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China's South-South Cooperation with Pacific Island Countries in the Context of the 2030 Agenda for Sustainable Development

*Series Report:
Health and Health Service Delivery*





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Series Report: Health and Health Service Delivery

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List of Acronyms

ADB	Asian Development Bank
DoH	Department of Health (PNG)
EU	European Union
FSM	Federated States of Micronesia
GAVI	Global Alliance for Vaccines and Immunization
GDP	Gross Domestic Product
HDI	Human Development Index
MDG	Millennium Development Goal
MoF	Ministry of Finance (Samoa)
MoH	Ministry of Health
NCDs	Non-communicable diseases
ODA	Official development assistance
PHRHA	Pacific Human Resources for Health Alliance
PIC	Pacific Island Country
PIFS	Pacific Islands Forum Secretariat
PNG	Papua New Guinea
SDG	Sustainable Development Goal
SPC	Secretariat of the Pacific Community
UNAIDS	Joint United Nations Programme on HIV/AIDS
UNCEB	United Nations Chief Executives Board
UNDP	United Nations Development Programme
UNFPA	United Nations Population Fund
UNICEF	United Nations Children's Fund
WHO	World Health Organization

Executive Summary

Having a well-functioning and efficient healthy system is crucial for achieving Goal 3 of the Sustainable Development Goals (SDGs) on good health and well-being. Pacific island countries (PICs) face unique challenges in the health sector. The great diversities in political and economic status and demographic characteristics have led to health inequalities and gaps in health systems within and between PICs. This report is part of a policy series that identifies challenges and opportunities for China's South-South cooperation with PICs in the context of the SDGs. It focuses on health issues and health systems of three PICs, namely, Fiji, Papua New Guinea (PNG) and Samoa, and identifies some of the major challenges in health and health systems in the Pacific, guided by the World Health Organization's (WHO) health system framework, which comprises six building blocks as the table below shows.

Building block	Challenges
Health service delivery	Lack of adequate and consistent health services
Health workforce	Shortage of health workforce due to retention, brain drain and the aging of the health workforce
Health information system	Lack of comprehensive health information systems and quality data for managing the financial and human resources, and monitoring and measuring results
Medical products, vaccines and technologies	Shortage of medical products, diagnostic supplies and technologies partially due to weak capacity in procurement and supply chain management in many PICs
Health financing	Lack of consistent and substantial health financing from both PIC governments and external development partners; and lack of efficiencies in their health systems
Leadership and governance	Limited regulatory, legislative and policy capacities to develop and implement strategic sectoral development frameworks
Health issues	Non-communicable diseases (NCDs), communicable diseases, environmental health, family planning, maternal, child and adolescence health, tuberculosis (TB), malaria, sexually transmitted infections (STIs), respiratory infections, diarrheal diseases and HIV/AIDS, among others

Source: Made by author

PICs have received assistance in the health sector from many bilateral and multilateral development partners. However, the health priorities of countries and development partners tend to be disease-focused while limited attention has been paid to health systems. China has already been engaged in the health sector of PICs and its support has primarily focused on health infrastructure. Based on lessons drawn from implementing the Millennium Development Goals (MDGs) and persistent challenges and gaps in the health sector of PICs, this report outlines several opportunities for enhancing China's health engagement in the Pacific with a view to supporting PICs' SDG implementation.

Recommendations	
Capacity building for leadership and the health workforce	<ul style="list-style-type: none"> » Expand its current level of assistance by increasing the number health specialists dispatched to PICs, and expand their geographic coverage. The intervention should focus on knowledge and skills transfer. » Provide more training to health workers either in China or in PICs and arrange for education and training exchange programmes for health workers from both China and PICs. » Assist in developing and strengthening professionalism in health and best practice in care for health training institutions in PICs. » Conduct an evaluation of China's scholarship programme to see how well current medical graduates from PICs are reintegrating into their home systems and how well their skills set can meet PICs' health needs.
Increase funding support to the health sector	<ul style="list-style-type: none"> » Focus on the efficient and effective use of resources as many PICs already spend a large share of their total revenue on health but a lot of inefficiency exists in the system. » Given the high levels of indebtedness of some PICs, China could provide more grants, technical assistance, and other arrangements and options, such as better investment, efficiency gains, or co-financing across sectors. » Specifically for health infrastructure support, conduct a joint study with other development partners on Pacific health facilities to identify lessons learned in health infrastructure with a view to informing future support that better adapts to local context and responds to local needs. » Work closely with regional bodies, such as the Secretariat of the Pacific Community (SPC) and the Pacific Islands Forum Secretariat (PIFS), or with other bilateral development partners and multilateral development partners, such as the Asian Development Bank (ADB), World Bank, and UN agencies.
Strengthen health information systems and database	<ul style="list-style-type: none"> » Provide technical cooperation and training to PICs on health information management, monitoring, and data collection and analysis, especially on how to create linkage with SDG targets and indicators. » Partnerships with other development partners and regional bodies that are engaged in helping PICs to strengthen health systems, at country or regional levels. For instance, China could cooperate with the ADB which is now poised to make investments in health information systems and health security in a number of PICs. » Coordinate and collaborate with other development partners with similar capacities in health information systems to identify the most effective ways to support PICs' health sector and ensure that health systems are fit for purpose, affordable and appropriate.
Share knowledge on traditional medicine	<ul style="list-style-type: none"> » Share knowledge on traditional alternative and modern medicine to help establish the efficacy of traditional medicine and the processes and options for utilizing alternative medicine alongside the formal biomedical health systems.
Strengthen coordination and partnerships in the health sector	<ul style="list-style-type: none"> » Increase alignment with PICs' health sector priorities, including consultation with relevant partner government agencies, coordination among Chinese actors who are engaged in the health sector on the ground and participation in consultations with development partners. » Build partnerships with other development partners, including identifying trilateral cooperation partnership opportunities with other development partners and strengthening engagement with regional and multilateral development partners in the health sector.

