



# Core and Reference Indicators for Monitoring Traditional and Complementary Medicine in South-East Asia



**World Health  
Organization**  
REGIONAL OFFICE FOR  
**South-East Asia**



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# Abbreviations

CAM	Compilation of Alternative Medicines
GACP	Good Agricultural and Collection Practice
GMP	Good Manufacturing Practice
MD	Medical Degree
T&CM	Traditional and Complementary Medicines
WHO	World Health Organization

# Preamble

This document contains a set of indicators that can be used for monitoring traditional and complementary medicine (T&CM) systems in a country.

Few countries are currently regularly monitoring their T&CM systems. The need for, and value of, having a set of indicators to help do this was identified during a South-East Asia Regional Workshop on Traditional Medicine in the Democratic People's Republic of Korea in October 2015. The main reason was to give policy-makers and managers a manageable set of indicators that they can refer to when considering how to monitor their own T&CM systems. The information can be used when developing or revising national policies and reviewing programmes.

These core and reference indicators were agreed and refined through a series of technical working group meetings that included traditional medicine policy-makers and managers, and indicator experts, during 2016 and 2017.

The core indicator set consists of 16 indicators that were considered essential and collectively able to provide information on T&CM inputs, processes and outputs. A longer list of reference indicators is also available for countries that wish to monitor more indicators or that want to consider alternative metrics that would better suit each country's T&CM situation, priorities and monitoring capacities.

Each core and reference indicator is accompanied by a set of metadata. This provides information on the indicator rationale, definitions, data elements (numerator, denominator and data disaggregation), frequency of measurement, and data sources. It is a guide towards more standardized data measurement as well as data interpretation.

This set of indicators is intended as a guide and reference for country T&CM policy-makers and managers. It is not a mandatory set of indicators on which countries are expected to report to WHO. However, the WHO Regional Office for South-East Asia does recommend that countries develop and/or maintain a conscious approach to monitoring this important field of health care, on which data are so scarce.

Monitoring systems take time to develop. Initially, for several of the indicators, some countries may have no information available. For other indicators, the available information might be incomplete. With use, and over time, the data will improve if it is found to be useful.

The T&CM core and reference indicator set will be periodically reviewed and updated to align with evolving country and global T&CM priorities and monitoring capacities.



## Core indicators

### C1. Total health expenditure for T&CM

Indicator number	C1
Abbreviated name	Total health expenditure for T&CM (by source)
Indicator name	Total health expenditure for T&CM (by source)
Rationale	This indicator contributes to understanding the total amount of financial resources spent for T&CM. Additionally, information on T&CM expenditure by source and trend over time allows better understanding of share of government spending, insurance schemes and out-of-pocket payments as sources of T&CM funding.
Definition	The sum of general government health expenditure and private health expenditure for T&CM in a given year, expressed in local currency and in current US dollars.
Numerator	Total health expenditure for T&CM in local currency and in current US dollars
Denominator	-
Disaggregation/additional dimension	By source (government, health insurance and out-of-pocket payment)
Measurement frequency	Annual, biennial or every third year
Preferred data source(s)	National health accounts; health insurance reporting systems; population surveys
Other possible data sources	-
Further information and related links	See also: A system of health accounts – 2011 edition. Geneva: Organisation for Economic Co-operation and Development/Eurostat/World Health Organization <a href="http://www.who.int/health-accounts/en/">http://www.who.int/health-accounts/en/</a>

## C2. Number of hospitals and clinics offering T&CM

Indicator number	C2
Abbreviated name	Number of hospitals and clinics offering T&CM
Indicator name	Number of hospitals and clinics offering T&CM
Rationale	This indicator reflects the general availability of T&CM services through the physical presence of hospitals and clinics that provide such services. It can be used to assess adequacy in the number of hospitals and clinics to cover perceived need for T&CM services.
Definition	The total number of hospitals and clinics offering T&CM services. This includes hospitals and clinics that exclusively offer T&CM services and hospitals and clinics that offer both T&CM and modern medical services.
Numerator	Total number of hospitals and clinics offering T&CM services
Denominator	-
Disaggregation/additional dimension	By managing authority (public or private); By hospital/clinic type (standalone or co-located in a hospital/clinic providing modern medicine)
Measurement frequency	Annual, biennial or every third year
Preferred data source(s)	Registry of hospitals and clinics
Other possible data sources	Health insurance administrative resources
Further information and related links	

### C3. T&CM regulated practitioner density and distribution

Indicator number	C3
Abbreviated name	T&CM regulated practitioner density and distribution
Indicator name	T&CM regulated practitioner density and distribution (per 1000 population)
Rationale	The indicator provides information on the accessibility of the T&CM workforce.
Definition	Number of T&CM practitioners per 1000 population. Western (allopathic or conventional) doctors who combine Western and T&CM are included if also regulated as a T&CM practitioner.
Numerator	Number of T&CM practitioners
Denominator	Total population
Disaggregation/additional dimension	By cadre (traditional medicine doctors, auxiliary traditional medicine workers), T&CM practitioners (acupuncturists, osteopaths, homeopaths, etc.)  By medical degree (MD) or not.  By place of employment (urban, rural) subnational (district or county)  By employment status: (public, private); (hospital, primary care).
Measurement frequency	Annual, biennial or every third year
Preferred data source(s)	Registries of regulated health professionals
Other possible data sources	National health workforce database (aggregate), professional organizations
Further information and related links	See also the <i>Global Reference List of 100 Core Health Indicators</i> <a href="http://www.who.int/healthinfo/indicators/2015/en/">http://www.who.int/healthinfo/indicators/2015/en/</a>

