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Engendering Concerted National Efforts towards Improved Health Outcomes in the ASEAN: Status, Challenges, Targets, and Ways Forward

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Abstract: *This paper reviews ASEAN's efforts to improve health outcomes in the region and describes the prospects for health post 2015. It reviews the ASEAN performance on the blueprint for health and describes the regional vision for the three clusters of promoting a healthy lifestyle, strengthening health systems and access to care, and ensuring food safety. It then provides the indicators and targets in 16 specific areas. The paper focuses on the status, targets, and challenges in each of these 16 areas.*

Keyword: ASEAN, health, healthy lifestyle, health system, access to care

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1. Review of ASEAN Performance on the Blueprint on Health

In 2015, the Association of Southeast Asian Nations (ASEAN) will become an economic community. Side by side with the efforts to harmonise and strengthen the economies of the 10 member countries, the ASEAN has also been busy strengthening the group to become an ASEAN Socio-Cultural Community (ASCC), with the ASCC Council meeting at its 25th Summit in Bagan, Myanmar on 30 September 2014. The goal of the ASCC is to contribute to realising an ASEAN community that is people-centred and socially responsible with a view to achieving an enduring solidarity and unity amongst the nations and peoples of ASEAN by forging a common identity and building a caring and sharing society, which is inclusive and harmonious, with the well-being, livelihood, and welfare of the people are enhanced.

To forge ahead its realisation, the ASCC Council implemented the ASCC Blueprint from 2009 to 2015, which is a set of activities intended to build capacity, harmonise, and integrate selected regional and national efforts in (i) social welfare and protection; (ii) health; (iii) education and human resource development; (iv) disaster risk reduction, management, and response; (v) green growth and climate change; and (vi) cultural diversity and the ASEAN identity. On 18 September 2014, the ASCC Council produced an inventory of these activities (ASEAN 2014b) as input to the 25th Summit Meeting in Bagan, Myanmar.

This paper reviews briefly the performance of the health initiatives within the ASEAN Blueprint 2009–2015, and along with other materials, use these for fleshing out the ASEAN Post-2015 Health Development Agenda. For this purpose, the paper is organised as follows: Section II reviews ASEAN's past performance on the ASCC Blueprint on Health. Section III proposes indicators and activities that can be considered for the ASEAN Vision for Health Post-2015. Based on these, Section IV proposes initiatives on how the vision can be achieved.

1.1. The ASCC Blueprint on Health

The ASCC Blueprint on Health, 2009–2015, consists of three strategic objectives: access to health care and promotion of healthy lifestyles (B4), improving capability to control communicable diseases (B5), and ensuring a drug-free ASEAN (B6). Within these strategic objectives are 46 discrete elements or activities classified according to the level of cooperation, the type of development cooperation, and the rate of completion. Table 1 summarises the status of the ASCC Blueprint.

Table 1: Status of the ASCC Blueprint on Health, as of 18 September 2014

Items	B4 (n=24)	B5 (n=13)	B6 (n=9)	Total (n=46)
Type of cooperation [a]				
• Confidence building	12	0	0	12
• Harmonisation	5	1	1	7
• Special assistance	21	10	5	36
• Joint efforts	12	12	7	31
• Regional integration and expansion	0	0	0	0
Type of development cooperation[b]				
• Formulation of regional policy initiative	0	0	0	0
• Development of regional implementation mechanism	12	12	2	26
• Human capacity building	20	9	6	35
• Type Not Available	2	0	1	3
Status				
• Completed	0	2	1	3
• Ongoing	23[c]	11	8	42
• Pending	0	0	0	0
• Status Not Available	1	0	0	1

Note : [a] This allows for multiple classifications.
[b] This allows for multiple classifications.
[c] Three sub-activities have been completed.
Source of basic data: ASCC (2014b).

A cursory review of the 33-page matrix summarising the status of these activities indicates the following:

1. The pace of implementation has been slow. Of the 43 activities, only three have been completed while 42 are still ongoing (two are overlapping).

2. The ASCC Blueprint, 2009–2015, clusters the strategies and activities into three: (i) access to health care and promotion of healthy lifestyle, with 24 elements; (ii) improving capability to control communicable diseases, with 13 elements; and (iii) ensuring a drug-free ASEAN, with nine elements. However, the Post-2015 Vision clusters the strategies and activities into four: (i) promoting healthy lifestyle, (ii) responding to all hazards and emerging threats, (iii) strengthening health systems and access to care, and (iv) ensuring food safety. Since a significant number of the activities are expected to continue after 2015, there is a need to re-cluster the pending and ongoing

ASCC Blueprint activities into the new post-2015 classifications so that they can be tracked together with the new proposed activities.

3. There has been less focus on activities of truly regional scope, significance, and impact. On the type of cooperation, there were no activities on regional integration and expansion, while only seven activities on harmonisation and 31 activities on joint efforts were listed. The overwhelming number of activities (36) are classified as special assistance, with a sprinkling (12) on confidence building. In the future, emphasis should be placed on harmonisation, regional integration, and joint efforts.

4. Related to the above, the demarcation line between national and regional activities tended to be murky. Given that many other institutions in the region are doing similar work, it may be useful for ASCC to focus on activities of truly regional orientation, significance, and impact. To achieve this, a better definition of 'regional' activity is called for, and such official definition should include specific criteria to be used.

5. The activities tended to grow incrementally and, therefore, tended to sprawl. While there were ongoing and repeated efforts to re-cluster activities of similar nature and objective, sub-activities tended to replicate loosely, leading to overlapping of topics. This may be due to a weak strategic framework or a weak classification system. To reduce overlaps and the frequent need to re-cluster proposals, it may be useful to simply follow the World Health Organization's (WHO) Six Building Blocks (governance, health financing, regulation, human resources, pharmaceuticals, and health information system) to organise activities.

6. Some of the activities are labelled broadly as to be of limited, practical use. Some look like initial placeholders of ideas to be formulated in the future. More concrete ideas are certainly called for, and to achieve this, a written concept note for each proposed idea should be required.

1.2. Performance Outcomes of the Blueprint on Health

1.2.1. Access to Health Care and Promotion of Healthy Lifestyles

This cluster covers as many as 14 topics/activities, as follows:

(1) Maternal and child health, as well as sexual and reproductive health, especially focusing on the youth;
(2) Access to health services;
(3) Migrants' health;
(4) ASEAN UHC Network, established in December 2012;
(5) Healthy lifestyle and behaviour change communication;
(6) Tobacco control and work plan;
(7) Traditional medicine (TM), the Bangkok Declaration on TM, and consumer protection in the use of TM;

(8) e-health;
(9) Mental health;
(10) Pharmaceutical development, pharmaceutical management capability, rational drug use, drug price control, access to essential drugs, and work plan;
(11) Retention of health workers;
(12) Knowledge sharing, public health policy formulation, and fellowship programmes;
(13) Public–private partnerships in health; and
(14) Health surveillance systems, including harmonisation of MCH data; ASEAN nutrition surveillance; non-communicable diseases (NCD) surveillance; indicators of healthy lifestyle; antimicrobial resistance (AMR) and drug resistance.

The long list reflects a wide variety of development issues with less concern for the ASCC Council's manageable interest. A more selective and strategic approach would have been more feasible. A tighter classification system also needs to be adopted for the activities.

1.2.2. Improving Capability to Control Communicable Diseases

This cluster covers as many as 10 activities, as follows:

(1) Emerging infectious diseases (EIDS) work plan; laboratory capacity, risk communication, animal health, human health, and field epidemiology training network; pandemic preparedness; coordination with other donors;
(2) Use of information technology (IT) in pandemic preparedness—such as geographic information system (GIS), global positioning system (GPS), worldwide interoperability for microwave access (WIMAX), global system for mobile communications (GSM), and short message service (SMS);
(3) Standards for outbreak investigation; laboratory capacity strengthening; stockpile of antivirals and personal protective equipment (PPE);
(4) HIV transmission: ASEAN commitment to 'Getting to Zero' HIV infection; universal access to treatment and prevention; HIV between spouses; HIV and gender;
(5) Access to affordable antiretroviral drugs (ARVs) and diagnostic reagents; drug quantification; negotiation with manufacturers;
(6) Second-generation HIV surveillance;
(7) Professional networking;
(8) Implications of water and sanitation and hygiene on infectious diseases;
(9) Contact tracing and quarantine in the event of pandemic; and
(10) Vaccine production as a possible area of cooperation.

The cluster correctly focused on EIDS, especially those with a regional (cross-country) dimension. However, the good ideas appear to have sputtered with time and lost steam,

probably as the epidemics they pertained to eased and were contained. In addition, the activities have had little integration with health systems issues.

1.2.3. Ensuring a Drug-Free ASEAN

This cluster covers the following five activities: (i) community-based drug prevention, awareness campaigns; (ii) substance abuse disorder, mental health task force with work plan; (iii) treatment and after care; (iv) drug research data; and (v) best practices in drug prevention, and demand reduction campaigns.

'Drug-free ASEAN' may have been ill-advised as it explicitly prohibits the use of risk-reduction strategies (e.g. needle-exchange programmes), which have been shown to work effectively in advanced countries. Later discussions, however, had correctly contextualised this area under a broader 'mental health issue'. Contemporary discussions and viewpoint are leaning toward the legalisation of marijuana for medical use, an issue that has bearing on this cluster. Finally, the trend in advanced countries is to decriminalise some of the drug-related 'crimes', so this shift in paradigm needs to be considered in future ASEAN deliberations about this issue.

2. The ASEAN Vision for Health Post-2015

The ASEAN health development post-2015 vision is a healthy, caring, and sustainable ASEAN community. The mission is to promote a healthy and caring ASEAN community where people achieve maximal health potential through healthy lifestyle, have universal access to quality health care and financial risk protection, have safe food and healthy diet, and live in a healthy environment with sustainable inclusive development where health is incorporated in all policies.

To operationalise this post-2015 vision, four clusters of health priorities have been identified namely, (i) promoting healthy lifestyle, (ii) responding to all hazards and emerging threats, (iii) strengthening health systems and access to care, and (iv) ensuring food safety. This paper covers (i), (iii), and (iv); cluster (ii) is covered under the paper of Dr Jacob Kumaresan (2015).

The guiding principles for ASEAN post-2015 health development agenda are accountability, proactive leadership, operational and resource efficiency, capacity building, and positioning the ASEAN in global health.

2.1. Thrusts of the ASEAN Vision Post 2015

The ASEAN Vision Post 2015 has three major thrusts: promoting healthy lifestyle, strengthening health systems and access to care, and ensuring food safety. This section explains the rationale of each thrust and the themes within them.

