

Status of National Health Accounts in Asia-Pacific Region: Findings from the APNHAN Survey 2005

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COMMENTS WELCOME**

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Executive Summary

NHA development in the Asia-Pacific region is relatively advanced in comparison with other developing regions. Most major countries in the region have established or are establishing NHA systems, and the numbers show some increase since 2001. Results from the 2001 survey of NHA status in territories indicated that eleven had permanent systems in place with routine updating, or were on the verge of establishing such, but by 2005, the number had increased by two (Samoa, Viet Nam). Eleven other countries are developing NHA systems as of March 2005, or will do so as opposed to eight in the previous round. Whilst there is a wide range in the level of development of NHA, there is a clear trend towards institutionalisation in the majority of countries, with 84% of territories now having health accounting statistics accepted as official, with the most notable change in this regard being China, Thailand and Viet Nam. In addition to the OECD members, several countries, including some low-income developing economies, now have multiple years of estimates. In total, available NHA-based estimates of national health expenditure exist for 147 (108 in 2001) country-years of observations during the 1985-2004 time-period, of which 94 (64 in 2001) are for non-OECD states.

There was one observed difference from the 2001 survey, in which most territories had more than one agency conducting the technical work, therefore weighing the scale towards non-health ministry agencies for technical production. But according to the 2005 survey, the trend is for technical work to be delegated to one agency only, with the Ministries of Health conducting the technical analysis in most (57%), followed by public sector research agencies. In most cases, the national health ministry is responsible for commissioning NHA. But technical responsibility for producing accounts is not necessarily assigned to health ministries, and in many to a public sector research

agency. Health ministries are the commonest source of financial and other material support for NHA. External donors and UN agencies provide support in a small majority of countries, but often act only in a supporting role. WHO and the World Bank both play a supportive role in 42% and 37% of territories according to the survey responses.

Reflecting a pattern of indigenous development, there is considerable diversity in the health accounts frameworks adopted in national systems. Most, but not all, countries include providers and functions in the core dimensions of their frameworks. Only a minority of countries estimates expenditures by sub-national region or by other dimensions. It continues to be the case that countries do not include the same elements of spending when reporting what they define as total national health expenditures. All include recurrent and capital spending, and a majority include research and development expenditures followed by medical education. Fewer than half the countries include such items as medical education, nutrition, sanitation or environmental health. Comparisons between countries in total spending will require some standardisation in the elements included, but there is a positive trend in that an increasing number of countries are now also using the OECD SHA standard, in many cases reporting duplicate numbers for international comparison in addition to their local NHA numbers. It was also found that only a minority of countries choose to include in their NHA systems, separate estimates of the flow of funds from sources to intermediaries and from intermediaries to providers matrices.

There is considerable interest in Asia-Pacific countries in international comparability, whilst at the same time a belief that national systems should be locally relevant. There has been rapid adoption of the OECD SHA 2000 framework, which provides a means for such comparison. Other than OECD member states, of those who responded, those who indicated they have adopted OECD SHA

include Hong Kong SAR, Mongolia, Nepal, China, Kyrgyz, Malaysia, Samoa, Sri Lanka, Taiwan, Thailand and Viet Nam. Most countries that have considered the issue have adopted OECD SHA 2000, or plan to do so, and none have chosen not to. The experience of early adopters confirms the 2001 finding that developing countries in the region have not faced major obstacles of practicality or relevance in adapting the OECD SHA approach.

In contrast to other developing country regions, the current status of NHA in the region reflects a largely nationally-driven process, with external donors playing a minor role. Institutionalisation experience appears to have been more successful than other regions, which may be either an outcome of the limited role of external donors, or a cause of it.

Background

This paper is a brief summary report of a survey carried out by APNHAN to take stock of the present NHA status in territories in the Asia-Pacific Region, to be presented at the Regional Meeting of APNHAN, held in Colombo in March 2005. A similar report was prepared in 2001 as preparation for the Cebu conference of APNHAN, therefore enabling this report to provide some comparison over time of regional progress in health accounting work.

