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Non-communicable diseases and health system responses in Fiji

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EXECUTIVE SUMMARY

Fiji is well advanced on disease transition, with non-communicable diseases (NCDs) now the main cause of death. All sub-groups of the population appear to be affected.

The Ministry of Health's considerable efforts to tackle NCDs include development of national NCD strategies and increased funding and expansion of diabetes services. This has been complemented by additional resources from donors such as AusAID, and technical support from a variety of organisations.

A newly developed tool (Robinson and Hort 2011) was used to describe and assess Fiji's health system response to NCDs. Its four dimensions assessed preparedness in building commitment, reorienting policies, developing new service delivery models and ensuring equity against four descriptive levels of readiness. The piloting of this framework in Fiji is reported here based on a desk review and informed by consultation with selected individuals. An initial literature search included regional and international reports from the WHO and World Bank, MOH data and documents from the Ministry of Health and Bureau of Statistics. Following assessment of these, the framework was used to assess Fiji's progress.

The assessment showed inconsistent progress. In building commitment and addressing health system constraints, it showed strong progress, with high-level commitment, efforts to secure sustainable funding and strategic planning. There was slightly less progress in public policy on population health promotion. Efforts were found to use policy approaches outlined in strategic plans, and to engage the community and private sector.

Progress for service delivery models and equity was very limited. No evidence was found of specific actions to ensure equity of services or health-related financial support structures for low-income households. In the delivery of health services for NCDs, evidence of progress against the framework indicators was absent, although other actions were found. There appeared to be limited consideration of how to integrate NCDs into existing primary healthcare services. There was little evidence of targeting high-risk groups or proactive engagement with the private sector.

Expansion of indicators under the service delivery element may be of value to increase the scope of this assessment. It may also be valuable to consider participatory approaches to completing this framework.

INTRODUCTION

Non-communicable diseases are a growing global problem, causing over 60 per cent of deaths worldwide (WHO 2011c). Increasingly a problem in low- and middle-income countries (LMICs), relatively small amounts of development aid are allocated to NCDs compared to other diseases. Additionally, in many LMICs communicable and non-communicable diseases co-exist, placing great strain on health care services. The burden of NCDs is expected to increase in the next decade, particularly in LMICs (WHO 2011c). The Pacific islands experience a particularly high burden of NCDs, with some of the highest rates of obesity and diabetes in the world (Cheng 2010, WHO 2008).

Concern has been expressed that health system orientation and existing initiatives focused on health system strengthening may not be appropriate for NCDs (Samb, Desai and Nishtar 2011) and that additional emphasis is needed on this issue (Sundewall, Swanson et al 2011). As health systems in LMICs have been strongly influenced by the need to address communicable disease priorities and centred on clinical service delivery and relatively discrete preventive care (e.g. vaccination), current systems are struggling to cope with NCDs in conjunction with communicable diseases. Efforts are needed to look at funding, service delivery, workforce, governance structures, information systems and drug procurement systems (Sundewall, Swanson et al 2011). It is also critical that a multi-sectoral, whole of society approach is adopted in order to tackle the underlying determinants of many of the risk factors for NCDs (WHO 2004).

In 2011 the Nossal Institute for Global Health released a working paper on 'Non-communicable diseases and health systems reform in low- and middle-income countries'. This included a proposed framework (referred to as the Robinson and Hort framework) (Robinson and Hort 2011), which was developed to assist countries in assessing their readiness to respond to NCDs. The framework uses four critical dimensions of a response to NCDs: building commitment, reorienting policies, new service delivery models and equity and four phases or benchmarks of health system responsiveness to NCDs (Appendix 1). In phase one, recognition of the problem of NCDs is present, but lacks

overall direction. In phase two, approaches for NCDs are developed in parallel with existing health programs, rather than integrated within them. Phase three involves more structured and integrated approaches, involving other partners, while phase four is indicated as being a sustainable service for NCDs. This report documents a desk-based assessment of Fiji's 'readiness' based on the Robinson and Hort framework.

Fiji is a small low-income Pacific island country which is experiencing significant problems associated with NCDs. It is currently receiving extensive support in strengthening its health system from the Australian Agency for International Development (AusAID) through the Fiji Health Sector Strengthening Project (FHSSP) and is also reviewing its approach to primary health care. It is therefore timely and appropriate to test the Robinson and Hort framework for relevance and practicality using a Fiji case study.

COUNTRY BACKGROUND AND HEALTH SITUATION

Fiji has the largest population of all the South Pacific island countries, estimated at 837,000 in 2007 (Fiji Islands Bureau of Statistics 2007). The population is relatively young, with around 29 per cent under the age of 14 years and a further 12 per cent aged between 15 and 24 (WHO 2011c). The country has two major ethnic groups, around 51 per cent being Indigenous Fijians/iTaukei and 44 per cent Indo-Fijians (Fijians of Indian descent). Life expectancy is 68 years for males and 72 years for females (O'Dea and Eriksen 2010), which is around 10 years less than the highest level found in the region (SPC 2010). A recent study suggests that life expectancy is static (Carter, Cornelius et al 2011), with no gains since the late 1980s. It has been proposed that this may be due to premature deaths from NCDs (GBD 2012).

Fiji is undergoing the epidemiological and demographic transition that is occurring in most other developing regions of the world. Recent changes in lifestyle have produced a surge in mortality and morbidity related to NCDs (such as cancer, cardiovascular diseases including stroke and ischaemic heart disease, chronic obstructive pulmonary diseases and mental disorders)

(Maharaj and Reddy 2012) and a trend towards earlier onset of some forms of disability (Panapasa 2002). It was noted in the Global Burden of Disease (GBD 2012) that of the 25 most important contributors to disease, as measured by disability-adjusted life years, cerebrovascular disease showed the largest increase, of 45 per cent from 1990 to 2010. This is a marked increase from the figures released following a national survey in 1980, which placed the deaths caused by NCD at just over 30 per cent in the same age group (Cornelius, Decourten et al 2002).

