

Comparisons of Health Expenditure in 3 Pacific Island Countries using National Health Accounts

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Abstract

National Health Accounts (NHA) is an important monitoring tool for health policy and health systems strengthening. A pilot project amongst three Pacific Island Countries (PICs) to assist in developing their NHAs, allowed these countries to identify their sources of health funds, the health providers on which these funds are spent, and the types of health goods and services provided. In this paper we report some of the findings from the NHA exercises in FSM, Fiji and Vanuatu. The development of these NHA country reports have allowed these countries to better understand the flow of financial resources from financing agents, to health providers, and to health functions. The NHA findings across the three countries enabled a comparative analysis of health expenditures between the three countries as well as with countries in the Asia Pacific Region. (PHD 2011; Vol 16(2): p41-50).

Introduction

National Health Accounts (NHA) is an internationally agreed accounting methodology that captures all expenditure flows through the health system, from collection of funds, to pooling of funds, and to purchasing of health goods and services. Routine tracking and reporting of health expenditure flows is vital for the understanding and monitoring of a country's health system. NHA provides a framework for measuring the monetary value of all consumption (public, private, donor-funded) whose primary purpose it to improve the health status of residents of a country for a given year (OECD, 2000).

In 2010, three countries of the Pacific, Fiji, Vanuatu and the Federated States of Micronesia completed their second round of National Health Accounts (NHA) as part of a project¹ funded and carried out by the Asian Development Bank (ADB) and the World Health Organization (WHO)². This paper presents the results of this project by comparing expenditure flows by dimensions between the three Pacific island countries, as

well as with selected countries and territories from the Asia-Pacific region.

The objective of the paper is to highlight how reporting of NHA can enable Pacific Island Countries (PICs) to better understand the financing of their health system. Good NHA data is required to track and monitor health expenditures across countries by financing sources (who pays), health providers (what institutions) and function (types of health services provided). Robust NHA estimates and in-country NHA capacity also provide a framework and anchor to support many other analytical activities, such as public expenditure reviews, analyses of future resource needs, and tracking of resources for specific conditions and diseases. Good NHA data is the bedrock for enabling valid

¹ All three authors were involved in this project. Two of the authors worked as consultants on the project.

² The projects title was "Strengthening Evidence-Based Policy Making in the Pacific: Support for Development of National Health Accounts" (ADB/WHO) and consisted of several components: one was dedicated to support 3 countries in the pilot implementation of the NHA/SHA methodology, others included the development of training materials, the implementation of trainings and the establishment of a network for NHA in the South Pacific. The project started in March 2009 and ended in July 2010.

comparisons with other country's health systems, which then enables countries to assess what is and is not working in their system.

Background

This paper presents a comparative analysis on health expenditures for three Pacific Island countries, namely Fiji, Vanuatu and Federated States of Micronesia, with a number of other selected Asian countries. Expenditures are analysed in terms of: 1) who provides the funding for health care (financing source), 2) who pays for health care (financing agent or scheme), 3) where do the funds go (providers), and 4) what types of services (functions) are financed with those funds. The sources of funding and areas of expenditure are also categorized according to public and private sectors. The methodology and system of reporting used is based on the World Health Organization (WHO) (World Health Organization et al., 2003) endorsed System of Health Accounts (SHA), published by the Organisation for Economic Co-operation and Development (OECD) (OECD, 2000).

NHAs enable countries to establish a reliable evidence-base that can help to develop policy options and support decision making on major systemic issues in health care delivery and financing. A robust system of health accounts containing timely and relevant health expenditure information is a powerful tool to assist sound policy-making. A reliable system of NHAs is relevant and important for informing the policy process. However, only consistent and comparable NHA estimates are of policy use.

For low and middle income countries, one of the most important contributions of NHA is to provide reliable estimates on out-of-pocket expenditures. Such expenditures are potentially catastrophic for low income households. Estimates of how much households are paying directly for health care

goods and services, for what sort of goods and services (e.g. pharmaceuticals) and from which providers (hospitals, family doctors) can assist decision makers in reviewing, for example co-payment schemes for certain services, or the regulation and oversight of providers. This is particularly relevant for PICs where policy-makers are often interested in policies that may reduce or increase the level of reliance on out-of-pocket financing.