#### C4. Number of outpatient department visits for T&CM services

Indicator number	C4
Abbreviated name	Number of outpatient department visits for T&CM services
Indicator name	Number of outpatient department visits for T&CM services
Rationale	Consultation with health professionals is one of the most common health-care services received by patients. It is a measure of utilization of and demand for T&CM health-care services.
Definition	The total number of visits or contact with a T&CM practitioner in a hospital or clinic in a given year where the patient is not admitted to the hospital or clinic and does not occupy a hospital bed for any length of time.
Numerator	Total number of outpatient department visits for T&CM services in a given year in hospitals and clinics offering T&CM
Denominator	-
Disaggregation/additional dimension	By managing authority (public or private); By entity type (hospital, clinic or primary health care centre);  By T&CM modality
Measurement frequency	Annual, biennial or every third year
Preferred data source(s)	Routine information systems for hospitals and clinics; population-based health surveys
Other possible data sources	
Further information and related links	



### C5. Top 10 health problems as reasons for seeking T&CM services

Indicator number	C5
Abbreviated name	Top 10 health problems as reasons for seeking T&CM services
Indicator name	Top 10 health problems as reasons for seeking T&CM services
Rationale	This indicator informs on the most common health conditions treated using T&CM. It can be used to understand how T&CM contributes to the management and improvement of health conditions.
Definition	The 10 leading health problems as reasons for seeking T&CM services, whether for inpatient or outpatient care.
Numerator	The 10 leading health problems as reasons for seeking T&CM services
Denominator	-
Disaggregation/additional dimension	By type of visit (inpatient or outpatient visits); By T&CM modality
Measurement frequency	Annual, biennial or every third year
Preferred data source(s)	Routine information systems for hospitals and clinics; special surveys
Other possible data sources	
Further information and related links	

## C6. Existence of a national body to oversee T&CM-related research

Indicator number	C6
Abbreviated name	Existence of a national body to oversee T&CM-related research
Indicator name	Existence of a national body to oversee T&CM-related research
Rationale	With the increasing research on T&CM, it is vital that there is a national body that ensures the quality of the T&CM research being conducted, and that results are utilized for decision-making in the area of T&CM programme management, service delivery and use.
Definition	Existence of a national body that is mandated to promote the generation of quality T&CM-related research and to facilitate the use of the research results in T&CM programme management, service delivery and use.
Numerator	Existence of a national body to oversee T&CM-related research
Denominator	-c
Disaggregation/additional dimension	-
Measurement frequency	Annual, biennial or every third year
Preferred data source(s)	Administrative reporting systems
Other possible data sources	
Further information and related links	

## C7. Proportion of licensed T&CM manufacturers that meet good manufacturing practice (GMP) standards

Indicator number	C7
Abbreviated name	Proportion of licensed T&CM manufacturers that meet good manufacturing practice (GMP) standards
Indicator name	Proportion of licensed T&CM manufacturers that meet good manufacturing practice (GMP) standards
Rationale	This provides information on the proportion of licensed T&CM manufacturers that comply and meet GMP standards for T&CM products and assures a certain level of quality of the T&CM products.
Definition	The proportion of licensed T&CM manufacturers that meet the national good manufacturing practice standards for T&CM products. T&CM products include those that are animal-, plant-, mineral-, and metal-based products.
Numerator	Number of licensed T&CM manufacturers that meet the national good manufacturing practice standards for T&CM products
Denominator	Number of licensed T&CM manufacturers of T&CM products
Disaggregation/additional dimension	-
Measurement frequency	Annual, biennial or every third year
Preferred data source(s)	Food and drug authority; special surveys
Other possible data sources	
Further information and related links	See also the metadata for the indicator <i>Pharmaceutical manufacturers must comply with good manufacturing practices</i> <a href="http://apps.who.int/gho/indicatorregistry/App_Main/view_indicator.aspx?iid=2283">http://apps.who.int/gho/indicatorregistry/App_Main/view_indicator.aspx?iid=2283</a>

## C8. Existence of a national adverse event reporting system for T&CM products

Indicator number	C8
Abbreviated name	Existence of a national adverse event reporting system for T&CM products
Indicator name	Existence of a national adverse event reporting system for T&CM products
Rationale	A national adverse event reporting system for T&CM products is important to provide assurance of safety-in-use of traditional medicine to consumers and health-care providers. Analysis of information gathered by the system can form the basis for appropriate regulatory actions to improve T&CM product safety and to protect public health.
Definition	Existence of a national adverse event reporting system for T&CM products that follows a mandate and a set of guidelines for the compilation of adverse event reports related to use of marketed T&CM products, evaluation of the safety of these products, and for providing recommendations or taking actions to ensure product safety and public health. This system may be separate or integrated with the national adverse event reporting system for modern medicines.
Numerator	Existence of a national adverse event reporting system for T&CM products
Denominator	-
Disaggregation/additional dimension	-
Measurement frequency	Annual, biennial or every third year
Preferred data source(s)	Administrative reporting systems
Other possible data sources	
Further information and related links	

