CAMbrella
A pan-European research network for Complementary and Alternative Medicine

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Deliverable 1 - updated*

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This report is an updated version of Deliverable 1 and replaces the version submitted to EC in January 2011.

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0. Executive summary

Introduction

Worldwide, the terms used for defining complementary and alternative medicine (CAM) and methods, procedures, or therapies related to CAM vary greatly. A certain method, procedure or therapy might be regarded as part of CAM in one country while in other countries the very same procedure might not be related to CAM, but to normal life style, conventional medicine, psychology or philosophy. There is also a huge variety of definitions which is impractical, both for research purposes and with regard to EU conformity. Therefore, the CAMbrella project begins with reflections on the development of terminology in CAM and the current worldwide and European use of terms by citizens, patients and providers, European and national government agencies as well as those used in research. We focus on country-specific differences within this working group (Work Package 1).

According to the 'Description of Work' (DoW, Annex I of Grant Agreement No. 241951), the overall objective of WP1 is to develop a Europe-wide acceptable and pragmatic definition of 'Complementary and Alternative Medicine' (CAM) which can be used to systematically research the prevalence and legal status of CAM in Europe, as well as to investigate the citizens' demands and providers' perspectives related to CAM in general and within the CAMbrella coordinating activities.

Objectives

The DoW defines the following tasks as the specific objectives of Work Package 1:

Task 1: Existing terminology in research

Identifying and analysing the existing terms and definitions of CAM published by researchers.

Task 2: Explore terminology outside of research

Analysing and integrating terms and definitions of CAM being used in surveys as well as in publications of stakeholders to identify specific characteristics.

Task 3: Core set and country-specific supplements

Give a core set of CAM disciplines and methods used all over Europe and, additionally, a list of country-specific CAM disciplines and methods.

Task 4: Preliminary CAM terminology

Prepare a preliminary pan-European definition of CAM and its disciplines and respective methods.

Task 5: Practical (initially: final) pan-European definition of CAM, its disciplines and respective methods

Developing a practical pan-European definition of CAM, its disciplines, and respective methods in a CAMbrella consensus meeting.

This updated report (Deliverable 1) focuses on the results regarding tasks 1 to 4. The final task 5 of WP1 has been addressed in Deliverable 3 and thus complements the present report. The present version is an update of Deliverable 1 and replaces the previous report (submitted to EC in January 2011).

Results

Task 1: Existing terminologies in research (Level 1)

An analysis of the scientific literature of the past 20 years, restricted mainly to publications in Medline-listed journals, identified a wide range of publications dealing with 'CAM' (or other top terms which are used roughly synonymously). Nearly all of them relate to a small number of publications which provide definitions for CAM.

Before 1990, there were few scientific publications dealing with 'alternative medicine' (AM). Since then this term was initially replaced by the more neutral term 'unconventional medicine' (UCM) and later by 'complementary medicine' (CM), without any relevant changes in definition. The common characteristic of these terms is that they describe the subject as separate from conventional medicine. One of the first definitions - 'medical interventions not taught widely at U.S. medical schools or generally available at U.S. hospitals' - was adapted by NCCAM. The Cochrane collaboration defined CM as 'diagnosis, treatment and/or prevention which complements mainstream medicine by contributing to a common whole, by satisfying a demand not met by orthodoxy or by diversifying the conceptual frameworks of medicine'.

CAM in the U.S. comprises a broad spectrum of all methods of health promotion and prevention, including e.g. prayer, body and mind techniques, healthy life style, complementary and alternative systems, methods and procedures. In Europe, some of these are related to other fields such as psychological medicine. As a consequence, the differences between the U.S. and the European understanding and meaning of CAM should be considered carefully.

Integrative Medicine (IM), a term developed in the U.S. about 10 years ago and which is increasingly used in publications, seems to replace other terms such as CM, UCM or CAM: "Integrative medicine is the coordinated application of a variety of healing, prevention, and treatment modalities in therapeutic settings. These modalities include those from conventional medicine, complementary and alternative medicine, and traditional and culture-specific practices." With this definition IM refers to the setting of the provision rather than to the methods themselves. Integrative Health or Integrated Health care (IH) might reflect the development of CAM within a broader concept

In summary, CAM, IM and IH represent three different categories which should not be used as synonyms. CAM is defined by the spectrum of methods, which may be applied complementarily or alternatively to conventional medicine. It might be considered ‘integrative’ if delivered by licensed conventional health care providers trained in both conventional and complementary methods and provided within a conventional medical care context.

Task 2: Exploring terminologies and definitions outside of research (Level 1)

CAM is not the only term referring to treatment methods outside conventional medicine/medical care. The term was developed and propagated by influential U.S. federal institutions during the past 20 years. Over time, the U.S. American understanding of CAM has come to include the widest possible range of methods, e.g. religious practices like praying, physical activity, and other health related life style habits. Consequently, high prevalence rates are found in the U.S. In most European countries, however, the understanding of CAM is significantly narrower.

With respect to the head term for the area of interest, most EU countries have used the term 'alternative medicine' for many years – even before the U.S. developments in that field. In some EU countries, the terms 'unconventional medicine' (UCM) or 'non-conventional/ non-orthodox medicine/methods' are preferred by politicians and governments. Numerous other synonyms exist for 'CAM', along with terms used outside of scientific literature, including, for instance, 'experience-based medicine' (Erfahrungsheilkunde), 'holistic medicine' (Ganzheitsmedizin), 'natural medicine' (medicina naturista, Naturheilkunde) in a broader sense than originated in the 19th century, or 'other medicine' (médecine deuxième).

Taking a global perspective, WHO prefers 'Traditional Medicine' (TM) for countries that have their own traditional medical system: "Traditional medicine (TM), as including diverse health practices, approaches, knowledge and beliefs incorporating plant, animal, and/or mineral based medicines, …to maintain well-being, as well as to treat, diagnose or prevent illness, is a comprehensive term used to refer both to TM systems …, and to various forms of indigenous medicine." "The term 'traditional medicine' refers to ways of protecting and restoring health that existed before the arrival of modern medicine. As the term implies, these approaches to health belong to the traditions of each country and have been handed down from generation to generation." For Western countries, however, the WHO mainly defines the following practices as 'CAM': "CAM [comprises]… a broad set of health practices that are not part of a country's own tradition, or not integrated into its dominant health care system" (WHO 2002).

Little attention seems to have been paid to the fact that there is also a European tradition of medicine with ancient Greek and Roman roots, which might be called 'Traditional European Medicine (TEM)'. This is not yet appropriately considered by the WHO or other stakeholders, with the exception of non-medical practitioners in Switzerland, who use TEM and TEN (Traditional European Natural healing) in parallel meaning to other traditional or special medicinal systems like TCM (Traditional Chinese Medicine). TEM then includes natural healing methods (herbal medicine, manual methods, exercise, healthy nutrition etc.) broadened by humoralism based methods (e.g. bleeding, cupping, leaches).

Task 3a: Core set of CAM disciplines and country-specific supplements

In a meeting in Tromsø, May 2010, the working group agreed that the level of awareness (knowledge among the general population), provision and use (prevalence) should be taken as the relevant parameters for judging the importance of a CAM therapy. Based on

preliminary expert opinions (relying on personal judgment and data, if available), the following are among the most important CAM disciplines in the EU (in alphabetical order): acupuncture (various methods), anthroposophic medicine, herbal medicine, homeopathy, manual therapies (chiropractic, massage, osteopathy, reflexology), natural medicine (including aromatherapy, herbal medicine, nutrition, food supplements, exercise, lifestyle advice and psychological techniques), and Traditional Chinese Medicine (various methods and related techniques).

Task 3b: Additional country-specific CAM disciplines and special procedures (Levels 2, 3, 4)

The use (prevalence) of CAM disciplines differs considerably between EU countries, also with respect to additional, country-specific ones. There are further CAM disciplines and methods which are regarded as major disciplines in individual countries. These country-specific disciplines and methods may also be used in other countries, but to a lesser degree, thus not reaching the same level of awareness and prevalence rates (for details on how 'importance' was rated see 4.4.1). Some of the presumed country-specific disciplines/methods are classified as conventional medicine rather than CAM in other countries, e.g. balneology, which is related to physical medicine in Germany and elsewhere. The following are examples which might be considered as relevant country-specific disciplines (not exhaustive): Austria: energetic medicine; Denmark: visualization; France: mesotherapy; Germany: breath therapy, neural therapy (according to Ferdinand Huneke), hydrotherapy or water therapy according to Sebastian Kneipp; Hungary: dance therapy; Sweden: naprapathy, Rosen method. It seems that with regard to a range of methods, the patterns of use are similar in certain groups of countries like Scandinavian, Mediterranean or German-speaking countries.

Task 4: Preliminary CAM terminology

WP1 suggests the following hierarchy: On Level 1 (overarching term or top term), 'American CAM' and 'European CAM' could be distinguished because of differences regarding the inclusion of disciplines and methods. Considering the major differences in interpretation and also implementation in the health system in many European countries, the working group discussed the need for a Europe-specific definition and suggested a new concept and term, 'Complementary European Medicine', for discussion.

Conclusion

As a result of its first working period, WP1 has provided a preliminary definition of CAM in Europe. The most important CAM disciplines used throughout Europe and additional country-specific CAM methods/procedures were identified as a working basis for the other CAMbrella Work Packages.

1. Introduction

The present report constitutes an updated version of Deliverable 1 of the CAMbrella project and is provided by Work Package (WP) 1 'Terminology and definition of CAM methods'.

According to the 'Description of Work' (Annex I of Grant Agreement No. 241951) the overall objective of WP1 is to develop a Europe-wide acceptable and pragmatic definition of 'Complementary and Alternative Medicine' (CAM) which can be used to systematically research the prevalence and legal status of CAM in Europe, as well as to investigate the citizens' demands and providers' perspectives related to CAM in general and within the CAMbrella coordinating activities.
Due to different traditions and cultures there is a vast heterogeneity between CAM disciplines and methods used in the various regions of the world. Consequently an at least Europe-wide investigation of CAM terms and definitions is needed considering three aspects:

a) The history of terms and definitions

b) Terms and definitions actually used by authorities, researchers, patients and providers

c) Consensus towards a Europe-wide acceptable and pragmatic definition of CAM

The results of WP1 are to facilitate a comparative knowledge base concerning the demand for CAM and its prevalence in different EU member states. This will have a fundamental impact on future research projects, allowing valid comparisons that are currently impossible because of the various definitions used in different environments. WP1 will provide terminology taking into account the different social, ethnic, cultural and linguistic traditions that implicitly underlie natural healing procedures in different European and worldwide regions. This terminology will consider the perspectives of government authorities, researchers, providers, funding bodies (research and clinical programs) and patients/citizens. Within the CAMbrella project the results of WP1 will have an important influence on the other Work Packages, which will use the resulting definitions as a working basis.

2. Objectives

The Description of Work defines the following tasks as the specific objectives of this report:

Task 1: Existing terminology in research
Identifying and analysing the existing terms and definitions of CAM published by researchers.

Task 2: Explore terminology outside of research
Analysing and integrating terms and definitions of CAM being used in surveys as well as in publications of stakeholders to identify specific characteristics.

Task 3: Core set and country-specific supplements
Give a core set of CAM disciplines and methods used all over Europe and, additionally, a list of country-specific CAM disciplines and methods.

Task 4: Preliminary CAM terminology
Prepare a preliminary pan-European definition of CAM and its disciplines and respective methods.

Task 5: Final pan-European definition of CAM, its disciplines and respective methods
Developing a practical pan-European definition of CAM, its disciplines, and respective methods in a CAMbrella consensus meeting.

3. Methodology / Working procedure

Following the above outline, WP1 started with an analysis of the terms existing in the literature to refer to the field of CAM. This revealed interesting differences e.g. between the U.S. American and the European interpretation of CAM. In a second step, the research-oriented perspective was widened to take into account publications of various stakeholders. Terminology used in research (see chapter 4.2) indeed differs markedly from terminology outside of research – among non-medical providers and also in everyday language and the general media (see chapter 4.3). This finding will be of importance for the pan-European definition.

To fulfil Task 3 ("Identify a preliminary core-set of CAM disciplines used all over Europe"), WP1 sent out a questionnaire to other members in the project and to CAM specialists recommended by the Advisory Board. The questionnaire asked for the most important disciplines and methods in the respective countries. Importance was to be based on two criteria, awareness (knowledge among the general population) and incidence of use, with both criteria to be assessed on semi-quantitative scales. On this basis, WP1 developed a preliminary core set of methods and disciplines that are known and used consistently all over Europe, as well as an overview of methods and disciplines that indicate the different traditions and cultures in specific EU member states (see chapter 4.4.3 Additional, country-specific CAM disciplines and methods). In view of concerns raised by some members of the Advisory Board we note that this procedure is a rather approximate one due to certain variability in the nature of the national experts' subjective input; however, the results concerning the core set of disciplines were quite consistent. The results need to be cross-checked with the results obtained by other working groups based on other available data (see discussion of criteria for 'importance' in chapter 4.4.1.).

The work of WP1 was coordinated mainly by e-mails, which were sent in a systematic manner from the WP leader to all members of the working group and, where needed, to additional CAMbrella participants.

Initially, there were some controversial discussions about the procedure and working plan (top down versus bottom up approaches in the hierarchy of definitions of CAM). Finally, the working plan was established in an extraordinary meeting of several WP members and members of the Management Board on April 28, 2010 in Berlin.

This working plan was distributed and then presented and discussed in a working group meeting on May 19, 2010 in Tromsø. The related procedures were also discussed there: The results of Task 1 (gathering definitions of CAM) were outlined, also during the CAMbrella Symposium at the ISCMR Congress. For Task 2 input was requested from each country and from members of the Advisory Board. The use of synonyms and precursor terms of 'CAM' in Germany during the last century was presented as an example. For Task 3, the set of methods to be focused on (major disciplines) was discussed, opting for a restriction to a number below 20 for each country. Since the results of other WPs were not yet available at

that time, a preliminary estimate was proposed in a questionnaire to be sent to specialists in each country, asking for a list of the most important disciplines in his country. After intensive discussion the finalised questionnaire asking for an estimate of the individual methods' prevalence and level of awareness on semi-quantitative scales was sent to the WP1 members and other specialists from further EU countries. For some countries, however, it has so far been impossible to find a specialist with knowledge broad enough to cover all CAM methods in the respective country, and several questionnaires were not returned. In a further step, the WP Leader developed and distributed a second questionnaire addressing the synonyms for CAM (Level 1) used in each country (Task 2) beyond the terms used in international scientific publications; the questionnaire asked also about relation to the decades in which they had been used. However, there was no return of these questionnaires.

The WP Leader then developed major parts of Deliverable 1, which he then sent around for review by the WP members. The WP Leader also suggested the concept of Complementary European Medicine (CEM) in contrast to the concept of CAM, which is influenced mainly by the U.S. This concept was presented to the WP group at a meeting in Berlin in early December 2010. A further, more in-depth discussion of this concept was requested by a majority of the group but was not possible until the Bologna meeting in March 2011. The concept of a new European-specific Term (CEM) was abandoned by the working group but introduced to a greater audience in an editorial by the WP Leader and his superior[1].

Finally a CAMbrella consensus meeting (WP 1 group plus Scientific Steering Committee invited) took place in Berlin in May 2011. In preparation, a questionnaire asking about the subjective need for consensus on psychological factors etc. was distributed and answered by some of the participants. At the meeting, part of the attendants expressed a preference for a more global definition. A new proposal based on the WHO definition of Traditional Medicine and including some Europe-specific aspects was developed by members of WP1 (subject of Deliverable 3) and found approval by the majority.
The publications regarding terminology have been screened by search in PUBMED (by search terms definition, terminology AND CAM) to this date. Furthermore the related journals in national contexts had been screened by members of the WP1 complemented by further references to publications, web-pages etc. by members of CAMbrella, Advisory Board members and others.

[1] Uehleke, B, Saller, R: Towards a European Term for Complementary and Alternative Medicine (CAM): Complementary European Medicine (CEM) Forsch Komplementmed 2011;18:66-67

Table 1: Activities of WP 1 in 2010 and 2011

Date	**Activity**	**Purpose**
22/01/10	WP1 workshop at Kick-off meeting	Ideas for working plan
March 10	E-mails and bilateral phone calls	Development of working plan
28/04/10	Meeting in Berlin	Finalisation of working plan
19/05/10	WP1 meeting in Tromsø	Internal presentation
20/05/10	WP1 presented at international congress (ICCMR Tromsø)	Presentation to scientific community
June 2010	E-mails and bilateral phone calls	Development of questionnaire 1
	Distribution of Questionnaire 1	Identify major disciplines
June-Oct 10	E-mails and bilateral phone calls	Collection of data
Oct 2010	Distribution of Questionnaire 2	Collection of data
Nov 2010	First draft Deliverable 1	Comments and input
02/12/10	WP1 meeting in Berlin	Discuss Deliverable 1
Dec 10/Jan 11	Bilateral phone calls, e-mails	Review and finalisation of Deliv. 1
23/03/11	Meeting in Bologna	Discussion of major disciplines
25/05/11	WP1 Consensus meeting in Berlin	Discussion of definitions
July/Aug/11	Input to draft D3 and D1rev	Comments and input
Sept-Dec 11	Follow-up of literature	Collection of recent publications

4. Results

4.1. Hierarchy of terminologies and definitions

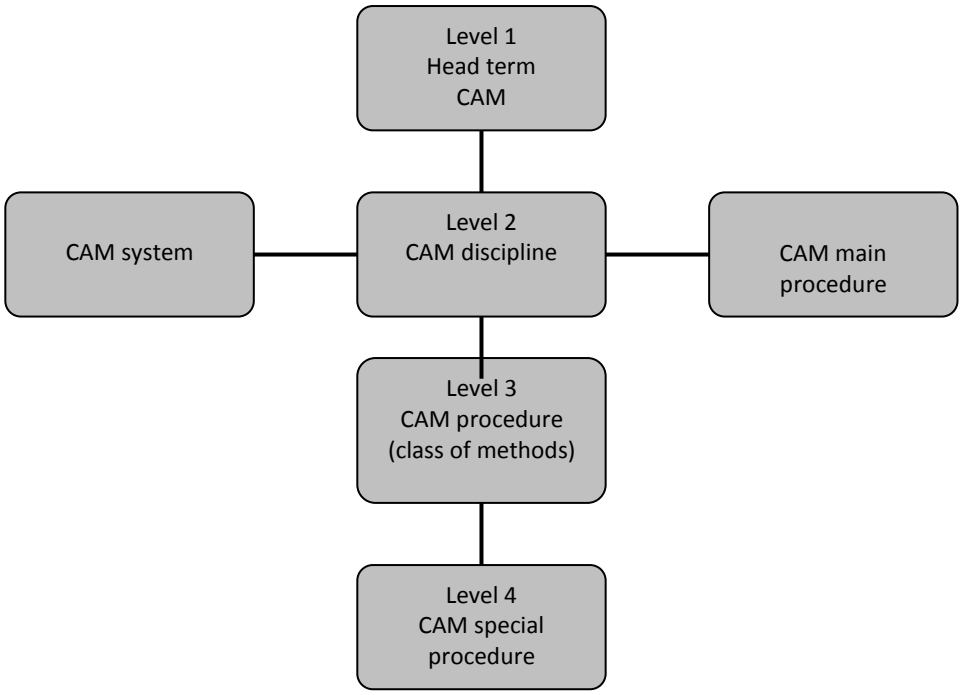
The terms used for defining CAM and its methods or procedures vary considerably. Terms like 'modality', 'system', or 'procedure' are often used in an inconsistent manner without a distinct relation to a level within a given hierarchy. A 4-level hierarchy is illustrated using a fasting procedure as an example:

- Level 1: overarching term or top term (CAM)
- Level 2: system (e.g. Traditional European Medicine/Naturopathy)
- Level 3: class of methods (e.g. nutrition)
- Level 4: special procedure (e.g. therapeutic fasting according to Buchinger).

