Working Group 5
Education and Training

To develop and co-ordinate education and support networks for individuals and organisations undertaking or using assessment of health interventions.
To identify needs in the field and assist in the establishment of new provisions.

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HTA Education and Training in Europe

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1 Background

The Centre for Applied Health Services Research and Health Technology Assessment (CAST) at the University of Southern Denmark carried out a survey on HTA education and training in the European Union from May 2000 to May 2001. The study was part of a European Union supported project, the European Collaboration for Health Technology Assessment (ECHTA). Broadly conceived, the ECHTA project aims at stimulating HTA in Europe. The overall project consists of six Working Groups and has been co-ordinated by SBU in Stockholm, Sweden. Working Group 5, on education and training, is co-ordinated by the Centre for Evaluation and Health Technology Assessment (CEHTA) in Copenhagen, Denmark, in co-operation with the National Co-ordinating Centre for Health Technology Assessment in Southampton, United Kingdom. For the specific task of the survey, the University of Southern Denmark has acted as a subcontractor for the Centre for Evaluation and HTA.

The content of the survey builds on a report on HTA in Europe which states that although the need for training in HTA is increasing in the EU, no inventory of training and education opportunities in HTA is available, either nationally or internationally (Banta and Oortwijn, 1998). However, the report continues, it is possible to receive training in HTA in most countries of the European Union. This training is mostly in the different disciplines working in HTA (medicine, epidemiology, economics, etc.) and not in HTA itself. Most countries also have short courses in HTA, but these are provided on an ad-hoc basis and target a postgraduate audience. Likewise, the supply of training in HTA at the undergraduate level is virtually undocumented. For example, according to the report, of all HTA agencies in Europe, only one (CAHTA in Barcelona) is collaborating to develop a university-based Master of Science (MS) programme in HTA.

Beyond the European Union, the lack of an inventory of training and education opportunities in HTA was also recognised by the International Society for Technology Assessment in Health Care (ISTAHC). In late 1999, the ISTAHC Secretariat in Montreal, Canada commissioned researchers at Montreal University to survey HTA training. They developed and distributed a survey among ISTAHC’s worldwide membership (then over 1000 members), including European members. Preliminary results indicated that 124 courses (HTA courses and HTA-related courses combined) were being provided in 25 countries. Among these were 12 countries in Europe, mostly in Western Europe (Erickson and Lehoux, 1999). These data indicate that HTA education and training are available in a minority of European countries, if Europe is regarded as a geographical entity. In addition, the survey data indicated that there seems to be a recent

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explosion of HTA courses, with about half of the courses identified starting in 1999 (or within the next 3 years).

The results of this survey (referred to as the “ISTAHC Survey” in this report) provided a first impression of the supply of education and training in Europe. The present project aims at providing a more comprehensive overview. More specifically, its objective has been to identify - via a network approach based on a survey - training programmes and educational resources in the area of health technology assessment in Europe.

2 Methods

2.1 International co-operation, co-ordination and planning

For our work in Europe we built on the survey that ISTAHC had carried out among its membership. This entailed that the ISTAHC Survey served as the principal framework for data collection. The associated database was used to store any new data. At a later stage, we also co-ordinated our activities with a complementary survey from INAHTA (INAHTA Secretariat, 2000).

An initial plan for data collection, among other issues focusing on the content and layout of the ISTAHC Survey, was presented by CAST during the inaugural meeting of Working Group 5. (Held during the ISTAHC Annual Meeting in The Hague, the Netherlands, June 2000.) The discussion resulted in a number of proposals for adaptation of the ISTAHC Survey to the needs of the European Survey, which were subsequently addressed by the Project Team at CAST (see section 2.3). In addition, a brief manual and accompanying letter were developed. The results were discussed with the Chair and Co-Chair of Working Group 5 (Prof. Dr. F.B. Kristensen and Prof. Dr. J. Gabbay, respectively), and subsequently pre-tested in Denmark among university affiliates involved in teaching in HTA. The results gave rise to few additional layout changes, which were discussed with CEHTA staff before distributing the survey. A first interim-report (January 2001) served as an input for discussion with Members of the Steering Group in February 2001 in Seville, Spain. A second interim-report (early March 2001) was presented and discussed during a meeting of the Members of Working Group 5 in Copenhagen in mid-March 2001. Data-collection was completed by the end of April, and a revised concept-report was sent to the Chair and Co-Chair of the Working Group, whose comments served as a final input for the report.

2.2 Inclusion of countries

It was felt that both the anticipated growth of the European Union and the prospect of growing multilateral co-operation in Europe in general justified a broad inclusion of countries. As a result, with the exception of Andorra and Vatican State, all countries that fit with the geographical definition of Europe were included. Some other countries were included as well, e.g. Israel was included as it was represented in ECHTA as an observer-country. Likewise, a number of states in the Caucasian region of the former Soviet-Union were included. Overall, the survey includes 48 countries. These countries are subdivided in three groups:
• European Union Countries (and Switzerland, Norway) (n=17)
• Candidate countries for the European Union (n=12)
• Other countries in Europe (n=19)

For the purpose of this report, which is funded by the European Union, it is relevant to distinguish European Union countries as a group. Norway and Switzerland have been added because there are close ties between HTA-Agencies in European Union countries and those in Norway and Switzerland, respectively, as exemplified in previous EU funded reports on HTA (Banta and Oortwijn, 1998). The candidate countries for the European Union are a group of countries that will be subject to EU regulations in a few years from now, inclusive any new EU initiatives with regard to HTA. The remainder of countries is considered as a group of ‘other countries’, with a more distant relation to the European Union. These countries are therefore considered as a group too. The three groups of countries are made-up of the following members:

European Union countries (and Switzerland, Norway)
Austria, Belgium, Denmark, Finland, France, Germany, Greece, Ireland, Italy, Luxembourg, The Netherlands, Norway, Portugal, Spain, Sweden, Switzerland, the United Kingdom (including England, Scotland, Wales and Northern Ireland).

Candidate countries for the European Union
Bulgaria, Cyprus, the Czech Republic, Estonia, Hungary, Latvia, Lithuania, Malta, Poland, Romania, Slovenia, the Slovak Republic.

Other countries
Albania, Armenia, Belarus, Bosnia and Herzegovina, Croatia, Georgia, Iceland, Israel, Kazakhstan, Kyrgyzstan, Liechtenstein, Macedonia, Moldova, Russia, Tajikistan, Turkey, Turkmenistan, Ukraine, and Yugoslavia (including Serbia and Montenegro).

2.3 Content of the survey
2.3.1 General set-up
The original ISTAHC survey includes a limited set of questions at the level of an individual course, including:

- the title
- the organising institution, including information on e.g. an e-mail/Web site and the name of a contact person
- the frequency
- the length
- the target group
- the contents
- the level, e.g. specified by educational requirements for enrolment
• the teaching methods applied, e.g. lectures, mono- or multidisciplinary exercises, and work in small groups.

One of the main points that were raised by Members of Working Group 5 during a discussion on the content of the ISTAH C Survey was that the survey did not provide enough room for informants to fill out the questions of the survey in case they were not affiliated with a university or in case they were not personally involved in teaching. As it was considered to be important to cover as wide a target group as possible, the Project Team at CAST was invited to consider this issue. As a result, to allow for relevant information to be filled out by informants who are not directly involved in teaching H T A (as requested in the ISTAH C Survey), and in order to provide names of potential informants, the European Survey includes two questions on these issues. In order to maintain compatibility with the ISTAH C Survey, it was decided to combine these questions as ‘part 1’ of the questionnaire, preceding the virtually unchanged text of the ISTAH C Survey, which was decided to be presented as ‘part 2’ of the European Survey.

The resulting set of questions was compared to those listed in a report on Danish training courses in H T A and H T A-related disciplines by M ø ller and J ø rgensen (1999). This report is probably the first to document the supply of training in H T A on a national basis. Compared to the Danish report, which is quite comprehensive, the ISTAH C survey covers all relevant issues, except perhaps the costs of the courses. As prices are easily outdated, it was decided not to include this information.

2.3.2 Types, scope and content of courses included in the survey

Types of courses/ target groups
The ISTAH C Survey distinguishes undergraduate and graduate training courses. Undergraduate training in H T A is subdivided in training for M D s and other disciplines. In addition, the survey leaves a blank space for other types of H T A courses, e.g. as part of International Summer Schools. Another question focuses on H T A courses as part of continuing education.

Scope and content of H T A courses versus H T A-related courses
The motivation for distinguishing H T A courses versus H T A-related courses in the survey could perhaps be related to a report by Banta and O ortwijn (1998). In this report the authors indicate that an important part of H T A training includes clinical research methodology, epidemiology, and health economics. The authors add that such training is widely available in Europe. Other parts, not that easily available, include:

• the skill of critical and systematic literature review
• the making of synthesis of evidence of the medical, social, ethical, and economic implications of the diffusion and use of technology
• the multidisciplinary skill of drawing conclusions and presenting options tailor made for practical policy-making.
Therefore, it can be argued that courses that should be primarily included in the survey are those, that meet the criterion of being comprehensive in scope. This concept is operationalised in the survey in the form of a description of an HTA course as: ‘an HTA course includes all or most dimensions relevant to HTA, ranging from the diffusion of technology in health care, to methods and the use of HTA in policy making.’

This is contrasted with HTA-related courses, which are also included in the survey. These courses are described as: ‘clinical epidemiology, evidence-based medicine, clinical trials, health services research, meta-analysis, economic (cost-effectiveness) analysis, consensus conferences, technology management, decision-making, policy making/analysis, legal, social and ethical aspects, others’.

This approach resulted in the identification of 124 courses in the ISTAHC Survey, of which only 20 had a title including the words ‘Health Technology Assessment’. The remaining courses were offered using 49 different titles, covering courses that are sometimes wide and sometimes narrow in scope (Erickson and Lehoux, 1999). Based on this approach and the associated results, the European Survey has focussed on courses that present HTA as a broad, multidisciplinary activity, irrespective of the course title. Furthermore, the survey has distinguished between university level courses, including undergraduate- and postgraduate courses, and continuing education courses.