Promoting Healthy Lifestyle—The ASEAN Vision Post 2015 is aware of the expected changes in demography, disease pattern, urbanisation, and modernisation that are anticipated to mark the ASEAN's evolution into a middle- to high-income economy over the next 15 to 20 years. Toward this end, ASCC is proposing to adopt the following thematic priorities: (i) prevention and control of NCDs, (ii) reduction of tobacco consumption and harmful use of alcohol, (iii) prevention of injuries, (iv) promotion of occupational health, (v) promotion of mental health, (vi) promotion of healthy and active ageing, and (vii) promotion of good nutrition and healthy diet.

Strengthening Health Systems and Access to Care—As the ASEAN becomes more socioeconomically developed, the health systems in member countries inevitably will evolve. Both demand and supply aspects of care will change. The region will see dramatic changes in demographic and epidemiologic transition, urbanisation and population mobility, and technological advance in medicine. Increasing globalisation and medical tourism will also put a strain (and promise) on domestic health delivery systems. Meanwhile, work on critical public health interventions is not nearly over. Consequently, health authorities would be facing the double—perhaps triple—challenge of preventive/promotive care, curative care, and rehabilitative care. In response to such an eventuality, ASCC is proposing the adoption of the following thematic priorities: (i) universal health care; (ii) health care financing; (iii) pharmaceutical development; (iv) human resource development; (v) health-related Millennium Development Goals (MDGs); (vi) traditional medicine; and (vii) migrant's health.

Ensuring Food and Water Safety—As more households increasingly rely on manufactured and traded food rather than subsistence production, food safety becomes a paramount issue. However, even as more food becomes more traded, many households in the region continue not to have access to safe drinking water. To respond to these twin concerns, ASCC is proposing the adoption of these thematic priorities—food safety and potable water and sanitation.

2.2. Critique of the Thrusts and Thematic Priorities

The agenda as it is—as reflected in the three major thrusts and thematic priority areas—are already very challenging and comprehensive. Still, policymakers would also need to think of the following topics and themes that are underemphasised:

1. Governance and stewardship—The management of large public assets (such as government referral hospitals) and social programmes (such as health insurance funds) will become more important in the future, and the region needs new approaches in thinking about them. The governance of decentralised health systems also requires specific attention.

2. Health regulation—Health technology assessment will loom important in the future, requiring appropriate regulatory mechanisms.

3. Capital investments—The region needs new capital-investment approaches to build hospitals and clinics. Examples from more advanced countries should be considered, with appropriate customising.

4. Persistent geographic inequity—The health situation of indigenous peoples and others living in geographically isolated and depressed areas is particularly worrisome.

5. Health and climate change—This area requires special attention given the proneness of the region to hydrologic events (typhoons, flooding), which will become more pronounced and frequent in the future.

3. Formulation of Indicators and Targets

3.1. Consultation of Experts and Working Groups

Table 2 shows the sources of indicators based largely on experts' groups (EG) and technical working groups (TWG) meetings. For thematic areas without corresponding indicators, alternative indicators are suggested, as explained in this report.

Table 2: Sources of Indicators and Targets, by Thematic Area

Thematic areas	Date and place of TWG or Experts' Group Consultations	Source document
Prevention and control of non-communicable diseases	November 2011, Kuala Lumpur, Malaysia	Technical consultation (ASEAN/MOH Malaysia, 2011)
Reduction of tobacco consumption and harmful use of alcohol	November 2011, Kuala Lumpur, Malaysia	Technical consultation (ASEAN/MOH Malaysia, 2011)
Prevention of injuries	None	Adopted from ESCAP road safety indicators (Ha, 2009)
Occupational safety and health	April 2011, Vientiane, Lao PDR	ASEAN OSHNET Scorecard (Granadillos, n.d.)
Mental health	May 2012, Hanoi, Viet Nam	ATFMH (TBD)
Healthy and active ageing	None	Adopted from EU indicators (EU and UNECE, n.d.)
Good nutrition and healthy diet	November 2011, Kuala Lumpur, Malaysia	Technical consultation (ASEAN/MOH Malaysia, 2011)
Universal health coverage	None	WHO and WB (2014); ASEAN Plus Three (n.d.)
Health financing	None	None
Pharmaceutical development	SOMHD	ASEAN-NDI (2011)
Traditional medicine	n.a.	n.a.
Human resource development	None	None
MDGs	ASEAN MDG Roadmap, 2011	UN; ASEAN MDG Roadmap, 2011
Migrant health	November 2011, Bangkok, Thailand	ASEAN-JUNIMA High-Level Stakeholders Dialogue
Food safety	n.a.	n.a.
Water	2005	ASEAN Strategic Plan of Action on Water Resources Management (ASEAN, 2005)

Note: ASEAN = Association of Southeast Asian Nations (ASEAN); ATFMH = ASEAN Task Force on Mental Health; ESCAP = Economic and Social Commission for Asia and the Pacific; EU = European Union; MDG = Millennium Development Goal; MOH = Ministry of Health; n.a. = not applicable; n.d. = no date; NDI = Network for Drugs, Diagnostics, Vaccines, and Traditional Medicines Innovation; SOMHD = Senior Officials Meeting on Health and Development; TWG = technical working group; UN = United Nations; UNECE = United Nations Economic Commission for Europe.
Sources: This study, and based on relevant sources as indicated in the table.

3.2. Outcome Indicators of the ASCC Scorecard

In addition to the EG and TWG indicators, the 7th SOMHD Meeting in Cebu City, Philippines (ASEAN, 2012) also came up with the following indicators for the Senior Officials Committee on ASCC (SOCA) as part of the ASCC Scorecard: (i) national prevalence of HIV (by the ASEAN Task Force on AIDS), (ii) prevalence of tobacco use amongst adults and adolescents (by the ASEAN Task Force on Pharmaceuticals and Tobacco Control), (iii) number of public health centres or hospitals that integrate TM services (by the ASEAN Task Force on Traditional Medicine), (iv) infant mortality rate (by the ASEAN Task Force on Maternal and Child Health), (v) maternal mortality ratio (by the ASEAN Task Force on Maternal and Child Health), (vi) mortality rates on cardiovascular diseases (by the ASEAN Task Force on Non-Communicable Diseases), and (vii) proportion of activities in the work plan that have been completed (by the ASEAN Working Group on Pandemic Preparedness and Response).

This meeting also noted that the following groups will also propose their final indicators: (i) ASEAN Working Group on Pharmaceutical Development, (ii) ASEAN Experts Group on Food Safety, (iii) ASEAN Experts Group on Communicable Diseases, and (iv) ASEAN Mental Health Task Force.

3.3. Key Findings from the Review of Indicators

The specific indicators will be presented in the next chapters. However, it is necessary to provide an overview of these indicators.

1. The 16 areas covered are comprehensive and, therefore, the indicators sprawl. Almost all of the 16 thematic areas are cross-cutting and cross-sectoral items. In fact, some of the indicators probably need to be moved to other sectors, such as the following:
    a. Public works and highways (some aspects of road injuries);
    b. Agriculture (some aspects of food safety);
    c. Trade, industry, and manufacturing (some aspects of pharmaceutical development);
    d. Social protection (some aspects of social health insurance/ universal health care);
    e. Labour (some aspects of migrant health); and
    f. Water (all except those dealing with water safety and potability).

2. The indicators are of varying granularity. Some sectors have fine indicators on outcome while others have rougher indicators on activities. Many have mixed indicators.

3. The indicators of each sector need to be compared with existing international commitments of the ASEAN, with current global benchmarks and frameworks, and with other regional or national good practices.

4. Many of the indicators lack baseline data. In addition, there may be problems of standardisation of measurement across member countries. Adopting a common set of indicators, or retrofitting existing ones, may require significant investments in data gathering at the national level.

5. Some of the indicators are too technical (e.g. food safety), thus, reducing their potential utility as rallying points for support.

6. The number and range of indicators have to be assessed against ASEAN's manageable interest. What is the feasible number and scope of indicators that the ASEAN Secretariat can manage to monitor and evaluate periodically? What should be the demarcating line between national and regional indicators?

4. Status, Targets, and Challenges in Promoting Healthy Lifestyle in ASEAN

4.1. Prevention and Control of Non-Communicable Diseases

Status—The 66th WHO World Assembly provided the impetus for considering non-communicable diseases (NCDs) in the world. Since then, a Global Action Plan, 2013–2020 has been developed, linked with a global monitoring framework with 25 indicators and nine voluntary global targets (Sulaiman, 2013).According to one ASEAN Public Health Ministry, over 2.5 million people in ASEAN member countries die from NCDs each year (Samsamak, 2012).

Data on age-standardised mortality rates from NCDs in 2012 show that ASEAN member countries can be classified into three groups (Kumaresan, 2015):

(1) Low—Singapore with 264 deaths from NCD causes per 100,000 population;
(2) Medium—with Cambodia (394), Viet Nam (435), Thailand (449), Brunei Darussalam (475), and Malaysia (563); and
(3) High—with Lao PDR (680), Indonesia (680), Myanmar (709), and the Philippines (720).

Further analysis is needed to understand the correlation of NCD deaths with various socioeconomic and health system indicators in the region.

The regional meeting on NCDs in Kuala Lumpur, Malaysia on November 2011 produced data on the burden of cancer in the region. The same meeting also produced data on raised blood pressure as well as insufficient physical activity—risk factors associated with NCDs. The publication *Health at a Glance: Asia Pacific* (OECD, 2012) also contains indicators for selected ASEAN countries on mortality from cardiovascular diseases, cancers, and diabetes.

The Organisation for Economic Co-operation and Development's (OECD) publication (OECD, 2012) shows that in 2011, the prevalence of diabetes amongst adults 20–79 years old in ASEAN member countries was higher than the Asian average for such countries as the Philippines (10.0 percent of the population), Singapore (9.8 percent), Brunei (9.7 percent), and Thailand (7.7 percent). The ASEAN member countries with relatively lower diabetes incidence were Myanmar (7.2 percent), Indonesia (5.2 percent), Lao PDR (3.3 percent), Viet Nam (3.2 percent), and Cambodia (2.9 percent). The incidence of Type 1 diabetes amongst children 0–14 years old in 2011 is particularly high in the Philippines and Singapore. The number of diabetic people in the ASEAN is staggering: 7.3 million in Indonesia, 4.2 million in the Philippines, 4.0 million in Thailand, 2.1 million in Myanmar, and 1.7 million in Viet Nam.

Age-standardised mortality rates from cardiovascular disease in 2008 (the latest available) show the following: Lao PDR (412 per 100,000 population), Cambodia (360), Myanmar (355), Viet Nam (326), Indonesia (324), and the Philippines (314). The ASEAN member countries at the lower rung are Thailand (265), Malaysia (263), Brunei (218), and Singapore (135).

