# Master's Programme Public Health Faculty of Health, Medicine and Life Sciences Maastricht University

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# Report on the master's programme Public Health

This report is written according to the standards of the assessment framework for limited programme assessments of the NVAO.

# Administrative data of the programme

Name of the programme: Public Health

CROHO number: 60296
Level: master
Orientation: academic
Number of credits: 60 EC

Degree: Master of Science Mode(s) of study: Full-time and part-time

Location(s): Maastricht

Expiration of accreditation: 13 December 2012

The site visit of the Public Health assessment committee (committee) to the Faculty of Health, Medicine and Life Sciences of Maastricht University took place on 8 and 9 September 2011.

# Administrative data of the institution

Name of the institution:

Status of the institution:

Outcome of the institutional quality assurance assessment:

Maastricht University

Government supported

Application submitted

# 1. Task, composition and working method of the assessment committee

#### Task of the committee

The task of the assessment committee is to evaluate the master's programme in Public Health at Maastricht University according to the accreditation criteria set by NVAO. Using these criteria, the committee is expected to assess different aspects of the quality of the programme, based on the information provided by the programme in the self-evaluation report and on discussions during the site visit. The assessment report contains recommendations by the committee; however, the emphasis lies on the assessment and justification of basic quality.

## Constitution of the committee

The assessment committee was requested to assess the master's programme Public Health (CROHO number 60296). It consisted of a chairman and five members. Appendix G gives short descriptions of the curricula vitae of the committee members.

#### Chair

• Prof. dr. P.A.H. (Peter) van Lieshout

#### Members

- Prof. dr. J.J. (Johan) Polder
- Prof. dr. K. (Koos) van der Velden
- Prof. dr. L (Lea) Maes
- Dr. M. (Marinus) Verhagen
- Ms. C.Q. (Carlijn) Wentink Bsc

The project leader of the assessment was Ms. N.M. Verseput, MSc, QANU staff member. The site visit took place on 8 and 9 September 2011. The programme of the site visit is included as Appendix H.

All members of the committee and the project leader signed a declaration of independence as required by the NVAO protocol to ensure that the committee members judge without bias, personal preference or personal interest, and the judgement is made without undue influence from the institute, the programme or other stakeholders (see Appendix K).

#### Working method of the assessment committee

# Preparatory phase

After receiving the self-evaluation report, the project leader checked the quality and completeness of the information provided. After approval, the self-evaluation report was forwarded to the committee. In addition, each committee member selected, received and read three theses for the programme being assessed (see Appendix I).

Before the site visit the project leader created a draft programme for the interviews (see Appendix H). The draft programme was discussed with the chair of the committee and the coordinator of the programme. As requested by QANU, the coordinator of the programme carefully composed and selected representative panels.

#### Site visit

During the initial meeting at the start of the site visit, the committee discussed its findings based on the self-evaluation report. It also discussed its task and the working methods, and the proposal for Domain-Specific Requirements (see Appendix A).

During the site visit, interviews were held with representatives of the MUMC<sup>+</sup> Board and the Institute of Education at Faculty of Health, Medicine and Life Sciences (FHML), students, staff members, alumni, the Health Sciences Educational Committee, the Board of Examiners and the student advisor.

During the site visit the committee received and studied additional information, for example study books and reports from the meetings of the Health Sciences Educational Committee. When considered necessary, committee members could read additional theses during the site visit. Fifteen additional theses were studied by the committee (see Appendix I). A consultation hour was scheduled to give students and staff of the programmes the opportunity to talk to the committee. No requests were received for the consultation hour.

The committee used a significant part of the final day of the site visit to discuss the assessment of the programme and to prepare a preliminary presentation of the findings. The site visit concluded with a presentation of the preliminary findings by the chairman. It consisted of a general assessment and several specific findings and impressions of the programme.

## Scores of the standards

The assessments are performed in line with NVAO's accreditation framework. Each standard is scored on a four-point scale (unsatisfactory, satisfactory, good, and excellent). The committee adopted the standard decision rules provided by NVAO. These are:

- Generic quality: The quality that can reasonably be expected in an international perspective from a higher education bachelor's or master's programme.
- Unsatisfactory: The programme does not meet the current generic quality standards and shows serious shortcomings in several areas.
- Satisfactory: The programme meets the current generic quality standards and shows an acceptable level across its entire spectrum.
- Good: The programme systematically surpasses the current generic quality standards across its entire spectrum.
- Excellent: The programme systematically well surpasses the current generic quality standards across its entire spectrum and is regarded as an (inter)national example.

#### Reporting

After the site visit the project leader wrote a draft report based on the findings of the committee. The draft was first read and commented upon by the committee members. The draft report was then sent to the faculty involved to check for factual irregularities. Any comments of the faculty were discussed with the chair of the assessment committee and, if necessary, with the other committee members. After that, the report became official.

# 2. Summary

This report reflects the findings and considerations of the committee Public Health on the master's programme in Public Health (MPH), Maastricht University. The master's programme in Public Health consists of five specializations: Epidemiology; Health Education and Promotion; Health Policy, Economics and Management; Health Services Innovation; and Work and Health. Maastricht UMC<sup>+</sup>/FHML plans to transform the MPH specializations into independent master's programmes. This intention was considered by the committee.

The evaluation of the committee is based on information provided in the self-evaluation report and the selected theses, additional documentation and interviews during the site visit. The committee signalled both positive aspects and ones which could be improved. Taking those aspects into consideration, the committee decided that both the full-time and part-time variants of the master's programme fulfil the requirements of the criteria set by NVAO which are the conditions for accreditation.

# Standard 1: Intended learning outcomes

The FMHL formulated overarching aims applicable to all five specializations of the MPH programme and learning outcomes for each specialization separately, which are identical for the full-time and part-time variant. The committee studied the aims and learning outcomes in relation to the domain-specific requirements. It noted that each of the specializations has such a unique character and specific approach that it is not realistic to compare the aims and learning outcomes of the specializations with the classical approach of Public Health. The committee therefore encourages the development directed towards the transformation of the MPH specializations into independent master's programmes, where collaboration is only pursued when synergy can be accomplished. The committee noted that for each individual specialization, the aims and learning outcomes are clearly in line with the specific domains and requirements set by professional colleagues and by the relevant international field. The learning outcomes are explicitly of an academic nature and level and correspond with general, internationally accepted descriptions of a master's programme. Thus, they fulfil the descriptions of MPH as a scientific, university-level and research-oriented master's programme.

The committee advises translating the expectations and wishes of the professional field and international mission of Maastricht University more structurally and explicitly within each specialization, and giving students more insight into possible careers after graduation. However, once students start their professional career, they feel well prepared and easily find jobs. This confirms the committee's impression that, despite suggestions for improvement, the programme provides graduates with a solid foundation that qualifies them for a career (academic) in the field of their specific specialization.

The committee assesses this standard as satisfactory for the full-time mode of study. The committee assesses this standard as satisfactory for the part-time mode of study.

## Standard 2: Teaching-learning environment

The committee studied the curricula of both the full-time and part-time variants of the five specializations MPH offers. It concludes that the consistency between the specializations as intended when the MPH programme was designed is not reflected in practice. The committee therefore supports the decision of the programme to diverge from the intended design. Each individual specialization demonstrates high internal consistency. The involvement of staff from different departments and research schools within each unit is managed carefully by

organizing planning groups and involving a unit coordinator. According to the committee, this suits the overall nature of Maastricht University and its well organized educational system.

Likewise, the didactical approaches (problem-based learning and adult education) are very much in line with the aim of the programme and implemented adequately. All specializations are committed to the high maintenance requirements of problem-based learning, and apply it consistently. Also, the facilities, the range of different educational formats, the commitment of tutors, and the thoughtful balance between the number of contact hours and self-study hours suit these approaches very well. In addition, all academic staff are required to follow several introductory courses on the educational approach, and a sufficient number of staff members are present to assure the desired quality of the programme in small tutorial groups. Their didactical quality is monitored carefully.

The committee concludes that educational units stimulate students to think academically. Most tenured staff have both educational and research tasks, and all tenured faculty members must have a PhD degree. A sufficient part of the curricula is focused on methodology and statistics. The committee values the unit focused on the preparation for the thesis process and writing the research proposal. Student are adequately prepared, and the thesis process starts early in the curriculum, which prevents delay.

The committee concludes that the study load and completion rates are acceptable for both full-time and part-time students. However, the committee advises monitoring the achievements and progress of the students from different backgrounds more carefully. Overall, the committee values the conscious choice to admit a mixture of students with different backgrounds; part-time students who often also have jobs, students with a hbo and/or an international background, and students who have followed different relevant bachelor's programmes. Logically, this brings some difficulty, but more importantly, the students benefit from each other's knowledge and experience.

The committee assesses this standard as good for the full-time mode of study. The committee assesses this standard as good for the part-time mode of study.

#### Standard 3: Assessment and achieved learning outcomes

The committee established that a reasonable mix of evaluations, tests and examinations is used. Both full-time and part-time students are evaluated in a number of different ways to test knowledge and skills, the application of knowledge and skills, and professional behaviour, depending on the educational mode. According to the committee, the mix of tests demonstrates that the intended learning outcomes are achieved. Different instruments are implemented to guarantee the quality of the examinations; students rate the quality of the assessment and have sufficient possibilities to submit complaints; the unit coordinator, the Director of Education and the Board of Examiners take adequate measures as necessary.

Regarding the thesis process, the committee advises creating a uniform structure in which a strictly organised, top-down control is achieved. Currently, there is too much diversity between and within specializations concerning the theses and supervisors. In addition, the role of the second examiner could be utilized more, e.g. by guaranteeing his/her independence. However, the overall grading and level achieved as demonstrated by the theses are fair according to the committee, and show that the intended learning outcomes are achieved. This conclusion is confirmed by the performance of graduates in actual practice and in post-graduate programmes.

The committee assesses this standard as satisfactory for the full-time mode of study. The committee assesses this standard as satisfactory for the part-time mode of study.

# General conclusion

The committee assesses the full-time *master's programme Public Health* as satisfactory. The committee assesses the part-time *master's programme Public Health* as satisfactory.

The chair and the secretary of the committee hereby declare that all members of the committee have studied this report and that they agree with the judgements laid down in it. They confirm that the assessment has been conducted in accordance with the demands relating to independence.

Date: 17 October 2011

Prof. P.A.H. (Peter) van Lieshout

N.M. Verseput MSc

# 3. Standards of the assessment framework for limited programme assessments

# Structure and organization of the faculty

The Faculty of Health, Medicine and Life Sciences (FHML) at Maastricht University (UM) is the result of a merger in 2007 between the former Faculty of Health Sciences and the Faculty of Medicine. Maastricht UMC<sup>+</sup> is the result of a merger between FHML and Maastricht University Hospital (azM). All educational and research programmes of Maastricht UMC<sup>+</sup> are organised within the Institute for Education (IfE) and the five research schools:

- CAPHRI School for Public Health and Primary Care;
- NUTRIM School for Nutrition, Toxicology and Metabolism;
- CARIM School for Cardiovascular Diseases;
- GROW School for Oncology and Developmental Biology;
- H&G School for Mental Health and Neurosciences.

The IfE, headed by the scientific director, is responsible for the content of the education provided by the faculty, as well as staffing, logistics, management and planning. The IfE's three major domains are Medicine, Health Sciences and Biomedical Sciences. The MPH programme is part of the domain of Health Sciences and consists of five specializations: Epidemiology (EPID); Health Education and Promotion (HEP); Health Policy, Economics and Management (HPEM); Health Services Innovation (HSI); and Work and Health (W&H).

The programme coordinators of the five specializations are responsible for the programme as a whole. They are also in charge of and accountable for the management, structure, content objectives, and quality of the specializations within the programme.

In 2009 Maastricht UMC<sup>+</sup>/FHML launched an initiative to reorganise the existing portfolio of master's programmes. The first tangible result was the merger between the HSI specialization and the HPEM specialization, which already shared 70% of their units. The combined specialization was first offered in September 2010 to students under the heading Healthcare Policy, Innovation and Management (HPIM).

Furthermore, Maastricht UMC<sup>+</sup>/FHML proposed transforming the specializations into independent master's programmes. In December 2010, the proposal was approved. Each independent programme will have its own distinctive identity. Enhanced visibility and stronger positioning of the separate programmes are expected to contribute to an improved expression of the relevance of these programmes for the labour market.

The committee assessed the master's programme in the 2010/2011 academic year. The intention of the Maastricht UMC<sup>+</sup>/FHML to transform the MPH specializations into independent master's programmes was considered by the committee. Comments which refer directly to this development, the difference between specializations and independent programmes, will be described explicitly in this report. Moreover, the committee assessed both the full-time and part-time variants. The part-time programme comprises an exact equivalent of the full-time programme. Only when differences between those variants were noticed will a specific remark be made in the report.

#### Standard 1: Intended learning outcomes

The intended learning outcomes of the programme have been concretised with regard to content, level and orientation; they meet international requirements.

#### **Explanation:**

As for level and orientation (bachelor's or master's; professional or academic), the intended learning outcomes fit into the Dutch qualifications framework. In addition, they tie in with the international perspective of the requirements currently set by the professional field and the discipline with regard to the contents of the programme.

This standard describes the findings (1.1), considerations (1.2) and conclusion (1.3) of the committee regarding the content (1.1.1) and the level and orientation (1.1.2) of the learning outcomes of the master's programme Public Health. The learning outcomes are the same for both the full-time and part-time variant.

# 1.1 Findings

#### 1.1.1 Content

Appendix A provides a description of the domain-specific requirements formulated for the domain of health sciences. The self-evaluation report elaborates on this, with an explanation of the field of Public Health. It states that the broad field of Public Health defines a very wide scope of organised activities, concerned not only with the provision of all types of health services, preventive and therapeutic, but also with the many other components relevant to the operation of a national health system.

The complexity and dynamics of the domain stipulate that students have a multidisciplinary approach and insight into the relationship and coherence of developments visible on the different levels and subsequently on the interactions between these developments. Based on their view of the broad field of Public Health, the FHML set overarching aims applicable to all five specializations plus specific aims for each specialization (see Appendix B). The learning outcomes for each specialization are listed in Appendix C.

The committee noted that the domain-specific requirements and the description of the field of Public Health are set out clearly and provide sufficient insight into the requirements set by professional colleagues. However, the programme struggles to combine all specializations into one master's programme, because each of the specializations seems to have a unique character and specific approach. As a consequence, it is not realistic to compare the aims of those specializations with the classical approach of Public Health, which is outlined in the self-evaluation report.

For example, the macro-level to which the domain-specific requirement refers is not fully applicable to the Epidemiology specialization. Another example is the extent to which attention is paid to the theme 'infectious diseases'. This theme could be expected within a master's programme Public Health, but not necessarily within all of the specializations.