Continuing education courses are described as courses outside a regular university curriculum, usually aimed at specific groups of participants with a completed education.

Based on these considerations, the contents of the European Survey were agreed upon by all those involved. The version of the Survey that has been distributed, the manual and the introductory letter are included in annex 1.

2.4 Data collection

2.4.1 A combination of methods

The main method of data collection was by distributing the European Survey to potential informants. It was attempted to identify key informants in every country included in the survey in order to produce reliable and comprehensive information. Two main strategies were followed. One was to identify informants through existing networks in HTA. In countries without personal links to HTA-networks an Internet strategy was developed to identify potential informants. Whenever the Internet sites contained information on education and training in HTA directly, this was included. Both methods of data collection were supported by telephone calls or other means of acquiring information such as fax and e-mail. The complementing strategies are described in more detail below.

2.4.2 Identification of key informants by means of HTA networks

Three main entrances were used to access available networks in HTA in Europe. These include European ISTAHC members, INAHTA, and the members of Working Group 5 of the ECHTA programme. The results on the individual European ISTAHC members had been made available to the research team by the ISTAHC Secretariat. In order to avoid duplication with the ISTAHC
Survey, only the institutional members of the European ISTAH C members were approached to fill out the European Survey.

Members of INAHTA
Members of the International Association of Health Technology Assessment Agencies (INAHTA) were identified, as far as the associated institutes are located in Europe, and addressed both to identify key informants and to fill out the survey. At a later stage, the results of the INAHTA survey were made available to the Project Team to complement data collection on the basis of the European Survey.

Late 1999, the INAHTA membership included 32 organisations, representing 18 countries, of which 11 are in Europe. The latter include 1 in Austria (ITA), 4 in Spain (AETS, AETSA, CAHTA, OSTEBA), 2 in France (ANAES, CEDIT), 3 in the Netherlands (CVZ, GR, TNO), 2 in Denmark (DIHTA, DSI), 1 in Finland (FINOHTA), 1 in Germany (DIMDI), 1 in Norway (SMM), 1 in Sweden (SBU), 2 in Switzerland (FSIOS, SWISS-TA), and 3 in the UK (Horizon Scanning Centre, NCCHTA, NHSCRD).

Participants in the ECHTA programme: Members of Working Group 5
During the June 2000 meeting of Working Group 5, several members offered to collect information on the country level, e.g. in Israel, whereas other members provided us with the names of potential informants in their country and/or abroad. The latter was requested because the Working Group did not include representatives of all countries that were included in the survey. As a particularly important example, the Polish member of the Working Group provided us with the names of attendees of a conference on HTA in Poland, which was organised in the fall of 2000, mainly targeting an Eastern-European audience.

In addition, the members of the Working Group filled out the Survey on an individual basis. The members of the Working Group are included in annex 2.

Members of the Project Team
The professional network of the Project Team (Norwegian, Dutch) was also used to identify potential informants outside those identified by the members of the Working Group.

Despite this combination of sources of potential informants, a number of countries, in particular Eastern-European countries, were underrepresented in the Survey. To address this issue, a number of additional data collection strategies were developed.

Conference of the Association of Schools of Public Health in Europe
In October 2000, the Association of Schools of Public Health in the European Region (ASPHER) organised its 12th annual conference in Århus, Denmark. A large number of Eastern European delegates were expected to be attending the meeting. ISTAH C’s president, Prof. D. Banta, was invited speaker, and HTA was a subject of a parallel session. Prof. Banta and a
member of the Project Team used the occasion to call for assistance to fill out the survey, in particular to obtain information on Eastern European countries. A number of delegates showed interest and provided us with valuable information.

Internet
The Internet strategy was focused on identifying the Deans of European universities with Medical and/or Health Sciences Faculties, who were accessed through the TEMPUS network and the ASPHER website in countries like Bosnia and Herzegovina, Turkey, Albania, Slovenia and Romania. We sent a letter to all informants who were accessed other than through the HTA-network, asking them which professionals to approach in their country in order to provide an overview of HTA courses.

2.4.3 Distribution of the European Survey
The European survey has been distributed as an e-mail file in two different formats, in Word and as a PDF-file, to ensure that the survey could be opened in any type of software environment.

Non-responders received a reminder after 3 weeks. Incompletely filled-out questionnaires were completed by additional data collection by telephone, fax, or e-mail or by contacting members of the Working Group.

3 Results

3.1 Structure
The results of the project are presented in three different ways. Firstly, in paragraph 3.2 the data of the ISTAHC Survey, the European Survey and the INAHTA Survey have been integrated to allow for an overall impression of the status of HTA education and training in Europe. This paragraph also presents the results for different groups of countries as defined in paragraph 2.2, European Union-countries, candidate EU-membership countries, and other countries.

The results of the European Survey are presented in paragraph 3.3. Emphasis is put on the organisational context and geographical distribution of HTA courses, HTA-related courses and continuous education courses.

Annex 3 presents some personal comments of respondents, identifying a need for collaboration in the development of training and education in HTA.

3.2 General overview of education and training in HTA in Europe
Response rates
The ISTAHC Survey was distributed to its over one thousand membership in 1999, of whom 570 were located in the countries included in the European Survey. The response rate has not been reported.
The INAHTA Survey was distributed to its 32 member organisations (late 1999 data), representing 18 countries, of which 12 were in countries included in the European Survey. Twenty-nine members responded (85%).

The European Survey would ideally have included 48 countries. As no informants were identified in Liechtenstein and Macedonia, the survey was distributed to a total of 91 informants in 46 countries. One reminder was sent. The overall response rate was 50%. In the group of European Union countries the response rate was 60%, compared to 68% in the group of candidate countries, and 42% in the group of other countries.

### 3.2.1 General results

HTA and HTA-related courses

The final results of the ISTAHC Survey as documented in the database showed that 125 courses (either HTA- or HTA-related) are provided in 14 European countries. These countries include Denmark, Finland, France, Germany, Hungary, Italy, the Netherlands, Poland, Portugal, Spain, Sweden, Switzerland, the Netherlands, the United Kingdom, and Israel (ISTAHC survey database, 2000).

The INAHTA Survey results illustrated that 79% of the INAHTA agencies provide training and education. Seventy-one percent of the agencies provide training in HTA.

The European Survey identified 145 courses (either HTA or HTA-related) in 26 countries. Compared to the ISTAHC commissioned Survey, additional countries include predominantly Eastern-European countries. A breakdown of this number shows that 27 of the 145 courses are provided as university level (both undergraduate and graduate) HTA courses, 85 courses can be categorised as university level HTA-related courses, and 48 are continuous education courses. Of these latter 48 courses, 21 are HTA courses, whereas 27 are HTA-related courses. Fifteen of the continuing education courses are also provided as university level courses.

The results of the combination of the ECHTA-, INAHTA- and ISTAHC survey are summarised in Table I.
Table I shows that 13 countries provide HTA courses at university level. Nearly all countries provide HTA-related courses. Thirteen countries provide HTA as a continuing education course. Thirteen countries supply HTA-related continuing education courses. Nearly all countries provide university level, HTA-related courses. Six countries provide HTA and HTA-related courses both as university level courses and as continuing education courses. These countries are Denmark, France, Spain, Sweden, the Netherlands, and the United Kingdom. In 4 countries, neither HTA nor HTA-related courses are provided. These countries include Cyprus, Greece, Ukraine, and Yugoslavia. No response was received from Albania, Belarus, Czech Republic, Georgia, Iceland, Kazakhstan, Luxembourg, Tajikistan, Turkey and Turkmenistan.
3.2.2 General results per group of countries

Table II and III provide a breakdown of results presented in table I in accordance with the definition of each group of countries, starting with HTA and HTA-related courses in the European Union, Norway and Switzerland.

Table II HTA and HTA-related courses in the European Union plus Norway and Switzerland

<table>
<thead>
<tr>
<th>Country</th>
<th>University level courses</th>
<th>Continuing Education courses</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>HTA</td>
<td>HTA-related</td>
</tr>
<tr>
<td>Austria</td>
<td>-</td>
<td>+</td>
</tr>
<tr>
<td>Belgium</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Denmark</td>
<td>+</td>
<td>+</td>
</tr>
<tr>
<td>Finland</td>
<td>-</td>
<td>+</td>
</tr>
<tr>
<td>France</td>
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<td>+</td>
</tr>
<tr>
<td>Germany</td>
<td>+</td>
<td>-</td>
</tr>
<tr>
<td>Greece</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Ireland</td>
<td>-</td>
<td>+</td>
</tr>
<tr>
<td>Italy</td>
<td>+</td>
<td>+</td>
</tr>
<tr>
<td>Norway</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Portugal</td>
<td>-</td>
<td>+</td>
</tr>
<tr>
<td>Spain</td>
<td>+</td>
<td>+</td>
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<tr>
<td>Sweden</td>
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</tr>
<tr>
<td>Switzerland</td>
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<td>+</td>
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<tr>
<td>The Netherlands</td>
<td>+</td>
<td>-</td>
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<tr>
<td>The United Kingdom</td>
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</table>

Table II shows that eight countries in the European Union countries reported to provide HTA courses at the university level (as does Switzerland). Ten countries report to provide HTA courses as continuing education courses. Six countries in the European Union provide HTA and HTA-related courses, both as university level courses and as continuing education courses. Belgium, Greece, Portugal, and Norway do not provide HTA courses. Of these, Greece is the only country that provides neither HTA courses nor HTA-related courses, as defined in the methods section. No information has been obtained on Luxembourg.