Globally, cancer accounts for 7.6 million deaths annually (Seffrin et al., 2009). In the ASEAN, countries with high estimates of cancer mortality rates (all types) in 2008 (latest available data) were Lao PDR (127 per 100,000 population), Indonesia (121), Myanmar (120), Singapore (116), and Viet Nam (114). The countries at the lower rung were Thailand (106), Malaysia (103), Brunei (97), and the Philippines (86) (OECD, 2014).

Targets—On 9 October 2013, the heads of states/governments of ASEAN member countries adopted the Bandar Seri Begawan Declaration on Non-Communicable Diseases in ASEAN, which committed them to reduce the burden of NCDs in the ASEAN post-2015 development agenda. Earlier on 21–23 November 2011 in Kuala Lumpur, Malaysia, the ASEAN hosted the technical consultation on indicators for NCDs and situational analysis on cancer data for the ASEAN region. This meeting produced the set of indicators shown in Table 3. The annex provides details on these indicators.

Table 3: Indicators for the Prevention and Control of NCDs in ASEAN Countries

Outcome indicators	
	Reduction in premature mortality from NCDs[a]
	Reduction in the prevalence of diabetes
Exposure indicator	
	Reduction in prevalence of raised blood pressure
Health system indicator: Prevention of heart attack/stroke and cancer in primary care	
	Provision of multi-drug therapy for people 30+ years with a 10-year risk of heart attack or stroke greater than 30%, or existing cardiovascular failure
	Scaling up of early detection of cancer, especially breast and cervical cancer amongst women, and liver cancer amongst children

Note : NCD = non-communicable disease.
[a] Mortality rates on cardiovascular diseases were suggested as indicators by the ASEAN Task Force on Non-Communicable Diseases (ATFNCD) during the 7th Senior Officials Meeting on Health and Development (SOMHD) Meeting in Cebu City, Philippines in 2012 for the Senior Officials Committee for ASCC (SOCA).
Source: ASEAN/MOH Malaysia (2011).

Challenges—Prevention and control of NCDs face the following challenges:

(1) Many aspects of NCDs lack baseline data.

(2) Most NCD drivers and risk factors lie outside the health sector, e.g. stress, sedentary lifestyle, poor diet and nutrition, food manufacture, congested living and working environments that do not encourage activity.

(3) NCDs are often perceived as diseases of the rich; this misperception needs to be countered.

(4) ASEAN has vastly differing levels of health systems development and funding availability, making it difficult to propose a 'one-size fits all' policy or programme on NCDs (Lim et al., 2014).

(5) NCDs are expensive to treat, and cost-effective approaches often involve promotion and prevention activities. Many ASEAN member countries, especially those with lower per capita incomes, do not have established programmes for NCD prevention and promotion of healthy lifestyle.

(6) Policy and programme managers dealing with NCDs can easily get trapped into undiscerning application of NCD control and management models from more advanced countries and health settings, which can be problematic to adopt (Lim et al., 2014).

4.2. Reduction of Tobacco Consumption and Harmful Use of Alcohol

Status—Unhealthy consumption of tobacco and alcohol is also included in the Global Action Plan for the Prevention and Control of NCDs. In the ASEAN, the percentage of male adults smoking daily in 2009 (latest data available) is very high in Indonesia (54 percent of male adult population), Lao PDR (43 percent), Malaysia (41 percent), Cambodia (40 percent),

Viet Nam (40 percent), Thailand (39 percent), and the Philippines (38 percent) (OECD, 2014). The countries at the lower rung are Myanmar (31 percent), Singapore (25 percent), and Brunei (22 percent). Current tobacco use amongst the male youth 13–15 years old is high (20 to 40 percent) especially in Indonesia, Malaysia, the Philippines, Thailand, and Myanmar.

Alcohol consumption for the adult population in 2008 (latest available data) is high in Thailand (6.1 percent of population 15 years old and over), Lao PDR (5.9 percent), and the Philippines (4.3 percent) (OECD, 2012). In the lower rung are the countries of Cambodia (2.2 percent), Singapore (1.8 percent), and Viet Nam (1.7 percent). Muslim countries (Malaysia, Brunei, and Indonesia) have low rates of adult alcohol consumption of less than 0.5 percent. Alcohol consumption is particularly a serious factor in drunk driving.

Targets—The same ASEAN technical consultation in Kuala Lumpur on 21–23November 2011 came up with the indicators for the reduction of tobacco consumption and harmful use of alcohol, and these are shown in Table 4.

Table 4: Indicators for the Reduction of Tobacco Consumption and Harmful Use of Alcohol in ASEAN Countries

Exposure indicators	
	Reduction in the prevalence of current daily smoking amongst persons 15+ years old.
	Reduction in per capita consumption of alcohol, and reduction in the prevalence of episodic drinking.
	Prevalence of tobacco use amongst adults and adolescents[a]

Note :[a] This indicator was suggested during the 7th SOMHD in Cebu City, Philippines in 2012 for the SOCA.
Source: ASEAN/MOH Malaysia (2011).

Challenges—The control of tobacco smoking and alcohol consumption faces the following challenges:

(1) An ASEAN-wide database on tobacco smoking and alcohol use need to be established. In the future, a common household survey on consumption and use should be considered.

(2) No periodically updated regional information exists on the status of policies on anti-smoking and alcohol consumption.

(3) The key interventions in this area lie outside the health sector (local government ordinances on smoking and sale of alcohol, school administration rules on student smoking and sale of alcohol, labelling by manufacturers of harmful substances, regulation of the retailing of harmful substances) and would require multisectoral action.

(4) Smoking and alcohol use amongst the young is particularly challenging.

(5) Prevention programmes go against large commercial interests (tobacco and alcohol manufacturers and retailers).

4.3. Prevention of Injuries

Status—As a health issue, injuries cover a wide range of concerns, including drowning, falls, fires, motor vehicles, sports, interpersonal violence, youth violence, suicide, and child maltreatment (Doll, Bonzo, Mercy, and Sleet, 2007). Little international literature exists on the prevalence of injuries especially in developing and emerging economies, but the United Nations Children's Fund (UNICEF) has published a global report on childhood injuries (UNICEF, 2012). The WHO's 'Global Burden of Disease' study includes mortality from injuries in selected ASEAN member countries.

Amongst injuries, road accident injuries appear to be the most prevalent and impose the highest economic costs on society (Sigua and Palmiano, 2005). Moreover, the ADB-ASEAN 'Alive Arrive' project found that the scale, characteristics, and costs of road-related accidents are much bigger and more urgent than originally thought (ADB-ASEAN, 2005). Road safety is also an area where cost-effective interventions have been identified and evaluated (Dellinger, Sleet, Shults, and Rinehart, 2007). Thus, road safety deserves serious official action. Road accidents in Southeast Asia are markedly different from those in advanced countries in that fatalities often involve not the drivers but the vulnerable users of roads (as high as 80% in Thailand), hence, the impact is often on the poor and the young (Ha, 2009).

Targets—The ASEAN does not have an experts group or task force devoted to injuries. It does not have a strategy or work plan for the prevention of injuries. However, there have been analytical efforts in specific injury-reducing areas, the most highly developed of which is road safety (ESCAP, 2009; Ha, 2009; Mohanty, 2009, Sigua and Palmiano, 2005; Al Haji, 2005). From 2005 to 2010, the ASEAN and the Asian Development Bank (ADB) collaborated on a Regional Road Safety Strategy and Action Plan, but this has not been followed with a similar effort. In view of the absence of ASEAN-specific indicators, it is proposed that the ESCAP road safety goals, targets, and indicators (Ha, 2009) be used as model, as shown in Table 5. The details of these indicators are shown in the annex.

Table 5: Indicators for the Prevention of Road Accident Injuries in ASEAN Countries

Outcome indicators	
	Reduction in fatality rate from road accidents.
	Reduction in serious road injuries from road accidents.
	Reduction in pedestrian death rate from road accidents.
Process indicators	
	Increased number of safe road crossings for pedestrians.
	Wearing of helmets made mandatory.
	Alcohol testing for drunk driving allowed.
	Increased coverage of emergency assistance programmes for road accident victims.
	School children educated on road safety.
Policy indicators	
	Road safety policy/strategy, and designation of lead agency for its formulation and implementation.
	Inclusion of road safety audit in road planning and development.

Source: Ha (2009).

Challenges—Reducing road accident injuries faces the following challenges:

(1) Except for a couple of more affluent member states, road accident data in the ASEAN are generally poor and often non-standardised, and road fatality rates can be subject to serious selection bias or underreporting (Ha, 2009).
(2) ASEAN member countries' policies on road safety are not uniform or standardised.
(3) The key interventions in this area are outside the health sector (road standards; construction; and maintenance that promote safety, traffic management, and drivers' and pedestrians' education).
(4) Increasing wealth in the region is leading to increasing motorisation; little analysis exists at present on the optimal vehicle mix.
(5) The current emphasis at present is on the status quo, rather than a change in paradigm toward 'liveable cities', i.e. less private motorisation, greater role of public transport.

4.4. Occupational Health

Status—In 1984, the first ASEAN Labor Technical Working Group first proposed occupational safety and health (OSH) as a key area to focus on. This was followed in 1996 by a workshop proposing to set up an ASEAN Training Center for the Improvement of Working Conditions. In 2000, the ASEAN OSHNET was created, which has been working until today (Basri, 2013). Most of the network's work has focused on training, capacity building (Basri, 2013), labour inspections in individual countries, and documenting good OSH practices (Qun

and Kawakami, 2008). However, data have not been available at a regional level on the status of occupational health in the region.

Targets—In April 2011, the ASEAN-OSHNET Secretariat's regional OSH workshop in Vientiane, Lao PDR resolved to develop the ASEAN-OSHNET Scorecard for benchmarking across ASEAN Plus Three countries (Granadillos, n.d.). Table 6 shows indicators that were formulated in 2011. Earlier, the Western Pacific Region Office of WHO (2006) has also developed a regional framework for action on occupational health, 2006–2010, with specific indicators. However, numerical achievements are not available.

Table 6: Indicators for the Promotion of Occupational Health in ASEAN Countries

Outcome indicators	
	Fatality rate or accident/injury rate Economic losses due to accidents
Process indicators: OSH inspection	
	Number of OSH inspections conducted Number of OSH inspectors Percentage of enterprises implementing the OSH management system
Process indicators: OSH training	
	Number/percentage of workers trained Number of safety professionals
Policy and system indicators	
	Coverage of OSH legislations Involvement of employer associations, unions, professional associations, tertiary bodies in OSH promotion and training Research capabilities and number of research projects carried out

Note: OSH = occupational safety and health.
Source: Basri (2013).