From the self-evaluation report, but also during the site visit, it appeared that management, lecturers and students realize that the balance between the breadth of the 'PH-umbrella' and the depth of the different specializations is hard to accomplish in practice. Students feel more involved with the separate specializations than with the PH programme as a whole. In addition, some of the joint courses, like the Capita Selecta, were not successful in practice and have been cancelled.

The committee encourages the development directed towards the transformation of the MPH specializations into independent master's programmes, where collaboration is only pursued when synergy can be accomplished. Along with the fact that this will improve the organisation and quality of the specializations, the committee agrees with the argumentation described in the self-evaluation report: enhanced visibility and stronger positioning of the separate programmes will contribute to an improved expression of the relevance of these programmes for the labour market.

When there are independent master's programmes instead of specializations, the struggle the programme experiences to achieve an adequate balance between breadth (comprehensiveness) and depth (specialization) will no longer be an issue. Furthermore, the emphasis laid on a multidisciplinary approach, which is explicitly stated in the self-evaluation report as a characteristic of the PH master's programme, is put in a different context. Although the specializations remain multidisciplinary, integration between the fields of the different specializations is no longer an aim.

Based on the learning outcomes, the committee concludes that the balance between breadth and depth and the multidisciplinary approach is adequately translated within each of the specializations individually. Furthermore, it noted that the aims and learning outcomes are clearly in line with the specific domains and requirements set by professional colleagues and by the relevant international field.

Regarding the specialization in Epidemiology, the requirements of the field are quite strict. The committee concludes that the specialization is designed to match the curriculum of requirements for a Licensed A-class Epidemiologist issued by the Netherlands Epidemiological Society. During the site visit, it appeared that for the HEP specialization too, there are clear views on the wishes and expectations of the field which were considered when designing the specialization. The representation of the field concerning the other specializations is more diffuse. This makes it harder to formulate and integrate their expectations within the aim of the specializations. However, the committee advises aiming for more systematic involvement of the professional field, for example by means of a field committee, to make sure the programme is adapted to the wishes, requirements and expectations from the field. Currently, there are plenty of informal channels to compile this information, such as guest lecturers and coordinators of internships. But to guarantee complete and up-to-date information, the committee gives preference to the establishment of formal contacts.

Moreover, structural involvement of the professional field could be useful for informing students about the relation between the programme and their future career. The committee established that there are currently several initiatives aiming to inform students, such as workshops and the involvement of guest lecturers and the research schools of Maastricht UMC<sup>+</sup>. Developments which follow from these contacts are adequately implemented within the specializations, for example the increased emphasis on the subjects 'quality management' and evidence-based methods'. However, the students seem to have insufficient insight into future career possibilities before and during the programme.

Alumni indicated that once they started their career, they felt well prepared and found jobs easily. This confirms the committee's impression that this problem involves just providing sufficient information, and that the programme itself gives graduates a solid foundation that qualifies them for a career (academic) in the field of the specific specialization.

Besides improving the insight into the expectations and wishes of the professional field, the committee also advises translating the international mission of Maastricht University more explicitly within the programme. For example, by comparing the programme with similar academic programmes abroad, by formulating explicit goals regarding countries which are suitable for exchange students, and by aiming at an international mix of students to enrich the programme, and therefore recruiting these students actively.

#### 1.1.2 Level and orientation

In the self-evaluation report, MPH is described as a scientific, university-level and research-oriented master's programme, designed to provide students with an academic training that emphasises the acquisition of essential analytical skills and conceptual knowledge so that they learn to comprehend the complexities and dynamics of Public Health. MPH professionals obtain a thorough academic understanding of the functioning of health and health care in the Netherlands (with an international outlook) and of comparative methodology and research. This enables them to support, influence and shape ongoing health care reforms.

The committee concluded that the learning outcomes are explicitly of an academic nature and level. In addition, the committee interviewed alumni who chose to obtain a doctorate and established that they were well equipped in terms of research skills. The committee also verified the relationship between the learning outcomes and the Dublin descriptors, which are considered to be general, internationally accepted descriptions of a master's programme. In Appendix C the Dublin descriptors are related to these learning outcomes. The committee observed that though differences could be observed in the amount of attention to different Dublin descriptors per specialization, all Dublin descriptors are reflected in the learning outcomes of each specialization.

The committee is convinced that the learning outcomes guarantee that the graduates of the MPH programme are able to conduct research independently; to translate their innovative ideas and approaches for interventions into intervention programmes; and to design studies to test, evaluate and publish these ideas. Moreover, graduates are expected to be able to communicate their results with peers, as well as present their findings in lay terms.

# 1.2 Considerations

The committee concludes that the aims and learning outcomes of the individual specializations are in line with the specific domains and requirements set by professional colleagues and by the relevant international field. However, the expectations and wishes of the professional field and the international mission of Maastricht University could be translated more consistently and explicitly within the aim of the specializations.

The learning outcomes are clearly of an academic nature and level corresponding with general, internationally accepted descriptions of a master's programme. Thus, they fulfil the descriptions of MPH as a scientific, university-level and research-oriented master's programme. The committee concludes that the programme provides graduates with a solid foundation qualifying them for a career (academic) in the field of the specific specialization.

#### 1.3 Conclusion

The committee assesses this standard as satisfactory for the full-time mode of study. The committee assesses this standard as satisfactory for the part-time mode of study.

#### Standard 2: Teaching-learning environment

The curriculum, staff and programme-specific services and facilities enable the incoming students to achieve the intended learning outcomes.

#### Explanation:

The contents and structure of the curriculum enable the students admitted to achieve the intended learning outcomes. The quality of the staff and of the programme-specific services and facilities is essential to that end. Curriculum, staff, services and facilities constitute a coherent teaching-learning environment for the students.

This standard describes the findings (2.1), considerations (2.2) and conclusion (2.3) of the committee regarding the contents and structure of the curriculum (2.1.2), concept and elaboration of the teaching-learning environment (2.1.2), the quality and quantity of staff (2.1.3), admission and inflow (2.1.4), and study load and completion rates of the master's programme Public Health (2.1.5).

# 2.1 Findings

#### 2.1.1 Contents and structure of the curriculum

The committee studied the curricula of both the full-time and part-time variants of the five specializations MPH offers, see Appendix D. The appendix also presents an overview of educational units which were either collectively offered or shared by at least two specializations, and elaborates the independent position of the specialization in Epidemiology.

The full-time MPH programme encompasses 40 weeks of education and consists of six specialization units of 8 weeks each (plus 4 weeks of half-time), each offered to students in a parallel structure; a collective unit titled Factor Analysis and Analysis of Multilevel Data; a collective methodological unit titled Preparation for the Thesis Research Project; and a placement period and the writing of the master's thesis. The part-time programme comprises an exact equivalent of the full-time programme. The committee appreciates the fact that educational courses cover a large part of the year. In contrast to most master's programmes, contact hours are also scheduled in the second part of the year.

The committee verified the internal consistency of the MPH programme. Corresponding to its findings described in standard 1, the committee concluded that the consistency between the specializations as intended when the MPH programme was designed is not reflected in practice. During the site visit, it became clear that the artificial connections between the specializations caused friction in practice, for example during the joint Capita Selecta. To resolve the friction, these combined units have been removed from the curriculum, and now units are combined only when natural relationships between specializations appear to exist. The committee considers this a realistic choice. It supports the decision to diverge from the intended design in order to improve the quality of education.

Each of the individual specializations demonstrates high internal consistency, according to the committee. It noted that this is due mainly to the well organized educational system of Maastricht University, in which there is control of consistency between and within educational units which is monitored by a unit coordinator. Furthermore, in order to achieve integration, a unit is designed, implemented and evaluated by a multidisciplinary group of lecturers in what is called a planning group. Planning groups are composed of a key resource person such as a chair (unit coordinator), assisted by two to four staff members with complementary expertise recruited from the same or different Maastricht UMC<sup>+</sup>/FHML departments. The combined expertise within planning groups ensures a sound coverage of the key contents of each unit.

In addition, the committee noted that coherence at the curriculum level is monitored by the Board and the educational committee. The student members of the educational committee have contact with their peers via the courses and classes. They feel they are able to bring up issues and problems as they occur, and to influence decisions when this is considered necessary. The educational committee illustrated its foci of attention with some examples, including transforming the specializations into independent master's programmes.

The committee praises the balance between units which are strongly connected, internally coherent (despite the fact that staff from different departments are involved), and do not demonstrate overlap. Compared to standards elsewhere in the Netherlands, this is admirable. The educational committee revealed that they receive hardly any complaints from students concerning overlapping between units within specializations. This confirms the findings of the committee based on the curricula and unit descriptions.

The committee also studied the correspondence between the learning outcomes and the curriculum of each specialization. Appendix E reveals how the individual courses are systematically cross-matched with the learning outcomes. In addition, the committee gained insight into the way the learning outcomes are translated within the courses by studying a description of the learning objectives, specification of contents, practicals and skills training, assignments, and literature which was linked for each of the units to the self-evaluation report. It concludes that all learning outcomes are cross-matched to units within the educational programmes of the specializations, for both full-time and part-time students.

In addition, the committee studied whether the interaction between teaching and research is adequately ensured, and whether the curriculum corresponds with current developments in the field. It concludes that lecturers engage students in their own research, so current scientific developments and theories and research concerning the different disciplines permeate the curriculum. Most tenured staff have both educational and research tasks, and all tenured faculty members must have a PhD degree. The majority of MPH staff are employed at the CAPHRI research school. Teaching staff tenured at the NUTRIM and GROW research schools are also involved in the programme. The content of the MPH programme is linked to a broad range of research programmes within these schools.

The committee feels that the development of scientific research skills is adequately addressed within the curriculum. Educational units stimulate students to think academically, and a sufficient part of the curriculum is focused on methodology and statistics. The site visit revealed that students are particularly positive about the training sessions which run in parallel with the units. These training sessions are aimed at putting scientific research skills into practice, for example by writing an essay. As stated before, this is confirmed by alumni, who indicated that they felt well equipped in terms of research skills to obtain a doctorate.

During the methodological unit titled Preparation for the Thesis Research Project, students are prepared for their thesis process and guided in writing their research proposal. The committee greatly appreciates this unit; student are adequately prepared, theories can be discussed during this unit, and the thesis process starts early in the curriculum, which prevents delay.

### 2.1.2 Concept and elaboration of the teaching-learning environment

Problem-Based Learning (PBL) is the leading educational concept at UM. The central concepts applied within PBL are contextual, constructive and collaborative learning. PBL teaches

students the importance of interdisciplinary knowledge for understanding problems, and stimulates students to address problems from a multidisciplinary point of view.

The committee established that this educational concept is very much in line with the aim of the programme and adequately implemented. All specializations are committed to the high maintenance requirements of PBL, and use it consistently in the programmes. The committee is positive about the range of different educational formats applied throughout the programme, like small-group tutorials, project group work, lectures, practicals, skills training sessions and the design of an individual project resulting in a master's thesis. All educational units are multidisciplinary and structured thematically, focusing on problems that challenge students to apply theoretical knowledge to actual situations.

The committee notes that the small-scale education that PBL facilitates is admirable, especially when considering the high level of commitment it requires from staff members. During the site visit, the committee noticed that both students and staff are very positive about the small scale. Students indicated that they are trained to cooperate and feel this is a beneficial experience. Generally, the division of tasks within groups works well. In addition, the input of the tutor contributes greatly to the output of the small-group tutorials.

In summary, the committee considers that Maastricht University has a name to maintain concerning the PBL concept, and definitely succeeds in doing so. The PBL concept is firmly anchored and remains attractive, even after many years of application.

The committee is familiar with the facilities Maastricht University offers, and concludes that those perfectly suit the didactical approach of PBL. The building offers lecture rooms in all sizes, and students can easily work together on assignments in one of them. There are tutorial rooms suitable for accommodating tutorial groups of 10 to 12 students. Also, rooms are available for communication skills training. All lecture and seminar halls are equipped with first-rate projection equipment, including DVD players and fully automatic touch-screen operation of light and sound from the lectern, plus built-in PCs and Wi-Fi.

From the self-evaluation report and during the site visit, it appeared that the introduction of new and advanced electronic study systems (for student registration, planning of education and monitoring of students) has had some teething problems, which was inevitably a cause for frustration among students and staff. The committee is convinced that these problems will soon be solved and does not expect difficulties in the future.

Besides PBL, the educational approach of the MPH programme is based on the principles of adult education and hence allows students to study in a manner that is largely self-directed and autonomous. This concept is also well translated and elaborated in practice, according to the committee. The programme has a framework in which students gradually take on more self-study hours and fewer contact hours. Overall, there is a fine balance between contact hours and the number of self-study hours, both for the full-time and part-time variant of the programme (see Appendix F). The students have about 12 - 15 contact hours per week; the rest of their time is dedicated to self-study. These numbers fit the aim of FHML to achieve the favourable relationship of 1 contact hour to 2 self-study hours.

Furthermore, the principles of adult education assume that students accept their own responsibility for learning and allow them a large degree of freedom in determining their own learning goals within the objectives of the programme. During the site visit, students of all specializations indicated that they are aware of this freedom. They feel that they have

sufficient influence to adapt the programme to their wishes in breadth and in depth, and to pursue their own interests.

# 2.1.3 Quality and quantity of staff

The committee studied an overview of the core staff members for both the full-time and part-time variant of the MPH programme, with their position, education, employment history and publications. The committee recognises the staff's scientific quality, national and international academic reputation and teaching experience. A majority of the teaching staff holds a PhD and publishes in highly ranked journals. The committee noted that recent developments in scientific research are brought into the courses. The Maastricht UMC<sup>+</sup> research schools are closely involved.

In Appendix F an overview is provided of the number of departments involved and the percentage of hours contributed by the different departments to the MPH programme. The committee noticed that this overview reflects the multidisciplinary nature of the programme. A relevant mixture of lecturers with different backgrounds is allocated to the different specializations. As stated before, the committee is convinced that staff from different departments being allocated to the specializations does not cause problems, since the structure makes unit coordinators responsible for the coherence within units.

There are three main sources of staff support to provide students with guidance for the MPH programme: the thesis coordinator (see standard 3), tutors, and student advisors. Tutors coach tutorial groups to make student interaction productive and help students identify the knowledge needed to solve the problem(s) under study. Tutors also stimulate students to reflect on their problem-solving and professional behaviour. The committee noted that the PBL concept requires high standards from the tutors. The committee is enthusiastic about the way the programme deals with its tutors and the small groups which are created. The policy of tutor training and consciously making use of tutors which in general are staff members deserves to be complimented.

