

Peter Westerholm: Sweden - Organisation of Vocational and Academic training of OH professionals Uppsala University; Occupational and Environmental Medicine



Sweden - Specialist Training Occupational Physicians New Specialty Regulations and a New Profession 2009

- **History:**
- **1973 – Specialty Occupational Medicine defined by National Board of Health & Welfare (NBHW)**
- **1993 – Specialty Occupational Physician defined by NBHW**
- **1993 – New Basic specialty, Occupational and Environmental Medicine defined by NBHW**
- **2010 – NBHW decision: Phasing out of specialty Occupational Physician**
- **Objectives:**
 - **To construct a specialty domain targeting health risks at citizens work, at their homes and in the environment at large**
 - **to create a comprehensive specialty domain including R&D and practice**
 - **to offer to young physicians an attractive professional domain of equal worth in comparison with other specialty domains**
 - **to harmonize with development in the EU and internationally and for promotion of specialty Occupational Medicine**

Sweden 2010: Qualification to specialist in Occupational and Environmental Medicine (NBHW directives 2008:17)

- **Basic - ST(registrar)-posts under tutorship for three years in occupational health service or occupational & environment medicine departments. Minimal requirement – at least one year in each field**
- **Secondary – two years of ST-posts in psychiatry and General or Internal medicine posts during at least 6 months in each field**
- **Supplementary – six months of ST-posts in optional specialty fields physiology, allergology, dermatology, lung medicine, orthopedic surgery, neurology and rehabilitation medicine. Each post not to be held for shorter time than two months**
- **Courses (theoretical training) recommended: epidemiology, toxicology, allergology, statistics, research methods, occupational and environmental medicine, public health, dermatology, orthopedic medicine.**
- **Other courses to consider (examples): administration, health economics, management and leadership**
- **Other requirements: Tutored Project with written report. Documented involvement in quality development. Documentation of all courses and certifications**

Specialist training of ST-doctors

Actors and their roles

- **Health care provider** – Provides directives for integration of training programs with daily work in Health Service organization following documented routines making it possible to evaluate training of specialists
- **Clinical manager**
 - responsible for coordination of programs
 - assigning tutor(s) for ST-doctors
 - establishing individual ST-training programs following requirements in objectives in consultation with tutors
 - scheduling theoretical training elements and courses following requirements in objectives
 - auditing of training program regularly
- **Director of studies** – specialist degree doctor, organizational support to clinical manager
- **Tutor** - specialist degree doctor who supports, guides and evaluates competence development of ST-doctor. Tutor training compulsory

**Sweden - Specialist training
– Occupational and Environmental Medicine
Intermediate objectives in training of ST-doctors**

- **Medical competence - Subjects and Objectives**

Subject 1: To master evaluating connections between ill health and exposure in the work environment and in the environment in general

Teaching methods: Clinical service under supervision; Course (s); large professional assemblies; Diagnostics and treatment conference(s); theoretical studies

Follow-up: Certificate of successfully completed clinical service and competence achieved, issued by current mentor or course leader

Training of ST-doctors – Occupational and Environmental Medicine

Medical competence

- **Subject 2: To master evaluation of individual work capacity and occupational rehabilitation**

Teaching methods:

Clinical service under supervision; Course (s); large professional assemblies; Diagnostics and treatment conference(s); theoretical studies

Follow-up: Certificate of successfully completed clinical service and course(s) and competence achieved, issued by current mentor or course leader

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Medical competence – subject areas 3 - 7

- **Subject 3 – To master carrying out statutory medical controls and, where applicable, employability assessments**
- **Subject 4 – To master medical ethical issues in relation to both employers and other parties outside of health and medical care**
- **Subject 5 – To master carrying out group investigations and to master reporting back to the affected parties**
- **Subject 6 – To master devising medical examinations or other charting of ill health based on current exposure**
- **Subject 7 – To be able to manage clinical investigations of patients with conditions related to exposure in the working environment or the general environment**

Teaching methods: Clinical service under supervision, sitting-in (Subj 4), Quality and development work under supervision (Subj 6), Theoretical studies,

Certificates: Tutor or course leaders

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Medical competence – subject areas 8 - 12

- **Subject 8 – To be able to handle common medical conditions in the working population**
- **Subject 9 – To be able to evaluate effects of exposure conditions in different environments, and measures and to influence them**
- **Subject 10 - To have an understanding of the organisation´s effect on individuals and groups, and of health promotion and prevention**
- **Subject 11 – To have an understanding of the identification, evaluation and control of risk factors in work and wider environments**
- **Subject 12 – To have an understanding of work environment and health and safety legislation and of other applicable legislation**
- **Teaching methods: Clinical service under supervision, theoretical studies. Certificates issued by tutor or course leaders**

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Communicative

competence – subject areas 13 - 15

- **Subject area 13 – To be capable of dialogue and open contact with patients and their next of kin**
- **Subject area 14 – To be capable of communication, both oral and written with other doctors and co-workers**
- **Subject area 15 – to be capable of informing and instructing patients, their next of kin, other doctors, co-workers and students, as well as the various groups in working life and in the general public**

Teaching methods: Clinical service and instruction under supervision. Courses

Follow-up with certificates

Training of ST-doctors – Occupational and Environmental Medicine

leadership competence – subject areas 16 - 21

- **Subject area 16 – To be capable of mentoring other doctors and co-workers, as well as students**
- **Subject area 17 – To be capable of leading using collaboration and dialogue with co-workers as well as in a team**
- **Subject area 18 – To have an understanding of the organization, management and regulatory systems of health care, as well as of public authorities and organisations within the environment and health sectors**
- **Subject area 19 – To be capable of a medically scientific outlook and approach**
- **Subject area 20 – To have an understanding of research methods, including basic concepts of epidemiology, and methods for evidence-based medicine and the review of scientific information**
- **Subject area 21 – To have an understanding of and competence in evidence-based improvement and quality work**
- **Teaching: Courses, seminars, ; Certificates of tutors and course leaders**