Challenges—The challenges facing OSH in the ASEAN involve the following:

(1) The ASEAN OSHNET is already organised and functional, so the key challenge is how it can be made to be fully operational and sustainable.
(2) Some countries in the region lack adequate resources to conduct OSH training and inspections, especially on small and medium enterprises.
(3) Most of the required OSH interventions are the purview of the labour sector and outside of health.
(4) Production sectors in the ASEAN are increasingly becoming more sophisticated, which also leads to increasing sophistication of OSH standards and training.

(5) The major challenge is how to incentivise good OSH practices in work sites, for both factory owners and workers.

4.5. Mental Health

Status—As reported by OECD (2012), the burden of mental illness in the Asia/Pacific Region, specifically in Southeast Asia, is high. For instance, depression is the second leading cause of disease in the Western Pacific Region accounting for 15.2 million lost in disability adjusted life years (DALYs), and second only to stroke. In Southeast Asia, depression is the fourth leading cause of disease, accounting for 21.1 million DALYs per year. If a broader definition were used—which includes unipolar and bipolar affective disorders, schizophrenia, alcohol and drug use, post-traumatic stress disorder, obsessive–compulsive disorder, and panic disorder—then mental illnesses would account for 36.6 million DALYs in the Western Pacific Region and 39.5 million in the Southeast Asia region. No ASEAN-specific data are readily available.

For suicide, age-standardised mortality rates per 100,000 population in 2012 in the ASEAN range from four low countries (Philippines, 2.9; Malaysia, 3.0; and Viet Nam, 5.0), to four medium countries (Brunei, 6.4; Singapore, 7.4; Lao PDR, 8.8; and Cambodia, 9.4), to two high countries (Myanmar, 13.0; Thailand, 13.0) (Kumaresan, 2015). No analysis is available to explain these rates and the variance between countries.

Targets—The identification of ASEAN outcome indicators on mental health was led by Malaysia and Thailand (Mongkol, 2013).The outcome indicators on ASEAN mental health were developed at the 1st ASEAN Mental Health Task Force in Hanoi, Viet Nam. During the first meeting of the ASEAN Mental Health Task Force on May 23–25, 2012 in Hanoi, Viet Nam, the following indicators were submitted to the ASEAN Task Force on Mental Health for endorsement of the SOMHD (ASEAN, 2012), as shown in Table 7.

Table 7: Indicators for Mental Health in ASEAN Countries

Outcome indicators: Mental health of the population	
	Suicide rate (population based)
	Psychosis treatment rate (facility based)
Policy indicators: Proportion of mental health budget to gross domestic product	
	Mental health overall
	Mental hospitals
	Psychiatric units in general hospitals
	Mental health services in primary care
	Public mental health (prevention of mental problems and promotion of mental health)

Source: ASEAN (2012).

Challenges—Mental health is expected to face the following challenges in the region:

(1) Ageing, industrialisation, and urbanisation tend to increase the prevalence of mental health problems. As these trends seem inevitable, mental health problems are expected to increase n prevalence.

(2) There is a wide variation in mental health practices and health-system responses across the ASEAN.

(3) Mental health data are generally in poor state, e.g. they are not aggregated, they are not collected regularly, and the definitions vary across settings health care settings and countries

(4) Mental health remains highly stigmatised, leading to downward bias of prevalence and treatment estimates.

(5) Mental health care remains heavily hospital-centric, and little is being done in primary and community-based care (prevention).

(6) Few countrywide good mental health practices have been documented, while many of the good practices are 'culture-laden'.

(7) The quality of mental health is a major issue in the Western Pacific Region and in Southeast Asian Region of WHO. According to the OECD (2012), 'Given that the mentally unwell patient may not always be competent to determine his or her choices regarding treatment, the dimensions of patient centeredness and safety become acutely important'.

4.6. Healthy and Active Ageing

Status—The Second World Assembly on Ageing was held in Madrid in 2002 and identified three priority areas in the so-called Madrid Plan—development, health and well-being, and supportive environments. Nearly a decade later, the UNFPA produced a report on

'Ageing in the Twenty First Century: A Celebration and a Challenge' (UNFPA and Help Age International, n.d.), which analysed the current situation of older persons in the world. The report focuses on the following key areas of urgent concern for older people: income security, access to quality health care, and age-friendly physical environments that encourage active ageing. Health ageing is a new field in the ASEAN, and no report has been prepared on this development issue.

Targets—In the ASEAN, the agenda for healthy and active ageing has been discussed largely under the ASEAN Plus Three meetings, led by Japan (OIC, 2014). The Report of the Study Group for Japan's International Contribution to 'Active Aging' (MHLW Japan, 2014) identifies eight areas for active ageing in ASEAN that need priority support: (i) formulation of mid- to long-term national strategies to respond to ageing, (ii) development of social security systems, (iii) NCD countermeasures, (iv) establishment and regulation of facilities for the elderly, (v) development of home services and expansion of local resources, (vi) social participation of the elderly, (vii) empowerment and development of human resources, and (viii) establishment of social statistics on the ageing society. The report, however, fell short of coming up with indicators that can be used to measure the region's and each country's progress on active ageing.

Amongst regions, the European Union appears to have the best-established and comprehensive indicators on active ageing, covering four domains: (i) employment, with four indicators; (ii) participation in society, with four indicators; (iii) independent, secure, and healthy living, with eight indicators; and (iv) capacity and enabling environment for active and healthy ageing, with eight indicators. The health-related indicators that can be used in the ASEAN post-2015 context are shown in Table 8.

Table 8: Indicators for Healthy and Active Ageing in ASEAN Countries

Outcome indicators: Participation in society—Care for older adults	
	Percentage of population aged 55+ providing care to elderly or disabled relatives at least once a week
Outcome indicators: Independent, healthy, and secure living	
	Physical exercise—Percentage of the population aged 55+ who engage in physical activity and sports at least five times a week Access to health and dental care—Percentage of the population aged 55+ who report no unmet need for medical and dental examination
Outcome indicators: Capacity and enabling environment for active and healthy ageing	
	Share of healthy life years in the remaining life expectancy at age 55 Mental well-being for population aged 55+ using WHO's ICD-10 measurement

ICD = international classification of diseases.
Source: Adapted from UNECE (n.d.).

Challenges—Key challenges in the pursuit of active ageing in the ASEAN include the following:

(1) Baseline data on active ageing are lacking.
(2) There is no common agreement on nomenclature of active ageing.
(3) Analytical studies on healthy ageing and geriatric health in the region are scarce.
(4) Very few documented and impact-evaluated practices exist on active ageing on a mass scale.

4.7.Good Nutrition and Healthy Diet

Status—As ASEAN countries experience rapid economic growth and lower mortality rate, they also experience demographic and epidemiologic transition. Part of this transition is manifested in the increased proportion of the population showing risk factors for NCDs, such as being overweight or obese. The ASEAN countries that show higher rates of overweight population (BMI is greater than or equal to 25) are Singapore (22% for females and 34% for males), the Philippines (27% for females and 21% for males), Thailand (34% for females and 23% for males), and Malaysia (51% for females and 45% for males) (OECD, 2012). The other countries show much lower overweight rates, such as Viet Nam (6% females, 4% males); Cambodia (10% for females, n.a. for males); Lao PDR (14% for females, 6% for males), and Indonesia (18% for females, 8% for males). Other indicators of good nutrition and healthy diet (e.g. salt intake, eating balanced diet) are not readily available.

Targets—The technical consultation on NCDs in Kuala Lumpur in November 2011 also came up with the indicators for good nutrition and healthy diet, and these are shown in Table 9.

Table 9: Indicators and Targets for Good Nutrition and Healthy Diet in ASEAN Countries

Exposure indicator: Reduce dietary salt intake	
	Reduction of mean population intake of salt to < 5 grams per day.
Exposure indicator: Halt the rise in obesity	
	Reduction of the prevalence of obesity amongst persons aged 25+ years. Reduction of the prevalence of physical inactivity amongst persons aged 25+ years.
Policy indicators: Reduce dietary risks	
	Total elimination of partially hydrogenated vegetable oil from the food supply by 2020. No marketing of foods high in saturated fats, trans-fatty acids, free sugars, or salt to children. Enforcement mechanisms that restrict the marketing of foods high in saturated fats, trans-fatty acids, free sugars, or salt to children.

Source: ASEAN/MOH Malaysia (2011).

Challenges—The major challenges to be faced in achieving good nutrition and healthy diets in the region are the following:

(1) Nutrition data may exist in ASEAN member countries but they need to be consolidated.

(2) Most interventions are outside the health sector (school cafeterias and canteens, food supply chain, food processing/manufacturing, advertising, behaviour change communication, and local government ordinances on food outlets).

(3) Poverty and poor food information remain as a major constraint to good nutrition and healthy diet in the region.

(4) Western diets and lifestyles, supported by pervasive advertising, lure many ASEAN households.

5. Status, Targets, and Challenges in Strengthening Health Systems and Access to Care in ASEAN

5.1. Universal Health Coverage

Status—Universal health care (UHC) as a regional priority gained momentum when the health ministers in the region committed to its achievement in a meeting in Bangkok in 2013. Minh et al. (2014) reviewed the progress toward UHC in the ASEAN. The ASEAN Plus Three UHC Network (2014) also provided a status update. The private sector in the ASEAN has also held a forum on UHC and produced a preliminary paper (Accenture, 2013).

Targets—ASEAN has not developed its indicators and targets for UHC. However, the WHO and the World Bank have developed a set of indicators (WHO and WB, 2014) which can be used as a model for the ASEAN, and this is reflected in Table 10.

Table 10: Indicators for Universal Health Care in ASEAN Countries

Outcome indicator or goal: All ASEAN citizens to obtain the good-quality essential health services they need without enduring financial hardships.	
	By 2030, all populations, independent of household income, expenditure, or wealth, place of residence or gender, have at least 80% essential health services coverage.
	By 2030, everyone has 100% financial protection from out-of-pocket (OOP) payments
Health service coverage indicator: Prevention	
	Aggregate: Coverage with a set of tracer interventions for prevention services.
	Equity: A measure of prevention service coverage as described above, stratified by wealth quintile, place of residence, and gender.
Health service coverage indicator: Treatment	
	Aggregate: Coverage with a set of tracer interventions for treatment services.
	Equity: Measure of treatment service coverage as described above, stratified by wealth quintile, place of residence, and gender.
Financial protection coverage indicator: Impoverishing expenditure	
	Aggregate: Fraction of the population protected against impoverishment by OOP health expenditures, comprising two types of household: (i) families already below the poverty line on the basis of their consumption and who incur OOP health expenditures that push them deeper into poverty, and (ii) families for which OOP pushes them below the poverty line.
	Equity: Fraction of households protected against impoverishment or further impoverishment by OOP health expenditures, stratified by wealth quintile, place of residence, and gender.
Financial protection coverage indicator: Catastrophic expenditure	
	Aggregate: Fraction of households protected from incurring catastrophic OOP expenditure.
	Equity: Fraction of households protected from incurring catastrophic OOP health expenditure stratified by wealth quintile, place of residence, and gender.