**C9. Existence of a national adverse event reporting system for T&CM practice**

Indicator number	C9
Abbreviated name	Existence of a national adverse event reporting system for T&CM practice
Indicator name	Existence of a national adverse event reporting system for T&CM practice
Rationale	A national adverse event reporting system for T&CM practice is important to provide assurance of safety-in-use of traditional medicine to consumers and health-care providers. Analysis of information gathered by the system can form the basis for appropriate regulatory actions to improve T&CM service safety and to protect public health.
Definition	Existence of a national adverse event reporting system for T&CM practices that follows a mandate and a set of guidelines for the compilation of adverse event reports related to use of T&CM services, evaluation of the safety of these services, and for providing recommendations or taking actions to ensure safety and public health.
Numerator	Existence of a national adverse event reporting system for T&CM practice
Denominator	-
Disaggregation/additional dimension	-
Measurement frequency	Annual, biennial or every third year
Preferred data source(s)	Administrative reporting systems
Other possible data sources	Other possible data sources
Further information and related links	

## C10. Existence of a national mechanism to ensure quality of T&CM education and training

Indicator number	C10
Abbreviated name	Existence of a national mechanism to ensure quality of T&CM education and training
Indicator name	Existence of a national mechanism to ensure quality of T&CM education and training
Rationale	Having a regulatory authority or mechanism to ensure the quality of T&CM education and training is critical for the production of T&CM practitioners with skills and competencies necessary for the safe and appropriate provision of T&CM services.
Definition	The existence of a mechanism or regulatory authority with guidelines to ensure the quality of T&CM education and training, including in-service training. This authority may be the ministry of education, an educational board, a registration board, or national or regional curriculum authorities. The mechanism of action may be external audit of curriculums or training modules by T&CM peers.
Numerator	Existence of a regulatory authority or mechanism to ensure the quality of T&CM education and training
Denominator	-
Disaggregation/additional dimension	-
Measurement frequency	Annual, biennial or every third year
Preferred data source(s)	Administrative reporting systems; T&CM or medical professional societies
Other possible data sources	
Further information and related links	See also <i>Regulating complementary medical practitioners</i> <a href="https://www.kingsfund.org.uk/sites/files/kf/Research%20summary1.pdf">https://www.kingsfund.org.uk/sites/files/kf/Research%20summary1.pdf</a>

### C11. Existence of a regulatory mechanism to oversee advertising of T&CM products

Indicator number	C11
Abbreviated name	Existence of a regulatory mechanism to oversee advertising of T&CM products
Indicator name	Existence of a regulatory and reporting mechanism to oversee advertising of T&CM products
Rationale	The objective of having a regulatory and reporting mechanism relating to the advertising of T&CM products is to ensure that the information provided about products being advertised or promoted for sale are adequate to allow informed selection of a T&CM therapy that is safe and effective, and do not mislead or induce unnecessary use and adversely affect public health.
Definition	The existence of a regulatory and reporting mechanism related to the advertising of T&CM products. Its regulations or guidelines may be a complement of the provisions of a medicines regulation, code of advertising practice or any other similar regulation.
Numerator	Existence of a regulatory and reporting mechanism to oversee advertising of T&CM products
Denominator	-
Disaggregation/additional dimension	-
Measurement frequency	Annual, biennial or every third year
Preferred data source(s)	Administrative reporting systems
Other possible data sources	
Further information and related links	

**C12. Existence of a communication mechanism to provide public information related to T&CM products and services**

Indicator number	C12
Abbreviated name	Existence of a communication mechanism to provide public information related to T&CM products and services
Indicator name	Existence of a communication mechanism to provide public information related to T&CM products and services
Rationale	Self-care is common in T&CM. To help ensure appropriate utilization of T&CM products and services, there needs to be a mechanism to regularly communicate T&CM-related information to the public regarding benefits, safety, risks, and availability.
Definition	The communication mechanism to provide public information related to T&CM products and services may be in the form of a website, public health advisory, patient information sheet or an information sheet for health-care professionals.
Numerator	Existence of a communication mechanism to provide public information related to T&CM products and services
Denominator	-
Disaggregation/additional dimension	-
Measurement frequency	Annual, biennial or every third year
Preferred data source(s)	Administrative reporting systems
Other possible data sources	
Further information and related links	