The questionnaire was distributed by email to the national contact points in APNHAN, plus national or WHO counterparts in other territories. This area, extending from the central Asian nations in WHO EURO region in the west to the WHO WPRO region in the east, includes the majority of the world's population and many of the pioneers in NHA development. The survey collected information on current NHA status in countries, progress over time and future plans.

Completed questionnaires were obtained from 18 respondents, nonresponses were 5, for which the 2001 data were used. The following results are based primarily on the survey returns, but incorporate other information known to the investigators or obtained from the 2001 paper or other sources. Additional information for countries not in the network or not surveyed is also included, where noted, to provide a comprehensive overview of NHA status in the region.

Survey coverage and responses

Completed survey questionnaires were returned from Australia, Bangladesh, China, Hong Kong SAR, India, Indonesia, Japan, Korea, Laos, Malaysia, Mongolia, Nepal, Papua New Guinea, Philippines, Sri Lanka, Taiwan, Thailand and Viet Nam. Countries which were contacted in the survey, but from which no responses were obtained consisted of Cook Islands, Fiji, Kyrgyz Republic, New Zealand, Samoa and Singapore. Brunei, Cambodia, Maldives and Myanmar could not be contacted. Therefore, for Brunei and Cambodia, the 2001 survey data was used. Information for Kyrgyzstan, New Zealand and Samoa was assumed to be as in the previous survey.

Many countries have been producing annual national health expenditure estimates for many years, but most of them often did not conform to the sources to uses matrix structure that is characteristic of a health account, according to the 2001 survey. The information collected in this round reveals that more territories have accepted the importance of the tracking matrix structure. Therefore, most respondents provided responses relating to such estimates of health spending, whilst others also indicated that their countries were shifting to a full health accounting system, or in one or two cases were intending to maintain health accounts-type estimates alongside the older concepts. In tabulating responses, some discretion has been

exercised in interpretation in order to ensure that the reported results relate specifically to the more recent concepts of a health account as a sources-to-uses matrix.

Current status of NHA in countries

In the 2001 survey, countries were asked to indicate the status of NHA as an official system. In 2001, NHA statistics in 78% of territories had official status, while 22% did not. In 2005, this had increased to 84% and 11% respectively, with one country reporting no established NHA, out of the 19 responses.

Countries can be categorised into several groups according to their level of institutionalisation. Group I consists of countries with permanent NHA systems where annual (or semi-annual) updates are being routinely generated. This includes all the OECD states (Australia, Japan, Korea, New Zealand), and several developing nations, some of which are low-income developing economies like China, Philippines, Sri Lanka, Taiwan and Thailand. Group I countries are all characterised by the availability of multiple year estimates.

A second group of territories is identified, which has established official NHA systems and intend to produce regular estimates in future. They include Bangladesh and Hong Kong SAR. In both Group I and Group II countries, NHA results are usually treated as official statistics by national authorities.

Countries that are engaged in developing NHA systems are categorised as Group III and they consist of India, Indonesia, Kyrgyz Republic, Malaysia, Mongolia, Myanmar, Nepal and Papua New Guinea, Samoa and Viet Nam. Some of these, such as Indonesia or Kyrgyz, had produced annual estimates previously, but these probably did not conform to the health account concept or were only partial

in coverage. Funding constraints, technical expertise and institutionalisation are assumed to be probably the major issues for Group III countries.

Group IV countries consist of countries, which indicated the intention to develop NHA systems in the future (Brunei, Cambodia and Laos).

Countries that had not initiated any official process to establish NHA systems are categorised as Group V. These include some countries where NHA estimates had been previously produced either on a national basis or at the sub national level. There was interest by researchers or officials in developing NHA systems in some of these countries (Bhutan, Cook Islands, Fiji, Maldives, Timor-Leste* and Tonga).