Source: WHO and WB (2014).

Challenges—The key challenges for UHC in the ASEAN are as follows:

(1) Current strong political commitment across the region can change with change in political administration; there is a need for a continuing vigilant advocacy for UHC.
(2) Some countries have achieved financial adequacy (Singapore, Thailand), but others have not. There is a need to focus on resource mobilisation (sin taxes, increased membership in risk-pools, and other revenue sources).
(3) Out-of-pocket spending remains high.
(4) Most ASEAN member states face serious supply-side constraints, especially inadequate and poorly distributed health facilities and health workers (Minh et al., 2014).
(5) The ongoing demographic and epidemiological transition is leading to double and triple burden of diseases (public health for communicable diseases + hospital care for NCDs + rehabilitative care).

(6) New skills and institutional capacities are needed as UHC in the region evolves. These include skills in benefits planning, health regulation, actuarial science, and information technology/medical informatics).

5.2. Health Care Financing

Status—Health care financing indicators are now well established in the ASEAN owing to various efforts to promote national health accounting. The ASEAN Plus Three UHC Network (2014) is an initial attempt to synthesise key findings on health expenditures in the region. Amongst ASEAN member countries, 2011 data show the following (Kumaresan, 2015):

- Total expenditures on health as percent of gross domestic product (GDP)—This varies from 2.0–3.0 percent (Myanmar, Brunei, Lao PDR, Indonesia) to 3.5–4.5 percent (Malaysia, Thailand, Philippines), to 5.5–7.0 percent (Cambodia and Viet Nam). In general, total health expenditure (THE) as a proportion of GDP has been on the uptrend in the region.

- General government expenditures on health as percent of total expenditures on health—This varies from 1.5 percent (Myanmar), to around 6 percent (Brunei, Cambodia, Indonesia, Lao PDR, Malaysia), to 9–15 percent (Singapore, Philippines, Thailand, Viet Nam). Except for Myanmar, in general, there has been a positive trend of increasing government expenditures in health.

- Out-of-pocket (OOP) expenditures on health as percent of private expenditures on health—This varies from 56 percent (Thailand), to 75–85 percent (Cambodia, Indonesia, Lao PDR, Malaysia, Philippines, and Viet Nam), to as high as 90 percent (Brunei, Myanmar, Singapore). A major concern amongst ASEAN member countries is the continuing large proportion of OOP expenditures in health.

Targets—Despite the availability of data, the ASEAN has not formulated indicators and targets on health financing. Table 11 shows an illustrative list of indicators that can be considered.

Table 11: Indicators for Health Financing in ASEAN Countries

Total health expenditures (THE)	
	THE as percent of gross domestic product (GDP)
	Per capita THE
	Social health insurance as percent of THE
Government health expenditures (GHE)	
	GHE as percent of THE
	GHE as percent of total government expenditures
	Per capita GHE
Private health expenditures (PHE)	
	PHE as percent of THE
	Per capita PHE
Household health expenditures (HHE)	
	HHE as percent of THE

Source: Author, based on this study.

Challenges—Health care financing faces the following challenges:

(1) While national health accounting has been well established in the region, its frequency still leaves much to be desired. Ideally, national health accounting should be done annually, but in many cases, it is done once every three or four years.

(2) Inter-country analyses of key health expenditure indicators are lacking; analyses of health expenditures relative to health outcomes are also lacking.

(3) Region-specific health expenditure benchmarks have not been established.

(4) Very few specialists are adept with national health accounting.

5.3. Pharmaceutical Development

Status—Pharmaceutical development is a very wide area, which straddles the health sector and the trade and industry sectors. In June 2013, the ASEAN-Network for Drugs, Diagnostics, Vaccines and Traditional Medicine Innovation (ASEAN-NDI) issued its Strategic Business Plan, laying out its proposed strategies, governance structure, and scope of work. The goal of the ASEAN-NDI is to build a regional health research and development innovation network (Montoya et al., 2014).

In terms of pharmaceutical expenditure, the available 2009 data show the following:

- Pharmaceutical expenditure per capita (US$ purchasing power parity or PPP)—The high spenders are Singapore, US$369; Brunei, US$337; Thailand, US$144; and Viet Nam, US$104. The medium spenders are Malaysia, US$55 and the Philippines, US$47; while the low spenders are Lao PDR, US$21; Cambodia, US$19; Indonesia, US$18; and Myanmar, US$16.

- Pharmaceutical expenditure as a share of total health expenditure—Countries with high share include Viet Nam with 50.9 percent, Myanmar at 45.8 percent, Thailand at 44.1 percent, and the Philippines at 35.4 percent. Countries with medium share are the Lao PDR with 22.4 percent, Brunei at 22.2 percent, Indonesia at 17.8 percent, Singapore at 17.5 percent, and Cambodia at 15.8 percent. Malaysia's share is low at 8.8 percent.

In terms of pharmaceutical consumption, the only readily available information is the availability of selected generic medicines. In 2009, generic medicines were available in only 15.4 percent of public health facilities in the Philippines, 25.0 percent in Malaysia, 65.5 percent in Indonesia, and 75.0 percent in Thailand (Kumaresan, 2015).

Targets—Most of the ASEAN-NDI's work is upstream innovation and, therefore, its indicators do not cover downstream outcome indicators pertaining to drug consumption. To deal with this gap, the 28th ASEAN Working Group on Pharmaceutical Development meeting in December 2012 in Bandar Seri Begawan, Brunei came up with appropriate indicators, and these were reported in the 8th SOMHD in Singapore (ASEAN SOMHD, 2013), as shown in Table 12.

Table 12: Indicators for Pharmaceutical Development in ASEAN Countries

Outcome indicator: Use of antibiotics	
	Number of antibiotics dispensed over the counter without a prescription.
Policy indicator: National medicines policy (NMP) and implementation mechanism in place	
	NMP official document exists, with the latest year of revision indicated.
	NMP implementation plan exists, with the latest year of revision indicated.
	NMP implementation regularly monitored and assessed.
	Essential medicines list updated in the last five years[a]
Process indicators: Licensing and inspection	
	Legal provision exists permitting inspectors to inspect premises where pharmaceutical activities are performed.
	Legal provision exists requiring manufacturers, wholesalers, distributors, and dispensers to be licensed.

Note: [a] The SOMHD endorsed this indicator to be submitted to SOCA for monitoring with the revision of 'for the last three years' instead of 'for the last five years'.
Source: 8th SOMHD, Singapore.

Challenges—The key challenges in this area are the following:

(1) Baseline data are lacking on pharmaceutical consumption, pricing, production, and importation.

(2) The proposed indicators above miss the aspect of pharmaceutical quality, which is an important issue in the region (Nguyen et al., 2012).
(3) There is a need for regular monitoring reports on the progress of policy and regulatory implementation.
(4) Very few studies exist on pharmaceutical availability and quality, and impact on a macro health.

5.4.Traditional Medicine

Status—Traditional medicine (TM) is an important area in the region. In the past, much work focused on the harmonisation of traditional medicines and health supplements (HSA, 2014a), ever since pharmaceutical harmonisation was proposed in 1999. A proposed ASEAN Agreement on Traditional Medicines and ASEAN Agreements on Health Supplements was under public consultation as of the end of 2014 (HSA, 2014b).

Targets—ASEAN has not come up with indicators and targets in this area. However, the most important factors to consider, from the point of view of ultimate use and outcome, seem to be that of safety and efficacy, quality, and rational use (Sia, 2012) (Table 13).

Several tasks and technical specifications have been identified pertaining to the (i) negative list of substances for TM; (ii) use of additives and excipients; (iii) limits of contaminants; (iv) microbial contamination, e.g. transmissible spongiform encephalopathies; (v) stability and shelf-life; (vi) safety substantiation; (vii) claims substantiation; (viii) good manufacturing practices; (ix) labelling requirements; and (x) establishing maximum levels of vitamins and minerals in health supplements (HSA, 2014).

Table 13: Indicators for Traditional Medicine in ASEAN Countries

Outcome indicator	
	Rational use of TM and supplements
Process indicators	
	Safety and efficacy of TM and supplements
	Number of public health centres or hospitals that integrate TM services[a]
Quality indicator	
	Quality of TM and supplements

Note :TM = traditional medicine.
[a] This indicator was suggested by the ASEAN Task Force on Traditional Medicine during the 7th SOMHD Meeting in Cebu City, Philippines in 2012 for the Senior Officials Committee for ASCC (SOCA).
Sources: Sia (2014); HSA (2014b).

Challenges—The region faces the following challenges in this area:

(1) A key task is how to strengthen the implementation of the agreed-upon regulatory framework for TM in the ASEAN. There are turf issues: Is TM under food or drugs? What type of regulatory tool is appropriate (notification or regulation?)? What are the risks of an overly restrictive regulation? What is the institutional capacity of existing regulatory bodies (food and drugs administration) to implement ASEAN agreements on TM?
(2) As the harmonisation programme on TM across ASEAN gets completed, there will be an increasing need for—and costs of—inspections. The key challenge is how to avoid duplication of inspection activities in ASEAN member states (Haq, n.d.).
(3) Will the evidence of good manufacturing practices be acceptable across member states? How will the mutual recognition arrangements for inspections on good manufacturing practices of TMs be implemented? Is there political will to make mutual recognition agreements on TM real? (Haq, n.d.).
(4) Baseline data on the consumption of TM and supplements is lacking, as do the standards on 'rational use' of TM. TM impact assessments (economic, social, or consumer impact) are also scarce, and there is a need to conduct TM studies across countries.

5.5.Human Resource Development

Status—Human resource development (HRD) under the ASEAN Vision covers professional health workers. Initial assessments have been done at country level on HRD for health for some countries (notably the Asia Pacific Observatory's 'Health in Transitions' series), and work on mutual recognition agreements for the different health professions (e.g. curricular requirements, professional licensing, scopes of professional practice) are ongoing. Capacity needs assessments for certain critical workers (e.g. skilled birth attendants) are also ongoing. It is hoped that these assessments can point to more South-to-South (or intra-region) cooperation on HRD. WHO (2014), in cooperation with the Migration Policy Institute, has also developed the Code of Practice on the Migration of Health Workers, and the Code can be adopted by ASEAN member countries in dealing with intra-ASEAN migration of health professionals.