It is important to note that some classes of methods (Level 3) are described much better than the superimposed system itself, e.g. acupuncture techniques are more used and known than TCM.

WP 1 decided to use the above hierarchy and classes of terms for CAMbrella. A more detailed explanation of the procedure of systematization of terms and disciplines can be found in ANNEX 1.

Figure 1: Graphical representation of the multi-level structure of CAM terminology



4.2. Task 1: Existing CAM terminologies in research (concerning Level 1)

4.2.1. Background / Introduction

An analysis of the scientific[2] literature of the past 20 years identified a wide range of publications dealing with 'CAM' (or other top terms which are used roughly synonymously) when restricted to peer-reviewed publications with an impact factor retrieved by a scientific search engine such as Medline. Nearly all of them relate to a small number of publications which provide definitions for CAM or other head terms. The present report also considers terms and definitions introduced by non-scientific organizations like WHO or other authorities, which were often referenced in scientific literature.
Other publications in the so-called 'grey literature' are not regarded as 'scientific', even if published in nationally well-recognised organs. There is also a certain bias since contributions from authors in non-English speaking countries are often difficult to retrieve if published in national 'grey literature' that is not regarded as international 'scientific literature'.
This imbalance was the reason why special CAM data-bases were established in various EU-countries, with the intention to incorporate national publications including the 'grey literature' relating to CAM.

The number of scientific publications about CAM has increased significantly since 1990. Before that date, there were only isolated scientific publications dealing with 'alternative medicine'. In scientific publications of the 1990's the older term 'alternative medicine' (AM) was gradually replaced by the more neutral term 'unconventional medicine' (UCM) and later by 'complementary medicine' (CM). By contrast, the term 'alternative medicine' continued to be used by citizens and non-medical providers for many years - in many European countries until now. When AM was replaced by CM, this happened without a clear differentiation to the effect that AM would exclude concomitant mainstream medicine while CM supplements conventional medicine, being a kind of 'add-on'. So finally the term CM was used as a synonym to AM. `Alternative Medicine´ might be seen in a negative connotation from mainstream perspective in so far that AM would pretend to be a complete alternative in general which in fact is the case in some medical conditions only. Pretending that mainstream is generally considered the standard, complementary medicine would just complement it in a rather subordinate role. On the other hand, many CAM health professionals consider their approach as superior to that of mainstream medicine and do not like to be just complementary, i.e. playing second fiddle.

A few academic groups and chairs for Naturopathy and Complementary Medicine had been introduced at medical universities in Europe[3], but often without relevant financial funding[4].

[2] See the sceptical reflections on 'real science' by John Ziman: Spier 2002
[3] The first re-establishment of a chair for natural healing at a German medical faculty after the 1940's took place in 1989: (full) chair and clinic for natural healing, Prof. Dr. Malte Bühring at the Free University of Berlin.

The new professors had good reasons – personally and on behalf of their institutions - to claim that they would not oppose but rather maintain close dialogue with, conventional medicine. Their aim was that they would serve to bridge the gap between both parties. Some of these new professors preferred to stick to the term 'natural medicine' instead of 'complementary medicine'[5], since natural medicine in its special definition is much closer to and has a significant overlap with conventional medicine, especially physical therapy & rehabilitation, preventive medicine, sports medicine and psychosomatic medicine. They also wished to not get involved in the challenges of the much criticised homeopathy, for example. This situation is markedly different to that in the U.S., where first publications revealed an unexpectedly high prevalence of CAM use, with the interpretation that U.S. citizens would use alternative medicine even more frequently than visit their physician. As a consequence, the U.S. government put great efforts and large sums into further investigating the phenomena related to citizens´ use of CAM.
Subsequently, the awareness and use of the term CAM increased in Europe in most countries, however, much more among medical scientists than in the general population. This happened without sufficient academic discussion on whether such a definition developed in the U.S. would be adequate for other parts of the world. However, in the U.S. the academic interest in this field has been immense compared to that in Europe, mainly due to the political interest and the substantial research funding available in the U.S.

In some EU countries the term 'unconventional medicine' (UCM) is used instead of AM or CM. UCM is a term that appears quite neutral and is often used by politicians, governments, etc.[6] and was used by EU-institutions in the 1990ies, but in current documents it is consistently referred to as CAM. Some publications also use the terms 'non-orthodox' medicine/methods instead of 'unconventional medicine'.[7]

The government of Baden-Württemberg/Germany financed another chair for natural healing at the University of Ulm, but the university opened a second department of biochemical pharmacology under that label, which was turned into a department of clinical pharmacology in 1997 with the replacement of the first professor.
Switzerland opened a professorship/institute for natural healing since 1994 (Prof. Dr. Reinhard Saller).
In Exeter/UK there is a chair for 'Complementary Medicine' (Prof. Dr. Edzard Ernst).
At the German private University of Witten-Herdecke, the chair for 'Medizintheorie' (medical theory) was finally turned into a chair for 'Medizintheorie, Integrative und Anthroposophische Medizin'.
In the late 1990's, further chairs/professorships were established in Berne/Switzerland, and two more were set up in Germany after 2000 at the Universities of Rostock and Essen.

[4] The Chair for Natural healing at the FU Berlin was sponsored by the Moabit academic teaching hospital, which accommodated the department for Natural healing as one of its departments for Internal medicine.
The Chair for Complementary Medicine in Exeter, UK, was sponsored by the Laing foundation.
No further chairs have been funded by governments with the exception of Zürich and Berne/Switzerland

[5] The title of the German scientific CAM journal was 'Forschende Komplementärmedizin und klassische Naturheilverfahren' from 2000 to 2005 to express the notion that 'klassische Naturheilverfahren' (classical natural healing methods) belong to mainstream medicine rather than to CAM.

[6] In Germany there was an official, funded research project (10 mn Deutsche Mark) on 'Unkonventionelle Medizinische Richtungen' in the 1990's. See: Matthiessen, Rosslenbroich & Schmidt (Hrg DLR). Unkonventionelle Medizinische Richtungen – Bestandsaufnahme zur Forschungssituation. Bonn 1992 ….
In Italy 'medicine non convenzionali' is mainly used.

[7] 'Orthodox' has a rather negative meaning for mainstream or conventional medicine or biomedicine, like conservative, not open to new developments, etc.

The WHO, however, taking into account the situation in Asia, Africa, South-Africa and other regions, preferred 'Traditional Medicine' for countries that have their own traditional medical system outside of western medicine. It is important to realize that in many developing countries no medicine other than the local traditional one is available for major parts of the population. For western countries, however, WHO mainly defines such practices as 'CAM'. For Europe, this is not fully appropriate since WHO would not acknowledge that there is one traditional medical system for Europe derived from the ancient Greek medical system. There are good reasons to differentiate between 'Traditional European Medicine', focusing on a healthy way of living to accumulate self-healing forces and relating to humoralism, on the one hand, and the organ- and cell-oriented scientific modern medicine on the other.

Traditional European Medicine (TEM) has a considerable overlap to Traditional Oriental Medicine, but differs from TCM with respect to important basic ideas[8]. For example, in TCM the concept of self-healing powers in the body is not known and therefore a need for regulation of “energies” with various external techniques. Recognizing TEM as a corresponding traditional system would induce a well-balanced rearrangement of the definitions by the WHO. TEM includes natural healing methods which play a role in the tradition of Western medicine over more than 2000 years: water, exercise and massage, nutrition, 'Ordnung' (mind-body), herbs, sunlight and also balneology, and some 'ausleitende Verfahren' (Draining methods, e.g. cupping, leeches).[9] TEM and TEN (Traditional European Natural healing) are terms recently coming up mainly in Germany and Switzerland.

4.2.2. Reflections on the term 'medicine'

The word 'medicine', which is included in most of the above terms, may have different meanings. In the conjunctions mentioned above, it is mainly used to suggest an own system differing from the system of conventional medicine in general. This stands in contrast to conventional medicine advocates, who claim that there is only one medicine – which they would call scientific medicine (nowadays often equated with 'evidence-based medicine'). The understanding of 'medicine', when used in relation to conventional medicine, is somewhat narrower, with a focus on treating illness. In many CAM methods, e.g. natural healing methods, the focus is primarily on the support of health.

'Medicines' is often used in a restrictive sense including only drugs and supplements. Abbreviations like 'CAM' are then interpreted as 'complementary and alternative medicine**s**'. This kind of interpretation can be found in publications by pharmacologists, pharmacists, and also by regulatory bodies of governments dealing with herbal products, homeopathic products, vitamins, and dietary supplements. It would appear that some of these authors

[8] Unschuld PU: Was ist Medizin? Westliche und östliche Wege der Heilkunst. München 2003
[9] Uehleke 2007

refer to alternative, complementary or unconventional medicines as CAM, disregarding the 'everyday' interpretation of medicine, in which medicines/supplements for oral or topical use are only a subset.[10] Other authors use 'therapies' instead of medicine, speaking of CAT (Complementary and alternative therapies) instead of CAM.[11] In a broader sense, 'medicine' would encompass 'health care', 'care' and 'healing' – or vice versa. 'Health care' and 'care' are often used in publications by nursing specialists, 'healing' in those by (unregulated) healers.
In this report we will not differentiate between 'medicine', 'health care', 'therapies', 'healing arts' and 'modalities' when these terms are part of a term like CAM, IM etc., but will refer to them equally with the term 'medicine'.

4.2.3. Terms for 'conventional medicine'

The various synonyms used for CAM are reflected by even more synonyms for 'Conventional Medicine'[12], which might have minor differences in their meaning and are used in different contexts by different groups

- **Conventional Medicine**
- Mainstream Medicine
- Orthodox Medicine
- Regular Medicine
- Scientific Medicine
- Evidence based Medicine
- Allopathic Medicine
- Biomedical Medicine (Biomedicine)
- Western Medicine
- Modern Medicine
- Academic Medicine
- Scholarly Medicine (Germany: Schulmedizin)
- University Medicine
- Established Medicine
- Conservative Medicine

Some of these terms are used only by supporters/advocates of unconventional medicine, e.g. allopathic medicine. The term 'allopathy', however, was coined by S. Hahnemann, founder of homeopathy, about 1800. Since from a homeopathic perspective many complementary methods, e.g. herbal medicine, would also be considered allopathic, this term should no longer be used to refer to conventional medicine. All other terms are more

[10] e.g. Featherstone et al. 2003; Wilson et al. 2007
[11] Alvarez-Nemegyei 2009
[12] Dalen 1998

or less self-explanatory. Orthodox (and conservative) in general refers to the medicine of past decades. But, they could relate also to those elder parts of Western medicine, which are used nowadays as TEM, which might cause misunderstanding.
The term 'Schulmedizin' was introduced by Franz Fischer, a German homeopath about 1870. However, conventional medicine itself never used any of these terms acknowledging just one single medicine.

To avoid overlaps or confusion, the first two of the above terms should be used. The remaining terms are not as distinct because some CAM methods and approaches might also be referred to as 'scientific', 'academic', 'established', etc in the respective countries.
It is worth mentioning that in general, CAM is positioned and defined as an opposite to these terms for conventional medicine and does not at all relate to other health branches like psychology or psychotherapy.

4.2.4. Terms and definitions identified in scientific literature

First we gathered a collection of terms and definitions from scientific literature. Medline-listed publications dealing with CAM, AM, CM, UCM, TM mainly originated in the 1980's. In the beginning we ignored all head terms which had been used in Europe through the last 100 years such as 'holistic medicine', 'biological medicine', 'experience-based medicine' as well as American 'fringe medicine', etc. Table 2 lists the sources of CAM definitions usually referenced in almost all of the more recent publications (since 1990).[13]

We compared the use of these definitions and sources with a survey on prevalence studies, in which the authors searched for keywords AM and CM and identified only studies from English-speaking countries. The most commonly cited definition of CAM was that of the National Centre for Complementary and Alternative Medicine (NCCAM): 'CAM is a group of diverse medical and health care systems, practices and products that are not presently considered to be part of conventional medicine.'
We can affirm a recent analysis of publications: `The definitions of CAM provided to participants varied across studies, but most articles provided a list of specific CAM disciplines and therapies.'[14] Examples of such lists of disciplines and their hierarchies used in prevalence studies are presented and discussed in ANNEX 2.

[13] Introductions for many publications about use or efficacy provide one or several referenced definitions. Some of these passages read very similar, esp. in publications from the U.S., which mainly relate to NCCAM in very similar wording – not surprisingly, since the NCCAM has the monopole in the funding of research projects.
[14] 'The majority of our studies (76, 69%) offer their readers a definition of CAM. Furthermore, only three did not report how they defined CAM for their participants.' Bishop & Lewith 2010

Table 2: Definitions of alternative AM, complementary medicine CM and CAM in chronological order

Author / Organi-sation	Headline term	Remarks to headline	'Definition' or characterisation used instead of definition
Eisenberg (1993)	Uncon-ventional therapies/ medicine		… medical interventions not taught widely at U.S. medical schools or generally available at U.S. hospitals. Examples include acupuncture, chiropractic, and massage therapy.
BMA (1993)	CM	A more accurate term might be 'non-conventional therapies'	…those forms of treatment which are not widely used by the orthodox *(Conventional?)* health-care professions, and the skills of which are not taught as part of the undergraduate curriculum of orthodox *(Conventional?)* medical and paramedical health-care courses.
Cochrane Collabo-ration	CM		CM includes all such practices and ideas which are outside the domain of conventional medicine in several countries and defined by its users as preventing or treating illness, or promoting health and well-being. These practices complement mainstream medicine by 1) contributing to a common whole, 2) satisfying a demand not met by conventional practices, and 3) diversifying the conceptual framework of medicine.
Ernst (1995)	CM		.. diagnosis, treatment and/or prevention which complements mainstream medicine by contributing to a common whole, by satisfying a demand not met by orthodoxy or by diversifying the conceptual frameworks of medicine
Eisenberg et al. (1998)	AM		…as interventions neither taught widely in medical schools nor generally available in US hospitals
Ernst & Cassileth (1998)	CAM		Diagnosis, treatment and/or prevention which complements mainstream medicine by contributing to a common whole, by satisfying a demand not met by orthodoxy or by diversifying the conceptual frameworks of medicine,
Zollman & Vickers (1999)	CM		CM refers to a group of therapeutic and diagnostic disciplines that exist largely outside the institutions where conventional health care is taught and provided.
House of Lords (2000)	CM	Other terms ... mentioned	diverse group of health-related therapies and disciplines which are not considered to be a part of mainstream medical care
NCCAM (2000)	CAM		Complementary and alternative medicine is a group of diverse medical and health care systems, practices, and products that are not generally *(presently?)* considered part of conventional medicine.
WHO (2002)	TM/CAM	Differentiation between TM and CAM	…TM as including diverse health practices, approaches, knowledge and beliefs incorporating plant, animal, and/or mineral based medicines, to maintain well-being, as well as to treat, diagnose or prevent illness. Traditional medicine' is a comprehensive term used to refer both to TM systems such as …, and to various forms of indigenous medicine. 'TM' refers to ways of protecting and restoring health that existed before the arrival of modern medicine. As the term implies these approaches to health belong to the traditions of each country and, have been handed down from generation to generation. CAM …a broad set of health practices that are not part of a country's own tradition, or not integrated into its dominant health care system

While in the 90ies there was still much emphasis to differentiate between alternative and complementary forms of CAM – alternative forms are given in place of conventional treatment and complementary therapies are administered alongside and in conjunction with conventional treatment[15], nowadays both terms are mixed and used synonymously. This might explain that most therapies can sometimes be used in a complementary manner to conventional medicine and sometimes as an alternative.
When comparing recent definitions in internet portals of individual institutions providing such definitions, continuous adaptations of the exact wording can be observed (see words in italics), which makes it necessary to add the exact date of internet access or source when referring to e.g. the NCCAM definition.

4.2.5. Comments on the collected definitions of CAM

The majority of the definitions seem to be interchangeable even where they relate to different terms. The definitions themselves are largely cast in relation to conventional medicine rather than according to the terms of the 'CAM' therapy itself.[16] Thus, all definitions (with the exception of the TM definition by WHO) are negative – defining what the subject of interest is not. In 'unconventional medicine' the negativism is already in the term. All definitions represent a typical inside-outside perspective from 'normal' medicine to the diversity of methods used outside the main direction and eventually provided by non-medicals. This demarcation against 'normal medicine' seems to reflect the view of an old-fashioned, 'paternalising' type of medicine from about 50 years ago rather than that of a modern medicine (including psychosomatics, psychology, health education, etc).

All of these negative definitions would include all kinds of malpractice. Thus, they are not suitable to either exclude or include certain systems or disciplines, nor do they give borderlines to normal life-style habits, e.g. nutrition, cosmetics, wellness, or exact borderlines to conventional medicine. This might explain why many definitions additionally give extensive lists of disciplines and procedures as examples. Literature that focuses on classifications and characteristics of CAM is better at describing the diverse and complex territory of CAM.[17]

The Cochrane definition (incorporated by Ernst in 1995) contains a common positive characterisation relating to holistic aspects and also to patients needs that imply certain settings. By contrast, common characteristics are not mentioned in the other definitions. With the description of 'diversifying medicine', Cochrane already touched aspects which were later discussed in the context of 'integrative medicine'.

[15] BMA Report 1993
[16] Hirschkorn & Bourgeault 2007
[17] Hirschkorn & Bourgeault 2007

The WHO has decided to use two definitions instead of one. TM refers to traditions derived from individual history and is applicable for developing countries with still existing traditions rather than for the western parts of the world. In the sense of that definition, there are as many TMs as there are non-western countries with an own local traditional medicinal system – or at least some traditional procedures (indigenous medicines). As it ignores the fact that there is at least one traditional medicine among the western countries, too, the concept of WHO is somewhat incorrect.