Table 1 below portrays the progress or shift in status of NHA from the time of the 2001 survey to 2005 survey. As will be noted, there is no change in the number of territories with permanent systems, but the number with NHA systems at some stage of development has increased by five. Of those which are in Group II, it should be noted that at least two – Bangladesh and Hong Kong SAR, have produce a second round of estimates of NHA since the last survey, although they still report that they are not fully permanent systems. There has also been a substantial reduction in the number of territories that are not considering establishing NHA systems.

Table 1: Status of NHA institutionalisation in Asia-Pacific Region, 2001-2005

Category	2001	2005	Change 2001-2005
Group I: Territories with permanently established NHA systems with routine updates	Australia Japan Korea New Zealand China Philippines Sri Lanka Taiwan Thailand	Australia Japan Korea New Zealand China Philippines Sri Lanka Taiwan Thailand	No change
Group II: Territories with NHA systems intending to produce routine updates in future	Bangladesh Hong Kong SAR	Bangladesh Hong Kong SAR Samoa (?) Viet Nam	+2
Group III: Territories currently developing NHA systems	Indonesia Kyrgyz Republic Papua New Guinea Samoa Viet Nam	India Indonesia Kyrgyz Republic Malaysia Mongolia Myanmar Nepal Papua New Guinea	+3
Group IV: Territories planning/considering to initiate NHA systems development	Brunei Malaysia Mongolia	Brunei Cambodia Laos	No change
Group V: Territories with no official decision to develop NHA	Bhutan Cambodia Cook Islands Fiji India Laos Maldives Myanmar Nepal Tonga	Bhutan Cook Islands Fiji Maldives Timor-Leste* Tonga	4

Notes: *Timor-Leste is a new addition to table for 2005. Singapore is not included in the table, but sources indicate that NHA estimates based on the OECD SHA standard were developed, although not published, by national authorities during 2003-2005.

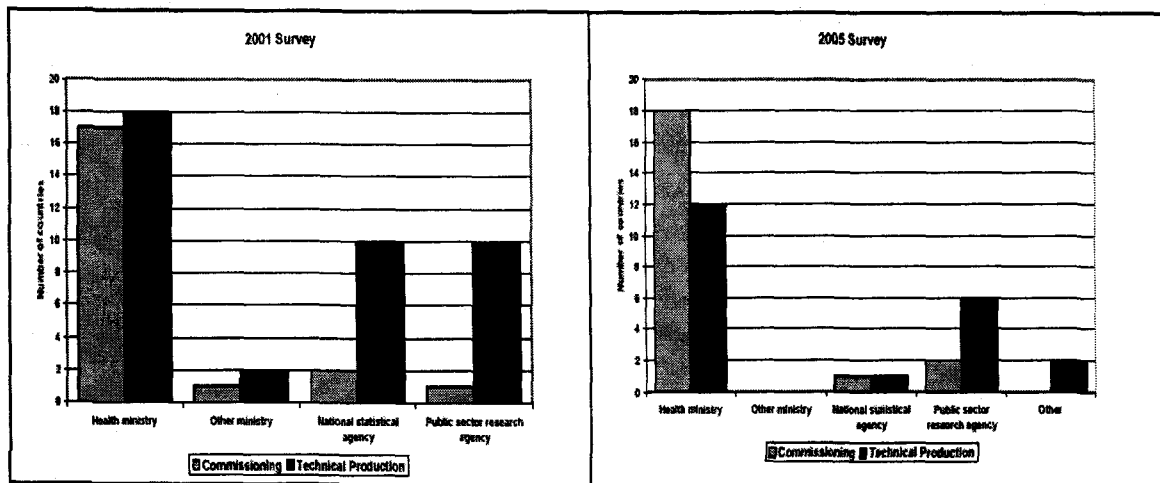
Institutional responsibility for NHA

Countries report a wide diversity of institutional arrangements for NHA, which presumably reflects differences in agency capacity and national circumstances. In many countries, a distinction can be made between the agencies responsible for commissioning NHA and those responsible for technical production of estimates. In the 2001 survey,

ministries of health were typically the commissioning agency, although in the Group I/II countries, the national statistical office performed this function in the Philippines and a public sector research agency (HSRI) commissions NHA in Thailand. In the new survey little change could be observed, since the ministries of health still remain the principle commissioning agency in most, while two countries (Australia and Thailand) stated public sector research agencies as being responsible, while Philippines stated it was its national statistical office, the National Statistical Co-ordination Board.