On a broader front, the HRD for all workers in the region have been taken up in four previous declarations, namely, the Jakarta Framework, the Tokyo Declaration,[2] the ASEAN–Japan Plan of Action, and the ASEAN–Japan Cooperation Initiatives on Human Capital and Innovation (Sabhashri, n.d.). These agreements cover a wide range of concerns including (i)

[2] Tokyo Declaration for the Dynamic and Enduring Japan-ASEAN Partnership in the New Millennium, 2003.

human capital (workers' productivity, labour market improvement), (ii) innovation (technological development, absorptive capacity for new technology, science and engineering knowledge, research and development), (iii) harmonisation (mutual recognition agreements and regulations), and (iv) related measures (migration, connectivity, financial support). Some of the concepts and ideas in these declarations are also relevant to health workers, although it is not clear how much of these have been taken up by the SOMHD.

In terms of availability of key health professionals, the density per 10,000 population (2006–2013) is shown below (Kumaresan, 2015). It is clear that the availability of professional health workers is associated with the economic status and population size of the ASEAN member states.

- Physicians—High rates for Singapore (19.2), Brunei (15.0), Malaysia (12.0), and Viet Nam (11.6); medium rates for the Republic of the Union of Myanmar (6.1) and Thailand (3.9); low rates for Indonesia (2.0), Cambodia (2.3), and Lao PDR (1.8).

- Nurses—High rates for Singapore (63.9), Brunei (77.3), and Malaysia (32.8); medium rates for Thailand (20.8), Indonesia (13.8), Viet Nam (11.4), Republic of the Union of Myanmar (10.0); and low rates for Lao PDR (8.8) and Cambodia (7.9).

Targets—No indicators have been developed for health HRD. Table 14 provides illustrative indicators that can be considered.

Table 14: Indicators and Targets for Human Resource Development in ASEAN Countries

Availability indicators	
	Number of physicians per 10,000 population
	Number of nurses per 10,000 population
	Number of skilled birth attendants per 10,000 population
	Distribution of professional health workers across regions
	Distribution of professional health workers by urban and rural location

Source: Based on this study.

Challenges—The availability of professional health workers remains a serious problem especially for the poorer ASEAN member countries. Moreover, the poor distribution of these workers across areas within each country is well known, and had not been adequately addressed. The low pay scale of government health workers is a long-standing issue, especially in large countries such as Indonesia and the Philippines where each pay increase translates to large budgetary outlay. Shortage of key personnel (especially field epidemiologists) has also loomed in light of emerging infectious diseases. It also appears that new technologies (IT) have

yet to be exploited in the region's health sectors (telehealth, teleradiology, monitoring), despite their being shown to be cost-effective in addressing health-worker shortage in remote areas.

5.6.Health-Related Millennium Development Goals

Status—The problems of maternal and child health, as well as infectious diseases, continue to be serious in the region. Infant mortality rates have declined significantly in all ASEAN countries. However, variance in infant mortality rates across the region remains high; in 2012, it ranged from 2 per 1,000 live births in Singapore, 7 in Brunei and Malaysia, 11 in Thailand, and 18 in Viet Nam, to as high as 54 in Lao PDR, 34 in Cambodia, 26 in Indonesia, and 24 in the Philippines (Kumaresan, 2015). Significant reductions have also been achieved in under-5 mortality rate (U5MR) in the region, but cross-country variation also persists, from 3 per 1,000 live births in Singapore and 8 in Brunei, to as high as 72 in Lao PDR and 52 in the Republic of the Union of Myanmar.

Reduction in maternal mortality ratio (MMR) has been more difficult to achieve, persisting at 100+ maternal deaths per 100,000 live births for such countries as Cambodia (170), Indonesia (190), Lao PDR (220), Republic of the Union of Myanmar (200), and the Philippines (120) (Kumaresan, 2015). In these countries, a much more vigorous effort is needed to provide quality care for pregnant women before, during, and after childbirth.

A review by Acuin et al. (2011) concludes that although maternal, neonatal, and child mortality indicators are declining in the region, there are still major disparities across areas and socioeconomic groups, and greater equity is needed to achieve MDG #4 and #5. Child stunting also remains a lingering problem (Bloem et al., 2013), hence, requiring government action to strengthen the social safety nets and to promote health food choices especially amongst the poor.

ASEAN member countries continue have low prevalence of HIV/AIDS, but mortality rate per 100,000 population is rising in some countries, morbidity rate per 100,000 population is rising in Indonesia, while incidence is rising notably in the Philippines. For malaria, intense transmission is occurring in the Republic of the Union of Myanmar and Indonesia, and drug-resistant strains may be showing up (Kumaresan, 2015). On tuberculosis, mortality has declined in all ASEAN member countries, but morbidity rate per 100,000 population (incidence) remains very high in Cambodia (411), Indonesia (185), Lao PDR (204), Myanmar (377), Philippines (265), and Viet Nam (147).

Targets—Table 15 shows the original MDG indicators and targets. However, the targets have not been updated to 2020 or any year beyond 2015. In 2011, the ASEAN developed a road map (ASEAN, 2011) for attaining the health MDGs (#4, #5, and #6) as well as water MDG (#7) by 2015. The road map covers five key factors necessary to achieve the health MDGs, including advocacy and linkages, knowledge management, resource mobilisation, expertise and institutional strengthening, and regional cooperation. Key elements in this road map are the (i) heightened mainstreaming of gender, (ii) involvement of civil society in actions to achieve MDGs, and (iii) inclusion of qualitative dimensions in MDG indicators specifically on reproductive health and water quality. In addition, the ASEAN Task Force on Maternal and Child Health also indicated the need to harmonise national data, and to include the newborn, in addition to mothers and children under 5.

Table 15: Indicators for Health-Related MDGs in ASEAN Countries

Outcome indicator: Reduce child mortality	
	Reduce by two-thirds the mortality of children under 5 by 2015.[a]
Outcome indicator: Improve maternal health	
	Reduce maternal mortality by three-fourths by 2015.[b]
	Achieve universal access to reproductive health by 2015.
Outcome indicators: Combat HIV/AIDS, malaria, and other diseases	
	Halt and reverse the spread of HIV/AIDS by 2015.[c]
	Achieve, by 2010, universal access to treatment for all those who need it.
	Halt and reverse the incidence of malaria and other diseases by 2015.
Outcome indicator: Ensure environmental sustainability	
	Halve the proportion of people without access to safe drinking water and access to sanitation by 2015.

Note: [a] Infant mortality rate was suggested as an indicator by the ATFMCH during the 7th SOMHD Meeting in Cebu City, Philippines in 2012 for the SOCA.
[b] Maternal mortality ration was suggested as an indicator by the AFTMCH during the 7th SOMHD Meeting in Cebu City, Philippines in 2012 for the SOCA.
[c] AFTOA has recommended 'national prevalence of HIV' at the 7th SOMHD meeting in Cebu City, Philippines in 2012 for the SOCA.
Source: www.un.org Millennium Development Goals.

Challenges—The key challenges in this area are as follows:

(1) The indicators need to be updated to 2020.

(2) The ASEAN MDG Roadmap formulated in 2011 articulated the following challenges, which remains valid to this day—heightened mainstreaming of gender; greater involvement of civil society (NGOs) in actions to achieve health MDGs; and inclusion of qualitative dimensions in MDG indicators, especially on reproductive health and water supply.

(3) There is a need to harmonise national data, especially on maternal and child health, and to include newborns, in addition to mothers and children.

5.7. Migrants' Health

Status—There are no recent data on migration in the ASEAN but a study (Hall, 2011) estimated the total number of intra-ASEAN migrants to be 2.5 million. Below are some data from this study:

- The countries of origin of these migrants are Indonesia (921,000), Malaysia (468,000), the Philippines (361,000), Thailand (248,000), Viet Nam (170,000), Myanmar (142,000), Singapore (124,000), Lao PDR (39,000), Cambodia (27,000), and Brunei (4,000).

- The countries of destination are Malaysia (1,238,000), Singapore (336,000), the Philippines (294,000), Cambodia, (201,000), Thailand (169,000), Indonesia (158,000), Brunei (85,000), Lao PDR (13,000), Viet Nam (10,000), and Republic of the Union of Myanmar (1,000).

The number of international migrants (intra-ASEAN as well as non-ASEAN citizens) was estimated by Chheang (2014) to be around 31.5 million in 2010. This study noted the increasing trend in intra-regional migration with dynamic and diverse forms. The key factors to migration appear to be the economic and developmental differential between sending and receiving countries. Intra-regional migration is also increasing in view of regional integration and the institutional harmonisation of visa policy, regional infrastructure connectivity, and labour market information and commercialisation. Good practices in the provision of the health and well-being of migrants have been collected by the International Organization of Migration (IOM, n.d.).

Targets—The indicators for migrant health were initiated during the High-Level Multi-stakeholders Dialogue on Migrant Health in Bangkok, Thailand on 29–30 November 2011 under the Joint United Nations Initiative on Mobility and AIDS (JUNIMA). The meeting produced recommendations based on the WHO framework on migrants' health (ASEAN and JUNIMA, 2011). Sessions 3–6 of this meeting focused on the operational framework for migrant health, which had four pillars and 16 priorities, as shown in Table 16.

Table 16: Indicators for Migrant Health in ASEAN Countries

Policy indicators: Policies and legal frameworks affecting migrant health	
	Adopt and implement relevant international standards on protection of migrants and respect for rights to health in national law and practice. Develop and implement national health policies that incorporate a public health approach to the health of migrants and promote equal access, regardless of their status. Monitor the implementation of relevant national policies, regulations, and legislations responding to the health needs of migrants. Promote coherence amongst policies of different sectors that may affect migrants' ability to access health services. Extend social protection in health and improve social security for all migrants.
Health system indicators: Monitoring migrants' health	
	Ensure the standardisation and comparability of data on migrant health. Support the appropriate disaggregation and analyses of migrant health information in manners that account for the diversity of migrant populations. Improve the monitoring of migrants' health-seeking behaviour, access to and utilisation of health services, and increase the collection of data related to health status and outcomes for migrants. Identify and map the (i) good practices in monitoring migrant health, (ii) policy models for equitable access to health, and (iii) migrant-inclusive health systems models and practices. Develop useful data for decision making and monitoring the impact of policies and programmes.
Health system indicators: Migrant-sensitive health systems	
	Establish and support ongoing migration health dialogues and cooperation across all sectors and amongst large cities and countries of origin, transit, and destination. Address migrant health matters in global and regional consultative migration, economic, and development processes. Harness the capacity of existing networks to promote the migrant health agenda.
	Ensure that health services are delivered to migrants in a culturally and linguistically appropriate way and to enforce laws and regulations that prohibit discrimination. Adopt measures to enhance the ability of health systems to deliver migrant-inclusive services and programmes in a comprehensive, coordinated, and financially sustainable fashion. Enhance the continuity and quality of care received by migrants in all settings, including from nongovernment organisations and alternative providers. Develop the capacity of the health and relevant non-health workforce to understand and address health issues associated with migration.