Table III HTA- and HTA-related courses in candidate EU-membership countries

<table>
<thead>
<tr>
<th>Country</th>
<th>University level courses</th>
<th>Continuing Education courses</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>HTA</td>
<td>HTA-related</td>
</tr>
<tr>
<td>Bulgaria</td>
<td>-</td>
<td>+</td>
</tr>
<tr>
<td>Cyprus</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Estonia</td>
<td>+</td>
<td>+</td>
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<tr>
<td>Hungary</td>
<td>+</td>
<td>-</td>
</tr>
<tr>
<td>Latvia</td>
<td>-</td>
<td>+</td>
</tr>
<tr>
<td>Lithuania</td>
<td>-</td>
<td>+</td>
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<tr>
<td>Poland</td>
<td>-</td>
<td>+</td>
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<tr>
<td>Romania</td>
<td>-</td>
<td>+</td>
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<tr>
<td>Slovenia</td>
<td>-</td>
<td>+</td>
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<tr>
<td>Slovakia</td>
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</tbody>
</table>
Table III indicates that three countries in the group of EU-membership countries provide HTA courses at the university level. Eight countries reported to provide HTA-related courses at the university level. These HTA-related courses include courses in health economics, health policy and management, evidence-based medicine and clinical epidemiology. Two countries provide HTA courses as continuing education courses. No information has been obtained from the Czech Republic and Malta.

HTA- and HTA-related courses in other countries

A third group of countries, that is non-EU member countries and non-candidate EU-membership countries, mainly consists of Eastern European countries, and the new independent states. Israel is included, because it is represented in ECHTA as an observer country. Israel is the only country in this group that provides HTA courses, both as university level courses and as continuing education courses. All countries, except Ukraine and Yugoslavia, reported to provide HTA-related courses at the university level. These included courses in quality of care, medical informatics, health policy, finance and management, research methods, and evidence based medicine.

No response was received from Albania, Belarus, Georgia, Iceland, Kazakhstan, Tajikistan, Turkey, and Turkmenistan. As indicated earlier, no informants were identified in Liechtenstein and Macedonia.

3.3 Results of the European Survey

In paragraph 3.3.1 the information that was obtained on HTA courses is presented according to the type of course, in general and per group of countries. Paragraph 3.3.2 illustrates the areas in which HTA-related courses are provided.

3.3.1 HTA courses

The survey identified 15 countries that provide HTA courses. A first categorisation of these courses can be made on the basis of the organisational context of their provision. At least ten different settings can be distinguished:

1. International Master of Science in HTA
2. National Master of Science in HTA
3. Internet-based distance learning course
4. Part of MSc in Public Health or Health Sciences
5. PhD course
6. HTA in combination with a clinical area
7. Introductory course
8. Summer- and Winter school in HTA
9. HTA methodology
10. Part of a Health Economics course
Master of Science in HTA

Three Master's programmes in HTA have been identified. One Master of Science programme is international in scope, whereas national MSc's in HTA are provided in the United Kingdom and Spain.

The international MSc in HTA and Management is provided by the Ulysses international consortium. The Ulysses international consortium consists of five universities and five HTA agencies in Europe (Spain and Italy) and in Canada (Quebec and Ontario). The European HTA agencies include the Catalan Agency for HTA and Research (CAHTA) in Barcelona, Spain, and in Italy the Agency for Regional Health Care Services (ASSR), and the Public Health Agency of the Lazio Region (ASP) are represented. Both these organisations are located in Rome. The HTA agencies in Canada include Agence d'évaluation des technologies et des modes d'intervention en santé (AETMIS) in Montreal and the Institute for Clinical Evaluative Services (ICES) in Ottawa. The Master's program consists of four two-week modules organised in different cities (Montreal, Rome, Barcelona and Ottawa) and a training period up to 8 months within an HTA and Management Agency or University. A research- or policy analysis project is to be completed during the programme. The total of 8 topics covered in the modules are: HTA principles and practice, HTA methods, health policy analysis, institutional management, clinical decision making, and ethical, socio-cultural and legal issues. The MSc program in HTA and Management will start in September 2001 and will be organised every second year. The total course programme will take 450 hours.

The Spanish MSc in HTA is organised by the Galician Health Service together with the University of Santiago de Compostela. Nearly all the Spanish HTA agencies (CAHTA, OSTEBA, AETS), and the Iberoamerican Cochrane Centre contribute to the programme. The programme started for the first time in September 2000 and will be organised every second year. The total number of course hours is 500.

The third Master of Science education in HTA will be provided in the United Kingdom at the University of Birmingham, starting in October 2001. The MSc in Birmingham will be provided once a year. The total number of course hours will be 300.

Internet based distance learning course

An Internet-based distance learning-course is provided by the Catalan Agency for HTA and Research (CAHTA) in collaboration with the Open University of Catalonia. The course addresses managers, professionals and graduates interested in assessment, health service management, and evidence based medicine. The course started for the first time in 2000, will be organised twice a year, is provided in Spanish, and the duration is 60 hours. The course program focuses on 4 themes: introduction into the evaluation of health care services, health care decision analysis, systematic review of scientific evidence, and efficiency and equity analysis.
HTA as part of a MSc in Public Health or Health Sciences

HTA-courses are provided as a part of a Masters in Public Health or Health Sciences in the Netherlands, Spain, Switzerland, Denmark and Germany. The HTA-elements of these programmes vary in duration from one day in Switzerland and the Netherlands, to 20 hours in Spain.

PhD course in HTA

A PhD course is provided at the University of the Basque Country in Spain.

HTA in focus

Some courses in HTA are identified with a specific focus, either a clinical area or a target group. Courses in HTA in combination with a specific clinical area are provided by CAHTA. One course focuses on palliative medicine and another on diagnostic imaging. The courses will be provided at the end of 2001, and the duration will be 30 hours.

Courses for a specific target group include a course in Poland for policy makers: HTA – Grounds for Reimbursement policy, organised by the National Centre for Quality Assessment in Health Care. HTA for physicians is a continuing medical education course organised by the Nijmegen University Medical Centre, the Netherlands.

Introductory courses in HTA

Introductory courses in HTA are provided in Poland at the undergraduate and graduate level by the National Centre for Quality Assessment in Health Care. One of the courses addresses how to teach HTA and EBM. Introductory courses in HTA are furthermore organised in Denmark, Israel, Latvia, and the Netherlands. The course in Latvia was recently organised by the Health Statistics and Medical Technology Agency in close collaboration with the Swedish Council for HTA.

Summer school in HTA and the Nordic Winterschool in HTA

A summer school in HTA and the Nordic Winterschool in HTA are provided in Denmark. The summer school was organised in 2000 and addressed Danish researchers and health care professionals working with HTA projects. The Nordic Winterschool used the same principle. The courses build on actual HTA projects submitted by the participants. The Nordic Winterschool is a collaboration of the HTA agencies in Denmark, Finland, Sweden and Norway and addresses participants from throughout Scandinavia.

HTA methodology

A course in HTA methodology is provided at the graduate-level and as a continuing education course by the Galician Health Service together with the University of Santiago de Compostela in Spain.
Part of a Health Economics course

Elements of HTA are provided in combination with courses in health economics at the Institute of Public Health at the University of Tartu in Estonia, and at the Budapest University of Economics in Hungary.

Finally, two other types of activities were distinguished that have a distinguished educational feature but are tailored towards individuals: fellowships and subsidies of post-doctoral positions in HTA.

Fellowships

Fellowships (either HTA or HTA-related) are offered in Spain (AETSA, CAHTA, OSTEBA), France (ANEAS), Sweden (SBU), the UK (University of Birmingham), and Israel (ICTAH C).

Post-doctoral positions in HTA

In Denmark, the Danish Institute for HTA funds three three-year post-doctoral positions in HTA as of early 2001. These post-doctoral posts are integrated in universities across the country.

In summary, a wide variety of HTA courses can be distinguished in Europe. When taking a bird’s-eye view of HTA courses in Europe, a concentration of activities can be identified in Spain. Three HTA agencies in Spain provide HTA courses in their respective regions. Furthermore, there is an HTA agency at the national level. These agencies collaborate cross-regionally in a national Master of Science in HTA. In general, Spain shows a high level of collaboration in HTA and HTA-related courses at the university level and in continuing education for health care professionals. There is collaboration in training and education between HTA agencies, health services, universities, and quality of care institutions. Furthermore, one of the regional Spanish HTA agencies takes part in an international consortium, which provides an international MSc in HTA.

Another cross-national collaboration in Europe has been identified in the Nordic region. The HTA agencies of Denmark, Sweden, Norway, and Finland have recently established a Nordic Winterschool in HTA.

Other initiatives for collaboration are undertaken by SBU in Sweden, providing assistance in courses in HTA and Evidence Based Medicine in e.g. Russia and Latvia.

In Poland the NCCQA can be mentioned in this context, which in recent years twice organised an international workshop on HTA specifically directed towards Eastern European- and Baltic countries.
Types of HTA courses in three groups of countries

Table IV Types of courses in three groups of countries in Europe

<table>
<thead>
<tr>
<th>Type of HTA course</th>
<th>EU-countries</th>
<th>Candidate EU-countries</th>
<th>Other countries</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 International Master of Science in HTA</td>
<td>X</td>
<td></td>
<td></td>
</tr>
<tr>
<td>2 National Master of Science in HTA</td>
<td>X</td>
<td></td>
<td></td>
</tr>
<tr>
<td>3 Internet based distance learning course</td>
<td>X</td>
<td></td>
<td></td>
</tr>
<tr>
<td>4 Part of a MSc in Public Health or Health Sciences</td>
<td>X</td>
<td></td>
<td></td>
</tr>
<tr>
<td>5 PhD course in HTA</td>
<td>X</td>
<td></td>
<td></td>
</tr>
<tr>
<td>6 HTA in focus</td>
<td>X</td>
<td>X</td>
<td>X</td>
</tr>
<tr>
<td>7 Introductory course in HTA</td>
<td>X</td>
<td>X</td>
<td>X</td>
</tr>
<tr>
<td>8 Summer- and Winter school in HTA</td>
<td>X</td>
<td></td>
<td></td>
</tr>
<tr>
<td>9 HTA methodology</td>
<td>X</td>
<td></td>
<td></td>
</tr>
<tr>
<td>10 HTA as part of a Health Economics course</td>
<td>X</td>
<td>X</td>
<td></td>
</tr>
</tbody>
</table>

Table IV illustrates that in the group of European Union countries all types of HTA courses are provided. The types of courses are provided in different countries within the European Union, and vary in frequency and duration. In the group of the candidate EU-countries, Poland provides a course in HTA focused on reimbursement for health care decision-makers. Introductory courses in HTA are provided in Latvia, and Poland. HTA as part of a Health Economics course is provided in Hungary and Estonia. In the group of other countries none of the countries except Israel provides HTA courses. More specifically, Israel provides a course in HTA with a focus on management and an introductory course in HTA.