The alarming progression of NCDs continues to be a challenge for health systems. Although there has been a decline in the admission rate for diabetes and its complications, hypertension and the amputation rates from diabetic sepsis, there has been a 40 per cent increase in mortality from cardiovascular disease (Lobstein, Baur and Uauy 2004). The high levels of premature adult mortality, coupled with an increasing proportion of deaths due to circulatory conditions, suggest that increasing cardiovascular disease is preventing improvements in life expectancy (Carter, Cornelius et al 2010). This group of diseases, with lifelong disabilities and devastating complications, is a great burden to the country.

Overweight and obesity are important risk factors for cardiovascular diseases, diabetes, cancers and musculoskeletal disorders, which globally cause nearly 3 million deaths every year (WHO 2004). Between 1980 and 2008, the age-standardised mean global BMI increased by 0.4-0.5 kg/m per decade in men and women. Notably, in this subregion the increase in the same period was 1.4 kg/m per decade for men and 1.9 kg/m per decade for women (WHO 2004). Data from Fiji show a large increase in the mean BMI from 1952 to 1994, with a greater rise among females (WHO 2004).

Fiji's health system is based on three tiers that provide an integrated health service at primary, secondary and tertiary levels. There are also various statutory bodies, councils and committees associated with the Ministry of Health (MOH), such as the National Food and Nutrition Centre and the National Health Promotion Council, that support the management and administration of specific health services such as NCD, giving a clear institutional identity to the control and prevention of NCDs within

the MOH. The Director of Public Health oversees the NCD adviser along with advisers for health promotion, environmental health and nutrition (Rani, Nustrat and Hawken 2012). The health care system is mainly financed through general taxation. The other main financing is out-of-pocket payments, mostly to the private health sector, while smaller amounts are derived from private health insurance and donor organisations (Roberts, Irava et al 2011). Since 1995, in all but one year (1999), the government has allocated between 8 and 11 per cent of its total public expenditures to health (8.2 per cent in 2008). In the same period, government health expenditure as a proportion of gross domestic product has been between 2.9 per cent and 3.5 per cent, while total health expenditure has fluctuated around 4 per cent of GDP (4.2 per cent in 2008) but there is no information on NCD-specific funding (Robinson and Hort 2011). Funds from overseas donors have also fluctuated. In 2005, donor agencies' contribution to health accounted for 5.3 per cent of total health expenditure. It decreased to 3.4 per cent in 2007 following the coup of December 2006 and then rose again in 2008 to 6 per cent (Roberts, Irava et al 2011). Much of this funding is for specific actions or projects, which can have considerable impact on health service provision, and there has been little overall coordination of this donor aid (Roberts, Irava et al 2011). Around half of this has come from AusAID (2007-2010) (Negin, Irava et al 2012), although more than a dozen donors have contributed funds. Donor funds have been found to provide around a third of preventive and public health funds (Negin, Irava and Morgan 2012). There is no available information on spending specifically related to NCDs; however it is likely that donors do have considerable influence over NCD-related spending due to their heavy commitment to preventative activities.

Fiji has implemented a number of important public health initiatives on non-communicable disease, including the National NCD Strategic Plan 2004-2008, and the more recent NCD Plan 2010-2014 (Roberts, Irava et al 2011). MOH strategies for non-communicable disease prevention give priority to the SNAP risk factors (smoking, nutrition, alcohol and physical activity). Some of the current programs and policy to respond to the rising NCD burden are summarised in Table 1 (Roberts, Irava et al 2011).

TABLE 1. OVERVIEW OF KEY PROGRAMS AND POLICY ON NCD

Program	Description
Health promotion	Bula 5-30 initiative. Actions have included: 5 servings fruit & vegetable, 30 minutes of activity and other related programs.
Tobacco free initiative	Fiji ratified the WHO Framework Convention on Tobacco Control in 2004. Actions have included: tobacco taxes, controls on smoking, controls on sales, tobacco-free villages and settings, health promotion campaigns.
Nutrition	Fiji Plan of Action on Nutrition was developed in 2004 by the National Food and Nutrition Centre of the MOH in collaboration with other agencies. It was revised in 2008 and is complemented by the Food-Based Dietary Guidelines. Actions have included: legislation on breast milk substitutes, school canteen policy and guidelines, policy on salt reduction in foods manufactured in Fiji, the Baby Friendly Hospitals Initiative.
Diabetes	Prevention of diabetes is addressed in the NCD Strategic Plan. Actions have included: primary prevention implemented through health promotion activities by community nurses and through outreach activities of village health workers, population screening.
Rheumatic heart disease	A three-year program to control rheumatic heart disease began in 2006. Actions have included: screening of all primary school children for referral for specialist review or surgery by visiting cardiologists.

METHODOLOGY USED IN THE PAPER

This is primarily a desk-based study and involves no primary data collection or field research. Non-communicable diseases are defined for the purpose of this study as diabetes, cancers, heart disease and stroke, but exclude accidents and injuries.

We sourced relevant records from publications, agencies and non-government organisations. Four main areas were looked at: (1) socioeconomic and political (including demographic data); (2) health outcomes (including the burden of diseases, morbidity and mortality); (3) health systems (including governance, health services delivery, health financing and access and health information); and (4) beyond health systems (including tobacco use, food packaging, agricultural policies and community involvement). The sources included regional and international reports from the WHO and World Bank, data from the Fiji MOH and unpublished documents sourced from non-government organisations. Discussions with MOH NCD staff also took place regarding possible documents and organisations to incorporate in the search. Private sector and civil society commitments

and actions were identified through search of local media to identify relevant stories on NCDs. Additionally the websites of identified organisations were searched for NCD information. The phone book was used to identify civil society groups with obvious health or NCD scope, for example Kidney Foundation. Civil society groups and private sector organisations found to be undertaking NCD-related actions were not always able to provide a clear policy or strategy document guiding their commitments. Therefore it is likely that this assessment of actions in the civil society sector is incomplete, although the high use of media to 'promote' social responsibility has assisted in identifying NCD-related activities. The strategic or corporate plans of other ministries (from their websites) were also searched for reference to NCDs as evidence of inter-sectoral commitment.