**C13. T&CM reflected in the national health sector plan**

Indicator number	C13
Abbreviated name	T&CM reflected in the national health sector plan
Indicator name	T&CM reflected in the national health sector plan
Rationale	National health sector plans reflect the governments' health priorities and the strategic directions to address them. T&CM being reflected in the national health sector plan means recognition of T&CM's role in the overall health and well-being of the general population as well as committed resources for T&CM programme policies, strategies, plans, monitoring and evaluation.
Definition	T&CM is part of the national health sector plan, where T&CM can be a stand-alone programme or included in the general health sector plan.
Numerator	T&CM reflected in the national health sector plan
Denominator	-
Disaggregation/additional dimension	
Measurement frequency	Annual, biennial or every third year
Preferred data source(s)	Administrative reporting systems
Other possible data sources	
Further information and related links	See also WHO's site on <i>National health policies, strategies and plans</i> <a href="http://www.who.int/nationalpolicies/about/en/">http://www.who.int/nationalpolicies/about/en/</a>

### C14. Number of hospitals and clinics providing both T&CM and modern medicine services

Indicator number	C14
Abbreviated name	Number of hospitals and clinics providing both T&CM and modern medicine services
Indicator name	Number of public and private hospitals and clinics providing both T&CM and modern medicine services
Rationale	Provision of both T&CM and modern medicine services in the same hospital or clinic provides clients access to both types of health care. Co-location is an indicator of integration at the service delivery level; although it does not necessarily follow that there will be integration at the practice or patient-management level. There is, however, a potential for more coordinated health-care management, and easier referral between T&CM and modern medicine practitioners
Definition	The total number of hospitals and clinics providing both T&CM and modern medicine services.
Numerator	Total number of hospitals and clinics providing both T&CM and modern medicine services
Denominator	-
Disaggregation/additional dimension	By type of institution (hospital, clinic or primary health care centre); By managing authority (public or private)
Measurement frequency	Annual, biennial or every third year
Preferred data source(s)	Registry of hospitals and clinics; Licensing database of hospitals and clinics; assessments of hospitals and clinics
Other possible data sources	
Further information and related links	

### C15. Existence and continuing development of a mechanism and database to protect traditional knowledge and associated genetic resources

Indicator number	C15
Abbreviated name	Existence and continuing development of a mechanism and database to protect traditional knowledge and associated genetic resources
Indicator name	Existence and continuing development of a mechanism and database to protect traditional knowledge and associated genetic resources
Rationale	Traditional knowledge and its associated genetic resources hold social, cultural and scientific value. It is an important collective heritage of particular indigenous peoples and local communities. With the growing interest on traditional medicines for commercial and scientific purposes, it is important to enhance the recognition, respect, preservation and protection of traditional knowledge and its associated genetic resources.
Definition	Existence and continuing development of a mechanism and database to protect traditional knowledge and associated genetic resources.
Numerator	Existence and continuing development of a mechanism and database to protect traditional knowledge and associated genetic resources
Denominator	-
Disaggregation/additional dimension	-
Measurement frequency	Annual, biennial or every third year
Preferred data source(s)	Administrative reporting systems
Other possible data sources	
Further information and related links	See also brief on <i>Intellectual property and traditional medical knowledge</i> <a href="http://www.wipo.int/export/sites/www/tk/en/documents/pdf/background_briefs-e-n6-web.pdf">http://www.wipo.int/export/sites/www/tk/en/documents/pdf/background_briefs-e-n6-web.pdf</a>

### C16. Existence of conservation and cultivation programme to protect biodiversity and endangered species of medicinal plants and non-plants

Indicator number	C16
Abbreviated name	Existence of conservation and cultivation programme to protect biodiversity and endangered species of medicinal plants and non-plants
Indicator name	Existence of conservation and cultivation programme to protect biodiversity and endangered species of medicinal plants and non-plants
Rationale	Use of traditional medicinal plants, non-plants and their active ingredients is an essential part of T&CM. With many traditional plants and non-plants facing extinction, there is a critical need for a program to protect biodiversity and to conserve these plants and non-plants to help ensure their long-term availability and accessibility.
Definition	Existence of conservation and cultivation programme for endangered species of traditional medicinal plants and non-plants.
Numerator	Existence of conservation and cultivation programme to protect biodiversity and endangered species of medicinal plants and non-plants
Denominator	-
Disaggregation/additional dimension	-
Measurement frequency	Annual, biennial or every third year
Preferred data source(s)	Administrative reporting systems
Other possible data sources	
Further information and related links	See also <i>Guidelines on the conservation of medicinal plants</i> <a href="http://apps.who.int/medicinedocs/documents/s7150e/s7150e.pdf">http://apps.who.int/medicinedocs/documents/s7150e/s7150e.pdf</a>

## Reference indicators

### R1. Public health expenditure allocated to T&CM at the national and regional levels

Indicator number	R1
Abbreviated name	Public health expenditure allocated to T&CM
Indicator name	Public health expenditure allocated to T&CM
Rationale	This indicator can be used to reflect commitment to T&CM from public funding sources.
Definition	The total amount of government/provincial/local health budget allocated to T&CM in a budget year. This is expressed in local currency and in current US dollars
Numerator	Total amount of government/provincial/local health budget in local currency and in current US dollars allocated to T&CM in a budget year
Denominator	
Disaggregation/additional dimension	-
Measurement frequency	Annual, biennial or every third year
Preferred data source(s)	Administrative reporting systems at the government/provincial/local level
Other possible data sources	
Further information and related links	