Student advisors provide initial assistance and will refer students with problems as necessary to secondary, UM-level facilities with specialists like student psychologists and career advisors. Student advisors monitor the individual students' exam results and save interview data through a computer-based student monitoring system, thus keeping an eye on the students' progress. Students can also seek student advisor guidance themselves. In addition, assistance is provided for departing students.

During the site visit, the student advisor indicated that because this is a master's programme, students are considered self-reliant, and the number of students who visit the advisor is small. The student advisor declared that in most cases students contact him/her because of personal problems. For example, international students or students with a higher vocational education (HBO) background experience difficulties with the academic system. In that event, the student advisor for example can suggest ways to enhance their writing skills. The committee feels that students are supported adequately in multiple ways.

To conclude whether sufficient staff are deployed to realise the desired quality of the programme, the committee studied an overview of the student-staff ratio per academic year (see Appendix F). The self-evaluation report describes that Maastricht IfE bases the required volume of educational input on the standard number of hours which are assigned to the various roles that exist within the educational system, such as educational and coordinating roles.

The table shows an increase of the student-staff ratio from 10 in 2004/05 to 15 in 2009/10. During the start-up phase, staff were allocated to develop the content and structure of education within the MPH programme, and the number of students was limited as the intake consisted only of non-FHML students. This explains the relatively low student-staff ratio at the onset of the programme.

The committee concluded that a sufficient number of staff members are available to assure the desired quality of the programme. During the site visit, the committee noted that, in general, both students and staff members affirm that there is an adequate student-staff ratio for all of the specializations. It established that the staff members find the size of their teaching load acceptable.

The committee verified that the didactical quality of the staff members is an important matter at Maastricht University and that facilities are present to foster it. Information on the educational functioning and performance of staff members is retrieved from standard student questionnaires and discussed in the annual performance review between a staff member and the department head. The results are relevant for their career. All academic staff are required to follow a number of introductory courses on the educational approach. In addition, the department offers a package of workshops related to the educational aspects, including the Basic Teaching Qualification.

#### 2.1.4 Admission and inflow

The admission requirements are identical for full-time and part-time students and for all five specializations within the MPH programme, as described in the self-evaluation report. Practice has shown that this uniform approach leads to friction. It is currently not possible to grant direct admission to bachelor's graduates from specific programmes to related MPH specializations, since the admission criteria are not detailed enough. Offering the specializations as independent master's programmes will allow for the development of more specifically tailored admission criteria. Furthermore, it will make these programmes even more attractive and visible for current and future students and the professional field.

All students who graduated from the bachelor's programme of Health Sciences offered by Maastricht University have direct access. FHML graduates from the bachelor's programmes Biomedical Sciences, European Public Health or Medicine have conditional access. For non-FHML applicants, the general admission requirements of Maastricht UMC<sup>+</sup>/FHML for master's programmes apply. The committee learned that these requirements are directed towards the level of English and the motivation of students. Alumni indicated that the general admission requirements are fair, and only students with an adequate level and background knowledge are selected.

During the site visit, the committee discussed the level of students with a higher vocational education (HBO) background. Those students gain access to the MPH programme when they successfully complete a bridging programme, consisting of 24 EC and mainly focused on academic skills. The committee states that the bridging programme is relatively short, compared to the standard of 60 EC. The committee verified differences in level regarding methodology and statistics for these HBO students compared with students who followed a bachelor's programme at university level. This was confirmed by the students, alumni and lecturers. However, it was also emphasised that these HBO students are highly motivated, eager to work hard and to put in extra effort, and have a lot of prior knowledge of the professional field, which means they bring in practical knowledge and skills to the programme.

Students who followed similar programmes in foreign countries are considered for entering the programme. During the site visit, it appeared that selecting those students can cause difficulties, because some of the curricula are barely comparable. The committee advises making sure that students fulfil the requirements and, if necessary, testing their background knowledge and level.

Appendix F provides an overview of the annual intake of students. Nowadays, around 70% of new students are Dutch, around 20% originate from another EU country (mainly Germany), and 10% originate from outside the EU. As a consequence of the intensified PR and marketing activities abroad, there has been a gradual increase in the percentage of non-Dutch students, notably students originating from the EU. This trend has been strengthened by the increased influx of EU students from FHML bachelor's programmes.

The committee states that the international students contribute to the programme in a positive way. However, it would like to point out that the programme has to be perfectly tuned to these students. For example, if these students prefer to do their internship in the Netherlands, data should be available in English. Also, the information provided on the professional field should be relevant for these students, thus be international oriented.

Overall, the committee values the conscious choice to allow a mixture of students with different backgrounds: part-time students who in many cases also have jobs, students with a HBO and/or international background, and students who followed different, relevant bachelor's programmes. Naturally, this brings some difficulty. More importantly, all of the students benefit from each other's knowledge and experience. For example, the discussions during the tutorial groups are more fruitful and profound because of the multiple perspectives integrated.

Despite these positive findings, the committee advises monitoring the achievements and progress of the students with different backgrounds more carefully. At this moment, the programme management is not able to provide hard figures. Therefore, the committee is not able to confirm its impression that there is no variation in results between different groups of students. For example, it is not possible to trace whether the bridging programme is adequate.

#### 2.1.5 Study load and completion rates

Appendix F provides an overview of quantitative data related to study load and completion rates. According to the committee, the programme can be studied in 40 hours a week. After the site visit, the committee concluded that students assess the workload of the programme as high, but feasible. Especially working in groups and the many writing assignments take time. Part-time students stated that they studied at least two days a week, but assessed the study load as feasible.

It is the aim of the MPH management to reach a completion rate of 90% after two years. At this moment, the completion rate after two years is just below 90%. Most full-time students finalise their studies shortly after September of the second academic year, and thus the majority graduates within 15 months. A minority of students needs at least three years to finalise their thesis and graduate.

The completion rate for part-time students is calculated after two, three or more than four years of study. Half of the students are able to graduate in the given time frame; the other half need more than the nominal two years of study.

With respect to study progress, the thesis period is the most challenging for students, as described in the self-evaluation report. Inevitable, practical, time-consuming issues related to conducting research in a professional organisation and high expectations or evolving demands of project initiators regularly lead to students exceeding the set thesis period. To prevent delays, students are advised to start thinking about a topic early in the programme, and are reminded frequently during their thesis process about when to finish practical work, when to hand in first drafts of thesis chapters, etc. Meetings are scheduled (plenary, in groups or individually) in order to guide the students in their thesis writing process and to monitor progress. The placement coordinator of each specialization organises early thesis orientation and monitors progress.

The committee concluded that the completion rates are acceptable, especially taking into account that most of the students graduate within 15 months. In addition, appropriate solutions are implemented to reduce delay during the thesis period. Besides the solutions mentioned above, the committee feels that the Preparation for the Thesis Research Project unit contributes to this.

#### 2.2 Consideration

The committee highly values the design, implementation and organisation of the teaching-learning environment. The involvement of staff from different departments and research schools within one educational unit is managed carefully by organizing planning groups and involving a unit coordinator. The combined expertise within planning groups ensures a sound coverage of the key contents of each unit. The specializations are highly consistent. The committee praises the balance between units which are strongly connected, internally coherent (despite the fact that staff from different departments are involved), and do not demonstrate overlap. Compared to standards elsewhere in the Netherlands, this is admirable.

The committee admires the fact that educational units stimulate students to think academically, and a sufficient part of the curriculum is focused on methodology and statistics. In addition, lecturers engage students in their own research, so current scientific developments and theories and research concerning the different disciplines permeate the curriculum.

The committee concludes that the concepts of problem-based learning and adult education perfectly fit the nature of the programme, and it appreciates the way in which they are embedded within each of the specializations. Staff members are well have ample time to apply the concept, and students are enthusiastic about the opportunity it offers for working on problems in small groups. Furthermore, the quantity of lecturers ensures small groups of students, and the facilities match the didactical approach.

Despite the committee's recommendation to monitor the achievements and progress of the students with different backgrounds more carefully, it states that the mixture of students with different backgrounds is of true value to education in small groups. Multiple perspectives are integrated when discussing problems.

#### 2.3 Conclusion

The committee assesses this standard as good for the full-time mode of study. The committee assesses this standard as good for the part-time mode of study.

#### Standard 3: Assessment and achieved learning outcomes

The programme has an adequate assessment system in place and demonstrates that the intended learning outcomes are achieved.

#### **Explanation:**

The level achieved is demonstrated by interim and final tests, final projects and the performance of graduates in actual practice or in post-graduate programmes. The tests and assessments are valid, reliable and transparent to the students.

This standard describes the findings (3.1), considerations (3.2) and conclusion (3.3) of the committee regarding the assessment system of the master's programme (3.1.1), the thesis process (3.1.2) and the achievement of the learning outcomes (3.1.3) en the positions of graduates on the labour market (3.1.4).

# 3.1 Findings

## 3.1.1. Assessment system

The assessment modes for all units are described in Appendix F. The committee established that a reasonable mix of evaluations, tests and examinations is used. Both full-time and part-time students are evaluated in a number of different ways to test knowledge and skills, the application of knowledge and skills, and professional behaviour, depending on the educational mode. The exam with open-ended questions is used most frequently. Other forms of assessment include skills training reports, presentations, individual or group papers. According to the committee, the mix of tests clearly demonstrates that the intended learning outcomes are achieved.

During the site visit, the committee carefully studied some of the group papers, in order to verify the way students collaborate and grades are determined. It concludes that the papers are of good quality, and the participation of individual students is properly weighted. During the site visit, it noted that students feel positive about the group papers. They do not experience problems with a joint grade and state that sufficient attention is paid to their individual performance.

In addition to the mix and content of tests, the committee also studied the procedures applied. It identified some differences between the specializations, but concludes that this is not a serious issue when taking into consideration the current state of affairs. In general, unit exams are composed by the unit coordinators in consultation with the unit planning group. Exams are held at the end of a unit. Students are informed beforehand about the mode of testing, and about the weight of each component. Unit tests are reviewed by staff members, and students' scores are based on the description of the objectives of each specific unit. The individual assessments comprise at least 50% of the final unit results. For each unit, one re-sit date is organised each year.

During the site visit, the committee established that students have no complaints concerning the examination procedures. Moreover, they have sufficient possibilities to submit complaints if necessary. If students wish to inspect the reviewed test, they will be permitted to do so during the four-week period commencing the day the test results are published. In addition, students are requested to rate the quality of the assessment of units. If the mark on this question falls below 6.0, the unit coordinator is requested by the Director of Education to look into the issue and put forward suggestions for improvement. In addition, students' complaints about the exam can be directed to the Board of Examiners.

The MPH programme is supervised by the FHML Board of Examiners (EB). The board frequently discusses the study results of MPH students, and is responsible for the rules and regulations applicable to all MPH examinations, as stipulated in the Education and Examination Regulations (OER) for the Master of Science programmes in Health Sciences. The committee is convinced that the EB has sufficient insight into the quality of the examinations and takes adequate measures as necessary. For example, the committee concludes that the EB takes appropriate steps when lecturers do not function adequately in the role of examiner.

The EB organised voluntary courses for lecturers related to the assessment of theses. The committee values this initiative, and encourages the board to even become more proactive when it comes to aligned, uniform and consistently applied guidance and rating during the thesis process. As amplified below, the committee feels that the top-down control should be stricter and better organised.

#### 3.1.2 Thesis process

Students define the topic of their final MPH thesis together with the researchers within the research programmes. During the Preparation for the Thesis Research Project unit, students write a research proposal for their project. As mentioned before, the committee appreciates this unit's work in supporting thesis preparation. Twelve to sixteen weeks are allocated for placements and for writing the master's thesis. The committee established that an internship during the thesis period could be internal or external. Based on conversations with students, alumni and lecturers during the site visit, the committee concluded that both variants are relevant and demand equivalent responsibilities and commitment from students.

An MPH placement coordinator is appointed for each specialization and is regarded as a coach for students in the early stages of preparation. During the thesis period, students are assigned to a thesis supervisor. Although students point out differences between their supervisors, they stated that in general supervisors are approachable and spend sufficient time on their supervision task. The committee applauds this.

The requirements for the master's thesis as well as the procedure and criteria for assessment are specified in the 'Guidelines for the master's thesis in Health Sciences', which is available to all students. The subject of the placement and the thesis should be in line with the chosen specialization. Each thesis should contain the report of a full empirical cycle. Students need to make use of interdisciplinary knowledge when writing their master's thesis. The thesis is assessed by the thesis supervisor and a second examiner, both tenured at Maastricht UMC+/FHML, each of whom gives his or her final mark for the thesis independently.

The committee values the system in which a second examiner independently scores a thesis, in order to have a check on the mark allocated by the thesis supervisor. This design prevents the allocation of marks influenced by personal knowledge. To make optimal use of the advantages of this system, the committee advises ensuring that the second examiner is fully independent, and has no further knowledge of the process or student. Currently, the thesis supervisors and second examiners are usually from the same specialization. During the site visit, both the Board of Examiners and students confirmed that the system will be improved when the second examiner is external.

In addition, the committee recommends implementing an instrument which provides insight into the grades allocated by the supervisor and second examiner, and encourages taking additional measures when grades differ significantly, given that a thesis supervisor also weighs personal circumstances.

The committee established that some of the theses are submitted as an article to a journal. It understands the programme's motivation to do so; the articles give a positive indication of the academic level of the graduates and fit the nature of a research-oriented master's programme. However, the committee advises avoiding the situation in which a supervisor has to grade an article while being one of the authors when it is submitted for publication. The committee therefore suggests ensuring that all of the students are graded by their thesis. Afterwards, the results can be translated together with the supervisor into an article.

Based on the theses and the assessment forms the committee read (see 1.3.3) and the conversations during the site visit, it appeared that the internships, theses (assessment) and supervision by lecturers from different departments allow for diversity between and within the specializations. As stated before, the committee advises creating a uniform structure with strictly organised, top-down control. For example, it should be guaranteed that all of the theses contain a conceptual framework, relevant literature, reflection, etc., but for example also do not exceed the number of pages specified. Currently, factors like these depend too much on the individual specialization, student and supervisor. Requirements and the way they are fulfilled should be formulated and monitored at a higher level.

# 3.1.3 Achievement of the learning outcomes

The committee assessed the achieved learning outcomes by inspecting a selection of the master theses from the programme. The committee studied 15 theses of the full-time variant, and 3 theses of the part-time variant, together with the associated assessment forms. Selection of the theses was done at random by the project leader and the members of the committee from the list of the 50 most recently completed theses. Consideration in selecting the theses was given to the grading (low, average and high grade) and the specializations.