The recently completed Health Systems in Transition (Roberts, Irava et al 2011) report was of particular value in documenting systems and processes in the Ministry of Health. The NCD strategy documents were of most relevance in documenting preventive approaches (MOH 2010a). Demographic and population data on health statistics such as diabetes prevalence and incidence and number of amputations are given in the MOH annual reports, which are usually released midway

through the following year. There is little documentation of services provided by private sector health services, community health workers, traditional midwives/healers or other non-government organisations.

Data were mapped into four broad areas: socioeconomic and political, health outcomes, health systems and beyond health systems. The Robinson and Hort framework was then used to assess progress and actions across four elements: 'building commitment and addressing health systems constraints', 'public policy in population health promotion', 'service delivery models' and 'ensuring equity in access and payments for services'. This involved consideration of key indicators and whether the available data suggested action or progress on each of these. For example, is there evidence of 'strong commitment to NCD problem by key players'? Underlying each of the specific indicators are overarching issues such as community involvement and long-term strategy development. The framework is provided in Appendix 1.

FIJI COUNTRY ASSESSMENT

In this section, the framework is used as the structure to provide an overview of the current situation. Each of the four elements is described below in regard to activities and gaps. After this description, the evidence presented is compared to the indicators in the framework (Robinson and Hort 2011), and a suggested categorisation of phase is indicated.

Building Commitment and Addressing Health Systems Constraints

There was a high level of availability of information in this section, including strategy, policy and publicly available ministerial speeches. There was an absence of documentation on patient feedback, but this is expected to be due to an absence of action, rather than missing documentation.

There is a high-level of commitment and recognition of the scale of the problem of NCDs in Fiji, in part supported by regional (WHO 2011a,b,c) and global actions and commitments (UN 2012). In the last two budget statements (MOF 2011, MOF 2012) the Prime Minister's speech included an emphasis on the need to tackle NCDs. The government also committed to more funding for the NCD program, increased taxes

on alcohol and tobacco and a lowering of taxes on fruits and vegetables. A national NCD committee (MOH 2010a) exists that includes representatives of all government ministries, although the activities of this committee are not in the public record, so it has not been possible to determine them. Documentation of levels of community awareness and commitment was difficult to find. However, there is evidence through the local media of significant engagement by sections of the community with NCDs. This includes the theming of the annual hibiscus event in 2012 on NCDs, NCD-related workplace programs in other ministries, sponsorship of physical activity by the private sector (including banks and the food industry) and declarations by some villages regarding smoking, alcohol and kava use.

In addition to the high-level NCD committee, subcommittees on the four key risk factors (alcohol, tobacco, diet and physical activity) have been established and include multi-sectoral representation (Cornelius, Decourten et al 2002). Additional committees include a group working specifically with the food industry, and recent consultations (unpublished reports) have included retailers and others in the private sector. The expert group to advise on work issues associated with the food industry includes representation from the Ministry of Health, Consumers Council, Pacific Research Centre for the Prevention of Obesity and Non-Communicable Diseases and World Health Organization and has been in existence for around one year. There have been minimal efforts to engage with the tobacco or alcohol industry, except through occasional workshops or forums, in part due to concerns about working with these sectors.

Overall there is strong recognition of NCDs as a significant issue in need of multi-sectoral action. The NCD strategy (MOH 2010a) details the need for policy, community and advocacy-based actions, and is complemented by the actions detailed in the Fiji Plan of Action on Nutrition (MOH 1997). However, the implementation status of these strategies is not available, and they tend to emphasise health promotion rather than clinical services. The Ministry of Health strategic plan (MOH 2011) makes note of the shift in disease profile in Fiji towards NCDs, along with increasing urbanisation and the resulting need to modify its delivery of health care services. Changes have already been made to primary health care services to increase skills and resources for NCDs,

and work is under way to increase access to specialist services including diabetes (FHSSP 2012), through subdivisional hospitals. However, there appear to be difficulties in maintaining a multi-sectoral approach (Rani, Nustrat and Hawken 2012) and ensuring full commitment from other ministries and organisations. National NCD committees have not been able to meet regularly, and NCD actions still rely on the MOH driving activities.

Within clinical care, access to medicines remains an issue. The National Medicinal Products Policy 2013 replaced the National Drugs Policy of 1994 to improve the accessibility, quality and rational use of medicines by health professionals and consumers. The NCD strategy (MOH 2010a) highlights its 3M approach—mind, mouth and medicine—but makes little comment on medicine access and use. The last NCD survey (Cornelius, Decourten et al 2002) reveals low use of medicines and poor control within those at high risk. Price control on a large range of medicines is in operation (GOF 2010); however, over 90 per cent of expenditure on medicines is by the patient (MOH 2010b). The Ministry of Health has signed an agreement regarding the provision of dialysis services with the National Kidney Foundation, whereby it will fund for several months dialysis treatment for new patients (Asante, Roberts and Hall 2011), and an additional private dialysis centre has been recently established at a medical clinic in Nadi.

There is limited information on patient satisfaction with health services. One recent survey (Lirow, Tuiketi and Biaukula 2012) found low levels of satisfaction, with long waiting times and complaints about poor supplies in the hospital pharmacy, while other surveys have found moderate satisfaction (Roberts, Irava et al 2011). Another issue of concern has been the patient record system, which began after much delay in 2011 (MOH 2011) and is currently accessible only at larger health facilities. In 2012 patient-held record cards for diabetes were introduced (FHSSP 2012) as part of efforts to improve continuum of care, to ensure that, if patients visit their local health centre and also specialist centres, the records of blood and other results are available.

The NCD program at the Ministry of Health is sparsely resourced, with just two dedicated staff, and there is no evidence of consideration of human resource planning specific to NCDs (MOH 2011). There is, however, a need for more staff and a greater focus on monitoring

and implementing the NCD strategy. The budgetary allocation for this program has increased with allocated funding from a recent decree (GOF 2010) which requires large licensing fees from tobacco vendors. Attempts to have alcohol and/or tobacco excise taxes allocated to the Ministry of Health have not been successful.