Introduction

Goal 3 of the Sustainable Development Goals (SDGs) focuses on agenda on good health and well-being. Despite support from many development partners over many years, the delivery of efficient and equitable health services to address the diverse health issues affecting the populations remains a huge challenge for many Pacific island countries (PICs). Many PICs are going through an epidemiological transition and their health systems are not yet equipped to tackle emerging non-communicable diseases (NCDs) reaching epidemic proportion. Because of the diversity and challenges, the health systems of many PICs are unable to respond to the health needs of the populations as countries move forward with the SDG agenda.

This report focuses on the development and challenges in health and health service delivery in PICs. Fiji, Papua New Guinea (PNG) and Samoa are used as cases in point. The report is not a detailed assessment of clinical health issues nor a diagnostic assessment of health systems. Rather, it 1) highlights health issues and challenges that are common across PICs; 2) identifies gaps within the health systems of PICs that require further support and interventions by other development partners; 3) provides policy recommendations for China's engagement to support PICs in achieving the health goal of the SDGs. The report is based on interviews, review of selected reports and documents from previous studies, organizations and projects in the health sector, and feedback from the China-Pacific Workshop organized by UNDP China on November 17-18, 2016 in Beijing.

The investigation is guided by the World Health Organization's (WHO) health system framework, which comprises six building blocks: 1) health service delivery; 2) health workforce; 3) health information system; 4) medical products, vaccines and technologies; 5) health financing; and 6) leadership and governance. The framework is useful not only for defining desirable attributes of a health system and clarifying its essential functions, but also for identifying the gaps in a health system. According to the health system framework, a well-functioning health system:

- I. Delivers safe and quality **health services** in an effective manner when and where needed, with minimum waste of resources;
- II. Has a well-performing **health workforce** that is responsive, fair and efficient to achieve the best health outcomes possible, given the available resources and circumstances;
- III. Has a well-functioning **health information system** that ensures the production, analysis, dissemination and the use of reliable and timely information on health determinants, health system performance and health status;
- IV. Ensures equitable access to essential **medical products, vaccines and technologies** of assured quality, safety, efficacy and cost-effectiveness, and their scientifically sound and cost-effective use;
- V. Raises adequate **health financing**, in ways that ensure people can use needed services, and are protected from financial catastrophe or impoverishment associated with having to pay for them;
- VI. Consists of **leadership and governance** that ensures strategic policy frameworks exist and are combined with effective oversight, coalition-building, the provision of appropriate regulations and incentives, attention to system-design and accountability (WHO, 2007).

1. The eight PICs with which China has diplomatic relations with include Cook Islands, Federated States of Micronesia (FSM), Fiji, Niue, PNG, Samoa, Tonga and Vanuatu. 6 others including Kiribati, Nauru, Marshall Islands, Palau, Solomon Islands and Tuvalu have diplomatic relations with Taiwan.

Moving towards the SDGs: Challenges and Gaps in Health and Health Systems in the Pacific²

The Pacific island region comprises 22 countries and territories³ separated by vast distances and differing in their political and economic status as well as population sizes and demographic characteristics. This shapes the development of PICs in a unique way. Health inequalities exist within and between PICs, and progress in health outcomes lags in many PICs. Significant mortality and morbidity prevail (SPC, 2012:1). The health indicators⁴ captured in the 2015 Human Development Index (HDI) of the United Nations Development Programme (UNDP) show a mix between Melanesian, Micronesian and Polynesian countries and reflect the huge diversity between countries of different political and economic status. Polynesian countries tend to perform relatively well compared to the Melanesian and Micronesian countries, with lower infant and maternal mortality. Table 1 illustrates such disparities in terms of life expectancy at birth (UNDP, 2016).

Table 1. PICs' HDI ranking and average life expectancy at birth, 2015⁵

HDI ranking	Country	HDI	Life expectancy at birth (years)	Region	Economic status ⁶
High human development					
60	Palau	0.788	72.9	Micronesian	Upper-middle-income
91	Fiji	0.736	70.2	Melanesian	Upper-middle-income
101	Tonga	0.721	73.0	Polynesian	Lower-middle-income
104	Samoa	0.704	73.7	Polynesian	Upper-middle-income
Medium human development					
127	Federated States of Micronesia (FSM)	0.638	69.3	Micronesian	Lower-middle-income
134	Vanuatu	0.597	72.1	Melanesian	Lower-middle-income
137	Kiribati	0.588	66.2	Micronesian	Lower-middle-income
Low human development					
154	PNG	0.516	62.8	Melanesian	Lower-middle-income
156	Solomon Islands	0.515	68.1	Melanesian	Lower-middle-income

Source: UNDP, 2016, World Bank, 2017

Needs and challenges in health systems and health issues in PICs

Although there may be demand-side factors affecting health service utilization, many issues and challenges are a result of poor health systems on the supply side, hindering effective health service delivery. These challenges are illustrated below by building blocks (WHO country profiles, 2008; WHO, 2013; Doyle et al., 2011, UNFPA, 2014 and SPC, 2012).

