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## CHAPTER II THEORETICAL ORIENTATION

### 2.1 Applied Ethnoscience and the IKS-Based Development Paradigm.

The paradigm as developed by the Leiden Ethnosystems and Development Programme (LEAD) in the late 1980's forms the basis for this type of research and will be elaborated upon by indicating the connections between the programme and the related schools of thought. The overview presented by Yoder (1982) in '*African Health and Healing Systems*' shows that the previous "new ethnomedical method" is considered a school initiated in the early 1970's. At least one of these pioneers, the late Professor Dennis Michael Warren, closely collaborated with the Leiden LEAD Programme since its establishment in 1986, by its initiator, Professor L.J. Slikkerveer, himself an Ethnoscientist of the first order. They published what set a standard in a triumvirate with the late Professor David Brokensha, i.c. *The Cultural Dimension of Development* (1994), regarded as one of the main references for the 'Ethnosystems' school of thought (*a.k.a.* 'Indigenous Knowledge Systems', IKS).

From the definitions as they were formulated at that time, it is an explorative and descriptive method of trying to classify various types of perceived morbidity, treatments, medicine and traditional practices as applied by the people in a specific cultural area, but foremost a classification described in local terminology. The purpose of the method is to construct a framework by which the illness behaviour of a particular population and a cultural area, can be understood and explained. It does not imply, however, that the framework simultaneously functions as an explanatory model of the determinants of that behaviour, but at least it should provide terms of reference to illustrate the different illness episodes of the local people and support the operationalisation of public health policies on a local level. The earlier version of integrating the social and cultural context into organising public health was applied in the Primary Health Care (PHC) concept (ref. the Alma Ata Declaration, 1978), but the execution of the concept varied extensively locally (see 1.1).

In the case of this study, it must be emphasised that the descriptions encompass several dimensions. The presumed cause, the experience of symptoms, a set of symptoms leading to perceived morbidity, the accessibility of services, a choice of treatment, a way of administering of a certain treatment, the experience with the result, and the local (cultural-) connotations concerning all these phenomena. The complexity of all these dimensions of health and healing varies per area. The area pilot study (2015) showed that there exists a large degree of consensus among the members of the communities within their cultural area, enabling them to express all these dimensions in their local terminology (not only in local languages or dialects, but as well in Swahili and English respectively) and simultaneously recognised by the local research assistants.

The crucial distinction between the described ethnomedical method and a biomedical procedure - when limited to the collection of empirical data - is that there is no intended separation between social, cultural, psychological, or environmental influences in the forming of any classification. The essence is that an ethnomedically designed description provides one with a classification of phenomena in local terms which represent the emic view, as they are brought forward with consistency by the majority of the community members. It is instrumental at this point to explicate the terms 'etic' and 'emic' as they represent the viewpoint taken especially in social science research, 'emic' being the approach from the reference cadre of the group member as the object of investigation, whereas 'etic' refers to the viewpoint of the outsider. The terms are derived from linguistics, where the distinction in sounds is made between phonetics -in human language- and

phonemics -the speaker of a given language (*cf.* Pike, 1967). The ethnomedical method has been developed to study illness behaviour from a holistic vantage point per sé, and also includes bio-medical concepts or local definitions thereof on the same basis, namely that they are, or have become, exponents of the same culture once they are locally established, especially in a society which has an established indigenous (or 'traditional') medical system (*cf.* Press, Fabrega, in Yoder 1982; Posey 1995; Marsland 2007; Ambaretnani 2012).

One historical aspect regarding this method needs to be mentioned at this point, which deals with the initial formal undervaluation of traditional medicine coinciding with the introduction of modern medicine, in this case in an African setting (*cf.* Chirangi 2013). Following the experience during the pilot study (2015), such undervaluation is still present in the memory of the local population as well as traditional healers, and it was mentioned by a first meeting in Serengeti with the chairman of the local healers' association *(CHAWATIATA).* Asked why the eagerness from the formal health care authorities to co-operate with them came about only recently, he answered that both he and his colleagues had long been suffering from rejection (his words were translated as 'stigmatised' by the interpreter, the then acting KMT secretary) by the 'official' medical authorities. It has already been established that the use of traditional medicine is still very popular on a global scale, is found in all layers of society, and as such has been promoted worldwide (Bannerman *et al.* 1982; WHO 2008). Although there has not been sufficient registration, nor ample reviews of scientifically proven effectiveness of traditional practices, so far, the role of indigenous medical knowledge, especially based on herbal medicine has substantially contributed to the development of modern cosmopolitan medicine, particularly in pharmaceutical medicine. Exceptions are found in numerous medical anthropological and ethnomedical accounts and in studies of Ethnobotanical cases (Fennell *et al.* 2004). Others believe that the role of traditional, complementary or alternative health systems is as yet undervalued, underrated or underexposed, mainly through a suspected lack of political will, especially on account of post-colonial authorities, who publicly support the idea, but practically have not achieved to consolidate their status; '*although the ''cultural authority'' and hegemony of biomedicine over indigenous science and knowledge were initiated by the colonial state, they were extended by the mainstream national leaderships and national governments with far more extensive and profound implications and less resistance* (Khan 2006: p. 2).

With this consideration, the concept of 'Medical Pluralism' as described by Slikkerveer (1982), implies that an artificial dichotomy between a modern and a traditional medical system is in fact a shortcoming which does not do justice to the pluriformity of treatments applied by various health practitioners, who follow their own experience or local medical traditions, and possibly blend them with new discoveries; '*…aims to reassess…..the concept of medical pluralism for current debates in anthropology by exploring new theoretical horizons opened up by contemporary scholarship on plurality that focuses, for instance, topics such as globalisation and the transnational and national mobility of people, knowledge and technologies* (Hörbst *et al.* 2017: p. 8)

The reference which is often made with regard to the supernatural – or personalistic - causation of illness in an African context, needs to be handled with care, in the sense that attribution of illness to natural – or naturalistic - causes is just as commonly expressed in various reports (*cf.* Kutalek 2001; Lehmann 2001) as would be supernatural causes. Such type of distinction has already been dismissed by a number of researchers, such as Janzen (1978); Warren (1975); Slikkerveer (1994), Marsland (2007) as being too one-sided, but does not take away the specific role which spiritually designated diseases can play in contemporary African society (*cf.* Chirangi 2013). During fieldwork

in Ghana (*cf.* De Bekker 1993), the author often sat with traditional healers and in order to discuss the topic, asked them if they saw an analogy between psychosomatic disorders and supernaturally attributed disorders. The discussion often remained inconclusive because of the complexity of the definition of 'supernatural'. For example, the traditional healer Togbe Adzindzi, practicing both as a spiritual healer and a herbalist in Kpando Fesi in Ghana's Volta Region (1988) was convinced that both existed next to each other, and he believed that you can get an ulcer from stress, but if you get similar symptoms because you have insulted your ancestors, the treatment for an ulcer would not suffice without rituals. The representative of the local healers in Mugumu, when asked about the recognition of psychosomatic disorders, stated that if he would establish such a cause, he would stop his treatment and refer the patient to a psychiatrist. In the selected methodology, the way to deal with these causal distinctions has to be to remain as meticulous as possible in the description of the attributes. After all, the consensus among the respondents on a possible cause complies with the Ethnoscience approach, even if that may not lead to a consistent taxonomy based on semantic consensus. Identifying the causal distinction in itself is not an objective in this type of research. The aim is to provide an understanding of the relationship with the socio-cultural background of the respondent, and to contribute to the advancement of public health.