Furthermore, many definitions add a set of characteristics, including holism, vitalism, individualised, patient-centered[18], person-centered[19] or personalised care, self-healing, a focus on wellness and subjectivity, as well as a search for causes and addressing them rather than the provision of purely symptomatic treatment.[20]

Integrative Medicine is a new term, which was developed in the US around the year 2000 and seems to gradually replace the terms CM, CAM, UCM in the vernacular of doctors practicing CAM. The CAHCIM[21] published the following definition of Integrative Medicine in May 2005: 'Integrative medicine is the practice of medicine that reaffirms the importance of the relationship between practitioner and patient, focuses on the whole medicine, is informed by evidence, and makes use of all appropriate therapeutic approaches, healthcare professionals and disciplines to achieve optimal health and healing.' Integrative medicine was also previously defined in a positive manner: 'Integrative medicine is the coordinated application of a variety of healing, prevention, and treatment modalities in therapeutic settings. These modalities include those from conventional medicine, complementary and alternative medicine, and traditional and culture-specific practices.'[22]

These two definitions, however, focus on the philosophy of a setting and a broad range of methods, although the latter relates to prior definitions of CAM and TM. The question of whether all CAM and TM modalities would be included in IM, and if not, what the exclusion

[18] Lewith et al. 2006;
[19] Roberti di Sarsina&Iseppato 2009; Oguamanam 2009
[20] Hirschkorn&Bourgeault 2007
[21] Consortium of Academic Health Centers for Integrative Medicine was founded in the USA to promote CAM research and training. It comprises more than 30 U.S. universities.
[22] The definition/characterisation continues: 'From the perspective of OHE, approaches that support and stimulate the inherent healing and self-recovery capacities of a person are primary but curative treatments are also often needed as well. The ideal system would match the individual patient or client and support persons with the most appropriate treatment strategy derived from the panoply of global health care systems. Integrative and collaborative medicine requires coordination of multiple service components and the availability of information, evidence, resources and infrastructure to appropriately apply them. These components include: (1) availability of knowledgeable and competent practitioners; (2) appropriate facilities, equipment, and supplies for practice; (3) reliable, quality products; (4) supportive organizational and professional settings; (5) information about safety, effectiveness, and interactions of treatment modalities; (6) training in appropriate communication and partnership skills for appropriate selection of interventions; and (7) economic resources for delivery and availability of services.' Jonas and Chez 2004

criteria would be, remains unanswered. Some argue for 'integrative', taking the 'best of two worlds',[23] but this concept has been the subject of criticism[24].
Other definitions refer to the CAM modalities in a special setting. The minor differences between AM, CM and IM have been characterised by Barrett[25]: 'The terms 'complementary,' 'alternative,' and 'integrative' medicine refer to an extraordinarily diverse set of therapeutic modalities, most of which have little in common other than the fact that they differ from conventional Western biomedicine[26] (). If used along with conventional medicine, a therapy is said to be 'complementary.' If used instead of conventional treatment, it is termed 'alternative.' When therapeutic methods are deliberately combined in a systematic and thoughtful manner aimed at getting to the root of the problem, then 'integrative medicine' is said to occur (Rakel 2003).[27]

Integrative model clinics have successfully collaborated with several practitioners/healers in an informed and systematic manner under the control of at least one medical doctor. Such settings could better be characterised as Integrated Care Medicine (ICM). Medical doctors with some additional training in CAM could provide the coordinated healing methods of conventional medicine and CAM adjusted for each individual patient.

Integrative medicine is sometimes promoted as the medicine of the future. However, this is mainly the case among researchers and medical doctors dealing with CAM, while doctors working in conventional medicine appear to be less enthusiastic in this respect.

By contrast, it is obvious that non-medical practitioners are not in the position to offer IM unless they are 'integrated' into alliances with medical practitioners or providers. The private treatment setting which is common for non-medical practitioners in many European countries would disappear if concepts of IM were to prevail, since a practitioner without a full medical background obviously cannot provide IM on his own. Therefore, some non-medical practitioners as well as specialised nurses seem to prefer 'Integrative Health Care' or `Integrated Health Care´ to get rid of the relation to 'medicine'.

A further concern about the term 'integrative medicine' is that it is not at all directly linked to its corresponding special set of (UCM) therapies as an alternative or supplement.

In summary, Integrative Medicine (IM) is not a synonym for CAM. However, attempts to include this term into CAM have recently been presented, exemplified by the suggested terms of 'CAIM' or 'CIM'[28] or Integrated Healthcare which includes it all.

[23] Cassileth BR et al. 2009
[24] Parusnikova 2002
Adler SR et al. 2002
[25] Barrett et al. 2003
[26] Kaptchuk&Eisenberg 2001a, 2001b
[27] Rakel 2003
[28] Eisenberg DM: Trends in integrative medicine: A U.S. perspective (abstract). Eur J Integr Med 2 (2010), 160

4.2.6. A recent approach to an operational definition of CAM

A paper was recently published with the title and abstract announcing an operational definition of CAM[29]. The development of an operational definition to avoid problems of demarcation sounds very promising. Upon close inspection, though, the authors provide what appears to be, at best, a pseudo-operational definition.

The authors' first criterion is the therapy being based on 'non-allopathic' models of health. Terms like 'allopathic' or 'non-allopathic' are highly specific and clearly originate outside of scientific medicine and therefore should be strictly avoided in any definition. In addition, it remains unclear whether 'allopathic' is to be interpreted in accordance with Hahnemann, who postulated that the effects increase with dosage, or in an extended, more complex meaning.

The authors elaborate that their first criterion is not constant but changes with medical paradigms. Interestingly, they propose historical notation as something that was assigned to CAM or to conventional medicine during prior times, but still use phrases like 'theories of a medical system outside the Western allopathic medical model'. They appear to disregard that the roots of many CAM methods in Europe (1) and the U.S. go back to the 19th century and that the mainstream medical system has completely changed within the last 200 years. They list naturopathy among ‘other methods’, neglecting that naturopathic thoughts had never opposed 18th century mainstream medicine. Naturopathy uses unspecific lifestyle factors to strengthen the body, explaining the effects with improved circulation of body fluids under the paradigm of the ancient humoral system used in Western (European) medicine for more than 2,000 years, while they can nowadays be explained also by physiological mechanisms when considering lifestyle habits, including diet, exercise and body & mind techniques. Consequently, there must be another criterion to include naturopathy into CAM.

The authors' proposal for an additional criterion of 'standard treatment within the dominant medical system' is a political rather than a scientific one. One might ask whether any off-label use of a chemical drug would then be regarded as CAM. The same applies to the next criterion regarding the setting of delivery of the therapy. Consequently, these criteria would mean that any self-treatment with a chemical drug, e.g. aspirin bought OTC or outside of a pharmacy, would be considered as a CAM treatment.

With respect to dietary supplements the authors have to add further criteria to arrive at the subset of dietary products they want to be classified as CAM. We agree with the results, but we think that the approach bears steps and decisions that appear arbitrary rather than operational. The exclusion of exercise and psychotherapy from CAM is a further example that application of these criteria is misleading. An operational definition should work without exceptions based on a fixed algorithm at free disposal instead.

[29] Wieland et al. 2011

4.3. Task 2: Exploring terminologies and definitions outside of research

In a first step, we screened the literature for terminology and definitions of 'CAM' as briefly presented below. For a more detailed presentation including a historical overview please see ANNEX 3 showing that the term CAM is not used by citizens, but mainly used by medical doctors and academic scientists in European countries.
There are a number of other terms widely used more or less as synonyms for 'CAM'. These terms are less common in scientific literature[30], but they have been used or are still used in some contexts by providers and patients. They have their own background related to European history and have been used by practitioners[31] long before the new interest of scientists and politicians brought new terms like AM, CM, CAM, UCM, TM and IM (IH resp.):

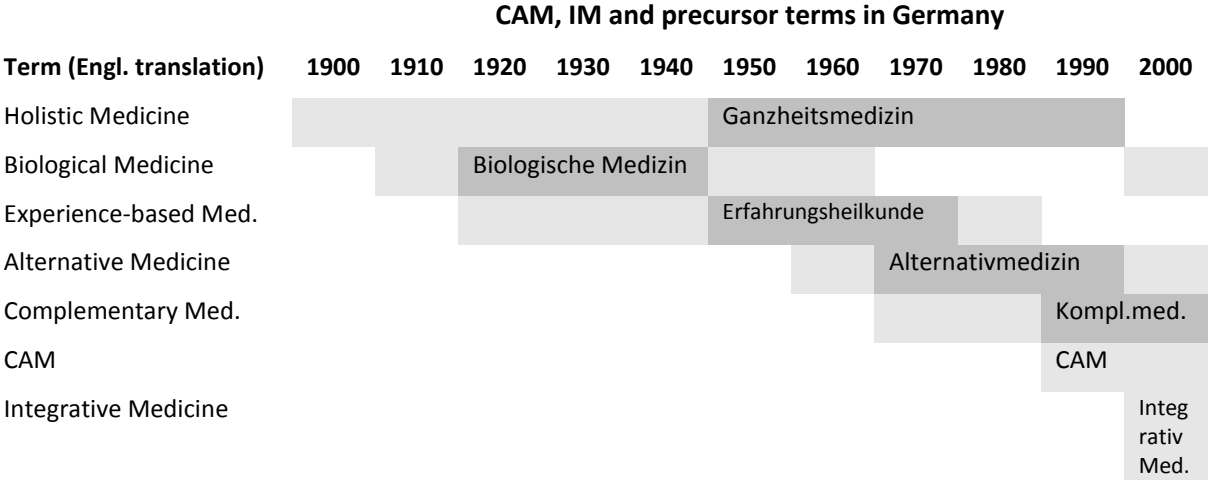
- Experience based Medicine (Erfahrungsheilkunde, Germany)
- Soft medicine ('Sanfte Medizin', Germany, ‚Médicine douce', France)
- Holistic Medicine
- Biological Medicine
- Naturheilkunde ('Natural' Healing in a broader, extended meaning)
- Folk medicine
- Ethnomedicine
- Traditional medicine
- Second (deuxième) médicine (France)
- Besondere Therapierichtungen (German authority use in the 80ies)

Some of these terms may be used predominantly within certain subsets of populations or providers. In several European countries 'Natural medicine' is used broadly as a synonym for CAM, ignoring earlier and more restrictive definitions which include only classical natural healing methods.
'Biological medicine' was the first head term (as an umbrella term for many diversified medicines) that was used by German governmental and political stakeholders in the 1930ies (see ANNEX 3). It is still being used, also outside Germany.

The use of synonyms for CAM changes considerably from time to time, which can be exemplified by the situation in Germany (see Figure 2):

[30] Anyinam 1990
[31] Cant&Sharma 1999; Easthope 2003; Gorski 1996; Jütte et al. 2001; Brodin Danell&Danell 2009

Figure 2: CAM and precursor terms (synonyms of CAM) used in Germany during the past century (dark grey: predominantly used, light grey: also used). 'Naturheilkunde' is not included, which was used broadly during 60ies up to now in its broader meaning and 'besondere Therapierichtungen' which was used only by authorities in the 80ies and 90ies for herbal, homeopathic and anthroposophic drugs.



The common problem with the terms listed above is that they are regarded as somewhat unscientific, since they pronounce ideal types of healing characteristics. Neither of them would be strong enough to be used throughout Europe nowadays without critical discussions among medical scientists, providers and stakeholders. None of the existing definitions can be appropriately used. Looking for the term that appears most relevant and includes a broad understanding of the situation in Europe, 'CAM' would appear most recommendable or acceptable given the various shortcomings of the other terms. 'Complementary and Alternative Healthcare' (CAH) is another option. The alternatives are CM and UCM, respectively. The term 'Integrative Medicine' bears too many pitfalls and largely excludes non-medical providers and certain methods, using the criteria of conventional medicine.

U.S. definitions extensively list all known disciplines and procedures in a very pragmatic way, but using a hierarchy of 5 classes with overlaps and double-listings of many disciplines and procedures. From a European point of view, some disciplines in the listings are not regarded as belonging to CAM at all, e.g. praying, which is the most frequently used CAM discipline in many American epidemiologic studies. Prayer per se is not regarded as a CAM practice in Europe, but other spiritual practices of many kinds and drawn from different traditions are offered as CAM treatments, e.g. meditation, relaxation mindfulness, centering, and spiritual visualization.

There are further differences between 'North-American CAM' and 'European CAM': The first comprises all kinds of health prevention and healthy lifestyle habits, even those originating from scientific medicine, including fitness, sports and wellness, rather than those of

alternative or traditional medical systems. In Europe, fitness, sports and wellness are regarded as being related to lifestyle in general rather than to health or medicine. In Europe, lifestyle behavior would be regarded mainly as part of CAM when used as integral part of a therapeutic system and as adjuncts to the specific treatment modality, but less when used by healthy persons. While all mind-body techniques are included in the American interpretation of CAM, they are often regarded as parts of psychology, psychotherapy or psychosomatics in Europe, and often used outside any CAM-context. Hence, there are good reasons to take into consideration the differences between the common understanding of CAM and its imbedding in the populations in U.S. and Canada and in Europe.

4.4. Task 3: CAM disciplines and methods used in Europe

In the following we present classifications of major disciplines (Domains/Systems), as well as lists of disciplines used all over Europe and country-specific disciplines. For more details see also ANNEX 1 and ANNEX 4.

4.4.1. Procedure to classify major disciplines

The question of how to obtain a set of major CAM disciplines was discussed extensively within the working group and members of the Advisory Board, who had some reservations about the approach taken. In conducting this procedure, we interpreted major as relating to summarised groups of CAM procedures which is a completely different topic as that of importance, awareness, knowledge, prevalence, economic impact, etc. Of course, the resulting groups would automatically be expected to be more 'important' than an individual variation of a procedure or a set of individual procedures. For example, it seems preferable to deal with herbal therapy instead of up to 300 individual herbs and the many different resulting preparations.

So 'major' would relate to a classification system to break down the approx. 300 individual CAM therapies known in Europe into a certain number of groups called ‘disciplines’. One of the problems associated with this process is that the term chosen to refer to the group might be less common than the single procedures. For example, one might subsume various forms of massage, chiropractic treatments, therapeutic touch and osteopathic treatments into one group since all of them involve the therapist using his or her hands on the patient's body. Chiropractors and osteopaths do not regard themselves as CAM providers in some countries though; nor do physiotherapists who apply various forms of medical massage. The term for the group could be 'manipulative therapies', 'manual therapies' (manus = latin for 'hand'), but both imply special settings for Providers, at least in some European countries. A term free of any political interests or implications might be 'musculoskeletal manipulation' which is a common MeSh term. But this term would appear to be rather academic and have

a rather low level of awareness among the general public in Europe. Here, it might be better to use different terms for massage, osteopathy, chiropractic, etc. Other, specific and less common methods like therapeutic touch or special kinds of massage would not be recognised then.

Initially, a systematic bottom up approach of the procedures/techniques was discussed in our group, i.e. listing all procedures used in Europe first and classifying them into groups of major disciplines in a second step. Concerns were raised that this technique would consume too much time, with many procedures having little importance for CAM as a whole (e.g. Alexander technique). The importance of a technique, however, might be related to its prevalence, but eventually also to other characteristics such as the level of awareness (knowledge) in the population or financial aspects (see ANNEX 4).

The final working plan focused on groups of major disciplines. In this context, 'major' could mean that one uses a classification comprising few disciplines, each with a wide range. In determining relevant disciplines, however, it became evident that a 'wide range' classification is not to be aimed at when country-specific differences are to be explored. The number of disciplines regarded as important for the individual country was initially estimated to range between 5 and 30. 'Important' would mean that with this set of disciplines the CAM-scenery in that country should be included to a main part of more than 80 or 90 percent of the market (demand and offer) related to numbers prevalence, number of providers, etc.. The higher estimates related to countries with a long tradition and a broad range of disciplines and without any relevant legal restrictions against providers specialising in any discipline. In countries with more restrictions and a focus on a given catalogue of only few disciplines, the number might be much lower. In the end there was agreement that about 10 to 20 disciplines should be listed as important, and that variations within a discipline should be subsumed under the roof of that discipline 'and related techniques'.

Not all of these aspects of importance can easily be retrieved from scientific literature. There is a wide range of major disciplines in the literature and a various hierarchies to classify them into groups. This led to theoretical considerations about how classifications for CAM can be developed (see ANNEX 1).

Patient demand and provision of CAM disciplines in various European countries are dealt with in CAMbrella Work Packages 4 and 5, respectively, but the results were not yet available. Therefore a preliminary judgment about major disciplines based on expert opinions was suggested. We developed a questionnaire for each country asking for the most important disciplines by free listing. In addition we asked for judgments on the levels of knowledge and use among the population in a 5-step Likert-scale. The latter was related to representative prevalence studies. This questionnaire was sent to all members of WP1 as well as to other members of the CAMbrella consortium for countries not already covered. We also asked members of the Advisory Board to name experts with an overview of the

whole field of CAM in their country. The preliminary results of this opinion-based country-specific questionnaire about the most important disciplines are presented in the following chapter and, in more detail, in ANNEX 6.

4.4.2. Task 3a: Core set of CAM disciplines and methods used all over Europe

To identify country-specific lists of major CAM disciplines, we developed a questionnaire (see ANNEX 7) and asked members of WP1 and other experts to give a free list of the most important disciplines in their countries expecting a list of 10 to 20 disciplines for each country (covering about 90% of CAM).
We got answered questionnaires from 14 countries (we addressed more than 20 experts from various countries) which were included in this report (United Kingdom, Italy, France, Spain, Hungary, Romania, Germany, Austria, Switzerland, Sweden, Denmark, Greece, Ireland and Belgium). A total of 65 different disciplines/methods were found around the 14 countries. 2 methods/disciplines were mentioned by all of the included countries (acupuncture, including related techniques; homeopathy). 12 methods/disciplines were cited by 5 or more countries (Acupuncture, Homeopathy, Herbal Medicine, Chiropractic, Osteopathy/craniosacral, Massage, Traditional Chinese Medicine, Natural Medicine, Reflexology, Yoga, Anthroposophical Medicine and Aromatherapy).

Concerns were raised that the arbitrary cutoff might lead to non-conclusive results. According to a survey by EFCAM, Shiatsu is practiced in 10 out of 11 countries with professional associations, training programs and practice standards in each of these, while according to our analysis Shiatsu was listed among the 10 to 20 most important disciplines only in one country.
We are aware of the risk that an inquiry among the CAMbrella group and additional experts might not give the most comprehensive and reliable data. However, this limitation is to be seen in the context of restricted resources of the project.