2. Additional details can be obtained from the following sources: SAMOA Pathway: <http://www.sids2014.org/index.php?menu=1537>; "Healthy Island Vision": http://www.wpro.who.int/southpacific/pic_meeting/2015/documents/pic11_3_rev1_healthy_islands_journey.pdf?ua=1; and NCD Roadmap: http://www.forumsec.org/resources/uploads/attachments/documents/2014JEHM.BackgroundA.NCD_Roadmap_FullReport.pdf.

3. Overseas territories of France, New Zealand, United Kingdom and the United States of America in the Pacific include American Samoa, French Polynesia, Guam, New Caledonia, Northern Mariana, Pitcairn Island, Tokelau, Wallis and Futuna. Cooks Islands and Niue are independent in free association with New Zealand. FSM, Marshall Islands and Palau are independent countries in compact of free association with USA (Russell 2011:32-33).

4. The three indicators of HDI are life expectancy at birth, expected years of schooling and gross national Income (GNI) per capita respectively.

5. The 2016 human development report does not have data on all the PICs. Some countries such as Nauru, Marshall Islands and Tuvalu have incomplete data which was not included here.

6. Refer to World Bank country classification 2017: <https://datahelpdesk.worldbank.org/knowledgebase/articles/906519-world-bank-country-and-lending-groups>.

Building block 1: Health service delivery

In PICs, the government is the major financier and provider of all health services with the existence of a small for-profit private sector providing health care in a limited number of countries. For example, in PNG, churches provide 40 per cent of the health care services to most remote areas where government presence is absent or minimal (Izard & Dugue, 2008). Fiji, PNG and Samoa face similar challenges. While the communities in some countries are adequately served by primary and preventive health services (WHO, 2013), the coverage of essential health care is patchy and many PICs are unable to provide health care in a consistent way (SPC, 2012). For instance, although Fiji has significantly expanded its health facilities and supply of medical products, there is still a need for delivering comprehensive health services in the right geographical locations (Fiji MoH & MS, 2015:16). In PNG, the decentralization process and limited technical capacity at sub-national levels are some of the factors leading to poor health service delivery, among others (Thomason & Kase, 2009, 117; DoH, 2001; Asante & Hall, 2011:3). In Samoa, funding issues at all levels are constraints to health service delivery (Samoa MoH, 2007:45).

Building block 2: Health workforce

Workforce-related issues, such as shortage of skilled health workers due to retention and brain drain, and the ageing of health workers, are common across the Pacific region. The Pacific Human Resources for Health Alliance (PHRHA)⁷ identified major challenges facing the health workforce, including: an ageing health workforce; skills shortages; recruitment and retention of quality health personnel in rural areas; migration of skilled health workers due to unsatisfactory working conditions; and lack of professional development opportunities (SPC, 2014:12) in some PICs, among other issues. A broad range of development partners provide PICs with scholarships (such as Australia, New Zealand, China, Cuba, Singapore, Morocco and the UK), but getting graduates who have experienced a mix of training approaches in other countries to reintegrate into the health sector of PICs is not without challenges, which may impact the quality and integrity of health care in the region. Fiji, PNG and Samoa face similar challenges. Staff shortages, partly due to emigration of skilled workers, put a major constraint on Fiji's health service delivery (Roberts et al., 2011:61). PNG's health workforce-related issues, on the other hand, relate to an ageing health workforce and low supply of critical cadres as training institutions are not able to produce the required number of health workers (PNG DoH, 2010:15; World Bank, 2011: xvii, 15). In Samoa, recruitment and retention of human resources are outstanding issues (Samoa MoH, 2007:45).

Building block 3: Health information system

Many PICs lack a comprehensive health information system and quality data for managing the financial and human resources, and monitoring and measuring results (WHO, 2013). The weak statistical and health information systems in PICs make it difficult to measure critical health indicators and track performances. Although some PICs have established health information systems, they lack analytical capacity to utilize health data and conduct robust statistical calculations (UNFPA, 2014). In Fiji, resources have focused on data input rather than information output, and statistical analysis of the data is not fully developed (Roberts et al., 2011:31). PNG's health information and communication technology is under-developed although it has a functioning National Health Information System and a National Discharge Information System (PNG DoH, 2010:28). Technical assistance from the WHO, Australia and New Zealand has helped Samoa establish an integrated health information system (DFAT, 2015). Fiji, PNG and Samoa all face numerous challenges in providing accurate and reliable information. For population-based health information, many PICs are using, or in the process of introducing an open-source software called "DHIS2", which is working well in the region. Getting countries to use a common system may help enhance comparability of data and capacity for maintenance.

Building block 4: Medical products, vaccines and technologies

Shortages of medical and diagnostic supplies are prevalent in PICs. Part of the reason relates to very weak capacity in procurement and supply chain management in many PICs. As a result, heavy reliance on off-island referrals for tertiary health care services is common for many PICs. For example, for the FSM and Marshall Islands,

7. 13 members formed the PHRHA, including Cook Islands, Federated States of Micronesia, Fiji, Kiribati, Marshall Islands, Nauru, Niue, Palau, Samoa, Solomon Islands, Tokelau, Tonga, and Vanuatu. PNG is not a member of PHRHA.

off-island referrals constitute the major outlay in health care expenditure (SPC, 2014:12). The issue of medical supplies in the three countries studied varies. Although Fiji has significantly expanded its medical supplies to health facilities in recent years (Fiji MoH & MS, 2015:16), development partners also assist with the supply of vaccines, family planning commodities, and selected pharmaceuticals (Roberts et al., 2011). In PNG, procurement and distribution of medical supplies and vaccines to health facilities is a major challenge, with basic drugs and medicine consistently in low supply despite development partners' support (PNG DoH, 2010). To address this challenge, PNG developed and operationalized a 100 per cent medical kit supply system between 2013 and 2014. In Samoa, both the United Nations Children's Fund (UNICEF) and the United Nations Population Fund (UNFPA) provide vaccines for infants and mothers, as the supply of vaccines is a concern for Samoa (Samoa MoH, 2012).