3.3.2 HTA-related courses

The INAH TA Survey showed that the HTA agencies most often provide training in literature searching, systematic literature reviews, EBM, and health economics.

In the European survey, 85 HTA-related university level courses have been identified. The areas in which they are provided are listed in Table V. Table V shows that the combination of courses in the areas of evidence based medicine, health care management and policy and financing, and clinical epidemiology make up for half of the supply of HTA-related courses.

Table V Areas in which HTA-related university level-courses are provided

<table>
<thead>
<tr>
<th>Areas</th>
<th>% (n=85)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 Evidence Based Medicine</td>
<td>20</td>
</tr>
<tr>
<td>2 Health Care Management, Policy and Financing</td>
<td>14</td>
</tr>
<tr>
<td>3 Health Economics</td>
<td>14</td>
</tr>
<tr>
<td>4 Clinical epidemiology</td>
<td>12</td>
</tr>
<tr>
<td>5 Health Statistics/informatics</td>
<td>8</td>
</tr>
<tr>
<td>6 Research methods</td>
<td>7</td>
</tr>
<tr>
<td>7 MSc in Public H eatl, Health Sciences</td>
<td>6</td>
</tr>
<tr>
<td>8 Quality of Care</td>
<td>5</td>
</tr>
<tr>
<td>9 Literature searching</td>
<td>2</td>
</tr>
<tr>
<td>10 Systematic literature reviews</td>
<td>2</td>
</tr>
<tr>
<td>11 Critical Appraisal</td>
<td>2</td>
</tr>
<tr>
<td>12 Ethics in health care</td>
<td>1</td>
</tr>
<tr>
<td>13 Other</td>
<td>7</td>
</tr>
</tbody>
</table>
Continuing Education courses
In total 48 continuing education courses have been identified. Continuing education courses are defined as courses outside a regular university curriculum, usually aimed at specific groups of participants with a completed education (medical doctors, nurses, administrators, government employees, other health professionals). Twenty-one of these CE-courses are HTA courses. In 14% of these courses HTA is combined with evidence-based medicine.

Twenty- of the CE-courses are HTA-related courses and can be categorised in a number of areas (see Table VI).

Table VI Areas in which HTA-related continued education courses are provided

<table>
<thead>
<tr>
<th>Areas</th>
<th>% (n=27)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 Evidence Based Medicine</td>
<td>26</td>
</tr>
<tr>
<td>2 Health Economics</td>
<td>22</td>
</tr>
<tr>
<td>3 Systematic Reviews</td>
<td>19</td>
</tr>
<tr>
<td>4 Other</td>
<td>15</td>
</tr>
<tr>
<td>5 Clinical epidemiology</td>
<td>11</td>
</tr>
<tr>
<td>6 Critical Appraisal</td>
<td>4</td>
</tr>
<tr>
<td>7 Literature searching</td>
<td>3</td>
</tr>
</tbody>
</table>

Teaching methods
More than fifty percent of the respondents reported which kind of information technology is used in training and education in HTA and HTA-related courses. The Internet is used frequently, as well as other use of computers. Videotapes, videoconferences, and CD-ROM were used occasionally in training and education. More than fifty percent of the respondents reported on the teaching methods that are used in training and education in HTA and HTA-related courses. The majority of the respondents most frequently used traditional lectures, and student participation. The majority of respondents occasionally used invited speakers, internships, and problem-based learning.

Of the teaching methods employed distance-learning courses can be regarded as a special case with regard to learning methodology, the use of new communication technology and course organisation (Geiger et al., 2000). However, no further information is yet available from the Spanish distance learning course in HTA.

4 Conclusions and discussion

Conclusions
Perhaps the most obvious conclusion allowed by the European Survey is that the supply of education and training in HTA in Europe is increasing rapidly. Many courses have only recently been organised, or will be organised for the first time in the near future. This confirms the results provided by the ISTAH C Survey (Erickson and Lehoux, 1999). In general, HTA as a field is in the process of becoming established and institutionalised both in individual countries and internationally. This can be regarded as the fruit of the effort of many dedicated individuals and
organisations, including ISTAH C, INAH TA, national societies for health technology assessment, universities and research institutes with HTA units, etc.

Nevertheless, notwithstanding the rapid increase in the supply of education and training in HTA, only a minority of all European countries currently participate in this development. In particular, countries in the European Union are well represented. Within the European Union, the traditional north-south division has more or less vanished with Spain, in particular, as the main example of what can be achieved. Education and training in HTA is scarce in EU-candidate membership countries, with exceptions in Poland, Hungary, Estonia and Latvia, while education and training in HTA is virtually absent in the remainder of countries covered by the survey, except for Israel. Responding to the survey, many countries in Central and Eastern Europe, including members of the Russian Federation and the new states of the former Yugoslavia often expressed the wish to become more involved in HTA.

Concerning the content of HTA education and training, it can be concluded that a great variety of courses exist for a correspondingly large variety of audiences. Overall, the pattern is scattered on both the international and, in most cases, the national levels.

Teaching methods in both HTA and HTA-related courses are still largely traditional. The role of the Internet, as a means of communication between teachers and students is increasing, but the Internet’s potential for integration in teaching methods remains largely untapped.

Besides the growing supply of education and training in HTA, the survey shows that the supply of HTA-related courses is increasing even more rapidly, with courses in evidence-based medicine as the most prominent subject. This may reflect the impact of the Cochrane Collaboration, with increasing numbers of Cochrane Centres around the world.

Discussion

Methods

The European Survey was based primarily on a network approach. More specifically, we have applied a ‘snow-ball sampling’ method, which generally relies on previously identified members of a group to identify other members of population (Fink, 1995). This method is recommended when a population listing is unavailable and cannot be compiled.

In the case of the European Survey, this condition was fulfilled in most countries, in particular in the group of candidate EU membership countries and the group of ‘other countries’. In these countries, in particular in Central and Eastern Europe, several informants were identified whose information might not have been included using alternative survey methods.

When, as a supplementary strategy to the ‘snow-ball sampling’ method, the Internet was used to identify additional potential informants in the latter countries, this was often difficult due to the relative scarcity of English language sites in these countries. Although the Internet is becoming
extremely important as a source of information in the industrialised world, this may not yet be the case in Central Europe, Eastern Europe and beyond.

Results: quantity and quality
In Group I (EU countries plus Norway and Switzerland, information was obtained from all but one of the 17 countries (94%). Only from Luxembourg was no information obtained. The response rate of informants was 60%. The main sources of information in this group were HTA agencies and universities involved in HTA.

In Group II, uniting the EU candidate membership states, information was obtained from 10 of the 12 countries (84%). Neither Malta nor the Czech Republic provided us with any information. The response rate of informants was 68%. A combination of sources of information was represented in this group, including both HTA agencies and other agencies and institutions.

In Group III, the ‘other countries’, information was obtained from 9 countries (n=19, 47%). Information is lacking from Albania, Belarus, Georgia, Iceland, Kazakhstan, Tajikistan, Turkey, Turkmenistan, Liechtenstein and Macedonia. The response rate of informants was 42%. The sources of information represented in this group had only in exceptional cases a direct relation to the field of HTA. The concept of HTA was largely unknown in most countries comprising Group III.

Based on both the percentage of countries represented, the response rate of informants, the specificity of data sources and general reactions to the Survey, we conclude that at the level of groups of countries, the quality of data is likely to be highest in Group I, followed by Group II and Group III.

The quality of results in Group I has benefited most from the fact that the European Survey built on the ISTAH C Survey, and that results of the INAHTA Survey were made available to the Research team. The results in Group I have the highest probability of being representative given the acceptable representation of countries and response rates of informants and the relatively high share of specific HTA information sources (HTA agencies and universities).

Clearly, the results of the European Survey should be interpreted with caution in Group II, and even more so in Group III. The latter group represented less than half of the countries, it was difficult to identify informants and the specificity and response rates of informants were both rather low compared to the other groups.

At the level of individual countries, the reliability of data presented in this report could be checked for Denmark only, as only in this country a thorough nation-wide survey on education and training in HTA has recently been reported (Møller and Jørgensen, 1999). This publication, serving as a ‘gold standard’ indicated that the method applied in the European Survey provided nearly identical results with regard to HTA courses, but that the national publication was much more elaborate in the reporting of HTA-related courses. This finding may indicate that the results of the European Survey are only informative with respect to HTA courses. However, as it
is impossible to generalise from a single EU country to all countries in the survey, we feel that it is appropriate to state that considerable uncertainty and variability is likely with regard to the quality of data within and between individual countries.

Explanation of the HTA concept
Some difficulties have been reported concerning the distinction between ‘HTA courses’ and ‘HTA-related’ courses. In one case it was explicitly reported that the distinction was unclear. In a few other cases the answers provided by respondents indicated an unintended interpretation of HTA courses, e.g. exclusively referring to physical examples of technology applied in clinical practice. One solution to this problem might have been to include a more elaborate definition of HTA, e.g. as provided by Banta in the EUR-ASSESS report (Banta et al., 1997). On the other hand, a longer manual would perhaps have induced non-response due to the longer time needed to complete the survey.

A related factor that may have influenced the results on the coverage of HTA courses is variability in the content of the concept of HTA, which can be related to cultural differences. The members of Working Group 5 explicitly pointed to the possibility that what is considered an HTA-related course in one country, could be considered as an HTA course in another country. The responses to the Survey did not directly reveal this factor, but if the results reflect different cultural understandings of what an HTA or an HTA-related course consists of, this may have led to either an under- or an over representation of HTA courses. A recommendation to avoid this in future surveys is to secure a common understanding of the concept of HTA. Education and training may achieve this.