## R2. Per capita public health expenditure allocated to T&CM at the national and regional levels

Indicator number	R2
Abbreviated name	Per capita public health expenditure allocated to T&CM
Indicator name	Per capita government/provincial/local health expenditure allocated to T&CM
Rationale	This indicator can be used to reflect the government's commitment to T&CM relative to the beneficiary population.
Definition	Per capita government/provincial/local health expenditure allocated to T&CM in a budget year. This is expressed in local currency and current US dollars per capita.
Numerator	Total per capita amount of government/provincial/local health expenditure in local currency and in current US dollars allocated to T&CM in a budget year
Denominator	Total population
Disaggregation/additional dimension	-
Measurement frequency	Annual, biennial or every third year
Preferred data source(s)	Administrative reporting systems at the government/provincial/local level
Other possible data sources	
Further information and related links	

**R3. Number of T&CM graduates**

Indicator number	R3
Abbreviated name	Number of T&CM graduates
Indicator name	Number of T&CM graduates from accredited educational institutions
Rationale	The pool of qualified personnel for T&CM is important for the proper planning of the health sector, delivery of health services as well as regulation and legislation pertaining to T&CM. The number of newly trained T&CM practitioners is relevant in countries that need increased production of such health workers and in countries that need more T&CM practitioners in rural and underserved areas.
Definition	Number of T&CM graduates from accredited educational institutions in the past academic year.
Numerator	Number of T&CM graduates from accredited educational institutions in the past academic year
Denominator	-
Disaggregation/additional dimension	By level of education (certificate, diploma, bachelor, master, PhD, and clinical doctorate)
Measurement frequency	Annual, biennial or every three years
Preferred data source(s)	Administrative reporting systems
Other possible data sources	
Further information and related links	See also the <i>Second WHO survey on national policy and regulation for traditional and complementary/alternative medicine and the WHO traditional medicine strategy: 2014-2023</i> <a href="http://www.who.int/medicines/publications/traditional/trm_strategy14_23/en/">http://www.who.int/medicines/publications/traditional/trm_strategy14_23/en/</a>

### R4. T&CM outpatient department visits as a percentage of all outpatient department visits

Indicator number	R4
Abbreviated name	T&CM outpatient department visits as a percentage of all outpatient department visits
Indicator name	T&CM outpatient department visits as a percentage of all outpatient department visits
Rationale	Consultation with health professionals is one of the most common health-care services received by patients. It is a measure of utilization of and demand for T&CM health-care services.
Definition	The total number of T&CM outpatient department visits as a percentage of all outpatient department visits. Outpatient visits refer to the total number of visits or contact with a T&CM practitioner in a hospital or clinic in a given year where the patient is not admitted to the hospital or clinic and does not occupy a hospital bed for any length of time.
Numerator	Total number of outpatient department visits for T&CM services in hospitals and clinics offering T&CM in a given year
Denominator	Total number of outpatient department visits in hospitals and clinics offering T&CM in a given year
Disaggregation/additional dimension	By managing authority (public or private); By entity type (hospital, clinic or primary health care centre);  By T&CM modality
Measurement frequency	Annual, biennial or every three years
Preferred data source(s)	Routine information systems for hospitals and clinics; population-based health surveys
Other possible data sources	
Further information and related links	



**R5. Total government budget allocated for T&CM research**

Indicator number	R5
Abbreviated name	Total government budget allocated for T&CM research
Indicator name	Total government budget allocated for T&CM research
Rationale	This indicator can be used to evaluate the government's commitment to building and strengthening national capacity for T&CM research. Research on the quality, safety and efficacy of T&CM products are critical to establish and enhance national regulations and standards for quality, safety and efficacy.
Definition	The total amount of government health and/or research budget allocated to T&CM research in a budget year. This is expressed in local currency and in current US dollars.
Numerator	Total amount of government health and/or research budget allocated to T&CM research in a budget year
Denominator	
Disaggregation/additional dimension	Research positions and/or cadres
Measurement frequency	Annual, biennial or every three years
Preferred data source(s)	Government budget reports
Other possible data sources	Government-funded research institutions, government funded universities, government-funded health and education institutions with research responsibilities.
Further information and related links	

## R6. Incorporation of T&CM in the national health research strategy

Indicator number	R6
Abbreviated name	Incorporation of T&CM in the national health research strategy
Indicator name	Incorporation of T&CM in the national health research strategy
Rationale	Incorporation of T&CM in the national health research strategy ensures that T&CM is part of a national effort for improved generation and use of research through better research governance, research resources (funding, infrastructure, human resource), and linkages and collaboration with other research networks.
Definition	T&CM is incorporated in the national health research strategy.
Numerator	T&CM is incorporated in the national health research strategy
Denominator	-
Disaggregation/additional dimension	-
Measurement frequency	Annual, biennial or every three years
Preferred data source(s)	Administrative reporting systems
Other possible data sources	
Further information and related links	