Source: ASEAN and JUNIMA (2011).

Challenges—The main challenges in this area are as follows:

(1) Lack of standard, reliable, and updated statistics on the state of migrant workers and human trafficking in the region.

(2) Existing policies and institutions largely focus on formal/regular and highly skilled migration and often miss informal and low-skilled migrants (Chheang, 2014).

(3) Lack of coherent and standardised national migration policies across the region.

(4) Lack of portability of health insurance coverage across ASEAN member states.

6. Status, Targets, and Challenges in Food and Water Safety in ASEAN

6.1. Food Safety

Status—ASEAN member states have made concerted efforts to improve food control systems and procedures to ensure the freer movement of safe, healthy, and quality foods within the region. Work in this area was also oriented to meet internationally recognised standards so that the region's food products can compete better in the international market. Key measures achieved in this area have been the (i) formulation of region-wide good agricultural practices, (ii) harmonisation of maximum residue limits for pesticides, (iii) adoption of regional criteria for the accreditation of livestock establishments, (iv) development of code of conduct for responsible fisheries, and (v) implementing hazard analysis and critical control points.

Targets—As work in the agricultural front has moved apace, similar effort in the health front has lagged behind. However, it has begun. The 8th SOMHD in Singapore endorsed the proposed outcome indicators by the 9th ASEAN Experts Group on Food Safety as shown in Table 17.

Table 17: Indicators for Food Safety in ASEAN Countries

Outcome indicators: Incidence of food-borne illnesses	
	Dysentery
	Acute diarrhoea
	Typhoid
	Hepatitis
	Food poisoning (pending)

Source: 8th Senior Officials Meeting on Health and Development, Singapore.

Challenges—The key challenges in this area are as follows:

(1) Food safety is a multi-sectoral and shared responsibility amongst those involved in food (growing, transporting, processing, packaging, sale, and final consumption).
(2) Much has been done in highly technical areas (Codex Alimentarium, maximum residue limit for pesticides, food safety harmonisation) and it is difficult to establish where we are at present. The key challenge now is the implementation of agreed-upon standards.
(3) In health, the key areas that require some focusing are the conduct of food risk analysis, the implementation of alert systems for food, and its immediate communication to household consumers.
(4) ASEAN member countries also need to look into the impact and social acceptability of new biotechnological products and genetically modified organisms (GMOs) in food.
(5) This area has important links with avian influenza and swine flu, as well as infectious disease risks linked to wildlife.

6.2. Water Safety

Status—The availability and safety of water has become an important issue because of burgeoning population growth and urbanisation in the region, the increasing frequency of extreme weather events (including drought), and the continuing poor access to water and sanitation services by the poorest population groups.

Latest indicators on people's access to drinking water and sanitation show the following (OECD, 2012):

- Drinking water— If piped and other improved sources of drinking water are taken into account, then ASEAN member countries register very high access rates: Singapore and Malaysia (100 percent of the population), Viet Nam (94 percent), the Philippines (93 percent), Thailand (91 percent), Indonesia (88 percent), Myanmar (83 percent), Lao PDR (67 percent), and Cambodia (63 percent).

- Drinking water—If only piped source is considered, then the access rates in ASEAN member countries fall significantly: High access rates to piped water are registered in Singapore (100 percent of the population), Malaysia (100 percent); with medium rates for the Philippines (43 percent), Thailand (43 percent), Viet Nam (23 percent), Indonesia (20 percent), Lao PDR, 20 percent), and Cambodia (17 percent); and low rate for Myanmar (8 percent).

- Sanitation—High access rates of sanitation are registered in Singapore (100 percent of the population), Malaysia (96 percent), and Thailand (96 percent); with medium rates for Viet Nam (76 percent), Myanmar (76 percent), the Philippines (74 percent), Lao PDR (63 percent), and Indonesia (54 percent); and low access rate for Cambodia (31 percent).

Targets—The ASEAN Strategic Plan of Action on Water Resources Management was issued in 2005 (ASEAN, 2005). The vision for water in Southeast Asia by 2025 is 'the attainment of sustainability of water resources to ensure sufficient water quantity of acceptable quality to meet the needs of the people of Southeast Asia in terms of health, food security, economy, and environment'. The vision stipulates four aspects of water management, the first of which deal with access to safe, adequate, and affordable water supply, hygiene, and sanitation. The long-term strategic plan discusses five challenges, with specific indicators as shown in Table 18.

Table 18: Indicators for Water Safety in ASEAN Countries

Outcome indicators	
	Percent reduction in households with inadequate access to safe drinking water
	Percent reduction in households with inadequate access to sanitation
Process indicators	
	Enhance public-private partnership in water supply and distribution.
	Encourage multiple stakeholders' participation in water resources development and management.
Policy indicators	
	Review water legislation and policies.
	Institute demand and supply management techniques in water supply.

Source: ASEAN (2005).

Challenges—The main challenges in this area are as follows:

(1) Region-wide adoption of the changing paradigm on water, i.e. that it is a natural asset with social, cultural, ecological, and economic functions and values.

(2) Region-wide adoption of the changing paradigm on water management—from overly centralised and technocratic systems of water generation and distribution to decentralised and participatory systems (including gender concerns).

(3) Bridging important linkages with other sectors (integrated river basin management, irrigation systems) and determining social priorities.

(4) Improving governance and management of water public–private partnerships.

(5) Adoption of new technologies on a large scale, including water recycling.

7. Ways Forward for ASEAN Health Post 2015

7.1. Rationale for Regional Investment in Health

Investing in health knowledge and services makes sense. This has been demonstrated repeatedly in several international publications of global importance, notably the *World Development Report* of 1993 ('Investing in Health') and the *World Development Report* of 2008 ('Making Services Work for Poor People').

In Southeast Asia, several important developments are occurring that warrant officials' closer attention to health. A review by Virasakdi et al. (2011) highlighted the following:

- 'Demographic transition is taking place with one of the fastest rates compared to other regions of the world, whether in terms of fertility reductions, population ageing, and rural-to-urban migration. Rapid epidemiological transition is also occurring, with the disease burden shifting from infectious to chronic diseases'.

- 'Rapid urbanization, population movement, and high-density living raise concerns about newly emerging infectious diseases'. These outbreaks 'require regional cooperation in information exchange and improvement in disease surveillance systems'.

- 'Southeast Asia's peculiar geology contributes to it being the most disaster-prone region in the world, more susceptible to natural and man-made disasters affecting health, including earthquakes, typhoons, floods, and environmental pollution. Climate change, along with rapid economic development, could exacerbate the spread of emerging infectious diseases'.

- 'Private health expenditure is increasing relative to government expenditure, where new forms of financing include user charges, improved targeting of subsidies, and greater cost recovery. Health care financing could be further restructured in response to future demographic shifts in age-dependency, as in introduction of medical savings and social insurance for long-term care'.

- 'There is potential for greater public–private participation with economic growth through ASEAN integration and further regional health collaboration, despite the current division of the region under two WHO regional offices'.

7.2. Toward a More Focused Strategy

While the current thrusts of the ASEAN Vision Post-2015 are all important, the scale and scope are too wide and unwieldy to be implementable and enable monitoring. The wide berth

of the ASCC's interest is understandable since the action lines (or subthemes or concerns) are largely aspirational. However, these ideas exist in a weak strategic framework, and there are still no key result areas that can make up an implementation plan. This study suggests that ASCC's manageable interest be taken into account, i.e. those items in the current ASEAN Vision Post-2015 that can realistically be implemented and monitored. A more selective and sharper focus is certainly needed.

Several criteria may be used to prioritise, including,

(a) Regional scope and importance of the concern; added value of the thrust, or how it enhances the ASEAN value; measurability of the proposed indicators and corresponding activities ('What gets measured gets done').

(b) Centrality of health interventions in the thrusts. Are health interventions central to the achievement of the outcomes, or are they just peripheral? Can some sectors (labour, agriculture, industry, infrastructure, and social protection) do the key interventions better?

(c) Integration of the thrusts and activities with existing health systems, with strengthening being done in various stages across the region.

(d) Existence or feasibility of formulating a clear implementation and monitoring plan for the proposed thrust or concern.

(e) Continuity. In the selection process, focus should be placed on the implementation of already existing policies, not on the creation of new ones.

If these criteria are used, then the following areas of concern or thrusts listed below should be retained and given greater emphasis under the ASEAN Vision Post-2015. With this more limited set of concerns and thrusts, ASCC can focus on <u>implementation + monitoring</u>.

- Universal health care + health care financing,
- Prevention and control of NCDs + reduction of tobacco consumption,
- Mental health,
- Healthy and active ageing,
- HRD in health, and
- Migrants' health.

The following areas of concern and thrusts should be given less priority for the reasons cited. For these areas of lower priority, ASCC's interest should be on <u>monitoring</u> rather than implementation.

- Prevention of injuries—Scant data exist; much of this thrust on road safety is under the countries' departments (sectors) of transportation and public works and highways.
- Occupational health—Much of this thrust is under the countries' departments (sectors) of labour and employment.
- Good nutrition and healthy diet—Much of this thrust is under the countries' departments (sectors) of agriculture, manufacturing, and trade.
- Pharmaceutical development—Much of this thrust is under the countries' departments (sectors) of business, manufacturing, and trade.
- Traditional medicine—Much of this thrust is under the countries' departments (sectors) of business and manufacturing.
- Food safety—Much of this thrust is under the countries' departments (sectors) of business, manufacturing, and trade.
- Water safety—Much of this thrust is under the countries' departments (sectors) of water and infrastructure.

In considering the above suggestions, ASCC is well advised to look at the draft of the 2015 United Nations' Sustainability Development Goals (a follow-on to the MDGs, which end in 2015), which are to be formally issued in September 2015.

7.3. Needed National and Regional Cooperation Initiatives

Most of the experts' groups, technical working groups, and networks on the different areas of concern already exist. Coordinating them is already a huge challenge, and so no new grouping is recommended. However, these groups have varying dynamism, levels of participation, and output levels. Given the time and budget constraints, this study was not able to assess the capacities of these groups, nor on the way they are structured, or on their specific deliverables.

However, it is clear that a new level of engagement between ASCC and these existing health sector stakeholder groups need to be made. Once the ASEAN Vision Post-2015 is finalised, it would be useful to hold meetings with these groups to explain the rationale, result areas (indicators), and deliverables for each of the areas of concern, and to assess these groups' individual needs and levels of commitment.