The future of education and training in HTA in Europe
The prospects for education and training in HTA in the European Union are good. International collaborative structures aimed at organising HTA courses at different levels have been established in different parts of Europe, and one of these is actively supported by the EU (Dr. P. Gallo, personal communication, March 2001). Relevant initiatives have also been identified on a national basis, e.g. in Spain and the UK, and may serve as examples for other countries. Of the individual countries, perhaps Spain sets the standard of what can be achieved. Key characteristics may be the presence and collaboration of four, mostly regional, HTA agencies and the presence and collaboration with a Cochrane Centre. Spain provides a wide range of courses for a wide variety of target groups.

Likewise, prospects for the future development of education and training in HTA in candidate membership countries for the EU are good. Some of these countries, e.g. Poland and Slovakia, are already successfully making the transition to a market economy, and in some Eastern Europe countries, e.g. Poland, Hungary, Estonia and Latvia, HTA courses have been set up. Some of these countries, e.g. Latvia, collaborate successfully with more wealthy neighbours (in this case Sweden-SBU) to support the development of local HTA structures. Other countries with favourable geographical positions may follow this example, anticipating a future stimulating role of the EU in establishing HTA in the respective countries after having become regular EU
members. Both these ‘pre-accession’ countries and other Central and Eastern European countries have consistently expressed a need for co-operation with their Western European neighbours to “catch up”.

The prospects for education and training in HTA in the group of ‘other countries’ are less clear. However, as data were scarce in most of these countries, perhaps a focussed effort could be organised to elucidate the supply of HTA education and training in greater detail. A likely explanation is, however, a (nearly) complete lack of supporting structures. An indication of this situation is the high level of interest that many countries in this group expressed in collaborating in the field of HTA. Fulfilling the needs of the countries in both Group II and Group III may very well be among the most important tasks for the European HTA community.

5 Recommendations

To stimulate the further development of education and training across Europe:

1. A clearinghouse for information on training and education in HTA needs to be established.

2. A distance-learning programme in HTA needs to be developed that is tailored to countries in Group II and, in particular, to countries in Group III.

3. Central and Eastern European countries should be adopted by EU neighbours in a concerted action.

4. In several EU countries, INAHTA member agencies, local universities and (if present) the local Cochrane Centre could play a stimulating role in this effort.

5. Priorities need to be set with regard to the development of courses for both doers’ and ‘users’ of HTA at different levels.

6 References


Appendixes

Appendix 1  European Survey questionnaire, manual and introductory letter
Appendix 2  Members of Working Group 5
Appendix 3  Some personal comments of respondents
Appendix 1

European Survey - Questionnaire

Personal information

Please fill in the following information*:

Your name (and degrees): _____________________________________________________________________________

Your position: ___________________________________________________________________________________

Organisation: ___________________________________________________________________________________

(include e-mail/web-site address if available): ___________________________________________________________________________________

* - Please fill in the computerised version of the questionnaire!
Questionnaire Part 1

Do you know of any institutions and professionals, other than yourself, providing a university level course in the area of Health Technology Assessment in your country? (please tick ‘YES’ or ‘NO’)

☐ YES (Please fill out table 1 below and then continue with Question 2)
☐ NO (Please continue with Question 2)

Table 1: Institutions and contact persons for providing university level courses in Health Technology Assessment

<table>
<thead>
<tr>
<th>Institution and City</th>
<th>Course title</th>
<th>Contact person (please include e-mail/Web site address if available)</th>
</tr>
</thead>
<tbody>
<tr>
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</tbody>
</table>

2. Are you, or is the organisation you are affiliated with, involved in teaching university level courses in Health Technology Assessment? (Please tick ‘YES’ or ‘NO’)

☐ YES (please continue with Questionnaire Part 2)
☐ NO (please return this Questionnaire. You do not have to continue with Questionnaire Part 2)
Questionnaire part 2

1) During the next 3 academic years, do you or does your organisation expect to teach a university level course in HTA?

☐ YES

☐ NO (continue with question 2)

If yes, please fill in the following tables and check appropriate boxes. Include anticipated starting date for courses currently being developed.

<table>
<thead>
<tr>
<th>Course Title and Course Elements</th>
<th>Undergrad MDS</th>
<th>Other Undergrads</th>
<th>Graduate</th>
<th>Other (specify)</th>
<th>Once a year</th>
<th>Twice a year</th>
<th>Every 2 years</th>
<th>Other (specify)</th>
<th>Total Course Hours</th>
<th>Offered Since (month/year)</th>
</tr>
</thead>
<tbody>
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</tr>
</tbody>
</table>

509
2) During the next 3 academic years, do you or does your organisation expect to teach an HTA-related university level course?

- YES (please fill in the following tables)
- NO (continue with question 4)

<table>
<thead>
<tr>
<th>Course Title</th>
<th>Academic Level</th>
<th>Frequency</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Undergrad MDs</td>
<td>Other Undergrads</td>
</tr>
<tr>
<td></td>
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<tr>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

3a) How often do (will) your courses utilise the following information technologies?

<table>
<thead>
<tr>
<th>Information Technologies</th>
<th>Never</th>
<th>Occasionally</th>
<th>Frequently</th>
</tr>
</thead>
<tbody>
<tr>
<td>Internet</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>(group discussion, literature searches, etc.)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Other use of Computers</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>(discussion, assignments, etc.)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Videotaped presentation</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Live videoconference</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>CD-ROM</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Other (specify)</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
3b) How often do (will) your courses utilise the following teaching methods?

<table>
<thead>
<tr>
<th>Information Technologies</th>
<th>Never</th>
<th>Occasionally</th>
<th>Frequently</th>
</tr>
</thead>
<tbody>
<tr>
<td>Traditional lectures</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Student Discussion/ Presentations</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Practicum/internship (e.g participation in an HTA project)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Invited speakers</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Problem-based learning</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Other (specify)</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

4) Do you give continuing education courses in the area of HTA?
   - ☐ YES → What authority grants credits for these courses?
   - ☐ NO → Go to Question 6

5. Please indicate the subject, the participant group, the duration and the frequency of these courses:

<table>
<thead>
<tr>
<th>Course Title</th>
<th>Participant group</th>
<th>Other Health Professionals</th>
<th>Frequency</th>
<th>Total Course Hours</th>
<th>Offered Since (month/year)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>MDs</td>
<td>Nurses</td>
<td>Administrators</td>
<td>Once a year</td>
<td>Twice a year</td>
</tr>
<tr>
<td></td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
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<td>☐</td>
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<td>☐</td>
<td>☐</td>
</tr>
</tbody>
</table>

6. May we contact you for more information? ☐ YES ☐ NO

7. Additional comments: ____________________________________________________

Thank you for your time
Manual to the Questionnaire

Please fill out the computerised version of the questionnaire!

This questionnaire is made up of two parts. The purpose of part 1 of the questionnaire is to obtain as much information as possible on HTA in your country. The most adequate way to achieve this is to approach the right persons in each country that can provide an overview of the supply of HTA or HTA-related courses. In part 1, we therefore kindly ask you to list names of institutions or professionals, other than yourself, that provide HTA or HTA-related courses. Part 2 focuses on the provision of HTA or HTA-related courses by yourself or by colleagues in your organisation.

What defines an HTA or HTA-related course?

An HTA course is multidisciplinary in nature and includes all or most dimensions relevant to HTA, including for example safety, efficacy, economic or financial aspects, and ethical, legal and social aspects of the use of a particular healthcare technology. In addition, issues such as the diffusion of technology in health care and the use of HTA in policy-making could be included in HTA courses in the broad sense of the word.

HTA-related courses have a more narrow focus than HTA courses (monodisciplinary) and include e.g. clinical epidemiology, evidence-based medicine, clinical trials, meta-analysis, economic evaluation, consensus conferences, technology management, decision-analysis, policy analysis, etc.

Manual to Questionnaire Part 1

1. Do you know of any institutions and professionals, other than yourself, that provide a university level course in the area of Health Technology Assessment in your country?

   Yes:

   It would be most helpful if you could provide us with the names of both the institution, the course title, and the name, e-mail address and/or website of a contact person, but if you only have partial information or a name and telephone number please fill in table 1 too. The Project Team will follow up on this.

   No:

   If you do not know of any institutions and professionals, other than yourself, that provide a university level course in the area of Health Technology Assessment in your country, please continue with question 2.
Manual to Questionnaire Part 2

Question 1 During the next three academic years, do you or does your organisation expect to teach a university level course in HTA?

For a description of HTA courses, see page 1 of this manual.

If you answer 'no', please continue with Question 2.

Question 2 During the next three academic years, do you or does your organisation expect to teach an HTA-related university level course?

For a description of HTA-related courses, see page 1 of this manual.

Question 3a How often do (will) your HTA courses utilise the following information technologies?

Question 3b How often do (will) your HTA courses utilise the following teaching methods?

Occasionally is defined as one or two times each course. Frequently is defined as at least three times each course.

Question 4 Do you give continuing education courses in the area of HTA?

Continuing education courses are defined as courses outside a regular university curriculum, usually aimed at specific groups of participants with a completed education. Examples of authorities that grant credits for these courses include Physician Societies and General Practitioner Societies.

Question 5 Please indicate the subject, the participant group, the duration and the frequency of these courses.

Other health professionals may include e.g. GPs, physiotherapists, dentists, etc.

Question 6 May we contact you for more information in the future?

If you allow us to contact you again, for example in case new courses are under development, this would be helpful when updating the survey.

Question 7 Additional comments

Feel free to add any comments on the Questionnaire, or to elaborate on any of your answers.
Introductory letter to the survey

University of Southern Denmark
Centre for Applied Health Services Research and Technology Assessment
W instløwparken 19, 3rd floor
DK-5000 Odense C, Denmark

Dear Sir, Madam,

We would like to ask your collaboration for a questionnaire on Health Technology Assessment (HTA) training and education in your organisation and your country. Enclosed you find a two-part Questionnaire on these issues. This survey on HTA education and training is part of a new European Union supported programme supporting HTA activities in Europe (the European Collaboration for Health Technology Assessment). The overall programme is co-ordinated by the Swedish Council on Technology Assessment in Health Care (SBU) in Stockholm. The group on HTA education and training is co-ordinated by the Danish Institute for HTA (DIHTA) in Copenhagen. All organisations involved are non-profit. The results of the survey will be made publicly available and are aimed at a better match of supply and demand in the field of HTA education and training in Europe. In addition, the information will be helpful for the HTA community in identifying needs for co-ordination and/or support for educational provisions.