An appropriate way in which a local medical system can be described has been introduced earlier by Irwin Press (1980), which looks at four distinct functions of respectively 'identifying prevention', 'make diagnosis', 'provide therapy' and 'interpret meaning'. These four dimensions provided the basis for the operationalisation in the fieldwork. In the theoretical orientation, attention is also drawn to the 'process' approach towards utilisation, where, more specifically, the focus will be on the stages of health care seeking behaviour during the period of perceived morbidity. In this case, no reference is made to the 'illness-acceptance-patient-role', (Suchman 1965) but to the motivation for the actions taken, in particular when there is a combination of treatments: consecutive treatments, alternating treatment, or a 'tailor-made' approach (*cf.* Kleinman 1980) [10]. The sequence of events can also be perceived of as a form of 'interaction' between systems, given the pluralistic character of the medical services in the research area. This may have consequences for a disease classification, as it makes it seem a 'dynamic' system in which experience can modify convictions or illness behaviour, and therefore the 'utilisation process' of the respondents, instead of a 'static' system, *i.e.* implying a degree of rigidity in its application. In line with the 'Participants View' of the Leiden Ethnoscience School, the individual experience will be decisive in the analysis, not the qualities attributed to the treatment in the bio-medical sense.

In this context it is relevant to refer to the concept laid down in what is called "The Health Belief Model" *(*Rosenstock & Strecher 1988) quoted in Glanz, Lewis & Rimer (1997), also by Kohler, Grimley & Reynolds (1999), one of the first models where the social (behavioural) sciences were integrated with the description of health problems, or as put down by Clemen-Stone, *et al.* (2002) as '*the individual's perceived susceptibility, the perceived severity, and the perceived threat of a particular disease increases the likelihood of preventive action'*. This definition is in the direction of where the data recording is pointed, although the quoted remark was made because of low adherence to health education schemes embedded in public health practice. The Ethnoscience approach will not side-line the discussion on efficacy but will provide an insight in the actual pattern of utilisation. An important related topic deals with the 'ecological' relationship. As Alland (1970) suggests, when maintaining a strict focus on health and illness behaviour in ethnomedical terms, the role of the environment may be overlooked in the analysis. Then the adaptation to changing

conditions *('adjustive response'*) may not be considered in the dynamics of this behaviour. Here as well, the difference between knowledge and experience of the individual community member, who is familiar with home remedies, and of 'specialised' healers who claim to investigate the efficacy of their traditional medicine become important factors, but whatever intervention in environmental terms occurs, both will be affected and will react to it (*cf.* Posey 1999). As Böhmig notes:

'*The choices for treatment are based on experiences and combining traditional and western treatment is not perceived as a contradiction but rather as a useful mixture. The complex formal and informal health facilities and the problem of accessibility given the urban bias of health facilities together with cultural norms and post-colonial experiences, form a continuum to which the individual looks for an explanation and therapeutic options in case of illness* (*cf. Senah 1997, Ventevogel 1996, Takyi 2003)'* (Böhmig 2010 p.47).

The combination of trying to establish some sort of classification and attribute a type of causation in the same process, coupled to a related therapy of choice, is the mainstream fieldwork undertaken to measure health care utilisation. It involves documenting the subjective dimension of belief, which will probably add to the dimension of experience, where the latter may be based on prior use or the use by acquaintances and brings with it a criterion of efficacy. Additional to this dimension of belief there is the notion of 'normative behaviour', implying that unbecoming conduct in interpersonal relationships is seen as the ultimate cause for illness to appear, even though a biomedical agent has been determined to play a role (*cf.* Durie, 2004; in Owusu-Ansah, 2012). It illustrates the holistic principle of 'why' people fall ill instead of 'what' makes them fall ill. This implies that next to practical treatment, pacification of the distorted relationship simultaneously has to take place in order for any treatment to be successful.

With regard to the classification of diseases treated successfully by traditional healers, as reported by various researchers, there are similarities in the type of problems they are dealing with (*cf.* Gessler 1995; Ventevogel 1996; Towns 2015). These morbidities have often led to specialisations in treatment developed by traditional healers, *i.c.* applicable to more than one type. Especially symptoms with a spiritual connotation are often directed towards traditional medicine. For example, mental disturbances, stroke, epilepsy, (partial-)paralysis, upper respiratory infections, and infertility, all of which have symptoms which are at times attributed to a transcendental cause. As Gessler suggest from his analysis, his respondents did not associate tackling these symptoms with the option of modern health care and were apparently underreported in official morbidity registration. The phenomenon which is taken into account is the instance wherein the decision to have a morbidity treated traditionally, by self-medication, or in the official delivery system is made by either the patient himself, the traditional healer, or on the advice of family or friends. The pilot study showed in an earlier stage that there is a definite awareness among traditional healers which type of patients should better be referred to a hospital. The decision made by the household head, or individual members can only indirectly be established, since the narrated history through a post hoc interview in case of a referral may not disclose the actual sequence of steps that particular action patient took.

'*...Health problems mainly treated besides malaria by Traditional Medicine: Infertility 12 Headache 11 Abdominal problems 10 Mental confusion 9 Epilepsy 7 Paralysis 7 Fever (not malaria related) 6 Sexually transmitted diseases 6 Ulcers 6...* (Gessler 1995, p.153 Table.3).

Notably the type of morbidities which are primarily directed towards Traditional Medicine because of their 'spiritual' or 'social behaviour' connotations, are similarly distinguished and compared to those found in research such as Gessler's (see chapter VI). The African Health Monitor

shows a list usually treated by TM which is slightly deviant by comparison; *…effective remedies for treating the main diseases which afflict the populations of the African Region, such as malaria, stomach infections, respiratory problems, rheumatism, arthritis, sexual dysfunction, anaemia, parasitic infections, mental problems, bone fractures and conditions requiring midwifery services* (WHO 2010: p. 33, *cf.* Mahme 2010). This statement is remarkable because of the mix of communicable diseases, chronic diseases and those with a supernatural or mental connotation, as most recent utilisation studies do find a difference in utilisation results between these categories, while the type of healer which is consulted should also be distinguished, as specified in par. 2.3.

### 2.1.2 The Role of Cosmologies in Sustainable Development

Before selected terminology as used in this study is clarified, the first reference presented must be on African cosmology, as introduced by David Millar (1999, 2004) in his "Cosmovision". The nature of that vision could be described as pluralistic. African cosmology stands out in the way it is anchored in tradition but is simultaneously adaptive of new influences and experiences. In that sense it is dynamic, and pragmatic, and yet consistent in connection to its worldview. It regards components of the physical environment not as separate entities for an economic purpose (land, water, air, flora and fauna), but as a continuum, through time and space, which carries a sacred connotation (*cf.* Shetler 1998). The connotation is manifest in multileveled spiritual dimensions which are connected to almost every sphere of daily living activity. Historic and current interventions, either economic, cultural or political, have not deteriorated the inner consistency of that worldview but seem to have created a landscape of parallel thinking. The recognised inherent cyclical movement of life, as with all human endeavours, needs to stay balanced. To that extent, prominent people in society make sure that when decisions are taken, they are taken with consent of the connected spiritual dimension, irrespective of which level may be implicated. Some physical features, such as landmarks, animal species or deviant climatic conditions may become intrinsically linked to specific norms, values or functions, and become significant totems in a process of cleansing or transition. The medium in terms of a person stems from his role in the community, often ancestral, as they are regarded as custodians of these cultural institutions. The medium in connection to the spiritual realm may be in a ritual or an object. The architecture of such a cosmic vision is, according to Millar, generalisable to large extent, while thematic varieties may exist on the continent, from one cultural area to another. Although various degrees of acculturation have evolved, be it in the course of external religious denominations determining daily life, urbanisation, or external economic impact, the cosmology has to a large degree survived, even if in altered hybrid forms. While urbanisation continues, most African societies are still characterised as rural, agricultural and inherently vulnerable because of poverty. As a consequence, the modernisation which is associated with urbanisation has, until now, not diminished the importance of traditions. What this recapitulation shows is the lasting influence of these cosmological attributes in a society which has its own course into modernity. The application of indigenous knowledge will not immediately reduce population pressure, pollution, natural hazards or economic downfall. It is however important that local communities can be self-determinant in what course they will follow. Millar however simultaneously warns against undesirable traditionalism connected to superstition, (gender-) inequality, local misuse of power and ecological detrimental practices *e.g.* mining or monoculture, which are equally typical of areas on the continent.