The committee members read the theses and assessed their presentation of the problem and review of the literature, methods and justification, conclusion and discussion, structure, legibility and verification. In general, the committee agreed with the grades awarded by the supervisors for both variants. The grading was fair and reflected the differences in the dissertations. However, three theses with low grades were graded too generously according to the committee. These theses were read by several of the committee members. They agreed on the fact that in these theses, a relevant theoretical framework, a solid collection and analysis of data, and/or relevant discussion based on the results were lacking.

During the site visit, the committee talked to the supervisors. Based on this interview, it became clear that some of the graduates of these theses were exposed to time pressure due to their residence permits. The supervisors agreed with the committee that the level of the theses demonstrated differences, taking into account the overall level of MPH graduates. Still, they were convinced by the graduates' performance, which appeared stronger during the discussions on their research than in their final product.

It became clear that until recently, lecturers experienced problems regarding the system of assessment: it was not possible to grade different parts of the thesis with a grade lower than '6'. As a result of this, the average increased and therefore did not adequately reflect the final conclusions of the supervisor. This could have affected the differences between the grades allocated by the supervisor and second examiner, and those given by the committee. The committee is aware of the fact that the supervisor also grades other aspects in addition to the final product, for example the development of skills during the course and the students' oral

presentation. However, in general the grade given by the committee should correspond to the grade allocated by the supervisor.

To verify whether there is a structural problem concerning the level of theses, the committee studied 12 more theses. The committee was pleased to observe that all of these theses, similar to the 15 theses studied before that did not demonstrate differences in allocation of marks between the supervisor/second examiner and the committee, were well written and of an acceptable level: the theses were based on relevant and interesting questions which were clearly formulated, contained an adequate conceptual framework, and the research methods were correctly applied. The theses with top grades were also highly valued by the committee. Some of them were even worthy of publication in scientific journals and graded too low in the opinion of the committee.

The committee concludes that the overall quality of the theses is satisfactory, and graduates of the master's programme achieve the required level. According to the committee, the fact that some of the theses are graded too generously reflects the issues concerning the monitoring and organization of the thesis process (see 3.1.2). Because of the large number of theses the committee read, it is able to stress that overall, the level of graduates and grading of supervisors and second examiners were adequate.

#### 3.1.4 Positions of graduates on the labour market

Appendix F provides an overview of three diverse positions obtained by MPH graduates on the labour market. The self-evaluation report states that 89% of FHML graduates from 2006/07 found a paid job within one year: 56% at university level and 82% in their field of study or a related one. The report also noted that 71% of graduates would have chosen the same UM programme again.

The committee appreciates the fact that most of the students find a job in a relevant field. As described under standard 1, alumni indicate that the preparation for the labour market could be strengthened throughout the programme by gaining more insight into activities after graduation. However, once they start working, they feel well prepared and are able to apply the knowledge and skills addressed during the programme. In addition, the committee interviewed alumni who chose to pursue a doctorate and verified that they felt well equipped in terms of research skills, and that they have the qualifications to conduct independent research.

#### 3.2 Considerations

The committee concludes that the programme has an adequate assessment system in place, in which a reasonable mix of evaluations and adequate procedures are applied. Different instruments are implemented to guarantee the quality of the examinations; students rate the quality of the assessment and have sufficient possibilities to submit complaints; the unit coordinator, the Director of Education and the Board of Examiners take adequate measures as necessary.

Regarding the thesis process, the committee misses a uniform structure in which strictly organised, top-down control is achieved. Currently, there is too much diversity between and within specializations concerning the theses and supervisors. In addition, independent assessment is not guaranteed. However, the grading and level achieved demonstrated by the theses is fair according to the committee, and shows that the intended learning outcomes are achieved. This conclusion is confirmed by the performance of graduates in actual practice and in post-graduate programmes.

# 3.3 Conclusion

The committee assesses this standard as satisfactory for the full-time mode of study. The committee assesses this standard as satisfactory for the part-time mode of study.

# **General conclusion**

The committee assesses the full-time master's programme Public Health satisfactory.

Standard	Judgement
1: Intended learning outcomes	Satisfactory
2: Teaching-learning environment	Good
3: Assessment and achieved learning outcomes	Satisfactory

The committee assesses the part-time *master's programme Public Health* satisfactory.

Standard	Judgement
1: Intended learning outcomes	Satisfactory
2: Teaching-learning environment	Good
3: Assessment and achieved learning outcomes	Satisfactory

# **APPENDICES**

# Appendix A: Domain Specific Requirements

In order to make its ruling, the committee will draw on the same general referential framework used during the self-evaluations of the different academic programmes. Each of the points outlined herein broadly demonstrate the relevance of these items. While this scheme will be applied to all academic programmes, the programmes themselves differ from one another in several key ways: the academic content and the future career prospects of each programme help determine the layout and design of the individual curriculums. The committee therefore finds it necessary to highlight certain issues that mainly regard the specificity of health sciences and that offer insight into the way the committee plans to approach these programmes.

#### Domain

It would be useful to first examine the health science domain. This discipline focuses on ways to promote health, prevent illness and support and shape the healthcare system. It naturally follows that, in describing what health science is, we also describe what this field is not. On the one hand, the field is defined in terms of the healthcare system itself: a health science programme does not qualify one to become a doctor, psychologist or any other type of healthcare practitioner. On the other hand, the field can be defined in terms of the various disciplines it comprises: law, economics and policy sciences. Yet health science is more than just applied policy or organisational science focusing on one specific social sector. What typifies the field is its underlying principle: the way in which individuals and institutions help organise and shape health promotion, illness prevention and the healthcare system.

#### Three-level division

Several different perspectives help us understand how health promotion, illness prevention and healthcare are influenced and shaped. Health science is a broad discipline and can therefore be approached in very different ways. Of course, the curriculum should offer a broad overview of the discipline in general, but the ability to specialise or gain insight into a specific area is just as necessary as it is desirable. The following three divisions have been made in order to provide a comprehensive and clear overview of the various approaches:

- Macro-level (linked to business and healthcare research and their influence on institutional design): One aspect of this discipline focuses on how the healthcare system is shaped on the macro-level, meaning the institutional design of healthcare facilities and other related organisations. Issues such as history, financing, political context and the extent to which various social sectors have access to and use these facilities is emphasised.
- Meso-level (way in which new etiological insights e.g. biology and psychology influence the organisational design). Another aspect of this discipline focuses on the actual organisational design of these healthcare facilities. Aspects like accessibility, efficiency, quality, legal relationships and affordability are greatly emphasised at this level.
- Micro-level (role of individual characteristics paired with health-related behaviour and the environmental influence on both): A third aspect of this discipline focuses on the ways in which individuals organise their own healthcare, meaning the practical design of healthcare activities. Issues such as health, illness and risk perception, help-seeking behaviour, the correlation between illness and other aspects of life (such as work), and the role of the healthcare recipient with respect to formal and informal healthcare providers and other professionals are highlighted.

# Focus on specific healthcare sectors

In addition to the macro, meso and micro levels, this discipline can be further delineated in terms of specific healthcare sectors. A first division can be made between preventative and patient-oriented healthcare. Prevention includes important issues like health protection (which is becoming increasingly international); facet policy (such as health and the workplace, the role of public housing and social climate); and behavioural influence. The world of patient-oriented healthcare can also be divided into various sectors: hospital care, primary care, mental healthcare, occupational healthcare, elderly care and care for the mentally handicapped. All of these sectors are inherently related and have very fluid boundaries. Students should be expected to have a global view of these general issues and gain more specific knowledge on the various sub-sectors.

#### Professional focus

In addition to an understanding of the various aspects that help shape the healthcare system, students are also required to learn skills essential for their future careers. While the health science discipline contains several broad perspectives, it also offers a wide array of future career prospects. The fact that this discipline focuses on healthcare formation suggests that many graduates enter positions that enable them to contribute to this area in particular. Some of these graduates will enter into policy-making or management positions on a national or regional level, in government institutions, trade organisations, patient organisations or insurance companies. Other graduates may choose to lend their expertise to healthcare institutions and consultancy groups, working as staff members or managers. With career prospects like these, it is safe to assume that the academic programme pays sufficient attention to the skills that allow students to operate effectively within these settings. Some graduates may even choose to enter into academic professions and positions. These students are expected to have honed the necessary skills to successfully develop such a career in future.

# Domain-specific knowledge and insights

Health Science graduates should demonstrate their knowledge and understanding of the following:

- the multidisciplinary nature of the health science discipline;
- the importance of research activities for the development of the healthcare domain (and its sub-branches);
- the various indicators of health and sickness;
- current affairs/topics/debates in the healthcare sector and health sciences;
- the range of rationalist and constructivist theories of health;
- organisational and policy control in the healthcare sector;
- the theoretical and professional motivations behind healthcare interventions;
- the role of individual differences and their influence on health status;
- different perceptions of health;
- cultural differences in health perception;
- the different values associated with good health;
- difference between healthcare systems and types of healthcare;
- the general theoretical arguments and paradigms underlying healthcare research;
- the use of information technology for communications and analyses;
- management and organisation of health service organisations;
- healthcare from an international perspective.

# Domain-specific skills and research skills

Multidisciplinary and interdisciplinary approaches are integral to the health science field. Health science students should be able to understand and appreciate the complexities of this domain and are therefore expected to develop general and domain-specific skills. Students must be able to critically evaluate the various approaches that offer insight into individual and personal perceptions of health.

The following domain-specific skills have been identified:

- the ability to distinguish between the different levels of health perception (individual, organisational and institutional) and the ability to make a distinction between local, regional, national and international contexts;
- the ability to extract health-related information from general sources and other studies and use it to analyse questions on health and illness;
- the ability to create new, reasoned arguments/theories from proven health-related theories;
- the ability to reflect on the relationship between individual perceptions of health and the broader health and healthcare-related structures;
- the ability to verbalise key theories in different contexts;
- the ability to position, translate and evaluate the results of health-related research in various disciplinary contexts by drawing on existing research and research methods;
- the ability to draft a research protocol that is methodologically sound, theoretically meaningful, practical in execution and can contribute to finding solutions to practical problems;
- the ability to execute a research protocol, analyse results and contribute to theory development;
- the ability to evaluate a research report based on its methodological, theoretical and practical merits.

#### Generic skills

Health science students are also expected to develop other skills inherent to the successful completion of an academic programme and the success of future career management. Students will therefore be expected to develop the following skills:

- the ability to communicate effectively in writing with others in an academically acceptable way, using numbers and words;
- the ability to verbalise ideas and arguments for formal presentations and informal discussions in a variety of situations;
- the ability to work well with others when preparing and presenting group work and take responsibility for individual tasks;
- the ability to enter into informal discussions/negotiations with peers and formal discussions with organisation members;
- the ability to identify difficulties and propose solutions to health-related problems or other academic/social issues;
- the ability to set new learning goals and work independently;
- the ability to identify issues regarding fair and equal treatment and take appropriate action;
- the ability to use information technology to retrieve and save information and create new material relevant to the health science discipline (this includes the use of word processing, data storage and statistics programs);

- the ability to collect and analyse relevant information from different (knowledge) sources using the appropriate manual and electronic systems;
- the ability to critically reflect on individual study skills or seek help and guidance for improving their development opportunities.

## Learning, teaching and assessment

The academic and learning strategies outlined in this academic programme are aimed at developing a reflective and critical approach to the health sciences. These strategies reflect the multidimensional and dependable nature of the health sciences. Moreover, they acknowledge and encourage the contributions of actively-involved students in the learning and educational process. Clearly defined learning goals and competencies lead to transparent academic guidelines. They also ensure clear criteria that students are expected to meet. Opportunities should be made available allowing students to:

- access adequate (knowledge) sources
- critically analyse and evaluate health and health-related issues in all of their many forms
- construct coherent arguments from proven theoretical perspectives
- communicate effectively
- develop independence during the learning process
- pose questions and initiate and implement projects
- evaluate problem-solution combinations that involve several different possible solutions
- develop lifelong learning skills.

## Learning and educational strategies

The use of various learning and educational strategies should help students acquire the general and transferable skills as well as the knowledge expected of them within by the world of health sciences. This learning concept should be explicitly described in the curriculum or academic programme. The following methods may be included therein:

- discussions in small and large groups
- seminars, tutorials and practical workshops
- group and project work
- independent study to stimulate a personal learning process
- participating in projects
- acquiring practical experience
- lectures
- computer-assisted education
- presentations
- simulations
- workshops
- contextual learning.

# Appendix B: Overview of the general aim and aim of each specialization

The overall aim of the MPH programme is to provide master's students with cutting-edge knowledge, academic insight and skills in the domain of health. This aim is embodied in the general profile of MPH graduates:

- MPH graduates have knowledge of the broad field of Public Health and have insight into the involvement of the core disciplines involved in Public Health.
- MPH graduates develop a scientific attitude and are trained in searching for theory-based explanations and solutions that are critically evaluated.
- MPH graduates are able to analyse health and health problems in a number of different settings in a systematic and methodological manner as part of a multidisciplinary team.
- MPH graduates are able to present their research and other projects both in writing and orally.
- MPH graduates are able to communicate and cooperate adequately with other disciplines and actors in the field of Public Health.

The main objective of the specialization in <u>Epidemiology (EPID)</u> is to ensure that graduates are qualified to critically assess, design, conduct and report on epidemiological research in public and patient-bound health settings. The specialization is not only appealing to students pursuing a future career as epidemiologists engaged in research, policy or teaching, but also to health care and prospective health care professionals working in research-oriented jobs and positions for which epidemiological expertise is deemed important.

The <u>HEP specialization</u> offers training in academic knowledge and skills needed for developing health promoting interventions. As such the programme has a highly practical orientation, but combines this with a firm basis in research and theory. Applications of behavioural and social sciences to intervention development are the core of the curriculum. Research can be used in all phases of programme development, be it desk, qualitative or quantitative research. Research skills are, therefore, a focal point in the curriculum.

The <u>HPEM specialization</u> provides students with the basic skills and scientific competencies to analyse and solve current problems in health care systems. It offers students an advanced, distinctive, interdisciplinary and internationally oriented programme in the field of Public Health and health care.

The <u>HSI specialization</u> teaches students to form a holistic overview of health care and health care systems. Students learn to use this overview to determine how to incorporate innovations; how to improve the efficiency, quality and costs of health care for patients and providers; and how to influence the future direction of health care.

The <u>W&H specialization</u> educates students to help organisations change working environments into physically, psychologically and socially healthy places. The specialization also focuses on the prevention of work-related health problems and the reintegration of recovering workers.