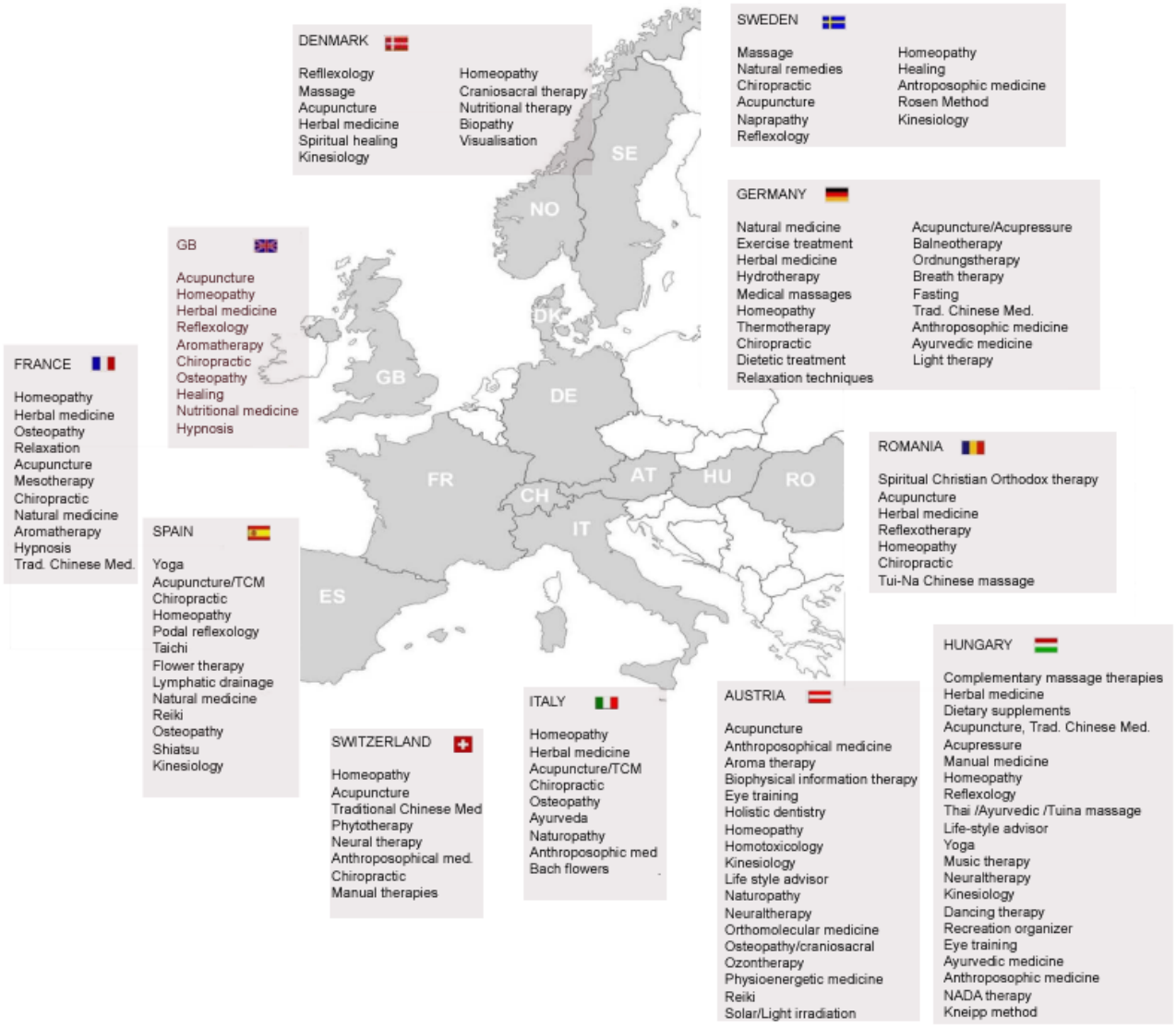
Table 3: Total scores and scores for 'use' and 'knowledge' for 11 most important Disciplines in descending order of the total score; based on a scoring system from 0=very low to 4=very high (14 countries, max score 56)

DISCIPLINE / METHOD	Total Score	Knowledge	Use	No. of Countries	REMARKS
Acupuncture (incl. related techniques)	76	43	33	14	All consulted countries
Homeopathy	66	39	27	14	All consulted countries
Herbal medicine	47	27	20	10	All consulted countries except Hungary, Austria, Denmark and Spain
Chiropractice	44	26	18	10	All consulted countries except Hungary, Austria, (Denmark and Italy not included, no CAM)
Osteopathy/craniosacral therapy	28	17	11	8	Denmark, Austria, UK, Italy, France, Spain, Belgium, Ireland
Massage (complementary/medical)	27	15	12	5	Hungary, Germany, Sweden, Greece, Ireland
Traditional Chinese Medicine	26	15	11	5	France, Spain, Hungary, Germany, Switzerland
Naturopathy (summarised)	24	14	10	6	Italy, France, Spain, Germany, Austria, Denmark
Reflexology	22	13	9	6	UK, Hungary, Sweden, Romania, Greece, Ireland
Yoga	21	13	8	5	Spain, Hungary, Germany, Greece, Ireland
Anthroposophical medicine	17	13	4	6	Germany, Hungary, Switzerland, Austria, Sweden, Italy

4.4.3. Task 3b: Additional country-specific CAM disciplines and methods

Obviously, demand, provision and use (prevalence) depend on the country-specific conditions of a (para-) medical therapy. Based on reviews and expert opinions, the following disciplines belong to the most important CAM medicines in the EU (in alphabetical order): acupuncture (various methods), anthroposophic medicine, homeopathy, manual therapies (chiropractic, massage, osteopathy, reflexology), natural medicine (including aromatherapy, herbal medicine, nutrition), TCM (various methods and related techniques, excluding acupuncture). Figure 3 displays country specific disciplines and methods in English translation.

Figure 3: Map of European countries and country-specific disciplines and methods



4.4.4. Criteria for classification

Various attempts have been made to classify the numerous (up to 380) CAM therapies and many suggestions have been published on how to classify them into groups or systems. Various criteria could be used for classification, e.g.:

1 Historical development/tradition
2 Nature/Kind of therapy
3 (Supposed most relevant) mode of action
4 Evidence on the therapy

5 Providers and their legal status (MDs, non-medical practitioners, self-treatment)
6 Treatment setting (private practice, Integrated Health Care, hospital etc.)
7 Integration into national health service/Insurance coverage (mandatory or optional)
8 Main indications or areas such as health education, preventive medicine, curative medicine, intended major goals (detoxification, strengthening, etc.)
9 Other[32]

It is obvious that each of these criteria has its own pitfalls. Classifications 1 and 2 would appear to be at least somewhat more stable over time than the others (the historical developments and their resulting systems in Europe are described in ANNEX 3). Classification 2 might, however, appear somewhat simplifying and arbitrary.
A classification according to the mode of action (no. 3) would not do justice to the holistic thinking that CAM therapies and especially systems work in multifold ways, having an impact on both the body and the mind.
The limitations of classification 4 have already been discussed in the context of criticism of Integrative Medicine.
Many therapies may be used as self-treatments without any provider involved, but the same treatments are also offered by providers and in various settings. Therefore, classifications 5, 6 and 7 would be unable to assign these therapies to a specific category. The same problem applies to classification 8, since many therapies can be used for more than one illness or clinical indication, and there might be many different intended goals for one and the same therapy (different even when used for the same indication, depending on the individual situation - and many of them not supported by science).
Many of the classifications given in the literature and used by stakeholders appear to have no clear relation to one of the abovementioned classification systems but are a rough mixture of several of them, which makes them appear somewhat arbitrary.
Therefore, a classification allowing a clear hierarchy to categorise the many CAM disciplines used in Europe is urgently needed. On the other hand it had been argued that the diversity might be that part what distinguishes it from conventional medicine. We doubt, however, that any clear hierarchy would distort and misrepresent CAM.

[32] Kaptchuk&Eisenberg. Varieties of healing: A taxonomy of unconventional healing practices.2001. Their classification is based on a sociological perspective. It is also possible to categorise healthcare practices according to basic assumptions regarding health and disease.
Tataryn 2002
Jones 2005

4.5. Task 4: Developing a preliminary pan-European definition of CAM, its disciplines and respective methods

Head term

WP 1 was exploring several ways of developing a pan-European definition of CAM. It was discussed whether a new term such as 'Complementary European Medicine (CEM)' could be an appropriate basis for a pan-European definition. The advantages of this term would be that it implies a positive, inclusive definition (rather than an exclusive one) and that it avoids blurred, unclear and vague characteristics such as 'holistic' or 'person-centered'. None of them allow delimitation against modern western medicine as it should be practiced nowadays. Characteristics of 'empowering the self-healing forces (salutogenesis)'[33] or being just 'natural' (both characteristics are often misused) might offer a clear demarcation if focusing on natural unspecific therapies that support human health and well-being rather than on factors that cause disease.

In the meantime the concept of CEM and the subsets to be used for a hierarchy has been published[34].

More clarification of such a term and its definition could be reached by adding sets of medicinal disciplines that are used in Europe and regarded as relevant parts of European Complementary and Alternative Medicine provided by medical doctors, practitioners, and also used as self-treatments:

1. Traditional European Medicine (TEM) or Traditional European Natural methods (TEN)

Traditional European Medicine (TEM)/Traditional European Natural Healing methods include those medicinal procedures that were used according to models of vitalism or humoral pathology during the development of European medicine, the roots of which go back to antique Greek medicine - classical natural healing methods and methods related to humoralism including western herbal medicine, draining, leeches, purging.[35]

2. Special European medicinal systems like homeopathy, anthroposophic medicine

Medicinal systems developed in Europe, e.g. homeopathy, anthroposophic medicine, Schüssler's biochemistry and salts.

3. Systems and methods adapted from non-European traditional medicinal systems like TCM or Ayurveda, Japanese Medicine/Kampo, Unani, Tibetian Medicine, Thai Medicine, Korean Oriental Medicine, etc.

Traditional medicinal systems from outside of Europe which are used in Europe in a transformed or changed way, possibly taking parts out of them (e.g. acupuncture and TCM, Yoga and Ayurveda).

4. Other unconventional medicinal methods used in Europe.

[33] Antonovsky (1987). Unraveling the mystery of health. How people manage stress and stay well. Lindström&Eriksson 2005

[34] Uehleke& Saller 2011

[35] Uehleke 2007

A mix of non-traditional methods for medical purposes outside of conventional medicine, e.g. bio-resonance methods, kinesiology.

Hierarchy of systems, disciplines and methods

A list of major disciplines used throughout Europe would include about 12 to 80 disciplines/methods, with some of them being only variations. Such a hierarchical list should preferably use terms and classifications that are understood not only by academic scientists, but also by the citizens. The terms should also reflect European traditions as far as possible. The definition of CAM should be able to congruently incorporate the list of major disciplines as demonstrated by the following classification:

1. Traditional European Medicine (TEM)[36] or Traditional European Natural methods (TEN)

Herbals
Hydrotherapy/Balneology
Exercise
Manipulative techniques (incl. massage, reflexology, therapeutic touch, Chiropractic/ Osteopathy)
Nutrition (incl. nutriceuticals, vitamins, food supplements, etc.)
Therapeutic Fasting
Light therapy
'Ordnungstherapy' (Stress balance / Relaxation, Meditation, Hypnosis / Health education / Psychotherapy)
Techniques related to humoralism: cupping, leeches, purgation

2. Special European medicinal systems

Anthroposophic medicine
Homeopathy (including related systems: isopathy, homeopathy using complex medication, Schüssler's biochemistry and salts, Bach flowers)

3. Systems and methods adapted from non-European traditional medical systems

Traditional Chinese Medicine: (Acupuncture and related techniques / Chinese drug treatments / Tuina, Qi-Gong)
Ayurvedic medicine: (Yoga)
Tibetian medicine (herbal)
Other systems (Unani, Tibetan Medicine, Japanese Medicine / Kampo, Thai Medicine, Shiatsu etc)

4. Other unconventional medical methods used in Europe

Bio-resonance methods
Kinesiology
others

[36] Uehleke 2007

Discussion / Outlook

A proposal for a pan-European definition of CAM – possibly including a new head term such as 'Complementary European Medicine' – and a corresponding hierarchy of subsumed methods put more focus on the European characteristics than the terms and definitions currently used. Although there are some arguments in favor of this idea (as elaborated in the previous chapters), arguments against it put emphasis on the broad heterogeneity within the European region, which might be similar to the heterogeneity between Europe and the US/Canada. Furthermore, there are doubts as to whether a definition with reference to a geographical region is appropriate in today's dynamic and global world.

Finally a more convenient proposal for a definition for CAM in Europe was developed which was agreed on by the members of WP1 (see also Deliverable D3).

CAMbrella
A pan-European research network for Complementary and Alternative Medicine

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ANNEXES to Deliverable 1 - updated version January 2012

Deliverable name	**Preliminary CAM terminology and definitions**
Work package No.	1
Lead beneficiary	7 (UZH)
Author	B Uehleke

ANNEX 1 Reflections on classifications and hierarchies of CAM disciplines

In chapter 4.4.4 of the report we reflected about theoretical classification systems in order to find hierarchies for the many CAM disciplines and methods. Here we bring more extensive facts in relation to history based classifications, which might be important for a European point of view for CAM (ANNEX 1.1) and in contrast scientific approaches from the CAM literature (ANNEX 1.2)

ANNEX 1.1 History based classifications

It was during the 19th century that in Europe, mainly in Germany, several new medicinal systems have been developed. These systems had been completely new to mainstream medicine at that time. In contrast to prior times, there was a broad interest by citizens and thus social and political support from outside medicine. Controversies between medicine and citizens were a new and relevant factor, which lead to a division between "scholarly medicine" and new revolutionary systems. One can recognize these broader and innovative systemic approaches of the 19th century by the suffix "-pathy": the first one was homeopathy, followed by magnetopathy (Mesmerism), then came up hydropathy, later renamed to "Naturheilkunde" (naturopathy), and finally geopathy.

Meanwhile magnetopathy is nowadays usually interpreted as an early form of suggestion technique, leading to other forms of suggestion and autosuggestion. But one could also interpret certain developments of techniques relating to low energy fields as successors of the old fashioned magnetopathy. Naturopathy emphasizes on strengthening the body's inherent capacity to heal itself. Imbalance within the body, particularly an accumulation of toxins, is seen as the major cause of illness. Treatment focuses on the whole person and may include a wide range of natural therapies such as herbs, dietary adjustment, additional nutrients, fasting, and exercise and balance of mood/psyche (Ordnungstherapie). Naturheilkunde includes ancient Hippocratic ideas of the six `res naturales´, which are important to be balanced in order to stay healthy and keep one's vital forces working. The result is a broad approach, which was extended in the late 19th to the begin of the 20th century, covering finally

- Hydrotherapy (later extended to balneology)
- Body exercise including gymnastics and massages
- Nutrition, Diet and Fasting
- Herbal treatments
- Solar irradiations
- Ordnungstherapy[37].

Osteopathy, not included here by name, came later from America to Europe and was implemented about mid of the 20th century mainly in UK. In other European countries it played and plays a minor role. In Germany it could be sub-summarized under body exercise or manual therapies, or even regarded as a part of physical medicine.

There is relevant overlap of these natural therapies to mainstream medicine: hydrotherapy, exercise and irradiation were also included by physical medicine or physiotherapy, `Ordnungstherapie´ has overlap with psychosomatics, health education, since it is merely different from nowadays mind and

[37] which means balance of the vegetative system and mind, nowadays including relaxation techniques against civilisation-induced mental stress. See: Melzer et al. 2004

body medicine. This explains why in Germany Naturheilkunde would often not be regarded as alternative or complementary in contrast to e.g. homeopathy.

In early 20th century Anthroposophical Medicine was developed by Rudolf Steiner. When in Germany the Nazi regime forced the collaboration of all the unorthodox groups into the roof `biological medicine´, they excluded the "anthroposophical sects" as "degenerated" and forbid them. The involuntary cooperation imposed pressure on other therapies´ associations of patients and providers, which had some important impact. All together they were expected to solve problems of the normal medicine during the intended process of integration to "Neue Deutsche Heilkunde". They included the following areas:

- Naturheilkunde
- Kneipp
- Homeopathy
- Schüssler's Salts

Schüssler's biochemistry is an abridged homeopathy-derived system with a small number of low-potentized remedies on mineral basis. The differences between the groups representing Naturheilkunde and those representing Kneipp were minor: Kneipp included herbalism, but restricted to those "mild acting" herbs only, which would not exert any relevant adverse effects. Integrating Schüssler's salts into homeopathy and separating herbal medicine, the following three groups remain:

- Naturheilkunde
- Herbal medicine
- Homeopathy and related systems

Later on, the Association of Physicians in Germany allowed medical doctors to call themselves an `official´ specialist having finished defined curricula and exams for the following disciplines:

- Naturheilverfahren (including herbal medicine)
- Homeopathy
- Anthroposophical Medicine
- Chiropractic
- Manual therapy.

About 10 % of German Physicians have nowadays acquired one or more of these specializations.[38] These disciplines and others were also provided by German Heilpraktiker. A Heilpraktiker (non-medical practitioner) in Germany can provide all these methods without any further official specialization.

In Germany there was the strictest regulation for herbal drugs in the EU. This was because in Germany herbal products have been regarded as drugs and also reimbursed by the social assurances, when prescribed by a physician. In Germany there have been special regulations for the (re-)registration of drugs of particular therapies ("Besondere Therapierichtungen") such as 1) herbal medicines (phytotherapie), 2) homeopathic and 3) anthroposophical drugs.

In UK there had been the big five disciplines, and with later added acupuncture resulting in the following six disciplines having been described by the British Medical Association as "the main discrete clinical disciplines".[39]

[38] Dixon et al. 2003

[39] British Medical Association 1993;Rheily 2001

- acupuncture
- herbalism
- homeopathy
- hypnotherapy
- manipulative skills such as chiropractic, and
- osteopathy.

Turner classifies the six "disciplines": chiropractic, osteopathy, naturopathy, medicinal herbalism, homeopathy and acupuncture into six "primary care systems", not taking those methods into account which relate to mind/spirit, because they are classified into a respective primary care system. But mind-body techniques might be covered by an holistic interpretation of "naturopathy". He gives than examples for derivative modalities, which result in one of the clearest hierarchies of CM, but he clearly discusses, that many of the modalities cannot uniquely be related to the major disciplines.[40]

ANNEX 1.2 Other classifications from scientific publications

The NCCAM however categorizes disciplines, modalities, and techniques of health care (conventional, complementary, alternative, and traditional) by using the assumed mode of action to differentiate six categories of "primary mode of therapeutic action":

- biochemical
- biomechanical
- mind–body
- energy
- psychological (symbolic)
- non-local

However, the NCCAM categorization is handicapped by overlapping categories (alternative medical systems with energy therapies and body-based methods), and fails to address the distinctions between mind–body, psychological, and non-local (spiritual) therapies. The overlapping of categories arises primarily from including the category of alternative medical systems, while the other categories indicate modes of therapeutic action.[41]

The National Institute of Health (NIH) has divided alternative medicines into seven categories.[42] They try to arrange more than 300 different treatments, techniques, and modalities that can be placed under the umbrella term CAM. This large, heterogeneous group can be divided into the seven major categories:[43]

Mind-body interventions
Alternative systems of medical practice
Manual healing methods
Pharmacologic and biologic treatments

[40] Turner1998; Low 2001
Jones 2005;
Tataryn 2002
[41] Kaptchuk&Eisenberg (2001b)
[42] Dyer 1996
[43] Chez&Jonas 1997

Bio-electromagnetic applications
Herbal medicine
Diet and nutrition

Eight practices have been abstracted from these categories to determine the frequency with which respondents participate in alternative health. These include[44] :

Acupuncture
Biofeedback
Chiropractic
Massage therapy
Relaxation techniques
Herbal remedies
Homeopathy
Macrobiotics

Following development of the NCCAM categorization, numerous authors have, from a variety of perspectives, been developing additional taxonomic systems. Kaptchuk and Eisenberg classify CAM from a sociologic perspective.[45] Others categorize health care practices according to basic assumptions regarding health and disease.[46] [47] Jones defines CAM from the patients´ view as an "operational" definition.[48]

Later, others categorized CAM in four subgroups:[49]

cognitive feedback
oral medication
physical treatments
other therapies

Summarizing the many proposals for classifications show that classification of CAM is a difficult task and highly arbitrarily.