In the 2001 survey, the Health ministries were less likely to be responsible for technical production than for commissioning. Most countries involved other agencies in production (more than one), particularly national statistical agencies, public sector research agencies and other ministries, and in several cases the lead role for technical production was assigned to a different agency to that responsible for commissioning (Figure 1). Amongst the Group I/II respondents, which had achieved institutionalisation, the norm appeared to be commissioning by the health ministry, but technical production by a public sector research agency. The only exceptions in these groups were Japan and Taiwan, but in both these cases responsibility for developing new OECD-compatible accounts had been assigned outside the ministry. In 2005, the technical production has shifted in most territories largely to one agency (not many agencies as in 2001), and in general out of the health ministries to public sector research agencies and other agencies, as for example in Hong Kong SAR and Japan.

Figure 1: Involvement of agencies in commissioning and producing NHA



Years covered in NHA estimates

According to the previous survey, a significant number of territories (10 out of 32) in the region had produced time series estimates of national health expenditures, either using the health accounting approach, or an earlier NHE type concept. In the new survey 2 more territories that is Bangladesh and Thailand have produced sequential time series estimates. Group I countries have extensive time series, in most cases comprehensive for the 1990-1998 time period. From the Group II territories, Hong Kong has an extensive time series of accounts while Bangladesh has accounts for 1996-2002. Group III and IV countries as would be expected for countries still developing NHA estimates generally only have incidental estimates, although Indonesia has published estimates for the 1985-1995 time period using a non-NHA basis.

Papua New Guinea and Viet Nam each have published three years of data consecutively.

For the time period 1985-2002, the available NHA-based estimates amounted to 108 individual country-year observations, of which 44 were accounted for by OECD states, and 64 by non-OECD territories according to the first survey. These numbers did not include the New Zealand time series which is available for the 1925-2002 time period, but is estimated using a pre-OECD SHA conceptual basis, nor the Indonesian time series. The 2005 survey (1985-2004) reveals 147 country-year observations of which 94 were from non-OECD territories. In contrast to reports from other regions, Asia-Pacific countries seem to have experienced fewer obstacles in shifting to time series estimates, having initiated NHA work. This may be related to the fact that many Asia-Pacific countries seem to have estimated multiple years in their first NHA estimates, instead of only estimating a single year as apparently the practice elsewhere.

Structure and frameworks for NHA

Dimensions

There is considerable diversity in the structure of NHA frameworks used by countries. All countries with established NHA report disaggregating expenditures by sources as well as those countries that are currently setting up health accounts or planning to, except New Zealand. In the previous survey, use of providers and functions as dimensions in NHA frameworks was characteristic of most NHA frameworks in the region, but not completely universal. Amongst the Group I/II countries, functional classification of expenditures was universal, but Australia, Korea and Philippines reported in 2001 that they did not include providers as a dimension of analysis. In this 2005 survey, all these three countries have now disaggregated their expenditure estimates by provider. In total, 18 (90%) and 20 (100%) respondents out of 20 reported using providers and functions as dimensions (Figure 2).

Only 45% (9/20) of countries produce sub-national breakdowns in their

health accounts. This may reflect the relative lack of importance of sub-national jurisdictions in several of the smaller states, such as Hong Kong SAR.

