is 615 m², consisting of 12 office rooms, 1 seminar room, 1 library room, 5 laboratories, 7 auxiliary rooms and 2 rooms shared with other departments.

Most of the classroom teaching in the Master’s programme is carried out in the seminar room and/or library room in the Department, some also outside the University in partner organisations. All the rooms are actively used for teaching and it is not always easy to find free space. Some parts of courses take place in the computer class of the Faculty of Medicine, in the premises of the Health Protection Service in Tartu, and in the National Institute for Health Development and the Ministry of Social Affairs in Tallinn.

It is possible to use the Department facilities for independent learning activities and practical assignments. The Department has allocated two rooms for the personal use of postgraduate students.

There are five well-equipped scientific laboratories: laboratory for health measurements, biochemical laboratory, laboratory of work environment, laboratory for physical measurements and laboratory for microdialysis. These are also used for practical research in the MPH programme.

6.2 Library, information networks and learning materials

The Department is well equipped with personal computers and audio-visual technical facilities. It has free Wi-Fi area for the Internet use for students and guest lecturers. The Department has its own server and all documents and files of common interest can be kept there for open access for the eligible staff and students. New information is passed on through the homepage of the Department (www.arth.ut.ee) or mailing lists.

The Department has its own library with more than 2000 publications. The area of the library is 38 m² and it is also used for staff meetings and seminars. The library was established with the financial support by the World Bank’s Estonia Health Project. Master’s students can borrow study books from the library as well as make copies of study materials there.
Library resources are quite sufficient for study and research purposes. All five public health areas are covered with a choice of literature (textbooks, manuals and statistical yearbooks). Most of public health literature and periodicals in Estonian are present in the library. The library is regularly updated for Estonian, Baltic, Nordic and international statistical yearbooks in the field of public health. Weekly notices regarding incoming literature are sent to the staff by the secretary via e-mail. The full list of items in the library is accessible from the server of the Department.

Master's students are actively using textbooks and statistical yearbooks from Department’s library for their individual learning tasks as well as for writing their master thesis. According to the feedback, students evaluated the choice of literature in the library very good, broad and sufficient for learning purposes.

The staff of the Department has online access to the most important scientific journals through the Tartu University Library. Many necessary journals are available at the University library and current issues are deposited for one month at the Library of the Biomedicum.

### 6.3 Strengths and weaknesses related to learning environment

**Strengths:**
- learning environment meets the study requirements and is well equipped with technical facilities
- the Department has its own Library that can also be used by the students
- the appropriately-equipped laboratories enable the students to carry out practical research
- friendly and supporting attitude of the staff

**Weaknesses:**
- temporary lack of space on providing workplace to visiting lecturers
- planning of the studies is difficult due to the high exploitation of classrooms and computer classes
- only one class and the library available for use by the students in the Master’s programme
- lack of public computer workplaces in the building

**Plans to develop strengths further and overcome shortcomings:**
- creation of temporary/mobile working places in the premises of the Department
- better spacial planning
- taking some of the classes into other premises
7. ACADEMIC, ADMINISTRATIVE AND SUPPORT STAFF

7.1 General Characteristics
The Department currently has nine teaching positions (one professor, three senior lecturers, four lecturers and one assistant) and four research positions. Some of the staff has part time positions as teachers and researchers. Some persons holding research positions also teach (their number of teaching hours is fairly small per academic year - 64 hours).

The average age of teaching staff is 43 (27-58) years. The majority of staff is female (80%). The teaching experience of staff varies from 2-35 years (average 10 years).

The qualification of the academic staff is very good. Seven persons of the academic staff are holding a PhD or equivalent degree and eight persons have a Master’s degree. Over the last five most, four staff members have obtained a PhD (three of them abroad: at the Universities of London, Helsinki, and Nordic School of Public Health) and four staff members a Master’s degree (one abroad, at the Nordic School of Public Health).