Overall, in terms of building commitment, Fiji is making good progress, although impacts on budgets and actions are less well developed. However, clinical services for NCDs are an area where more effort is needed. The WHO Package of Essential Non-communicable Disease Interventions (PEN) framework from WHO (WHO 2010) may assist with ensuring greater access to key areas of clinical care. Fiji could therefore be considered to be early in phase three for the commitment element of the Hort and Robinson framework (2011), and to have completed phases one and two.

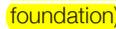
Public Policy in Population Health Promotion

As indicated above, Fiji has a National Strategy on NCDs (MOH 2010a), and while there may be issues with its implementation, the strategy is underpinned by a multi-sectoral and strategic approach. This includes specific policy and legislative actions. Fiji was the third country globally to ratify the Framework Convention on Tobacco Control, and this has contributed to a raft of regulations including taxes, controls on sales and settings (Cussen and McCool 2011). There have also been taxation measures related to alcohol (WHO 2011b) and diet (MOF 2011). Other actions identified in the strategy have been implemented—such as the school canteen policy, which dictates what foods can be sold in schools. While many of the actions were specified in the NCD strategy, some were not, and there is no documentation to indicate how these were developed. There is also no documentation to indicate monitoring of the NCD strategy. Although the ministry is monitoring its strategic plan and associated indicators, this is mainly through infrequent surveys (STEPS and National Nutrition Survey) rather than more specific process and outcome evaluation. While such surveys are costly, they can provide very useful data. However, more emphasis is needed on the active use of routinely collected data such as clinic and hospital records, BMI data from school health checks and data on food, alcohol and tobacco.

The Ministry of Health has recently established a new unit to focus on policy and strategy, and this may contribute towards greater coherence in this area and also increased activities in the policy domain. The

Ministry of Primary Industries, while heavily focused on food security in its strategic plan (MPI 2009), makes no mention of NCDs and indeed has no emphasis on quality of food production, only on reducing food

TABLE 2. EXAMPLES OF ACTIVITIES BY COMPANIES AND NON-GOVERNMENT ORGANISATIONS IN NCD

Private companies	Programs	Source
 Vodafone Fiji Ltd  Vodafone ATH Fiji  foundation)	 <p>mHealth: This is a programme that seeks to address health problems such as NCDs using mobile communications and mobile phones (SMS services for health services and information). mHealth offers services such as subscription to health & medical tips, body mass index.</p>	http://foundation.vodafone.com.fj/pages.cfm/programs/mobiles-for-good/mhealth/about-mhealth.html
BSP Bank Fiji	Branch community programs: the aim of these is reported to be to improve the quality of life in the communities they serve through encouraging the employees throughout their branch network to be involved in projects within their areas of operation. Projects are in education, health and sports development and not particularly on NCD.	http://www.bsp.com.fj/About-Us/BSP-in-the-Community/BSP-in-the-Community.aspx
Westpac Bank Fiji	Westpac Bank works with the MOH in supporting services such as health screening, open air zumba and 30 minute walk with a warm down. Memorandum of understanding is under development.	http://www.fijisun.com.fj/2012/12/15/westpac-fun-health-walk/
NGOs		
FRIENDS in partnership with PRISM program	An objective of FRIENDS is to create a sustainable NCD program that is harmoniously introduced into the local community and aligns with the MOH established infrastructure. This initiative is complemented by the governance program of FRIENDS, which encourages composting, exercise, income generation and backyard gardening/improved nutrition.	http://www.friendfiji.com/index.php?option=com_content&view=article&id=126&Itemid=122
Fiji Red cross	A strategic aim is to work with others to reduce morbidity and mortality and promote healthy lifestyles among vulnerable communities.	http://www.redcross.com.fj/index.php?option=com_content&task=view&id=14&Itemid=35
Action for Children and the Aged (ACATA)	Ministry of Education signed a MOU with ACATA trust Fiji to address health issues. This includes creating and implementing a healthy policy in all schools.	http://www.fijilive.com/news/2012/09/mou-signed-to-address-health-issues-in-schools/47380.Fijilive
Health/Sports Sponsorship		
Fiji's Biggest Morning Tea	An initiative of the Fiji Cancer Society is to raise funds to upgrade the facilities and fund operations of the cancer hospice. This program uses morning teas to raise funds and includes business such as Motibhai Group Ltd, Westpac Fiji, FSM, BSP.	http://www.fijisun.com.fj/2012/07/10/fiji%E2%80%99s-biggest-morning-tea/
Colonial Cup Rugby & Colonial Farebrother Challenge	BSP (formerly Colonial Bank) supports the development of sports in the country.	http://www.bsp.com.fj/About-Us/BSP-in-the-Community/Sponsorship.aspx
Nestle-Milo Kaji Rugby Tournament	Nestle and its product Milo are a major sponsor for this tournament, a competition that assists more than 2500 school boys a year to play rugby.	http://www.fijirugby.com/pages.cfm/fru-news/nestle-renews-kaji-sponsorship.html
Vunivau Paras Point Youth Club	A youth club raising awareness of healthy living by providing health walks and fun run to educate the general public on the benefits of exercise and the correct form of walking.	http://www.fijitimes.com/story.aspx?id=223196

imports. The Ministry of Education in its strategic plan (MOE 2012) makes no mention of health but is implementing a Health Promoting Schools project, which is a collaboration with WHO. A memorandum of understanding was signed between Ministry of Health and Ministry of Education in 2009, mainly to support the school canteen guidelines (Roberts, Irava et al 2011). The strategy documents of other ministries were not found to make any explicit mention of NCDs (Ministry of Women, Ministry of Finance, Commerce and Trade).

Business and industry (locally based) are involved in community-based activities, as previously indicated. A number of non government organisations have moved into delivery of primary health care services in some areas, and international groups are also key in delivering specialist services like prosthesis fitting (some examples are shown in Table 2). At this time there is no policy in the ministry regarding how or when it engages with the private sector and no overall strategy on this issue, although the strategic plan includes an objective of increasing private health care providers (MOH 2011).