Other specific contributions that NHAs can make to policy development in low to middle income countries are: policymakers are better informed about the entire health sector and all actors (both private and public) in the health care system; a framework for reporting disease accounts e.g. malaria; tracking and monitoring of aid monies for health sector development; to inform donor funding decisions; monitor health reforms; and estimation of exports and imports of health goods and services. This is specifically of interest for PIC countries since a significant proportion of acute hospital treatment is sought overseas by residents of the PIC.

Comparability of Health Accounts Estimates for Fiji, Vanuatu and FSM

As all three PIC that estimated the second round of NHA used the standard SHA framework,³ results are directly comparable with NHA estimates from other countries in the Asian Pacific region that followed the same methodology. The following section provides an overview on some of the possible comparisons. For better comparability, all following tables and figures are formatted in a way that countries are arranged from lowest to highest GDP per capita. International comparisons of expenditure are made with a selection of countries in the Asia-Pacific region, and drawing on the work of Asia-Pacific National Health Accounts Network (APNHAN).

³The system of reporting used is based on the WORLD HEALTH ORGANIZATION, WORLD BANK & USAID (2003) Guide to producing national health accounts with special applications for low-income and middle-income countries, Geneva, World Health Organization, endorsed System of Health Accounts (SHA), published by the Organization for Economic Co-operation and Development (OECD) OECD (2000) A System of Health Accounts OECD OECD.

Figure 1: Total Spending for Health and Sources of Healthcare Financing

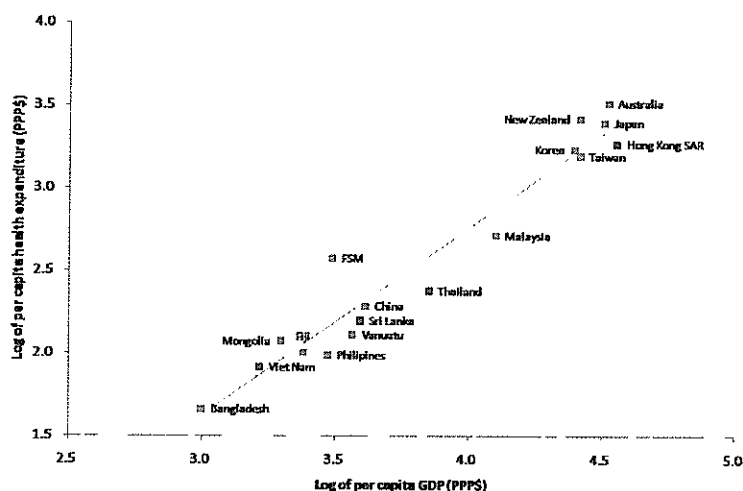


Figure 1 shows the relationship between the GDP of a country and its ability to spend for health. It shows the correlation between the GDP per capita and the spending for health per capita measured in power purchasing parity (PPP). Overall it clearly shows that trends are quite consistent and linear between countries with different income levels in the Asian Pacific, and that levels of aggregate health spending in countries are closely related to income levels, with per capita spending increasing with income levels. Thus Bangladesh with the lowest GDP has also the lowest per capita spending on health and is located at the bottom end of the regression line. Country's with higher GDPs, such as Australia and Japan sit on the top of the regression line having higher per capita health expenditure.

Countries sitting above the regression line such as New Zealand, FSM, and Mongolia, indicate that health spending was actually more than predicted for its income level compared to other countries in the region. In the case of FSM, this high level of spending can possibly be attributed to the high level of donor funding, which is approximately 69% of total expenditure.

By comparison, Vanuatu's spending on health sits below the regression line indicating that health expenditures were less than predicted for its income level with 3.6% of GDP in 2007. In Fiji's case, THE is 4.2% of GDP in 2007. This

is comparable to spending levels in other middle income economies in the region. It is higher than for example health spending in Thailand (3.5%), the same than in Malaysia (4.2%), and lower than in China (4.7%). Table 1 provides a more detailed breakdown of the health expenditure ratios by country.