Building block 5: Health financing

Health financing has an impact on most of the building blocks of the health system, such as medical supplies, health service delivery, health workforce, and health information systems. Health systems of many PICs are under-funded or static, which makes it difficult for them to deliver critical services, hindering the SDG implementation. There are several development partners supporting PICs including Australia, New Zealand, the World Bank, the Asian Development Bank (ADB) and UN agencies, all of which contribute significantly to PICs' annual health expenditures (UNICEF, UNFPA, WHO, UNDP). For instance, 9 per cent of Fiji's health expenditure in 2012 was provided by development partners (Negin et. al 2012). Despite many development partners' support over many years, health financing remains an issue for PICs. For example, Samoa's health service delivery is hindered by constraints on its national budget although it is supported by several bilateral and multilateral development partners, including Australia, New Zealand, the World Bank and WHO (Samoa MoH, 2007:45; Samoa MoF, 2012).

Several PICs currently spend less than the threshold of 5 per cent of their gross domestic product (GDP) on health as recommended by the WHO for developing countries, while the majority actually spend more than the recommended threshold, with funding focusing on diseases (curative health services) rather than on overall health systems (SPC, 2012). But even for PICs that are already spending a large share of total revenue on health, it is observed that their health systems reveal a lot of inefficiencies. According to an assessment by the World Bank, Samoa's health system was not efficiently using the resources already in the health system (Anderson, 2013). Fiji and PNG are also in a similar situation. Despite having had relatively constant budget allocations since the 1990s (Roberts et al., 2011:45), having substantially increased the allocations in recent years and having spent an average of US\$94 per capita during the same period (PNG Department of Health, 2010:15), Fiji was relying on contributions from external sources in other priority areas. PNG's health system continues to suffer from chronic under-funding, which limits its capacity to provide adequate health services even though the government's per capita expenditure per annum peaked at US\$34 in 2005.⁸ Despite having high government spending on health as a share of total health expenditure with health financing dependent on a number of agencies and policies, such as subsidized health care policy between 2000 and 2006, health spending is low relative to GNI per capita and as a revenue share of GDP.

Building block 6: Leadership and governance

The regulatory, legislative and policy capacities of most PICs are limited. Managers lack financial management capacity and are often unable to match resource allocations with health outcomes (SPC, 2014). This results in the absence of strategic sectoral development frameworks for guiding external support, and tracking of progress of sector goals and outcomes at country level. However, unlike some other PICs, Fiji, PNG and Samoa have all developed clear strategic policy frameworks. Fiji's National Strategic Plan 2016-2020 provides overall strategic directions for Fiji's health sector over the five-year period, and was developed with consideration of the 2030 Agenda for Sustainable Development (Fiji NSP, 2015). Similarly, Samoa has completed the process of incorporating the SDGs into its national development plan by mid-2016 and released the new Samoa Development Strategy 2016/17-2019/20. Several other strategic documents also guide its health system

8. The data used for PNG Department of Health National Health Plan is used. PNG increased its health budget significantly due to PNG government's subsidized health care policy between 2011 and 2015.

development, including the Ministry of Health Corporate Plan 2013-2016 and the Health Sector Plan 2008-2018. The Ministry of Health's Corporate Plan is in fact aligned with the six building blocks of the WHO health system framework (Samoa MoH, 2007; MoH, 2012). However, the review of some of these strategic documents shows that not all the plans and strategies have been implemented. PNG's National Health Plan 2011-2020 was also developed within the framework of international commitments, such as the Millennium Development Goals (MDGs), the Paris Declaration and several key national documents, such as Vision 2050 and PNG Development Strategic Plan 2010-2030 (PNG DoH, 2010).⁹

Health issues

PICs face challenges in dealing with certain health issues, including NCDs, communicable diseases, environmental health, family planning, and maternal, child and adolescent health, among others. The causes of mortality and morbidity differ across the region. While common causes of disease, disability and death related to NCDs are relatively high in Polynesian countries (Russell, 2011; WHO, 2013; SPC, 2012; UNFPA, 2014), Melanesian and Micronesian countries have relatively high maternal mortality, infant mortality and under-5 mortality rates, and infectious diseases resulting from poor environmental conditions and childhood diseases (SPC, 2012:12).

The majority of PICs face a double burden of communicable diseases and the increasing risk factors associated with NCDs.¹⁰ For many PICs, such as Fiji and Samoa (SamoaMoF, 2012:20; Samoa MoH, 2007:33), NCDs constitute a major challenges, and there is huge deficit in funding and enormous burden. For instance, NCDs accounted for 40 per cent of Fiji's overall health care costs in 2011 and are expected to rise over the years (Fiji Ministry of Health & Medical Services (MoH & MS), 2015:6). PNG also faces a double-disease burden causing almost equal prevalence of morbidity and mortality. UNDP is currently supporting countries in costing NCD impact and developing investment cases. UNDP and the World Bank have proposed through the United Nations Chief Executives Board (UNCEB) the establishment of a trust fund for NCDs and development. Such a trust fund, administered by UNDP and the World Bank, would finance NCD-related interventions beyond the health sector, such as the inclusion of civil society. However, to date, there has been little interest from traditional development partners consulted.