### 2.1.3 Indigenous Knowledge and Sustainability

The term *Indigenous People* was defined by the Special Rapporteur of the UN Economic and Social Council Sub-Commission on Prevention of Discrimination and Protection of Minorities in the following manner: *'Indigenous communities, peoples and nations are those which, having a historical continuity with pre-invasion and pre-colonial societies which developed on their territories, consider themselves distinct from other sectors of the societies now prevailing in those territories, or parts of them. They form at present non-dominant sectors of society and are determined to preserve, develop and transmit to future generations their ancestral territories, and their ethnic identity, as the basis of their continued existence as peoples, in accordance with their own cultural patterns, social institutions and legal systems'* (UN ECOSOC 1986)

On certain occasions in this study, as in other references in the course of the argument, the term 'indigenous' may be substituted for 'traditional', as will be acknowledged when necessary in the accompanying explanations. In a wider arching sense, the appropriate terminology for describing this type of knowledge and its transfer would be 'Indigenous Knowledge Systems' (IKS), as maintained by an international network of Centres for Indigenous Knowledge annex universities worldwide, *e.g.* CIKARD established in 1987 at Iowa State University, LEAD in Leiden, KENRIK in Nairobi, and INRIK in Bandung, Indonesia, and ELLRIK on Crete in Greece. For the purpose of this study, confined to East Africa, traditional knowledge as a 'system' is used and defined by the African Region Intellectual Property Organisation (ARIPO) as; *"the cumulative body of knowledge and beliefs handed down through generations by cultural transmission and the relationship of the local people with their environment"* (Sackey & Kasilo 2010: p. 93).

In their explanation, the essence of this system is that it comes forth from the relationship and the understanding which local people have developed of their environment, regarded as a survival mechanism. In their view, this is expressed in the biodiversity management as it was applied by communities over centuries, in essence what is now designated as 'sustainability'. The special characteristic of this system is that knowledge is maintained through oral transmission, encoded in language and embedded in culture. It is not static but improved with new experiences as they come along. It is informal, hereditary and collective. The distinct features are the interrelationship of daily living activities with natural elements, self-reliance and cost-effectiveness. The resilience of the current informal sector is posed as proof of the solidity of the system, not only in a material sense, but also in diachronically strongly composed traditions and lifestyle. Even though these features may not be visible in recent developmental challenges, they are an integral part of the heritage and should be regarded as a resource. Traditional knowledge applies to all spheres of society, and because of the ecological context an emphasis may rest on biological diversity management, agriculture, livestock or nutrition (*cf.* Millar 2004) [13], but traditional medical knowledge is equally important and customary. The only reason why traditional medicine (TM) seems challenged is because of the deviation from the biomedical paradigm, which is probably amplified by its connection with complex social and supernatural interactions. As Sackey & Kasilo put it; '*Unlike conventional medical practitioners who are expected to restore their patients' physical health only, Traditional Health Practitioners are also responsible for re-establishing a social and emotional equilibrium based on traditional community rules and relationships.'* (Sackey & Kasilo 2010, p.94).

The holistic capacity is what makes TM stand out, and makes it organic within its social environment, one of the motives why it should be included in local policies. While threatening to be

erased by technological advancement and globalisation, it could essentially contribute to -rural-sustainable development. Sackey & Kasilo therefore plead for a comprehensive legal framework to protect and position traditional knowledge for the future, as was done in the World Health Assembly adopted Global Strategy Plan of Action (GSPOA) on Public Health, Innovation and Intellectual Property in 2008. The practical implication of the holistic properties is explained by Mhame *et al.* (2010) in their description of the diagnosis. Following their analysis, it is a combination of the 'efficient' cause -the what- with the 'ultimate cause' -the why. In essence the symptoms experienced by the person, are extended with the place and time where symptoms became manifest, as well as the (optional-) impressions of family members or acquaintances with regard to the person's condition. In addition to these, contextual conditions such as material objects, memories or dreams of the patient may play a role in the process of interpretation. Regarding the methods involved in the traditional practices, there is a wide variety which ranges from oral ingestion, breathing of vapour (inhaling), sniffing, to more invasive ones, as the administration of medicine through cuts, or rectal infusion (enema), and piercing. Just as in modern medicine there are recommendations dealing with diets or abstentions, sometimes related to animals, which may carry a symbolism of some sort, as in taboos and totems, which vary strongly from one cultural area to another.

The cross over with Primary Health Care is most obvious in the area of ante-natal and post-natal care. In that respect the number of people depending on TBA's first line of contact is high in rural Tanzania (see also chapter V). There is however an ever-growing awareness among both mothers and TBA's of risk management during and after pregnancy. As most Pregnancy Related Complications (PRC's) are not associated with 'illness", they have to be addressed separately in utilisation studies. Given the nature of the patient-healer relationship as described, it shows the inherent suitability of traditional healing to answer to mental health problems. Because of the personalistic approach and the wider range of circumstances related to mental illness, there are many healers who concentrate on that field, often with consent, although unacknowledged, of their modern medicine (MM) colleagues. The ambivalence towards traditional medicine (TM), as referred to in chapter V, lies mainly with politically sensitive fields of practice, such as witchcraft or Female Genital Mutilation (FGM), which may also be performed by traditional healers, but are linked to subversive activities or gender emancipation. In most official guidelines published, these are demonstrably left out, or accordingly addressed as suspect.

### 2.1.4 Health, Disease, Illness and Perceived Morbidity

The terminology used in the references regarding 'illness' and 'disease' (as discriminated from the term 'sickness'), has a semantic discussion running parallel, which needs to be mentioned here for consistency. In our semantic use the term 'disease' is regarded as a clinical biomedical category, and therefore 'modern' or 'western' which is associated with the given perceived morbidity, whereas 'illness' is regarded as the experience by the human subject, and therefore culturally defined or constructed (*cf.* McElroy & Townsend, 1989). From an Ethnomedicine perspective, it implies that the cause of illness, or its connotations, as well as the actual treatment practice in a social or ritual context, is therewith also culturally defined: '*The UN describe a health system as a structure which includes 'all actors, organizations, institutions, and resources whose primary purpose is to improve health…Their primary goal is to promote, restore or maintain health, but they also aim to be responsive to people's legitimate expectations and (are) financially fair'* (AFRO Health Report

2013: 106). As elaborately addressed in Irwin Press' work on classifying medical systems (Press 1980), the distinction between 'traditional, 'indigenous', 'folk' or 'popular' medicine was exercised by various authors (Kleinman 1980; McElroy 1989) [11]. It is still applicable today, in publications whereby one term may be substituted by another or they may be used simultaneous or intermittently *e.g.* 'treating folk illnesses with traditional medicine', or 'domestic medicine', and 'biomedical illnesses and their treatment' respectively (*cf.* Towns 2014). The terminology used by the respondents in this study will be used as the reference to describe the local situation. The disease classification as registered by the research team, the subsequent consensus on the equivalent in biomedical terms, translated from Swahili terminology, is by no means exhaustive, but it will serve as a reference for this cultural area. When referring to Kleinman's question whether it was only in the heads of the people concerned; *"it may only be possible to discern a total system in the way that system is perceived as a cultural form and activity by members of a given culture". "Perceived" is the key word here. For the mere use by an individual (or hospital or physician) of elements of diverse systems need not imply that all are viewed as part of a single system* (Press 1980: p. 47).

An additional dimension is found in the way indigenous medical knowledge is transferred. In the experience in the field in this research, the knowledge exposed by traditional healers, or anything which is applied in home remedies by individuals, is usually not found in a book or otherwise officially registered. Moreover, traditional healers, or individual households, may find consensus in their common practices but may not therefore necessarily exchange procedures, let alone have those procedures monitored by a third party. Yet there is a whole system of classification behind it and the transfer of knowledge happens orally from generation to generation, which implies history, experience, a structure and an inherent logic, and therefore equals the principle of recording.