# Appendix C: Learning outcomes

#### **Epidemiology**

The graduates:

#### Knowledge and understanding

Have an advanced level of knowledge, understanding and skills with regard to:

- 1. The scope of epidemiology as a scientific discipline, the uses of epidemiology, and the breakdown of the sphere of epidemiological activity into subdomains (e.g., Public Health epidemiology vs. clinical epidemiology; descriptive epidemiology vs. analytical epidemiology; etiologic vs. prognostic vs. diagnostic epidemiology; theoretical (fundamental) vs. applied epidemiology; communicable vs. chronic diseases epidemiology; exposure-oriented vs. disease-oriented fields of epidemiology)
- 2. The principles and methods of observational epidemiological research
- 3. The principles and methods of non-observational, experimental epidemiological research (health intervention studies)
- 4. Health and exposure measurement theory and the principles and methods of clinimetrics
- 5. The principles and methods of systematic literature review and meta-analysis
- 6. The principles, methods and techniques of statistical analysis of epidemiological data
- 7. The principles and methods of epidemiological research into hereditary disorders and gene-environment interactions (genetic epidemiology)
- 8. The critical assessment and interpretation of epidemiological data and epidemiological study results
- 9. The contents of selected fields of application of epidemiological approaches, in particular cardiovascular epidemiology, cancer epidemiology, infectious diseases epidemiology, and epidemiology of musculoskeletal disorders
- 10. The requirements of an epidemiological research protocol and the steps in the development of a master thesis research protocol
- 11. The design, conduct, analysis, interpretation and reporting of an epidemiological study of modest size and duration.

#### Applying knowledge and understanding

- 12. Are able to interpret and critically assess the contents of epidemiological publications and presentations (study protocols, original articles, scientific reports, reviews, health policy documents, publications in the lay press), dealing with various types of epidemiological research
- 13. Are able to apply the main principles and techniques of both observational and intervention research, within the context of a new epidemiological study (e.g., population selection, choice of measurement tools, sample size and power calculation, preparing a randomisation schedule, dealing with protocol violations, writing patient information)
- 14. Are able to evaluate the methodological quality, practicability, and applicability of existing health measurement scales, and develop a new measurement scale according to the principles of clinimetrics
- 15. Are able to design, perform and present a systematic literature review to summarize the existing evidence with regard to a specific epidemiological question, taking into account the principles of systematic reviewing, research synthesis and meta-analysis
- 16. Are able to develop an appropriate strategy for the (multivariable) analysis of data collected within the context of observational or experimental epidemiological research

- 17. Are able to write, present and defend a protocol for a new epidemiological study, taking into account standards for grant application, 'subsidiology' considerations, and rules for Good Clinical Practice
- 18. Are able to conduct epidemiological research independently, solve research problems, and report on research results, also within a multidisciplinary context
- 19. Are able to integrate elements of various epidemiological knowledge domains, and apply epidemiological knowledge in new contexts, with other disciplines also involved (e.g., preparation of Health Council advices).

#### Making judgements

- 20. Are able to form a balanced judgment regarding the appropriateness and maturity of epidemiological research output for dissemination and application within a variety of settings, e.g. health planning, individual patient care, health counselling
- 21. Are able to take a critical stand towards the use and abuse of epidemiological data and study results within various scientific and societal contexts, e.g., health policy and management, health education and promotion, preventive and clinical health care, marketing
- 22. Are able to develop a balanced view towards the potential impact of epidemiological study activities on study subjects and other persons involved, both at the individual and the community level (obtrusiveness of procedures and measurements, privacy considerations, dealing with uncertainty, etc.).

#### Communication

- 23. Are able to communicate on the methods and results of various types of epidemiological study (epidemiological surveys, intervention studies, clinometric studies, systematic literature reviews, observational studies, genetic studies), and on the meaning of epidemiological data.
- 24. Are able to communicate in the English language
- 25. Are able to communicate with experts and non-experts in the fields
- 26. Are able to communicate in various settings, with various methods, and through various channels

#### Learning skills

27. Are able to proceed to a more advanced level of knowledge, understanding and skills with regard to epidemiological principles and issues in observational research, intervention research, clinimetrics, systematic literature review, applied epidemiology, genetic epidemiology, epidemiological data analysis, protocol development en epidemiological research practice, either by participation in formal education and courses, or by self-teaching efforts.

#### **Health Education and Promotion**

#### The graduates:

#### Knowledge and understanding

- 1. Are able to describe theories and findings about:
  - a. The relation between health and disease on the one hand and behavioural and environmental determinants on the other;
  - b. Primary, secondary and tertiary prevention, specifically in the areas of oncology, cardiovascular disease and mental health;

- c. Processes of change concerning the behaviour of individuals, groups and organisations;
- d. Methods and strategies for initiating and monitoring change at micro, meso and macro levels.
- 2. Have profound knowledge of the settings approach in health promotion.
- 3. Know how to find process and present findings in the field of health promotion and health education, and do so in an efficient and critical way.
- 4. Can relate health education and health promotion to the wider context of social, organisational, behavioural and biological science.
- 5. Know about developments in local, regional, national and global health policies.
- 6. Are able to describe the steps and principles of the Intervention Mapping Protocol and to apply them in the development of interventions.
- 7. Are able to design evaluations of interventions for health education and health promotion.
- 8. Have sufficient statistical skills to analyse data from determinant, intervention and implementation studies, including descriptive analyses, regression analysis, multilevel analysis, factor analysis and hypothesis testing.
- 9. Know how to contribute to the development of the health promotion and health education field.

#### Applying knowledge and understanding

- 10. Are able to apply theories about behavioural and environmental determinants of health.
- 11. Recognise the importance of a multi-level approach to health promotion.
- 12. Are able to apply the Intervention Mapping Protocol to health problems, in order to effectively initiate, organize, coordinate, implement and evaluate health promotion programmes.
- 13. Can recognise models of good practice in health promotion.
- 14. Are able to use the experience from the work setting in other settings.
- 15. Can relate evidence base, theory base and models of good practice to the health promotion field.

#### Making judgements

- 16. Can evaluate empirical evidence about interventions and theories.
- 17. Are able to make judgements about the results of a needs assessment study and to base recommendations on these results.
- 18. Can integrate societal responsibilities and ethical considerations in the development of planned health promotion activities.
- 19. Have a positive and critical attitude towards integration of interventions at different ecological levels.

#### Communication

- 20. Are able to communicate adequately with colleagues (epidemiologists, medical doctors, communication scientists, etcetera) in a multidisciplinary project group.
- 21. Can adequately relay theory, empirical findings, ideas, motives and considerations to colleagues, specialists and lay people.

#### Learning skills

- 22. Are able to find, describe and integrate new developments in the field of health promotion and health education, and do so in an efficient and critical way.
- 23. Can reflect on the quality of own and other's projects and professional development.

#### Health Policy, Economics and Management

#### The graduates:

#### Knowledge and understanding

1. Have a wide and multidisciplinary knowledge of structures, processes and outcomes at the macro, meso and micro level in health care.

#### Applying knowledge and understanding

- 2. Are able to apply the gained knowledge and insights for the empirical analysis of structures, processes and outcomes at the macro, meso and micro level in health care.
- 3. Are able to apply the gained knowledge and insights for the development of well-designed solutions and plans to resolve policy and management problems in health care. The strengths and weaknesses of these solutions are assessed from different perspectives.

#### Making judgements

- 4. Have developed a scientific attitude.
- 5. Have been trained in asking for theory-based explanations and solutions that are critically considered.

#### Communication

6. Are able to communicate effectively by doing presentations and writing papers on real-life cases in health care.

#### Learning skills

- 7. Are trained to work in a collaborative setting on real-life cases in health care.
- 8. Are trained to apply techniques for statistical analyses and to interpret the results of the application of such techniques.

#### Health Services Innovation: final qualifications

#### The graduates have:

#### Knowledge and understanding

- 1. knowledge of models of Public Health, including the determinants of health and differences in health
- 2. knowledge of models of Public Health organisations
- 3. knowledge of models of Public Health innovations by implementing interventions
- 4. knowledge of models of innovation and implementation of Public Health organisations
- 5. knowledge of health theories and understanding of their differences
- 6. knowledge of developments and development processes
- 7. insight in development principles and mechanisms
- 8. understanding of the driving forces of development, including strategies of implementation of innovation
- 9. knowledge of the determinants of health
- 10. insight in the principles of the learning organisation

#### Applying knowledge and understanding

11. have competence to apply the acquired knowledge on developments in Public Health

- 12. have experience with analysis of the problems (diagnosis), picturing the desired new situation (design) and developing methodologies to introduce innovations (implementation)
- 13. have competence to link scientific and practical knowledge to other theories and problems being discussed in related fields of Public Health
- 14. have competence to transfer and to generalize (research) results
- 15. have competence to find research outcomes of Public Health research, analyse it critically and to use it in an efficient way
- 16. can recognize models of good practice in Public Health
- 17. can relate evidence based, theory based and models of good practice to the field of Public Health innovations
- 18. are able to initiate, coordinate, direct and supervise innovations in Public Health systems
- 19. can conduct research and implement its results

#### Making judgements

- 20. a critical attitude towards scientific literature on Public Health
- 21. a preference for and skills of academic thinking and reasoning ability to search for optimal solutions in complex and difficult situations requiring innovations

#### Communication

- 22. have competence to clearly explain complex issues regarding Public Health and development processes
- 23. are able to communicate and cooperate with colleagues from other disciplines in a multidisciplinary project group
- 24. are able to relay theory, empirical findings, ideas, motives, and considerations to colleagues, specialists and lay people
- 25. have competence to present the results of research according to scientific standards (written and orally)

#### Learning skills

- 26. have acquired attitudes and skills required for collaboration with professionals in Public Health and representatives of other relevant disciplines
- 27. developed competences to take responsibility for their own quality control and for their further professional development
- 28. can reflect upon their own professional behaviour in terms of the use of scientific knowledge, the attention paid to the perspective of the different stakeholders, and the consequences of their behaviour.

#### Work and Health

#### The graduates:

#### Knowledge and understanding

Have profound knowledge and understanding of:

- 1. personnel management,
- 2. human resources management,
- 3. disability management,
- 4. quality of workplace,
- 5. sociotechnical and ergonomic theory,
- 6. career theories,

- 7. different approaches to changing human behaviour,
- 8. methods for vocational rehabilitation,
- 9. different types of welfare states,
- 10. job stress theories (such as the Michigan stress model, the JDCS model and the JCM model),
- 11. Lazarus' transactional theory of stress and coping,
- 12. intervention mapping,
- 13. social constructivism,
- 14. organisational change theories,
- 15. transformational leadership theory.
- 16. the methodological concepts of factor analysis
- 17. how to model and analyse data by means of factor analysis
- 18. the methodological concepts multilevel/longitudinal data
- 19. how to model and analyse data by means of mixed-effects regression models

#### Applying knowledge and understanding

- 20. Are able to make an adequate analysis of the relation between work, health and sickness and place this relation in a wider organisational and social context using the knowledge mentioned under 'knowledge and understanding.
- 21. Are able to analyse and offer solutions for management issues in the field of Work and Health, in particular personnel and absenteeism.
- 22. Are able to map out problems related to the workplace, job contents and work organisation in a systematic manner, and to find effective solutions for the specific problems.
- 23. Are able to assess existing methods for the support of (absent, dropped-out) employees and develop new methods independently.
- 24. Are able to analyse bottlenecks in the cooperation of individuals and parties on the basis of theoretical principles.
- 25. Are able to understand and interpret complex problems relating to the prevention of work-related risks, absenteeism and reintegration, conduct research about them in an academically sound manner.
- 26. Are able to find solutions to the relevant complex problems and give advice on the implementation of the solutions.
- 27. Are able to develop strategies for large-scale changes in society as well as organisations within society, and apply them to actual problems.
- 28. Are able to analyse health problems in a number of different settings in a systematic and methodical manner as part of a multidisciplinary team, develop an intervention and evaluate this.
- 29. Are able to apply SPSS for the analysis of data with factor analysis

#### Making judgements

- 30. Have developed a critical and academic attitude to the subject of work and health and to academic and non-academic literature on the subject.
- 31. Know when and when not to use factor analysis to analyse specific data sets.
- 32. Know when and when not to use mixed effects regression models to analyse specific data sets

#### Communication

33. Are able to present the results of research according to scientific standards (written and orally)

- 34. Are able to communicate/cooperate adequately with other disciplines and actors in the field
- 35. Are able to present the results of their analyses to a non-technical audience
- 36. Are able to communicate with experts to clarify their research problem and know how to perform a factor analysis and/or a mixed-effects regression analysis

#### Learning skills

- 37. Are able to take responsibility for their own quality control and further professionalization.
- 38. Are able to reflect upon their own professional behaviour in terms of the use of scientific knowledge, the attention paid to the perspective of the different stakeholders, the consequences of their behaviour.
- 39. Are able to read and understand papers in their research field dealing with the application of factor analysis and analysis of multilevel data
- 40. Are able to read and understand non-technical learning text books about factor analysis and mixed-effects regression models.

# Appendix D: Curricula

#### Collective and shared units 2009/2010

	EPID	HPEM	HEP	HSI	W&H
Preparation for Research and Thesis		X	X	X	X
Factor Analysis and Analysis of Multilevel Data		X	X	X	X
Worksite Health Promotion			X		X
Organisational Change and Transformation		X	X		X
Quality and Professionalism		X		X	
Patient Logistics and Operational Management		X		X	
Financial Management		X		X	

The independent position of the Specialization Epidemiology prequires at least one year of formal training in various aspects of epidemiology: about half a year (30 ECTS) of courses in theoretical and applied epidemiology (including a list of compulsory topics), and another half year (30 ECTS) of active participation in epidemiological research. Therefore, the faculty decided to extend the internship (master's thesis research) period for Epidemiology master's students was extended from 12 to 16 weeks (24 ECTS). The collective unit Factor Analysis and Analysis of Multilevel Data This are not included in the Epidemiology specialization. Furthermore, in the Epidemiology specialization, Preparation for the Thesis Research Project is replaced by Writing a Research Protocol

#### Specialization Epidemiology

		Weeks
Intervention research (6 EC)	Health measurement (3 EC)	Q
intervention research (6 EC)	Systematic literature review (3 EC)	0
Observational research (6 EC)	Applied epidemiology and genetic epidemiology (6 EC)	8
Advanced statistical analysis	Writing a research protocol (6 EC)	8
Research and Thesis (24 EC)		16

The part-time programme comprises an exact equivalent of the fulltime programme Part-time students will subsequently participate in the following units:

- Intervention research
- Observational research
- Advanced statistical analysis techniques
- Applied epidemiology and genetic epidemiology
- Writing a research protocol
- Health measurement
- Systematic literature review
- Research and Thesis

#### Specialization Health Education and Promotion

			Weeks
Cancer Prevention (5 EC)	Best Practices in Health Promotion	Factor analysis and	8
Intervention Mapping: Prevention of CVD (6 EC)	Worksite Health Promotion (5 EC)	analysis of multilevel data (6 EC)	8

Prevention of Mental Health Problems (5 EC)	Organisational Change and Transformation (5 EC)	8
Preparation for the Thesis Research	Project (5 EC)	4
Research and Thesis (18 EC)		12

The unit 'Worksite Health Promotion' is shared with the specialization Work and Health. The unit on 'Organisational change and transformation' is offered jointly with the specializations Health Policy, Economics and Management and Work and Health.