Overall, while Fiji is well advanced in terms of strategic planning for NCDs, the implementation of these strategies is weak, and actions on some issues have not progressed (although the plan is still under way, and they might still be implemented within the planned timelines). Engagement with the private sector is high, but non-structured and perhaps not initiated or led by government. Similarly, engagement with civil society is high but driven largely by those organisations rather than the MOH. In terms of the framework, therefore, progress on the public policy element is between phases two and three.

Service Delivery Models

The MOH structure was reformed in 2009 to decentralise decision making on health service delivery. The reforms resulted in some changes to the MOH structure of a central office and its four divisions: (1) Primary Health and Preventive Health Services (Public Health); (2) Health Planning (which has been converted to Health Services Development Division); (3) Hospital Services (which has been converted to Health System Standards Division and includes Nursing); and (4) the Administration and Finance Division (which has been renamed Corporate Services Division) (MOH 2011). The MOH's main objective in health sector reform has

been to improve and extend primary health services through divisional implementation.

Nursing stations in rural communities or health centres in urban areas are the first point of entry into the health system and act as gatekeepers to higher level care, referring to district hospitals and then major hospitals as needed. Nursing stations are required to take blood pressure, diagnose diabetes, give and provide management advice and refer for medications. Diabetes services are limited due to lack of expertise, proper diagnostic tools, facilities and access to medications, and many patients seek private or traditional care.

For NCDs, considerable work is under way as part of the Fiji Health Sector Support Program activities (FHSSP 2010) to reorient services towards NCD prevention and control. This includes twice a year population screening for those over 30 years, personal diabetes records, diabetes centres at subdivisinal hospitals and some urban centres and capacity building (FHSSP 2010). While extra funding is being provided via FHSSP, delivery is primarily via existing health services. No documentation could be found related to any consideration of how to integrate NCDs into existing primary health care services. There have, however, been concerns raised about lack of interventions with individuals who have been screened.

Although, as previously indicated, some private and civil society organisations are providing health care services (Roberts, Irava et al 2011), there is no evidence that these were initiated by the Ministry of Health or developed as part of any specific plan. The lack of planning or clear strategy by civil society in the area of NCDs means it is unlikely that there is assessment of impact or accountability for impact. At least one civil society organisation is providing primary health care services (Viseisei Sai Health Centre: <http://www.fnu.ac.fj/newsite/images/stories/fruit/FNUnewsletterVol2No14April42011.pdf>) which is undertaken in collaboration with the Ministry of Health. Other organisations, for example FRIENDS, sporadically offer outreach/health education services.

There is limited evidence of targeting of high-risk groups for either screening or health promotion services, although data are available from the STEPS survey (even if now 10 years old) (Cornelius, Decourten et al 2002). There is no evidence of efforts to ensure that service delivery is effective, despite the poor diabetes

and hypertension control identified in the STEPS survey. A recent student project (Anand, Mazumdar et al 2011) found no links between attendance at the national diabetes centre and glycaemic control, suggesting that further assessment is needed of the impact of health care services on NCD control.

Overall actions associated with any of the phases in this element of the framework were absent. Fiji is therefore not assessable.

Ensuring Equity in Access and Payments For Services

Overall government health care services in Fiji are free to users (Roberts, Irava et al 2011), although some services attract fees that, while modest, would be too costly for many. Medicines are not free, which can be a substantial long-term and even lifelong expense for those with NCDs. While some programs such as TB treatment, ORS and vaccinations are fully sponsored and therefore free, none of the services or treatments for NCDs fall into this category. Services like chemotherapy, radiotherapy, renal dialysis and heart surgery are available only to those with their own funds or health insurance. While these are offered to a limited extent in Fiji, out of island referrals are available only to a minority. A recent controversy included an overseas specialist surgical team which visited Fiji to undertake open heart surgery on selected cases, and that the MOH required contributions from the patients towards the hospital costs. The reports in the media queried why MOH would require this, when the visiting team gave their time free. It was clearly stated by the MOH that there were actual costs to the hospitals of providing support and facilities for the surgeries, and the funds had to be sourced somehow.

While services are largely free, there is no subsidy or support for travel costs (Roberts, Irava et al 2011), which can be burdensome given the remoteness of many communities. Overall out-of-pocket expenses as a per cent of health care costs have been found to be increasing (Roberts, Irava et al 2011). While parts of the population suffer more from some of the NCDs than others (Cornelius, Decourten et al 2002), there is little attention paid to disaggregation of data by income, and it is therefore unknown if income is related to NCDs. Given the requirement for transport and medicine costs, it is highly likely that those with NCDs would experience financial stress. However, there is an

overall problem with delivery of services to all sectors of the population, with funding constraints and logistical issues.

Overall, little attention has been paid to equity of services for NCDs, although equity and universal access are a key commitment of the current government (GOF 2009b) and MOH. Given the significant problem of poverty in Fiji (BoS 2010; Narsey 2006; Narsey 2007), this area deserves more attention.

Fiji is therefore non-assessable for this component of the framework.

ROLE OF DEVELOPMENT PARTNERS

Fiji is a recipient of external technical assistance and aid in the area of NCDs, and for its health system more generally, from a number of sources. The health system overall was estimated to have received FJD9.5 million in 2007 and FJD22 million in 2010 (Roberts, Irava et al 2011). This includes funds from a variety of UN agencies, Australia (AusAID), New Zealand (NZ Ministry of Foreign Affairs and Trade), Japan (JICA), European Union, Asian Development Bank and the Global Fund to Fight AIDS, Tuberculosis and Malaria. In 2010 60 per cent of these funds were from AusAID.

For NCDs specifically, support is provided primarily by the WHO, the Secretariat of the Pacific Community (SPC) and AusAID (FHSSP Project). Preventive services for NCDs are mostly funded by donors—for example, in 2009 nearly three quarters of this budget was from donors (Roberts, Irava et al 2011).