During the 2014 Pacific regional and national consultations on the SDG agenda, there was also an agreement for health interventions related to maternal and child health (PIFS, 2013:63-64) which continues to be challenging for many PICs' health sector such as PNG (PNG Department of Health (DoH), 2010:10). In addition, for PNG, tuberculosis (TB) has become a more serious public health issue than malaria in recent years. Sexually transmitted infections (STIs), respiratory infections, diarrheal diseases, and environmental health issues are some of the health concerns for many other PICs (WHO, 2013). HIV/AIDS is a risk in few PICs except for PNG where the prevalence rate is relatively high.

Lessons from the MDGs and moving forward with the SDGs

Many PICs are moving forward with the SDG agenda. For the MDGs on health and well-being, the results were mixed while overall health indicators were poor, particularly for Melanesian countries such as PNG and Solomon Islands. There were challenges at institutional, sectoral and national levels, which hindered the achievement of MDGs and their targets. These challenges provide lessons not only for countries but also for development partners to learn from and chart realistic roadmaps for moving forward with the SDGs, including SDG 3 on health and well-being. The SDG agenda calls for a much more integrated and interconnected approach than the MDGs. For instance, SDG 3 is directly linked through shared targets to at least 6 other SDGs, so there is a real need for a radically new cross-sector approach. This is particularly salient for NCDs where risk factors are all beyond the reach of the health sector alone. PNG, in particular, identifies lessons learned from the MDG implementation for its SDG implementation, which has influenced its early preparation at all levels of government for the SDG agenda (PNG DNPM, 2015:47). Some of the lessons PNG learned from the MDG implementation and ways forward with the SDGs are presented in Table 2, which are common across all PICs.

9. PNG however lacks strong implementation frameworks and resources for addressing lifestyle diseases, such as NCDs, although committing to Pacific-wide and global agreements on addressing NCDs.

10. Refer to <http://www.healthdata.org/gbd> for country profiles of the Global Burden of Diseases studies.

Table 2. Lessons learned from the MDGs and way forward with the SDGs: case of PNG

Lessons learned from the MDGs	Ways forward with the SDGs
<ul style="list-style-type: none"> » Slow start with MDGs, which led to fairly stagnant and deteriorating progress towards the MDGs » Lack of awareness and knowledge generation on MDGs » Capacities and institutions: Lack of skilled personnel to effectively coordinate, support and implement programmes » Lack of funding for priority areas » Inadequate systems and institutions; weak database to keep track of the localized indicators » Geographical challenges » Lack of monitoring and evaluation » Vertical, diseases-specific approach 	<ul style="list-style-type: none"> » Contextualize and localize the SDGs » Culture: Use cultural-sensitive approaches to improving development outcomes » New policy initiatives to reflect SDGs and the government's broad vision » Participation and inclusion; engagement of private sector and civil society » Capacity and institutions: Undertake capacity assessments to identify capacity gaps at all levels of policy stages » Ensure adequate financing and effective expenditure » Innovation in Integrated Government Information Systems » Monitoring and evaluation: Establish up-to-date and accurate baselines and early mapping of available statistics

Source: Extracted from PNG DNPM, 2015

Development Cooperation in the Health Sector in Pacific

Who are involved in the health sector in PICs?

It is difficult for PICs to meet the health targets of the SDGs without external investment in health systems and services. With limited financial and health human resources as well as weak health information systems, it is suggested that PICs do more with existing levels of resources, and seek innovative ways of harnessing and focusing efforts of governments, development partners, private sector and the civil society to achieve better health outcomes. Many development partners are involved in the health sector of PICs, including the ADB, Australia, Cuba, the European Union (EU), the Global Alliance for Vaccines and Immunization (GAVI), the Global Fund to fight HIV/AIDS, TB and Malaria (Global Fund),¹¹ Japan, South Korea, New Zealand, the US, UN agencies (including FAO, UNDP, UNFPA, UNICEF, UNAIDS and WHO) and the World Bank (WHO, 2013). In addition, there are international and national non-state actors providing support to the health sector within countries.

Health priorities of countries and development partners tend to be disease-focused while limited attention has been paid to health systems. Australia has reaffirmed its commitment in the 2015 health development strategy to focus on health systems in the Pacific (DFAT, 2015), although it had had a long-standing commitment to health systems strengthening in PICs. The ADB is also making investments in health information systems and health security in a number of PICs. In its Operational Plan for Health 2015-2020, the ADB plans to support 3 focus areas to address key health challenges: infrastructure, governance and financing. Health care is aimed to be advanced by strengthening institutions, planning, fiscal management and health information and regulatory systems (Roth, 2015). Overall, the development priorities of PICs and development partners are in line with the shifting focus of official development assistance (ODA) from recurrent government budgetary support to more specific and targeted health issues.

Using the health system framework, Table 3 maps major development partners that are currently engaged in the health sector in the Pacific region and their main areas of intervention towards strengthening each building block of PICs' health systems.

