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The First Steps towards a Swedish MeSH

Historical Background:

Medlars 1965

The Medical Information Center (MIC), at the Karolinska Institute (KI), has MeSH (Medical Subject Headings) indexing traditions which date back over the last thirty years. In 1965 an agreement was signed between the National Library of Medicine (NLM) and KI making MIC the first Medlars center outside the USA. Under the terms of this agreement, MIC would index European medical journals according to MeSH for Medline and in exchange would be given the rights to distributing Medline in Europe. At its height five members of staff were employed to index approximately 40,000 articles per year at the center.

In 1988 the decision was made by MIC to index only the Danish, Norwegian and Swedish medical journals for physicians for Medline. The indexing department wanted to continue to index some medical journals in order to maintain the MeSH indexing "know-how" (competence) in Sweden as well as ensuring continued contact with NLM.

Swemed 1982

In 1982 MIC decided to create a Swedish Medline, Swemed, as a complement to Medline. The database was to be similar to Medline and indexed according to MeSH, covering articles in the Scandinavian languages but indexed in English. Today approximately 70 Swedish and Norwegian medical journals are indexed for Swemed which consists of 50,000 references. We hope that in the near future we will also be able to include Danish medical journals.

ArbSpriSwe CD-ROM 1994

In 1993 the producers of the databases Arbline, Spriline and Swemed, all Swedish databases in the medical/health care field, decided to produce a CD-ROM covering the three databases. The references in Arbline are indexed with both Swedish and English keywords from Arbline's own

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thesaurus. Spriline also indexes articles with their own controlled vocabulary in Swedish which automatically maps to corresponding MeSH terms. Swemed had at that time only English indexing according to MeSH.

The production of the CD-ROM made the databases accessible for new categories of health care personnel such as physical and occupational therapists, nurses, midwives, students and finally but by no means least those people seeking patient information.

These new usergroups were not familiar with medical terminology in English and preferred using Swedish keywords to obtain information from the databases. Thus was born the notion of translating the Mesh vocabulary to Swedish.

SweMeSH 1995

While demonstrating Swemed on the CD-ROM we became convinced of the necessity of translating the MeSH into Swedish. It was during these demonstrations that we saw how many more references were retrieved using Swedish free text searching in the databases Arbline and Spriline. Swemed was consistently at a disadvantage since it was only indexed according to the MeSH. We knew for a fact that Swemed covered clinical medicine considerably better than the other two databases, but that these references could not be retrieved by searching free text in Swedish or without familiarity with MeSH vocabulary.

How should we solve this problem?

- Should we begin to teach potential searchers English MeSH terminology?

or

-Should we translate the MeSH into Swedish?

We returned to work and started translating!

The first stage outlined in our working strategy was to begin by translating those MeSH terms used ten times or more in our database Swemed. This gave us some 4,700 Swedish terms and it also had an instant effect on our database since a lot of references were made searchable with Swedish MeSH terms. The second stage comprises the remaining MeSH terms used

in Swemed and when complete some 8,000 MeSH terms will have their Swedish equivalents.

Working Strategy

MeSH terms used in Swemed only

• First Stage: terms used 10 times or more ca. 4,700

• Second Stage: all terms used

We also decided to document our discussions, to create a manual with rules and examples.

Technical support was necessary from the start and the computer staff at MIC produced software for input, editing and printouts.

Technical Support

• MeSH file on a server at MIC

• Software produced by MIC's staff: input, editing, printout

A list of different translating aids were formed

Translating Aids

• Swemed

• Other Swedish databases (Spriline, Arbline etc)

• Index (Läkartidningen)

• MeSH vocabulary file (definitions)

• Dictionaries, reference books

• Experts, specialists

The Future

In the near future all MeSH terms will be translated and latin terminology added. Cooperation with other Nordic countries will hopefully result in a multilingual Scandinavian MeSH. Our involvement in terminlogy projects of the EU will also contribute to accomplishing and improving our translation work. We also hope for cooperation with the UMLS project at NLM, USA.

The Swedish MeSH can also be used for the indexing of other Swedish databases since its suitability has now been tested on a medical database of Swedish electronic documents. Another potentially interesting field is to use the Swedish MeSH in medical and nursing records documentation.

Future Development
• All MeSH terms (ca 18,000)
• Latin terminology
• Indexing other Swedish databases
• Medical and nursing records
• Nordic cooperation
• EU projects
• UMLS