Sweden – University-based training programmes in Occupational Health on Master (M.Sc.) level

- **Substitutes for vocational training programmes for OH professionals at the National Institute for Working Life closed in July 2007**
- **New academic degree (MSc) programs developed in collaboration involving Universities of Umeå, Lund, and Örebro, and Karolinska Institutet (Stockholm) and Royal Technical College (Stockholm)**
- **These programs are now being started**

Sweden - Universities and University Colleges involved

Umeå University: **Lage
Burström, Anita Pettersson-
Strömbäck**

Royal Technical College /
School of Technique and
Health: **Jörgen Eklund,
Annika Vänje**

Karolinska Institutet: **Teresia
Nyman**

Lund University: **Maria Albin,
Ulla Andersson, Christina
Gummesson**

Örebro University: **Anne-Marie
Porat, Agneta Tinnfält**



Umeå University

Master level program (1 year) - "Life at work and Health", 60 up

- **Main subjects:**
 - *Physical Working Environment*
 - *Behavioural Sciences*
 - *Ergonomics*
 - *Occupational Health Nurses*
- **Free (independent) courses:**
 - *Six courses*
- **Distance/Campus:**
 - *Campus 2+1 day four times / One year*
 - *Web-based curriculum*
- **Assurance of Quality and Relevance:**

Program management: Program council for the International www.aloha.org.umu.se
Master Programme in Public Health

1 university study week = 1,5 university points



Stockholm – collaborative project
Royal Technical College and
Karolinska Institutet



Royal Technical College (KTH): Master Program, 60 up (new)
_Technique. Health and Development of Working Environment

- Trans-scientific training on advanced level with particular attention given aspects of Technique & Health.
- Objective: Students to master involvement in development activities in the Working Environment field aiming at achievement of a sustainable working life.

Inriktning:

- o Strategies to diminish workplace hazards
- o Improvement and development of the Working Environment
- o Insights and knowledge on work organization and change management
- o A project report, possibly also in field "Occupational Health Services"

Stockholm – collaboration
Royal Technical College and
Karolinska Institutet



KI: Master degree course 60 up

Three separate study lines: Behavioural sciences, ergonomics,
occupational health nursing

Aims:

- o Knowledge and skills in identification of workplace hazards on individual and organization levels
- o Strategies in diminishing impact of workplace hazardous factors
- o Preventive waction to develop workplace environment.
- o Exam project implying in-depth study within the main study line chosen

Örebro University



Occupational Nursing Program 60 up -
"half-speed". First course in autumn 2009.

First term Occupational Health Services 7,5 up +
Science theory and research methods 7,5 up

Second term: Occupational physiology, Ergonomics,
Occupational Medicine 15 up

Third term : Occupational psychology, organization and
public health, rehabilitation 7,5 up.

Fourth term Master Exam project, 15 up

Umeå University – Occupational Health Master degree 120 up (Four lines)

Curriculum in common

Working Environment Technique (introd)	7,5 up
OH Law and regulations	7,5 up
Methods and masurement techn	7,5 up
Project	15 up
• Physical orientation	
• WP Hazards and Safety	7,5 up
• WP chemical agents	7,5 up
• Working Environment Techniques	7,5 up
• Behavioural Sciences	
• Organization OH services	7,5 up
• OH consultants´ role and methods	7,5 up
• Health Promotion + rehabilitation	7,5 up

Ergonomics and Occupational Nursing lines

Ergonomics line

Curriculum common for all lines
37,5 up

Introduction Working Environment
techniques, Law and regulations

Methods and measurement techn
Project

Specific subjects

WP field examination 7,5 up

Ergonomics + Rehabilitation 7,5 up

Hazard Analysis, Risk evaluation
7,5 up

Work related stress (individual +
group) 7,5 up

Occupational Nursing Line

Curriculum common for all lines 37,5
up

Specific subjects

Health Promotion + Occ Nursing +
Economics 7,5 up

Work-related stress (individual+Group
level) 7,5 up

Health communication & consultants
role 7,5 up

Lund University

Special challenges:

- Broad background range of profiles of students
- Master level on a higher level than originally thought
- Adaptation of curriculum to new level
- Balance interprofessional – specific to one profession curriculum

Future:

- Many applicants to courses
- Market needs & demands of trained specialists
- Reduction of number of persons trained as compared to earlier training programmes?

Important reminder

- Training programmes to involve teachers and tutors active in research

Sweden - Quality surveillance of University training – quality criteria

- Qualifications of teachers / tutors**
- **Admission criteria**
- **Openings to research careers**
- **Openings to BSc, Doctoral and Research program training**
- **Internationalization**
- **Requirements on premises, laboratories and equipment**
- **Requirements on vocational practice periods**
- **Stability and long-term prospects**
- **Labour market prospects**
- **Number of students**

Sweden - University OccupHealth training - Quality criteria (contn´d)

- Program plan for each course and curriculum line
- Program management and surveillance. Decisions
- Program name – Swedish and English
- University points Value
- Program level (s)
- Program objective (s)
- Goal compliance
- Development of curriculum
- Program content + literature
- Examination
- Program evaluation

Sweden – What have we learned so far from transfer of training of OH professionals to universities?

- To realize and accept broadness of scope in students earlier background
- To reappraise criteria for admission
- To set up objectives and aims with consequent plans for all courses and curricula
- To realize importance of stability of organization of teaching institution and good supply of competent tutors and teachers
- To find a good mix of theoretical and practical contents of curricula
- To reappraise models of course examination
- To reappraise models of evaluation of courses and programs