The part-time programme comprises an exact equivalent of the fulltime programme Part-time students will subsequently participate in the following units:

- Cancer Prevention
- Intervention Mapping: Prevention of CVD
- Prevention of Mental Health Problems
- Factor analysis and analysis of multilevel data
- Preparation for the Thesis Research Project
- Best Practices in Health Promotion
- Worksite Health Promotion
- Organisational Change and Transformation
- Research and Thesis

#### Specialization Health Policy, Economics and Management

			Weeks			
Health economics (5 EC)	Quality and professionalism (5		8			
Health policy, law and ethics (5 EC)	Patient logistics and operational management (6 EC)	Factor analysis and analysis of multilevel	8			
Organisational change and transformation (5 EC)	Financial management (5 EC)	data (6 EC)	8			
Preparation for the Thesis Research Project (5 EC)						
Research and Thesis (18 EC)						

The units 'Quality of care and professionalism', 'Patient logistics and operational management' and 'Financial management' are shared units together with the specialization Health Services Innovation. The unit on 'Organisational change and transformation' is offered jointly with the specializations Health Education and Promotion and Work and Health.

The part-time programme comprises an exact equivalent of the fulltime programme Part-time students will subsequently participate in the following units:

- Health economics
- Health policy, law and ethics
- Organisational change and transformation
- Factor analysis and analysis of multilevel data
- Preparation for the Thesis Research Project
- Quality and professionalism
- Patient logistics and operational management

- Financial management
- Research and Thesis

#### **Specialization Health Services Innovation**

			Weeks			
Innovation management in health care (5 EC)	Quality and professionalism (5 EC)		8			
Implementation and evaluation of health care innovations (5 EC)	Patient logistics and operational management (6 EC)	Factor analysis and analysis of multilevel data (6 EC)	8			
Normative and legal aspects of innovation (5 EC)	Financial management (5 EC)	data (0 EC)	8			
Preparation for the Thesis Research Project (5 EC)						
R	esearch and Thesis (18 EC)		12			

The units 'Quality of care and professionalism', 'Patient logistics and operational management' and 'Financial management' are shared units together with the specialization Health Policy, Economics and Management.

The part-time programme comprises an exact equivalent of the fulltime programme. Part-time students will subsequently participate in the following units:

- Innovation management in health care
- Implementation and evaluation of health care innovations
- Normative and legal aspects of innovation
- Factor analysis and analysis of multilevel data
- Preparation for the Thesis Research Project
- Quality and professionalism
- Patient logistics and operational management
- Financial management
- Research and Thesis

#### Specialization Work and Health

			Weeks			
Management of personnel, absenteeism and reintegration (5 EC)	Quality of work and workplace (5 EC)	Factor analysis	8			
Individual support in vocational rehabilitation (6 EC)	Worksite nealth promotion (5 EC) multilevel data					
Cooperation in (occupational) health care (5 EC)	Organisational change and transformation (5 EC)					
Preparation for the Thesis Research Project						
	Research and Thesis		12			

The unit 'Worksite Health Promotion' is shared with the specialization Health Education and Promotion. The unit on 'Organisational change and transformation' is offered jointly with the specializations Health Policy, Economics and Management and Health Education and Promotion.

The part-time programme comprises an exact equivalent of the fulltime programme Part-time students will subsequently participate in the following units:

- Management of human resources, absenteeism and reintegration
- Individual support in vocational rehabilitation
- Cooperation in (occupational) health care
- Factor analysis and analysis of multilevel data
- Preparation for the Thesis Research Project
- Quality of work and workplace
- Worksite health promotion
- Organisational change and transformation
- Research and Thesis

# Appendix E: Learning outcomes linked tot the educational units

# Epidemiology

			Educatio	nal units spec	cialization Ep	idemiology		
Final qualifications	Intervention research	Health measurement	Systematic literature review	Observational research	Applied & genetic epidemiology	Advanced statistical analysis techniques	Writing a research proposal	Thesis
1	X			X	X			
2	X			X				
3	X							
4		X						
5			X					
6	X	X	X	X		X	X	X
7					X			
8	X	X	X	X	X	X		X
9					X			
10							X	X
11								X
12 13 14 15 16	X	X	X	X	X	X	X	
13	X		X	X				
14		X						
15			X					
16						X	X	X
17	X						X	
17 18 19								X
19								X
20	X						X	
21	X		X	X	X			
22							X	
23	X	X	X	X	X	X	X	X
24	X		X	X			X	X
25	X		X	X			X	X
26	X		X	X			X	X
27	X	X	X	X	X	X	X	X

### Health Education and Health Promotion

		Educational units specialization Health Education and Health Promotion								
Final qualifications	Cancer prevention	Best practices in HEP	Intervention mapping	Worksite health promotion	Prevention of mental health promotion	Organisational change and transformation	Factor analysis	Preparation research and thesis	Thesis	
1	X	X	X	X	X	X		X	X	
2		X	X	X						
3	X	X	X		X			X	X	
4										

5	X		X						
6		X	X						
7			X		X		X	X	
8	X						X	X	X
9		X			X				X
10	X		X		X			X	X
11	X		X	X	X				
12		X	X			X			
13		X							
14				X					
15	X	X	X		X				
16	X	X	X		X			X	X
17	X		X						
18		X							
19	X		X						
20				X		X			
21				X	_				X
22	X		X		X				X
23			X					X	X

# Health Policy, Economics and Management

		Educational units specialization Health Policy, Economics and Management									
Final qualifications	Change and transformation	Quality and professionalism	Health economics	Health, policy law and ethics	Logistics and operation management	Financial management	Factor analysis	Preparation research and thesis	Thesis		
1	X	X	X	X	X	X			X		
2	X	X	X	X	X	X	X	X	X		
3	X	X		X	X	X					
4	X	X	X	X	X	X	X		X		
5	X		X	X		X			X		
6	X	X	X	X	X	X	X	X	X		
7	X	X	X	X	X	X		X	X		
8			X		X	X	X	X	X		

### **Health Service Innovation**

		I	Educational	units specia	ılization He	alth Service	s Innovatio	n	
Final qualifications	Innovation management	Quality and professionalism	Implementation and evaluation	Logistics and operations management	Normative and social aspects	Financial management	Factor analysis	Preparation for thesis and research	Thesis
1									X
2		X		X		X			
3	X	X	X						
4	X	X			X				
5									X

6		**	**	**					
		X	X	X					
7	X	X		X					
8	X		X		X	X			
9									
10		X	X						
11	X	X		X	X				X
12	X	X	X	X		X			
13			X			X			X
14	X	X	X						X
15	X		X				X	X	X
16		X	X						
17	X	X	X						X
18	X				X				
19			X				X	X	X
20	X	X	X		X	X	X		X
21	X	X		X	X	X			X
22	X	X	X	X		X			X
23	X	X							
24	X	X			X	X		X	X
25	X	X	X		X			X	X
26	X	X							X
27	X	X							X
28	X	X	X				X		X

### Work and Health

	Educational units specialization Work and Health											
Final qualifications	Management of personnel, absenteeism	Quality of work and workplace	Individual support in vocational rehabilitation	Worksite health promotion	Cooperation in health care	Organisational change and transformation	Preparation for research and thesis	Factor analysis	Thesis			
1	X											
2	X											
3	X											
4		X										
5		X										
6			X									
7		X	X	X		X						
8			X									
9					X	X						
10		X		X								
11		X		X								
12				X								
13					X							
14						X						
15						X						
16								X	X			
17								X	X			
18								X	X			
19								X	X			
20	X	X		X	X		X		X			
21	X			X			X		X			
22		X							X			
23	X		X									

24			X		X	X			
25	X			X	X		X		X
26	X	X	X	X	X	X	X		X
27			X		X	X			
28	X			X			X	X	X
29							X	X	X
30	X	X	X	X	X		X		
31								X	
32								X	
33		X	X	X	X		X		X
34	X		X	X	X				
35							X		
36								X	X
37		X		X			X		X
38	X	X	X	X	X	X	X		
39							X	X	X
40								X	

# Appendix F: Quantitative data

Appendix F provides an overview of:

- 1. The intake of students per specialization (Table 1);
- 2. The absolute intake of students in the MPH programme and the inflow per region (Table 2);
- 3. Average hours of self-study per week reported by students per specialization evaluated at the end of a unit by way of the IWIO unit questionnaires, in which students are asked to indicate the number of hours dedicated to self-study during that unit (Table 3);
- 4. Percentage of education by departments within the MPH programme in 2008/09 (Table 4);
- 5. Student–staff ratio MPH programme per academic year. The student–staff ratio is calculated by dividing the number of fte's per academic year (Table 5);
- 6. The number of months devoted to writing the master's thesis on average per specialization evaluated at the end of the programme by way of the master's thesis evaluation form (Table 6);
- 7. Key figures on Internship abroad, number and percentage of students and average length of the internship(Table 7);
- 8. Completion rates for full-time MPH students (Table 8.a) and part-time MPH students (Table 8.b) defined as the percentage of students who have obtained their degree after one, two or more than three years of study, derived from the former Faculty of Health Sciences study guidance system and the UM-wide electronic SAP/SLM information system;
- 9. Modes of assessment within specializations of the MPH programme (Tabel 9);
- 10. An overview of the diverse positions obtained by MPH graduates on the labour market. The data are drawn from the UM alumni database and encompass the cohorts of 2004 to 2007. There are a total of 400 MPH alumni; the response rate is 34% (n=131) (Table 10).

#### 1. Intake of student per specialization

	Full-time/ Partime/ Totaal		2004/05		2005/06		2006/07		2007/08		2008/09			2009/10
		N	%	N	%	N	%	N	%	N	%	N	%	
EPID	ft	4	44	5	33	13	59	17	71	9	50	22	79	
	pt	5	56	10	67	9	41	7	29	9	50	6	21	
	Т	9	100	15	100	22	100	24	100	18	100	28	100	
HEP	ft	6	55	19	73	44	85	39	83	31	82	39	89	
	pt	5	45	7	27	8	15	8	17	7	18	5	11	
	Т	11	100	24	100	52	100	47	100	38	100	44	100	
HPEM	ft	9	50	29	89	48	87	54	84	42	88	52	90	
	pt	9	50	4	11	7	13	10	16	6	12	6	10	
	Т	18	100	35	100	55	100	64	100	48	100	58	100	
HSI	ft	4	44	8	73	15	83	18	72	15	71	23	96	
	pt	5	56	3	27	3	17	7	28	6	29	1	4	
	Т	9	100	11	100	18	100	25	100	21	100	24	100	
W&H	ft	8	73	11	65	16	80	10	83	10	77	14	100	
	pt	3	27	6	35	4	20	2	17	3	23	0	0	
	T	11	100	17	100	20	100	12	100	13	100	14	100	
MPH	ft	31	53	72	71	136	81	138	80	107	78	142	84	
	pt	27	47	30	29	31	19	34	20	31	22	28	16	
	Т	58	100	102	100	167	100	172	100	138	100	170	100	

Table 1: Intake of students per specialization per mode of study, 2004/05 to 2009/10.

#### 2. The absolute intake of students and the inflow per region

		2004/	05	2005/0	06	2006/	07	2007/	08	2008/	09	2009/10	)
		N	%	N	%	N	%	N	%	N	%	N	%
EPID	NL	6	67	12	80	14	64	15	63	9	50	16	57
	EU/EER	3	33	3	20	7	32	4	17	6	33	8	29
	non	0	0	0	0	1	4	5	20	3	17	4	14
	Total	9	100	15	100	22	100	24	100	18	100	28	100
HEP	NL	10	91	24	100	38	73	37	78	28	74	33	75
	EU/EER	1	9	0	0	10	19	5	11	4	10	10	23
	non	0	0	0	0	4	8	5	11	6	16	1	2
	Total	11	100	24	100	52	100	47	100	38	100	44	100
HPEM	NL	13	72	28	80	37	68	42	66	29	60	43	74
	EU/EER	4	22	6	17	14	25	11	17	16	34	14	24
	non	1	6	1	3	4	7	11	17	3	6	1	2
	Total	18	100	35	100	55	100	64	100	48	100	58	100
HSI	NL	9	100	11	100	18	100	21	84	16	76	22	92
	EU/EER	0	0	0	0	0	0	3	12	3	14	1	4
	non	0	0	0	0	0	0	1	4	2	10	1	4
	Total	9	100	11	100	18	100	25	100	21	100	24	100
W&H	NL	9	82	17	100	17	85	10	83	8	61	9	64
	EU/EER	0	0	0	0	1	5	2	17	4	31	4	29
	non	2	18	0	0	2	10	0	0	1	8	1	7
	Total	11	100	17	100	20	100	12	100	13	100	14	100
MPH	NL	47	81	92	90	121	72	127	74	90	65	125	73
	EU	8	14	9	9	35	21	25	15	33	24	37	22
	Non EU	3	5	1	1	11	7	20	11	15	11	8	5
	Total	58	100	102	100	167	100	172	100	138	100	170	100

Table 2: Intake of students per specialization within the MPH programme per region, 2004/05 to 2009/10.

#### 3. Average hours of self-study per week

	2005/06	2006/07	2007/08	2008/09	2009/10
EPID	28.3	20.4	27.2	22.1	25.8
HEP	33.8	33.8	34.8	27.2	28.6
HPEM	34.1	32.6	35.6	28.9	29.2
HSI	30.1	35.6	35.8	28.3	28.1
W&H	35.8	35.1	28.3	27.3	25.4
Average	32.4	31.5	32.3	26.8	27.4

Table 3: Average hours of self-study per week reported by students per specialization, 2005/06 to 2009/10.

The total weekly study load for students is calculated by adding the self-study hours to the contact hours per week. These add up to an average of 37 to 41 hours per week, which is considered to be very high. Students, however, have not been expressing complaints about the study load, so it is assumed that the number of hours devoted to self-study per unit is biased. One cause for the overestimation might be the parallel structuring of educational units: students might count these units as self-study hours.