Related to this concept is the understanding of symptoms and long-term physical effects of a disease (*cf.* Winch 1999) or the character of chronic diseases *(cf.* Stanifer *et al.* 2015). Although the reproduction of a set of symptoms attributed to a recognised morbidity is often demonstrated, it may be more difficult to attribute consequences of a disease over a longer period of time *e.g.* anaemia or kidney failure as a long-term effect of frequent malaria. The discussion can be carried forward by claiming that the term 'professional' cannot be applied to individually administered home remedies, but it could be applied to traditional, transitional as well as modern health workers, thus implying a standard or a method in the operationalisation of their activities *(cf.* Kleinman 1980). It is followed by an economic motive, applicable to healers who do it for a living, which also implies repetition, and a certain level of quality of service. The overlapping area here may be where self-treatment and a traditional healer share the same frame of reference and material inputs, but it would not take away the distinction between a lay-person and a professional. In our case 'plural' in the definition of medical systems would imply that various types of treatment being applied within the same cultural area did not all originate there. In conclusion, referring to Irwin Press' struggle to arrive at a definition, it is not to achieve a complete integration per sé, but a co-existence of all these practices, *i.e.* traditional, transitional and modern, within one physical sphere. Another approach to this concept is to regard pluralism as a converging scheme whereby one way of dealing with a disease transforms into another by way of 'evolution', resulting from a mixed practice of modern and traditional remedies used by local groups, as noticed earlier in Northern Tanzania (*cf.* Bignante & Tecco, 2013). It is not the intention to extend this range of definitions with 'complementary', 'alternative', 'ecological' or any other contemporary term for the sole purpose of trying to be exhaustive (*cf.* Khan 2005).

A related phenomenon which is discovered during utilisation studies, is the role of side effects of certain modern medicines, for example appearance, taste or smell, where these qualities are substituted for their therapeutic efficacy (Etkin *et al.* in Hahn 1999), sometimes even used alongside traditional herbal medicine to enhance their respective attributed qualities. In that way the spectrum of transitional medicine becomes larger because of the number of possible combinations, which may be applied to a number of morbidities with similar symptoms (*cf.* Jangu 2012, Stanifer *et al.* 2015).

### 2.1.5 Ethnomedicine and Medical Anthropology

According to UNESCO's publication on *Science, Traditional Knowledge and Sustainable Development*, introduced by Prof. Thomas Rosswall, (ICSU 2002), the origin of Ethnoscience stems from the 1950's when Harold Conklin (1957) pioneered in The Philippines in a study which was centred around the knowledge of that community in relationship to its natural environment. In that case the quality which discriminated his work, was that it was preoccupied with the taxonomies of plant species and the semantics involved in their indigenous categorisation. Admittedly, as the diachronic analysis moves along, the original motives during the colonial era were not inspired by trying to discover an underlying knowledge system. They were to discover anything tangible which would add to the western scientific body of knowledge of the period. Such a pragmatic approach does not take away the meticulous dedication displayed in the effort, the irony is that in the course of the exercise, the logic and consistency of the indigenous ecological descriptions were adapted entirely. In that way contemporary science became based on traditional knowledge, although without proper acknowledgement. The only thing left for discussion at that time was in how far the characteristics of these findings could be considered universally applicable.

Although both disciplines cover mutual ground as far as the theme and methods are concerned there is need to explain the implications of the terms and their complementarity. According to Trumper (2013) the terms related to ethnology have been around since the late 1800's but started to evolve into a new jargon because of the growing interdisciplinary nature of research groups. They included biology, zoology, botany, and anthropology, involving scientists such as Boas (1940), Goodenough (1956), Conklin (1963), and Frake (1969). Eriksen & Nielsen (2001) see the emergence of Ethnoscience in the 1950's as a result of the application of quantitative analysis, starting with linguistics and semantics, and developing classifications of systems of knowledge, evolving into "componential analysis" to allow for 'precise definition of meaning'. The method of application was through induction, with large amounts of data processed digitally. According to Pollock (2014), Ethnoscience finds its roots in cognitive anthropology, and has been associated with it since the beginning of the 20$^{th}$ century. As he defines it, Ethnoscience represents a 'perspective on cultural knowledge' emerging in the 1950's, promoting 'analytical tools from linguistics and cognitive psychology', but it is narrowed down as a part of cognitive anthropology, as if Ethnoscience were a sub-discipline. That does not do justice to the wider definition it receives from many other scientists. Ethnoscience has also been labelled '*the integration of scientific and indigenous forms of knowledge'* by Rist & Dahdouh (2006), which at first sounds ambivalent as it may presume indigenous knowledge is not science. What it entails though, is that the compilation of various bodies of indigenous knowledge, in the process becomes science, especially where it is demonstrated which contributions this compilation can make to sustainable development and conservation of natural resources. Rist & Dahdouh also bring in an aspect which is preoccupied with

what could be called 'lost in translation'. That refers to the situation whereby the description of phenomena by both indigenous knowledge and western science remains free of a (biased-) intrinsic value, or comparison for the sake of establishing a hierarchical ranking. As Rist & Dahdouh put it; '*No relation between science and local knowledge can thus be 'value-free' making it impossible to define something like an 'objective' or 'science-based' relationship.'* (Rist & Dahdouh 2006: p.473).

However, that could exactly be the added value of the application of Ethnoscience, namely that it can categorise without such an ethical position. Rist & Dahdouh continue to warn of the necessity of intercultural dialogue, where the needs and desires of the people on either side of the argument have to be recognisable, should have common ground to reach consensus, and depend on an attitude of willingness. In practice there could be a situation in which an indigenous taxonomy of plants expressed in local language, would at all times have to be compared with botanical scientific designations, but that does not reduce the essence of the taxonomy in any way.

Although Ethnoscience is often related to -and associated with- Indigenous Knowledge (IK), it does not substitute for it, it is rather that IK is a topic within the scope of the discipline. As Atkinson (2015) will have it, it is viewed as a field of specialisation, occupied with studying the classification of knowledge which is put to use, and qualified by an emphasis on cognitive aspects and semantics. Here too, the definition is made wider by having Ethnoscience encompass all systems of knowledge, thereby preventing a limitation to a specific cultural area, presumed separate from a western cosmological framework. Atkinson finds that Ethnomethodology is thus assigned with discovering underlying structure and organisation, based on a logic or social order which is recognisable for the inhabitants. In such a way Ethnoscience is not an exponent of western science but encompasses all bodies of knowledge, some of which were hitherto not being systematically recorded or transferred but have been applied over generations by people to their own benefit and survival. The aspect which makes these reflections on applied Ethnoscience important for the near future is the implicit potential. It would mean that, because of the cross-disciplinary approach, a collaboration between sciences which is intended to avoid exclusion of otherwise unrecognised or undervalued phenomena, would enable true sustainable development. The essence of that approach is that it can identify essential differences with regard to needs and desires of any specific group of people, in more than one dimension, *i.e.* physically, spiritually, and environmentally.