In general, the share of public funding for health to total funding increases with increasing income. Amongst the population of the PICs, it is widely expected that the financing for health care is the sole responsibility of the government. Accordingly, most PICs have a tax based national health system with the government being the major financier for health. Comprehensive social health insurance⁴ elements are rather rare in the Pacific.

This is also what is reflected in Figure 2: it shows that the share of public financing in Fiji (72%) and Vanuatu (77%) is much higher than the share in poorer Asian countries, such as Bangladesh (26%), and countries at similar stages of development such as Thailand (64%). However, compared to for example more developed economies such as Japan (79%) and New Zealand (80%) – both with a social health insurance component - the public share of funding is lower, whereas it is higher compared to, for example, Australia (68%) and South Korea (55%).

⁴Social health insurance is a government mandated scheme for organizing comprehensive health coverage: according to the methodology of the SHA, it is considered as one of the possible public funding collection and pooling mechanisms, besides tax-based systems.

Table 1: General economic indicators and health expenditure for selected countries in the Asia-Pacific region

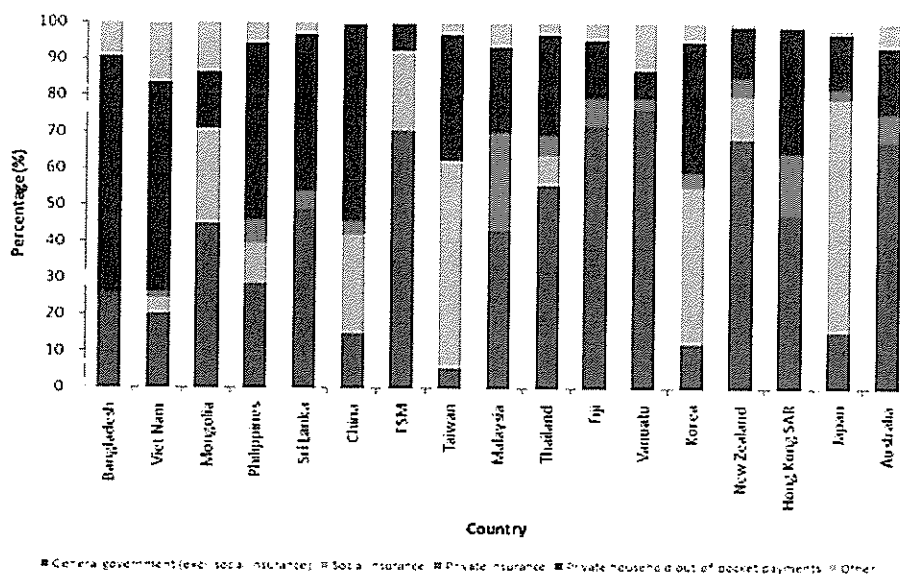
Territory	Year	GDP per capita (US\$)	GDP per capita (PPP\$)	THE (US\$ million)	Per capita health expenditure (US\$)	Per capita health expenditure (PPP\$)	Health expenditure (%GDP)
Bangladesh	2004	376	994	2,598	17	46	4.6
Viet Nam	2002	440	1,614	1,768	22	83	5.0
Mongolia	2002	520	1,976	74	30	119	6.6
Philippines	2005	1,169	2,959	3,282	39	98	3.3
Sri Lanka	2006	1,422	3,895	1,134	57	158	4.2
China	2005	1,715	4,076	105,682	81	193	4.7
Federated States of Micronesia	2006	2,250	3,057	30	277	376	12.3
Thailand	2005	2,800	7,069	6,168	98	239	3.5
Fiji	2007	3,445	2,399	124	149	102	4.2
Vanuatu	2007	3,742	3,653	31	133	130	3.6
Malaysia	2006	5,989	12,589	6,495	249	516	4.2
Taiwan	2005	15,714	26,068	21,260	939	1,557	6.0
Korea	2007	20,014	24,801	66,015	1,362	1,710	6.8
New Zealand	2006	25,898	25,945	10,644	2,544	2,608	9.9
Hong Kong SAR	2005	26,092	35,678	9,202	1,315	1,840	5.2
Japan	2006	34,253	32,040	352,505	2,759	2,477	8.2
Australia	2006	34,997	33,196	68,845	3,326	3,234	9.4

Source: OECD Korea Policy Centre-APNHAN regional health accounts data collection 2006-2009, ADB-WHO NHA project pilot countries, and World Bank Development Indicators

FSM is considered an outlier amongst PICs with public funding having a 92% share of THE including the social health insurance scheme that exists in Micronesia. This is undoubtedly the highest in the region. However most of

the FSM funding for health is based on funds received from international grants, mainly from the USA but channeled through the national systems (this is why it doesn't appear as the green marked mechanism "other").