#### 4. Percentage of education by departments

Intitution	Department	%
Maastricht UMC+/FHML	Health Organisation, Policy and Economics	28%
	Health Promotion	18%
	Epidemiology	12%
	Social Medicine	11%
	Health Care and Nursing Science	11%
	Health Ethics and Society	4%

	Other departments	10%
Non Maastricht UMC+/FHML	Non Maastricht UMC+/FHML staff	6%
	Total	100%

Table 4: Percentage of education by departments within the MPH programme in 2008/09

#### 5. Student-staff ratio

	2004/05	2005/06	2006/07	2007/08	2008/09	2009/10
Total fte's	5.8	8.3	12.8	12.6	10.5	11.3
Number of students	58	102	167	172	138	170
Student-staff ratio	10.0	12.3	13.0	13.7	13.1	15.0

Table 5: Student-staff ratio MPH programme per academic year

#### 6. Number of months devoted to writing the master's thesis

	2006/07	2007/08	2008/09	Weighted nominal
EPID	5.4 (2)	6.0 (10)	4.8 (29)	4.8
HEP	4.6 (20)	5.6 (27)	5.1 (65)	3.6
HPEM	4.5 (20)	6.3 (24)	5.6 (69)	3.6
HSI	6.9 (11)	5.2 (11)	5.2 (32)	3.6
W&H	6.0 (16)	6.6 (9)	6.5 (22)	3.6

Table 6: Number of months devoted to writing the master's thesis on average per specialization.

Of the 2008/09 and 2009/10 cohorts, half of the graduating students (53%) indicate that the writing of their thesis took about as long as they had expected; one third (36%) indicted that it took longer than expected, and a minority (11%) said the period was shorter than expected. The nominal length of writing the thesis is 4 months (8 months for part-time students) within the Epidemiology specialization and 3 months (6 months for part-time students) for the other four specializations. The weighted nominal average duration of writing the master's thesis, as presented in the right column of Table 2.8, is added to compensate for the percentage of full-time (approximately 80%) and part-time students (approximately 20%) which are included in the data. The number of months that students dedicate to the thesis exceeds the weighted nominal number of months.

#### 7. Key figures on Internship abroad

	2005/06	2006/07	2007/08	2008/09	2009/10
Number of students	14	10	12	16	11
Percentage of FT students	19.4%	7.4%	8.7%	15.0%	7.7%
Average length of stay in months	3.7	3.4	3.6	3.8	3.4

Table 7: Internship abroad, number and percentage of students and average length of the internship, 2005/06 to 2009/10.

#### 8. Completion rates for full-time MPH students

Table 2.8: Completion rates for full-time MPH students, 2004/05 to 2009/10.

Completion rate full-time students

	Intake	Drop outs	Survi val		ter 1 ear	Afte ye:	er 2 ars	≥ 3 years		3 years Pending		Drop- out > 1year	
Cohort	N	N	N	N	%	N	%		%	N	%	N	%
2004/05	31	1	30	9	30%	26	87%	30	100	0	0%	0	0%

2005/06	72	1	71	17 24%	63	89%	69	97%	0	0%	2	3%
2006/07	136	7	129	72 56%	114	88%	125	97%	2	2%	2	2%
2007/08	138	7	131	67 51%	114	87%	126	96%	3	2%	2	2%
2008/09	107	4	103	67 65%	92	89%	98	95%	2	2%	3	3%
2009/10	142	16	126	82 65%	120	95%	•	•	6	5%	0	0%

Table 8.a: Completion rates for full-time MPH students, 2004/05 to 2009/10.

				Comp	oletion :	rate pa	ırt-time st	udents			
	Intake	Dropouts	Survival	After	2	After	3 years	≥ 4 yea	rs	Pending	5
Cohort	N	N	N	N	%	N	%	N	%	N	%
2004/05	27	7	20	11	55%	16	80%	20	100%	0	0%
2005/06	30	9	21	9	45%	18	90%	21	100%	0	0%
2006/07	31	3	28	11	39%	24	86%	25	89%	3	11%
2007/08	34	8	26	13	50%	21	81%			5	19%
2008/09	31	1	30	4	13%					26	87%
2009/10	28	0	28							28	100%

Table 8.b: Completion rates for part-time MPH students, 2004/05 to 2009/10.

# 9. Modes of assessment within specializations of the MPH programme

	EPID	HEP	HPEM	HSI	W&H
1	Intervention research	Cancer Prevention	Health Economics	Innovation Management in Health Care	Management of personnel, absenteeism and reintegration
	Take-home exam: writing discussion section of article (60%) Three practical assignments (40%)	Multiple choice exam (67%) Group paper (33%) Skills training report (p/f)	Written exam (50%) Individual paper and presentation (50%)	Written exam (70%) Group paper and presentation (15%) Skills training report (15%)	Written exam (70%) Group paper (30%)
2	a. Health measurement	Best Practices in Health Promotion	Quality and Professionalism	Quality and Professionalism	Quality of Work and Workplace
	Written exam b. Systematic literature review	Written exam Individual paper Skills training report (p/f)	Written exam (20%) Individual paper (40%)	Written exam (20%) Individual paper (40%)	Written exam Three group
	Mini-meta-analysis (written abstract + oral presentation)	1, , (1, )	Group paper (30%) Group presentation (10%)	Group report (30%) Group presentation (10%)	papers
3	Observational research	Intervention mapping	Health Policy, Law and Ethics	Implementation and Evaluation of Health Care Innovations	Individual support in vocational rehabilitation
	Written exam	Written exam (50%) Group paper (50%)	Written exam (70%) Group paper (20%) Presentation (10%)	Written exam (80%) Individual paper and presentation (20%)	Written exam Individual paper
4	Applied epidemiology & genetic epidemiology	Worksite Health Promotion	Patient Logistics and Operational Management	Patient Logistics and Operational Management	Worksite Health Promotion
	Written exam	Written exam (60%)	Written exam (55%)	Written exam (55%)	Written exam (60%)

		Group report (40%)	Group paper (45%)	Group paper (45%)	Group paper (40%)	
5	Advanced statistical analysis techniques	Prevention of Mental Health Problems	Organisational Change and Transformation	Normative and Legal Aspects of Innovation	Co-operation in (occupational) health care	
	Written exam	Written exam (50%) Individual paper (50%)	Written exam (50%) Skills training report (20%) Group paper (30%)	Written exam (67%) Skills training report (33%)	Written exam (50%) Group paper (50%)	
6	Writing a research protocol	Organisational Change and Transformation	Financial Management	Financial Management	Organisational change and transformation	
	Research protocol (50%) Poster (25%) Oral presentation (25%)	Written exam (50%) Skills training report (20%) Group report (30%)	Written exam (80%) Skills training report (20%)	Written exam (80%) Skills training report (20%)	Written exam (50%) Skills training report (20%) Group report (30%)	
		F		ysis of multilevel data		
T 1	1.034.1.6	Multiple choice exam				

Table 9: Modes of assessment within specializations of the MPH programme

### 10. Positions held by graduates on the labour market

Position:	N	0/0
Policy advisor	25	19.1%
PhD student	20	15.3%
Researcher	17	13.0%
Project officer	14	10.7%
Consultant	14	10.7%
Teacher	12	9.2%
Health promotion officer	6	4.6%
Staff officer	5	3.8%
Advisor occupational health	5	3.8%
Information manager	4	3.1%
Quality officer	3	2.2%
Manager	2	1.5%
Trainee	2	1.5%
Intermediary health care	2	1.5%
Total:	131	100.0%

Table 10: Position held by MPH graduates on the labour market.

### Appendix G: Curricula Vitae of the committee members

**Prof. dr. P.A.H.** (Peter) van Lieshout studied Psychology and Philosophy at Utrecht University and in Paris, and obtained his doctorate in Social Philosophy in 1989 from Groningen University. Since 1992 he has been a part-time Professor of Theory of Care at Utrecht University. Among his previous posts he has been a researcher at the Netherlands Centre for Mental Health (now the Trimbos Instituut) and Director of the Netherlands Institute for Care and Welfare. He later worked at the Dutch Ministry of Health, Welfare and Sport as Director-General for Health Care, and at the Ministry of Social Affairs and Employment as Project Director-General for Social Security and Care. Since 2004 he has been a member of the Scientific Council for Government Policy.

**Prof. dr. J.J. (Johan) Polder** is professor in Health Economics at Tilburg University. His research focuses on the impact of healthy ageing on health care expenditures and cost-effectiveness of prevention. He is also employed at the National Institute of Public Health and the Environment, and member of some councils, committees and editorial boards in the field of (public) health and health economics.

Prof. dr. K. (Koos) van der Velden is professor Public health and deputy Head department of primary and community care at the Radboud University Nijmegen Medical Centre. His main research topics are infectious diseases control and health systems development. He received his medical training at Utrecht University and further specialized as tropical doctor, family physician and as community medicine specialist in London. His PhD thesis 'General practice at work' was defended at Erasmus University Rotterdam. He started his career as Medical officer of Health at Kola Ndoto Hospital in Shinyanga Tanzania, where he combined work in the hospital with the management of large primary health care programmes. This work was followed by a function as programme leader Family Medicine at the Netherlands Institute of Health Services Research (NIVEL) during which he designed and co-ordinated the First Dutch National Survey of General Practice. During that period he also managed many health sector reform programmes in various EU and former CEE countries. Later he was director of the Netherlands School of Public Health, a medium sized national training and consultancy body in Utrecht. He is chairman of the European Centre for Disease Prevention and Control funded European Influenza Surveillance Scheme (EISS). In his current job he manages an unit with 25 staff and an annual turnover of almost Euro 2 Million. He is engaged as chairman / member of the board of various international health organisations. He is (co-)author of over 200 peer reviewed publications and several books.

Prof. dr. L (Lea) Maes is master in social sciences and doctor in the medical sciences (Public Health). She is full professor in the Department of Public Health, Faculty of Medical and Health Sciences, University of Ghent. She is coordinating the master of health promotion of the Ghent University and leading the research group on health promotion. Her research focuses on the health behaviour of young people and on development and evaluation of health promotion interventions. Her research group participates in several ongoing European projects (HOPE project, HBSC project, IDEFICS project, ENERGY project, GRADIENT project), national (Steunpunt Welzijn, gezondheid en gezin) and local research projects (social capital in a Ghent neighbourhood). The research group published articles on the influence of proximal (social class, education, social networking) and distal (welfare indicators, policy) social factors on the eating habits and tobacco use of young people. Also several evaluation studies of interventions has been published. She is a member of several advisory committees (international, national and local).

#### Dr. M. (Marinus) Verhagen

Marinus Verhagen studied Economics at Tilburg University. He wrote his dissertation "Institutional Change and Economic Dynamics" at the same university. Since his dissertation he is working as an economist in Schools of Social and Behavioural Sciences. He worked as assistant professor in Social and Institutional Economics at Utrecht University. Since 2000 he is lecturer in Human Resource Studies at Tilburg University. Currently he is the head of education for the bachelor's and pre-master's programmes in Human Resource Studies. He teaches courses in Economics, Human Resource Metrics & - Valuation and Strategic HRM. He is specialized in the development and organisation of curricula and the management of educational programmes.

Ms. C. (Carlijn) Wentink Bsc (1986) is a master student of the master's programme Public Health and Society at Wageningen University. According to plan, she will obtain her master's degree in March 2012. Her interests lie in lifestyle, health protective behaviour and sports-and exercise behaviour. Before and during her studies she travelled and worked in England, India, Australia, New Zealand and Costa Rica (internship as part of the master's programme Public Health and Society). Besides studying Carlijn has worked for the department of 'Promotion and Recruitment' of Wageningen University as a student-teacher, and for the Dutch Institute of Sports and Exercise (NISB) as a secretary.

# Appendix H: Programme of the site visit at Maastricht University

Thursday Sept	tember 8	
10:15 - 10:30	Arrival of commission and welcome at Porter's desk UNS40	Prof. dr. Rob de Bie – Director of Education Health, Institute for Education FHML Drs. Tom Kuiper – Policy Advisor, Institute for Education FHML
10:30 - 12:30	Meeting commission (behind	
12:30 - 13:00	Lunch	
13:00 - 14:00	Meeting with representatives Board MUMC+ and Institute of Education at FHML:	<ol> <li>Prof. dr. Rob de Bie – Director of Education Health, Institute for Education FHML</li> <li>Drs. Tom Kuiper – Policy Advisor, Institute for Education FHML</li> <li>Prof. dr. Albert Scherpbier – Dean, Member Executive Board MUMC<sup>+</sup></li> <li>Dr. Ineke Wolfhagen – Deputy Director, Institute for Education FHML (responsible for quality assurance FHML)</li> </ol>
14:00 - 15:00	Meeting with MPH students	Students EPID:  1. Jos Frencken  2. Casper den Heijer  Students HEP:  3. Doris Gevers  Students HPIM:  4. Inge van der Putten  Students W&H:  5. Max Müller  6. Remko de Vries
15:00 - 15:15	Break	
15:15 - 16:15 16:15 - 16:45	Meeting with staff members MPH  Break/Consultation hour	<ol> <li>Dr. Martien van Dongen – Coordinator specialization         Epidemiology</li> <li>Dr. Inge Houkes – Coordinator specialization Work and         Health</li> <li>Prof. dr. Ruud Kempen – Coordinator specialization         Health Services Innovation</li> <li>Prof. dr. Hans Maarse – Dept. Health Organisation, Policy         and Economics</li> <li>Dr. Jascha de Nooijer – Dept. Health Education and         Promotion</li> <li>Dr. Arno van Raak – Coordinator specialization Healthcare         Policy, Innovation and Management</li> <li>Dr. Angelique de Rijk – Dept. Social Medicine</li> <li>Prof. dr. Nanne de Vries – Coordinator specialization         Health Education and Promotion</li> </ol>
16:15 – 16:45 16:45 - 17:30	Break/Consultation hour Meeting with MPH Alumni	Alumni EPID:
		<ol> <li>Jessie Steevens, MSc</li> <li>Nicole Rosenkötter, MSc</li> <li>Alumnus HEP:</li> <li>Lieke Raaijmakers, MSc</li> <li>Alumni HPEM:</li> <li>Sharon Buquet, MSc</li> <li>Tom Peeters, MSc</li> <li>Janneke Zeelenberg, MSc</li> <li>Bram Ramaekers, MSc</li> <li>Juliane Strassel, MSc</li> <li>Dominique Bessems, MSc</li> </ol>
Friday Septem		
09:00 - 09:30	Meeting with student	1. Daniëlle Verbogen (Vice-chair)

	members Educational	2.	Sarah Dörenkamp	
	Committee Health Sciences	3.	Carla Saris	
		4.	Milou Silkens	
09:30 - 10:00	Meeting with staff members	1.	Dr. Aggie Paulus (Vice-chair)	
	Educational Committee	2.	Dr. Hans Savelberg	
	Health Sciences	3.	Dr. Frans Tan	
10:00 - 10:45	Meeting with Board of	1.	Dr. Henk van Berkel – Chair Board of Examiners FHML	
	Examiners and student	2.	Annie van Eijs, LLM – Student Advisor	
	advisor	3.	Dr. Leo Schouten - Vice-chair Board of Examiners FHML	
			(responsible for admission)	
10:45 - 11:15	Break			
11:15 - 12:15	Concluding meeting with	1.	Prof. dr. Rob de Bie – Director of Education Health,	
	management MPH		Institute for Education FHML	
		2.	Prof. dr. Albert Scherpbier - Dean, Member Executive	
			Board MUMC+	
		3.	Prof. dr. Nanne de Vries - Coordinator specialization	
			Health Education and Promotion	
		4.	Dr. Ineke Wolfhagen – Deputy Director, Institute for	
			Education FHML	
12:15 - 12:30	Lunch			
12:30 - 15:00	Commission meeting behind closed doors			
15:00	Oral presentation on first imp	ressi	on by committee	
15:30	Reception			

# Appendix I: Overview of the material studied

- Subject-specific reference framework;
- Learning outcomes of the programme;
- Overview of the curriculum;
- Outline description of the curriculum components [stating learning outcomes, teaching method(s), attainment targets, assessment methods, literature (mandatory/recommended), teacher and credits];
- Teaching and examination regulations
- Allocated staff with names, positions, scope of appointment, level and expertise;
- Overview of the contacts maintained with the professional field;
- Report on the institutional quality assurance assessment;
- Reports on consultations with relevant committees/bodies;
- Test questions with corresponding assessment criteria and requirements (answer models) and a representative selection of actual tests administered (such as presentations, work placements, portfolio assessments) and assessments;
- List of the last 25 final projects or the final projects of the past two years (or portfolios/projects demonstrating the exit levels attained by the students;
- Reference books and other learning materials;
- Summary and analysis of recent evaluation results and relevant management information;
- Documentation regarding teacher and student satisfaction.