Most support is technical rather than financial, with the exception of AusAID, which, through its FHSSP, is providing upwards of AUD5 million annually over the next five years for five target areas including diabetes and hypertension (FHSSP 2012). The diabetes/hypertension component focuses on improving the decentralised prevention, detection and management of diabetes and its complications (FHSSP 2012). This includes activities such as annual population screening, building capacity of the health workforce, diabetes personal care record booklet, developing diabetes clinics and hubs and specialist outreach services (FHSSP 2012). The FHSSP developed following the completion of FHSIP (Fiji Health Sector

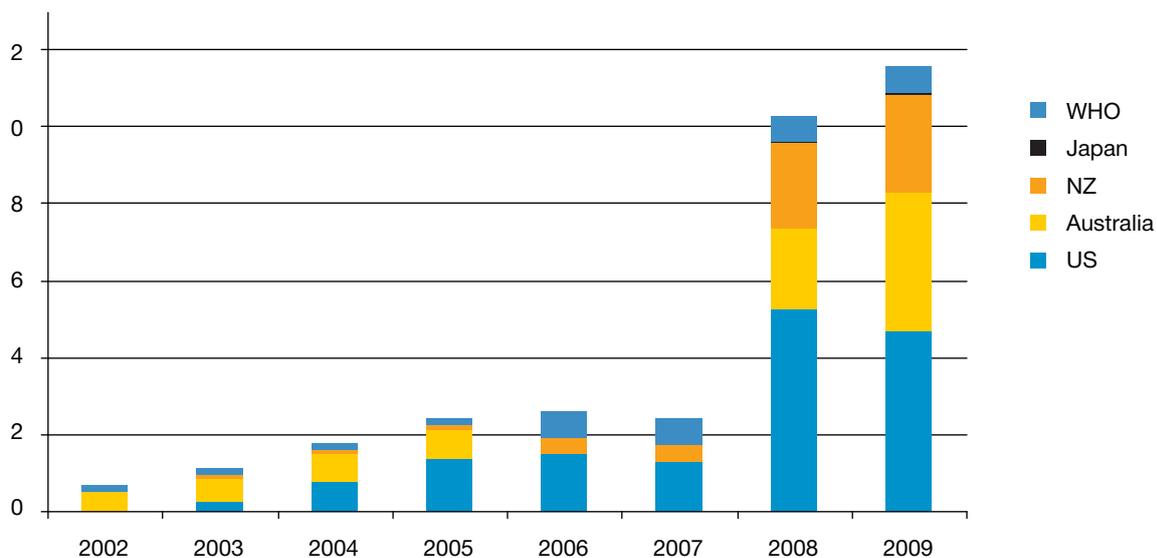
Improvement Project), which was also AusAID funded, and was developed in collaboration with the Ministry of Health and linked to their priority areas. The FHSSP sits alongside the Ministry of Health (due to the requirements of AusAID, which will not directly fund the government of Fiji) and includes a technical adviser on diabetes along with short-term staff on social marketing and other overarching issues.

From 2008 to 2011, the WHO and SPC implemented a joint multi-country strategy in the Pacific focused on NCDs called '2-1-22' (SPC and WHO 2008). Funded by AusAID and NZAID, this strategy focused on: strengthening development of national NCD strategies, supporting countries in implementing their strategies, supporting development of sustainable funding mechanisms, strengthening health systems and strengthening monitoring, evaluation and surveillance. The approach included country grants, of which Fiji was a recipient, and helped to fund a new project officer position to support the NCD adviser. There is extensive technical support from both the WHO and SPC, including training programs, in-country visits, support for NCD strategy and networking. The SPC-Fiji joint country strategy 2010-2014 (SPC 2011) includes a number of action areas for NCDs, including support for implementation and review of the NCD

strategy, support for development of a sustainable funding mechanism, human resource development and assistance with surveillance and monitoring. Other actions supported in 2011 included: review of alcohol legislation, overseas attachments and Global School-based Health Survey. Small grants have also been accessible from SPC, and these have been used by Fiji for activities including hospital food gardens (SPC 2010). Support from WHO has also included a position based in the MOH and funds for the Health Promoting Schools project, and salaries of officers for physical activity, tobacco and salt reduction. While a review has been conducted of the 2-1-22 by AusAID, this report is not publicly available.

WHO is also providing support for the implementation of the PEN program (including PEN Disease Interventions) in the region. 'It is a prioritised set of cost-effective interventions that can be delivered to an acceptable quality of care, even in resource-poor settings' (WHO 2010). It can be regarded as minimum standard to strengthen national capacity for NCDs. The package includes primary health care programs such as tobacco cessation, availability of key medications (for example statins to lower cholesterol levels) and support for healthy eating. Fiji is at an early stage of implementing PEN supported by WHO.

FIGURE 1: EXTERNAL FUNDING FOR NCD PROGRAMS IN THE PACIFIC, BY SOURCE, 2002-09, IN CONSTANT 2007 US \$MILLION



Note: Funding for New Caledonia, French polynesia and Wallis and Futuna not included.

Source: Negin and Robinson 2010

Additional technical support is periodically provided through AusAID's Australian volunteer scheme, which often includes two volunteers based within the Wellness Program. Volunteers have also been provided by JICA and USA's Peace Corps in the area of NCDs. Civil society support for NCDs includes organisations providing medical care (for example international visiting medical groups), equipment (wheelchairs from the Red Cross) and undertaking health education (for example Seventh Day Adventist Church). This informal sector is not coordinated by the Ministry of Health, and it is difficult to ascertain its extent or financial value.

Additional external funding has been provided through specific grants. For example, the World Diabetes Foundation is funding a project focused on eye care at the Pacific Eye Institute. The Fred Hollows Foundation established a diabetes clinic at the Eye Institute in 2012. Another example is a research grant to support salt reduction interventions that has been secured by the Pacific Research Centre for the Prevention of Obesity and Non-Communicable Diseases and the George Institute for Fiji.