[44] Sutherland et al. 2003
[45] Kaptchuk&Eisenberg 2001b
[46] Caspi et al. 2003
[47] Tartaryn 2002
[48] Jones 1995
[49] Kessler et al. 2001; Rössler et al. 2007: "Medical therapies such as massage were classified under CAM when they were used in a not-approved medical therapy"

ANNEX 2 Lists of disciplines in prevalence studies

Surveys about prevalence of CAM use quite different approaches for asking "CAM-use" during a given period back or even lifetime (presumed the participants would remember all those therapies, they had got even during their childhood). Some studies ask for social and health-related characteristics of patients, while others ask for the improvements by the therapies experienced, for the settings, about the costs, the expectations and beliefs. Some ask in a more detailed manner whether participants would think about to use a certain CAM-therapy in the future. Some few studies ask whether participants are familiar with that therapy – they ask about levels of knowledge (not only to general populations, but also to special groups of governments or of the medicinal system).

Some studies targeted practitioners, whereas others surveyed patients and consumers. Few studies are balanced and provide data representative for a whole population. The majority of studies asked participants or patients within a certain setting, e.g. patients visiting a special medicine unit, which means that the results relate only to certain patient groups with some special range of diseases.[50]

Different definitions of complementary medicine have been used - some include only patients consulting one of five named types of complementary therapies, while some include up to 40 different therapies and others include complementary medicines bought over the counter. When treatments such as hypnosis are given by conventional doctors or within conventional health services, patients and surveys may not register them as "complementary."[51]
The wide variation in the lists of modalities provided within questionnaires for CAM definitions is also reflected by a review from 2008:

> "The modalities included in CAM definitions varied greatly. Among the articles reviewed, one study surveyed physician attitudes toward homeopathy, two focused on herbal therapies, and 12 included a variety of modalities from the list produced by NCCAM. These included: Acupuncture/acupressure, aromatherapy, biofeedback, chiropractic, herbs, vitamins, minerals, homeopathy, hypnosis, imagery, diet, massage, osteopathic manipulation, reflexology, prayer, healing, yoga, meditation, and self-help groups. Six studies did not specify the modalities included in their definition of CAM…In the articles reviewed, physicians were more negative toward CAM than nurses and other health care professionals. Older, more experienced… , male physicians… were less likely to recommend CAM therapies to their patients compared to younger, less experienced, female physicians. Older physicians were also less likely to use CAM for themselves and their families compared to younger physicians."[52]

The conclusion of another review is that CAM is being used by substantial proportions of the general population in a number of countries, but differences in study design and methodological limitations make it difficult to compare prevalence estimates, both within and between countries – but it seems that using more domains in lists for CAM leads to higher prevalences.[53]

[50] Ernst 2000
[51] Zollman Vickers abc
[52] Sewitch et al. 2008
[53] Harris&Rees 2000 (see table 2 with no equality between any 2 of the studies)

CAM-use is usually defined to have used at least one out of a list providing examples for CAM. In some studies it remains unclear, how exactly the data have been retrieved. In the following we focus to those lists which have been used in surveys and have been described explicitly.

In some studies not the whole range of CAM is asked for, but in others restricted only to (oral) medicines (– and this under the term CAM![54]), e.g. herbal therapy[55]. Messerer [14] asked about use during the last two weeks of the following medicines:

(i) vitamins or other 'strengthening' medicines (yes, no, I do not know)
(ii) natural remedies (yes, no, I do not know)[56]

Of course it might be relevant to differentiate, whether an oral medicine was sold with or without a specific advice (prescription) by a practitioner, by a medical doctor or in contrast as a kind of self-treatment. In some countries there is intensive advice also given by pharmacists or trained staff in health stores, drug stores etc.

But some studies used more detailed questionnaires especially for the medicines: In an Italian study pregnant women in the study were also asked to classify products in the following categories; since this classification is not easy for population, afterwards each product was correctly classified by a trained specialist by means of the European Pharmacopeia into:[57]

homeopathic drugs
Bach flowers
herbal drugs
herbal preparations
natural products

Others used four treatment groups and explained that is was not possible with these data to distinguish between Chinese herbal treatments by a specialized provider from a purchase of a nutritional supplement[58]:

acupuncture (visits with an acupuncturist for consultation only, or for consultation and treatment)
chiropractic (visits to a chiropractor)
bodywork/massage (visits with a bodywork/ massage practitioner)
herbs/botanicals (visits during which a purchase of herbs and/or botanicals occurred).

In countries with clear structure of providers, studies ask for certain provider services; they just ask about visits to (any) practitioners[59] or to the various kinds (3 kinds[60], 4 kinds, 5 kinds, 7 kinds[61]) of providers/ practitioners in that country, e.g. self-reported CAM user in the last 12 months: [62]

[54] e.g. Wilson et al. 2007
[55] Gözüm&Unal2004 - (herbal therapy in Turkey)
[56] Messerer et al. 2001 - In 1996/97 the prevalence of dietary supplement users was 22% amongst men and 33% amongst women, and of natural remedies 7 and 14%, respectively
[57] Lapi et al. 2010
[58] Bracha et al. 2005
[59] Steinsbekk et al. 2009: visits to practitioners in US and Norway
[60] chiropractor, homeo/naturopath, massage therapist or other CAM provider. Siroius 2008 (Canadian patients with three diseases compared)

use of homeopath
acupuncturist
chiropractor/osteopath
naturopath
other CAM provider services for the subjects' own health needs.

In countries with dual providers (practitioners and doctors) it seems adequate to include all of these provider services:[63]

osteopathy
homeopathy
acupuncture
reflexology
doctor with complementary therapy qualification
herbalism

In the majority of studies there is a more extensive list of examples of CAM-therapies, the hierarchy of which is not often clear. Sometimes single herbs are mixed up with broad ranged systems:

Phytoestrogens
Chinese herbs
St John's wort
Vitamins
Wild yam
Dong quai
Black cohosh
Gingko
Homeopathy
Acupuncture
Hypnosis
Spiritual healing
Massage
Reflexology
Natural progesterone cream
Evening primrose oil[64]

In other studies the hierarchy seems more balanced. Thomas et al. ask about the six therapies (big five and acupuncture) in UK, which reflect the non-medical practitioner providers and then he adds two additional therapies (reflexology and aromatherapy) and two kinds of OTC-remedies (homeopathic and herbal).[65] Robinson add Shiatsu and "other" to nine therapies asked for:[66]

Homeopathy

[61] chiropractor, homeopath or naturopath, acupuncturist, massage therapist, reflexologist, Reiki practitioner, other CAM practitioner in Canada, Sirois 2008
[62] Niskar et al. 2007 (Israel)
[63] Barnard et al. 1997 (UK)
[64] Vashisht et al. 2001
[65] Thomas&Coleman 2004
[66] Robinson et al. 2008

Herbal medicine
Osteopathy
Aromatherapy
Other
Reflexology
Chiropractic
Acupuncture
Shiatsu

As a result, the hierarchies from scientific studies show high variability. The various studies used listings from about 8 to 50 disciplines and procedures in an inconsistent manner.

ANNEX 3 Brief history of European developments in CAM

There is a major difference regarding European CAM-methods in comparison to traditional medicines form other part of the world. In the latter there have been recognized traditional medicinal systems, with their own history and their own thinking related to their own ancient views of the world. For example in the region of China a medicinal system (this system might have varied and mixed over the times and so it might not exactly be that one to be adapted and used today as "Traditional Chinese Medicine, TCM") has developed over a period of 3000 years without being much influenced by modern western medicine. It seems reasonable that patients, who are not happy with their modern western medicine, might seek help by such an alternative medicine - as an alternative and stopping the measures of modern medicine or in an additional manner.

Things, however, are more complicated, if addressing the question why alternative methods and systems within Europe have been developed from their common historic root which is also the root of mainstream western medicine. The answer to this question can be found in the European chapter of medical history, and we have to focus on the time after enlightenment, when under the influence of new anthropological, social, and political developments new medical theories have emerged. In the older history of western medicine before, also critical and new ideas had emerged, but this - in summary - never led to a branch of any new whole medicinal system itself before the 19th century. Even, if one would consider the paramedical activities of healers, who would not have the status of a learned medical doctor, this was a tolerated or even desired way to provide some minor medical help to those many people, who could not afford the costly treatment by an academic medicinal doctor. So healers like midwifes, barbers, sheep-watchers, herbal witches, and not academic surgeons were tolerated and their services limited within some clearly given regulations during the last thousand years in Europe. In practical life the methods and also the remedies used either by the medical doctors and by the healers have been not so different that there would have been any alternative medicinal system, which would be totally different also with respect to the theories behind the medicinal systems.

Criticism to the old-fashioned medicine came normally from learned doctors e.g. Niklaus von Polen or Paracelsus. Their critical or even revolutionary views had been discussed within the academic medicine throughout Europe – the common scientific language Latin made a pan-European discussion possible, supported also travelling and exchange of academic doctors within universities and in functions such as a personal physician for Royal families throughout Europe, from England to Russia and from Sweden to Spain or Greece. Big discussions and initial resistance was usual, when new ideas came up into medicine, e.g. the blood circulation model of Harvey.

During the 18th century doubts about the system of the medicine grew - together with doubts about the efficacy of its measures. Parallel to these discussions books about self-healing and maintenance of health were addressed to population in national languages and written by emphasized believers in new ideals, which had often no recognized academic training. These ideals themselves were, however, similar to ancient ideas of healthy living by respecting the 6 res naturals, which means one should keep balance with respect to the basic body functions and the humors. Furthermore, one should avoid poisonous drugs whenever possible. Furthermore these advisors for health had some characteristics, which are common to more recent ones of nowadays alternative medicine: they were put forward with easy arguments, understandable for an educated (non-medically trained) reader,

written by non-medicals with some critique to medicine and the academic system. They challenged everybody's own responsibility about his or her health and the importance of a healthy life style.

In the beginning of 19th century doubts about the learned academic medicine had increased even more and this was the time, when new medical measures have been tried –even when not be in line to the old medical theories. This was the time, when new ideas and systems have been developed and used in parallel, coming from learned doctors as well as by others. Magnetic therapy was developed by Mesmer, and hydrotherapy most successful provided by V Priessnitz (1899-1851), both no physicians. On the other hand, academic doctors developed new systems like Brownianism or Homeopathy, both with considerable interest by the public.

Parallel to rising attempts of the physicians to professionalize and the governments to get the social and health systems developed, a kind of critical view developed from the population, who would not trust the state (introducing hospitals, insurances, "medical polizey") nor the academic doctors with their overwhelming requests for authority even into matters of nursing, being in the hand of unlearned women before. The population took it as a part of their newly establishing democratic rights, that they wanted to decide if they referred to the medical services including hospitalization, medicalisation, vaccination etc. or not. When not using professional help, they would prefer to go to other healers, or treat themselves organized in special groups and associations, which have been founded after the political revolutions in the various European countries.

So we would esteem the 19th century for the earliest broad population-based development of an alternative medicine. But in those times the various groups were quite separated and had neither a common roof nor common head-line. Their common goal was to legalize the status of non-academic healers, which had been legally pursued as "quacks" before. In many countries it took until late 19th century and even into the 20th century to get healers' status legally organized in a manner according to the wishes of a broad population. They shared also quite a critical view on the established medicine and its treatments and the arguments were similar, whether they came from naturopaths, herbalists, mesmerists or homeopaths: The scholar medicine[67] trapped in its antique theoretical and academic views far from experience and practice would use measures without regarding their dangerous side effects.

The various alternative groups did not only criticize the medicinal system, but developed own ideas, theories and ideals, how a better way of healing would work and hereby they shared some viewpoints and dogmas: they tried to get a more holistic view than the medicine at those times, focusing to malfunction of single organs. Another point would be the vitalists´ view, that it would be better to strengthen the inherent self-healing powers of the body instead weaken by radical medical treatments, which would give additional harm to the body.

And it becomes obvious that these positive dogmas are used by explaining modern CAM in quite the same manner and the CAM-community uses the same criticism against academic medicine as it was

[67] In Germany the term „Schulmedizin" came up in the 1870ies during heavy arguments between homeopaths and academic medical doctors and then developed a very popular term for modern academic medicine, mainstream medicine. When later some chairs for some alternative methods have been introduced, the professors mentioned, that now their new speciality would be teached also at university and getting "scholar" thereby. So they preferred less meaningful and neutral terms e.g. modern medicine, technical medicine, conventional medicine etc.

done by naturopaths and homeopaths more than 100 years ago. Since academic medicine underwent revolutionary developments during that century changing completely their theories as well as treatments, one has come to the conclusion that there is something deeper in the opposite relation between academic medicine and alternative methods than a single certain model of health and illness. There must be something deeper in the thinking and feeling of population and patients which arises the demand for an alternative medicine or a `medicine deuxieme´.

Since the public attraction of Naturopathy, Homeopathy, and other systems that developed in the 19th century was so high that politics and medicine could not ignore, two things happened: First medicine ingested parts of methods of hydropathy and naturopathy by introducing new medicinal disciplines like Physical Medicine (which was `Physikalische und Diätetische Medizin´ initially in Germany). Furthermore medicine developed training and curricula for MDs, who would specialize in Homeopathy or naturopathy. Politics responded to the interest in population (and in political prominence) by introducing academic chairs for hydropathy or naturopathy – but not for homeopathy, due to the resistance of pharmacologists.

But they could not prevent patients preferring to seek help by medicinally unqualified healers for the technically well-equipped hydrotherapy, massage cabinets for hydrotherapy or massage of the departments for Physical Medicine, (which later used radiation with technical lights and x-rays also for therapy) (and this might happen again with sophisticated Integrative Medicine departments nowadays, even when the term Integrative sounds better than `Physical Medicine´).

Since a naturopath would normally not belief in homeopathy, there was no wish to have a common roof and an umbrella term, which would cover all the methods not belonging or not being acknowledged by the academic medicine. The members of each discipline struggled for themselves and some were more successful to achieve at least a partial acknowledgement by academic medicine for some distinct period. The first umbrella term was introduced by political pressure against resistance of all the representatives for those disciplines during the 1930ies in Germany: the Nationalsocialists developed a program to combine all main alternative methods with modern medicine to a “New German Medicine” (which would be the precursor of Integrative Medicine, if compared by the underlying main ideas and hopes). All the isolated associations of homeopaths, naturopaths, Schüssler-biochemists, and others were put together with political pressure under the head-term of “Biological medicine”.[68] The academic medicine took that as the chance to use one umbrella term for an inside-outward view, not needing to go deeper into details about each of the distinct alternative (biological) methods. But the plan included tests of reproducibility for each of the collected disciplines and only those proceeding which would pass that critical test. On the other hands there were clear programs to investigate the single biological methods and they were planning to stop those not showing academic proof.

These programs from Germany influenced similar developments in other European countries. After end of the Nazi era in Germany, the single associations for each alternative (biological method had been separated and re-founded, but there were also now some roof (cambrella) organizations proceeding. They looked for new terms instead that “Biological medicine”. The latter term however never disappeared totally; it was even re-interpretated in new manner free of any nationalsocialistic viewpoints. In the 50ies and 60ies many of the alternative methods had a hard time in Germany and in other European countries, with their history as something which had been pushed by the Nazis

[68] Ernst 2001

and against medicine, which now got relevant developments, mainly due to new specific drugs in that time.

The protest-generation of about 68 in the Western world protested against the old-fashioned conservative thinking and sought for alternatives to everything their parents would belief or use: Alternative politics (communism instead of capitalism), alternative social living (in communes, free love or life as a hippy instead of marriage and conservative family structure), alternative energy, and not the last: alternative medicine.

The older and younger people seeking for alternative healing methods in the 70ies remixed the various well known methods of naturopathy, homeopathy and also certain methods used by the medicine before, but being given up during the 20th century, e.g. cupping or leeches. They added further technical methods not acknowledged by the academic medicine, like electromagnetic resonance methods, cell therapies, ozone therapy etc. Furthermore, the younger generation brought therapies from Asia, like yoga, acupuncture, meditations, Asiatic massages and body work. From the academic point of view, they have been glad to summarize this broad mixture of various methods under one noun: alternative medicine. Balneology was not regarded being part of alternative medicine, but was a part of established medicine and an important part of the public health care system at least in Germany. The same applied to classical natural medicine, but here the boundaries were somewhat fuzzy, since non-medical practitioners provided their services outside the health care system.

It took one decade unless at least some single (pioneer) doctors of academic medicine began to look deeper into this alternative medicine. Since it became clear that the majority of patients would not stop their medical treatments and rely only on alternative methods, a more precise term came into consideration: complementary medicine – mainly by introducing the chair for complementary medicine in Exeter beginning of the 90ies (with Edzard Ernst). The first other academic positions for naturopathy have been founded during that time also in Germany and in Switzerland.

But all these first steps for investigating the alternative or complementary medicine remained quite singular, compared that efforts, which took place in US by the Bureau for Complementary and Alternative Medicine. With their money and man power, they brought in the new term CAM not to much thinking about European traditions and historic developments. They neglected the developments from Europe that had been transferred to US at least up to World War I. Up to this break there have been American daughter societies of some of the important German societies, e.g. Kneipp associations, which offered even journals about their subject in both German and English language in the U.S. During the 40ies and then again in the 50ies and 60ies many doctors and healers came over from Germany and other European countries and brought their knowledge about `biological methods´, resp. naturopathy, physical therapies, homeopathy and others.

The situation nowadays is that in scientific language the term `CAM´, emerging from US bureau, resp FDA center for alternative medicine is mainly used since a couple of years. However, the term `Complementary and Alternative Medicine´ is too long and too artificial for everydays use by populations in Europe. The WHO took another approach to respect the national traditional medicinal systems by defining `Traditional Medicine´ instead of CAM for non-western countries. This approach bears imbalances, e.g. now in India: Traditional Indian Medicine would include not only Ayurvedic medicine, but include Homeopathy and other CAM therapies from the Western world. On the other

hand, in western countries the well known Traditional Systems from Asia like Ayurveda and TCM would be included by CAM.

In relation to these imbalance problems it has been suggested to use a term like “Traditional European Medicine” for those CAM-methods with origin in Europe. A Delphi-process with experts in the field resulted in a definition that TEM would summarize such methods, which have been used over long historic periods, which would relate to the old system of 4 body fluids, which was the system used by western medicine up to the 19th century and being given up by modern medicine after that time or having switched to naturopathy in that time. In Switzerland now also the term Traditional European natural methods /TEN) is used. But anyway TEM and TEN would not include the systems of homeopathy nor newer technical methods.

ANNEX 4 How to rate the importance of a CAM method

The term **major**, which is mentioned in the work description of CAMbrella, plays a role related to "**importance**" of a discipline. But importance can have different meaning: it may be measured in economic, social, and other variables.