11. UNDP is the Principal Recipient for Global Fund in 11 Pacific countries.

Table 3. Major development partners in PICs' health sector

Health system building block	Development partners	Countries	Area(s) of intervention
Health service delivery	Australia; WHO; Korea; China; Japan; New Zealand; ADB; EU; UNDP	13 PICs including PNG	Public/environmental health, including water and sanitation
Health workforce	Australia; WHO; New Zealand; China; World Bank	Most PICs including PNG, Fiji and Solomon Islands	Medical schools; nursing schools; infrastructure of training institutions
Health information system	WHO; Australia; New Zealand	Samoa	Integrated health information system
Medical products, vaccinations and technologies	Australia; New Zealand; UNFPA; UNICEF; UNAIDS; UNDP; GAVI; China	All PICs	Family planning commodities (condoms); vaccines for immunization (infants and mothers)
Health financing	World Bank; ADB; China	PNG, Samoa and Solomon Islands	Analytical advisory activities; health systems strengthening
Leadership and governance	WHO; Australia; UNDP	13 PICs including PNG	Public health leadership capacity to coordinate assistance

Sources: WHO, 2013; Fiji, PNG & Samoa country and strategic reports on health sector

There are three issues behind what is presented in Table 3. Firstly, Table 3 shows that the health sector of PICs does not lack development partners. However, it is difficult to trace the assistance provided by most development partners to achieve health outcomes and SDG agenda. Without clear frameworks and linkages to SDG targets at country and regional levels, progress made towards health outcomes and SDG targets may not be easily tracked and monitored. Secondly, because of different approaches and modalities of development assistance provided by different development partners, not all the assistance is captured in the country's public financial systems. Finally, despite development partners' assistance over many decades, there remain gaps in the health systems of many PICs and health indicators in many PICs such as PNG are poor and continue to decline. This is partly due to geographical factors such as the remoteness and isolation (WHO, 2013) as well as small-dispersed populations and fragmented economies, but requires further support from development partners.

As reflected in Table 3, the majority of development partners have so far focused on health service delivery and medical supplies and several development partners are supporting health workforce in the region. Of the six health system building blocks, the three that are not yet crowded with development partners are: Health information systems; health financing; and leadership and governance. More support to these areas is required as highlighted in the development needs and challenges of PICs.

China's health support to the Pacific

Since 2006, China's development cooperation in PICs has increased. Between 2006 and 2014, China's total development cooperation in the Pacific region reached US\$1.78 billion (Brant, 2016). China is engaged in the health sector of eight PICs.¹² Nevertheless, China's health support in the Pacific is not very prominent compared

¹² China has diplomatic relations with eight PICs, including PNG, Fiji, Tonga, Samoa, Vanuatu, the Federated States of Micronesia, Cook Islands and Niue.

to other traditional development partners such as Australia, New Zealand, the ADB, Japan, Korea, the EU and UN agencies. Its involvement has primarily been in health infrastructure, which is part of the building block of health service delivery. In Fiji, China assisted with the relocation of Navua hospital and construction of a new hospital at Nausori (Roberts et al., 2011:62). In 2015, Hubei Provincial People's Congress Party donated medical equipment to Fiji's Ministry of Health. In Samoa, China provided a US\$30 million loan for a health sector development project and as a part of this, assisted in building a new national hospital and Ministry of Health headquarters¹³ (Samoa MoH, 2012:38). Medical teams and experts from Chinese hospitals have also been sent to different parts of Samoa. For example, experts from the ophthalmic center of Sun Yat-sen University were dispatched to the Western Samoa National Hospital (Brant, 2016). China has dispatched specialist medical teams to meet PNG's health human resources needs, conduct malaria control research, and provide medical equipment and products. Since 2016, China has also started to support the construction of the new Enga provincial hospital, with total funding of US\$162.64 million (Brant, 2016).

Perspectives from PICs and Development Partners on China-PICs Development Cooperation in Health

China's development cooperation in the Pacific received mixed reactions from other actors, including PIC government officials¹⁴ and traditional development partners.¹⁵ The reactions and views mainly result from the differences between China's development cooperation and that of traditional development partners: Modalities of development cooperation; processes for negotiating projects; and challenges in working together. In the health sector, China provides development cooperation in two ways: Either through non-cash payment and funds managed by China in consultation with the ministries and departments of finance or national planning, where funds do not go through the government budget process; or through skills transfer by placing Chinese medical specialists to work with their PIC counterparts. Both modalities have their own strengths and weaknesses. One of the disadvantages of non-cash payment is that, the health sector of PICs is not directly engaged with the financier. As such, they are unable to communicate directly about the opportunities and challenges encountered. Another emerging issue specifically regarding China's infrastructure engagement in the health sector is that the health facilities supported by Chinese loans or grants are not always built with technologies adapted to local conditions, resulting in high recurrent running costs and limited sustainability.

Some suggest that the absence or unavailability of China's country programme strategies to provide guidance to development cooperation in the health sector is a challenge, not just for the health sector but also at inter-sectoral levels. Development cooperation from traditional development partners, on the other hand, is provided based on country programme strategies that are financially committed over medium- to long-term, normally for a 5- to 10-year period. Without strategic direction, it is difficult for coordination between China and the partner governments, and there is no monitoring and evaluation of interventions. In addition, the linkages with sector outcomes and overall development agenda are not clear. Progressing on the SDG agenda, there are more opportunities than challenges for PICs to engage with China's development cooperation because mutual interest dictates and influences the behaviour of both China and the respective PICs.

13. Samoa's new health headquarters, opened on 28 July 2011, is the 1st phase of the US\$30 million health sector development project funded under development loan from China. Refer to Government of Samoa Ministry of Health Corporate Plan 2013-2016.

14. Based on author's interviews with: (i) Navy Mulou, Health Economist, PNG National Department of Health, 17 July 2016; (ii) Koney Samuel, First Assistant Secretary (Foreign Aid) and staff, Department of National Planning & Monitoring; (iii) Kia-Henry Nema, Governance Analyst, UNDP PNG.