The committee studied 15 theses of the full-time mode of study and 3 theses of the part-time mode of study. The theses were selected at random by the project leader and the members of the committee. A total of 15 theses for the entire programme was assessed before the site visit. After selecting the theses, the NVAO guideline for the selection of theses was introduced. To fulfil the requirements of the NVAO regarding the number of theses per variant, the committee selected 2 extra theses from the full-time variant and 1 extra thesis from the part-time variant, and assessed them during the site visit.

154814	567736	335002	322164	287245	145688
466069	589713	344222	384704	287318	220574
558885	123765	348279	508853	484806	567728

During the site visit, the committee studied 12 more theses.

452475	572675	252603	40278	341754	553921
560014	340618	541575	46657	200948	354007

Since the assessment committee has to evaluate programmes leading to a scientific degree (MSc), specific attention was paid to the scientific level of the theses, the requirements, the carefulness of the reviewer's judgement of the programme, and the assessment procedure used. After all, in a thesis the student has to show evidence of the required qualifications to earn a degree.

# J: Recommendations

- 1.1.1: The committee advises translating the expectations and wishes of the professional field and international mission of Maastricht University more structurally and explicitly within the specializations, and giving students more insight into careers after graduation.
- 2.1.4: The committee advises monitoring the achievements and progress of the students with different backgrounds more carefully.
- 3.1.2: Regarding the thesis process, the committee advises creating a uniform structure in which a strictly organised, top-down control is achieved.

# Appendix K: Declarations of independence

### Prof. dr. P.A.H. (Peter) van Lieshout

nuao	Q253A	nuao seletani-elesso scorelistissyvistis	
ONAFHANKELIJKHEIDS- EN GEHEIMHOUDINGSVERKI	LARING		
INDIENEN VOORAFGAAND AAN DE OPLEIDINGSBEOORDELING		VERKLAART HIERBIJ ZODANIGE R AFGELOPEN VIJF JAAR NIET GEHA	ELATIES OF BANDEN MET DE INSTELLING DE AD TE HEBBEN;
ONDERGETEKENDE		VERBAND MET DE BEOORDELING	JDING TE BETRACHTEN VAN AL HETGEEN IN AAN HEMMAAR BEKEND IS GEWORDEN EN ING, DE INSTELLING OF DE NVAO HIER KUNNEN MAKEN.
NAAM: P. van Lieshaut		VERKLAARÝT HIERBIJ OP DE HOOG	TE TE ZIJN VAN DE NVAO GEDRAGSCODE.
PRIVÉ APRES:			
PRIVE APRES: Willem de Pungeerstr. 25 3583 RQ utrecht		PLAATS: Utrecht	DATUM: 23 03 2010
IS ALS DESKUNDIGE / SECRETARIS GEVRAAGD VOOR HET BEOORD OPLEIDING:	JELEN VAN DE	HANDTEKENING:	
AANGEVRAAGD DOOR DE INSTELLING:			
VERYLAART HIERBU GEEN (FAMILIE)RELATIES OF BA BOVENGENOEMDE INSTELLING TE ONDERHOUDEN, ALS PRI ONDERZOEKER / DOCCENT, BEROEFSBECEFENAAR OF ALS ADVISITUATE ONDERHOUSEN OF DE KY DISTRICT ONDERZOEKER / DOCCENT, BEROEFSBECEFENAAR OF ALS ADVISITUATION ONDERHOUSEN DOCUMENTAL ONDERHOUSE OF TEN NEGATIEVE ZOUD BEINVLOEDEN;	IVEPERSOON, EUR, DIE EEN WALITEIT VAN DEN KUNNEN		
NUGO national-informational		<b>S</b> nvao	
NAFHANKELIJKHEIDS- EN GEHEIMHOUDINGSVERKLAR	RING	Angeriano investo scri stratici presidentesi	
DIENEN VOORAFGAAND AAN DE OPLEIDINGSBEOORDELING		VERKLAART HIERBIJ ZODANIGE RELAT AFGELOPEN VIJF JAAR NIET GEHAD TE	IES OF BANDEN MET DE INSTELLING DE HEBBEN;
NDERGETEKENDE  AAAM: Johan Poletez		VERKLAART STRIKTE GEHEIMHOUDIN VERBAND MET DE BEOORDELING AAN WORDT, VOOR ZOVER DE OPLEIDING, REDELIJKERWIJS AANSPRAAK OP KUN	S TE BETRACHTEN VAN AL HETGEEN IN HEMMHAAR BEKEND IS GEWORDEN EN DE INSTELLING OF DE NVAO HIER INEN MAKEN.

Vermees land 56
3331 TX Wanderborg

IS ALS DESKUNDIGE / SECRETARIS GEVRAAGO VOOR HET BEOORDELEN VAN DE OPLEIDING:

Public Health

AANGEVRAAGO DOOR DE INSTELLING:

Waive 3, text Plants. ht

VERKLARAT HIERBIJ GEEN (FAMILIEJRELATIES OF BANDEN MET BOVENGENDEMDE INSTITLLING TE ONDERHOUDEN. ALS PRIVEPERSOON, ONDERZOEMEN JOOCENT, BEROEPSPBECFEFANAR OF ALS ADVISEUR, DIE EEN VOLSTREKT ONAFHANKELIJKE OORDEELSVORMING OVER DE KWALITEIT VAN DE OPLEIDING TEN POSITIEVE OF TEN NEGATIEVE ZOUDEN KUNNEN BEINVLOEDEN;

VERKLAART HIERBIJ ZODANIGE RELATIES OF BANDEN MET DE INSTELLING DE AFGELOPEN VIJF JAAR NIET GEHAD TE HEBBEN;
VERKLAART STRIKTE GEHEIMHOUDING TE BETRACHTEN VAN AL HETGEEN IN VERBAND MET DE BEOORDELING AAN HEMHAAR BEKEND IS GEWORDEN EN WORDT, VOOR ZOVER DE OPLEIDING, DE INSTELLING OF DE NVAO HIER REDELIJKERWUS AANSPRAAK OP KUNNEN MAKEN.
VERKLAART HIERBIJ OP DE HOOGTE TE ZIJN VAN DE NVAO GEDRAGSCODE.
PLAATS: Wonderbuy DATUM: 15/3/2011
HANDTEKENING:

# Prof. dr. K. (Koos) van der Velden

Nuao which-dena sandarkepoidin	TIVAO
ONAFHANKELIJKHEIDS- EN GEHEIMHOUDINGSVERKLARING INDIENEN VOORAFGAAND AAN DE OPLEIDINGSBEOORDELING	VERKLAART HERBU ZODANGE RELATIES OF BANDEN MET DE INSTELLING DE AFGELOPEN VLF JAAR NIET OEHAD TE HEBBEN.
ONDERGETEKENDE	VERKLAART STRIKTE GEHEMHOUDING TE BETRACHTEN VAN AL HETGEEN IN VERBAND MET DE BEGORDELING AAN HEMMAAR BEKEND IS GEWOODEN EN WORDT, VOOR ZOVER DE OP ELEMON, DE HISTELLING OF DE NIAO HER REDELIKERWUIS AANSPRAAK OP KLINNEN MAKEN.
NAAM. J. van den Velden	VERKLAART HERBIJ OP DE HOOGTE TE ZUN VAN DE NVAO GEDRAGSCODE.
PRIVE ADRES:	PLATS: Bilthoden DATUM: 9 man 12011
Granje Nassaulaan " 3723 )) BILTHOVON	HANGTEKENING:
IS ALS DESKUNDIGE / SE <del>ORETARIO</del> GEVRAAGD VOOR HET BEOORDELEN VAN DE OPLEIDING:	
Lusti track	
AANGEVRAAGD DOOR DE INSTELLING:	
howers feet reaskit / hrc	
VERKLAART HIERBIJ GEEN (FAMILIEJRELATIES OF BANDEN MET BOVENVENDEMDE INSTELLING TE ONDERHOUDEN, ALS PRIVÉPERSOON, ONDERZOERER / TOOCSHT, BERCEPSBECGFERNAN OF ALS ADVISEUR, DIE EEN ONDERZOERER / TOOCSHT, BERCEPSBECGFERNAN	

# Prof. dr. L (Lea) Maes

NVGO	NUGO valente como sonticionegenete
ONAFHANKELIJKHEIDS- EN GEHEIMHOUDINGSVERKLARING INDIENEN VOORAFGAAND AAN DE OPLEIDINGSBEOORDELING	VERKLAART HIERBIJ ZODANIGE RELATIES OF BANDEN MET DE INSTELLING AFGELOPEN VIJF JAAR NIET GEHAD TE HEBBEN,
ONDERGETEKENDE	VERKLAART STRIKTE GEHEIMHOUDING TE BETRACHTEN VAN AL HETGEEN VERBAND MET DE BEOORDELING AAN HEMHAAR BEKEND IS GEWORDEN E WORDT, VOOR ZOVER DE OPLEIDING, DE INSTELLING OF DE NIVAO HIER REDELLIKERWIJS AANSPRAAK OP KUNNEN MAKEN
NAAM: HRES LED	VERKLAART HIERBIJ OP DE HOOGTE TE ZIJN VAN DE NVAO GEDRAGSCODE
PRIVE ADRES: Hulleney 10	PLAATS: Jewit DATUM: 14 July 2011
913- Sel Harkun Lakun Relgu	HANDTEKENING:
IS ALS DESKUNDIGE / SECRETARIS GEVRAAGD VOOR HET BEOORDELEN VAN DE OPLEIDING:	
Master Publi Health	
AANGEVRAAGD DOOR DE INSTELLING:	
Murces kit Meastands	
VERKLAART HIERBIJ GEEN (FAMILIE)RELATIES OF BANDEN MET BOVENGENOEMDE INSTELLING TE ONDERFIOUDEN, ALS PRINÉPERSOON, ONDERZOEKER / DOCENT, BEROEPSBEOEFENAAR OF ALS ADVISEUR, DIE EEN VOLSTREKT ONAPHANKELIKE OORDEELSVORMING OVER DE KWALITEIT VAN DE OPLEIDING TEN POSITIEVE OF TEN NEGATIEVE ZOUDEN KUNNEN BEINVLOEDEN.	

#### Dr. M. (Marinus) Verhagen

NUGO alicido deser sandistinagenale	
ONAFHANKELJIKHEIDS- EN GEHEIMHOUDINGSVERKLARING INDIENEN VOORAFGAAND AAN DE OPLEIDINGSBEOORDELING	
ONDERGETEKENDE	
NAAM: MARINUS VERHAGEN	
PRIVÉ ADRES: HEUVELSTRAAT 141-06	
5038 AD TILBURG	
IS ALS DESKUNDIGE / SECRETARIS GEVRAAGD VOOR HET BEOORDELEN VAN DE OPLEIDING:  PUBLIC HEALTH	
AMGEVRAAGD DOOR DE INSTELLING: UNIVERSITEIT VAN MAASTRICHT	
VERKLAART HIERBIJ GEEN (FAMILIE)RELATIES OF BANDEN MET BOVENCEROEMDE INSTELLING TE ONDERHOLDEN, ALS PRIVÉPERSOON, ONDERZOEKER / OOCENT, BEROPSEGEFENANG OF ALS ADVISEUR, DIE EEN VOLSTREKT ONAFHANKELIJKE OORDELSVORMING OVER DE KWALITEIT VAN DE OPLEIDING TEN POSTIEVE OF TEN NEGATIEVE ZOUDEN KUNNEN	

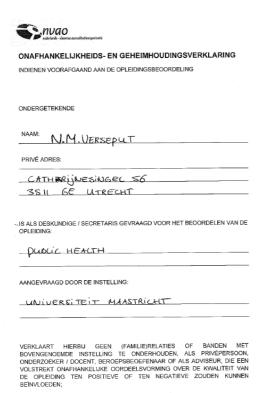


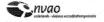
### Ms. C. (Carlijn) Wentink Bsc





#### N.M. Verseput Msc





VERKLAART HIERBIJ ZODANIGE RELATIES OF BANDEN MET DE INSTELLING DE AFGELOPEN VIJF JAAR NIET GEHAD TE HEBBEN;

VERKLAART STRIKTE GEHEIMHOUDING TE BETRACHTEN VAN AL HETGEEN IN VERBAND MET DE BEOORDELING AAN HEM/HAAR BEKEND IS GEWORDEN EN WORDT, VOOR ZOVER DE OPLEIDING, DE INSTELLING OF DE NVAO HIER REDELIJKERWIJS AANSPRAAK OP KUNNEN MAKEN.

VERKLAART HIERBIJ OP DE HOOGTE TE ZIJN VAN DE NVAO GEDRAGSCODE.

PLAATS:

DATUM:

LITRECHT

09-05-2011

HANDTEKENING: Mereput