The emergence of the term 'Ethnomedicine' is attributed to the anthropological work of W.H.R. Rivers (1924), following his *"Medicine, Magic and Religion"*, because it included the cosmological features which play a role outside the physical aspects, describing symptoms of illness or material components of medicine. In the period which followed, medical anthropologists started to expand their attention to modern health care systems and medical institutions, complementary to the original focus on traditional medicine. The first definition of Ethnomedicine is accredited to Charles C. Hughes (1968), although his description does not take it away from the dichotomy between indigenous cultural development, and a 'conceptual modern medicine' framework. The Erickson (2007) explanation of Ethnomedicine as 'relating the cross-cultural concepts of illness and healing to the biomedical understanding of disease, curing and efficacy', tries to cover more ground.
She sees it as the key to understanding 'the trend of using multiple medical systems and therapies'. Although the connection with western scientific principles is brought in, as she continuous; *'biomedicine has changed from excluding to incorporating alternative medicines. The argument that is upheld is that it is necessary to look with relativism at the dominance of biomedical successes. ...following the development of interdisciplinary interaction, it is now common for social scientist to*

*look at alternatives for culturally appropriate health care in an increasingly diverse world* (Erickson 2007, p.4). Much of the applied methodology is inclusive with regard to socio-cultural phenomena, meaning that aspects such as beliefs, traditions, norms and values, behaviour and language are all object of study, extended to the interactions with the environment, whether in relationship with physical subsistence or cultural symbolism. The method is comparative, cross-cultural, as well as diachronic, and looks to find connections between different dimensions. It is applied to identify the relationships with bio-cultural or cosmological spheres underlying behavioural patterns. In that respect it is understood that the frame of reference of Ethnoscience is wider than Anthropology or its sibling Ethnography per sé. As Slikkerveer (1999) indicates, the sub-discipline of Ethnomedicine also connects with Ethnobotany, where it regards the classification of –indigenous- medicine, as well as with Ethnopharmacology, in establishing active components and determining their effect. It could be extended to Ethnolinguistics, where it concerns the designations given to these phenomena across cultural areas. The possible combinations are an indication of their interdisciplinary character and potential, always with a scientific signature, and may be seen as an example which bridges the humanities with natural science in optima forma (*cf.* Ingold 2000).

### 2.2 Medical Pluralism: The Configuration of Co-Existing Medical Systems

With the earlier reference to the contributions of Slikkerveer (1982, 1995) to the concept of 'medical pluralism', introduced by Charles Leslie (1976) [9], it is necessary to go into detail of what the respective medical systems encompass. As explained by Hörbst *et al.* (2017), and Olsen & Sargent (2017), the reassessment of medical pluralism as a concept becomes relevant, as it shows from recent studies [15] that the increased mobility of people, inherently substantiating regional, transnational and international influences, is showing its impact through the various types of medical alternatives available all over the continent. This tendency is amplified by new technologies in means of communication which simultaneously make the associated knowledge accessible, and virtually disconnect it from time, place and original context. It is possible to make a distinction between the levels and type of parties which influence pluralism or 'pluralisation' as Olsen & Sargent (2017) prefer it, viewed as a dynamic process, meaning the difference between individuals, organisations, or institutions acting within political and economic spheres. They also draw attention towards emerging phenomena, resulting from new combinations *e.g.* '*hybridisation'* or '*bricolage*' (*cf.* Marsland 2007) taken from several origins. These origins may be separate medical systems, but their definition is dependent of the approach. Every new cross-over in theory could be the onset of a new system, just as the 'transitional' system as defined by Slikkerveer (1982) came into being, or the 'popular' system as recognised by Chirangi (2013) [11]. Presented as such, following the argument by Hsu (2007) and Hörbst *et al.* (2017) respectively, it becomes a challenge to demonstrate the coherence of parts into one system, without making deliberate demarcations.
In order to demonstrate their applicability, the parameters used in this research (see par. 2.1) are addressed in the paragraph below. The essence of a pluralistic situation is that more systems exist next to each other in the same physical sphere, even to the extent, as in Tanzania, that other cross-cultural systems such as Chinese TM, or Ayurvedic practices from abroad exist next to an indigenous or other locally available system. In that respect for example, the WHO (2008b) sets Complementary and Alternative Medicine (CAM) aside as a separate category, designated as not being part of the area's own tradition, and not integrated in the local medical system. They are often

of western, Asian or Latin American descent and may have commercialised to a certain degree. The movement can be between systems, within one system, or across several systems, depending on the specific qualities attributed to them. The understanding is that all these systems are somehow recognised, tolerated, accepted or endorsed by local authorities, and, in principle, accessible to the entire population of the physical sphere in which they exist. There may be a ban on specific practices identified as hazardous or undesirable *e.g.* occult versions associated with witchcraft or Female Genital Mutilation (FGM), but such qualities are never applicable to an entire medical system. On historical grounds, there may have evolved an artificial hierarchy, or a perception of difference in intrinsic value between systems, on account of political, normative, or legislative changes (*cf.* Prince & Marsland 2014). In this respect, accessibility is not equivalent to equality. As described in chapter I, the criticism of traditional medicine (TM) by proponents of modern medicine (MM) has led to a stigma until today. It has not alienated TM but has prevented it from attaining an equivalent position. Although political recognition has been established via the WHO (2018), and several countries have even officially laid the position of TM down in legislation, in practice however, very few nations embrace TM within their official health policies (*cf.* MoH HSSP IV 2015).

The mechanism which is behind interaction between systems could be called 'acculturation', as the experience of the inhabitants, either positive or negative, may lead them to explore new ways or leave existing ones. The primary identification is notably with the indigenous traditional system as it will be embedded in the cosmology of the local people. The evolution of the role of these systems can be directly linked to social economic parameters, as some services may be free through being funded or subsidised, others may have social proximity, and yet others may have preference because of technological advancement. According to Elisabeth Hsu (2007), medical pluralism should be carefully applied, as the notion of 'a system' in her view does not necessarily represent the patient's viewpoint but results from the need of health professionals to make such distinctions, referring to Janzen (1978). Hsu leaves the question whether the patient experiences a 'choice' between systems, since not all may be equally accessible in practice, because of socio-economic, psycho-cultural, political, or other limitations. In Hsu's reasoning the existence of medical pluralism can be viewed as a result of societal change, and the co-existence of systems is better explained through 'complementarity' then competition. She also recognises aspects of fragmentation as well as interdependency between systems, as described in current scientific dialogue (*cf.* Olsen & Sargent 2017) which may become a future signature of multiple medical systems, as globalisation moves forward at an unprecedented pace. The triplet applied in this research of a traditional, transitional and modern medical system, as operationalised in Slikkerveer's research in the Horn of Africa (1982), refers to the distinctions which can be made with regard to their respective origins and their position in the dimension of health and healing which these systems represent.

### 2.2.1. The Traditional Medical System

The Traditional System has been described as the total of beliefs, perceptions and practices which have developed over time in one cultural area and are typical as a socio-cultural attribute of the indigenous population. The characteristic, in most cases, is that the knowledge of the therapies is linked to specific persons within a community, and has been handed down over generations, built on experience and oral transmission. The latter does not hold for societies with a history of scripture, but in East Africa, in general, there was no tradition with documentation. The use of extracts from the natural botanical environment of that community is common, as is the link with behavioural aspects, *e.g.* code of conduct, ethics, rituals, and attribution to transcendent powers *i.c.* supernatural connotations. It is in its essence often called 'holistic' as many of the traditional therapies take circumstantial elements into account, referring to physical conditions as well as mental and emotional, while the complementary effect on a person's state of being is regarded as implicit.

The connection between social interactions in the community, the individual's behaviour, and physical well-being is interpreted by healers in coherence, to enable diagnosis and select a therapy. It may be accompanied by rituals to emphasise the importance of restoring the balance, either in social relationships, including ancestors, or with the person's environment (*cf.* Danquah 1944; Twumasi 1975; Warren 1975; Slikkerveer 1982; De Bekker 1993; Meincke 2012; Chirangi 2013).

These attributes lead to the distinction of various types of spiritual healers, as they have been placed in one category for a syntactic purpose, but in reality, every cultural area will have its own versions. The importance of this aspect is often underestimated, if there is a suspicion of an underlying cause outside the natural sphere, the urge to disclose it can be so strong it circumvents, or supersedes, any consultation of the modern medical system. In such a case it does not matter to which phase a modern therapy has progressed, sometimes to the surprise of health workers.