In addition, the Department has one professor emeritus, one visiting professor and one visiting lecturer. The employment contract with one professor, one senior lecturer and one researcher is temporarily stopped due to invitations to work abroad and locally.

The Department is increasing its competency through inviting visiting lecturers from other research and educational institutions. Mati Rahu has been nominated a permanent visiting professor and Maris Jesse a permanent visiting lecturer. Also, several specialists from the Ministry of Social Affairs, Institute for Health Development, Estonian Health Insurance Fund, Estonian Health Protection Inspectorate and from some other institutions teach in some sessions, mainly at postgraduate level.

We see important opportunities for interconnecting scientific networks and knowledge transfer in the mobility of academic staff. In 2007, the senior lecturer Krista Fischer was given an opportunity to work at the MRC Biostatistics Unit, Institute of Public Health, Cambridge, UK for three years. Professor Raul Kiivet was invited to work at the WHO in Geneva on a temporary contract.

All the teaching staff teach at undergraduate level, and the majority of them also in the Master’s programmes. As to the qualification, all members of the staff meet the criteria set by the higher education standard (i.e. at Master’s level at least 75% of teaching staff has to hold a PhD degree).

In some areas of public health there is a shortage of staff (currently health care management), which problem is solved by employing part-time staff or staff for certain teaching sessions.

Annex 6: Short CVs of academic staff of the Department of Public Health
7.2 Principles for electing academic staff, improving their qualifications, and the rising generation

Academic staff is elected for a certain time period (three to five years depending on the position) according to the procedures valid at the University of Tartu. To be elected, re-elected or promoted in the academic career, one has to fulfil certain criteria required in this position (academic degree, teaching experience, supervision of graduate students, certain number of published papers in international peer-reviewed journals, holding research grants etc.).

Over the recent years, the Department has employed several new staff members, mostly lecturers. New positions of lecturers in Health Promotion and Medical History and senior lecturer of Medical Theory and Ethics have been appointed. Two graduates from the MPH programme have been employed as part-time lecturers. The background of new members varies greatly, some have professional experience in their field whereas some have only previous teaching experience, but lack the professional one.

The teaching staff has rather good opportunities for professional training abroad (Europe, United States) and in Estonia, participating in the training courses organised by the University of Tartu and other universities. The Department is organizing training courses for the staff depending on their needs. The latest training was “Using statistical package STATA in Epidemiology and Biostatistics” that took place in April 2008. In collaboration with the State University of New York and funded by NIH/Fogarty centre, one or two young researchers and lecturers are participate annually in the Graduate Summer Institute of Epidemiology and Biostatistics provided by the Johns Hopkins School of Public Health.

Several teaching staff members have participated in courses in pedagogic methods offered by the Faculty of Education. Younger members of the staff have received pedagogic training during their Master’s or Doctoral studies. In 2003, the course “Training the trainers” was organised for the staff of the Department. In the last two years, six staff members have been actively participating in various pedagogic training courses (e.g. Development of courses and curriculum, Defining learning outcomes and evaluation of courses, Teaching through distance-learning, Problem-based learning etc).

7.3 Workload among academic staff and fulfilment of additional administrative tasks

The number of teaching hours is set by the workload and number of hours allocated to each teaching position. For a professor, the minimum amount of teaching hours is 128 academic hours, for senior lecturer 224 hours, for lecturers 288 h and for assistant 320 hours an academic year. The number of teaching hours for each staff member is combined between undergraduate and Master’s level teaching. Administrative tasks are divided between the staff members, and are allocated by the head of the Department or after a discussion at the Departmental meeting. The Department holds management meetings at the end of weekly scientific meetings when needed. There may be remarkable differences in workload by both persons, semesters and academic years.
In addition, the majority of academic staff are members of several specialist associations and/or the working groups of government commissions/ministries. Consequently, the academic staff are engaged with many other responsibilities on national/governmental level (development of public health strategies and policy documents, various consultancies), which puts a high pressure on the members.