Figure 2: Total health expenditure by financing scheme for selected Asia-Pacific countries and territories (%)



The sources of public funding differ between countries, with some countries such as Taiwan and Japan relying significantly on social health insurance in addition to general (government) tax-based financing, which is essentially from taxation. Malaysia and Hong Kong have relatively low levels of public funding compared to the three displayed PICs, well developed private health insurance markets and relatively high out-of-pocket payments. Out-of-pocket expenditure in Fiji (15%) is equivalent to that in Mongolia (15%) and Japan (15%) and slightly more compared to New Zealand (14%). In the region, FSM and Vanuatu both stand out for having the lowest proportions of out-of-pocket expenditure with 7.3% and 7.6% respectively.

Composition of spending by function and provider

Figure 3 provides details of the distribution of funding among providers and ultimately among services provided. The technical

term used in the SHA to describe the type of health goods and service is known as the classification of functions: it provides a useful breakdown of the share of health expenditure being devoted to for example curative care, pharmaceuticals or preventive care.

The share of spending for curative care in Fiji (75%) is similar to that in Taiwan and Thailand but is much higher than the average for all countries in the region which levels at 63%. Curative care in FSM (56%) and Vanuatu (61%) was lower than the average in the region and similar to the proportions seen in wealthier economies such as Korea, New Zealand and Japan. In all three Pacific Island countries, inpatient curative care spending was much higher than outpatient curative care spending and the former was mainly spent at public hospitals.

The share of spending on pharmaceuticals in Fiji (5.1%) is similar to that of Thailand (4.4%) and Malaysia (4.2%) whereas the share

in Vanuatu was 9% and in FSM 3.7% - the latter being the lowest among the countries and territories of the region. In general, the expenditures on pharmaceuticals in the three Pacific Island countries are rather low – especially if compared for example to the average of the region of 15.9% - and with Bangladesh (51.3%) and Viet Nam (42.8%) being the highest spender.

However, it must be noted that the share of pharmaceuticals reflects both on prescribing practices of doctors and how health facilities are organized. If for example country health systems are organized as they are in most PICs, so that citizens can attend hospital outpatient clinics and receive prescriptions free of charge or at a nominal cost from the hospital pharmacy, the proportion of pharmaceuticals purchased at retail pharmacies will be small accordingly. Furthermore the number of

private retail pharmacies amongst PICs is relatively low, Fiji being an outlier with a total of 49 pharmacies.

With regard to the share of health expenditures accounted for prevention and public health, the range is very wide between countries, ranging from 23.5 % in FSM to 1.7% in Australia. In the case of preventive health spending, the share in FSM of 23.5% was the highest in the region as a result of designated public health programs funded by the US Federal grants. The share in Vanuatu was equally high for the region with 17%, compared to the average for all countries and territories of 7.6%. The share in Fiji on preventative funding lies at 5.7% which is below the average. Overall, it may be noted that the three Pacific Island countries analysed here spent much less on prevention and public health than on curative care.