Obviously, the use (prevalence) of a medical therapy gives a hint for importance. Economically this should correlate to therapy related expenses by health systems (assurances etc.) or private out-of-pocket expenses. In case of herbal, homeopathic drugs or vitamins their sales can be used as a measure for "importance".

But some therapies might be impressively represented in public discussions, being often discussed in the media and showing a public interest, even when their use might be low (homeopathy could be such an example). The awareness and knowledge about a therapy can be retrieved by surveys, but there are only few addressing this.[69] It might surprise that when the population in New Zealand was asked to name any complementary therapies, 64% could not name any, and 21% could name only one therapy. When asked if they could name any alternative therapies, 84% of respondents did not suggest any, and others mentioned one (11%), two (2%), or three (2%) therapies each.[70]

From the standpoint of medical science, some CAM therapies might impress, being in focus of intensive preclinical or clinical research[71], even when the interest of governments, patients and providers might be (still) low.

Acknowledgement of a therapy by medicine or governments, assurances etc. might be another hint for importance of a therapy. This applies, when a therapy is regulated or included into a catalogue of insurances to be paid for.

In case of herbal and homeopathic drugs, just the sales or turnovers could be used as measure for "importance".

Another point of importance might relate to big number of providers, which might lead to a relevant organisation for education etc. Therapy-related patient groups with many organized members would also be an indicator for importance which could be applied to self-healing practices but also to other therapies.

[69] Yom&Lee 2007: they asked about knowledge (never heard, heard about, etc.)
Braun et al 2005

[70] Trevena 2005

[71] Main areas in EU research (Ernst 2004): Acupuncture, Aromatherapy, Bach flower remedy, Biofeedback, Chiropractic, Craniosacral therapy, Herbalism, Homoeopathy, Hypnotherapy, Massage, Naturopathy, Osteopathy, Reflexology, Relaxation, Spiritual healing, Yoga, and others

ANNEX 5 Reflection of definitions and use of each single head term (Glossary)

ANNEX 5.1 Alternative Medicine - AM

Alternative is a label for the idea of choice, but it is unsatisfactory because radiation or surgery would be alternatives in e.g. the management of cancer. Another objection is that alternative would be considered divisive at a time of increasing collaboration and mutual respect among health-care professions.[72] `Alternative´ could also mean that a therapy has not been approved by the medical community. But in a survey about general practitioners' beliefs about efficacy of alternative therapies it was reported that many Dutch GPs believe in efficacy of common alternative therapies.[73] So the authors come to the conclusion that manual therapy would not be considered AM any more.[74] But there would a range of alternative therapies i.e. iridology, astrological healing not seen as credible in the GPs studies, as well as snake oil out of the 19th century [75].
Alternative in AM could also be related to other therapeutic settings:

1) seeking advice not by a medically trained person (MD) but by an healer. This would often imply that costs have to be paid out of pocket
2) regarding combination of medical and alternative therapies as exclusive and non-concomitant

The latter is a simplifying explanation given in many publications, but mainly applicable to patients without serious disorders. A healthy person might decide not using medicines for everyday problems like pain or a cold anymore and use AM instead. That person would, however, use medical providers for preventive diagnostics, in case of accidents, or for standard vaccinations. But some alternative fatalists would not recommend vaccinations.[76] This had been already topic for arguments between medicine and homeopaths and also naturopaths around 1900, when first vaccinations were forced to the populations of many countries.
Alternative was discussed more recently to indicate for applying a cultural imperialism. The latter involves "universalization of a dominant group´s experience and culture, and its establishment to the norm".[77] Alternative medicine might be used to construct the "otherness". An ethical committee in France recommends, that the term "alternative" should be avoided, as it implies an attitude of exclusion and lack of tolerance.[78]
Nowadays the term "alternative" would relate to such therapeutic approaches far apart from mainstream medicine. "While this may satisfy proponents who are ideologically wedded to alternatives to modern medicine, it is likely to alert many others into wariness."[79] Thus, sectarian medical proponents now frequently employ other terms CM and CAM.

[72] Turner 1998
[73] Knipschild et al. 1990
[74] Moore et al. 1985
[75] Low 2001
[76] See references about vaccination: Jones et al. 2009 (less vaccinations against Influenza in patients visiting chiropractitioners)
[77] Marian 2007
[78] Citated after Marian 2007 (ref.83)
[79] Smith&Sampson 2008

Alternative therapy is viewed as any therapy other than mainstream or conventional medicine and may include unproven therapies that are promoted for cancer cure, cancer treatment, or symptom management. [80]

Alternative medicine is the term most commonly used in the latter decades of the twentieth century for therapies that ranged from such ancient modalities as acupuncture and herbs to such contemporary innovations as biofeedback and guided imagery. However, during the 1990s both the term and the understanding of the therapies it envelopes underwent major transformation. [81]'Alternative' medicine is a pernicious misnomer. 'Alternative' treatments are no more natural, effective or safe than 'conventional' ones; in many cases, they are quite the reverse. "So-called alternative therapies need to be assessed and then classified as good medicines or bogus medicines," argues Singh in his book 'Trick or Treatment?´.[82]

Many practitioners stick of their very special "alternative models", including alternative rationality or even alternative science. Or they relate to a not-scientific view e.g. tradition eventually emphasizing spiritual or religious roots.[83]

ANNEX 5.2 Complementary Medicine - CM

The term `complementary medicine´ itself implies the possibility of cooperation with orthodox medicine. It might imply a positive contribution to medicine or healthcare, as opposed to serving as an alternative to it.[84] Those who describe non-orthodox health care as complementary essentially view this as an adjunct to medical care[85] and this might apply also to CM as an adjunct to medicine.

CM is often used to conceptualize patients´ dual and concomitant use of unconventional and conventional approaches.[86]

Other definitions regarding patient´s perspective would use conventional dictionary meanings of CM as a therapy which would enhance medical treatments or is at least compatible with them. Low 2001 states, that in most publications the authors use the concept of complementary without ever defining what they mean by it and he critically addresses this "wholesale use of the term complementary". CM developed to be used synonymously to alternative without further differentiation, even for cases, where patients use alternative therapies alone.[87] Any attempt, through given in many publications[88] to sort out on the basis of non-use of conventional medicine is problematic anyway, since patients rarely use alternative therapies to the exclusion of conventional medicine. Concurrent therapies have been discussed under the aspect that many patients made the experience that their physician was not interested in collaboration and exchange with their healer and concerns were developed, that concomitant use of complementary methods could result in harmful interactions when the doctor would not be aware of the CAM-use. Some patients use normal medicine in an instrumental manner for lab tests, blood tests and check-ups. Such a dual usage should often better conceptualized by ´concomitant´ instead of `complementary´. Patients use

[80] Lengacher et al 2006; Cassileth 1999
[81] Ruggie 2005
[82] Harman 2009
[83] Hess 1993; Hess1995; Brodin Danell&Danell 2009
[84] Smith&Sampson 2008
[85] Kelner&Wellman 1997
[86] Low 2001
[87] Furnham&Kirkcaldy 1996
[88] Murray&Shephard 1993; Fulder&Munro 1985; Thomas et al. 1991:

alternative therapies as a part of overall self-care strategy, which they referred to as a complementary approach to health care. They do not choose between systems, but use whatever they feel could be helpful in their state.[89]
So finally complementary can mean subsidiary, supplementary, or alternative to medicine[90]. Complementary could also implicit that its therapies have been approved by medical science.[91] A more positive definition was proposed especially for cancer patients by Cassileth 1999: Complementary medicine is defined as therapy that is used for symptom management and to improve quality of life while patients with cancer are receiving conventional medical treatment.[92]

The term `complementary´ is not as common compared to `alternative´ in many languages and its use often restricted to special terminologies e.g. in German language to quantum physics. An analysis among Canadians confirms that only those persons used the term complementary, that were alternative practitioners. [93] The author argues that non-medical practitioners have a professional interest to avoid seeming in competition with medical professionals and to reduce the likelihood of being labeled "quacks". So practitioners who would be happy working alongside conventional medicine would prefer CM instead of AM. But from point of an UK naturopath Turner sees a "mishmash of modalities", mainly those with feel-good-factor treated by the media. The Eisenberg 1993 publication would be an example for the misconception of CM, including any over-the-counter purchase of an herbal or homeopathic remedy as an episode of use. "The spearhead of CM would be those 5 discrete disciplines of the 50ies: chiropractic, homeopathy, medical herbalism, naturopathy and osteopathy, each well organized by professional infrastructure, registers of members" etc. They were joined by acupuncturists in the 60ies. Later practitioners providing fragmentary therapies came up like reflexologists or nutritional therapists. Without the full background in clinical knowledge, these "sideliners" would never be holistic and CM should not be understood as a series of "disparate therapies used as a quick-fix like aspirin…"[94]
Between European countries, however, there is variation of the range of methods included into CM: In Germany `natural healing methods´ had been regarded near to physical medicine, which was the reason that medical proponents of classical[95] natural healing including herbal therapy and also balneotherapy (with the German-specific Kur) would not regard themselves as part of Komplementärmedizin.[96] And indeed these therapies had been introduced to medical curriculum and were taught at German medical universities since begin of the 90ies. This was later also reason to entitle the new German medline-listed and peer-reviewed journal in the field: "Forschende Komplementärmedizin und Klassische Naturheilkunde" from 2000 to 2006 and also similar titles of books[97]. In this journal also some philosophical articles have been published about the

[89] Pawluch D et al. 1994
[90] Cant&Calnan 1991
[91] Knipschild et al. 1990
[92] Cassileth 1999
[93] Low 2001
[94] Turner 1998
[95] the suffix *classical* was needed for restriction to mainly the natural therapies with water, exercise, nutrition, herbs, and "Ordnungstherapie", whereas Naturheilkunde in extended manner would be synonym to CM
[96] The proponents of Naturheilkunde wanted not to be mixed with those implausible and "unscientific" alternative methods like homeopathy, geopathy etc, which are sensitive to attacks by conventional medicine.
[97] Psychrembel Naturheilkunde und alternative Verfahren 3rd ed. 2006, Berlin

complementary principle in medicine, relating to dualistic principle in quantum mechanics by Nils Bohr.[98]

Anyway, the developments from US brought the term CAM into the scientific literature, while in many other countries and mainly in Europe the use of CM was continued up to now. See for further details the following paragraph on CAM.

ANNEX 5.3 Complementary and Alternative Medicine - CAM

The label CAM did not derive from the scene of Alternative provider groups, but mainly from academic or governmental institutions and academic authors.[99] Nurses drop the M and speak about CA instead of CAM.[100] In relation to therapies sometimes CAT is used.
There are many publications from scientific journals, dealing with CAM, the history and concepts behind it, semantic issues, classifications etc and they are most often written by medical doctors or researchers from medical colleges, and sometimes by other sciences like sociology, economic sciences, philosophy or anthropology. [101] It is not so easy to retrieve publications from grey European literature about CAM since this term has not been used predominantly by the diverse stakeholder groups.
In 1993, Eisenberg and colleagues loosely equated CAM with "unconventional medicine," defining it as "medical interventions not taught widely at US medical schools or generally available at US hospitals. This definition, developed in the beginning of the decade for US, is regarded already some years later obsolete since many alternative therapies are then taught in most medical schools in the U.S. and in Canada and some conventional therapies are not.[102] This definition would also not apply even at the time of the definition published for many countries in Europe, e.g. Germany major parts of CAM have been taught within the curriculum of medical students.
In 1997, the office of Alternative Therapies was transformed into a Center, with CAM in its name and with a greatly enhanced research budget: The NIH National Center for Complementary and Alternative Medicine (NCCAM, 2002) categorizes the vast variety of alternative therapeutic modalities into five broad areas:

- alternative medical systems
- mind-body interventions
- biologically based therapies
- manipulation and body-based methods
- energy therapies.

Their definition is followed by a differentiation between AM and CM and later IM next to the definition: Complementary medicine, especially, is used together with conventional medicine, whereas alternative medicine is used in place of conventional medicine - although the NCCAM

[98] Relations to quantum physics is often an argument by proponents of CAM-disciplines with lack of plausibility according normal natural sciences, e.g. homeopaths put their hopes for an explanation of remedies without any molecule of active substance.
[99] Baer 2005
[100] Sohn et al. 2001
[101] Easthope 2003
[102] Wetzel et al.1998; Ruedy et al., 1999; Achilles 2000

Website does not generally distinguish between the two types.[103] Data in the original study by Eisenberg et al. (1993) suggested: "[A] full third of the respondents who used unconventional therapy in 1990 did not use it for any of their principal medical conditions." From this, they inferred that a substantial portion of "unconventional therapy is used for non-serious medical conditions, health promotion, or disease prevention." In 1997, 58% of respondents stated they used alternative therapies partly to "prevent future illness from occurring or to maintain health and vitality".[104]
There are arguments for including **health promotion** into the topic.[105] A consensus is developing that definitions of health include multiple domains, among them physical, psychological (mental, emotional, intellectual), social, and spiritual. These relate to wellness, which is also a higher order construct integrating these domains, and necessarily draws on the level of individual self-perception. On the other hand, concepts common to CAM include "high-level wellness," "the interpenetration of mind, body and spirit," holism/individualism, self-healing, vitalism, the body as a bioenergetic system, and a focus on the natural/ecologic context.[106] There is overlap between the **fitness** culture and the growth of CAM.[107] Participation in CAM seems to be associated with health promotion. Similarities in philosophy between health promotion and CAM include that constructive dialogue between CAM and health promotion, which could lead to a positive paradigm shift in contemporary health care.[108]

The more established therapeutic practices– such as counseling and psychotherapy – are not the only therapeutic domains expanding in contemporary culture. Health and fitness have come to constitute important values sought after by increasing numbers of people through activities that are often perceived to have a restorative effect on the person's mind *and* body[109] (). **Self-help approaches to health** are proliferating[110] (, and 'wellbeing' has come to constitute a quality in demand across varying social contexts. The rise of alternative and complementary health practices can also be located within these wider societal trends that relate to changes in conceptualisations of health and illness, but also to transformations in the ideas of how health is to be achieved.[111]
So overlaps to life style / health maintenance / prevention and also to mind-body, relaxation, biofeedback and psychotherapy is a problem, since these areas are in focus by mainstream medicine also. Those who have an interest to gain highest prevalences of use, however, would include them to CAM.

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[103] What is complementary and alternative medicine? National Center for Complementary and Alternative Medicine. National Institutes of Health. Available at: http://nccam.nih.gov/health/whatiscam/ Accessed August 18, 2009.
[104] Kaptchuk&Eisenberg 1998
[105] "Understanding why individuals seek to use CAM practices … must be understood in a broader social and economic context, including patterns of health behaviors related to the concept of lifestyle. … As we take seriously the idea that health is more than the absence of disease, we need to take into account health-promoting activities that are not specifically for the treatment of diseases and may be related to the concepts of wellness and "health lifestyle"." Cockerham 2001
[106] Goldstein, 2000a
[107] Goldstein 2000b argues there are six basic assumptions about health and healing that are shared by the fitness movement and by CAM. These include: (1) health as wellness, (2) personal responsibility for health, (3) the interpenetration of mind, body and spirit, (4) health as harmony with nature, (5) ambivalence toward science and technology, and (6) transcendence, restraint, and vigilance. See also Schuster al al 2004
[108] Whitehead 1999; see also Hill 2003
[109] Goldstein 2003
[110] Simmonds 1992, Stacey 1997, 2000, Hochschild 2003
[111] Sointu 2006

Others have defined CAM by categorizing together all forms of healthcare which are outside the domain of the **politically dominant health system** of a particular society or culture. The Office of Alternative Medicine's Panel on Definition and Description noted already that this approach engenders the problem of fuzzy and impermanent boundaries between the CAM domain and the domain of the dominant system. It also results in a mixed bag of therapies ranging from self-care, to folk remedies native to a particular culture and practices adopted from other cultures [112] This definition also fails to pinpoint the precise meaning of politically dominant health care. Without a precise understanding of that term, how do we categorize a practice like female genital cutting?[113] So TCM or Ayurveda would not be regarded as CAM in China or India, resp., since these traditional medicines are inside the health systems in those countries. In addition, selected therapies are being integrated into the hospital systems throughout North America.

A more functional claim in the present context may be that it involves all therapeutic modalities originating from theoretical and scientific traditions distinction from western biomedical science.[114] Thus, this conceptualization would include all healing practices deriving from various ethnic traditions, various understandings of health and wellness (such as herbal remedies, reflexology, aromatherapy), as well as those whose origins lie in alternative approaches to scientific reasoning (such as homeopathy, naturopathy, or chiropractic). But again there is the problem not regarded by these authors, that both, Traditional European Medicine (or Natural healing) and modern western medicine, emerge from the just the same tradition (ancient Greek medicine), the developments of both lately being separated during the 19th century.

A more positive definition for CAM has been proposed by the group of Ernst as:

> "diagnosis, treatment and/or prevention which complements mainstream medicine by contributing to a common whole, by satisfying a demand not met by orthodoxy or by diversifying the conceptual frameworks of medicine"[115]

Another variation is used by government of Texas:

> `Complementary and alternative medicine´ means the broad domain of health care and healing therapies that are not conventional medicine, that do not require a degree in allopathic medicine to practice safely, that do not pose a known inherent risk to health or safety, and that include the practices of non-allopathic schools of medicine'.

While the NIH has popularized the acronym "CAM" some providers of "alternative therapies" object to this term, because it lumps their discipline together with other diverse therapies and may inappropriately imply some common attributes. Other professions object to the term CAM because the word "medicine" focuses on the medical profession, marginalizing other health professions such as nursing, pharmacy, public health and dentistry. The term "complementary and alternative health care" is broader and more inclusive of not only all the clinical health professions but also the systems that administer them.[116] The categories, however, suggested by NCCAM are quite academic, not clearly defined and not much used outside some US-Institutions. If people in the USA or in Europe would be asked to list some examples of any of these categories, many of them are assumed to give not any example.

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[112] Harris&Rees 2000
[113] Wolf 2003
[114] Chez&Jonas 1997; Eskinazi, 1998; N.I.H. Panel on Definition and Description, 1997
[115] Ernst et al.1995 See also Ernst 2002
[116] Leckridge 2004

There is critic within the US e.g. by anthropologists about the persons, which formed the committee for use of CAM, with no person out of the scholar practitioners, no ND, HD, OD.[117] This development was interpreted also as example of cultural imperialism by medicine.[118]

The broad mixture of CAM therapies had been even subject to critical reflection by American authors:

> The principal CAM therapies are herbal therapies, chiropractic therapy, massage therapy, and vitamin therapy. Excluding prayer, they are by far the most frequently used. There are others, such as homeopathy, yoga, acupuncture, and naturopathy.[119]

The term CAM – similar to the prior term CM and other terms - encompasses the wide range of medical systems, diverse therapeutic practices and alternative healthcare systems that fall outside the boundaries of conventional biomedicine, which are, however, significantly different from country to country within EU. It should be acknowledged that there are many different models of CAM. Complementary and alternative therapies are all different in their aims and frames of reference and the British Medical Association (BMA) estimates that over sixty different therapies are practised in the UK alone.[120]

Davidhoff gives a critical analysis of paradoxes within CAM. Self-responsibility gives patients a much-needed sense of control, a clear expression of the "patient-centering" that is now asserting itself in many spheres, but it can so easily leave patients feeling at fault, guilty, and abandoned, esp when CAM fails to improve illness.[121]

Kaptchuk and Eisenberg (2001) have argued that providing a precise definition of CAM is impossible due to the heterogeneity in healing methods offered. They propose a description of various therapies historically used in the United States under two broad classifications: (a) a more prominent, “mainstream” CAM and (b) a more culture-bound, “parochial” unconventional medicine. The mainstream CAM can be divided into professional groups, layperson-initiated popular health reform movements, New Age healing, alternative psychological therapies, and non-normative scientific enterprises. The parochial category can be divided into ethno-medicine, religious healing, and folk medicine.[122]

ANNEX 5.4 Unconventional Medicine - UCM

This term was used in the title of one of the key publications of the field in US.[123] After that in many publications the term unconventional is used, often by critic analysis.[124]

But this term which would be preferable in its clear noun. Among the EU-countries the term UCM is mainly used in Italy.