7.4 Research activities and achievements of academic staff

All teaching and research staff submit annual reports to the University. The report includes all research, teaching and administrative activities. Since 2006, annual evaluations and career planning for each staff member have been performed. These are carried out in the form of one-to-one meetings with the head of the Department where the staff member has to prepare and present an individual development plan. As a result, some improvements in work environment have been made as well as two new positions nominated in the Department.

Research activity of the academic staff has increased during the last five years. Many have been successful in applying for national or international research or applied research grants. The number of research papers published in peer-reviewed international journals has increased as well. However, the proportion of published work differs considerably among teaching staff.

Annex 7: List of publications during the last five years

7.5 Election, tasks and training of administrative and support staff

The department is well provided with the support staff. The total number of the administrative and support staff is eleven persons (eight full-time positions), including one secretary, two laboratory assistants, one programme coordinator, two project managers and one IT specialist. The recent positive development is the employment of two specialists and two statisticians to support academic staff in teaching and research. Tasks have been divided among the support staff.

7.6 Strengths and weaknesses related to staff

Strengths:
- qualified teaching staff (seven PhD) with long-term teaching experience
- different professional training and background
- mobility of teachers (teaching staff temporarily working abroad)
- all teaching staff is involved in research and international projects
- staff involved in public health decision-making and development process on national level

Weaknesses:
- not enough research production at international level
- lack of expertise and/or staff in some public health areas
- many administrative responsibilities outside the University
- high or unequal workload of staff
Plans to develop strengths further and remedy weaknesses:
- engage public health specialists in teaching and supervising Master’s theses
- more equal distribution of workload
- train support staff to assist lecturers in accomplishing their tasks

8. EXTERNAL RELATIONS

8.1 Relations with other institutions, professional organizations and stakeholders

The Department has good connections with other health sector institutions in Estonia. The activities include both developing curricula and the assessment of the need for future specialists as well as research and development. The main partners are the Ministry of Social Affairs, Health Protection Inspectorate, National Institute for Health Development and Health Insurance Fund. Many field specialists from these institutions are invited as guest lecturers to teach in the Master’s programme.

The Department is also a member of Estonian Centre of Behavioural and Health Sciences (ECBHS). The Centre was founded in order to develop interdisciplinary research and organise doctoral studies in the fields of behavioural and health sciences. There are 11 research groups in the Centre, which are affiliated with the University of Tartu Faculties of Social Sciences, Medicine, and Exercise and Sports Science and Institute of Law, and with National Institute of Health Development and Estonian-Swedish Institute of Suicidology.

8.2 Relations with international institutions and schools

The Department has established relations with other public health schools in Europe. The department has ERASMUS contracts with Kuopio University (Finland), Fulda University of Applied Sciences (Germany), and Ostrava University (Czech Republic). These contracts have so far entailed teacher exchange. The main reason for not practising student exchange has been a language barrier.

For ten years (1993-2003), the Department was being involved in a comprehensive project for the development of training in public health in the Baltic States (BrimHealth). The main partners in this project were Nordic School of Public Health (Sweden), Kaunas Medical University (Lithuania) and Riga Stradins University (Latvia). BrimHealth partnerships offered the staff of the Department ample and unique opportunities to participate in courses and to gain practical teaching experience in international settings. This framework is now continuing in a somewhat different format, the BalticHealthTrain, and financial support for this network was allocated by EU Public Health Program in 2004.

The Department is a member of ASPHER (Association of Schools of Public Health in the European Region). A representative from the Department is regularly participating in ASPHER annual conferences. European public health expertise has been brought to the department through ASPHER Peer-Reviews in 1999 and 2004.