15. Based on author's interviews with: (i) Navy Mulou, Health Economist, PNG National Department of Health, 17 July 2016; (ii) Koney Samuel, First Assistant Secretary (Foreign Aid) and staff, Department of National Planning & Monitoring, 25 July 2016; (iii) Kia-Henry Nema, Governance Analyst, UNDP PNG, 21 July 2016.

Opportunities for China to Enhance Development Cooperation in the Health Sector in the Pacific

Where could China provide support?

Based on the above analysis of health challenges and development partners' efforts to date, it is suggested that China focus on four areas in the health sector of PICs with a view to helping PICs meet the SDG health targets. These include: Capacity building for leadership and the health workforce; increasing funding support; strengthening health information systems and database; and knowledge-sharing on traditional medicine. Specific recommendations are provided for each of the proposed area as below.

1. Capacity building for leadership and the health workforce

As previously mentioned, Fiji, PNG and Samoa have demonstrated higher levels of capacity by the number of strategic documents developed to guide the development of the health sector, while other PICs lack such leadership and managerial capacity. However, Fiji, PNG and Samoa also lack the capacity to implement many of the policies and strategies that they developed. In countries with decentralized systems, such as Fiji and PNG, the lack of capacity at sub-national levels is a major concern in service delivery. There is also need for health training institutions to develop and reinforce professionalism in the health workforce for workers to be equipped with knowledge of best practices in delivering health care services. The introduction of the Cuban Medical Programme in 2008 has helped some PICs with their shortages of medical specialists in main hospitals. Medical teams from Mainland China, Taiwan and Australia have visited some of the PICs to offer services in general surgery and provide specialist services (WHO, 2008). More support focused on knowledge and skills transfer is needed from development partners. There are opportunities for China to strengthen PICs' leadership and human resource capacity in order for PICs to meet the SDG health targets. More specifically, it is recommended that China:

- » Expand its current level of assistance by increasing the number health specialists dispatched to PICs, and expand their geographic coverage. The intervention should focus on knowledge and skills transfer.
- » Provide more training to health workers either in China or in PICs and arrange for education and training exchange programmes for health workers from both China and PICs.
- » Assist in developing and strengthening professionalism in health and best practice in care for health training institutions in PICs.
- » Conduct an evaluation of China's scholarship programme to see how well current medical graduates from PICs are reintegrating into their home systems and how well their skills set can meet PICs' health needs.

2. Increase funding support to the health sector

Several traditional development partners have provided grants to many PICs while most PICs are unable to secure loans from development partners such as the World Bank and the ADB, due to their economic status. Only PNG and Samoa have secured loans for health services. PNG received a loan of over US\$80 million from the ADB for the implementation of its Rural Primary Health Service Delivery project from 2011 to 2019 (ADB, 2016). It also received a US\$195 million grant from the Global Fund since 2004 and other grants through the GAVI. Samoa secured a US\$30 million loan for a health sector development project from China, as aforementioned. Financial institutions such as the World Bank are keen on offering loans for health and education. However, there is little interest and motivation for loans among PICs as they receive generous grant support. Financing through taxation is an option for consideration as PICs increasingly implement taxation on health-harming products, such as tobacco, sugar-sweetened beverages and alcohol. The revenues are, however, not necessarily re-invested in health. Another critical issue is that most of the assistance from development partners is, focused on diseases and health service delivery without addressing the overall health systems. The lack of capacity to manage the quantum of the funds further weakens the health system. In addressing financial challenges in PICs' health sector, China could consider the following options and fill a major gap in this space:

- » Focus on the efficient and effective use of resources as many PICs already spend a large share of their total revenue on health but a lot of inefficiency exists in the system.

- » Given the high levels of indebtedness of some PICs, China could provide more grants, technical assistance, and other arrangements and options, such as better investment, efficiency gains, or co-financing across sectors.
- » Specifically for health infrastructure support, conduct a joint study with other development partner on Pacific health facilities to identify lessons learned in health infrastructure with a view to informing future support that better adapts to local context and responds to local needs.
- » Work closely with regional bodies, such as the Secretariat of the Pacific Community (SPC) and the Pacific Islands Forum Secretariat (PIFS), or with other bilateral development partners and multilateral development partners, such as the ADB, World Bank, and UN agencies.

3. Strengthen health information systems and database

Although many countries have made significant efforts to meet the MDG targets, the lack of data collection and alignment at all levels could not satisfactorily capture the progress, making it difficult to maintain gains from the MDGs and integrate them with the SDGs. Many development partners have provided useful support to PICs over many years. However, issues associated with health information systems and statistics have not been fully addressed. The major areas of weakness relate to information and communication technology (ICT) development and staff capacity to collect and track the ever-increasing project-based sets of indicators which are not necessarily aligned with national priorities. These gaps provide opportunities for China to engage, given its high technological capacity and levels of innovation. China is already filling the gap in the ICT sector by working with seven countries, namely, Fiji, PNG, New Caledonia, Solomon Islands, Tonga, Tuvalu and Vanuatu (ADB, 2011:6). It is suggested that China:

- » Provide technical cooperation and training to PICs on health information management, monitoring, and data collection and analysis, especially on how to create linkage with SDG targets and indicators.
- » Establish partnerships with other development partners and regional bodies that are engaged in helping PICs to strengthen health systems, at country or regional levels. For instance, China could cooperate with the ADB which is now poised to make investments in health information systems and health security in a number of PICs.
- » Coordinate and collaborate with other development partners with similar capacities in health information systems to identify the most effective ways to support PICs' health sector and ensure that health systems are fit for purpose, affordable and appropriate.