Figure 3: Current health expenditure by function for selected Asia-Pacific countries and territories (%)

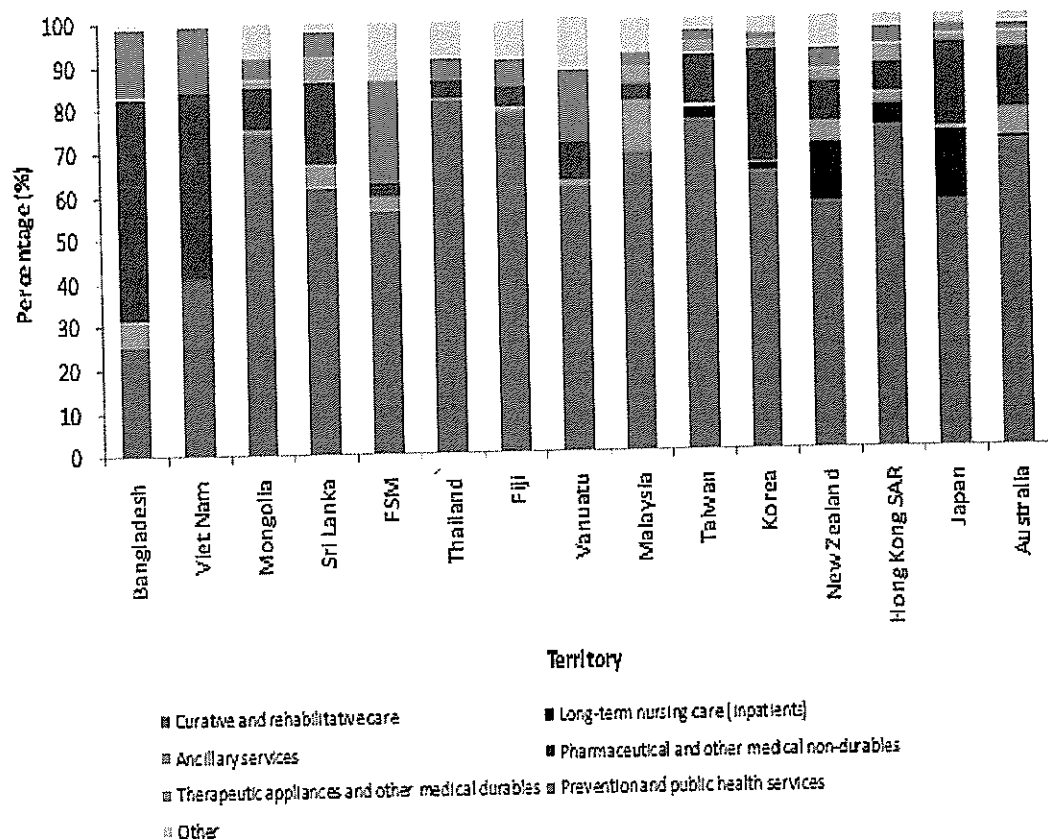
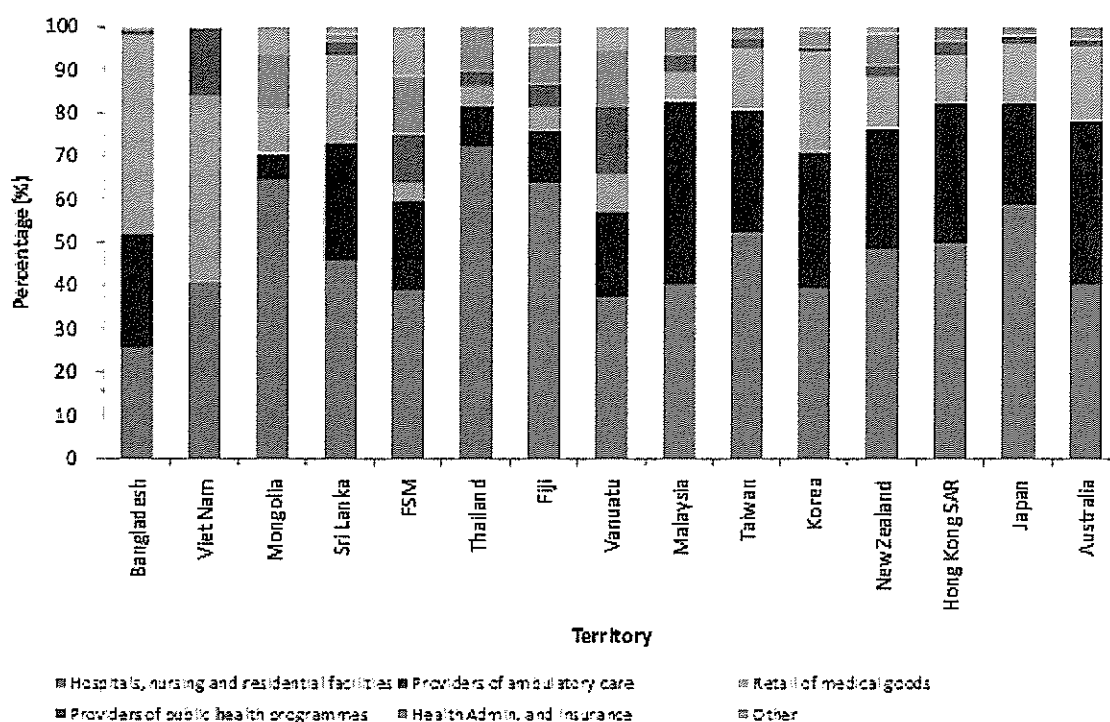