The Department is also actively involved in international research and development projects. So far, the role of the Department has been that of a partner in a co-operation.
8.3 Strengths and weaknesses of external relations

Strengths sides:

- Membership of ASPHER
- established contacts with stakeholders and partner institutions
- good relations with international partners

Weaknesses:

- Master's students have not been abroad as exchange students
- not enough capacity to apply for international projects with partners from other countries, we have only been partners to other applicants

Plans to develop strengths further and remedy weaknesses:

- establish stronger contacts with other schools to enhance student mobility
- apply for external support in capacity building (the project “Capacity building for disease surveillance and health monitoring in Estonia” through Norwegian Financial Mechanism was been launched in 2007)

9. QUALITY MANAGEMENT

The University of Tartu regards the quality assurance of educational work as one of its strategic tasks. The need for introducing an integrated quality assurance system is stressed in the University of Tartu Strategic plan 2008. In the evaluation of the work of the academic staff it is deemed necessary to give more consideration to the quality of the educational work, including feedback from students, graduates, their employers and other stakeholders.

From 1 September 2006, the University started to implement programme-based organisation of study, the aim of which is to guarantee the quality of study process, flexibly meet the requirements of the society and assure sustainability in curriculum development. Programmes are comprehensive education service packages, which include curriculum development, a substantive organisation of study, necessary marketing activities, accompanying support services and programme administration. Programmes are led by Programme Managers; the advisory bodies of programmes (Programme Councils) include the representatives of students and employers. The tasks of Programme Councils include the preparation of a strategic development plan, setting the goals of the principle activities, counselling a Programme Manager and evaluating the programme effectiveness.

In autumn 2006, the University Council approved a new Curriculum Statutes. The new statute introduces two major changes: the development of learning outcome based approach for curricula and annual internal evaluation of curricula. Internal evaluation is carried out by a Programme Manager and the Council, with an aim to underline the strengths and weaknesses across a curriculum and generate a further action plan for improvements to be introduced. By
providing an important input for accreditation preparation, internal evaluation plays a substantial role in the quality assurance system.

On a regular basis (each semester), an opinion poll, “Evaluation of teaching and subject courses”, is conducted among the students, proceeding from which a corresponding report is prepared by the Office of Academic Affairs. On the basis of the evaluation results, the annual award to the best lecturer of the year is given. Since autumn semester 2007, students have been asked to provide feedback on the curriculum they are enrolled in. The university also considers it important to get feedback from its graduates and their employers. The Career Service conducts annual polls among the former students of the university who, by the time of the poll, have been working for approximately six months. At the beginning of 2007, a survey among employers was conducted to find out their expectations towards graduates’ competences and how holders of a three-year Bachelor’s programme cope at the labour market.

As a unit of the University, the Department of Public Health follows the common principles of quality assurance accepted in the University. The specific aspects of quality assurance at the Department of Public Health are described as follows: (1) Quality assurance and quality management of educational process. The role of the staff in quality improvement; (2) Feedback from the students, graduates and their employers; (3) Quality improvement system – realization of proposals for improvement. The strengths and weaknesses of each aspect are discussed.

9.1 Quality assurance (QA) and quality management (QM) of educational process

The basic principles of QA and QM were discussed among the staff of the Department already in 2003. As pointed out by external evaluators in 2004, there was a lack of clear system to monitor the students’ progress and Department’s teaching performance. However, the need to develop quality assurance procedures was recognised and the commitment to this expressed by the staff.

Since the previous accreditation in 2004, the teaching process has systematically been revised and analysed. Regular meetings of teaching staff on the content of whole Master's programme have taken place at least once a year (in spring term). The meetings on teaching process management are conducted at least twice per academic year in the beginning of autumn and spring semesters. Additionally, one meeting is held in every spring after the students have finished their studies. In 2007-2008, the whole MPH programme was reviewed and adjusted to conform to the student-centred learning approach and better address learning outcomes of the programme. In the last two years, during which the Department was developing the new modules for health promotion and epidemiology, regular meetings of the responsible teaching staff were organised in every two weeks. Learning outcomes were elaborated for the whole programme and each module.

The Department has a Public Health Sciences Thesis Committee that is responsible for programme development and evaluation. The requirements for MPH thesis are elaborated by the Committee. The Committee is also responsible for the evaluation of MPH thesis. The high level of Master’s theses refers to a strong research-orientation of the MPH programme. Several Master's theses have been awarded prizes at the Estonian Students’ Research contest
in health research area by the Ministry of Education and Research (2002 - 1 master thesis; 2003 – 1; 2005 – 1; 2006 – 2; 2007 - 3).