7.4. Possible Partnerships with Other Bodies/Groups

The 5th ASEAN+3 meeting in Phuket, Thailand (ASEAN, 2012) re-emphasised the need to strengthen regional rather than bilateral cooperation especially in the areas of emerging infectious diseases, ASEAN partnership laboratory, risk communication, preparedness and

response, and NCDs. It also called for developing more programmatic activities to sustain cooperation, and to specify needed institutional linkages. The more active regional cooperation activities have been the following:

1. Japan's ASEAN Health Initiative (AHI) focuses on active ageing and infectious diseases.
2. The ASEAN-WHO cooperation on health systems strengthening, healthy borders in and around the Mekong River area, and infectious diseases.
3. The Europe-Southeast Asia Cooperation in Science and Technology (SEA-EU-Net), which focuses on health, food security and safety, and water management.
4. ASEAN+3 UHC Network, initially led by International Health Policy Program of Thailand's Ministry of Health and Population.
5. The Joint United Nations Initiative on Mobility and HIV/AIDS in Southeast Asia (JUNIMA).

ASCC can also consider other partners, including the following:

6. The Asia-Pacific Observatory on Health Systems and Policy (APO), which commissions health systems research in the Asia-Pacific Region.
7. The Economic and Social Commission for Asia and the Pacific (ESCAP), which did earlier work on road safety in the ESCAP region.
8. The Asian Development Bank, which did an earlier project on road safety and water.
9. The Organization for Economic Co-operation and Development (OECD), which maintains what is probably the most comprehensive country-level database on health, in collaboration with WHO/Geneva (OECD, 2012).

7.5. Recommendation for Strengthening the Niche of ASCC in Regional Integration Efforts

1. Focus on the production and analysis of aggregate regional and comparative data listed below for the assessment of individual and regional health status, access to care, financing, regulation, and quality of health services. This has been a key function of the OECD amongst its upper-income member countries (OECD, 1993).

    a. National health accounts providing information on the sources and uses of health expenditures.
    b. Standardised family income and expenditures surveys.
    c. Quantitative health service delivery surveys that identify and track service deficits.
    d. Demographic and health surveys that track utilisation of health services and coverage of key public health interventions.
    e. Purpose-specific surveys (nutrition, mental health, injuries and disability, alcohol consumption, and tobacco use).

2. Focus on identifying, analysing, and proposing collective solutions to emerging regional health issues that national governments would not otherwise be able to see as they focus on issues within their borders. These include the following:

    a. Medical, health, and epidemiologic issues.
    b. Health technology and information technology that have a bearing on health.
    c. Health services and financing coverage for migrants.
    d. Other health system issues of concern across countries in the region.

3. Focus on conducting interdisciplinary research, documenting good practices, and policy formulation, such as the following:

    a. UHC and health care financing, including measurement of UHC baseline and progress, and identifying appropriate institutional arrangements; conducting business analytics; formulating financing benchmarks; and analysing provider payment systems.
    b. Cost-effective delivery of NCD interventions, mental health interventions, and healthy and active ageing interventions.
    c. Innovative technologies with large impact.
    d. Region-appropriate standards for health.

Annexes

Annex A—Detailed Indicators for Non-Communicable Diseases

Targets	Indicators
Outcome Targets	
Premature mortality from NCDs—25% relative reduction in overall mortality from cardiovascular diseases, cancer, diabetes, and chronic respiratory disease	Probability of dying between ages 30–70 from cardiovascular disease, cancer, diabetes, and chronic respiratory disease
Diabetes—10% relative reduction in prevalence of diabetes	Prevalence of diabetes amongst persons 25+ years old
Exposure Targets	
Blood pressure/hypertension—25% relative reduction in prevalence of raised blood pressure	Prevalence of raised blood pressure amongst persons 25+ years old
Health System Targets	
Prevention of heart attack and stroke in primary care—80% coverage of multi-drug therapy for people 30+ years old with a 10-year risk of heart attack or stroke greater than or equal to 30%, or existing cardiovascular failure	Multi-drug therapy for people 30+ years old with 10- year risk after heart attack or stroke greater than or equal to 30%, or existing cardiovascular disease
Cancer prevention in primary care—Cancer prevention and early detection scaled up to achieve • 70% of women between 30–49 years old screened for cervical cancer at least once, • 25% increase in the proportion of breast cancers diagnosed in early stages, and • <1% prevalence of HBsAg carriers amongst children less than or equal to 5 years old (a risk factor for liver cancer)	• Prevalence of women between 30–49 years old screened for cervical cancer at least once, • Proportion of breast cancers diagnosed in early stages (I and II), and • Prevalence of HBsAg carriers amongst children less than or equal to 5 years old.

Note: HBsAG = surface antigen of the hepatitis B virus, NCDs = non-communicable diseases.
Source: ASEAN/MOH Malaysia (2011).

Annex B—Detailed Indicators for Anti-Smoking and Reduced Alcohol Consumption

Targets	Indicators
Exposure Targets	
Tobacco smoking—40% relative reduction in prevalence of current daily tobacco smoking	Prevalence of current daily tobacco smoking amongst persons 15+ years old
Alcohol—10% relative reduction in per capita consumption of alcohol; and 10% relative reduction in prevalence of heavy episodic drinking	Per capita consumption of pure litres of alcohol amongst persons 15+ years old; and prevalence of heavy episodic drinking amongst persons 15+ years old

Source: ASEAN/MOH Malaysia (2011).

Annex C—Detailed Indicators for the Prevention of Road Accident Injuries

Goals and targets	Indicators
Outcome Targets	
• Reduce fatality rates by 20% from 2007 to 2015 (or reduce it to less than 10 per 10,000 motor vehicles by 2015).	• Number of road fatalities (and fatality rates per 10,000 motor vehicles-km per passenger-km) • Number of road crashes
• Reduce rates of serious road injuries by 20% from 2007 to 2015.	• Number of serious injuries (and injury rate per 10,000 motor vehicles, and per motor vehicle-km)
Goal 1—Making road safety a policy priority	
• Create a road safety policy/strategy, designate a lead agency, and implement a plan of action.	• Information on existing national road safety policy, strategy, and plan of action. • Name of designated lead agency. Description of responsibilities of local, regional, and national government organisations. • National road safety reports or impact evaluation reports of government programmes.
• Allocate sufficient financial and human resources to improve road safety.	• Amount of funding allocated to road safety programmes
Goal 2—Making roads safer for vulnerable road users	
• Reduce by one-third the pedestrian death rate in road crashes (or reduce it to less than 1 per 10,000 motor vehicles).	• Number of pedestrian deaths or pedestrian deaths per 10,000 motor vehicles
• Increase the number of road crossings for pedestrians (e.g. with subway or overhead crossings, or traffic signals).	• Information on programmes for the construction of new safe crossings or improvement of crossings
• Make the wearing of helmets the norm and ensure minimum helmet quality to reduce the motorcyclist death rate by one-third.	• Number of motorcyclist deaths and motorcyclist death per 10,000 motorcycles. • Existing law or administrative rule for mandatory use of helmets and specifying minimum quality standards. Generate information on helmet use (%).
• Ensure minimum child safety measures to reduce the child death rate by one-third (or	• Number of child fatality in road crashes

reduce it to less than 0.01 per 10,000 motor vehicles).	• Existing law or administrative rule on measures for child safety in cars and motorcycles (child restraints) • Information on use of child seat restraints and child helmets
• Equip all school children with basic road safety knowledge.	• Existing or planned education programmes on road safety in school, starting class, and its coverage
Goal 3—Making roads safer and reducing the severity of road crashes	
• Integrate a road safety audit at all stages of road development, starting at the design stage; carry out necessary improvement works; and improve hazardous locations.	• Extent to which road safety audits are carried out for new road construction and major improvements • Number of improvement programmes carried out to make roads 'forgiving' (e.g. black spot, removing or cushioning road obstacles)
• Increase separate/secure road space for pedestrians and cyclists in urban and suburban areas.	• Existing length of pedestrian and bicycle tracks in km per 100,000 people or per 10,000 km of roads. Programmes to construct pedestrian and bicycle tracks.
Goal 4—Making vehicles safer	
• Make regular inspections of vehicles mandatory and ensure enforcement of inspection. • Ensure safety requirements for new vehicles are in line with international standards.	• Existing law or administrative rule on vehicle inspection, frequency of inspection (annual), number of vehicle inspection facilities and organisations • Existing law and regulation specifying vehicle safety standards and implementation
Goal 5—Improving national and regional road safety systems, management, and enforcement	
• Implement a national (computerised) database that provides information on the location of road crashes.	• Information on existing road safety database and responsible organisation
• Significantly increase compliance, e.g. with mandatory helmet use, seatbelt use, prohibition of drunk driving, and use of mobile phone, and speed limits.	• Information on compliance with each of the road safety rules (%)
• Allow alcohol tests for prosecution (either breathalyser or behavioural tests).	• Existing alcohol level testing rules, types of tests and alcohol limits
• Make it the norm to keep motorcycle front-lights on at all times.	• Information on existing law or administrative rule on keeping motorcycle headlight on while driving
• Increase coverage of emergency assistance systems for road victims to cover at least all urban areas and trunk roads.	• Km of road (by type) on which emergency services are provided • Average emergency response time • Number of emergency service centres per length of highways (except city roads)

km = kilometre.
Source: Ha (2009).

Annex D—Detailed Indicators for Healthy and Active Ageing in the ASEAN

Targets	Indicators
Participation in society—Care for older adults	Percentage of population 55+ years old providing care to the elderly or disabled relatives at least once a week
Independent, healthy, and secure living • Physical exercise • Access to health and dental care	• Percentage of the population 55+ years old who engage in physical activity and sports at least five times a week • Percentage of the population 55+ years old who report no unmet need for medical and dental examination
Capacity and enabling environment for active and healthy ageing	• Share of healthy life years in the remaining life expectancy at age 55 • Mental well-being for population 55+ years old using WHO's ICD-10 measurement

Source: Adapted from EU and UNECE (n.d.).

Annex E—Detailed Indicators for Water Safety

Goals/Challenges	Indicators/Actions
Improving access to safe drinking water and sanitation	• Reduce by 50% inadequate access to safe drinking water by 2015. • Reduce by 50% inadequate access to sanitation by 2015.
Managing water resources efficiently and effectively	• Conduct a review of water policies and legislation. • Institute demand and supply management techniques in water supply. • Institute demand and supply management techniques in irrigation. • Undertake research and development programmes.
Moving toward integrated river basin management	• Establish river basin management organisations. • Develop decision support systems. • Promote equitable sharing amongst water users and the environment. • Mitigate water-related hazards and maintain ecological balance.
Translating awareness to political will and capacities	• Improve governance. • Encourage multiple stakeholders' participation in water resources development and management. • Mainstream gender concerns in the framework for action.

	• Develop, enhance, and strengthen institutions in a decentralised and participatory manner. • Build individual capacities.
Moving toward adequate and affordable water services	• Enhance public–private partnerships. • Recognise that water is a natural asset and has social, cultural, and economic functions and values.

Source: ASEAN (2005).

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