## R7. Integration of T&CM in a national research council or national health council

Indicator number	R7
Abbreviated name	Integration of T&CM in a national research council or national health council
Indicator name	Integration of T&CM in a national research council or national health council
Rationale	Incorporation of T&CM in the national health research council ensures that T&CM is part of a national effort for improved generation and use of research through better research governance, research resources (funding, infrastructure, human resource), and linkages and collaboration with other research networks.
Definition	T&CM is incorporated in the national health research council.
Numerator	T&CM is incorporated in the national health research council.
Denominator	
Disaggregation/additional dimension	
Measurement frequency	Annual, biennial or every three years
Preferred data source(s)	Annual reports of national research and/or health councils
Other possible data sources	
Further information and related links	

**R8. Number of research institutions or centres that conduct research on T&CM, including network universities**

Indicator number	R8
Abbreviated name	Number of research institutions or centres that conduct research on T&CM including network universities
Indicator name	Number of public and private research institutions or centres that conduct research on T&CM including network universities and private research institutions
Rationale	This indicator informs on the trend of the number of research institutions or centres that are able to conduct research on T&CM as a proxy measure of capacity to conduct T&CM research.
Definition	Number of research institutions or centres that conducted research on T&CM, including network universities and private research institutions.
Numerator	Number of research institutions or centres that conducted research on T&CM, including network universities and private research institutions
Denominator	-
Disaggregation/additional dimension	-
Measurement frequency	Annual, biennial or every three years
Preferred data source(s)	National research council
Other possible data sources	
Further information and related links	

**R9. Number of T&CM research results in the national research registry**

Indicator number	R9
Abbreviated name	Number of T&CM research results in the national research registry
Indicator name	Number of T&CM research results in the national research registry
Rationale	This indicator informs on the trend of the number of T&CM research results included in the national research registry. Registering research results in the national registry can improve research quality. Use of these results encourages research collaboration, reduces redundancy in research conducted, allows peer-to-peer review and allows public access to aid in guideline development and clinical decision-making.
Definition	Number of T&CM research results in the national research registry
Numerator	Number of T&CM research results in the national research registry
Denominator	-
Disaggregation/additional dimension	-
Measurement frequency	Annual, biennial or every three years
Preferred data source(s)	National research council
Other possible data sources	
Further information and related links	

## R10. Number of peer-reviewed T&CM scientific publications in local and international journals

Indicator number	R10
Abbreviated name	Number of peer-reviewed T&CM scientific publications in local and international journals
Indicator name	Number of peer-reviewed T&CM scientific publications in local and international journals
Rationale	This indicator informs on the trend of the number of T&CM scientific articles published in peer-reviewed local and international journals, and is a proxy for capacity to produce high-quality T&CM research that is publicly accessible.
Definition	Number of T&CM scientific articles published in peer-reviewed local and international journals
Numerator	Number of T&CM scientific articles published in peer-reviewed local and international journals
Denominator	-
Disaggregation/additional dimension	-
Measurement frequency	Annual, biennial or every three years
Preferred data source(s)	National research council
Other possible data sources	Universities, other research institutions
Further information and related links	National research registers

### R11. Number of agricultural and collection practice (GACP) guidelines for medicinal plants

Indicator number	R11
Abbreviated name	Number of good agricultural and collection practice (GACP) guidelines for medicinal plants
Indicator name	Number of good agricultural and collection practice (GACP) guidelines for medicinal plants
Rationale	Having good agricultural and collection practices for medicinal plants is an important first step in quality assurance and directly impacts on the safety and efficacy of herbal medicinal products.
Definition	Guidelines on GACP for medicinal plants describe the techniques and measures required for the appropriate cultivation and collection of medicinal plants and for the recording and documentation of necessary data and information during their cultivation and collection.
Numerator	Number of good agricultural and collection practice guidelines for medicinal plants
Denominator	-
Disaggregation/additional dimension	-
Measurement frequency	Annual, biennial or every third year
Preferred data source(s)	Administrative reporting systems
Other possible data sources	
Further information and related links	See also the <i>WHO guidelines on good agricultural and collection practices (GACP) for medicinal plants</i> <a href="http://apps.who.int/medicinedocs/pdf/s4928e/s4928e.pdf">http://apps.who.int/medicinedocs/pdf/s4928e/s4928e.pdf</a>

## R12. Number of monographs for herbal raw materials

Indicator number	R12
Abbreviated name	Number of monographs developed for herbal raw materials
Indicator name	Number of monographs developed for herbal raw materials
Rationale	Monographs for herbal raw materials provide quality control standards over the preparation of the raw materials for the development of herbal products. Knowing the number of monographs will help countries track progress as to the number of monographs developed for commonly used herbal raw materials and will provide a measure as to the level of the quality standardization of its herbal raw materials and medicinal plants.
Definition	Number of monographs developed for herbal raw materials
Numerator	Number of monographs developed for herbal raw materials
Denominator	-
Disaggregation/additional dimension	-
Measurement frequency t	Annual
Preferred data source(s)	Administrative reporting systems
Other possible data sources	
Further information and related links	<a href="http://apps.who.int/medicinedocs/en/d/Js4927e/">http://apps.who.int/medicinedocs/en/d/Js4927e/</a>