It could be that you or the organisation that you are affiliated with is not involved in HTA or HTA training and education. In that case we would still appreciate your co-operation, because maybe you know other professionals or institutions that could be of help for us. Please return the questionnaire before the 6th of March. To assist in correctly filling out the Questionnaire, we enclose a brief manual. If any questions remain or if you have any additional remarks, please do not hesitate to contact the EU Survey Project Team. Thank you very much in advance for your co-operation.

Yours sincerely, on behalf of the European Survey Project Team,

Karla Douw
HTA researcher
tel + 45 65 50 30 86,
fax + 45 65 91 82 96, e-mail: kdo@cast.sdu.dk

1 HTA is research that examines short and long term consequences of the application of a health care technology (e.g. clinical, economical, societal, ethical, and legal consequences) with the aim of providing input to a policy decision. It concerns health care technologies in a broad sense, for the purpose of prevention, diagnosis, treatment and rehabilitation and in all phases (future, new, and widespread technologies).
Appendix 2 – Members of Working Group 5

Chair
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Copenhagen, Denmark

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Israeli Center for HTA
The Getner Institute
Tel Hashomer, Israel
Appendix 3
Personal Comments of Respondents

Kyrgyzstan - Institute of Health Care management and Public Health
Does expect to teach HTA university level course in next 3 years

Austria - Institute for Technology Assessment
On university level, EBM / Cochrane courses are still rare in Austria, but will be offered/attended more in the future. Since there is no university level education for public health or health economics there is ‘no place’ to fit in for HTA. But: HTA-courses will gain importance as training tools for hospital managers, for health/social insurance-managers, for ministry members.

Armenia - National Institute of Health, School of Health Care Management and Administration, Yerevan
Will be glad to participate and contribute HTA initiatives.

Lithuania - State Health Care Accreditation Service, Vilnius
I would like to teach a university level course in HTA. I would like to know if it possible to teach both courses. The Faculty of Medicine in Vilnius is also interested in the participation in this program. I had a talk with the head of Department.

Cyprus - University of Cyprus, Nicosia
The University of Cyprus does not have medicine or related subjects and hence does not offer any courses. HTA is carried out by the Biomedical Research Foundation, but we do not provide courses. We try to evaluate technology from an engineering-user view-point. The area of HTA is new to Cyprus and no real work is being done on this issue. When purchasing equipment we use international standards and specifications and try to rely on the work of other bodies. We do not do any of our own. Even the Cyprus standards adopt the IEC ones.

Scotland - Health Technology Board for Scotland, Glasgow
The HTA board was set up 6 months ago. The organisation is in the stage of recruiting appraisal staff. At the moment I have no information for the survey. I would be grateful if you could consider us for future involvement in your European work.

Yugoslavia - Institute of Public Health Novi Sad, Novi Sad
We are very interested in collaboration with ECHTA, so we kindly ask you for more information about HTA or HTA-related courses (who and when can organise them in our region, how to
supply financial resources etc.). We would be very pleased if you should inform us about that. We will appreciate for your co-operation.

Ukraine – Odessa State Medical University, Social Medicine and Health Care Management Department

Thank you for possibility to take part in European program on the Effectiveness control of medical technology. We need more information about the project and its participants. Please advise.
Training and Education in HTA in Europe - translating recommendations into practice

Introduction

Education in HTA has been receiving increasing attention for several years. It seems apparent that sufficient educational resources are not available. An indication of this is that HTA agencies themselves are increasingly involved in education, although this is not their primary mandate. This constitutes a need to identify the needs for HTA training, relevant target groups and existing training and education programmes in Europe. Support networks are particularly critical for those who are attempting to start HTA in countries where the field is new, for example in Eastern Europe. Another imperative seems to be the need for co-ordination of existing efforts in the field.

Working Group 5 on training and education in Europe was established as one of six working groups under the ECHTA project umbrella to address problems and suggest solutions.

The objectives of Working Group 5 are:

1. To identify available programs and educational resources
2. To identify target groups
3. To conceptualise the needs of these groups and develop a curriculum
4. To assist in the development of new provisions to address shortcomings
5. To participate in co-ordinating education and support activities in Europe
6. To develop a framework for support from the network to groups, institutions, countries in the process of entering the field of HTA

The first two objectives and part of the third objective were addressed by conducting a survey on training and education activities in HTA in Europe, i.e. the Working Group 5 survey report “Training and Education in Europe”.

The remainder of the objectives, and what could be called the objectives with a less analytic but a more operational focus, are addressed in this document by suggesting ways to implement the recommendations given as a result of the survey.

The survey

Working Group 5 decided to survey training and education activities in Europe. A questionnaire was developed based on the ISTAH C questionnaire to insure compatibility with ISTAH C data.
Furthermore an agreement on data sharing was made with ISTAH C and INAHTA\textsuperscript{106}. ISTAH C had conducted a similar survey a year earlier, and INAHTA had, parallel to Working Group 5, conducted a complementary survey on training and education offered by the HTA agencies themselves.

The (preliminary) results of the Working Group 5 survey are described in Part 1 “HTA Education and Training in Europe” by Douw, Vondeling and Bakketeig. This paper provides valuable information on training and education activities in Europe.

Supply of training and education in HTA

According to the survey, the supply of education and training in HTA is rapidly increasing. However, approximately half of all European countries (WHO definition) do not supply HTA courses, and the overall picture is rather scattered and with large variations in supply and quality - even within the European Union. Spain is without doubt the spearhead in Europe with an impressive supply of courses, while in contrast practically no courses are offered in Central and Eastern Europe, with the exceptions of Poland, Hungary, Estonia and Latvia (the two latter possibly due to Swedish support).

Parallel to the increase in supply of HTA courses, an even more rapid increase can be observed in the supply of HTA-related courses\textsuperscript{107}.

Content of courses

The content of courses varies greatly both within and among countries, and with few exceptions the picture must be characterised as scattered and poorly co-ordinated.

Teaching methods are largely traditional, and the integrative potential of the Internet seems to be more or less unexplored.

Translating recommendations into practice

Based on the survey report, on discussions in Working Group 5 and the results of a workshop in Copenhagen, March 2001, the working group agreed on seven recommendations on how to improve the supply, quality and co-ordination of training and education in HTA in Europe.

1. A common methodological framework for training and education in HTA in Europe should be developed.

\textsuperscript{106} International Network of Agencies in Health Technology Assessment

\textsuperscript{107} An HTA course is multidisciplinary in nature and includes all or most dimensions relevant to HTA, including, e.g. safety, efficacy, economic or financial aspects, and ethical, legal and social aspects of the use of a particular healthcare technology. In addition, issues such as the diffusion of technology in health care and the use of HTA in policy-making could be included in HTA courses in the broad sense of the word.

HTA-related courses have a narrower focus than HTA courses (monodisciplinary) and include, e.g. clinical epidemiology, evidence-based medicine, clinical trials, meta-analysis, economic evaluation, consensus conferences, technology management, decision-analysis, policy analysis, etc.

Definitions from the survey material
2. A common European curriculum as a basis for training and education in HTA at the university level should be developed.

3. A clearinghouse for information on training and education in HTA needs to be established.

4. A distance-learning programme in HTA needs to be developed that is tailored to economies in transition.

5. Central and Eastern European countries should be adopted by their EU neighbours and friends in a concerted action.

6. In several EU countries, INAH TA Agencies, local universities and professional organisations could explore this line of co-operation.

7. Priorities need to be set with regard to the development of courses for both ‘doers’ and ‘users’ of HTA at different levels.

Re 1+2) A basic HTA course and a European Master of Science in HTA

The survey concludes that a great variety of courses exist, and that the overall pattern is scattered at both the international and national levels.

The more work we do across borders, the more we utilise the work done in other countries. The more we put these results into our own national contexts, the more we need a common understanding of HTA at a fundamental and basic level - not only to ensure that we can communicate across borders, but also to ensure that the quality of the work we do lives up to certain agreed upon standards.

The way we teach HTA has importance for the way we utilise the skills taught. Hence, the tasks vested in Working Group 5 constitute an opportunity to promote a high international standard of training and education in HTA, an opportunity to promote a common international understanding of training and education and an opportunity to ensure a high level of compatibility.

A means to this end is to suggest the development of a common and agreed upon methodological framework for training and education in HTA in Europe; a methodological framework that can be used in introductory-level courses and in university-level courses. Such a methodological framework could be used as a general recipe for what an HTA course must consist of - a common denominator that should apply to all HTA courses. Such a core content course should be developed in terms of minimum demands, and hence by thinking in ways of learning objectives. To ensure methodological compatibility, it is recommended, that the development of such a basic course builds on key elements of a future European Master of Science (M Sc) in HTA (see below).
Another means is to develop a common curriculum for a European Master of Science degree in HTA. An outline for such a European Master of Science in HTA is presented in Part 3 of the Working Group 5 report, i.e. “Towards a European Master of Science in Health Technology Assessment”.

The short term objective of a European Master in HTA is to provide for training in HTA that draws on the present skills and courses in HTA of universities and HTA agencies across Europe. This base can be used to further develop core skills that are increasingly common to several nations in the European Union. The programme allows students to train mainly in their own countries, but encourages short term exchange with other European countries by providing courses within the network to suit this purpose.

The long-term objective of EMHTA is to generate a cadre of professional health technology assessors that is able to share a common European understanding of HTA, that is aware of both the individual characteristics and common interests of European countries and their historical and cultural roots, and that can systematically and competently refer to and conduct valid and appropriate assessments within and across European health systems.

Briefly stated: The short-term purpose is to guarantee that the scope and level of competencies are equivalent across Europe. The long-term purpose is to guarantee that the scope covers the most relevant HTA issues in Europe and EU health-related policies.