A review of funding for HIV and NCDs in the region in 2010 (Negin and Robinson 2010) found that HIV received considerably more funding than NCDs from donors, even though mortality and morbidity for NCDs is much higher. Figure 1 extracted from Negin & Robinson shows the distribution of funding sources across the region (Negin and Robinson 2010). While the situation with regard to funding may have shifted in more recent years, it is difficult to know without having mechanisms to track and report on it in a systematic way.

DISCUSSION

Fiji is currently struggling to address the consequences of its rapidly evolving NCD epidemic. The problem is expected to worsen over the next 10 years, and the drains on health care resources and productivity are substantial. In order to deal effectively with the NCD crisis a reorientation of health care services and systems in a country is needed to cater for chronicity and the need for various types of prevention. Health systems developed with a primary orientation towards communicable diseases will be unable to deal effectively with NCDs without some reorientation, but this must be done to allow effective action for both communicable and non-communicable diseases concurrently.

Current efforts by the MOH supported by donor agencies (particularly AusAID) include reorganisation of the primary health care system, reinvigoration of the community health worker model and increasing emphasis on evidence-informed decision making and policy making. There is also considerable emphasis on prevention of NCDs, with recognition of the need for multi-sectoral action and policy-based approaches. While data are collected on NCD mortality and risk factors, limited use is made of these to plan services and identify high-risk groups. Efforts have been made, and will continue, to secure additional resources for NCD activities, including through taxes and licensing fees. While the private sector and civil society are generally engaged and involved in NCDs, there appears to be limited leadership from the Ministry of Health to coordinate these activities, although there are some examples of a more proactive approach from the ministry in some areas, for example discussions with and targets for the food industry. Community engagement is high overall, and this is both community and ministry led, with requests coming from the community for MOH support and the ministry making requests to communities. It is unclear how effective current services are in preventing and controlling NCDs, as evaluation is limited, although efforts are under way to increase data availability (for example through STEPS, diabetes records, Patients Information System). More effort is needed to monitor the impact of services and activities.

In this desktop study of the status of the health system in Fiji, the Robinson and Hort framework (2011) was used to attempt to categorise the progress in phases. The framework suggests that while there is a continuum of development, there is a shift from 'a series of fragmented, less coherent responses to NCDs, to responses that are fully integrated into a sustainable system in which prevention and treatment are seen as parts of a holistic approach to health' (Robinson and Hort 2011). The framework identifies sequential phases as various NCD services become progressively more integrated within the health system. In this assessment, it was found that phases of development varied markedly between the four areas identified in the rows of the matrix framework. There appears to be moderate progress (phase three activities) in regard to building commitment and addressing constraints, and also moderate progress (phase two-three) for public policy use. However, actions in service delivery and

equity as defined in the framework were almost absent. It is unclear from this analysis why development has been uneven, although this may reflect efforts from key technical advisory organisations for NCDs (particularly WHO and SPC) that have encouraged and supported an emphasis on health promotion, community-based and policy-based approaches. For example, their most recent joint work plan (SPC and WHO 2008) included an objective to 'strengthen the development of comprehensive, multi-sectoral national NCD strategies' and to 'support the development of sustainable funding mechanisms to deliver NCD strategies' and specific targets related to these. Although there was also an objective on strengthening health systems, there was no target related to this, and this may have contributed to limited activity on this issue.

While surveillance and data gathering are increasing for NCDs, there has been minimal emphasis on targeting of interventions to high-risk groups. There has been relatively little analysis of data by income or location, although data on these variables are routinely collected. This means that information on variations in risk factors between population sub-groups is not available, thus limiting scope for targeting. The chronicity of NCDs suggests that they would be a significant long-term cost burden on individuals affected, with funds needed for medicines and transport to health clinics and potential loss of earnings due to sickness. There has been no analysis to date of these types of costs, although a recent study in Vanuatu suggests that costs are likely to be high (Falconer, Buckley and Colagiuri 2010).

In the absence of data on costs of NCDs to those affected, it is hardly surprising that there have been no efforts to date by the MOH to consider equity in access to NCD services. Further analysis of existing data is urgently needed to identify where disparities may lie. This should be complemented by efforts to assess out-of-pocket expenses for those with NCDs. This should also consider cost of support services such as crutches and prosthesis for those with amputations and physiotherapy for stroke sufferers.

While Fiji appears to be making moderate progress in terms of building commitment, lack of evidence of monitoring of existing strategies is of concern. Strategies and plans should be regularly reviewed and updated, and strong monitoring systems are therefore critical. Maintaining multi-sectoral commitment to NCDs

is challenging, and without efforts and engagement, progress on implementation of strategies may be slow. Mapping of non-government involvement in NCDs may be beneficial in identifying current stakeholders and identifying gaps where the MOH may seek further engagement. Practically, additional capacity in the core NCD team to undertake monitoring and assessment tasks is needed, along with a clear remit to undertake these activities. The application of the framework suggests an imbalance in the efforts of the key players in Fiji, with insufficient emphasis on delivery of services and addressing the needs of the poor and disadvantaged.

Support from development partners to strengthen monitoring and implementation of the NCD strategy will be essential. Training and guidance on engaging with the private sector and civil society in a structured and planned way would also be of benefit, particularly to ensure that the Ministry of Health is able to manage possible conflicts of interest with non-government partners. These will likely increase as the private sector becomes more interested in demonstrating social responsibility by becoming involved in health-related initiatives. Ensuring that data collected on NCDs are sufficiently disaggregated to provide the MOH with the evidence needed to inform its targeting of activities is essential, and can also be supported by development partners. Impact assessments are undoubtedly needed on health promotion and clinical services for NCDs to ensure that limited resources are being used to full effect. Academic institutions and development partners may be able to assist the MOH with this.

A study in five low/middle income countries (Rani, Nustrat and Hawken 2012) suggested that multi-sectoral collaboration has been difficult to achieve in the Western Pacific. This may be related to lack of experience in working with non-government sectors and the absence of policy on dealing with the private sector. An overarching structure such as health in all policies might be of value in guiding these aspects of collaboration (Rani, Nustrat and Hawken 2012).