**R13. Number of T&CM products with a pharmacopoeia or monograph**

Indicator number	R13
Abbreviated name	Number of T&CM products with a pharmacopoeia or monograph
Indicator name	Number of T&CM products with a pharmacopoeia or monograph
Rationale	Pharmacopoeias and monographs for T&CM products provide quality control methods over the production, distribution and regulatory control of the medicinal products. These are important components of the drug safety system for T&CM products and are instruments for patient and consumer protection.
Definition	A pharmacopoeia is a formulary, especially an official one, and usually one having legal force in all pharmacies of a given country, containing a description of drugs used in current medical practice and noting their formulae, analytical composition (if known), physical constants, main chemical properties useful for identification and mode of preparation of compound preparations/ combination products. Monographs on herbal medicines are descriptions of different herbal medicinal formulae, which either are included in a pharmacopoeia or exist separately.
Numerator	Number of T&CM products with a pharmacopoeia or monograph
Denominator	-
Disaggregation/additional dimension	By T&CM modality
Measurement frequency	Annual, biennial or every third year
Preferred data source(s)	Administrative reporting systems
Other possible data sources	
Further information and related links	See also the <i>National policy on traditional medicine and regulation of herbal medicines: report of a WHO global survey</i> <a href="http://apps.who.int/medicinedocs/en/d/Js7916e/">http://apps.who.int/medicinedocs/en/d/Js7916e/</a>

### R14. Existence of a reference laboratory for testing of T&CM products

Indicator number	R14
Abbreviated name	Existence of a reference laboratory for testing of T&CM products
Indicator name	Existence of a reference laboratory for testing of T&CM products
Rationale	A national reference laboratory provides services for testing of T&CM products' quality against set standards. It is an important component of the quality control system for T&CM products.
Definition	Existence of a national reference laboratory for testing the quality of T&CM products where a pharmacopoeia or monograph for T&CM products is used as standard for the examination of product quality.
Numerator	Existence of a national reference laboratory for testing the quality of T&CM products
Denominator	-
Disaggregation/additional dimension	-
Measurement frequency	Annual, biennial or every third year
Preferred data source(s)	Administrative reporting systems
Other possible data sources	
Further information and related links	

**R15. Proportion of T&CM manufacturers that are licensed**

Indicator number	R15
Abbreviated name	Proportion of T&CM manufacturers that are licensed
Indicator name	Proportion of T&CM manufacturers that are licensed
Rationale	To ensure the safety of T&CM products it is important to have an overview of to what degree T&CM manufacturers are licensed.
Definition	The number of T&CM manufacturers that have obtained a government or other public licence.
Numerator	The number of T&CM manufacturers that have obtained a government or other public licence.
Denominator	The number of T&CM manufacturers.
Disaggregation/additional dimension	
Measurement frequency	Annual, biennial or every third year
Preferred data source(s)	
Other possible data sources	
Further information and related links	

**R16. Number of reported T&CM-related adverse events for T&CM products**

Indicator number	R16
Abbreviated name	Number of reported T&CM-related adverse events for T&CM products
Indicator name	Number of reported T&CM-related adverse events for T&CM products
Rationale	Information on T&CM-related adverse events is an important part of assuring the safety-in-use of traditional medicines. Analysis of the information can form the basis for appropriate regulatory actions to improve T&CM product safety and to protect public health.
Definition	A T&CM related adverse event is any untoward medical occurrence that may appear during treatment with or use of a T&CM product but which does not necessarily have a causal relationship with the treatment or product. The reported adverse events here include both suspected and confirmed events.
Numerator	Total number of reported T&CM-related adverse events
Denominator	-
Disaggregation/additional dimension	By T&CM product and regulatory status
Measurement frequency	Annual, biennial or every third year
Preferred data source(s)	National adverse event reporting system; food and drug authority; consumer association; special surveys
Other possible data sources	
Further information and related links	See also <i>The importance of pharmacovigilance: safety monitoring of medicinal products</i> <a href="http://apps.who.int/medicinedocs/pdf/s4893e/s4893e.pdf">http://apps.who.int/medicinedocs/pdf/s4893e/s4893e.pdf</a>

**R17. Number of reported T&CM-related adverse events for T&CM practice**

Indicator number	R17
Abbreviated name	Number of reported T&CM-related adverse events for T&CM practices
Indicator name	Number of reported T&CM-related adverse events for T&CM practices
Rationale	Information on T&CM-related adverse events is an important part of assuring the safety-in-use of traditional medicine. Analysis of the information can be the basis for appropriate regulatory actions to improve safety of T&CM practice and to protect public health.
Definition	A T&CM related adverse event is any untoward medical occurrence that may appear during treatment with a T&CM service or practice but which does not necessarily have a causal relationship with the treatment. The reported adverse events here include both suspected and confirmed events.
Numerator	Total number of reported T&CM-related adverse events
Denominator	-
Disaggregation/additional dimension	By T&CM modality and regulatory status
Measurement frequency	Annual, biennial or every third year
Preferred data source(s)	National adverse event reporting system; consumer association; special surveys
Other possible data sources	
Further information and related links	See also <i>The importance of pharmacovigilance: safety monitoring of medicinal products</i> <a href="http://apps.who.int/medicinedocs/pdf/s4893e/s4893e.pdf">http://apps.who.int/medicinedocs/pdf/s4893e/s4893e.pdf</a>