In autumn 2008, the Department opens a new specialty module in the MPH programme – epidemiology. For that reason, the programme council in epidemiology was summoned in spring 2008. In addition to the teaching staff of the Department, the council also consists of a number of people from outside the Department – collaborative partners and foreign experts from Finland and Norway, and the representatives of employers. The process is held in the framework of the project “Capacity building for disease surveillance and health monitoring in Estonia” through Norwegian Financial Mechanism.

The main aspects of the MPH study process are described in the MPH Programme Manual, expected outcomes of the programme are described in the new curriculum (the so-called outcome-based curriculum). It is important to note that the Department is the first unit in the Faculty of Medicine that has implemented the outcome-based curriculum. However, the study and teaching process as whole is not yet fixed in a form of process description where all procedures and responsibilities are described in detail.

Thus, at present the main strengths of QA and QM of educational process are as follows: (1) the teaching process has systematically been revised and analysed and most of the staff is involved in this process; (2) the Department has a Public Health Sciences Thesis Committee, which is responsible for programme development and evaluation; (3) the main aspects of MPH study process are described in the MPH Programme Manual; and (4) the outcome-based curriculum has been implemented. All these activities make it possible to implement the principles of process management in the Department, which today can be seen as the main area of further improvement. The implementation of process management should start with a clear description of study process as the main process for the Department. The process begins when the students start their Master’s studies and ends with the successful defence of theses. Process description helps better to determine the main critical points between the beginning and end as well as the responsibilities of all staff members (including the service staff) in each step of the process in accordance with the specific features of the Master’s studies.

9.2 Feedback from students, graduates and possible employers

All MPH students are asked to participate in an opinion poll, “Evaluation of teaching and subject courses”, which is conducted among the students each semester and organised by the Office of Academic Affairs of the University of Tartu.

In addition to this central feedback system, in the beginning of the year 2004, the Department introduced its own students’ evaluation and feedback system. After the students have finished the module they receive a questionnaire. This system is especially appreciated by guest lecturers who are very much interested in the direct feedback. Also, direct communication between students, teachers and the Programme Coordinator gives good evidence on students’ evaluation of programme and programme components.

One year after the graduation, all MPH graduates are asked to fulfil the graduates’ feedback questionnaire. The aim of the questionnaire is to get information about the occupational
activities and opinions about Master’s studies after some experience at workplaces as well as to assess the satisfaction of graduated students with their studies.

The questionnaire comprised of 30 questions. The questions concerned working experience during and after master studies, general opinion about different aspects of Master’s programme, quality and importance of courses and technical and organisational aspects of studies. Opinions about courses were assessed on a five-point scale (1 – very poor/not important; 5 – excellent/very important). As of today, 35 graduates have returned the questionnaire.

The main reason to start studies was the wish to improve knowledge in the field of public health and get new information (77 % of respondents). It was often mentioned that there was a lack of competence. Three respondents had been recommended to start studies by their colleagues at work.

The knowledge of teaching staff about modern theories was evaluated very highly as well as the teaching skills of lecturers and the supervision of master thesis. The balance between active learning and independent work was evaluated as “good”. Students reported that independent work (seminar works and essays) was very useful. Teaching of practical skills was evaluated “not so good”, but it was also not considered to be as important. Nevertheless, in some courses, the importance of learning practical skills was considerably higher by students (Risk assessment, Epidemiology and Biostatistics). More time should have been allocated to Epidemiology and Biostatistics and Research Resources. Although these courses are well represented in the curriculum, the students needed more time and practical exercises in these subjects as these were closely connected with their Master’s theses as well as with future jobs.