Niggemann and Grüber elaborate a relationship of scientific medicine and unconventional medicine, which naturopathy, however, being in an own category between the two. They interpret the

[117] Baer 2005 (ND, HD, OD means: naturopathic doctor, homeopathic doctor, oeseopathic doctor
[118] Marian 2007
[119] Jonas 2001
[120] Hill 2003; Whitehead 1999
[121] Davidhoff 1998
[122] Spence&Ribeaux 2004
[123] Eisenberget al. 1993; Wootton&Sparber 2001
[124] Dalen 1998

relations from scientific medicine as alternative, while naturopathy might be linked in a complementary meaner to both, scientific medicine and UCM. [125]

ANNEX 5.5 Traditional Medicine - TM

The WHO Traditional Medicine Strategy 2002–2005 holds TM to include

> ''diverse health practices, approaches, knowledge and beliefs incorporating plant, animal, and/or mineral based medicines, spiritual therapies, manual techniques and exercises applied singularly or in combination to maintain well-being, as well as to treat, diagnose or prevent illness'' (WHO, 2002, p. 7).

More succinctly, a 1996 WHO fact sheet describes TM to show ''ways of protecting and restoring health that existed before the arrival of modern medicine'' (WHO, 1996). In its 2002 strategy document, the WHO opens with an evaluation of the status of TM/CAM in contemporary healthcare systems adopting a tripartite categorization: integrative, inclusive, and tolerant.[126]

The WHO relates very much to the aspects of using TM as indigenous medicine in countries in which only minor parts of richer people can afford western medicine. In Western countries the situation is quite opposite, meaning that people have to pay costs out of pocket when using traditional medicines. The relation to thousands of years' experience and development is attractive to many, who would not rely to science and technique. Increasingly, the terms CM/*CAM* and *TM* are being used interchangeably.[127] The use of foreign fascinating culture might go parallel to tourism - which means for the great majority to stay in an air-conditioned Western standard hotel and not coming near to the slums. In parallel, one would not completely sink into the religions, philosophies or cultural aspects of a foreign TM, but rather take some isolated techniques like acupuncture against some conditions, or some selection out of yoga, tai-chi, or meditation.

The 20th century was not the first time in history that techniques like acupuncture came into focus of Western medical doctors. This time the Chinese government put emphasis in convincing Western doctors about the use of acupuncture for narcosis (which was not well working for the majority of western patients) and into the development of a simplified teachable system. Unschuld wrote that Chinese medicine underwent various ''conceptual stages'' including ''ancestral healing'', ''demonological medicine'', ''systematic correspondence'', and ''pragmatic drug therapy''.[128] His identification of these stages led him to the conclusion that the term ''traditional Chinese medicine'' implied a unified system and thus should be abandoned in favor of the general term ''medicine in China''. Others declared that ''traditional Chinese medicine came into existence in its modern institutional form only after the 1949 founding of the People's Republic of China'' and so use the term ''medicine in China'' to refer to the ''great variety of different therapeutic practices'' that are ''as old as China itself'' while applying the label ''traditional Chinese medicine'' to ''the revived Chinese medicine that has been promoted by the government of the PRC from the late fifties onwards''.[129]

[125] Niggemann&Grüber C 2003
[126] Holliday 2003
[127] Kaptchuk&Eisenberg 2001; Straus 2004.
[128] Unschuld 1985
[129] Unschuld 1980, 1985; Hsu 1999, 2001; Farquhar 1994

This classification of the traditional Chinese healing system into the two categories ‘‘medicine in China’’ for the period prior to 1950 and ‘‘traditional Chinese medicine’’ for a renewed system in the period after 1950 is not much appreciated by the providers for acupuncture or TCM. They argue that the term ‘‘medicine in China’’ is not a helpful label for at least two reasons: it conceals the conceptually significant difference between biomedicine (also practiced in China) and traditional healing systems; and by treating each ‘‘conceptual stage’’ as a different healing system, it dismisses the crucial study of changes and transformations undergone by the same healing system across time and space.[130]

There are many other Traditional systems, but some of them seem to be only minor variations of the big ones, e.g. Traditional Mongolian Medicine as a variation of TCM. A separate Traditional system is Ayurveda. One must be careful, however, to use Traditional Indian Medicine as a synonym for Ayurveda, since the definition of this TIM by the Indian government includes also several other non-conventional disciplines, which have been used in India for several decades e.g. homeopathy.

One further bigger TM is labeled as Oriental medicine. OM is a widely practised traditional healing system across the East Asian countries. The typical operating mode of traditional medicine in the region is characterized by a relatively stable, though asymmetrical, relationship with the biomedically-oriented health care system with a varying degree of collaboration.[131]
There is also the system labeled as “Traditional Islamic medicine” or “Tradtional Arabian Medicine”. Since they also reflect to ideas of humoralism they have some overlapping with TEM. It is not to be excluded that further minor or bigger TMs will be introduced to European countries in the next future.
It is worth mentioning that European providers and their patients seem to be so fascinated by Traditional medicinal systems from Asia and so impressed by traditions which claim to have thousands years history that they forget that the historical roots of old western medicine (TEM) would be quite comparable.

ANNEX 5.6 Integrative Medicine - IM

A more recently deployed synonym is integrative medicine. The term "integrative" in this context implies approaches that are somehow incorporated into established medicine.
The term `integrative medicine´ reflects a recent bottom-up development, emerging from educational and clinical pursuits across the U.S., which regard the combination of conventional medicine and CAM practices in one clinical setting as Integrative medicine (IM). A number of organizations have evolved to bring together multiple stakeholders from conventional medicine and CAM as well as from philanthropy and business. These organizations engage in dialogue, education, and advocacy. Their web sites offer links to wide-ranging information on CAM and integrative medicine, to documents and reports, and to other organizations. [132]

[130] Quah 2003
[131] Cho 2000
[132] Ruggie M, 2005

The National Center for CAM defines IM as the combination of mainstream medical therapies and CAM therapies for which there is some evidence of safety and effectiveness. Others add expressively mind-body-therapies to the range of IM – some with regard to the special setting within one certain practice. The latter would reflect, that "Integrative medicine draws on any models and therapies that offer value, whether they derive from Western biochemical pathophysiology or Eastern religious traditions. Efficacy and safety will remain primary."

Snyderman and Weil go beyond this definition and define it as a form of medicine that cannot be understood as simply the additive use of conventional and CAM therapies. They define IM as medical care focused on health and healing, rather than illness, with an emphasis on the centrality of the patient–physician relationship. In their definition, IM includes lifestyle choices that promote health and active participation by patients.[133] IM practitioners view the patient as a physical being, a spiritual being, and a community member and act as guides rather than commanders. IM centers often provide for more time with the patient whether this is for massage or for primary care office visit with an MD.[134]Integrative medicine was defined as

> "medicine that reaffirms the importance of the relationship between practitioner and patient, focuses on the whole person, is informed by evidence, and makes use of all appropriate therapeutic approaches, healthcare professionals and disciplines (conventional and complementary) to achieve optimal health and healing" (www.imconsortium.org). Such complex approaches are especially relevant in the management and prevention of chronic health problems, which are the main cause of disability and account for 78% of health expenditure.[135]

Ernst sees clearly those two aspects of IM: Whole person medicine and incorporation of CAM into medical routine. But he gives arguments that this dual concept is "superfluous, misleading and counter-productive."[136]
A major point of discussion, e.g. in the discussion about the draft version of CAHCIM[137] is whether an incorporation of CAM is so easy and adequate and be that, is it that what patients want. The CAHCIM

[133] Snyderman&Weil 2002
[134] McCaffreyet al 2007
[135] Holman 2004;See also McPherson et al 2004
[136] Ernst 2004: 'Integrated medicine' has fast become the new buzz word in complementary medicine. It stands for two different principles: firstly whole person medicine, and secondly the incorporation of complementary medicine into medical routine. In my view, this dual concept is superfluous, misleading and counter-productive. It is superfluous because all good medicine has always adopted a whole person approach. It is misleading because incorporation of well-documented treatments of any type is not 'integrated' but evidence-based medicine, a concept already well-established worldwide. And it is counter-productive because integration of unproven therapies (which many complementary therapies unquestionably are) would render healthcare only less effective and more expensive. The challenge with respect to new, fashionable terminology or concepts is to adequately scrutinise their validity before adopting them.
[137] Consortium of Academic Health Centers for Integrative Medicine: The authors are pleased to note that on May 15th, 2005 the Steering Committee f the Consortium of Academic Health Centers for Integrative Medicine modified their definition of Integrative Medicine in response to suggestions from the Academic Consortium for Complementary and Alternative Health Care, made through the Education Task Force of the Integrated Healthcare Policy Consortium. The existing definition prior to May 15, 2005,
"Integrative Medicine is the practice of medicine that reaffirms the importance of the relationship between practitioner and patient, focuses on the whole person is informed by evidence, and makes use of all appropriate therapeutic approaches to achieve optimal health and healing."
was modified to

paper would leave the impression that conventional medical physicians may simply incorporate into their practices what they perceive to be good CAM therapies rather than referring to or co-managing and collaborating with CAM providers.[138] The CAHCIM paper would not include the option of integrated care with MDs and CAM practitioners as partners, and would regard CAM to be an add-on to conventional medical care. Conventional medical institutions would want to include CAM, but not necessarily CAM practitioners, in their vision of IM.

The integration of CAM services into mainstream institutions is for some a wonderful development, long overdue. For others, it is a vision of co-optation, in which CAM becomes a victim of its own success.[139] In a positive way, integrative would mean that the time for polarity between traditional and special systems is past. So patients would no further need to keep their self-treatments and their visits to a practitioner a secret. What still is left is the polarity between medical providers and healers.

Quite another focus of IM reflects to incorporation of TM in developing countries, where most people have access to modern medicinal services. Key policy issues in integration have been outlined by Commonwealth health ministers. Ministers established the Commonwealth Working Group on Traditional and Complementary Health Systems to promote and integrate traditional health systems and complementary medicine into national health care.[140] Asian countries have a longer experience about incorporating its traditional health systems into national policy. In some Asian countries such as China the development has been a response to mobilization of all healthcare resources. In other countries, such as India and South Korea, change has come through politicisation of the traditional health sector and a resultant change in national policy. Two basic policy models have been followed: an integrated approach, where modern and traditional medicine is integrated through medical education and practice (for example China, Vietnam) and a parallel approach where modern and traditional medicines are separate within the national health system (for example India, South Korea).[141]

It seems that in western world now most see the integrated approach at the only one. A parallel approach with separation of CAM and mainstream medicine is not that what is meant with IM.

There are critics[142] from non-medical providers as well as from sociology; saying that an integration or accommodation[143] in which biomedicine retains its dominance[144] is against the idea of free choice and medical pluralism.[145]

"Integrative Medicine is the practice of medicine that reaffirms the importance of the relationship between practitioner and patient, focuses on the whole person, is informed by evidence, and makes use of all appropriate therapeutic approaches, healthcare professionals and disciplines to achieve optimal health and healing." Benjamin et al 2007

[138] Panel on Definition and Description CRMCA1 Defining and describing complementary and alternative medicine. Alternative Therapies 1997, 3:49-57 Sampson et al 2002

[139] Dumoff 2004: The vision of acupuncture relegated to a marketing attraction at a hospital, where it is used solely for pain management, is a vision of loss. In this future, the richness of Oriental medicine is cast aside and its techniques assimilated into biomedical approaches.

[140] Bodeker 2001

[141] Bodeker 2001

[142] Green et al 2006

[143] Baer et al 1998

[144] Stevenson et al 2003

[145] Baer 1989; Mull et al 1990; Myntti 1988; Crandon-Malamud 1993

On the other side, it becomes clear that there are only certain subsets of the conventional medicine community that have an interest about integrating certain CAM practices as legitimate adjuncts to the medical care system[146].

Summarizing, it comes clear that **IM and CAM represent two different kinds of categories and both are not to be used as synonyms.** CAM is defined in relationship to biomedicine as complementary or alternative, but is considered integrative if delivered by a conventional physician.

The following points of criticism are speaking against the use of IM:

1) The concept IM is apparently often mixed with Integrated health care (see A 3.7), which makes IM even more "fuzzy".

2) A second problem about using the term IM as a synonym is the one from the viewpoint of terminology never brought up in the literature: In contrast other CAM-synonyms, it is impossible to relate to integrative procedures or medicines in any way (they would be the total range of any procedure in medicine mixed with CAM-procedures: from appendectomy to water treatments). This implies that beside the concept of IM there is always at least one further term needed to characterize that part stemming from "CAM" into that new Integrative concept.

3) A third problem is about predominance of conventional medicine also known as medical imperialism: A specialist for IM can be only a MD after some additional training in CAM and not a practitioner, who has no full background of medicine. When collaboration of MD and practitioner would be organized within an institution for IM, there is concern that practitioners would be in an inferior role.

4) A forth problem is near to the third: It is probable that Medicine would take the decision (and not the patient) which of the CAM therapies would be included into Integrated Medicine – most probably overemphasizing evidence as criterion.

5) A fifth problem is rather a skeptical observation and shows, why IM will never work: IM is used mainly by academic MDs and their institutions. It is however hardly used by any other medical doctors, despite the fact that the proponents use golden baits to make the integration of CAM into a new Medicine attractive.

Ad 3) Publications about the concept of IM come from medical scientists or from associated academics and merely from practitioners. The latter might have seen that concepts of IM would make them outsiders of the system. So they would prefer concepts of plurality of methods and providers instead of IM. Winnick traced the professional evolution of CAM through three distinct phases: condemnation, reassessment, and integration.[147]

From economic point of view three current models of delivery of CAM and biomedical have been described, the market model, the regulated model, and the assimilated model, the latter reflecting to IM. A fourth model, the patient centered model was proposed by Leckridge, which shifts the power from therapists to patients and regulates products and services irrespective of CAM or biomedical definitions. Leckridge regards this latter model as the one likely to support the development of truly integrated medicine, explicitly for the benefit of patients rather than therapists or industries.[148] In focus on patients view three main topics emerge: independence versus paternalism, foreign versus familiar, and care versus cure.[149]

[146] Jonas, 1998; LaValley&Verhoef 1995; Verhoef&Sutherland 1995)
[147] Winnick cit after Stratton&McGivern-Snofsky 2008
[148] Leckridge 2004
[149] Fadlon 2004

Ad 4) Increasing importance of evidence-based medicine in the 90ies was one of the forces leading to the term integrative medicine. It was no longer needed to explain how a therapy works, but it was enough to demonstrate that it does work clinically giving some therapies a chance to be acknowledged. Such therapies could then be included in an integrated program of treatment.[150]

Ad 5) Many publications about CAM discussed the crisis of modern medicine. Modern medicine should be renewed then by using the concept of integrative medicine. Why should IM, defined by regarding the whole person in a "holistic approach", provide something better by bringing in CAM therapies as a way of bringing medicine back to a focus of the patient rather than disease. Easthope: "They believe integrative medicine will, like the return to the words of the bible for the protestant, by its focus on the patient not the disease return medicine to its pure origins."[151] Some authors claim integrative medicine to resolve also the financial problems of the health systems, mainly to tackle the problems of chronic diseases. But authors like Roy develop errors, when they think that a global health crisis is such new[152]: a crisis of medicine had been discussed already in the 1920ies in Germany and elsewhere. In Germany this fear of crisis of medicine at that time had contributed to political driven merging of conventional medicine with certain parts of "Biological medicine" into a "New German Medicine".

The motivation to reduce financial expenses for curing diseases by promoting healthy living is not new. It needed neither modern methods of analyses of cellular changes at the epigenetic level nor the intervention studies about life style modification by Ornish to know, that healthy life style is essential for preventing many chronic diseases. So why should IM be superior to preventive medicine, which is a recognized part of conventional medicine (even when dysbalanced). Practically speaking would the use of procedures from Ayurveda instead of European based healthy life style, given by TEM/naturopathy, provide then the solution of financial problems of the health systems? A healthy life style is a matter of compliance, self-discipline and many other factors. For many patients and especially those with low education it is hard to change their used life style to a healthier one. Think just about the low compliances in quitting smoking or taking diet for weight reduction as examples for the two most important life style factors. Often religion, philosophy, and social contexts are more relevant for motivation towards a healthier life style than medicine. This is the chance, which can be used by "holistic" approaches. A context within another system than that of scientific medicine might be more successful for motivation. That is what one should investigate – not the clinical outcome, which would show relevant results after many years. It has not been lack of authority confidence that the goods will be reliably delivered. Transmission vision is the classic role of leadership, but this cannot be provided so easily by a mixed concept like IM. It would be better to provide unusual visions from special healers instead of medical doctors been trained in some additional CAM-modality.