Figure 2: Dimensions used in NHA

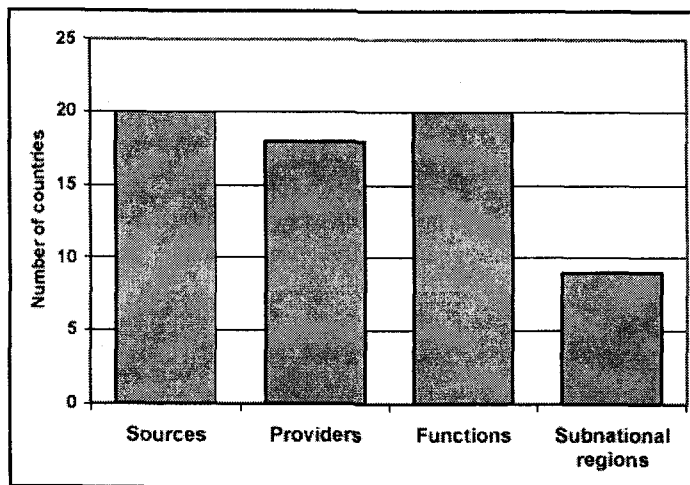
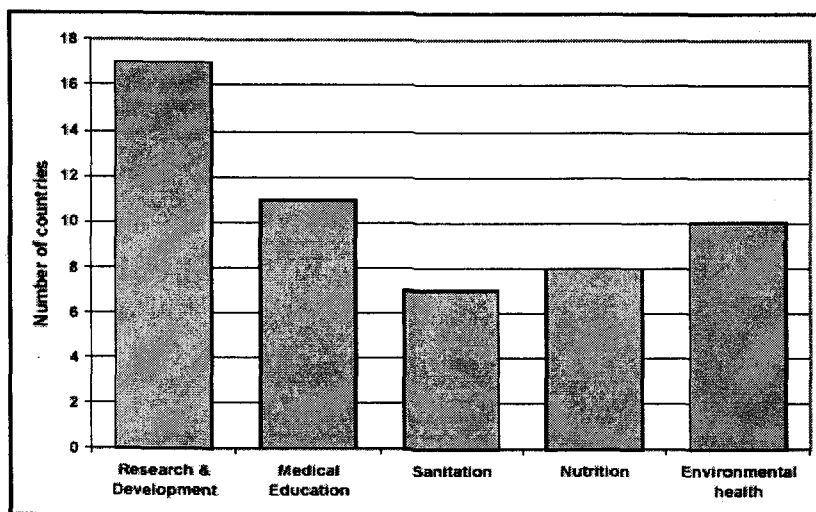


Figure 3: Elements included in NHA



Elements included in definition of national health expenditures

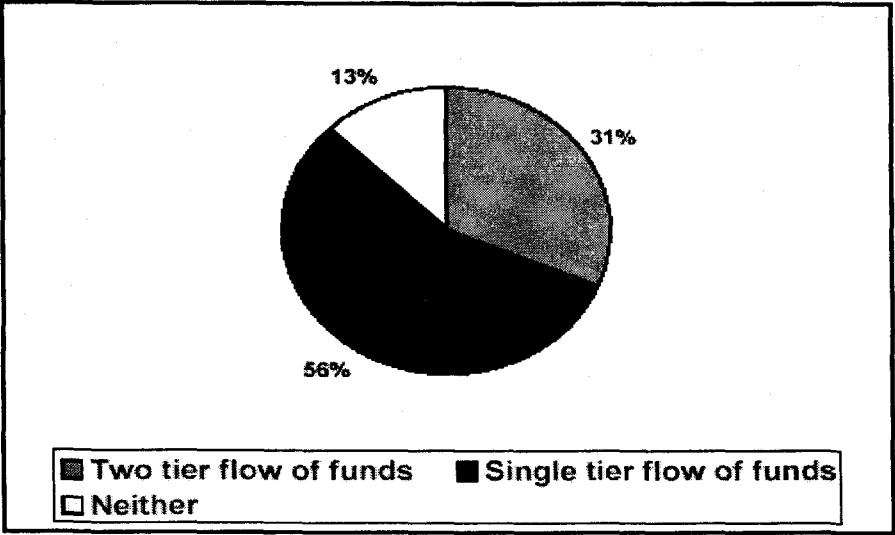
Whilst all countries include both recurrent and capital expenditures in