### R18. Existence of a continuing professional development programme for T&CM practitioners

Indicator number	R18
Abbreviated name	Existence of a continuing professional development programme for T&CM practitioners
Indicator name	Existence of a continuing professional development programme for T&CM practitioners
Rationale	Continuing professional development programmes play a vital role in ensuring that T&CM practitioners are able to maintain and develop new knowledge and skills essential for meeting the needs of the patients and the health-care delivery system and for responding to new scientific developments.
Definition	The existence of a national programme for the continuing professional development of T&CM practitioners beyond their formal undergraduate and postgraduate training. The programme may not only include educational activities to enhance competence in T&CM knowledge and skills, but also in management, team building and leadership.
Numerator	The existence of a continuing professional development programme for T&CM practitioners
Denominator	-
Disaggregation/additional dimension	-
Measurement frequency	Annual, biennial or every third year
Preferred data source(s)	Ministry for higher education; administrative reporting systems
Other possible data sources	
Further information and related links	

**R19. Existence of T&CM practice guidelines**

Indicator number	R19
Abbreviated name	Existence of T&CM practice guidelines
Indicator name	Existence of T&CM practice guidelines
Rationale	Clinical practice guidelines are developed to optimize patient care. They can assist T&CM practitioners and patients who consider different care options and help them reach decisions on appropriate T&CM intervention for specific health conditions or clinical circumstances. The guideline contents can also guide decisions on health-care system reimbursement and medical fee review criteria.
Definition	The existence of T&CM practice guidelines for a specific set of health conditions.
Numerator	The existence of T&CM practice guidelines for a specific set of health conditions
Denominator	-
Disaggregation/additional dimension	By T&CM modality
Measurement frequency	Annual, biennial or every third year
Preferred data source(s)	Administrative reporting systems; T&CM or medical professional societies
Other possible data sources	
Further information and related links	

## R20. Existence of a protocol or guidelines for referral between T&CM and modern medical services

Indicator number	R20
Abbreviated name	Existence of a protocol or guidelines for referral between T&CM and modern medical services
Indicator name	Existence of a protocol or guidelines for referral between T&CM and modern medical services
Rationale	Existence of referral protocols or guidelines can promote better patient management across T&CM and modern medicine practitioners. A referral system is also a method of service integration and promotes patient access to a more comprehensive package of services including T&CM.
Definition	Existence of a protocol or guidelines for referral between T&CM and modern medical services.
Numerator	Existence of a protocol or guidelines for referral between T&CM and modern medical services
Denominator	-
Disaggregation/additional dimension	By T&CM modality; By type of referral system (one-way or two-way)
Measurement frequency	Annual, biennial or every third year
Preferred data source(s)	Administrative reporting systems; T&CM or medical professional societies
Other possible data sources	
Further information and related links	



**R21. Number of T&CM products included in the national essential medicines list**

Indicator number	R21
Abbreviated name	Number of T&CM products included in the national essential medicines list
Indicator name	Number of T&CM products included in the national essential medicines list
Rationale	<p>Essential medicines are those that satisfy the priority health-care needs of the population and are selected based on public health relevance, evidence on efficacy and safety, and comparative cost-effectiveness. As such, they are to be available within the context of functioning health systems at all times.</p> <p>Having T&amp;CM products in the national essential medicines list indicates that these products meet the criteria for selection of drugs to be part of the list. It also indicates that these T&amp;CM products will be made available in the different hospitals and clinics.</p>
Definition	Number of T&CM products included in the national essential medicines list.
Numerator	Number of T&CM products included in the national essential medicines list
Denominator	-
Disaggregation/additional dimension	-
Measurement frequency	Annual, biennial or every third year
Preferred data source(s)	Routine administrative record on medicines
Other possible data sources	
Further information and related links	<p>See also the <i>WHO Essential Medicines List website</i> <a href="http://www.who.int/medicines/services/essmedicines_def/en/">http://www.who.int/medicines/services/essmedicines_def/en/</a></p> <p>See also the <i>WHO Model List of Essential Medicines 2015</i> <a href="http://www.who.int/medicines/publications/essentialmedicines/en/">http://www.who.int/medicines/publications/essentialmedicines/en/</a></p>

This document contains a set of core and reference indicators that can be used for monitoring traditional and complementary medicine (T&CM) systems in a country. It is intended as a guide and reference for policy-makers and managers, because few countries are regularly monitoring their T&CM systems though many people use these services.

A South-East Asia Regional Workshop on Traditional Medicines agreed the indicator set should be developed, and it has been refined through consultations during 2016 and 2017. Each core and reference indicator is accompanied by a set of metadata. This is the first indicator set developed for traditional and complementary medicine. It will be periodically reviewed and updated based on experience with use.

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