Extended vision of IM Shankar[153] gives reasons for integrative medicine meaning the acceptance of pluralism. He states that even within a single country, different models for IM may come up, depending on cultural roots and the developments of healthcare. So he argues for several models of IM. For the Indian context he develops a conceptual framework for an IM with Ayurveda as a pivot to

[150] Eastwood 2003
[151] Easthope 2003
[152] Roy 2010
[153] Shankar 2010

be linked with Biomedical medicine. [154] The explorations would need high standards of scientific skills, which would be rarely found among healers. One might, however use his interesting approach to pivot on other traditional medicinal systems e.g. TEM/naturopathy. Others have also emphasized the degree of agency (i.e., personal control) exercised by individuals in their own health care.[155]
Kaptchuk und Miller see three possible relationships between mainstream and alternative medicine: opposition, integration, and **pluralism**[156].
"Opposition, the traditional ethical position that the medical profession must eradicate unconventional medicine for the good of the patient, has withered away. Integration of mainstream and alternative medicine is increasingly advocated in tandem with hospital-based programs that amalgamate the use of conventional and alternative therapies. While advocates of integrative medicine often speak of "evidence-based" complementary and alternative medicine (CAM), integration fosters double standards for validating conventional and unconventional treatments. Integration also ignores unbridgeable epistemological beliefs and practices between mainstream and alternative medicine. …Pluralism, which has been relatively ignored, calls for cooperation between the different medical systems rather than their integration."[157]

Medical pluralism refers to ''the existence in a single society of differentially designed and conceived medical systems''[158] and it has been noted that ''the coexistence of differing medical traditions is now the common pattern in all but the most isolated areas of the world''.[159]
Pluralism is basically legitimized through core principles of social and political justice: the right to freedom and free choice. In this context, it is closely related to respect for autonomy as one of the four principles of medical ethics (the other principles being beneficience, non-maleficience and justice), respect for autonomy implies 'to acknowledge that person's right to hold views, to make choices, and to take actions based on personal values and beliefs'.[160]

[154] Shankar 2010
[155] Stratton&McGivern-Snofsky 2008
[156] one could also see parallels to developments in the 19th century: Baer 2002
[157] Kaptchuk&Miller 2005
[158] (Janzen, 1978, p. xviii) citation according Green et al. 2006
[159] Frankel & Lewis, 1989, p. 1 citation according Green 2006
[160] Marian 2007

ANNEX 6 Country-specific results for major disciplines (Results of questionnaire 1)

ANNEX 6.1 Methodology for Table 1

First of all I checked all the data inside the table with the data of the questionnaires of 11 countries (UK, Italy, Spain, Hungary, Germany, Austria, Switzerland, Denmark, Sweden, France, and Romania). The table was made taking into account the given list of methods/disciplines and the specific relevance of each proposed term (by putting together the scores proposed by every country for one particular method/discipline, the "knowledge score" and the "use score"). After that, every method/discipline has a total score, and thus we can classify them from the most voted to the less voted. In case of several methods with the same score, the method with more countries proposing it would be in a higher position in the list. The number of methods/disciplines proposed by one country, by more than 2 countries, by more than 3 countries and by all of the countries was also calculated.
A list of the methods provided by each country was also developed. The aim of this list is to highlight the specific methods/disciplines proposed by each country, but not by the others. The proposed terms were ordered by relevance, and the evidence level of each country was calculated on the basis of the sources described in the methodology of Q1, following this scale: A level, 5 points; B level, 4 points; C level, 3 points; D level, 2 points; E level, 1 point. The "evidence level" was calculated by putting together all the scores and dividing by the number of provided terms, being 5 the best evidence level and 1 the lowest evidence level. The specific methods/disciplines for each country are highlighted in red.

The best "evidence levels" were found for Germany (5), Denmark (5), Sweden (5) and Switzerland (5), while the poorest ones were found for Romania (2.1) and Spain (2).

TOTAL METHODS / DISCIPLINES: 65, depending on the union of Reflexology + (feet) and others.

Methods / Disciplines cited by 5 or more countries: 12 (Acupuncture, Homeopathy, Herbal Medicine, Chiropractice, Osteopathy/craniosacral, Massage, Traditional Chinese Medicine, Natural Medicine, Reflexology, Yoga, Anthroposophical Medicine and Aromatherapy).

Table 1: Results of Questionnaire 1 (complete in relation to Tab 3)

Discipline/ method	Total	Knowledge	Use	No. of countries	Remarks
Acupuncture (incl. related techniques)	76	43	33	14	All consulted countries
Homeopathy	66	39	27	14	All consulted countries
Herbal medicine	47	27	20	10	UK, Italy, France, Germany, Switzerland, Sweden, Romania, Belgium, Greece, Ireland
Chiropractice	44	26	18	10	All consulted countries except Hungary, Austria, (Denmark and Italy not included, no CAM)
Osteopathy/craniosacral	28	17	11	8	Denmark, Austria, UK, Italy, France, Spain, Belgium, Ireland
Massage (complementary/medical)	27	15	12	5	Hungary, Germany, Sweden, Greece, Ireland
Traditional Chinese Medicine	26	15	11	5	France, Spain, Hungary, Germany, Switzerland
Natural medicine	24	14	10	6	Italy, France, Spain, Germany, Austria, Denmark
Reflexology	22	13	9	6	UK, Hungary, Sweden, Romania, Greece, Ireland
Yoga	21	13	8	5	Spain, Hungary, Germany, Greece, Ireland
Anthroposophical medicine	17	13	4	6	Germany, Hungary, Switzerland, Austria, Sweden, Italy
Aroma therapy	16	10	6	5	UK, France, Austria, Greece, Ireland
Manual therapies	16	9	7	4	Switzerland, Germany, Italy, Hungary
Kinesiology	14	9	5	4	Spain, Hungary, Austria, Ireland
Physical training	13	8	5	3	Germany, Greece. Ireland
Nature medicines (exl. Vitamines Denm)	12	4	8	2	Denmark, Sweden
Hydrotherapy	12	6	6	2	Germany, Sweden (Spain, Hungary not included, no CAM)
Nutritional medicine/therapy	11	7	4	4	UK, Germany, Denmark, Ireland
Neuraltherapy	11	7	4	3	Hungary, Austria, Switzerland
Relaxation (therapy)	11	6	5	2	France, Germany
Thai massage, tuina, ayuirvedic mass	11	6	5	2	Romania, Hungary
Life style advisor	10	4	6	2	Hungary, Austria
Reflexology (feet)	9	4	5	2	Spain, Germany
Eye training	9	3	6	2	Hungary, Austria
Dietary supplements	8	4	4	1	Hungary
Recreation organizer	8	4	4	1	Hungary
Music therapy	8	4	4	1	Hungary
Dance therapy	8	4	4	1	Hungary
Reiki	7	5	2	4	Spain, Austria, Greece, Ireland
Healing (spiritual/energy)	7	4	3	3	UK, Denmark, Sweden
Taichi	7	5	2	2	Spain, Ireland
Naprapathy	7	4	3	1	Sweden
Spiritual Christian Orthodox therapy	7	4	3	1	Romania
Bach flowers	6	3	3	3	Italy, Spain, Denmark
Balneotherapy	6	4	2	1	Germany
Hypnosis	5	3	2	3	UK, France, Ireland
Shiatsu	5	4	1	3	Spain, Greece, Ireland
Thermotherapy	5	2	3	1	Germany
Biophysical information therapy	5	3	2	1	Austria
Lymphatic drainage	4	3	1	3	Spain, Germany, Ireland
Solar/Light irradiation	4	1	3	2	Germany, Austria

Orthomolecular medicine	4	2	2	1	Austria
Ayurveda	3	2	1	4	Germany, Hungary, Italy, Ireland
Fasting	3	2	1	1	Germany
Mesotherapy	3	1	2	1	France
Counselling	3	2	1	1	Ireland
Psychotherapy	3	2	1	1	Ireland
Homotoxicology	2	1	1	1	Austria
Rosen method	2	1	1	1	Sweden
Ordnungstherapy	2	1	1	1	Germany
Atemtherapy	2	1	1	1	Germany
Ozontherapy	2	1	1	1	Austria
Physioenergetic medicine	2	1	1	1	Austria
Holistic dentistry	2	1	1	1	Austria
Visualisation	1	0	1	1	Denmark
Alexander Technique	0	0	0	1	Ireland
Neuro Linguistic Programming	0	0	0	1	Ireland
Amatsu	0	0	0	1	Ireland
Bowen therapy	0	0	0	1	Ireland
Neuromuscular therapy	0	0	0	1	Ireland
Hypnotherapy	0	0	0	1	Ireland
Bio-energy	0	0	0	1	Ireland
Re-birthing	0	0	0	1	Ireland
NADA therapists	Nr	Nr	Nr	1	Hungary
Kneipp- method	Nr	Nr	Nr	1	Hungary

Nr: no reported

ANNEX 6.2 Lists of methods/disciplines proposed by each country

The following tables represent the most relevant CAM methods/disciplines proposed by each country. Country specific methods/disciplines are highlighted in bold italics. The countries are listed in alphabetical order, the methods within each country are ordered in descending relevance.

On top of each table the mean level of evidence for all methods lists are presented being 5 the best evidence level and 1 the lowest evidence level. For details on the methodology of this scoring see ANNEX 6.1.

Country									
Austria		Belgium		Denmark		France		Germany	
18 methods/disciplines Evidence level: unknown		5 methods/disciplines Evidence level: unknown		11 methods/disciplines Evidence level: 5		11 methods/disciplines Evidence level: 3.9		19 methods/disciplines Evidence level: 5	
Original term	**English term**	**Original term**	**English term**	**Original term**	**English term**	**Original term**	**English term**	**Original term**	**English term**
Akupunktur	Acupuncture		Osteopathy	Zoneterapi	Reflexology	Homéopathie	Homeopathy	Naturheil-verfahren	Naturopathy
Anthroposophi-sche Medizin	Anthroposophi-cal medicine		Homeopathy	Massage / manipulative terapier	Massage /manipulative therapies	Phytothérapie	Herbal	***Bewegungs-therapie***	***Exercise treatment***
Aromatherapie	Aroma therapy		Acupuncture	Akupunktur	Acupuncture	Ostéopathie	Osteopathy	Phytotherapie	Herbal Medicine
Biophysikali-sche Informati-onstherapie	***Biophysical information therapy***		Chiropraxis	Natur-lægemidler	Herbal medicine	Relaxation	Relaxation	***Wassertherapie***	***Hydrotherapy***
Augentraining	**Eye training**		Phyto/Herbal medicine	Healing/clairvoya nce	Spiritual healing /clairvoyance	Acupuncture	Acupuncture	Massage	Medical Massages
Ganzheitliche Zahnheilkunde	***Holistic dentistry***			Kinesiologi	Kinesiology	Mésothérapie	Mesotherapy	Homeopathie	Homeopathy
Homeopathie	Homeopathy			Homøopati	Homeopathy	Chiropraxie	Chiropraxy	***Thermotherapie***	***Thermotherapy***
Homotoxikolo-gie	***Homo-toxicology***			Kranio-sakral terapi	Craniosacral therapy	Naturothérapie	Naturopathy	Manuelle Thera-pie/Chiro-therapie	Manual therapies / Chiropractic
Kinesiologie	Kinesiology			Ernæringsterapi	Nutritional therapy	Aromathérapie	Aromatherapy	Ernährungs-therapie	Dietetic treatment
Lebenstilberater	Life style advisor			Biopati	Biopathy	Hypnose	Hypnosis	Entspannungs-techniken	Relaxation techniques
Naturopathie	Naturopathy			***Visualisering***	***Visualisation***	Médecine Trad. Chinoise	TCM	Akupunktur/-pressur	Acupuncture/acu pressure
Neural-therapie	Neural therapy							***Balneotherapie***	***Balneotherapy***
Orthomoleku-lare Medizin	***Orthomolecular medicine***							***Ordnungs-therapie***	***Ordnungs-therapy***
Osteopathie/crani osacrale	Osteopathy/crani osacral							***Atemtherapie***	***Breath therapy***
Ozontherapie	***Ozontherapy***							***Heilfasten***	***Fasting***
Physioenerge-tik -Medizin	***Physioenerge-tic medicine***							Traditionelle Chines.Medizin	TCM
Reiki	Reiki							Anthroposoph. Medizin	Antroposophic medicine
Lichttherapie	Solar/Light irradiation							Ayurvedische Medizin	Ayurvedic medicine
								Lichttherapie	Light therapy

Country									
Great Britain		Greece		Hungary		Ireland		Italy	
10 methods/disciplines Evidence level: 4.3		11 methods/disciplines Evidence level: 1.9		21 methods/disciplines Evidence level: 3.8		30 methods/disciplines Evidence level: 3		9 methods/disciplines Evidence level: 3.4	
Original term	**English term**	**Original term**	**English term**	**Original term**	**English term**	**Original term**	**English term**	**Original term**	**English term**
Acupuncture			Yoga	Kiegészítő masszázs terápiá	Massage therapies	Herbal Medicine		Omeopatia	Homeopathy
Homeopathy			Acupuncture	Gyógynövény-alkalmazás	Herbal medicine	Massage therapies		Fitoterapia	Herbal medicine
Herbal Medicine			Exercise	***Táplálék kiegészítõk***	***Dietary supplements***	***Counselling***		Agopuntura/ MCT	Acupuncture/ TCM
Reflexology			Homeopathy	Akupunktúra, Hagyományos Kínai Medicina	Acupuncture, TCM	Chinese medicine		Chiropratica	Chiropractic
Aromatherapy			Chiropractic	Akupresszúra	Acupressure	Homeopathy		Osteopatia	Osteopathy
Chiropractic			Reflexology	Manuális Medicina	Manual Medicine	Acupuncture		Ayurveda	Ayurveda
Osteopathy			Massage	Homeopáthia	Homeopathy	***Psychotherapy***		Naturopatia	Naturopathy
Healing			Aromatherapy	Reflex therápia	Reflexotherapy	Chiropractic		Medicina Antroposofica	Anthroposophic medicine
Nutritional medicine			Herbal therapy	Thai-/Ayurveda-Tuina Masszázs	Thai/ayurvedic/ Tuina massage	Osteopathy		Fiori di Bach/ Bach flowers	Bach flowers
Hypnosis			Shiatsu	Életmódtanácsadó	Life-style advisor	Nutritional therapy			
			Reiki	Jóga	Yoga	Physical therapy			
				Zene therápia	***Music therapy***	Reflexology	***➔cont'd***		
				Neuráltherápia	Neuraltherapy	Yoga	Naturopathy		
				Kineziológia	Kinesiology	Reiki	***Amatsu***		
				Tánc therápia	***Dancing therapy***	Aromatherapy	Bowen therapy		
				Rekreáció szervezõ	***Recreation organizer***	Kinesiology	Cranio-sacral therapy		
				Szemtréning	Eye training	Shiatsu	Lymph Drainage		
				Ayurvéda Medicina	Ayurvedic Medicine	Tai-chi	***Neuromuscular therapy***		
				Antropozófikus Medicina	Antroposophic medicine	***Alexander Technique***	***Re-birthing***		
				NADA szakértő	NADA therapists	Ayurvedic medicine	***Hypnotherapy***		
				Kneipp módszer	Kneipp- method	***Neuro Linguistic Programming***	***Bio-energy***		

Country							
Romania		**Spain**		**Sweden**		**Switzerland**	
7 methods/disciplines Evidence level: 2.1		13 methods/disciplines Evidence level: 2		11 methods/disciplines Evidence level: 5		8 methods/disciplines Evidence level: 4.6	
Original term	**English term**	**Original term**	**English term**	**Original term**	**English term**	**Original term**	**English term**
Terapie spiri-tuala crestin-ortodoxa	***Spiritual Chris-tian Orthodox therapy***	Yoga	Yoga	Massage	Massage	Homeopathie	Homeopathy
Acupunctura	Acupuncture	Acupuntura/Meci cina Trad. China	Acupuncture/ Trad. Chin. Med	Naturmedel	Natural remedies	Akupunktur	Acupuncture
Fitoterapie	Herbal medicine	Quiromasaje	Chiropractic	Kiropraktik	Chiropractic	Trad. Chines. Medizin	Traditional Chinese Medicine
Reflexoterapie	Reflexotherapy	Homeopatía	Homeopathy	Akupunktur	Acupuncture	Phytotherapie	Phytotherapy
Homeopatie	Homeopathy	Reflexología podal	Podal Reflexology	***Naprapati***	***Naprapathy***	Neuraltherapie	Neural therapy
Chiropractica	Chiropractic	Taichi	Taichi	Zonterapi	Reflexology	Anthroposophisc he Medizin	Anthroposophic Medicine
Masaj chine-zesc Tui-Na	Tuina Chinese massage	Terapia floral	Flower Therapy	Homeopati	Homeopathy	Chirotherapie	Chiropractic
		Drenaje linfático	Lymphatic drainage	Healing	Healing	Manuelle Therapie	Manual therapies
		Naturopatía	Naturopathy	Antroposofisk Medicin	Antroposophic medicine		
		Reiki	Reiki	***Rosenmetoden***	***Rosen Method***		
		Osteopatía	Osteopathy	Kinesiolog	Kinesiology		
		Shiatsu	Shiatsu				
		Kinesiología	Kinesiology				

ANNEX 7 Questionnaire 1

Pan-European Research Network for Complementary and Alternative Medicine (CAM)

CAMbrella WP1 QUESTIONNAIRE 1
About major CAM-disciplines
FOR each COUNTRY

Please provide a list of major CAM disciplines playing an important role in your country!
A discipline would mean not a special procedure, but a general (umbrella) term for a group of procedures, e.g. herbal therapies instead of each single herb.
We wish to gather the relevant and most important CAM-disciplines in your country; the number of important disciplines is expected between 10 to 20, but it is your decision, how many CAM-disciplines you will list as important ones.
The degree of "importance" of a discipline should be based on two estimates:

I) The general knowledge about a certain CAM discipline in the population and;
II) The use (prevalence) of a certain CAM discipline.

Expert estimates for I the general knowledge and II use of that certain CAM disciplines
Please give a rating of level (**no role = 0; little role = 1; some role = 2; important role = 3; very important role = 4)**

4: - I: **more than 70 % of population know** about that CAM discipline and its uses.
- II: The discipline is used often in medical practice or offered by most of healers or used in self treatment by the population and **used by more than 40%** of population.

3: - I: about **50-70 % of population know** about that CAM discipline and its uses,
- II: Discipline is common in medical practice or offered by relevant part of healers or used in self treatment by significant part of population and **used by 20-40%** of population.

2: - I: about **10-50 % know or have ideas** about discipline and its uses.
- II: Discipline is known in medical practice or offered by a minority of healers and **used by 10-20%** of population.

1: - I: about **5-10 % of population have ideas** about discipline and its uses.
- II: Discipline is known to some specialists in medical practice or some healers and **used by 1-10%** of population.

0: - I: only **less 5 % of population have ideas** about term and its uses.
- II: Discipline is known to some few specialists in medical practice or some few healers **used by less than 1%** of a given population/patient group.

Your estimate of the use (prevalence) of a CAM discipline may be supported by different kinds of evidence. Therefore, we ask your opinion, which kind of evidence could support your estimate according classes A-E:

A. Published scientific publications with results derived from population based surveys
B. Published scientific publications with results derived from patient-group based surveys
C. Official reports from governments, insurances of high quality.
D Reports from organizations such as NGO's, CAM interest organizations.
E. Expert opinion. This source of information is used when sources A-D are not available or you have reason, not to relate to them

GIVE the COUNTRY ……

Nr.	CAM-Discipline Native, Synonyms English translation	General knowledge about that CAM discipline (0,1,2,3,4)	Use of that CAM discipline (0,1,2,3,4)	Basis of estimate (A,B,C, D,E)	Estimate of prevalence of that CAM discipline	Remarks, Literature
Example from Ger-many	(Kalt-) Wasserheilkunde hydrotherapy	4	2	A,E	30 %	hydropathy was precursor term of `naturopathy´ in 19th century, still population-based associations existing (Härtel et Volger)
Example from Sweden	Naprapathy	4	2	D	23%	
1						
2						
3						
4						
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10						
11						
12						
13						
14						
15						
16						
17						
18						
19						
20						

Pls. check, that no important discipline is missing! Discuss with your team! Ask other specialists!

Pls. **return** to:
Bernhard Uehleke: email: bernhard.uehleke@usz.ch **and** b.uehleke@immanuel.de
Fax: 0049 30 80505692
T H A N K Y O U

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