their definition of national health spending, there is considerable diversity in the treatment of what OECD SHA terms health related functions. In the 2001 survey, out of 18 responses, 89% reported including research and development, and only 61% included medical education. Less than half the countries in the region reported including expenditures on sanitation, nutrition and environmental health. The data from the 2005 survey does not indicate much of a difference, in the sense that out of 20 responses, 85% report including research and development and 65% medical education and nearly the same rates as in the previous survey for nutrition, sanitation and environmental health. (Figure 3) Since countries in the region all have developed their NHAs as domestic initiatives, this suggests that inclusion of functions such as sanitation, nutrition and environmental health in the core definition of health spending does not attract significant policy interest amongst users of NHA. Even amongst the countries that do attempt to include these items, several report difficulties in obtaining data on private spending on these categories, and that their NHA estimates underestimate these categories.

Flow of funds

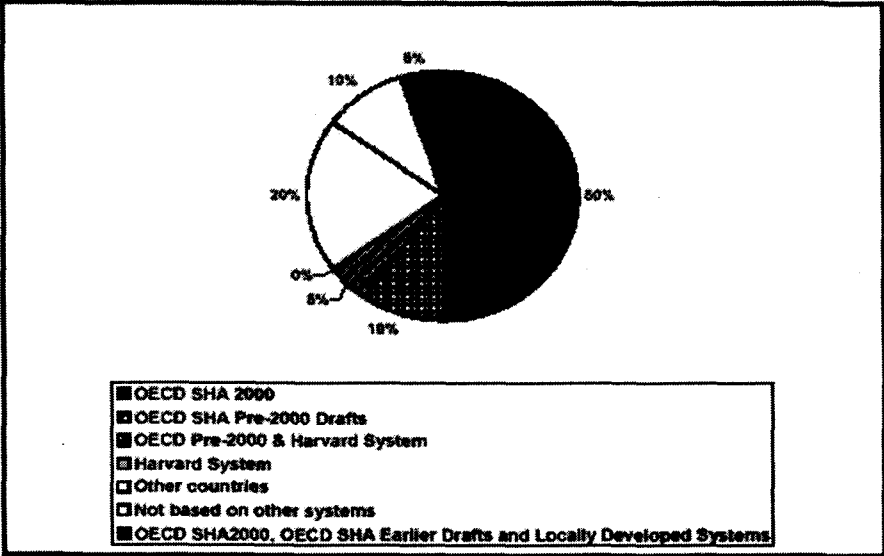
The majority (56%) of countries with NHA or developing NHA construct NHA by estimating expenditure flows between the last payer (i.e., financing sources combined with financing intermediaries) and users. Only 31% estimate their NHA using separate financing sources to financing intermediaries and financing intermediaries to providers matrices (Figure 4).

Figure 4: Flow of funds approach



N=16 countries

Figure 5: Basis of NHA systems



N=20 countries

Basis of NHA frameworks

The majority (60%) of countries responding with NHA or developing

NHA have used the 2000 version of the OECD SHA or earlier unpublished versions as the basis for developing their NHA frameworks. One country (5%) used both the OECD SHA pre-2000 draft as well as the Harvard Method (Samoa). 20% report using methods existing in other countries and these include India, Kyrgyz Republic, Nepal and Philippines. 10% used locally developed methods and these were Cambodia, Papua New Guinea and Cambodia. Australia uses three methods, i.e., OECD SHA 2000, OECD SHA pre-2000 draft and methods developed locally (Figure 5). The relatively widespread and increasing use of the OECD SHA approach in the past five years may reflect considerable interest in international comparability and the early dissemination of drafts of OECD SHA through the APNHAN network.