The professionalisation of traditional healers is usually not related to a generalised or formalised education, but is strongly connected to cultural heritage, personal relationships and personality. Knowledge transfer does not necessarily take place within family ties but can also take place if one is identified by a mentor as a suitable protégé. Distinctions are made between herbalists and spiritual healers, such as diviners, soothsayers, prophets, oracles, psychics, clairvoyance's, as well as bonesetters, birth attendants, and circumcisers. The healing practices however are always linked to a specific person who is recognised within that community as capable of exercising his specialty (*cf.* Mhame *et al.* 2010).

Another qualification is that, although the traditional healers earn money with their services, they were, until recently, not viewed as commercialised. There was no deliberate acquisition or profit optimisation through systematic replication connected to their practices. As Mhame *et al.* (2010) contend, following the underlying philosophy, a healer is not expected to provide services for material gain as is defined by '*Ubuntu'*. There is ambivalence with regard to the cost level, as traditional medicine (TM) is usually viewed as low cost, and payable in kind. Qualitative fieldwork has shown that payment in kind can exceed the actual value of the treatment, and in some instances, both are required. Hausmann-Muela *et al.* (2000) elaborate on this argument by showing that the financing of TM follows a different logic than MM services. The possibility of alternative paying schemes, involving either delayed payment, instalments, payments in kind, reciprocal activities, or financial support from family members increases when an illness has social context implications. This means if a treatment is qualified as "personalistic", the ability to pay a traditional healer is

higher in comparison to covering hospital bills. They distinguish between willingness to pay and ability to pay, and find that MM is subordinate compared to TM, when willingness is considered equivalent (Hausmann-Muela *et al.* 2000) [14]. The highest esteem is attributed to those healers who charge only when their treatment proves successful.

One specific property is the locality of this type of medical system. There are hardly any rural communities which do not have at least one of these practitioners among their inhabitants. Adversely, some of these practitioners may even develop a specialism which can carry their reputation across whole regions because the quality of their work, mainly spiritual healers associated with mental health cases are known in that category, but also specialists who focus on one particular morbidity do exist. The character of the relationship between healer and patient is also typical for this system, as opposed to the modern system, as the identification of the healer with the person behind the patient is a hallmark, as is the familiarity through shared cultural or cosmological reference cadres. As Mhame *et al.* (2010) describe, the patient healer relationship starts with the assessment of the person, usually in the form of a case history, before the type of treatment is decided upon, conform the '*Ubuntu'* philosophy.

Complicating factor in this system is the accepted logic that even though the aetiology may indicate a natural cause, a supernatural cause may as yet invoke any symptoms identical to a naturally caused illness, which has to be determined by a knowledgeable person. In this research, 'home remedies', referring to the preparations made on household level by individual knowledgeable respondents, mainly using material extracted from their own domestic environment, were also designated as belonging to the traditional system. The rationale behind this was, that the knowledge originated from either inheritance through family connections or was derived from experience with local traditional healers and is therefore part and parcel of the same body of cultural knowledge. Reminiscent of Kleinman's 'popular system', as well mentioned by Chirangi (2013), they are not categorised as 'popular' because of the descriptions of local herbal medicine shown in chapter 7.1, which clearly demonstrated their connection to local traditional sources of knowledge. Finally, as this system is characterised through the absence of recording and documentation of its practices, and knowledge is mostly orally transferred on an individual basis, it is often a subject of challenges with regard to intellectual property rights (*cf.* Sackey & Kasilo 2010, WIPO 2015). That is probably not applicable to a category such as Islamic diviners, as they use Koranic texts, and are subjected to prolonged scripture training.

### 2.2.2 The Transitional Medical System

The Transitional System can be described as the cross-over between modern and traditional systems as exponents of this system mingle materials and techniques of both. The mainstay is the use of pharmaceuticals, which are sold on a profit basis, not through certified health workers, but by traders, either in commercial pharmacies or in the open market, as an ambulant vendor. At the other end of the spectrum it is possible to see traditional healers who distribute labelled pills next to their regular therapy and take blood pressure to show their advancement. The essence of this system is that it is difficult to regulate, since the quality of production or dosage criteria are seldom recorded, and there is no reference to validated prescriptions. That makes the position of this system very fluid, as the impact of economic changes in society is first experienced here. It explicitly exists next to the modern system, even though it is heavily dependent of mass-produced pharmaceuticals, either

or not legal. The advice given by the traders may be correct, when they are inclined to inform themselves properly, but it is not based on formalised regulation. Advice could also originate from hearsay and prove unprofessional. A similar problem is also apparent in temporary staff manning commercial pharmacies who are asked for medical advice but not formally equipped to do so (*cf.* Jangu 2012; Denisenko 2013), as recorded in this fieldwork as well on numerous occasions (see chapter VI).

A related discriminatory challenge, in addition to the original triplet of 'traditional', 'transitional', and 'modern' medical systems by Slikkerveer (1982), stemmed from the varieties which were encountered during the fieldwork. In the briefing sessions with the research assistants and the chief linguist, reviewing the semantics of the household questionnaire, the following situations were brought forward. When a *'duka la dawa muhimu'* is selling products from pharmaceutical industries around the world, and so do the street and market sellers, why are they not designated as belonging to the 'modern system'? When a traditional healer opens a shop on the roadside in Mugumu, makes a storefront with pre-packed and processed herbs, makes a signboard with a mobile telephone number, offering his consultations for numerous problems, all clearly commercialised attributes, why is he not designated 'transitional'? There is a private laboratory downtown Mugumu which does analysis on blood and stool specimen to provide diagnosis which the hospital lab either cannot perform or proves too expensive. This operation in particular has a perfectly commercial starting point, in their view it could as well be termed 'modern' in using microscopes, reagents, fridges and computers- as 'transitional' being commercialised and not integrated into an official referral service delivery, applying acquired microbiological knowledge primarily for individual gain.

The consensus arrived at after several sessions was that the original intention was to be the demarcation. Having established that, the traditional healer receives his knowledge handed down from his forefathers or mentors, reproduces his treatments as before, retains the cultural or ritual context, and in that sense is "original". Where most of his knowledge is not written down or shared, he merely markets his services differently. The lab technicians completed their education in the modern system but decided to shift to private enterprise because of the reward, in which sense they 'left' the modern system and became 'transitional' through their commercialisation. In one village there is a former medical assistant, who left the health service and set up his own shop, combining the sale of traditional herbs and providing anamneses from his personal experience, pretending to do lab tests in the back -to which in fact he is not equipped. According to the local staff he should be designated 'transitional' because he no longer adhered to the original criteria of either of the other two systems.

In this way, the nuances in distinction are taken beyond a lingering dichotomy as described by Marsland (2007) in her description of 'hybrid' traditional practitioners. In respect to her description however, the semantic discussions among the research assistants never hinted of any traditional practice being associated with 'backwardness' or 'controversy'. They considered it as a niche rather, which was viewed upon as distinctive, primarily because it could deal with cultural values, with regard to 'old' diseases, and the environment, whereas a hospital doctor could not. The crossovers which are congruent with the descriptions of Marsland, deal mainly with traditional healers embracing a number of commercial attributes of modernity. They are concerned with aspects such as roadside advertisement, producing prepacked traditional herbs with attention to shelf life, offering package deals as well as polyvalence in their application. These aspects are described as well in the reflection on the 'transitional' role of traditional healers in paragraph 5.4.1. The relevance of this

system is that it is vulnerable for a number of reasons. Although it is associated with modern medicine, because to the large of scale self-medication resulting from it, and the frequent absence of diagnosis and regulated prescriptions, it is a riskful. The commercial earmark makes it prone to experimenting and creates a motive to avoid supervision or adherence to strong regulation.