One way to introduce a European Master of Science in HTA would be through a pilot programme in several countries experienced in HTA. Building on experiences from a pilot programme, the MSc in HTA could be implemented more broadly at the European level.

To assure the quality of a European MSc programme in HTA, the document suggests the establishment of a European HTA Education Board comprised of, e.g. skilled educators, health technology assessors and professionals with knowledge of HTA at the European level.

Re 3) A clearinghouse on training and education in Europe

General co-ordination of training and education initiatives in Europe must be considered a first priority. It seems an obvious conclusion to suggest the establishment of European clearinghouse for training and education.

This suggestion is targeted at both content and supply aspects of training and education in Europe. First, such a clearinghouse would help promote compatibility among the variety of European initiatives on training and education. Second, a clearinghouse could function as a valuable instrument in supporting the growing supply of training and education, especially in Central and Eastern Europe.

The establishment of a clearinghouse for education and training should be carefully co-ordinated with the general recommendations for co-ordination and clearinghouse facilities suggested by the ECHTA project.
Re 4) A distance learning programme
Concerning the development of a distance learning programme, it is important not to duplicate work already done. Hence, it is suggested to await the results of the ISTAHC distance learning project.

Re 5+6) Supporting HTA in Central and Eastern Europe
The survey clearly shows that important target groups are “HTA newcomers” from the Central and Eastern European countries. There seems to be a specific need both in terms of the content and supply of training and education in these countries.

Content
Only a couple of Central and Eastern European states provide HTA courses, and the provision of HTA-related courses also seems to be scarce. Therefore, efforts to promote HTA training and education cannot be separated from initiatives to support the provision of HTA-related courses. It seems premature to focus exclusively on “genuine” HTA courses if the basis for these multidisciplinary courses only exists to a modest degree. This calls for a broad-based approach to the needs of these countries.

Supply
The supply of training and education seems very much to correlate with the level of the organisation of the HTA efforts in general. Hence, efforts to promote training and education in Central and Eastern Europe should be carefully co-ordinated with the general support to HTA initiatives in this region.

In general, it could be suggested to follow a two-track strategy; on one hand supporting the bottom-up efforts to provide the necessary supply of HTA and HTA-related courses, and on the other hand supporting the top-down efforts to build local structures for HTA. Both, but especially the latter, should be done in close co-operation with the general effort to promote HTA in Central and Eastern Europe.

“Adoption”
The survey itself and comments given in the questionnaires express need from the Central and Eastern European countries for co-operation with HTA experienced countries.

The survey shows that the “adoption” of HTA newcomers by experienced countries, agencies etc. has had a positive effect on the number of training and education activities. To date, this “adoption” has been relatively unorganised and based on the initiatives of specific individuals and/or agencies.

A network based on the suggested clearinghouse for training and education could provide a basis for well co-ordinated support to HTA newcomers. It is, however, recommended to highly
involve the WHO European Regional Office in the general support to Central and Eastern European countries, and perhaps WHO could even assume a co-ordinating role. It should, however, be emphasised that such a network/clearing house should function complementary to – and as a co-ordinated strengthening of – the bilateral relationships between countries, agencies etc, and not as an alternative. The aim should not be to transfer the valuable bilateral relationships into another structure, but instead to ensure that the efforts are well co-ordinated – especially among the countries experienced in HTA.

Re 7) Development of courses for users of HTA
The survey clearly shows that only a few of the programmes offered distinguish between courses for “doers” and courses for “users” of HTA. The survey also shows that even if the supply of HTA courses is increasing rapidly, the courses targeted at “users” have not been a priority in this process. Clearly, this represents an important shortcoming and requires attention.

It is suggested that a two-track strategy be used to address this shortcoming.

First, the communication of HTA and HTA results from “doers” to “users” should be a priority and an important and necessary element of any education and training in HTA. Very often “users” (and especially decision makers at the political and administrative levels) do not possess the necessary skills to interpret an HTA report, and very often “doers” do not possess the necessary skills to communicate HTA results to decision makers.

Second, the introductory courses in HTA should be offered to decision makers at all levels, prioritising the “user approach” for appraisal of HTA results. Such courses should be viewed not only as part of a training and education strategy, but should be considered an implicit element in the overall promotion of HTA.
Towards a European Master of Science in Health Technology Assessment

1. Introduction and objectives

As documented by the ECHTA Working Group 5 survey on education and training in health technology assessment (HTA) in Europe (1), there is an obvious need for better training in HTA. A potential way to secure better training in HTA is to organise a European Master of Science (MSc) programme in HTA. The time is right for such an initiative, not only because the need for such an educational programme has been identified by the survey referred to above (1), but also because HTA in Europe has evolved into a thriving community, with increasing individual, local and national needs for collaboration, exchange of knowledge and construction of a common core of knowledge to serve a future generation of assessors in policy and practice. These factors, in combination with the survey results, suggest that there is both a need and a basis for developing a European MSc in HTA.

Notwithstanding the lack of a European MSc in HTA, initiatives have been employed to establish an international MSc programme in HTA (the Ulysses Project). However, within the EU this effort is limited to Spain and Italy. Although two national MSc programmes in HTA have recently been established, in Spain and the United Kingdom, each of these has its own focus and fits into its respective national health care system.

In light of these data and the discussions that followed, the ECHTA Working Group 5 and the ECHTA Steering Committee reached a common view on how to attain both the short-term objective of improving education and training facilities in HTA in the European Union and the long-term objective of creating a cadre of health technology assessors in member states with a common European understanding.

It was agreed that a European Master of Science degree in Health Technology Assessment (EMHTA) can be realised by building on a network model. The degree will be conferred by a network of institutions (universities and HTA agencies) that each run part of a Master of Science educational programme.

The short-term objective of EMHTA is to provide training in HTA that draws on the present skills and courses in HTA of universities and HTA agencies across Europe, which can be used as the basis for developing core skills that are increasingly common to several nations in the European Union. The programme allows students to train mainly in their own countries, but encourages short-term exchange with other European countries by providing courses within the network to suit this purpose.

The long-term objective of EMHTA is to generate a cadre of professional health technology assessors that is able to share a common European understanding of HTA, that is aware of both
the individual characteristics and common interests of European countries and their historical and cultural roots and that can systematically and competently refer to and perform valid and appropriate assessments within and across European health systems.

Briefly stated: The short-term purpose is to guarantee that the scope and level of competencies are equivalent across Europe. The long-term purpose is to guarantee that the scope covers the most relevant HTA issues in Europe and EU health-related policies.

Furthermore, a European Master of Science programme in HTA will constitute a bottom-up approach to the general co-ordination of HTA and hence be a valuable contribution to the overall objective of the ECHTA project.

The ideas about the content and structure of the programme, as presented in section 2 below, build on the findings of a survey on HTA education and training in Europe (1). It recognises that a ‘European’ Master of Science programme in HTA should have a European component. In formulating these requirements the present document has benefited largely from a document published by the Association of Schools of Public Health in the European Region (ASPHER) on the issue of establishing a European Master of Science programme in Public Health (2).

The content of any educational programme should bear a close relationship to the defined acquisition of knowledge and skills of the students at the conclusion of training. In the case of the European MSc programme in HTA, at the end of their training the graduates should:

1. Share a basic understanding of HTA, being aware of significant affinities and differences among European countries and their historical and cultural roots.
2. Consider European perspectives in their approach to any HTA issue, when appropriate.
3. Be able to support decision-making across health systems in the European Union.
4. Be able and ready to systematically and competently refer to information on health technology and health policy issues that are relevant at the level of the European Union.

To achieve this purpose, a proposal is presented for a general structure of the programme. This is followed by a description of core principles for European degrees and how to achieve a European dimension in the programme. Then the issues of assuring quality and recognition of European degrees are addressed. Finally, an outline is provided of the role and organisation of the network of organisations involved in realising the programme.

2. General structure and content of a European Master of Science in Health Technology Assessment

2.1 Introduction

The 2-year programme is divided into a first year that has a theoretical orientation requiring only a part-time effort by the students, and a second year that has a practical orientation requiring a full-time effort. A starting point is to use the European Credit Transfer System (ECTS) to describe the workload of the programme. The assumption is that one credit is approximately
equivalent to a student workload of 25 to 30 hours, a full academic year is then equivalent to 60 ECTS.

2.2 Main general areas in the first year (core areas)
The student workload should be about 630 hours, 21 ECTS, achieved by 210 contact hours.

The EMHTA covers 5 main areas (compulsory courses), described below. A European dimension should be incorporated into each of these courses.

Course structure:

1. HTA principles and practice
Introducing HTA as a process or system, as a multidisciplinary policy oriented science, assessing one or a combination of relevant aspects of technologies. Introducing HTA as an international activity, but emphasising the European Union. Introducing the European Union, its institutions and its diversity in the health field.

2. Introduction to public health, epidemiology and biostatistics
Introduction to public health, history of public health in Europe, historical trends in major causes of morbidity and mortality, and differences within Europe in major determinants of morbidity and mortality.

   Introduction to basic epidemiology and statistics, types of data and data presentation, descriptive statistics, frequency distributions, mean, median and normal distribution and its properties, probability theory, sampling inferential statistics, inferences on means and proportions, analysis of categorical data, correlation and regression and assessment of risk.

3. Introduction to health economics with an emphasis on economic evaluation of health care programmes
Introduction to health economics emphasising the significance and relevance of health economics in the present health environment in the EU. Introduction of basic concepts in economics: scarcity, choice, opportunity cost, supply, demand, markets, public goods and non-market provision. Overview of economic evaluation; framework for and outline of economic evaluation methods: cost-minimisation analysis, cost-effectiveness analysis, cost-benefit analysis. The identification, quantification and valuation of costs. The determination, measurement and valuation of outcomes, including monetary benefit evaluation (willingness-to-pay approaches) and health-related quality of life measurement and valuation. Introduction to uncertainty, sensitivity analysis, decision analysis and equity in the finance and delivery of health care.
4. Methodological basis of HTA

Methods for identifying technologies, priority setting for assessment, testing (primary data collection), synthesis (including clinical appraisal, narrative and systematic reviews, meta-analysis) and formulation of recommendations, dissemination and implementation of assessments (guidelines, audits, consensus conferences etc.). Primary data collection and the subsequent steps include the following aspects of a technology: safety, efficacy, effectiveness, ethical, legal, social, educational, organisational and wider cultural aspects, where appropriate emphasising the context of the European Union. Methods for the study of the diffusion of technology, distinguishing adoption and use.