Figure 4 provides details of the distribution of spending by provider in countries in the region. In line with the relatively high proportion of expenditure on acute care in Fiji, especially inpatient care, there is a high share of expenditure on hospitals of 64%. The only countries with equal or higher shares are Thailand (72%) and Mongolia (64%). The average for hospital expenditures for all countries in Figure 4 is 48%. This is close to the share of hospital expenditure in FSM and

Vanuatu with 39% and 37% respectively.

Countries that have smaller than average shares on hospital expenditure such as FSM and Vanuatu tend to spend more on ambulatory care centres, which is well demonstrated in the cases of FSM and Vanuatu with 21% and 20% respectively, which is slightly less than the average for all countries (25%).

Figure 4: Current health expenditure by provider for selected Asia-Pacific countries and territories (%)



Policy Implications of National Health Accounts Estimates

An overriding purpose for the production of NHA estimates is to provide information for effective and evidence based decision making in the health sector. This paper has displayed some comparative data from the recently completed NHA exercise in FSM, Fiji and Vanuatu, and compared them to distributions, patterns and averages of countries from the Asia Pacific region. Comparisons like these, based on the same methodology, can help to detect tendencies and trends for the whole region, and by that

- providing answers to policy makers.

International data comparisons are only one possible use of NHA. In general, NHA estimates are used in many countries to inform the policy debate and to address questions such as for example: How much does it cost, per capita, to send patients overseas for treatment compared to the costs in other countries in the region? How much are we spending on pharmaceuticals compared to other countries? What is the allocation between inpatient and outpatient care? Do we spend too much on hospital care and how can this be shifted to ambulatory care?

Another example for how to use NHA is to monitor regional benchmarks, for example set by all Member States of the WHO West Pacific Region in the WHO Health Financing Strategy 2010-2015 (World Health Organization Western Pacific Region and South-East Asia Region, 2005, World Health Organization Western Pacific Region, 2008): In order to attain universal coverage, it is recommended that (1) out-of-pocket spending should not exceed 30%-40% of total health expenditure, and (2) total health expenditure should be at least 4% - 5% of the gross domestic product (GDP).

Monitoring out-of-pocket spending is therefore a priority for governments as high levels reduce access to health services and are likely to contribute to the impoverishment of households. The routine preparation of NHA allows governments to measure themselves against these target indicators. As we could see from Figure 2, all three analysed PICs are meeting the target on achieving out-of-pocket expenditure at less than 30% of total health expenditure. Vanuatu, however, does not meet the second target of having a total health expenditure share of GDP in the range of 4 to 5 %.

National health accounts allow us to even look beyond the two benchmarks mentioned above, and give us more profound information about the structure of our health financing system. For example, although out-of-pocket spending may be low, it is still an area that warrants close examination as it may be informative for governments to monitor the types of health goods and services where user charges exist, or for example to monitor the quintile of the population paying for out-of-pocket spending: is it the most rich quintile that wanting extra health checks, or is it the most poor quintile that already has poor access to care? A close analysis on this will certainly give answers to policy makers on how to structure user charges for example.