The students were very satisfied with learning environment. The availability of teaching materials and possibilities to make copies were sufficient. The choice of literature in the library was evaluated as “good” and relevant for learning purposes. Although there is no special learning room or computer places for Master’s students, the students found the library to be very good for independent learning and they had always access to computer if needed (in agreement with staff members). All students had personal computers at workplaces and some students at home. The availability of teachers for consultation was evaluated as “very good” and there was no need for official consultation time.

All students found their Master’s studies to be very useful for their personal development and job. The Master’s degree increased their self-reliance and self-realisation (92 %). Ten persons had an increase in salary after graduation and seven persons had an improvement in the career or had the confidence to change their jobs for better ones (five persons). 94 % of respondents would recommend Master’s studies to others, but 16 % wouldn’t start over again. The main difficulty was to make Master’s studies congruous with working at the same time.

In summary, the feedback from students was most positive. However, one must consider that they were the students, who had successfully completed studies and defended their theses.

The specific feedback system for students and graduates and quick feedback after every module are today considered as the main strengths. However, we understand that at the moment our main weakness is a lack of feedback from the potential employers of our
graduates. The system for collecting feedback from employers is discussed at the Department, but is still not yet implemented.

As the number of graduates increases in years, we hope the amount of feedback to grow to enable us to draw more profound conclusions on the quality of the programme.

9.3 Quality improvement system – realisation of proposals for improvement

Implementation of feedback system and systematic review and analysis of study process has created a good prerequisite for further quality improvement system as well as improvement of organisational culture in the Department.

The students’ feedback is discussed in regular staff’s meetings, and in case the problems emerge, the Programme Coordinator currently contacts the person related to the problem to find the solution together. The students’ feedback has also been one of the criteria for inviting quest lecturers.

As the number of graduates is small, there is not enough feedback. However, the obtained feedback from graduates is also often underused. Development in this area as well as the implementation, the feedback is essential to guarantee the competitiveness of our graduates in the labour market through development of outcome-based curriculum.

All staff members have an opportunity to make proposals for the improvement of the study process. These proposals are also discussed in regular meetings and the appropriate ones are realised.

As a result of these activities, the organisational culture in the Department improves. Attitude towards the students has changed and the students are seen as equal partners in study process. Also, staff’s motivation has raised and interpersonal relationships improved. This can be considered as the main strength of the quality improvement system. Presently, the main weakness is the modest use of the feedback from graduates in quality improvement and a lack of feedback from employers, which thus are the areas that need to be developed.
SUMMARY

The Department of Public Health of the University of Tartu has been sharing its competency and facilities in the higher education and health care sector for over 100 years. Implementation of a new concept in public health in Estonia started in the 1990s that brought about the need for reorganisation of the structure and studies in the Department of Hygiene. The process led to the development of Master of Public Health Programme in the Faculty of Medicine in 1998 that has yet remained the only opportunity for students to acquire higher education in public health in Estonia.

The curriculum of Master of Public Health Programme is characterised by its high priority in the context of Estonian society and the interdisciplinarity that is, on the one hand, related to the nature of the specialty itself and, on the other, the new quality brought about by the cooperation between the Faculty of Medicine, units of other faculties of the University and students with different educational backgrounds.

The awareness and popularity of the programme among students could be higher. However, the novelty of the specialty and their position that is not yet solidly rooted in the society may require a more active introduction and clarification of the programme both among students and different interest groups in the society to increase overall awareness and interest in the specialty.

The good quality of the learning environment provided to the students of the programme has been created to fully contribute to the conduct of studies. The modern equipment of the classrooms and laboratories, libraries with good online-resources, the multi-optional study information system and competent, professional and enthusiastic lecturers are the main advantages of learning environment.

Proceeding from the collected information and the analysis thereof, the working group holds an opinion that the substantiation of the need for the Master of Public Health Programme, organisation and conduct of studies and the potential future development, student satisfaction and their competitiveness at Estonian labour market prove the high-quality of the programme and the present and future potential of the Department of Public Health with regard to the realisation and further development of the programme.
ANNEXES

Annex 1: List of funded research and development projects in 2004-2008
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