4. Share knowledge on traditional medicine

The use of herbs and plants as medicine for curing and treating illnesses is widely accepted and practiced in many PICs, including Fiji, PNG and Samoa. In fact, the use of herbal remedies is actually the first step for many patients in the path of seeking health care during illness. Many patients visit the biomedical health facility when biomedicine fails. Not all the traditional medicine is plant-based and much of the traditional ethnomedicine systems are of personalistic types, which explains the enthusiasm for "prayer", healing and in certain areas sorcery-related activities, sometimes with dramatic consequences. Despite its wide usage and acceptance, traditional medicine remains outside the formal health systems. In Fiji, it is estimated that 60-80 per cent of the population use traditional medicinal plants. A book on traditional indigenous herbal remedies has been published in Fiji as part of the process of establishing a national programme and policy on traditional medicine (WHO & Fiji MoH, 2012:4). The WHO published a similar book on PNG's traditional medicine in 2009.¹⁶ While there are 400 traditional medicine practitioners in PNG (WHO, 2012:11), Samoa has a total of 900 traditional healers which make up an integral part of the informal health care sector (Samoa MoH, 2007:55), as well as 119 active traditional birth attendants. The idea of developing an integrated health system incorporating traditional medicine has been discussed and debated as one of the options for addressing poor health status in many PICs, including PNG (McNee, 2012). However, the lack of resources in many PICs has stalled some of the initiatives to develop their own versions of health care models through an integrated health system.

16. *Medicinal Plants in Papua New Guinea. 2009. WHO Regional Office for the Western Pacific.*

China has made rapid progress in key domains of health, pioneered many health care innovations and made important medical discoveries and breakthroughs (Liu et al., 2014), such as eradicating malaria. China shares common experience with PICs in the use of traditional medicine. The sharing of knowledge on the efficacy (or otherwise) of traditional alternative and modern medicine could be valuable for PICs. Although traditional medicine is not part of the health system, support from China in this area may help address some of the urgent needs of the PICs by establishing the efficacy of traditional medicine and the processes and options for utilizing alternative medicine alongside the formal biomedical health systems.

Strengthen coordination and partnerships in the health sector in the Pacific

Greater alignment with PICs' health sector priorities

Some PICs have strategic sectoral plans which were framed during the MDG period, such as PNG's National Health Plan 2011-2020, Samoa's Health Sector Plan 2008-2018 and Samoa Ministry of Health's Corporate Plan 2013-2016. More recently, some PICs have developed strategic plans in alignment with the SDG agenda, such as the Fiji Ministry of Health's National Strategic Plan 2016-2020. As these strategic plans are aligned with SDG targets, this provides an opportunity for China to become involved in the discussion with key institutions such as the Ministry of Health, Ministry of Finance and National Planning, and relevant agencies in areas of cross-sectoral planning, policy-making, implementation and monitoring and evaluation, and support PICs' priority areas in the health sector for achieving the SDGs. This could also provide the basis for coordinating all Chinese actors who are engaged in the health sector on the ground, such as medical teams, construction companies, and individual health experts.

There is also an opportunity to consult with development partners to identify who is engaged in which specific areas of the strategic plans, and to complement development efforts in the health sector. At the country level, China could join health sector working groups alongside other development partners, and at the regional level, participate in health ministers' meetings where regional priorities for development partners are set. Another key channel for China to support PICs in meeting the SDG health targets is through the China-Pacific Islands Countries Economic Development and Cooperation Forum where priorities, progress and gaps in the SDG targets can be provided, and further interventions can be identified with a view to moving forward the SDG agenda. This may be done through a series of meetings organized around selected SDG themes held before the Forum. The discussions and outcomes of these thematic meetings could be used to inform the main Forum.

Greater partnerships with other development partners

The prospects and possibilities of trilateral cooperation between China and other development partners in the Pacific region are very high. For example, China already has a trilateral cooperation project with Australia in PNG focusing on malaria control, which is producing positive results. On March 24, 2017, during Chinese Premier Li Keqiang's visit to Australia, China and Australia signed a new Memorandum of Understanding on Strengthening Development Cooperation which may increase the prospect of an expanded partnership between China and Australia in the health sector in the Pacific region.¹⁷ China has also established trilateral partnerships with the US, UK, New Zealand and a number of UN agencies in many other developing countries around the world. The expansion of trilateral cooperation partnerships to regional bodies and other development partners in priority areas of common interest in the Pacific has the potential to help mitigate key health challenges in the Pacific.

In addition, there is room for China to engage with regional bodies such as the SPC, PIFS, and the Council of Regional Offices of the Pacific (CROP) to address some of the public health issues in PICs. The SPC's Public Health Division Strategy 2013-2022 includes the priority health issues affecting PICs. Working with one regional organization with the capacity to monitor and track SDG targets to implement certain SDGs (SPC, 2012:7) has the advantage over working with individual countries with capacity constraints. However, although the SPC has the mandate, it lacks the capacity to address the challenges of many PICs. China could consider the option of partnership with the SPC for SDG implementation in PICs. Finally, it is recommended that China strengthen its engagement with multilateral partners with a strong, existing presence in the region, including the WHO, UNFPA and UNICEF.

17. For more detailed information on the MoU please refer to the Ministry of Commerce of the People's Republic of China: <http://www.mofcom.gov.cn/article/ae/ai/201703/20170302539893.shtml>.

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Annex 1: List of interviewees

- Mr. Navy Mulou, Health Economist, PNG National Department of Health
- Mr. Kia-Henry Nema, Governance Analyst, UNDP PNG
- Mr. Koney Samuel, First Assistant Secretary - Foreign Aid, PNG Department of National Planning and Monitoring



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