### 2.2.3 The Modern Medical System

The Modern Medical System can be described as based on scientific knowledge of microbiology and human physics, organised through protocol and competence levels, strictly monitored, and subject to legal regulation. It is also established through structural financing either through local authorities or external donor funding. It is heavily dependent of infrastructural facilities and technological applications. It is hierarchical in competence levels, and there is an inherent referral system whereby the complexity of the disease determines the level of service. The endorsement by legal authority is the key, also for private facilities, as they will need to be licenced to be allowed to function publicly. Private hospitals and clinics tend to be concentrated in urban areas. Special mention must be made here of faith-based institutions, as they are formally private as NGO's, they have been totally incorporated in the referral system in most countries, often externally co-financed because of the international character of many religious organisations and their inherent access to charity funds. Some aspects of modern care may be made mandatory with the purpose of protecting the population from health hazards. Just as in the transitional system it also relies heavily on the pharmaceutical industry.

The preventive service and health education promotions are prototyping a healthy lifestyle, which is presented as a universal iconography, but seldom adhered to or physically realised. It finds an equivalent in the ethical or moral standards in many traditional systems, referring to exemplary behaviour. Officially, specific target groups encompassing pregnant women, infants and elderly persons are supposed to receive free care within the modern system, but in practice on many occasions, there are still fees levied for all kinds of reasons, ranging from 'administrative fees' to 'uncovered' materials. In that sense every service aspect can be individually charged, i.e. registration, admission, examination, laboratory tests, operations, and medicine distribution, often to the clients' frustration. What makes this extraordinary is that the modern system is also the only medical system with organised insurance schemes, which should cover these expenses, although this type of funding has not yet matured in most rural areas because of insufficient volume and discrepancies in cost levels (Stoermer *et al.* 2012).

What makes modern medicine progressive as a system, is a continuous engagement in scientific research to enhance existing therapies and discover new ones. The financing can be either national, international, through NGO's, or commercial funding. As opposed to the traditional system, the modern system is characterised as 'professional' but 'distant', as health workers are not usually inclined to become acquainted with the 'person behind the patient' but focus on the bio-medical causation of the symptoms, mostly on account of work load, timeframe and practical implications. There is a notion of being physician centred, instead of around paramedics, which has consequences for accessibility and cost. There is also a bias towards urban facilitation, leaving the bottom of the pyramid with elementary service in rural areas undervalued. The dominance of the modern system in comparison to other systems is partially due to the universal applicability of many of its standards, as demonstrated in WHO norms and guidelines. With regard to traditional system, which

is often locally consolidated, and may be officially endorsed, it lacks a local, national or internationally co-ordinating organisation. Finding the political will and support necessary to create similar standards to achieve recognition of TM is one of the current goals of the WHO (2019).

### 2.2.4 The Concept of Health Care Utilisation

Within the parameters of the existing medical systems as described in the foregoing paragraph, it should be explained what can be deducted from the concept of utilisation. As defined by Suchman (1965), Kleinman (1980), and Slikkerveer (1990) utilisation is indirectly determined by the sequence of stages in the behaviour of the respondent who becomes affected by a disease. The sequence is described as the acceptance of his role as a 'sick person' after experiencing an illness, and subsequently accepting the role as 'patient', in which condition the person takes action, and becomes dependent of the therapy(-ies) he engages in. That stage is crucial because the perceived morbidity is derived from an interpretation of a set of symptoms, which may lead to so-called 'health seeking behaviour' *(cf.* Rosenstock *et al.* 1988). The complexity is borne in the number of factors which may influence this behaviour. The first parameter are standard socio-demographic attributes as in gender, age, religion, education, profession and income. Although these are common in most utilisation studies *(cf.* Hjörtsberg *et al.* 2003), often showing a dominance of economic determinants and practical considerations, there is an expectation that they become less determinant once the number of subjective variables increases.

In the analysis of Stanifer *et al.* (2015) in Northern Tanzania, who discovered five factors as discriminative; biomedical service delivery, credibility of traditional practices, strong cultural identity, individual health status, and disease understanding, at least three of those are directly related to traditional culture, whereas more than half of the sample is able to identify with- or utilises traditional medicine (TM). In addition, they establish that TM use cuts across income segmentation, as well as rural/urban parameters. Poor quality of care is known to have a relationship with decreasing utilisation, but then the definition of quality should not be limited to cost (including non-registered) and availability of medication, but include attitude and competence of staff, and waiting time, which are subjective but quantifiable, have proven essential to the experience, and are coherent with qualitative data.

A more delicate aspect is related to the individual assessment of the efficacy of the cure itself, as Stanifer explains, where the expectations of a therapy may be too high or unrealistic, especially in connection with chronic diseases, or as a result of non-compliance. It could be inherent to a lack of understanding of diseases, when intended as 'biological understanding', as is apparently meant in Stanifer's research. Negative assessments however have also been attributed to TM therapies, as system crossovers work in any direction. In the final analysis, when considered as an individual perception, only if efficacy is consistently experienced with specific morbidities it may identify where they become systemic. The socio-demographic indicators in this survey are complemented by personal experience, designated as unaided knowledge of health-related aspects. This refers to knowledge of causes of illness, symptoms, cures, environmental hazards, the role of people in the domestic environment and the community, as well as convictions with regard to health, lifestyle and cosmology. Especially the differentiations which are made with regard to categorising a set of symptoms associated with a specific illness, and choosing an appropriate therapy respectively, are all assumed to be socio-culturally based. Buschkens & Slikkerveer (1980) have tried to capture the

decisive factors by making distinctions in the relative 'distance' between the individual and the optional potential therapy. In a practical sense there can be geographical distance, which poses a barrier in terms of physical ability to reach the proposed service, irrespective of the type of medical system. There can be an economic distance, implying that the cost involved in transport to- or the cost involved in accessing the service is beyond the means of the individual. Then there can be socio-cultural distance, which refers to the perception of the proposed therapy with regard to personal knowledge and experience or those of close relatives. This implies the aspects of social acceptability, individually or within the community as a whole, psychological preference *e.g.* non-invasive therapies, or practical effectivity, considered as duration of cure against level of cost, or exposure to public health education campaigns.

As such, the results which come forth from the categorisation, are ultimately also influenced by the design. A person who performs self-medication is utilising the Traditional System (TM), in case he is preparing a locally known herbal medicine at home. He will be utilising the Transitional System (TR) when deciding to purchase pharmaceuticals in the marketplace from a commercial vendor, without prior consultation. In that respect a 'popular system' as referred to earlier could not be applied here. The type of factors described above can be called 'determinants' of health care utilisation, and they are quantified as much as possible on micro level. Such measurements cannot be derived from medical statistics on macro-level, they have to be composed from individual actions, because of the number and nature of contextual aspects. In the model derived from Kohn & White (1976), and further developed by Slikkerveer (1982), all these aspects are measured in a household level survey and multiplied by the number of actions recorded from individual household members. It is done per type of perceived morbidity, and per type of medical system. In that way the influence of a number of aspects which are in essence subjective, can yet be quantified to determine their impact, as elaborated in Chapter III.