5. Introduction to health policy

Policies towards research and development in the health field, towards clinical experiments, and towards publication of research results; policies towards market approval, towards education, training, certification and accreditation; planning policies, policies towards cost containment, e.g. including budgets, investment controls and payment policies; policies towards dissemination and implementation of assessments and policies towards consumer information.

It is proposed to consider what type of concrete ways could be used in each area to introduce an effective European dimension in the objective/content of the courses (see section 4).

The student workload for each of these five core modules should be at a minimum of 90 hours (equivalent to 2 full weeks or to 3 ECTS credits). Therefore, a minimum 15 ECTS credits will be devoted to the main areas including the study of the European component.

2.3 Advanced modules

Each institution will offer its own advanced courses in each of the five main areas of HTA; the exact content of these courses has yet to be defined. Each student should choose at least two of the five advanced courses in the main areas of HTA; this component of the MSc programme in HTA may represent up to a maximum of 6 ECTS credits.

The structure of the first year is illustrated in Table 1.

Table 1. Structure of a European Master of Science Programme in HTA (first year)

<table>
<thead>
<tr>
<th>Compulsory courses (level 1) and elective courses (level 2)</th>
<th>Contactours</th>
<th>Student workload</th>
<th>ECTS Credit</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 HTA Principles and Practice (I and II)</td>
<td>30 (30)</td>
<td>90 (90)</td>
<td>3 (3)</td>
</tr>
<tr>
<td>2 Public health, epidemiology and biostatistics (I and II)</td>
<td>30 (30)</td>
<td>90 (90)</td>
<td>3 (3)</td>
</tr>
<tr>
<td>3 Health economics and economic evaluation (I and II)</td>
<td>30 (30)</td>
<td>90 (90)</td>
<td>3 (3)</td>
</tr>
<tr>
<td>4 Methodological basis for HTA (I and II)</td>
<td>30 (30)</td>
<td>90 (90)</td>
<td>3 (3)</td>
</tr>
<tr>
<td>5 Health Policy (I and II)</td>
<td>30 (30)</td>
<td>90 (90)</td>
<td>3 (3)</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>150 (150)</strong></td>
<td><strong>450 (450)</strong></td>
<td><strong>15 (15)</strong></td>
</tr>
</tbody>
</table>
2.4 Thesis (second year)

As writing a thesis constitutes an important part of the learning process and should remain close to the interests of the students and the availability of material etc., it is important to leave room for variation and then to organise a review mechanism which will guarantee that it meets the general purpose of the European MSc in HTA. To some extent, the thesis should demonstrate the competence acquired in the “European dimension”. The thesis should represent 60 ECTS credits (one-year full-time), with 30 to 60 contact hours.

3. Core principles for European degrees

Suppliers of HTA courses in Europe have a diverse history and purpose, distinguishing universities and HTA agencies, some of which function under governmental auspices while others are more free-standing. Likewise, the periods and styles of training vary widely, as (likely) do the standards of training. It can be expected that universities and HTA agencies that are interested in (the development of) a curriculum of a MSc in HTA will only participate enthusiastically if this does not require radical changes to the models of teaching, or rules for assessment and examination of students. Changes in the scope of subjects taught must retain an adequate focus on general health technology assessment training, while ensuring that the European dimension, as outlined below, is satisfied. Conforming to this line of reasoning, the proposed first step in the development of European degrees based on this resource is to concentrate on ways to develop good quality and relevant training that fits in with current practice. Universities and other legitimate degree-giving bodies would retain responsibility for the award of qualifications.

Institutions that participate in a network may be best suited to develop a European curriculum. If HTA agencies are involved, universities should be consulted to secure quality issues, and the universities and other legitimate degree-giving bodies should retain the responsibility for the award of qualifications that are valid both in individual Member States and throughout the European Union.

Adding a substantial European dimension to successful HTA courses through, e.g. strengthening core modules, sharing optional modules within and across institutions, exchanges and joint projects/thesis, will enhance learning opportunities for students and could lead to useful collaboration among staff.

4. Defining the European dimension

Two kinds of knowledge are necessary for a training programme to be deemed European. First, since health technology assessment respects no boundaries, especially in an area with free movement of capital, technology and, increasingly, of labour, it is important to have some understanding of health technology assessment problems in countries other than the student’s country of origin. This pertains to the European level and recognising that the institutions of Europe, most notably but not exclusively the European Union, have an increasingly important
effect on health, health technology and health policy. Second, some understanding of the cultural
diversity within Europe is needed and will be best acquired if students spend some time in
countries other than their home countries, e.g. by attending courses or course modules in
different countries.

Where feasible, it is best for a general introduction to the European content to be embedded in
teaching of general health technology assessment principles and practice (course 1). It is
suggested to establish a European HTA Education Board to define the content of the European
dimension (see sections 5, 6, 7 and 8).

5. Guaranteeing quality

As mentioned earlier, it is suggested to establish a European HTA Education Board. The main
tasks vested in this board will be to ensure the quality of the programme(s) and to approve the
European HTA degree. The board must include skilled educators and health technology
assessors, including professionals with knowledge of health technology assessment at the
European level. The board could be organised as a sub-committee of a future European Network
for HTA. Furthermore it is imperative to ensure close co-ordination between such a board and
the ISTAH C committee on education.

It is envisaged that designation of the Master of Science in HTA as an approved European degree
will give significant recruitment and marketing advantages to those universities that are approved
by the European HTA Education Board.

It is important to ensure that approved courses provide relevant and good quality training. In
practical terms, this means that there must be mechanisms in place that ensure scrutiny of quality
and content of teaching.

The peer review process as employed by the Association of Schools of Public Health in the
European Region (ASPH ER) could be used as a template for this purpose at the level of the
educational programme as a whole. For individual courses, modules or the thesis, an ad hoc
review of documents by external reviewers selected within the network may be more appropriate.
In a way this process will then be analogous to the well-established review of papers submitted to
a periodical.

6. Recognition of European degrees

It is important for the process of recognition of degrees to be transparent and fair. The aim is
not to restrict access to such degrees, but to ensure that approved programmes are relevant and of
high quality.

The process of approval should involve a preliminary application and interim approval only when
the Board is satisfied that the programme can meet the criteria. Full approval would be given
only when feedback from the first students is available and would be renewed on a 5-year basis.
Membership of the network will not in itself guarantee that the programme will be immediately approved as meeting the requirements for designation as a European degree.

It is important to maintain an appropriate balance between the European dimension of the programme and its scientific content since the Master of Science must meet both national requirements and European requirements. It is therefore suggested that, as a target, the content of European dimensions should represent at least 20% of the learning time in a European degree. This percentage is inspired by and identical to a similar norm in a European Master of Science in Public Health (2). It should be noted that it constitutes a yardstick to be assessed by reviewers of each programme.

In summary:

- Students register in the institution where they want to spend most of their study time, called the "host institution".
- The degree is delivered by the institution in which the student is registered, following its own regulations. These will be examined by the European HTA Education Board and will be made explicit about the parts of the programme which have to be done in other institutions.
- Some learning activities have to be taken in any of the other participating institutions and perhaps even outside these institutions. The learning activities have to be recognised as “European” in part or in total by the Board.
- The degree is validated by the European HTA Education Board on the basis of the principles defined in this agreement: i.e. a minimum of 20% of “European” dimension in the general HTA curriculum.

7. Role and organisation of a network of pilot programmes

The first stage of development of the MSc programme is to identify universities and HTA agencies that wish to ‘host’ European degrees. Each participating institution should agree:

1. To accept students from other universities in the network for one or a range of courses, and
2. To accept students for project or dissertation study from other institutions in the network.

In addition, ‘host’ institutions may wish to form partnerships on a bilateral basis with universities outside the network who wish to provide opportunities to take individual courses or for project study, but which do not at this stage wish to be part of the network.

An incremental development scenario is suggested, starting with the organisation of one or more ‘European modules’ to be offered to the students choosing to follow this curriculum. Based on a credit system whereby the students can have these courses recognised as part of their national educational scheme or a possible, future European Master of Science certificate, these modules
should add up to the student’s normal curriculum, until meeting the prerequisites for the European Master’s education. The use of the European Credit Transfer System (ECTS) is suggested.

8. Recommendations

8.1 Recommendations for participating institutions in the network
Each institution should prepare and submit its specific and individual proposals for its own (series of) modules (including placements and thesis) for which the specific objectives will show a European dimension.

The learning material and sources of information should be recorded by the contributing institutions in a database and made accessible to all partners.

Each institution should nominate a contact person to the European HTA Education Board to address the “European dimension” in the EM HTA. This contact person assists and supervises its implementation within the programme.

Each institution should develop a series of examples of various ways to implement the general recommendations of the European HTA Education Board on the European dimension of the course modules.

8.2 Recommendations at the level of the network
The network should compile the advantages and disadvantages, conditions and obstacles for exchanges of students, teachers and learning material.

The network should refine the European Credit Transfer System to allow the system to support a quality monitoring system that goes beyond its present administrative value.

The network should facilitate the exchange, storage and retrieval of national and/or regional information on HTA issues including course material specifically covering the European dimensions.

8.3 Recommendations for the tasks of the European HTA Education Board
A register of courses submitted by institutions will be organised and maintained by the European HTA Education Board and made accessible to everyone (submitted, reviewed, recommended, recognised).

The European HTA Education Board formulates recommendations on the European dimension of the compulsory and elective course modules.

The European HTA Education Board formulates minimum requirements for assessing language skills of candidates and specifies entrance criteria.
8.4 Recommendations to the European Union
The European Union could financially support the establishment of a European HTA Education Board and could provide means to enable the institutions that collaborate in the network to develop coherent and high-quality teaching material and courses.

9. References