Adoption of OECD SHA

There is considerable interest in the OECD SHA 2000 standard, with 62% of 21 responding countries classifiable as adopters. Out of 21 countries responding, seven countries have already adopted it as opposed to three countries in the first round survey information,, and six are currently implementing it. These include not only the OECD states (Australia, Japan, Korea), but also others such as Hong Kong SAR, Mongolia, Nepal, China, Samoa, Sri Lanka, Thailand and Viet Nam. One territory intends to adopt the OECD SHA in future (Kyrgyz Republic). Of the remaining seven, two are considering while five have not considered. Most of these latter two groups are countries that are yet to establish NHA systems.

Table 2: Adoption of OECD SHA in Asia-Pacific NHAs, May 2005

Adopted	Implementing	Plan to adopt	Under consideration	Have not considered
Australia Hong Kong	China Malaysia	Kyrgyz Republic	Indonesia Papua New Guinea	Bangladesh Cambodia
Japan Korea Mongolia Nepal Sri Lanka	Samoa Taiwan, Thailand Viet Nam			India Lao PDR Philippines

It should be noted that countries adopting OECD SHA 2000 are generally making modifications to it during implementation, and this includes the OECD states. Several countries also report producing two different sets of national health expenditure estimates ?one based on locally relevant definitions (but closely related to OECD SHA 2000), and a second set of estimates for international comparability following OECD SHA 2000. Examples of this include Japan, Hong Kong and Sri Lanka.

Support of NHA development

Respondents report a large number of agencies supporting current development of their NHA systems. In most cases, financial and other material support is derived from more than one agency. The most common supporting agency is a national ministry, most often the health ministry. WHO and World Bank are cited 7 and 5 times each (out of 21 responses), and other bilateral donors such as USAID, Ausaid, UK Dfid, etc are only cited twice and once each respectively. The pattern of NHA development in Asia-Pacific region continues to be one of nationally-driven institutionalisation, with external donors playing only a supporting role in most places.

Interest in APHNAN web-site

All but three responding countries indicated they were interested in using the planned APNHAN web-site to make available their NHA results and reports. There will need to be further consultation with APNHAN members about the structure of this web-site.

ANNEX TABLE 1: STATUS OF NATIONAL HEALTH ACCOUNTS IN ASIA-PACIFIC REGION, MARCH 2005

GROUP I: Territories with permanently established NHA systems with routine updates

	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	
Australia	◆ 1961 D																				
China	◆ 1978 D																				
Japan	◆ 1952 D																				
Korea	◆																				
New Zealand	◆ 1925 D																				
Philippines	◆																				
Sri Lanka	◆																				
Thailand	◆																				
Taiwan	◆																				

GROUP II: Territories with NHA systems intending to produce routine updates in future

	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	
Bangladesh	◆																				
Hong Kong SAR	◆																				
Samoa	◆																				
Viet Nam																					

GROUP III: Territories currently constructing NHA systems

	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	
India	◆																				
Indonesia	◆																				
Kyrgyz	◆																				
Malaysia	◆																				
Mongolia	◆																				
Nepal	◆																				
Papua New Guinea	◆																				

GROUP IV: Territories planning/considering to initiate NHA systems

	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	
Brunei																					
Lao PDR																					

GROUP V: Territories with no official decision to establish NHA

	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	
Cambodia																					
Cook Islands																					
East Timor																					
Fiji																					
Laos																					
Maldives																					
Marshall Islands																					
Micronesia																					
Myanmar																					
Solomon Islands																					
Vanuatu																					

● APN/AN member

KEY	
■	NHA estimates available
▨	NHA estimates planned/under construction
▩	NHE estimates based on older non-NHA concept
▧	Partial NHA/NHE estimates available only

Sources: APN/AN Status Surveys 2001, 2005; published documents & VPRO sources.
Countries excluded for lack of information: DPR Korea, Singapore, Afghanistan, Pakistan, Kiribati