### 2.3 The Future of African Traditional Medicine

In this decade the role of Traditional & Complementary Medicine (T&CM), as it is currently designated, following the World Health Assembly initiative in the latest WHO Traditional Medicine Strategy 2014-2023, will have to be consolidated within political and legal frameworks. In the definition applied here, 'complementary' or 'alternative' medicine are those which do not originate from that country's own tradition and are not integrated in the dominant health care system. There is an inventory to the extent of which countries are in one way or another committed to adapt T&CM into their national development policies. In order to achieve tangible results, the WHO (2019) has designed regulation which can be applied in a universal mode. In short, there are three objectives:
*1) building the knowledge base and formulating national policies; 2) strengthening safety, quality and effectiveness through regulation; and, 3) promoting universal health coverage by integrating T&CM services and self-health care into national health systems.*

The challenge lies in establishing a mode of regulation which can function as an umbrella for a scala of products, practices and practitioners. The emphasis must be put on safety and quality, next to integration into national health policies. There is awareness that the mechanism is complex, as the possibility to investigate, monitor and control local materials and therapies, is dependent of accessibility and research capability. As delicately explained by Millar (2004) it again threatens to disguise the preoccupation with the technical aspects of traditional knowledge (what's in it?) while

leaving unmentioned the connection to elements of belief and social conduct, which represent the added value of traditional medicine (TM). The 2023 strategy foresees a decentralised approach, as member countries can develop their own framework as long as they adhere to the objectives set by the WHO. The main role of the agency is to facilitate in the development of these different approaches and to review the results, so progress monitoring is assured. The motivation for increased relevance is put against the background of recent popularity of alternative medicine, but also the economic consequences of rising health care investments (*cf.* Abdullahi 2010). The argument of a correlation with increasing non-communicable and chronic diseases is ambivalent, as recent utilisation studies indicate that TM finds it difficult to cope with these types of diseases effectively, which regularly leads to reversed cross-over and repetitive disappointment (*cf.* Stanifer *et al.* 2015). It would indicate that patients who are diagnosed with a chronic disease do consult TM more often, but they are not cured because such type of affections are not susceptible to single interventions, as with diabetes, cardiovascular deficiencies, hypertension, or kidney failure. In other words, patients may go for TM after repetitive MM consults without a conclusive treatment, interpreting this experience as MM not being capable of curing it, instead of the reoccurrence of a chronic symptom. As a measurement, such a correlation needs to be observed with caution.

The second dimension in the strategy deals with the relationship with the practitioners themselves. The intricacy of this part is that it refers to the practitioners' level of education, accreditation and regulation of their practices. It raises question marks regarding the position of indigenous knowledge in the shape of a traditional professional in these WHO (2018) guidelines. In a framework of exchanging biomedical norms it is understandable, but it will require extensive communication to create a level playing field. It may be acceptable to the extent that consistency with regard to safety and quality is considered a performance indicator. Such could be applicable to commercialised urban based traditional healers, but it should not cross the boundary with the person's cultural integrity. Abdullahi observes an inherent hierarchy in this situation, where TM will as yet have to adhere to western scientific standards to integrate; '*Again, if integrated, who provides training to medical doctors on the ontology, epistemology and the efficacies of African TM given the ethnocentric tendencies in modern medicine? That is, who determines the efficacy and effectiveness of TM given the inherent epistemological and ideological characteristic differences of both medicines?* (Abdullahi 2011: p. 119) [12] Simultaneously it is noticed that there are exponents of TM, as a result of commercialisation, who are not considered genuine in their professionalism, and hurt the integrity of the system. They would have to be identified through some form of regulation. The opposite may prove the case with introducing intellectual property rights, as regulation and accreditation of local practices will automatically provide a legal basis for recording the implicit knowledge heritage, hopefully to the benefit of the proper community (*cf.* Sackey *et al.* 2010). What is not brought forward in the foregoing arguments, as observed by Chirangi (2013), is that the first stage of making this integration feasible is substantial financial investments into facilitating a field of, until now, non-institution-based TM. It would not only enable longitudinal research, it would also enable the practitioners to develop justifiable quality standards or create biodiverse resources through the designation of herbal preservation areas, purposely for medical use. The budget allocations to investment in this area, set against the financial deficits in current health care, especially with regard to manpower (see Chapter V), may become a barrier towards implementation. National policies provide ample priorities which are preoccupied with consolidating and expanding existing service delivery and quality, striving to achieve independence from external sponsoring.

### 2.3.1 Recent WHO-Based Integration of Traditional and Modern Medicine

In the wake of the foregoing analysis, the WHO has established her 13th General Programme of Work (GPW 13) which is projected the cover the period from 2019 until 2023. In accordance with Sustainable Development Goal number 3 (SDG 3) which is focused on health and well-being, the report (WHO 2019), carrying the conclusions of the Octobre 2018 Global Conference on Primary Health Care, clearly indicates the importance of the future role of traditional and complementary medicine (T&CM). The report shows that the contribution which T&CM can make to the accessibility of health services to reach the Universal Health Coverage (UHC) goals is recognised and implemented.

Although a large number of countries, *i.e.* 88% UN-member states, had already developed national legislation to promote and include T&CM in their health care policies, they were until recently not operationalised on a large scale. For the African Region, Tanzania is one of the member states to adhere to this decision. Through this conclusion of the World Health Assembly, on the basis of the update survey between 2016 and 2018, assessing the improvements made by member states in relationship to the quality, safety, accessibility and integration of T&CM in their respective health services, its role has now been consolidated. The report summarises the most tangible achievements as follows:

- *It is the most comprehensive report on T&CM, with 179 of the 194 Member States officially contributing information; it addresses the challenge of lack of credible data and information.*
- *The three phases of progress made by Member States; before and after the first WHO Traditional Medicine Strategy (1999–2005), from the first to the second global survey (2005–2012) and from the second survey to the most recent update survey (2012–2018).*
- *It covers policy and regulation, as well as products, practices and practitioners of T&CM.*
- *It is the most current and up-to-date report, based on information from most Member States across the six WHO regions (WHO 2019).*

Apart from these conclusions the report emphasises the responsibility of the member states to address the challenge of increasing the available credible data in this field, from which future quality standards may evolve. Simultaneously it means that endorsed legislation will in the future encompass the products and practices of the practitioners involved to the extent that they are protected through formal recognition. In retrospect of the way exponents of T&CM have often been stigmatised, while their importance on community level has repeatedly been established, it may be an indication of an imminent factual integration of scientific and traditional knowledge.

Additionally, it means that the approach of a development paradigm from the community's perceived interest is reiterated, which is in line with the aim of the Transcultural Public Health Management (TPHM) concept. It maintains as a starting point that institutionalised health care delivery by itself will not be able to reach all rural perimeters. Moreover, because of the structural embeddedness of T&CM in local culture and environment it addresses the requirement of future sustainability (SDG's) in both a social-cultural as well as in a physical sense.

## Notes Chapter II

9. *'Charles Leslie went forth building upon Robert Redfield's (1956) distinction between Great (scripture based) and Little (folk based) Traditions, trying to indicate that the Mediterranean, South Asian and Chinese medical traditions were independent to a large extent, while features of social organisation and theory seemed identical'* (Elisabeth Hsu, 2007: p.2).
10. Arthur Kleinman (1980) designated the application of home remedies as part of a 'popular sector', referring to it as a health system instead of a medical system.
11. Chirangi (2013) mentions the category of a 'popular medical system', entailing self-medication and non-professional advice in a private atmosphere, as well as spiritual healing in a faith-based context.
12. Ethnocentrism demonstrated in one reference: *"Unfortunately, the overwhelming thrust of this book is in the direction of research that will continue to legitimize inadequate health care delivery for the majority of the world's population. Despite all academic discussion of medical pluralism, and the reiteration in this book that there is not one medical truth, but many medical truths, the fact is that it is better to be rich and healthy in a Cosmopolitan medical system than sick and poor within an Asian traditional medical system"* (Philip Singer in American Ethnologist commenting on Charles Leslie's Asian Medical Systems, 1976)
13. Millar (2004) fine-tunes within the African livestock theme, between settled farmers who own cattle and pastoral systems, covering all aspects regarding the unique local relationship with animals, ranging from breeding, feeding, herding and husbandry, wealth risk-management, to hunting, attitude towards wild animals and female involvement.
14. Hausmann-Muela et al. (2000), mark a reservation here concerning the methodology, as it may be that willingness to pay is not appropriate when dealing with spiritual healing, as there is no perception of a suitable alternative. In that respect utilisation of TM becomes a necessity and not an option.
15. From a number of recent utilisation studies in Tanzania, crossovers between traditional, modern, transitional (commercialised), complementary & alternative medicine (CAM) have been established by Hausmann-Muela *et al.* 2000, Jangu 2012, Denisenko 2013, Stanifer *et al.* 2015.