While the contribution of donors overall to the health system in Fiji is relatively low, it is of concern that levels of funding for NCDs have been far outstripped by those for HIV. Support from AusAID (the main donor for health-related programs in Fiji) is now shifting towards more bilateral support rather than through regional

and international development partners, as evidenced by the Fiji Health Sector Strengthening Project. This project has a strong emphasis on NCDs and also on health system reorganisation, which, from this review, would likely benefit NCD control. AusAID and technical advisory agencies like the WHO and SPC are likely to have considerable influence over the activities of the Ministry of Health. This is perhaps evidenced by the rise in NCD strategies in the region, heavily promoted by the WHO and SPC as part of their 2-1-22 program. The introduction of the PEN by WHO in the region, including in Fiji, may assist countries to place more focus on delivering basic but effective primary health care services for NCDs. The last NCD STEPS survey found very low levels of blood sugar and hypertension control in those already diagnosed (Cornelius, Decourten et al 2002) and improving the effectiveness of support for those diagnosed with NCDs is critical.

Assessment of system readiness using the Robinson and Hort framework (2011) is relatively easy to undertake following a literature review. There does appear to be some overlap between elements; for example, should out-of-pocket expenses be in element one or four? However, these are fairly minor issues when using the framework. The specific indicators included in the 'service delivery models' element seemed relatively limited in scope beyond phase one, and may benefit from additional indicators. For example, aspects of PEN (WHO 2010) could be included in this, along with up-skilling programs for health care staff on NCDs and workload models. From the Fiji case study, it is clear that extensive activities are under way to ensure delivery of NCD prevention and treatment services through outreach and health centres, and indicators in the framework to allow these to be documented would be valuable. While phase four of this element includes as an indicator the integration of NCDs into mainstream primary health care services, earlier phases might benefit from indicators on partial integration for example of NCDs into specific services such as maternal and child health. Additionally for element one or two, an

indicator regarding settings-based policies might be of relevance, for example health-promoting schools, health-promoting workplaces. Another issue raised was that this framework is heavily focused on what the health sector and a relatively narrow range of sectoral partners are doing, and more focus perhaps should be included on non-health sector actions, which are relatively minimal in the current framework.

The use of the framework may be of value in supporting countries to tackle NCDs more effectively by identifying areas of weakness and strength. This can assist countries to see exactly where they are and where they need to go. It may be possible to develop a version of the framework that could be completed through a participatory process (involving the Ministry of Health and associated organisations). This may be of particular value in reducing the work involved and also in completing the framework assessment in the absence of documentation of activities.

CONCLUSIONS

Overall, this 'snapshot' of Fiji's response to NCDs undoubtedly highlights areas that need more action. There has been considerable effort to raise the priority of NCDs, and this has resulted in good progress on commitments and planning. Ensuring multi-sectoral commitment remains challenging, and while strategy development is strong, implementation and evaluation need to be strengthened. Greater efforts are needed to ensure strong multi-sectoral support and action. A more strategic approach to engagement with the private sector and civil society organisations may be of value in supporting the MOH in its initiatives and building on existing activities in this area. Targeting of high-risk populations and disadvantaged communities would benefit from greater consideration. Development partners may be able to provide support for these challenging issues, including technical assistance and additional resources

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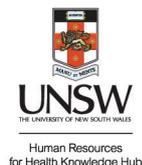
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ANNEX 1

STRATEGIC FRAMEWORK FOR RESPONDING TO NCDs (ROBINSON & HORT 2011)

ELEMENT	PHASE 1	PHASE 2	PHASE 3	PHASE 4
1. Building commitment and addressing health systems constraints	<ul style="list-style-type: none"> Broadened awareness of problem across government and community Identified partners – public private, academic, NGOs, CSO, external – to form alliances Develop advocacy strategy and business case Baseline data for population using STEPs or mini-STEPs approach 	<ul style="list-style-type: none"> Strong commitment to NCD problem by key players System for keeping individual health records has been decided Elements of a national NCD plan agreed 	<ul style="list-style-type: none"> Drug purchasing policies to cover NCD needs revised and refined Human resources plan for health to cover prevention, diagnosis and delivery of good quality NCD models revised Sources for new finances through taxes, efficiencies as part of national health budgets identified National NCD plan for next five years and cost for delivery of core services refined 	<ul style="list-style-type: none"> National health plans and budgets have been aligned with strategy Community is satisfied with services
2. Public policy in population health promotion	<ul style="list-style-type: none"> Determine overall strategic approach inside and outside government 	<ul style="list-style-type: none"> Prevention strategy developed, partners identified Evaluation and accountability framework agreed at high level Strategy for legislation, taxation and regulation developed Strategy for mobilizing community agreed 	<ul style="list-style-type: none"> Business and industry engaged as partners at the community level Implementation of population strategies commenced 	<ul style="list-style-type: none"> Community, business and industry are playing their role in national strategy
3. Service delivery models	<ul style="list-style-type: none"> Potential high risk populations by key characteristics of gender, age, location, ethnicity identified NGO and community partners for service delivery identified Training needs for pilot delivery identified 	<ul style="list-style-type: none"> Service delivery model for small-scale intervention for early diagnosis and treatment developed 	<ul style="list-style-type: none"> Lessons from Phase 1 and scale-up built on to expand coverage 	<ul style="list-style-type: none"> Treatment of NCDs fully integrated into mainstream primary health care services nationally and are sustainable
4. Ensuring equity in access and payments for services	<ul style="list-style-type: none"> Equity in access and costs to prevention and treatment services examined for high risk populations 	<ul style="list-style-type: none"> Appropriate low cost services for high risk groups with inequitable access or cost burden developed and piloted 	<ul style="list-style-type: none"> Measurement of equity of access and payments part of scale up. Appropriate financial support provided to those with financial barriers 	<ul style="list-style-type: none"> Ongoing monitoring of equity of access and payments

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