In terms of the share of GDP devoted to

health, Table 1 shows that FSM is well above the proposed threshold of 4 to 5 % of GDP with 13%. However, it is important to note that most of the funding is provided by foreign agencies, specifically in the case of FSM by the US government. The 69% of health funding that comes from international donors' raises important considerations for future funding sustainability.

Another WHO recommendation (World Health Organization, 2008) has indicated that most essential care and most health interventions can be delivered at the primary care level. Health systems however tend to accrue resources for hospital treatments, which take those resources away from the primary care level. Fiji is a good example for this where the acute hospital sector captures a significant share of the systems resources. Figure 4 shows that 64% of expenditure is consumed by hospitals for both inpatient and outpatient care and that 65% of total hospital expenditure is devoted to inpatient care.

Armed with good evidence from NHAs, governments can monitor trends and take deliberate decisions to reform certain areas of the health system and to reallocate resources accordingly. Governments are committed to providing services that are based on the values and principles of primary health care. Achieving these objectives need a strong and informed government, backed up by good evidence. The information contained in National Health Accounts will help Ministries of Health to make their case and advocate for health: this also vis a vis, for example, the Ministry of Finance or the Ministry of Planning or Public Services.

Conclusions

So far, there are only five countries (Samoa, Tonga, FSM, Vanuatu, and Fiji) out of the twenty-two Pacific Island countries that have managed to carry out at least two rounds of NHA. The ADB/ WHO project that funded the development of NHA reports for FSM, Fiji and

Vanuatu has therefore been timely.

Increasingly, PICs are faced with a triple burden of disease (communicable, non-communicable and injury) that puts considerable constraints on health budgets, with little options or flexibility for health care financing. In an environment like this, the increasing efficiency in the utilization of funds for health spending becomes vital. The development of NHA can assist Pacific Island countries to make sound decisions on the use and efficient allocation of funds for health.

In this paper we have reported some of the findings from the NHA exercises in FSM, Fiji and Vanuatu. The development of these NHA country reports have allowed these nations to better understand the flow of financial resources from financing agents, to health providers, and to health functions. We have also discussed how the understanding of these financial flows have implications for health spending, and how NHA as a reporting tool is useful for strengthening and developing evidence based health policies. Furthermore, the NHA findings from FSM, Fiji and Vanuatu enabled a comparative analysis of health expenditures with countries in the Asia Pacific Region. These comparisons allowed the detecting of trends and tendencies with relevance to the 3 Pacific Island countries, thus allowing them to benchmark probable future health budgets.

The challenge that PICs are now facing is the ability to sustain routine NHA data collection, implementation and reporting. While the benefit of NHA for policy making is evident, the capacity of a number, especially smaller PICs to develop NHA on their own is limited. The ADB/WHO project has therefore already discussed establishing a network for NHA for the South Pacific that would technically support those countries that need help. For Fiji, Vanuatu, and FSM, the challenge is now to develop the next round of NHA with little (or no) external financial or technical support. Ensuring the sustainability of NHA requires a

budget and the establishment of – ideally – a multidisciplinary NHA team, with members from the Ministry of Health, from the Ministry of Finance or from the national statistical agency. NHA estimation requires a range of expertise, for example, the knowledge of how to conduct valid surveys for the estimation of private health expenditures, or how to ensure data validity and availability, how to improve methodologies on estimating inpatient and outpatient costs, or expenditures on traditional medicine.

Furthermore, it is not sufficient to collect and display data – data alone do not tell much. Maximising the full benefit of NHA reports also requires that capacity be built for the interpretation and analysis of data. Senior health personnel need to be able to translate the findings of NHA reports into policy recommendations, cabinet papers and strategies that will strengthen health systems in the Pacific.

The newness of the NHA concept to PICs brings with it many challenges, some of which we have previously discussed. And while these challenges look enormous, they are urgent and necessary, and certainly not impossible to overcome. With many PICs yet to establish their NHA reports, a good place to start is for increased advocacy for NHA and its value to health policy makers in the region. This is also the adopted stance and the tone of this article which advocates for more champions in the region to further strengthen the development and use of NHA, a concept we have found inexistent in published Pacific health literature (apart from WHO reports). We trust that this article is the beginning of an exciting journey into increased reporting of National Health Accounts.

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